APPENDIX P: TRAFFIC IMPACT ANALYSIS

This page intentionally left blank.

Palomino Business Park

TRAFFIC IMPACT ANALYSIS

CITY OF NORCO

PREPARED BY:

Aric Evatt, PTP
aevatt@urbanxroads.com
(949) 336-5978

Charlene So, PE
cso@urbanxroads.com
(949) 336-5982

Connor Paquin
cpaquin@urbanxroads.com
(714) 389-6635

OCTOBER 29, 2019

TABLE OF CONTENTS

TABLE OF CONTENTS **1**
APPENDICES **3**
LIST OF EXHIBITS **5**
LIST OF TABLES **7**
LIST OF ABBREVIATED TERMS **9**
1 INTRODUCTION **1**
1.1 Summary of Findings 1
1.2 Project Overview 3
1.3 Analysis Scenarios 4
1.4 Study Area 5
1.5 Analysis Findings 9
1.6 Circulation System Deficiencies and Recommended Improvements 20
1.7 Local and Regional Funding Mechanisms 23
1.8 Site Adjacent Roadway Improvements 25
1.9 Site Access Improvements 27
1.10 Queuing Analysis at the Project Driveways 29
1.11 Truck Access 30
2 METHODOLOGIES **33**
2.1 Level of Service 33
2.2 Intersection Capacity Analysis 33
2.3 Traffic Signal Warrant Analysis Methodology 35
2.4 Freeway Mainline Segment Analysis Methodology 36
2.5 Freeway Merge/Diverge Ramp Junction Analysis 37
2.6 Minimum Level of Service (LOS) 38
2.7 Thresholds of Significance 39
2.8 Project Fair Share Calculation Methodology 40
3 AREA CONDITIONS **41**
3.1 Existing Circulation Network 41
3.2 General Plan Circulation Element 41
3.3 Transit Service 49
3.4 Bicycle & Pedestrian Facilities 51
3.5 Existing (2018) Traffic Counts 51
3.6 Existing (2018) Conditions Intersection Operations Analysis 54
3.7 Existing (2018) Conditions Traffic Signal Warrants Analysis 58
3.8 Existing (2018) Conditions Off-Ramp Queuing Analysis 58
3.9 Existing (2018) Conditions Basic Freeway Segment Analysis 58
3.10 Existing (2018) Conditions Freeway Merge/Diverge Analysis 63
3.11 Recommended Improvements 63
4 PROJECTED FUTURE TRAFFIC **69**
4.1 Project Trip Generation 69
4.2 Project Trip Distribution 75
4.3 Modal Split 75
4.4 Project Trip Assignment 75
4.5 Background Traffic 75

4.6 Cumulative Development Traffic 81
4.7 Traffic Forecasts 84
4.8 Near-Term Traffic Conditions 84
4.9 Horizon Year (2040) Conditions 87

5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS 89

5.1 Roadway Improvements 89
5.2 E+P Traffic Volume Forecasts 89
5.3 Intersection Operations Analysis 89
5.4 Traffic Signal Warrants Analysis 94
5.5 E+P Conditions Off-Ramp Queuing Analysis 94
5.6 E+P Conditions Basic Freeway Segment Analysis 94
5.7 E+P Conditions Freeway Merge/Diverge Analysis 94
5.8 Recommended Improvements 99

6 OPENING YEAR CUMULATIVE (2022) TRAFFIC CONDITIONS 103

6.1 Roadway Improvements 103
6.2 Opening Year Cumulative (2022) Without Project Traffic Volume Forecasts 103
6.3 Opening Year Cumulative (2022) With Project Traffic Volume Forecasts 103
6.4 Intersection Operations Analysis 108
6.5 Traffic Signal Warrants Analysis 108
6.6 Off-Ramp Queuing Analysis 112
6.7 Basic Freeway Segment Analysis 112
6.8 Freeway Merge/Diverge Analysis 117
6.9 Recommended Improvements 117

7 HORIZON YEAR (2040) TRAFFIC CONDITIONS 125

7.1 Roadway Improvements 125
7.2 Horizon Year (2040) Without Project Traffic Volume Forecasts 125
7.3 Horizon Year (2040) With Project Traffic Volume Forecasts 125
7.4 Intersection Operations Analysis 130
7.5 Traffic Signal Warrants Analysis 130
7.6 Off-Ramp Queuing Analysis 134
7.7 Basic Freeway Segment Analysis 134
7.8 Freeway Merge/Diverge Analysis 139
7.9 Horizon Year Deficiencies and Improvements 139

8 REFERENCES 149

APPENDICES

APPENDIX 1.1: APPROVED TRAFFIC STUDY SCOPING AGREEMENT
APPENDIX 1.2: PROJECT DRIVEWAY AND SITE ADJACENT QUEUING ANALYSIS
APPENDIX 3.1: EXISTING TRAFFIC COUNTS – OCTOBER 2017
APPENDIX 3.2: EXISTING (2018) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 3.3: EXISTING (2018) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 3.4: EXISTING (2018) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 3.5: EXISTING (2018) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 3.6: EXISTING (2018) CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 3.7: EXISTING (2018) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 4.1: POST PROCESS WORKSHEETS
APPENDIX 5.1: E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 5.2: E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 5.3: E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 5.4: E+P CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 5.5: E+P CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 5.6: E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 6.1: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 6.2: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 6.3: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 6.4: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 6.5: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 6.6: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 6.7: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 6.8: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 6.9: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 6.10: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 6.11: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 6.12: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 6.13: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 6.14: OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

APPENDIX 7.1: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 7.2: HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
APPENDIX 7.3: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 7.4: HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS
APPENDIX 7.5: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 7.6: HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS
APPENDIX 7.7: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 7.8: HORIZON YEAR (2040) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS
APPENDIX 7.9: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 7.10: HORIZON YEAR (2040) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS
APPENDIX 7.11: HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 7.12: HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 7.13: HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 7.14: HORIZON YEAR (2040) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS
APPENDIX 7.15: HORIZON YEAR (2040) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

LIST OF EXHIBITS

EXHIBIT 1-1: PRELIMINARY SITE PLAN 2
EXHIBIT 1-2: LOCATION MAP 7
EXHIBIT 1-3: SUMMARY OF LOS 10
EXHIBIT 1-4: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS 26
EXHIBIT 1-5: TRUCK ACCESS 31
EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS 42
EXHIBIT 3-2: CITY OF NORCO GENERAL PLAN CIRCULATION ELEMENT 44
EXHIBIT 3-3: CITY OF NORCO ROADWAY CROSS-SECTIONS 45
EXHIBIT 3-4: CITY OF CORONA GENERAL PLAN CIRCULATION ELEMENT 46
EXHIBIT 3-5: CITY OF CORONA GENERAL PLAN ROADWAY CROSS-SECTIONS 47
EXHIBIT 3-6: EXISTING TRANSIT ROUTES 50
EXHIBIT 3-7: CITY OF CORONA EXISTING AND PROPOSED BIKE TRAILS 52
EXHIBIT 3-8: EXISTING PEDESTRIAN FACILITIES 53
EXHIBIT 3-9: EXISTING (2018) AVERAGE DAILY TRAFFIC (ADT) (IN PCE) 55
EXHIBIT 3-10: EXISTING (2018) TRAFFIC VOLUMES (IN PCE) 56
EXHIBIT 3-11: EXISTING (2018) SUMMARY OF LOS 59
EXHIBIT 3-12: EXISTING (2018) FREEWAY MAINLINE VOLUMES 60
EXHIBIT 4-1: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION 76
EXHIBIT 4-2: PROJECT (TRUCKS) TRIP DISTRIBUTION 78
EXHIBIT 4-3: PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE) 79
EXHIBIT 4-4: PROJECT TRAFFIC VOLUMES (IN PCE) 80
EXHIBIT 4-5: CUMULATIVE DEVELOPMENT LOCATION MAP 82
EXHIBIT 4-6: CUMULATIVE ONLY AVERAGE DAILY TRAFFIC (ADT) (IN PCE) 85
EXHIBIT 4-7: CUMULATIVE ONLY TRAFFIC VOLUMES (IN PCE) 86
EXHIBIT 5-1: E+P AVERAGE DAILY TRAFFIC (ADT) 90
EXHIBIT 5-2: E+P TRAFFIC VOLUMES (IN PCE) 91
EXHIBIT 5-3: E+P SUMMARY OF LOS 92
EXHIBIT 5-4: E+P FREEWAY MAINLINE VOLUMES 98
EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) 104
EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE) .. 105
EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2022) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) ... 106
EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC VOLUMES (IN PCE) 107
EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT SUMMARY OF LOS 110
EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2022) WITH PROJECT SUMMARY OF LOS 111
EXHIBIT 6-7: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES 115
EXHIBIT 6-8: OPENING YEAR CUMULATIVE (2022) WITH PROJECT FREEWAY MAINLINE VOLUMES ... 116
EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) 126
EXHIBIT 7-2: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE) 127
EXHIBIT 7-3: HORIZON YEAR (2040) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) 128
EXHIBIT 7-4: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES (IN PCE) 129
EXHIBIT 7-5: HORIZON YEAR (2040) WITHOUT PROJECT SUMMARY OF LOS 132
EXHIBIT 7-6: HORIZON YEAR (2040) WITH PROJECT SUMMARY OF LOS 133
EXHIBIT 7-7: HORIZON YEAR (2040) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES 137
EXHIBIT 7-8: HORIZON YEAR (2040) WITH PROJECT FREEWAY MAINLINE VOLUMES 138

This Page Intentionally Left Blank

LIST OF TABLES

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS 6
TABLE 1-2: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS 8
TABLE 1-3: FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS 9
TABLE 1-4: SUMMARY OF IMPROVEMENTS BY ANALYSIS SCENARIO 21
TABLE 1-5: PROJECT FAIR SHARE CALCULATIONS 24
TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS 34
TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS 35
TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS 36
TABLE 2-4: DESCRIPTION OF FREEWAY MAINLINE LOS 37
TABLE 2-5: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS 38
TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2018) CONDITIONS 57
TABLE 3-2: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR EXISTING (2018) CONDITIONS 61
TABLE 3-3: BASIC FREEWAY SEGMENT ANALYSIS FOR EXISTING (2018) CONDITIONS 62
TABLE 3-4: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR EXISTING (2018) CONDITIONS 64
TABLE 3-5: INTERSECTION ANALYSIS FOR EXISTING (2018) CONDITIONS WITH IMPROVEMENTS 65
TABLE 4-1: EXISTING DEVELOPMENT TRIP GENERATION SUMMARY 70
TABLE 4-2: PROJECT TRIP GENERATION RATES 72
TABLE 4-3: PROJECT TRIP GENERATION SUMMARY (IN PCE) 73
TABLE 4-4: PROJECT TRIP GENERATION SUMMARY (IN ACTUAL VEHICLES) 74
TABLE 4-5: CUMULATIVE DEVELOPMENT LAND USE SUMMARY 83
TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS 93
TABLE 5-2: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR E+P CONDITIONS 95
TABLE 5-3: BASIC FREEWAY SEGMENT ANALYSIS FOR E+P CONDITIONS 96
TABLE 5-4: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR E+P CONDITIONS 97
TABLE 5-5: INTERSECTION ANALYSIS FOR E+P CONDITIONS WITH IMPROVEMENTS 100
TABLE 6-1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) CONDITIONS 109
TABLE 6-2: PEAK HOUR FREEWAY OFF-RAMP QUEUING SUMMARY FOR OPENING YEAR CUMULATIVE (2022) CONDITIONS 113
TABLE 6-3: BASIC FREEWAY SEGMENT ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) CONDITIONS 114
TABLE 6-4: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) CONDITIONS 118
TABLE 6-5: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) CONDITIONS WITH IMPROVEMENTS 119
TABLE 6-6: BASIC FREEWAY SEGMENT ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS WITH IMPROVEMENTS 122
TABLE 6-7: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS WITH IMPROVEMENTS 123
TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS 131
TABLE 7-2: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) CONDITIONS . 135
TABLE 7-3: BASIC FREEWAY SEGMENT ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS 136
TABLE 7-4: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS 140

TABLE 7-5: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS 141
TABLE 7-6: PEAK HOUR OFF-RAMP QUEUING SUMMARY FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS 145
TABLE 7-7: BASIC FREEWAY SEGMENT ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS 147
TABLE 7-8: FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS 148

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
CEQA	California Environmental Quality Act
CMA	Congestion Management Agency
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
N/A	Not Applicable
NCHRP	National Cooperative Highway Research Program
PCE	Passenger Car Equivalent
PeMS	Performance Measurement System
PHF	Peak Hour Factor
Project	Palomino Business Park
RCTC	Riverside County Transportation Commission
RivTAM	Riverside County Transportation Analysis Model
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
sf	Square Feet
SHS	State Highway System
TIA	Traffic Impact Analysis
TUMF	Transportation Uniform Mitigation Fee
WRCOG	Western Riverside Council of Governments

This Page Intentionally Left Blank

1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Palomino Business Park development ("Project") located on either side of Mountain Avenue between Second Street and First Street in the City of Norco, as shown on Exhibit 1-1.

The purpose of this traffic impact analysis is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions.

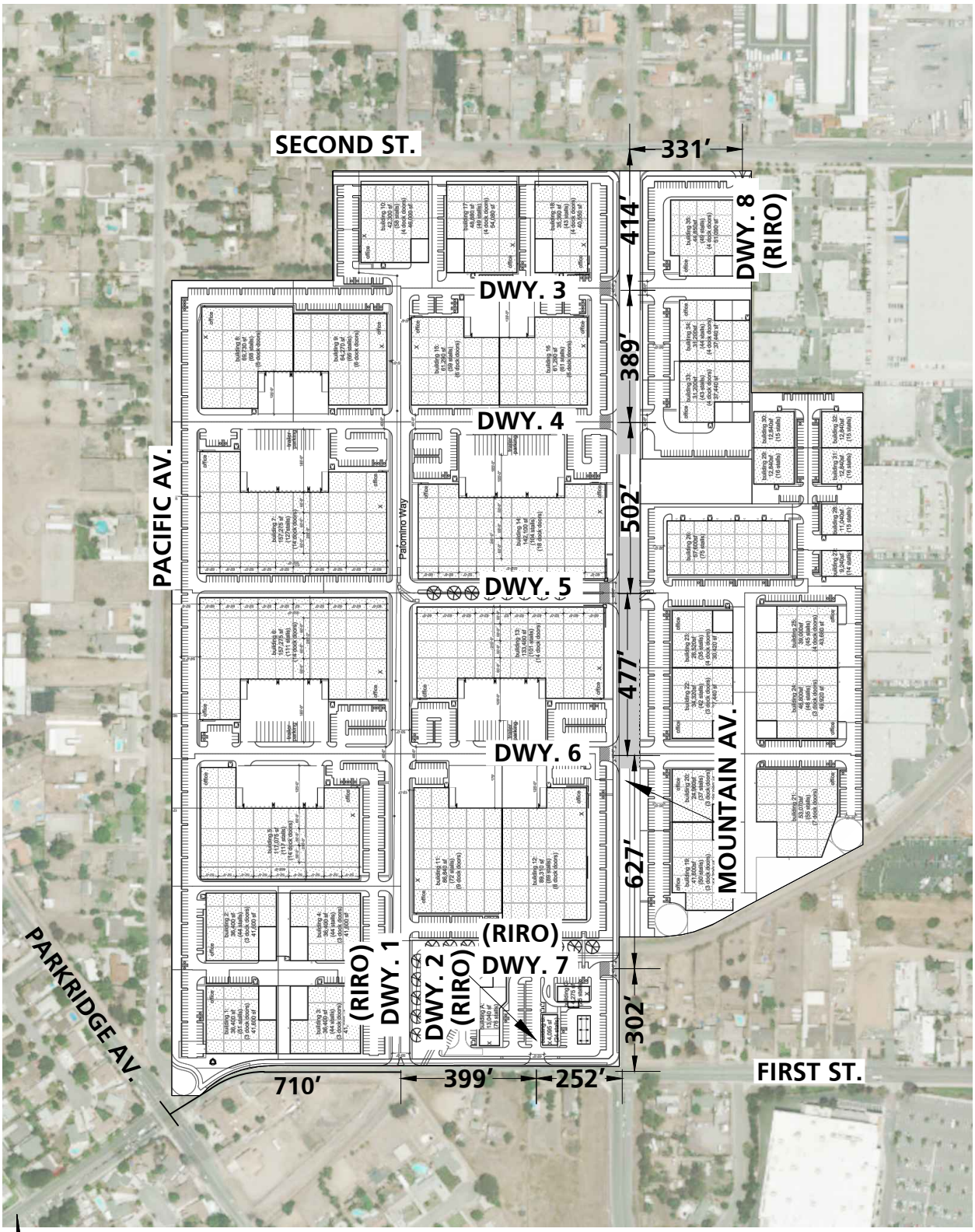
1.1 SUMMARY OF FINDINGS

The Project is proposing to construct the following improvements as design features in conjunction with development of the site:

- Construct **Pacific Avenue** from the Project's northern boundary to its southern boundary at its ultimate half-section width along the Project's frontage as a local street (60-foot right-of-way) in compliance with applicable City of Norco standards. The Project will also accommodate the right-of-way for a future planned horse trail along the western side of Pacific Avenue.
- Construct **Mountain Avenue** from Second Street to the Project's southern boundary (south of Driveway 6) at its ultimate full-section width as a collector street (88-foot right-of-way) and at its ultimate half-section width between the Project's southern boundary (south of Driveway 6) to First Street in compliance with applicable City of Norco standards.
- Construct **Second Street** from the Project's western boundary to the Project's eastern boundary at its ultimate half-section width along the Project's frontage as a collector street (88-foot right-of-way) in compliance with applicable City of Norco standards. Although the Project will improve their half-section of Second Street along their frontage, only one lane in each direction will be accommodated (through striping) along Second Street until such time in the future when Second Street is widened to its ultimate full-section width on either side to accommodate receiving lanes.
- Construct **First Street** from the Project's western boundary to Mountain Avenue at its ultimate half-section width along the Project's frontage as a collector street (88-foot right-of-way) in compliance with applicable City of Norco standards.
- Improve the intersection of **Mountain Avenue and Second Street** with the installation of a traffic signal and accommodate northbound, eastbound, and westbound left turn lanes.
- Improve the intersection of **Mountain Avenue and Driveway 5** with the installation of a traffic signal.
- Improve the intersection of **Mountain Avenue and First Street** with the installation of a traffic signal and accommodate northbound, southbound, eastbound, and westbound left turn lanes in conjunction with a southbound right turn lane.

Additional details are provided in Section 1.8 *Site Adjacent Roadway Improvements* and Section 1.9 *Site Access Improvements* of this report.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



10899 - siteplan.dwg

In addition to the roadway and intersection capacity enhancements to be constructed by the Project, Mitigation Measure 1.1 is also required to address deficiencies that the Project is anticipated to contribute traffic to.

Mitigation Measure 1.1: This analysis has found that there are intersections forecasted to operate at an unacceptable level of service (LOS) during both existing and future year traffic conditions. The Project, along with other planned development in the area, in conjunction with area-wide growth are anticipated to contribute to these cumulative impacts. The Project was found to have a cumulatively considerable impact at each of the following intersections during one or more analysis scenarios:

- River Road & Corydon Street (Intersection ID #1)
- River Road & Lincoln Avenue (#3)
- Parkridge Avenue (West) & Second Street (#10)
- Parkridge Avenue (East) & Second Street (#11)
- Pacific Avenue & Second Street (#12)
- Mountain Avenue & First Street (#22)
- Hamner Avenue & Second Street (#25)
- Hamner Avenue & Mountain Avenue/Hidden Valley Parkway (#27)
- Main Street & Parkridge Avenue (#28)
- I-15 Southbound Ramps & Second Street (#29)
- I-15 Northbound Ramps & Second Street (#32)

To mitigate the Project's proportional share at each of these cumulatively impacted intersections, it is recommended that the Project pay the applicable City of Norco Development Impact Fees for Transportation (DIF) and the Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fees (TUMF).

Mitigation Measure 2.1: For any locations not found to be included in one of these pre-existing fee programs, the Project should be conditioned to contribute its "fair share" as identified in Table 1-4 that are consistent with the improvements shown on Table 7-5, or as agreed to by the City and Project Applicant.

1.2 PROJECT OVERVIEW

The Project is proposed to consist of the development of 602,130 square feet (sf) of warehousing, 1,426,460 sf of industrial park, 6,520 sf of retail, 6,520 sf of fast-food restaurant without drive-through window, 4,275 sf of fast-food restaurant with drive-through window, and a 12-vehicle fueling position gas station with a 4,095 sf convenience market, for a total development of 2,050,000 sf. The Project is anticipated to be constructed in a single phase by the year 2022.

Vehicular and truck traffic access will be provided via the following driveways (see Exhibit 1-1):

- First Street via Driveway 1 – Right-in, right-out access for passenger cars only
- First Street via Driveway 2 – Right-in, right-out access for passenger cars only
- Mountain Avenue via Driveway 3 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 4 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 5 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 6 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 7 – Right-in, right-out access for passenger cars only
- Second Street via Driveway 8 – Right-in, right-out access for passenger cars only

Regional access to the Project site is available from the SR-91 Freeway via Lincoln Avenue and Second Street and the I-15 Freeway via Hidden Valley Parkway and Second Street.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. (1) The Project generates a net total of 8,696 trip-ends per day on a typical weekday with approximately 852 AM peak hour trips and 916 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2018)
- Existing Plus Project (E+P)
- Opening Year Cumulative (2022) Without Project
- Opening Year Cumulative (2022) With Project
- Horizon Year (2040) Without Project
- Horizon Year (2040) With Project

1.3.1 EXISTING (2018) CONDITIONS

Information for Existing (2018) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The Existing Plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions.

1.3.3 OPENING YEAR CUMULATIVE (2022) CONDITIONS

The Opening Year Cumulative (2022) conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2018) conditions of 8.24% (2 percent per year over 4 years, compounded annually) is included for Opening Year Cumulative (2022) traffic conditions. This comprehensive list was compiled from information provided by the City of Norco, City of Corona, City of Eastvale, and County of Riverside, and is consistent with recent studies in the study area.

1.3.4 HORIZON YEAR (2040) CONDITIONS

Traffic projections for Horizon Year (2040) traffic conditions were derived from the County of Riverside refined version of the Riverside County Transportation Analysis Model (RivTAM) using accepted procedures for model forecast refinement and smoothing. The Horizon Year conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program, can accommodate the long-range cumulative traffic at the target LOS identified in the City of Norco (lead agency) General Plan. (2) Each of these regional transportation fee programs are discussed in more detail in Section 1.7 *Local and Regional Funding Mechanisms*.

1.4 STUDY AREA

Since the City of Norco does not have traffic study guidelines, the guidelines prepared by the County of Riverside were used.

To ensure that this TIA satisfies the City of Norco's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City is included in Appendix 1.1.

1.4.1 INTERSECTIONS

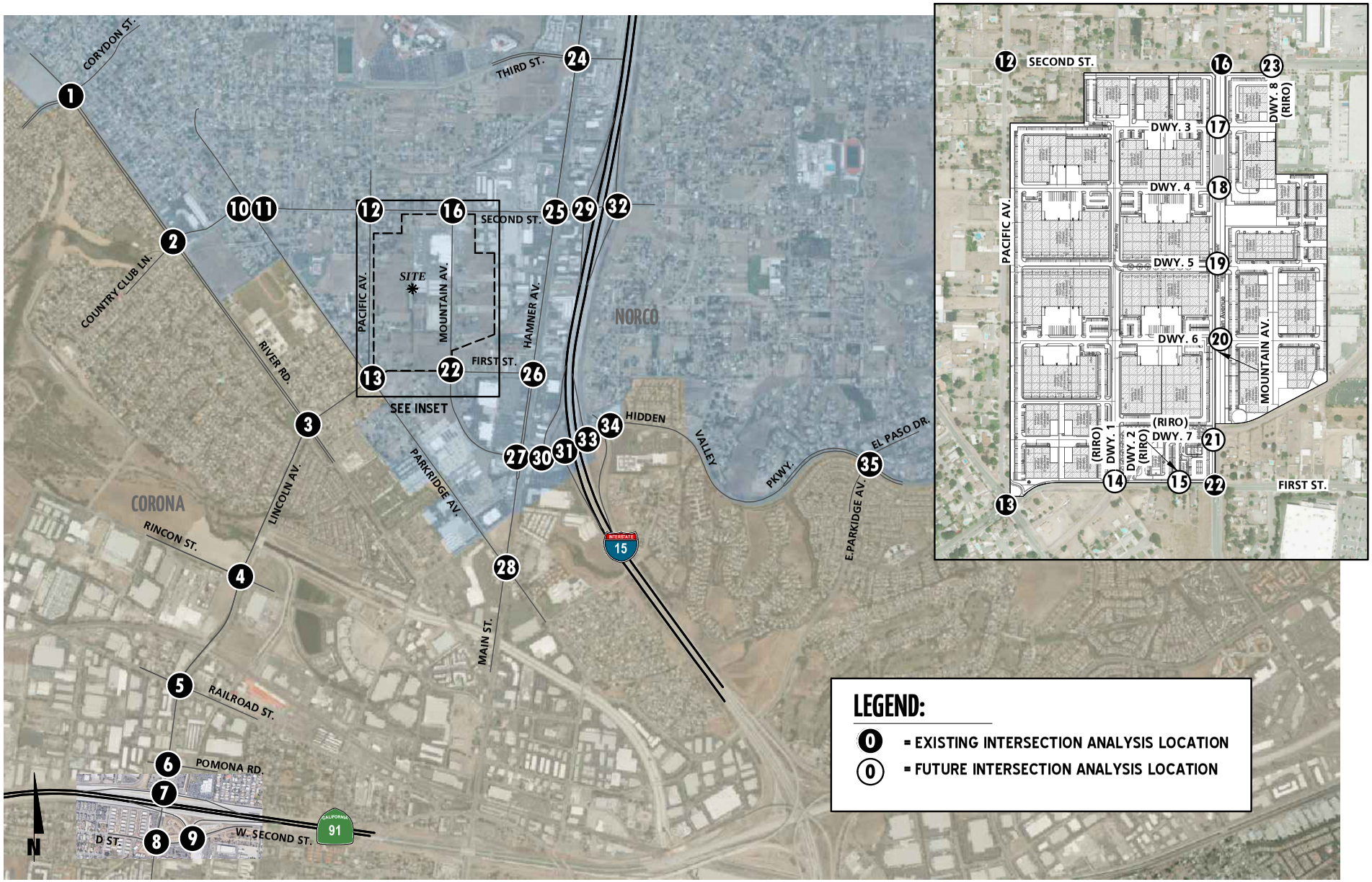
The following 35 study area intersections listed in Table 1-1 and shown on Exhibit 1-2 were selected for this TIA based on consultation with City of Norco staff. In general, the study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips.

The "50 peak hour trip" guidelines consistent with City of Norco and City of Corona traffic study guidelines, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential area of impact (i.e., study area).

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	River Rd. & Corydon St.	Norco/Corona
2	River Rd. & Country Club Ln./Second St.	Norco/Corona
3	River Rd. & Lincoln Av.	Corona
4	Lincoln Av. & Rincon St.	Corona
5	Lincoln Av. & Railroad St.	Corona
6	Lincoln Av. & Pomona Rd.	Corona
7	Lincoln Av. & SR-91 Westbound Ramps	Caltrans/Corona
8	Lincoln Av. & D St./Second St.	Corona
9	SR-91 Eastbound Ramps & Second St.	Caltrans/Corona
10	Parkridge Av. (West) & Second St.	Norco
11	Parkridge Av. (East) & Second St.	Norco
12	Pacific Av. & Second St.	Norco
13	Parkridge Av. & Lincoln Av./First St.	Norco/Corona
14	Dwy. 1 & First St. – Future Intersection	Norco
15	Dwy. 2 & First St. – Future Intersection	Norco
16	Mountain Av. & Second St.	Norco
17	Mountain Av. & Dwy. 3 – Future Intersection	Norco
18	Mountain Av. & Dwy. 4 – Future Intersection	Norco
19	Mountain Av. & Dwy. 5 – Future Intersection	Norco
20	Mountain Av. & Dwy. 6 – Future Intersection	Norco
21	Mountain Av. & Dwy. 7 – Future Intersection	Norco
22	Mountain Av. & First St.	Norco
23	Dwy. 8 & Mountain Av. – Future Intersection	Norco
24	Hamner Av. & 3rd St.	Norco
25	Hamner Av. & Second St.	Norco
26	Hamner Av. & First St.	Norco
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	Norco
28	Main St. & Parkridge Av.	Corona
29	I-15 Southbound Ramp & Second St.	Caltrans/Norco
30	I-15 Southbound Off-Ramp & Hidden Valley Pkwy.	Caltrans/Norco
31	I-15 Southbound On-Ramp & Hidden Valley Pkwy.	Caltrans/Norco
32	I-15 Northbound Ramp & Second St.	Caltrans/Norco
33	I-15 Northbound On-Ramp & Hidden Valley Pkwy.	Caltrans/Norco/Corona
34	I-15 Northbound Off-Ramp & Hidden Valley Pkwy.	Caltrans/Norco/Corona
35	Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.	Norco/Corona

EXHIBIT 1-2: LOCATION MAP



URBAN CROSSROADS

The Congestion Management Program (CMP) was adopted December 14, 2011 and is currently undergoing an update (completion anticipated in 2019). (3) The purpose of the CMP is to link land use, transportation, and air quality in order to establish reasonable growth management programs that will effectively use transportation funds, alleviate traffic conditions and other impacts, and/or improve air quality. The Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) that is responsible for implementing the Riverside County CMP. The CMP identifies key roadways and intersections that are monitored as part of the program. There are two intersections within the study area that are identified as a CMP intersection per the Riverside CMP. There are no intersections within the study area that are identified as a Congestion Management Program (CMP) roadway in the Riverside CMP.

1.4.2 FREEWAY MAINLINE SEGMENTS

Study area freeway mainline analysis locations were selected based on Caltrans traffic study guidelines, which may require the analysis of State highway facilities. (4) Consistent with recent Caltrans guidance, and because impacts to freeway segments tend to dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry typically is not required. As such, this study evaluates the following freeway segments adjacent to the point of entry to the SHS (see Table 1-2):

TABLE 1-2: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	SR-91 Freeway – Westbound, West of Lincoln Av.
2	SR-91 Freeway – Eastbound, West of Lincoln Av.
3	I-15 Freeway – Southbound, North of Second St.
4	I-15 Freeway – Southbound, Second St. to Hidden Valley Pkwy.
5	I-15 Freeway – Southbound, South of Hidden Valley Pkwy.
6	I-15 Freeway – Northbound, North of Second St.
7	I-15 Freeway – Northbound, Second St. to Hidden Valley Pkwy.
8	I-15 Freeway – Northbound, South of Hidden Valley Pkwy.

1.4.3 FREEWAY MERGE/DIVERGE RAMP JUNCTIONS

The study area freeway merge/diverge ramp junction analysis locations include the following freeway ramp junctions for each direction of flow as shown in Table 1-3, where the Project is anticipated to contribute 25 or more one-way peak hour trips:

TABLE 1-3: FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS

ID	Freeway Merge/Diverge Ramp Junctions
1	SR-91 Freeway – Westbound, Lincoln Av. On-Ramp
2	SR-91 Freeway – Eastbound, Lincoln Av. Off-Ramp
3	I-15 Freeway – Southbound, Second St. Off-Ramp
4	I-15 Freeway – Southbound, Second St. On-Ramp
5	I-15 Freeway – Southbound, Hidden Valley Pkwy. Off-Ramp
6	I-15 Freeway – Southbound, Hidden Valley Pkwy. On-Ramp
7	I-15 Freeway – Northbound, Second St. On-Ramp
8	I-15 Freeway – Northbound, Second St. Off-Ramp
9	I-15 Freeway – Northbound, Hidden Valley Pkwy. On-Ramp
10	I-15 Freeway – Northbound, Hidden Valley Pkwy. Off-Ramp

1.5 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2018), E+P, and Opening Year Cumulative (2022), and Horizon Year (2040) traffic conditions.

1.5.1 EXISTING (2018) CONDITIONS

Intersection Operations Analysis

A summary of LOS results for Existing traffic conditions are presented in Exhibit 1-3. For Existing (2018) traffic conditions, the following intersections currently operate at an unacceptable level of service (LOS) (i.e., LOS E or worse) during one or both peak hours:

- Parkridge Av. (East) & Second St. (#11) – LOS F AM peak hour only
- Mountain Av. & Second St. (#16) – LOS E AM peak hour only
- Mountain Av. & First St. (#22) – LOS E AM peak hour only
- Hamner Av. & Second St. (#25) – LOS E AM peak hour; LOS F PM peak hour
- I-15 Northbound Ramps & Second St. (#32) – LOS E AM peak hour only

Traffic Signal Warrant Analysis

The following intersection currently warrants a traffic signal for Existing (2018) traffic conditions:

- Mountain Av. & First St. (#22)

EXHIBIT 1-3: SUMMARY OF LOS

#	Intersection	Existing (2018)	E+P	Opening Year Cumulative (2022) Without Project	Opening Year Cumulative (2022) With Project	Horizon Year (2040) Without Project	Horizon Year (2040) With Project
1	River Rd. & Corydon St.						
2	River Rd. & Country Club Ln. / Second St.						
3	River Rd. & Lincoln Av.						
4	Lincoln Av. & Rincon St.						
5	Lincoln Av. & Railroad St.						
6	Lincoln Av. & Pomona Rd.						
7	Lincoln Av. & SR-91 WB Ramps						
8	Lincoln Av. & D St. / Second St.						
9	SR-91 EB Ramps & Second St.						
10	Parkridge Av. (West) & Second St.						
11	Parkridge Av. (East) & Second St.						
12	Pacific Av. & Second St.						
13	Parkridge Av. & Lincoln Av. / First St.						
14	Dwy. 1 & First St.*	NA		NA		NA	
15	Dwy. 2 & First St.*	NA		NA		NA	
16	Mountain Av. & Second St.*						
17	Mountain Av. & Dwy. 3*	NA		NA		NA	
18	Mountain Av. & Dwy. 4*	NA		NA		NA	
19	Mountain Av. & Dwy. 5*	NA		NA		NA	
20	Mountain Av. & Dwy. 6*	NA		NA		NA	
21	Mountain Av. & Dwy. 7*	NA		NA		NA	
22	Mountain Av. & First St.*						
23	Dwy. 8 & Second St.*	NA		NA		NA	
24	Hamner Av. & 3rd St.						
25	Hamner Av. & Second St.						
26	Hamner Av. & First St.						
27	Hamner Av. & Mountain Av. / Hidden Valley Pkwy.						
28	Main St. & Parkridge Av.						
29	I-15 SB Ramps & Second St.						
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.						
31	I-15 SB On-Ramp & Hidden Valley Pkwy.						
32	I-15 NB Ramps & Second St.						
33	I-15 NB On-Ramp & Hidden Valley Pkwy.						
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.						
35	Parkridge Av. / El Paso Dr. & Hidden Valley Pkwy.						

LEGEND:

- = AM PEAK HOUR
- = PM PEAK HOUR
- = ACCEPTABLE LOS A-D
- = DEFICIENT LOS E
- = DEFICIENT LOS F
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

*NOTE: PROJECT SITE DESIGN FEATURES TO BE CONSTRUCTED BY THE PROJECT ARE ASSUMED TO BE IN PLACE FOR "WITH PROJECT" CONDITIONS ONLY.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. There are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Existing (2018) traffic conditions.

Freeway Operations Analyses

For Existing (2018) traffic conditions, the following freeway segment currently operates at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Existing (2018) traffic conditions:

- I-15 Freeway Southbound, North of Second St. (#3) – LOS E AM peak hour only

The freeway analyses are based on the reported California Department of Transportation (Caltrans) Performance Measurement System (PeMS) data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeway may be considered at capacity during the peak hours.

Ramp merge and diverge operations were also evaluated for Existing (2018) traffic conditions and the merge/diverge areas currently operate at LOS D or better during the peak hours under Existing (2018) traffic conditions, with the exception of the following:

- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS E AM peak hour only
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS E AM peak hour only

Recommended Improvements

The following improvements are needed to improve the Existing (2018) peak hour deficiencies back to acceptable levels.

Parkridge Avenue (East) & Second Street (#11):

- Install a Traffic Signal.
- Add a westbound left turn lane.

Although the intersection of Parkridge Avenue (East) & Second Street is anticipated to operate at a deficient LOS during the AM peak hour, the installation of a traffic signal may not be appropriate for the character of this residential neighborhood. In other words, the AM peak hour deficiency may likely be attributable to the existing nearby schools, which results in a higher concentration of traffic during the morning drop-off period over a short 30-minute period. As such, City of Norco staff may not support the installation of a traffic signal at this location which would only be beneficial during the morning school drop-off period and is expected to operate at an acceptable LOS during other times throughout the day.

Mountain Avenue & Second Street (#16):

- Install a traffic signal.
- Add a northbound, eastbound, and westbound left turn lane. Alignment of the northbound and southbound approaches to be addressed during the design phase.

It should be noted these improvements are consistent with the site adjacent improvements and are to be implemented by the Project.

Mountain Avenue & First Street (#22):

- Install a traffic signal.
- Add a northbound, southbound, eastbound, and westbound left turn lane.
- Add a southbound right turn lane.

It should be noted these improvements are consistent with the site adjacent improvements and are to be implemented by the Project. Sight distance for the northbound right turn lane should be evaluated at the time the traffic signal is implemented. If adequate sight distance cannot be accommodated, then the northbound right turn lane shall restrict right turn movements on red.

Hamner Avenue & Second Street (#25):

- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag. As such, northbound and southbound left turns will run separately (not concurrently).

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

There are currently no peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

RCTC, in partnership with Caltrans, is investing $455 million to improve the I-15 Freeway between Cajalco Road and SR-60 Freeway. This "I-15 Express Lanes Project" will add two tolled express lanes in each direction, with multiple entrances and exits. Construction began in 2018, and the express lanes will be open to traffic in 2020. However, since this improvement will not be completed until 2020 and since there are no other planned improvements to the SR-91 Freeway or I-15 Freeway at this time, no improvements have been evaluated for Existing (2018) traffic conditions.

1.5.2 E+P CONDITIONS

Intersection Operations Analysis

As shown on Exhibit 1-3, one study area intersection is anticipated to operate at an unacceptable LOS during the peak hours with the addition of Project traffic for E+P traffic conditions, in addition to the deficient intersections previously identified for Existing (2018) traffic conditions:

- Parkridge Av. (West) & Second St. (#10) – LOS E AM peak hour only

Traffic Signal Warrant Analysis

The following additional study area intersection is anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under E+P traffic conditions, in addition to the intersections previously identified under Existing (2018) traffic conditions:

- Mountain Av. & Second St. (#16)

Off-Ramp Queuing Analysis

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P traffic conditions.

Freeway Operations Analyses

For E+P traffic conditions, there are no additional study area freeway segments or ramp junctions anticipated to operate at an unacceptable LOS during one or more peak hours, in addition to the segment previously identified under Existing (2018) traffic conditions. The freeway analyses are based on the reported Caltrans PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeway may be considered at capacity during the peak hours.

Recommended Improvements

The following improvement is needed to improve the E+P peak hour deficiency back to acceptable levels, in addition to the improvements identified under Existing (2018) traffic conditions:

Parkridge Avenue (West) & Second Street (#10):

- Install a traffic signal.
- Add an eastbound left turn lane.

There are no peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

However, since the "I-15 Express Lanes Project" improvement will not be completed until 2020 and since there are no other planned improvements to the SR-91 Freeway or I-15 Freeway at this time, no improvements have been evaluated.

1.5.3 OPENING YEAR CUMULATIVE (2022) CONDITIONS

Intersection Operations Analysis

For Opening Year Cumulative (2022) Without Project traffic conditions, the following intersections are anticipated to operate at an unacceptable level of service (LOS) (i.e., LOS E or worse) during one or both peak hours (see Exhibit 1-3):

- Parkridge Av. (West) & Second St. (#10) – LOS F AM peak hour; LOS E PM peak hour
- Parkridge Av. (East) & Second St. (#11) – LOS F AM and PM peak hours
- Pacific Av. & Second St. (#12) – LOS F AM peak hour only
- Mountain Av. & Second St. (#16) – LOS F AM and PM peak hours
- Mountain Av. & First St. (#22) – LOS F AM and PM peak hours
- Hamner Av. & Second St. (#25) – LOS F AM and PM peak hours
- Hamner Av. & Mountain Av./Hidden Valley Pkwy. (#27) – LOS E AM and PM peak hours
- I-15 Northbound Ramps & Second St. (#32) – LOS E AM peak hour only

With the addition of Project traffic, there are no additional intersections anticipated to result in an unacceptable LOS (i.e., LOS E or worse) under Opening Year Cumulative (2022) With Project traffic conditions in addition to those previously identified under Opening Year Cumulative (2022) Without Project traffic conditions.

Traffic Signal Warrant Analysis

The following additional unsignalized study area intersection is anticipated to meet the peak hour volume-based traffic signal warrants, in addition to the intersections previously warranted under Existing (2018) and E+P traffic conditions:

- Parkridge Av. (East) & Second St. (#11)

There are no additional unsignalized intersections anticipated to meet volume-based traffic signal warrants with the addition of Project traffic.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. There are no movements that are

anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Opening Year Cumulative (2022) Without Project and With Project traffic conditions.

Freeway Operations Analyses

For Opening Year Cumulative (2022) Without Project traffic conditions, the following freeway segment is anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours:

- I-15 Freeway Southbound, North of Second St. (#3) – LOS E AM and PM peak hours

With the addition of Project traffic, there are no additional freeway segments anticipated to operate at an unacceptable LOS during the peak hours. The freeway analyses are based on the reported Caltrans PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeway may be considered at capacity during the peak hours.

Ramp merge and diverge operations were also evaluated and the following ramp junctions were found to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Opening Year Cumulative (2022) Without Project traffic conditions:

- SR-91 Freeway, Eastbound off-ramp at Lincoln Av. (#2) – LOS E AM and PM peak hours
- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS E AM and PM peak hours
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS F AM peak hour; LOS E PM peak hour
- I-15 Freeway, Northbound off-ramp at Hidden Valley Pkwy. (#10) – LOS E AM peak hour only

With the addition of Project traffic, there are no additional ramp junctions anticipated to operate at an unacceptable LOS during the peak hours.

Recommended Improvements

The following improvements are needed to improve the Opening Year Cumulative (2022) peak hour deficiencies back to acceptable levels:

Parkridge Avenue (West) & Second Street (#10):

- Install a Traffic Signal.
- Add an eastbound left turn lane.

Parkridge Avenue (East) & Second Street (#11):

- Install a Traffic Signal.
- Add a westbound left turn lane.

Pacific Avenue & Second Street (#12):

- Install a traffic signal.
- Restripe the eastbound approach to provide a left turn lane and a shared through-right turn lane.

- Add a westbound left turn lane.

Hamner Avenue & Second Street (#25):

- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Restripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane.
- Restripe the westbound approach to provide two left turn lanes, one through lane, and one right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, and run the eastbound and westbound left turns as lead-lag, with the westbound left running as lag. As such, northbound/southbound and eastbound/westbound left turns will run separately (not concurrently).

Hamner Avenue & Mountain Avenue/Hidden Valley Parkway (#27):

- Stripe a northbound right turn lane.
- Restripe the westbound shared left-through lane to a westbound left turn lane.
- Modify the traffic signal to provide overlap phasing for the northbound and westbound right turn lanes.

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

There are no peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

Construction of the "I-15 Express Lanes Project" began in 2018, and the express lanes will be open to traffic in 2020. With these improvements, the I-15 Freeway mainline segments and ramp junctions are anticipated to operate at an acceptable LOS during the peak hours.

1.5.4 HORIZON YEAR (2040) CONDITIONS

Intersection Operations Analysis

The intersection analysis results indicate that the following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2040) Without Project traffic conditions (see Exhibit 1-3):

- River Rd. & Corydon St. (#1) – LOS E AM and PM peak hours
- River Rd. & Lincoln Av. (#3) – LOS F AM peak hour only
- Parkridge Av. (West) & Second St. (#10) – LOS F AM and PM peak hours
- Parkridge Av. (East) & Second St. (#11) – LOS F AM and PM peak hours
- Pacific Av. & Second St. (#12) – LOS F AM and PM peak hours

- Mountain Av. & Second St. (#16) – LOS F AM and PM peak hours
- Mountain Av. & First St. (#22) – LOS F AM and PM peak hours
- Hamner Av. & Second St. (#25) – LOS F AM and PM peak hours
- Hamner Av. & Mountain Av./Hidden Valley Pkwy. (#27) – LOS F AM and PM peak hours
- Main St. & Parkridge Av. (#28) – LOS F AM and PM peak hours
- I-15 Southbound Ramps & Second St. (#29) – LOS E AM peak hour only
- I-15 Northbound Ramps & Second St. (#32) – LOS F AM and PM peak hours

With the addition of Project traffic, there are no additional intersections anticipated to result in an unacceptable LOS (i.e., LOS E or worse) under Horizon Year (2040) With Project traffic conditions.

Traffic Signal Warrant Analysis

For Horizon Year (2040) Without Project traffic conditions, there are no unsignalized study area intersection anticipated to meet either the peak hour or ADT volume-based traffic signal warrants, in addition to the intersections previously warranted under Existing (2018), E+P, and Opening Year Cumulative (2022) traffic conditions.

For Horizon Year (2040) With Project conditions, the following unsignalized study area intersection is anticipated to meet the peak hour volume-based traffic signal warrants in addition to the intersections previously warranted under Existing, E+P, and Opening Year Cumulative (2022) traffic conditions:

- Parkridge Av. (West) & Second St. (#10)

Off-Ramp Queuing Analysis

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. The following movement is anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) Without Project traffic conditions:

- I-15 Northbound Ramps & Second St. (#32) NBL/T – AM peak hour only

With the addition of Project traffic, there are no additional movements anticipated to experience queuing during the weekday AM or weekday PM peak 95th percentile traffic flows.

Freeway Operations Analyses

The following freeway segments are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2040) Without Project traffic conditions:

- SR-91 Freeway Eastbound, West of Second Av. (#2) – LOS F PM peak hour only
- I-15 Freeway Southbound, North of Second St. (#3) – LOS F AM and PM peak hours

- I-15 Freeway Northbound, North of Second St. (#6) – LOS E AM peak hour; LOS F PM peak hour

With the addition of Project traffic, there are no additional freeway segments anticipated to operate at an unacceptable LOS during the peak hours. The freeway analyses are based on the reported Caltrans PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeway may be considered at capacity during the peak hours.

The following ramp junctions were found to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2040) Without Project traffic conditions:

- SR-91 Freeway, Eastbound off-ramp at Lincoln Av. (#2) – LOS E AM peak hour; LOS F PM peak hour
- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS F AM and PM peak hours
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS F AM and PM peak hours
- I-15 Freeway, Northbound on-ramp at Hidden Valley Pkwy. (#9) – LOS E AM and PM peak hours
- I-15 Freeway, Northbound off-ramp at Hidden Valley Pkwy. (#10) – LOS E AM and PM peak hours

With the addition of Project traffic, there are no additional ramp junctions anticipated to operate at an unacceptable LOS during the peak hours.

Recommended Improvements

The following improvements are recommended to improve each impacted intersection's LOS back to acceptable LOS, where the Project is recommended to contribute a fee payment or fair share in order to reduce the cumulative impacts to less than significant levels:

River Road & Corydon Street (#1):

- Add a 2nd northbound left turn lane. North and southbound left turns may need to operate with lead-lag phasing in order to accommodate the future alignment of the turn lanes.

River Road & Lincoln Avenue (#3):

- Add a 2nd southbound left turn lane. The existing median may need to be removed to accommodate the 2nd southbound left turn lane.
- Add a westbound right turn lane.

Parkridge Avenue (West) & Second Street (#10):

- Install a traffic signal.
- Add an eastbound left turn lane.

Parkridge Avenue (East) & Second Street (#11):

- Install a traffic signal.
- Add a westbound left turn lane.

Pacific Avenue & Second Street (#12):

- Install a traffic signal.

- Restripe the eastbound approach to provide a left turn lane and a shared through-right turn lane.
- Add a westbound left turn lane.

Mountain Avenue & First Street (#22):

- Install a traffic signal.
- Add a southbound, eastbound, and westbound left turn lane.
- Add a southbound right turn lane.
- Add a 2nd westbound through lane.

Hamner Avenue & Second Street (#25):

- Restripe the northbound right turn lane as a shared through-right turn lane.
- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Restripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane.
- Restripe the westbound approach to provide two left turn lanes, one through lane, and one right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, run the eastbound and westbound left turns as lead-lag, with the westbound left turn running as lag, and implement overlap phasing for the westbound right turn lane. As such, northbound/southbound and eastbound/westbound left turns will run separately (not concurrently).

Hamner Avenue & Mountain Avenue/Hidden Valley Parkway (#27):

- Stripe a northbound right turn lane.
- Restripe to provide a 3rd through lane and add a southbound right turn lane.
- Restripe the westbound shared left-through lane to a westbound left turn lane.
- Modify the traffic signal to provide overlap phasing for the northbound, southbound, and westbound right turn lanes.

Main Street & Parkridge Avenue (#28):

- Restripe the northbound free-right turn lane as a shared through-right turn lane.
- Restripe the eastbound approach to provide two left turn lanes and one shared through-right turn lane.

I-15 Southbound Ramps & Second Street (#29):

- Add an eastbound right turn lane.

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

With the proposed intersection improvements at the study area freeway ramp-to-arterial intersection identified above, the analysis indicates that there are no anticipated queuing issues that may potentially "spill back" onto the I-15 Freeway mainline during the peak hours for Horizon Year (2040) Without Project and With Project traffic conditions.

Construction for the "I-15 Express Lanes Project" began in 2018, and the express lanes will be open to traffic in 2020. With these improvements, the I-15 Freeway mainline segments are anticipated to improve operations to an acceptable LOS. The I-15 Freeway ramp junctions are anticipated to improve operations with the improvements discussed above, however the I-15 Southbound on-ramp at Second Street is anticipated to continue to operate at an unacceptable LOS during the AM and PM peak hours.

1.6 CIRCULATION SYSTEM DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

A summary of the operationally deficient study area intersections and recommended improvements required to achieve acceptable circulation system performance are described in detail within Section 3 *Area Conditions*, Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2022) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* of this report.

A summary of off-site improvements needed to address intersection operational deficiencies for each analysis scenario is included in Table 1-4. These recommended improvements are consistent with or less than the geometrics assumed in the City of Norco Circulation Element. Improvements found to be included in the WRCOG TUMF or City of Norco's (lead agency) Development Impact Fee (DIF) fee program have been identified as such. For improvements that do not appear to be in the TUMF or DIF programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction. These fees (both to the City of Norco, TUMF, and as determined, to surrounding agencies as fair-share contributions) are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. Additional information related to these various fee programs are contained in Section 1.7 *Local and Regional Funding Mechanisms* of this report.

Table 1-4

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Recommended Improvements[1]						Improvements in Fee Program?[1]	Fair Share %[2]
			Existing (2018)	E+P	2022 Without Project	2022 With Project	2040 Without Project	2040 With Project		
1	River Rd. & Corydon St.	Norco, Corona	None	None	None	None	Add 2nd NB left turn lane	Same	No	1.0%
3	River Rd. & Lincoln Av.	Norco, Corona	None	None	None	None	Add 2nd SB left turn lane Add WB right turn lane	Same Same	No No	3.0%
10	Parkridge Av. (West) & Second St.	Norco	None	Install a traffic signal Add EB left turn lane	Same Same	Same Same	Same Same	Same Same	No No	4.5%
11	Parkridge Av. (East) & Second St.	Norco	Install a traffic signal Add WB left turn lane	Same Same	Same Same	Same Same	Same Same	Same Same	No No	5.4%
12	Pacific Av. & Second St.	Norco	None	None	Install a traffic signal Restripe the EB approach to provide a left turn lane and a shared through-right turn lane Add WB left turn lane	Same Same Same	Same Same Same	Same Same Same	No No No	7.6%
16	Mountain Av. & Second St.	Norco	Install a traffic signal[3] Add NB left turn lane[3] Add EB left turn lane[3] Add WB left turn lane[3]	Improvements to be constructed by the Project	Same Same Same Same	Improvements to be constructed by the Project	Same Same Same Same	Improvements to be constructed by the Project	No No No No	--
22	Mountain Av. & First St.	Norco	Install a traffic signal[3] Add NB left turn lane[3] Add SB left turn lane[3] Add SB right turn lane[3] Add EB left turn lane[3] Add WB left turn lane[3]	Improvements to be constructed by the Project	Same Same Same Same Same Same Same	Improvements to be constructed by the Project	Same Same Same Same Same Same Add 2nd WB through lane	Improvements to be constructed by the Project Same	No No No No No No No	17.2%
25	Hamner Av. & Second St.	Norco	Add 2nd SB left turn lane[4] Stripe the SB defacto right turn lane	Same Same	Same Same Restripe the EB approach to provide a two left turn lanes, one through lane, and one shared through-right turn lane Restripe the WB approach to provide two left turn lanes, one through lane, and one right turn lane Modify the traffic signal to protect the EB and WB left turns	Same Same Same Same Same	Same Same Same Same Modify the traffic signal to implement overlap phasing for the WB right turn lane Restripe the NB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same Same Same Same Same Same	No No No No No Yes (TUMF)	4.3%

Table 1-4

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Recommended Improvements[1]						Improvements in Fee Program?[1]	Fair Share %[2]
			Existing (2018)	E+P	2022 Without Project	2022 With Project	2040 Without Project	2040 With Project		
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	Norco	None	None	Stripe the NB defacto right turn lane	Same	Same	Same	No	7.5%
					Modify the traffic signal to implement overlap phasing for the NB and WB right turn lanes	Same	Same	Same	No	
					Restripe the WB approach to provide two left turn lanes, one through lane, and one right turn lane	Same	Same	Same	No	
					Modify the traffic signal to protect the EB and WB left turns[5]	Same	Same	Same	No	
							Add 3rd SB through lane	Same	Yes (TUMF)	
							Stripe the SB defacto right turn lane	Same	No	
28	Main St. & Parkridge Av.	Corona	None	None	None	None	Restripe the EB approach to provide two left turn lanes and a shared through-right turn lane	Same	No	1.0%
							Restripe the NB approach to provide one left turn lane, two through lanes, and one shared through-right turn lane	Same	No	
							Modify the traffic signal to protect the EB and WB left turns[5]	Same	No	
29	I-15 SB Ramp & Second St.	Norco	None	None	None	None	Add EB right turn lane	Same	No	5.8%
32	I-15 NB Ramps & Second St.	Norco	Add NB left turn lane	Same	Same	Same	Same	Same	No	5.1%

[1] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City.

[2] Represents the fair share percentage for the Project during the most impacted peak hour.

[3] Improvements are Project design features and are anticipated to be constructed by the Project.

[4] Improvement includes modification of the traffic signal to run the northbound and southbound protected left turns as lead-lag, with the southbound left turn running as lag.

[5] Improvement includes modification of the traffic signal to run the eastbound and westbound protected left turns as lead-lag, with the westbound left turn running as lag.

1.7 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements throughout the City of Norco are funded through a combination of project mitigation, fair share contributions or development impact fee programs, such as the TUMF program or the City's DIF program.

1.7.1 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The TUMF program is administered by the WRCOG based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (5) This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in Western Riverside County.

TUMF guidelines empower a local zone committee to prioritize and arbitrate certain projects. The Project is located in the Northwest Zone. The zone has developed a 5-year capital improvement program to prioritize public construction of certain roads. TUMF is focused on improvements necessitated by regional growth.

1.7.2 CITY OF NORCO DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The Project will also be subject to City of Norco's DIF program which includes a component for streets, traffic signals, and bridges. This program aims to mitigate the additional traffic burdens created by new development to the City's arterial and collector street system. A "Streets, Traffic Signals, and Bridges" fee will be imposed on all new development in the City to finance the costs of street improvements, including widening and reconstruction, new traffic signals, street landscaping, intersection improvements, and freeway interchange improvements.

1.7.3 FAIR SHARE CONTRIBUTION

Project mitigation may include a combination of fee payments to established programs (e.g., TUMF, and/or DIF), construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City of Norco's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided in Table 1-5 for the applicable deficient intersections shown previously in Table 1-4. Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate.

Table 1-5

Project Fair Share Calculations

#	Intersection		Existing	Project	2040 With Project	Total New Traffic	Project Fair Share[1]
1	River Rd. & Corydon St.						
		AM:	3,566	39	4,690	1,124	0.8%
		PM:	2,995	42	4,238	1,243	**1.0%**
3	River Rd. & Lincoln Av.						
		AM:	3,689	116	5,249	1,560	2.2%
		PM:	2,792	125	4,133	1,341	**3.0%**
10	Parkridge Av. (West) & Second St.						
		AM:	1,166	69	1,935	769	3.6%
		PM:	958	80	1,781	823	**4.5%**
11	Parkridge Av. (East) & Second St.						
		AM:	1,159	90	1,972	813	4.6%
		PM:	939	97	1,811	872	**5.4%**
12	Pacific Av. & Second St.						
		AM:	1,019	109	1,686	667	6.5%
		PM:	856	118	1,554	698	**7.6%**
22	Mountain Av. & First St.						
		AM:	1,553	456	2,644	1,091	**17.2%**
		PM:	1,394	427	2,513	1,119	17.0%
25	Hamner Av. & Second St.						
		AM:	3,924	259	5,729	1,805	4.5%
		PM:	4,385	278	6,476	2,091	**4.3%**
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.						
		AM:	2,958	362	4,802	1,844	**7.5%**
		PM:	3,718	385	5,640	1,922	6.8%
28	Main St. & Parkridge Av.						
		AM:	2,819	49	4,898	2,079	1.0%
		PM:	3,139	53	5,097	1,958	**1.0%**
29	I-15 SB Ramp & Second St.						
		AM:	2,566	210	3,639	1,073	5.8%
		PM:	2,548	227	3,882	1,334	**5.8%**
32	I-15 NB Ramps & Second St.						
		AM:	2,413	86	3,166	753	2.7%
		PM:	2,007	150	2,942	935	**5.1%**

* Highest deficient peak hour represented in **BOLD** and shown on Table 1-4.

1.8 SITE ADJACENT ROADWAY IMPROVEMENTS

The recommended site-adjacent roadway improvements for the Project are described below. Exhibit 1-4 illustrates the site-adjacent roadway improvement recommendations. These improvements need to be incorporated into the project description prior to Project approval or imposed as conditions of approval as part of the Project approval.

Pacific Avenue – Pacific Avenue is a north-south oriented roadway located along the Project's western boundary. Construct Pacific Avenue from the Project's northern boundary to its southern boundary at its ultimate half-section width along the Project's frontage as a local street (60-foot right-of-way) in compliance with applicable City of Norco standards. The Project must also accommodate the right-of-way for a future planned horse trail along the western side of Pacific Avenue.

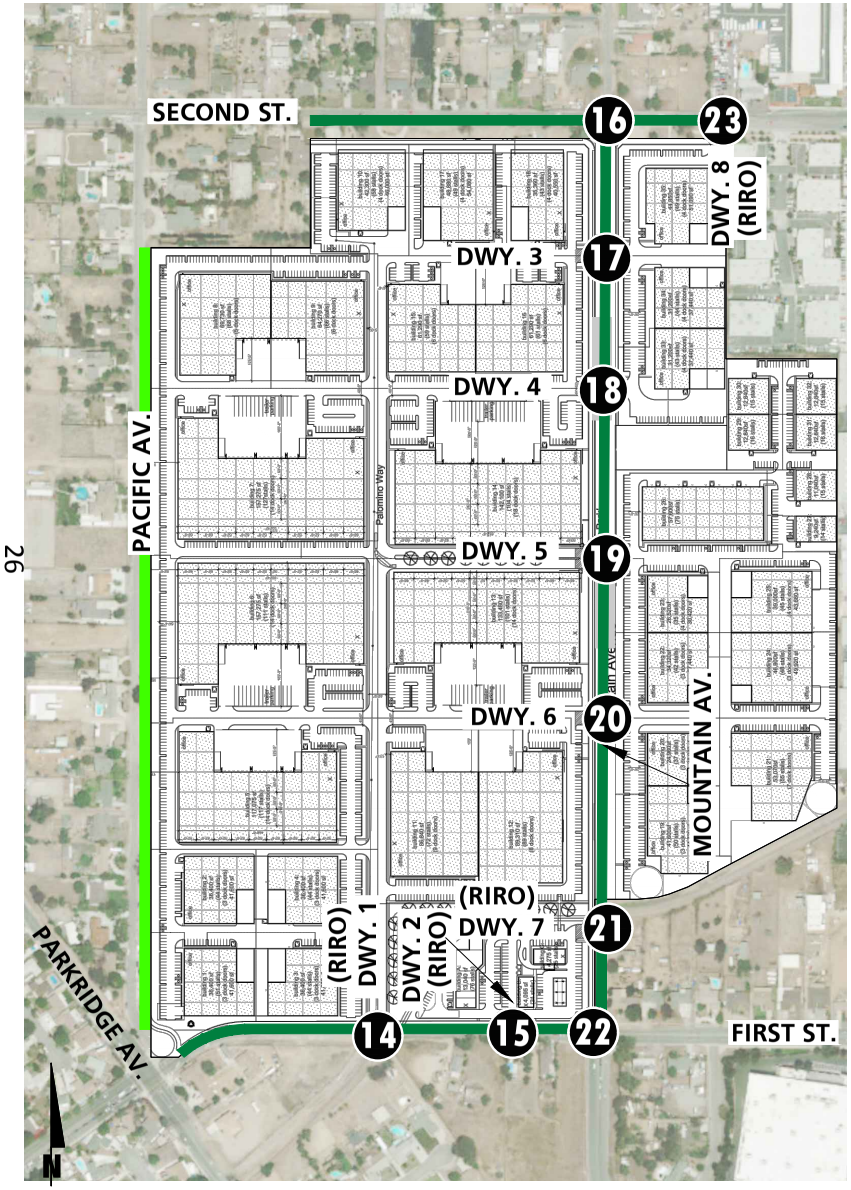
Mountain Avenue – Mountain Avenue is a north-south oriented roadway that bisects the Project. Construct Mountain Avenue from Second Street to the Project's southern boundary (south of Driveway 6) at its ultimate full-section width as a collector street (88-foot right-of-way) and at its ultimate half-section width between the Project's southern boundary (south of Driveway 6) to First Street in compliance with applicable City of Norco standards.

Second Street – Second Street is an east-west oriented roadway located along the Project's northern boundary. Construct Second Street from the Project's western boundary to the Project's eastern boundary at its ultimate half-section width along the Project's frontage as a collector street (88-foot right-of-way) in compliance with applicable City of Norco standards. Although the Project will improve their half-section of Second Street along their frontage, only one lane in each direction will be accommodated (through striping) along Second Street until such time in the future when Second Street is widened to its ultimate full-section width on either side to accommodate receiving lanes.

First Street – First Street is an east-west oriented roadway located along the Project's southern boundary. Construct First Street from the Project's western boundary to Mountain Avenue at its ultimate half-section width along the Project's frontage as a collector street (88-foot right-of-way) in compliance with applicable City of Norco standards.

Wherever necessary, roadways adjacent to the Project, site access points, and site-adjacent intersections will be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Norco General Plan Circulation Element.

EXHIBIT 1-4: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS



SECOND STREET IS AN EAST-WEST ORIENTED ROADWAY LOCATED ALONG THE PROJECT'S NORTHERN BOUNDARY. CONSTRUCT SECOND STREET FROM THE PROJECT'S WESTERN BOUNDARY TO THE PROJECT'S EASTERN BOUNDARY AT ITS ULTIMATE HALF-SECTION WIDTH ALONG THE PROJECT'S FRONTAGE AS A COLLECTOR STREET (88-FOOT RIGHT-OF-WAY) IN COMPLIANCE WITH APPLICABLE CITY OF NORCO STANDARDS. ALTHOUGH THE PROJECT WILL IMPROVE THEIR HALF-SECTION OF SECOND STREET ALONG THEIR FRONTAGE, ONLY ONE LANE IN EACH DIRECTION WILL BE ACCOMMODATED (THROUGH STRIPING) ALONG SECOND STREET UNTIL SUCH TIME IN THE FUTURE WHEN SECOND STREET IS WIDENED TO ITS ULTIMATE FULL-SECTION WIDTH ON EITHER SIDE TO ACCOMMODATE RECEIVING LANES.

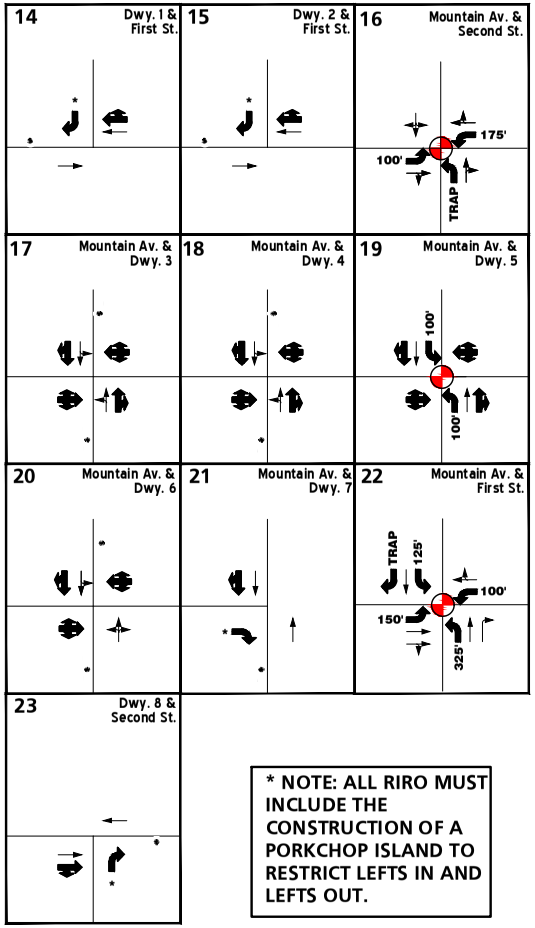
MOUNTAIN AVENUE IS A NORTH-SOUTH ORIENTED ROADWAY THAT BISECTS THE PROJECT. CONSTRUCT MOUNTAIN AVENUE FROM SECOND STREET TO THE PROJECT'S SOUTHERN BOUNDARY (SOUTH OF DRIVEWAY 5) AT ITS ULTIMATE FULL-SECTION WIDTH AS A COLLECTOR STREET (88-FOOT RIGHT-OF-WAY) AND AT ITS ULTIMATE HALF-SECTION WIDTH BETWEEN THE PROJECT'S SOUTHERN BOUNDARY (SOUTH OF DRIVEWAY 5) TO FIRST STREET IN COMPLIANCE WITH APPLICABLE CITY OF NORCO STANDARDS.

PACIFIC AVENUE IS A NORTH-SOUTH ORIENTED ROADWAY LOCATED ALONG THE PROJECT'S WESTERN BOUNDARY. CONSTRUCT PACIFIC AVENUE FROM THE PROJECT'S NORTHERN BOUNDARY TO THE PROJECT'S SOUTHERN BOUNDARY AT ITS ULTIMATE HALF-SECTION WIDTH ALONG THE PROJECT'S FRONTAGE AS A LOCAL STREET (60-FOOT RIGHT-OF-WAY) IN COMPLIANCE WITH APPLICABLE CITY OF NORCO STANDARDS. THE PROJECT MUST ALSO ACCOMMODATE THE RIGHT-OF-WAY FOR A FUTURE PLANNED HORSE TRAIL ALONG THE WESTERN SIDE OF PACIFIC AVENUE.

FIRST STREET IS AN EAST-WEST ORIENTED ROADWAY LOCATED ALONG THE PROJECT'S SOUTHERN BOUNDARY. CONSTRUCT FIRST STREET FROM THE PROJECT'S WESTERN BOUNDARY TO MOUNTAIN AVENUE AT ITS ULTIMATE HALF-SECTION WIDTH ALONG THE PROJECTS FRONTAGE AS A COLLECTOR STREET (88-FOOT RIGHT-OF-WAY) IN COMPLIANCE WITH APPLICABLE CITY OF NORCO STANDARDS.

ON-SITE TRAFFIC SIGNING AND STRIPING SHOULD BE IMPLEMENTED IN CONJUNCTION WITH DETAILED CONSTRUCTION PLANS FOR THE PROJECT SITE.

SIGHT DISTANCE AT EACH PROJECT ACCESS POINT SHOULD BE REVIEWED WITH RESPECT TO STANDARD CALTRANS AND CITY OF NORCO SIGHT DISTANCE STANDARDS AT THE TIME OF PREPARATION OF FINAL GRADING, LANDSCAPE AND STREET IMPROVEMENT PLANS.



* NOTE: ALL RIRO MUST INCLUDE THE CONSTRUCTION OF A PORKCHOP ISLAND TO RESTRICT LEFTS IN AND LEFTS OUT.

LEGEND:

- = NEW TRAFFIC SIGNAL
- = STOP SIGN
- = EXISTING LANE
- TRAP = TRAP LANE
- = LANE IMPROVEMENT
- = LOCAL (60' R.O.W.)
- = COLLECTOR (88' R.O.W.)
- 150' = MINIMUM TURN POCKET LENGTH

URBAN CROSSROADS

1.9 SITE ACCESS IMPROVEMENTS

The recommended site access driveway improvements for the Project are described below. Exhibit 1-4 also illustrates the on-site and site adjacent recommended roadway lane improvements. Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes. It should be noted that the improvements shown on Exhibit 1-4 are consistent with the recommended near-term improvements.

Driveway 1 & First Street (#14) – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: Not Applicable (N/A)
- Southbound Approach: One right turn lane. Construct a pork-chop island to prohibit left turns in and out of this driveway.
- Eastbound Approach: One through lane.
- Westbound Approach: One through lane and one shared through-right turn lane.

Driveway 2 & First Street (#15) – Install a stop control on the southbound approach and construct the intersection with the following geometrics:

- Northbound Approach: N/A
- Southbound Approach: One right turn lane. Construct a pork-chop island to prohibit left turns in and out of this driveway.
- Eastbound Approach: One through lane.
- Westbound Approach: One through lane and one shared through-right turn lane.

Mountain Avenue & Second Street (#16) – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Approach: One left turn lane (trap lane) and one shared through-right turn lane.
- Southbound Approach: One shared left-through-right turn lane.
- Eastbound Approach: One left turn lane with a minimum of 100-feet of storage and one shared through-right turn lane.
- Westbound Approach: One left turn lane with a minimum of 175-feet of storage and one shared through-right turn lane.

Alignment of the northbound and southbound approaches at Mountain Avenue and Second Street are to be addressed during the design phase.

Mountain Avenue & Driveway 3 (#17) – Install a stop control on the eastbound and westbound approaches and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane and one shared through-right turn lane.
- Southbound Approach: One shared left-through lane and one shared through-right turn lane.
- Eastbound Approach: One shared left-through-right turn lane.
- Westbound Approach: One shared left-through-right turn lane.

Mountain Avenue & Driveway 4 (#18) – Install a stop control on the eastbound and westbound approaches and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane and one shared through-right turn lane.
- Southbound Approach: One shared left-through lane and one shared through-right turn lane.
- Eastbound Approach: One shared left-through-right turn lane.
- Westbound Approach: One shared left-through-right turn lane.

Mountain Avenue & Driveway 5 (#19) – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Approach: One left turn lane, one through lane, and one shared through-right turn lane.
- Southbound Approach: One left turn lane, one through lane, and one shared through-right turn lane.
- Eastbound Approach: One shared left-through-right turn lane.
- Westbound Approach: One shared left-through-right turn lane.

Mountain Avenue & Driveway 6 (#20) – Install a stop control on the eastbound and westbound approaches and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane and one shared through-right turn lane.
- Southbound Approach: One shared left-through lane and one shared through-right turn lane.
- Eastbound Approach: One shared left-through-right turn lane.
- Westbound Approach: One shared left-through-right turn lane.

Mountain Avenue & Driveway 7 (#21) – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One through lane.
- Southbound Approach: One through lane and one shared through-right turn lane.
- Eastbound Approach: One right turn lane. Construct a pork-chop island to prohibit left turns in and out of this driveway.
- Westbound Approach: N/A

Mountain Avenue & First Street (#22) – Install a traffic signal and construct the intersection with the following geometrics:

- Northbound Approach: One left turn lane with a minimum of 325-feet of storage, one through lane, and one right turn lane.
- Southbound Approach: One left turn lane with a minimum of 100-feet of storage, one through lane, and one right turn lane.
- Eastbound Approach: One left turn lane with a minimum of 150-feet of storage, one through lane, and one shared through-right turn lane.
- Westbound Approach: One left turn lane with a minimum of 100-feet of storage and one shared through-right turn lane.

Sight distance for the northbound right turn lane should be evaluated at the time the traffic signal is implemented. If adequate sight distance cannot be accommodated, then the northbound right turn lane shall restrict right turn movements on red.

Driveway 8 & Second Street (#23) – Construct the intersection with a stop control on the northbound approach and the following geometrics:

- Northbound Approach: One right turn lane. Construct a pork-chop island to prohibit left turns in and out of this driveway.
- Southbound Approach: N/A
- Eastbound Approach: One through lane and one shared through-right turn lane.
- Westbound Approach: One through lane.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Norco sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.10 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted along the site adjacent roadways of Mountain Avenue, First Street, and Second Street for Horizon Year (2040) traffic conditions to determine the turn pocket lengths necessary to accommodate near term 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours. The traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to assess queues at the Project access points. Synchro is a macroscopic traffic software program that is based on the signalized and unsignalized intersection capacity analyses as specified in the HCM. SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). However, the average queue is the average of all the two-minute maximum queues observed by SimTraffic. The maximum back of queue observed for every two-minute period is recorded by SimTraffic. Many jurisdictions utilize the 95th percentile queues for design purposes.

SimTraffic has been utilized to assess peak hour queuing at the site access driveways for Horizon Year (2040) traffic conditions. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 60-minute periods with 60-minute recording intervals. Queuing results are provided in Appendix 1.2.

1.11 TRUCK ACCESS

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-5).

A WB-50 truck (42.5-foot trailer) has been utilized for the purposes of this analysis, with the exception of Driveway 5. A WB-67 (53-foot trailer) has been utilized for the west leg of Driveway 5. As shown on Exhibit 1-5, the following curb radius changes are necessary in order to accommodate the ingress and egress of heavy trucks:

- Driveway 3 on Mountain Avenue should be modified to provide a 40-foot radius on the northeast and southeast curbs.
- Driveway 4 on Mountain Avenue should be modified to provide a 40-foot radius on the northeast curb, to provide a 20-foot radius on the southeast curb, and to relocate the southeast curb 25-feet south in order to provide a wider driveway. It should be noted, the northeast curb adjacent to Building 33 should be modified to provide a 50-foot radius and to relocate the northeast curb 10-feet north (see page 2 of Exhibit 1-5).
- Driveway 5 on Mountain Avenue should be modified to provide a 40-foot radius on the northeast curb and southeast curbs.
- Driveway 6 on Mountain Avenue should be modified to provide a 40-foot radius on the northeast and southeast curbs.

EXHIBIT 1-5 (1OF2): TRUCK ACCESS

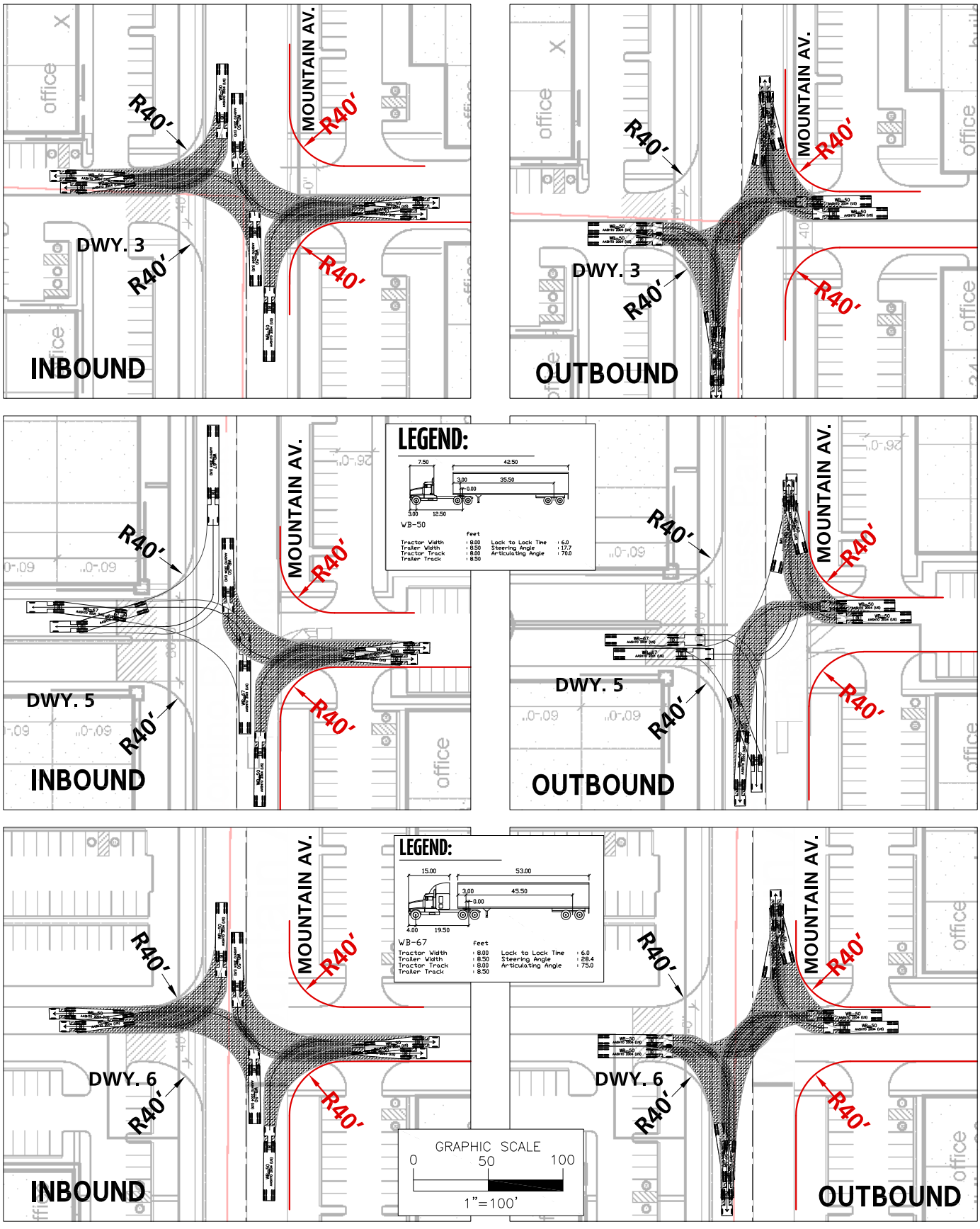
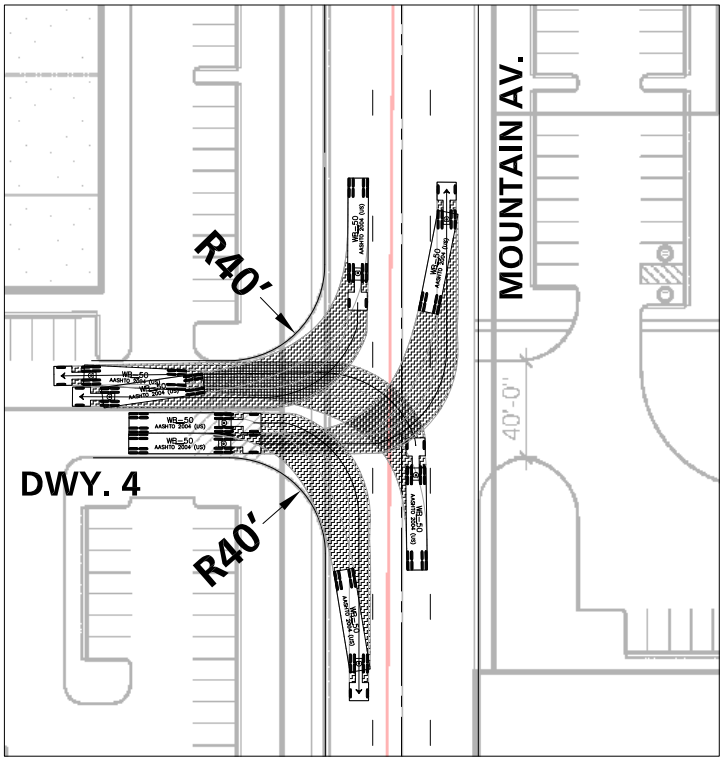
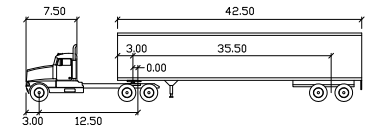


EXHIBIT 1-5 (2OF2): TRUCK ACCESS



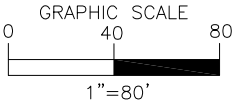
LEGEND:

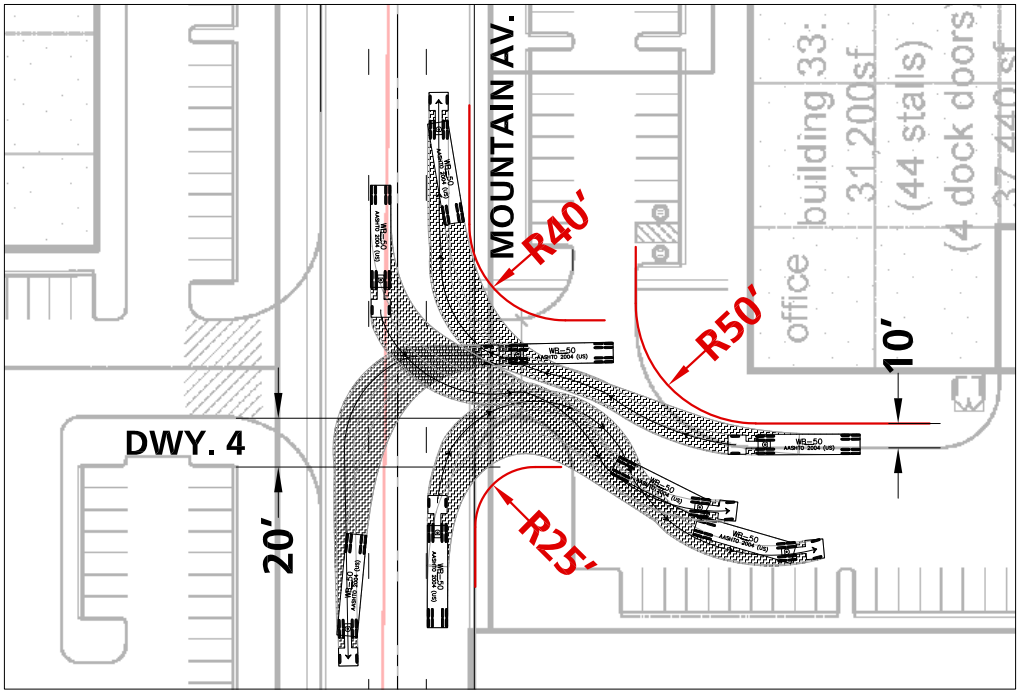


WB-50

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		





2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. Since the City of Norco does not have their own traffic study guidelines, the methodologies described are generally consistent with the County of Riverside traffic study guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

City of Norco and City of Corona

The City of Norco and City of Corona require signalized intersection operations analysis based on the methodology described in the HCM 6th Edition. (6) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

The traffic modeling and signal timing optimization software package Synchro (Version 10) is utilized to analyze signalized intersections within the City of Norco and City of Corona. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM, 6th Edition

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour.

California Department of Transportation (Caltrans)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 10) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-15 Freeway ramps at Hidden Valley Parkway and Second Street and the SR-91 Freeway ramps at Lincoln Avenue and Second Street). (4) Signal timing for the freeway arterial-to-ramp intersections have been obtained from Caltrans District 8 and were utilized for the purposes of this analysis.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Norco and City of Corona require the operations of unsignalized intersections be evaluated using the methodology described the HCM. (6) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM, 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by the Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices *(CA MUTCD)* for all study area intersections. (7)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (7) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for the following study area intersection shown in Table 2-3.

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
10	Parkridge Av. (West) & Second St.	Norco
11	Parkridge Av. (East) & Second St.	Norco
12	Pacific Av. & Second St.	Norco
16	Mountain Av. & Second St.	Norco
17	Mountain Av. & Dwy. 3 – Future Intersection	Norco
18	Mountain Av. & Dwy. 4 – Future Intersection	Norco
19	Mountain Av. & Dwy. 5 – Future Intersection	Norco
20	Mountain Av. & Dwy. 6 – Future Intersection	Norco
22	Mountain Av. & First St.	Norco

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions,* Section 6 *Opening Year Cumulative (2022) Traffic Conditions,* and Section 7 *Horizon Year (2040) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY

Consistent with recent Caltrans guidance, the traffic study has evaluated all freeway segments where the Project is anticipated to contribute 50 or more peak hour one-way trips, in an effort to conduct a conservative analysis and overstate as opposed to understand potential deficiencies.

The freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in this TIA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in the HCM and performed using HCS7 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2-4 illustrates the freeway segment LOS descriptions for each density range utilized for this analysis.

TABLE 2-4: DESCRIPTION OF FREEWAY MAINLINE LOS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows, and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads in September 2018. These existing freeway geometrics have been utilized for Existing, E+P, Opening Year Cumulative (2022), and Horizon Year (2040) traffic conditions.

The SR-91 Freeway and I-15 Freeway mainline volume data were obtained from the Caltrans Performance Measurement System (PeMS) website for the segments of the SR-91 Freeway west of Lincoln Avenue and the I-15 Freeway north of Second Street. The data was obtained from September 2018. In an effort to conduct a conservative analysis, the maximum value observed within the 3-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic and actual vehicles (as opposed to passenger car equivalent (PCE) volumes) have been utilized for the purposes of the basic freeway segment analysis. (8)

2.5 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in 10 existing on and off-ramp locations where the Project is anticipated to contribute 50 or more peak hour trips (see Table 1-3). Although the HCM indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in this traffic study has been performed at all ramp locations with respect to the nearest on or off-ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in the region.

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS7 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 2-5 presents the merge/diverge area level of service descriptions for each density range utilized for this analysis.

TABLE 2-5: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

Similar to the basic freeway segment analysis, the SR-91 Freeway and I-15 Freeway mainline volume data were obtained from the Caltrans maintained PeMS website for the segments of the SR-91 Freeway west of Lincoln Avenue and the I-15 Freeway north of Second Street. The ramp data (per the count data presented in Appendix 3.1) was then utilized to flow conserve the mainline volumes to determine the remaining SR-91 Freeway and I-15 Freeway mainline segment volumes. Flow conservation checks ensure that traffic flows from north to south (and vice versa) of the interchange area with no unexplained loss of vehicles. The data was obtained from September 2018. In an effort to conduct a conservative analysis, the maximum value observed within the 3-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic and actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis. (8)

2.6 MINIMUM LEVEL OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.6.1 CITY OF NORCO

For the study intersections located in the City of Norco, LOS D is also the minimum acceptable condition that should be maintained during the peak commute hours.

2.6.2 CITY OF CORONA

In accordance with the City of Corona's General Plan, the following intersection level of service (LOS) thresholds from the General Plan shall be implemented using the current Highway Capacity Manual (HCM):

- LOS C or better shall be maintained for local intersections in residential/industrial areas.
- LOS D or better shall be maintained on collector and arterial intersections.
- LOS E will be permitted at specific ramp-to-arterial intersections, and other locations as approved by the City Engineer.

For each of the off-site study area intersections within the City of Corona, the intersecting roadways were found to be Collector or higher on the City's General Plan Circulation Element. As such, the minimum level of service applicable to the study area intersections is LOS D. Therefore, any intersection operating at LOS E or worse will be considered deficient for the purposes of this analysis.

2.6.3 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on the State Highway System facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Consistent with the City of Norco minimum LOS of LOS D, LOS D will be used as the target LOS for both arterial-to-freeway ramps and freeway mainline segments and ramp junctions.

2.7 THRESHOLDS OF SIGNIFICANCE

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

2.7.1 INTERSECTIONS

To determine whether the addition of project traffic (as defined through the comparison of Existing traffic conditions to E+P traffic conditions) at a study intersection would result in a direct project-specific traffic impact, the following will be utilized:

- When the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and project-generated traffic, as measured by 50 or more peak hour trips, causes deterioration below LOS D (i.e., unacceptable LOS), a deficiency is deemed to occur.

However, when the pre-Project condition is already below LOS D (i.e., unacceptable LOS), the Project will be responsible for mitigating its impact to a level of service equal to or better than it was without the Project for intersections that receive 50 or more peak hour project-related trips. This is a standard protocol in many urban jurisdictions because to require a Project to mitigate to LOS D or better would in effect force the Project to mitigate beyond its Project impacts, which is prohibited under California law. Thus, for intersections currently operating at unacceptable LOS during either the AM and/or PM peak hour under Existing traffic conditions, improvements have

been identified to mitigate the impacts of the Project to an intersection LOS that is equal to or better than pre-Project conditions.

Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable level of service operations with or without the Project. A Project's contribution to a significant cumulative impact can be reduced to less than significant if the Project is required to implement or fund its fair share of improvements designed to alleviate its cumulatively considerable contribution to the impact. Cumulatively considerable is defined as the addition of 50 or more peak hour trips.

2.7.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition (i.e., contributing 50 or more peak hour trips). A segment that is operating at or near capacity is deemed to be deficient.

2.8 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's proportional share may be imposed in order to mitigate the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval).

In cases where this TIA identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / [Horizon Year (2040) Total Traffic – Existing Traffic]

The Project fair share contribution calculations are presented in Section 1.7 *Local and Regional Funding Mechanisms* of this TIA

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Norco General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, off-ramp queuing, and freeway mainline analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Norco staff (Appendix 1.1), the study area includes a total of 35 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 GENERAL PLAN CIRCULATION ELEMENT

3.2.1 CITY OF NORCO

As previously noted, the Project site is located within the City of Norco. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the City of Norco as identified on the City of Norco General Plan Circulation Element are described subsequently. Exhibit 3-2 shows the City of Norco General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Norco General Plan roadway cross-sections. Exhibit 3-4 shows the City of Corona General Plan Circulation Element and Exhibit 3-5 shows the City of Corona General Plan roadway cross-sections.

Urban Arterials are six-lane divided roadways (divided by either a 14-foot raised median or 10-foot striped median) with a 110-foot right-of-way and 86-foot curb-to-curb measurement. The following study area roadway within the City of Norco is classified as an Urban Arterial:

- Hamner Avenue

Major Arterials are four-lane divided roadways (divided by a 12-foot raised median) with a 100-foot right-of-way and 80-foot curb-to-curb measurement. The following study area roadways within the City of Norco are classified as a Major Arterial:

- River Road
- Hidden Valley Parkway, east of Hamner Avenue

EXHIBIT 3-1 (1OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

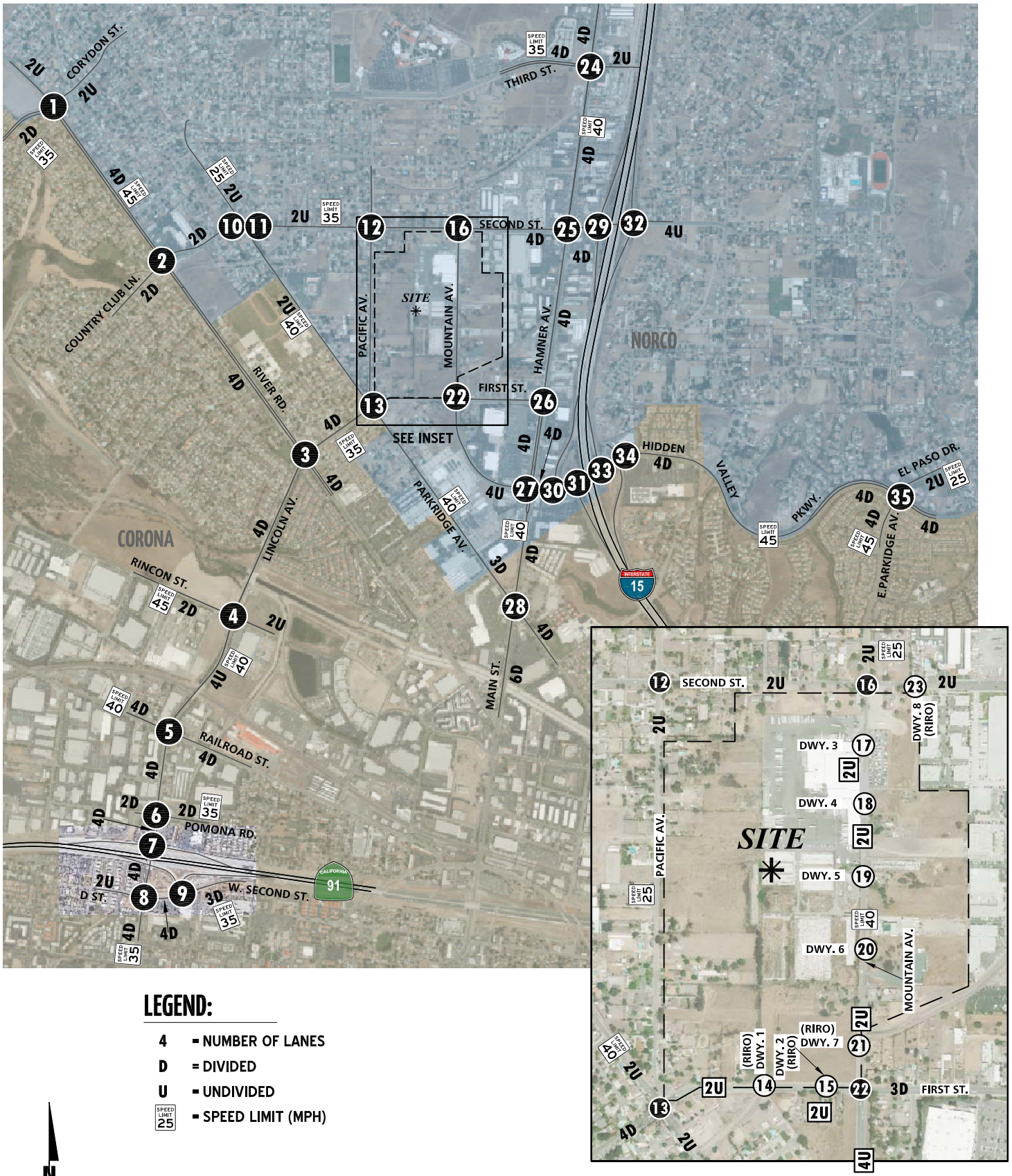
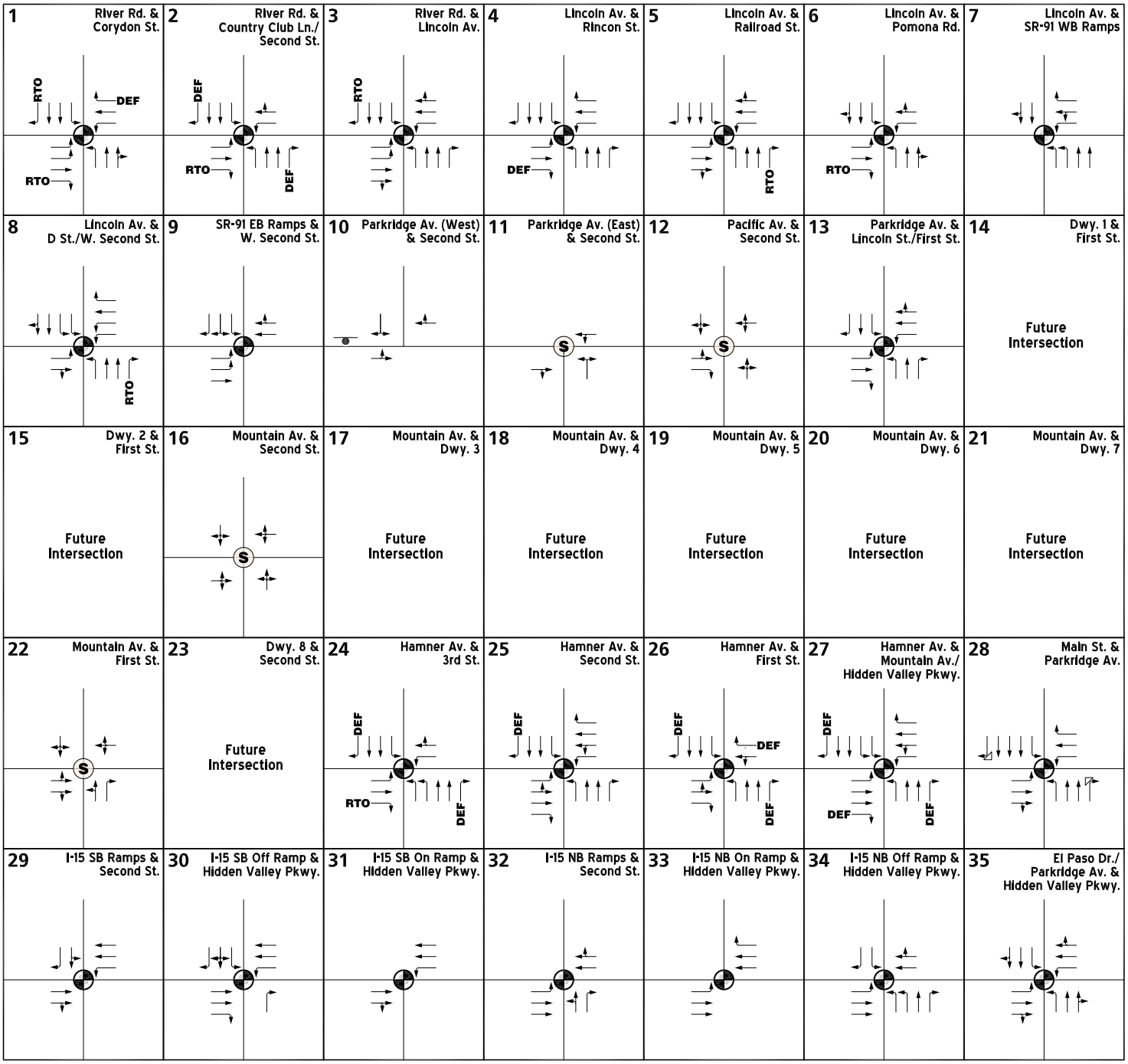


EXHIBIT 3-1 (2OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



LEGEND:

- = TRAFFIC SIGNAL
- = ALL WAY STOP
- = STOP SIGN
- = CHANNELIZED YIELD
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN

EXHIBIT 3-2: CITY OF NORCO GENERAL PLAN CIRCULATION ELEMENT

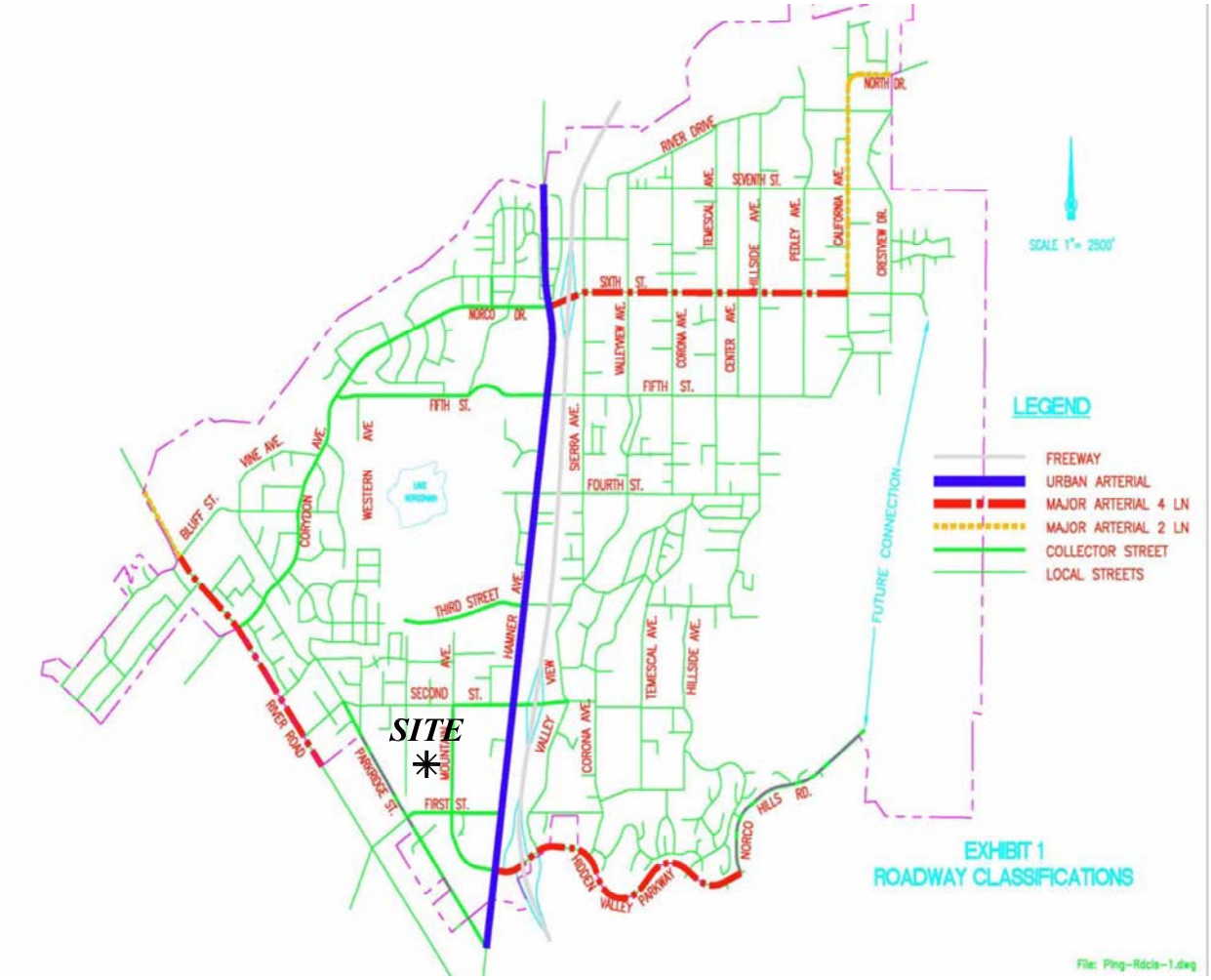
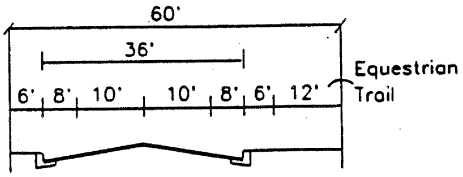
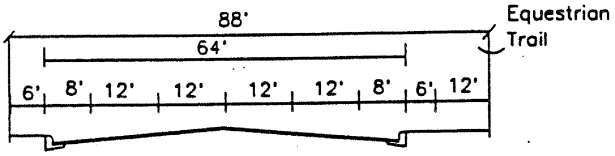


EXHIBIT 3-3: CITY OF NORCO ROADWAY CROSS-SECTIONS

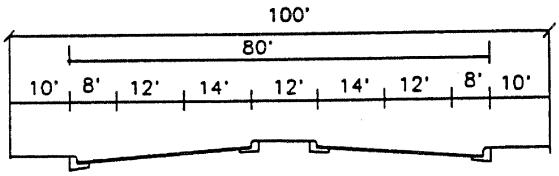
Local



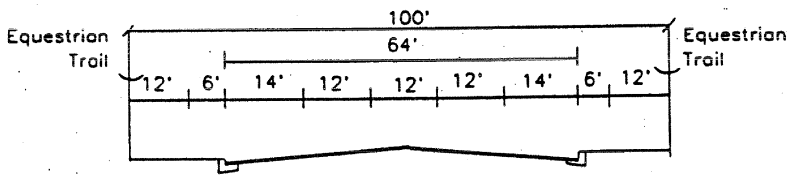
Collector



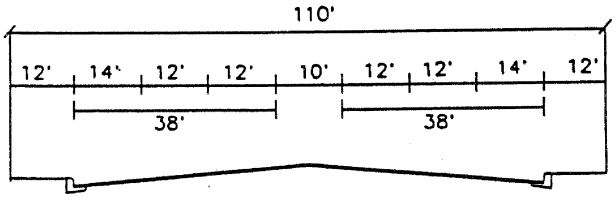
Major – 4
River Road



Major – 4E
Sixth Street
Hidden Valley Parkway (½)



Urban Arterial
Hamner Avenue Without Median



Urban Arterial
Hamner Avenue
With Raised Median

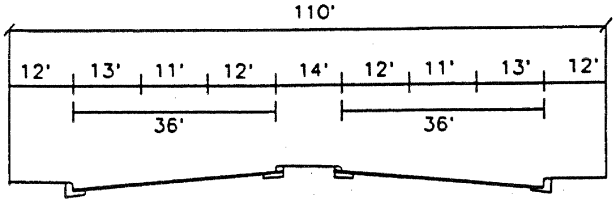


EXHIBIT 3-4: CITY OF CORONA GENERAL PLAN CIRCULATION ELEMENT

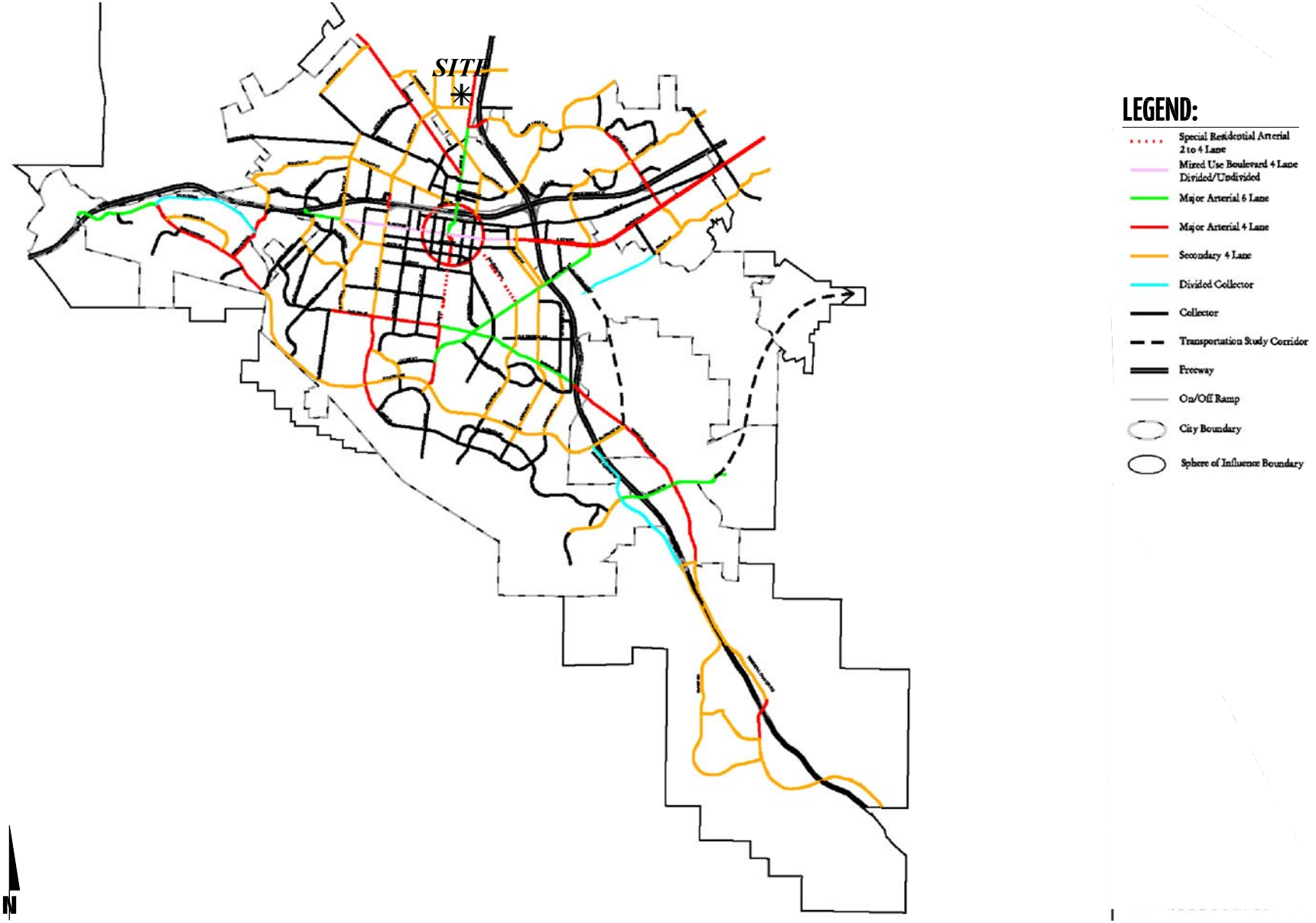
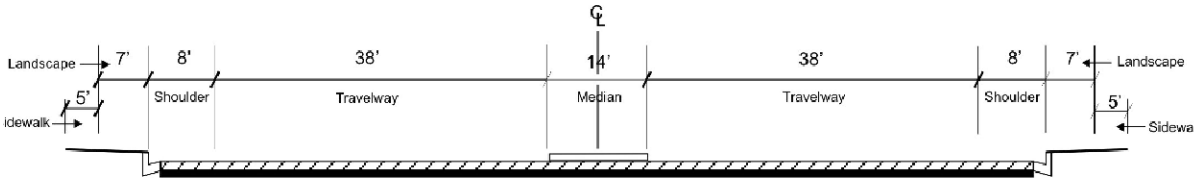
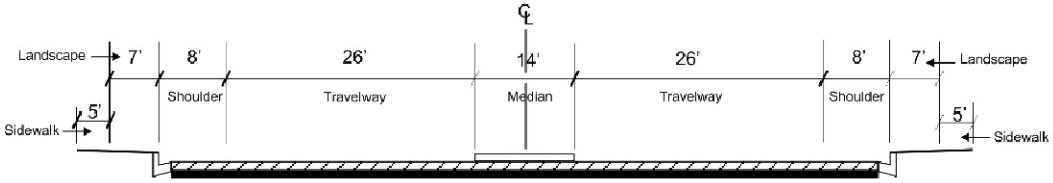


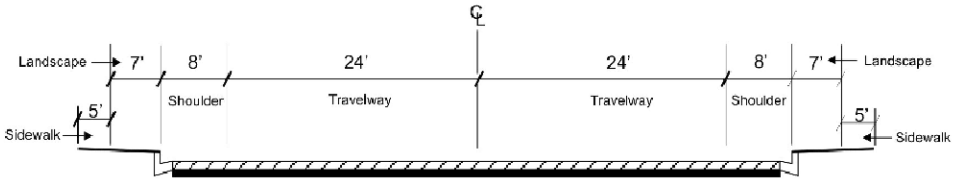
EXHIBIT 3-5 (1OF2): CITY OF CORONA GENERAL PLAN ROADWAY CROSS-SECTIONS



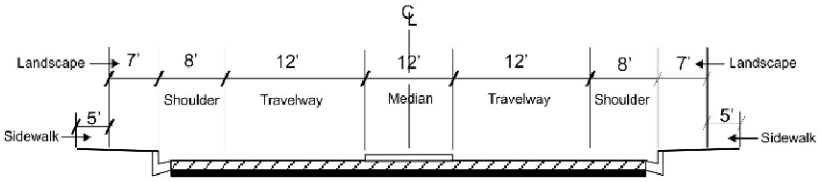
Major Arterial (6 lanes)
R.W. 130
Roadway 106



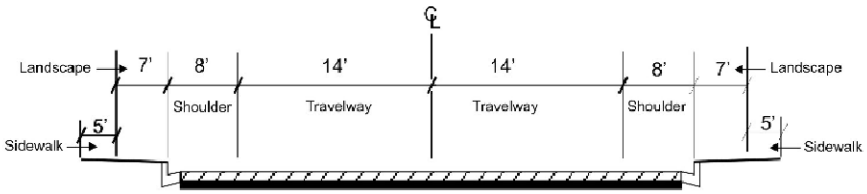
Major Arterial (4 lanes)
R.W. 106
Roadway 82



Secondary (4 lanes)
R.W. 88
Roadway 64

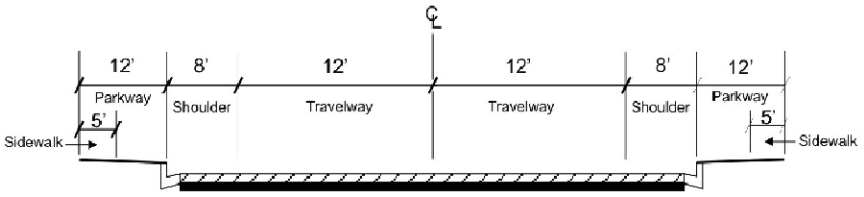


Divided Collector (2 lanes)
R.W. 76
Roadway 52

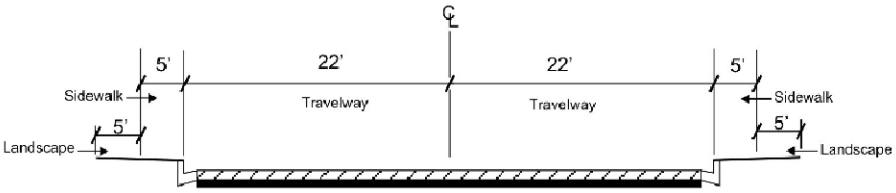


Collector (2 lanes)
R.W. 68
Roadway 44

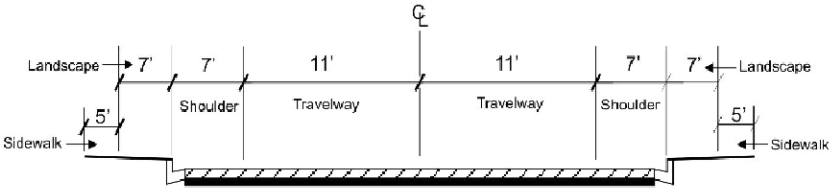
EXHIBIT 3-5 (2OF2): CITY OF CORONA GENERAL PLAN ROADWAY CROSS-SECTIONS



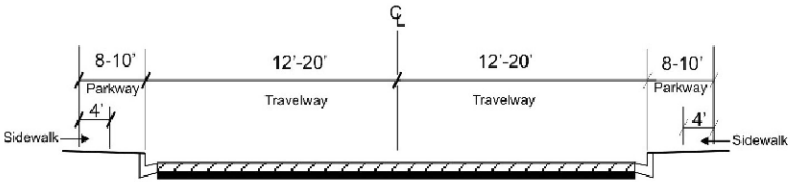
Local Street
R.W. 64
Roadway 40
Note: See local residential street Planning Policy 6.1.10



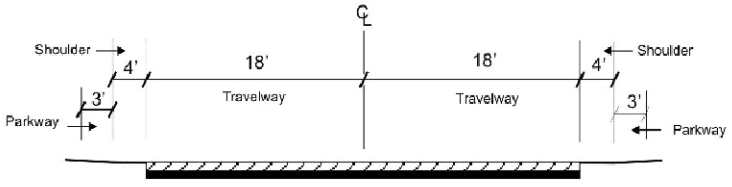
Local Industrial
R.W. 64
Roadway 44



Cul-De-Sac
R.W. 60
Roadway 36



Private Residential Street
R.W. 40-60
Roadway 24-40
Note: See local residential street Planning Policy 6.1.10



Rural Road (Traffic Volume)
R.W. 50
Roadway 36
Note: See local residential street Planning Policy 6.1.10

Collector Streets are four-lane undivided roadways with an 88-foot right-of-way and 64-foot curb-to-curb measurement, which includes a 12-foot equestrian trail. The following study area roadway within the City of Norco is classified as Collector Streets:

- Corydon Avenue, east of River Road
- First Street, east of Parkridge Avenue
- Parkridge Avenue, south of Second Street
- Mountain Avenue, south of Second Street
- Second Street, east of Mountain Avenue
- Third Street, west of Hamner Avenue

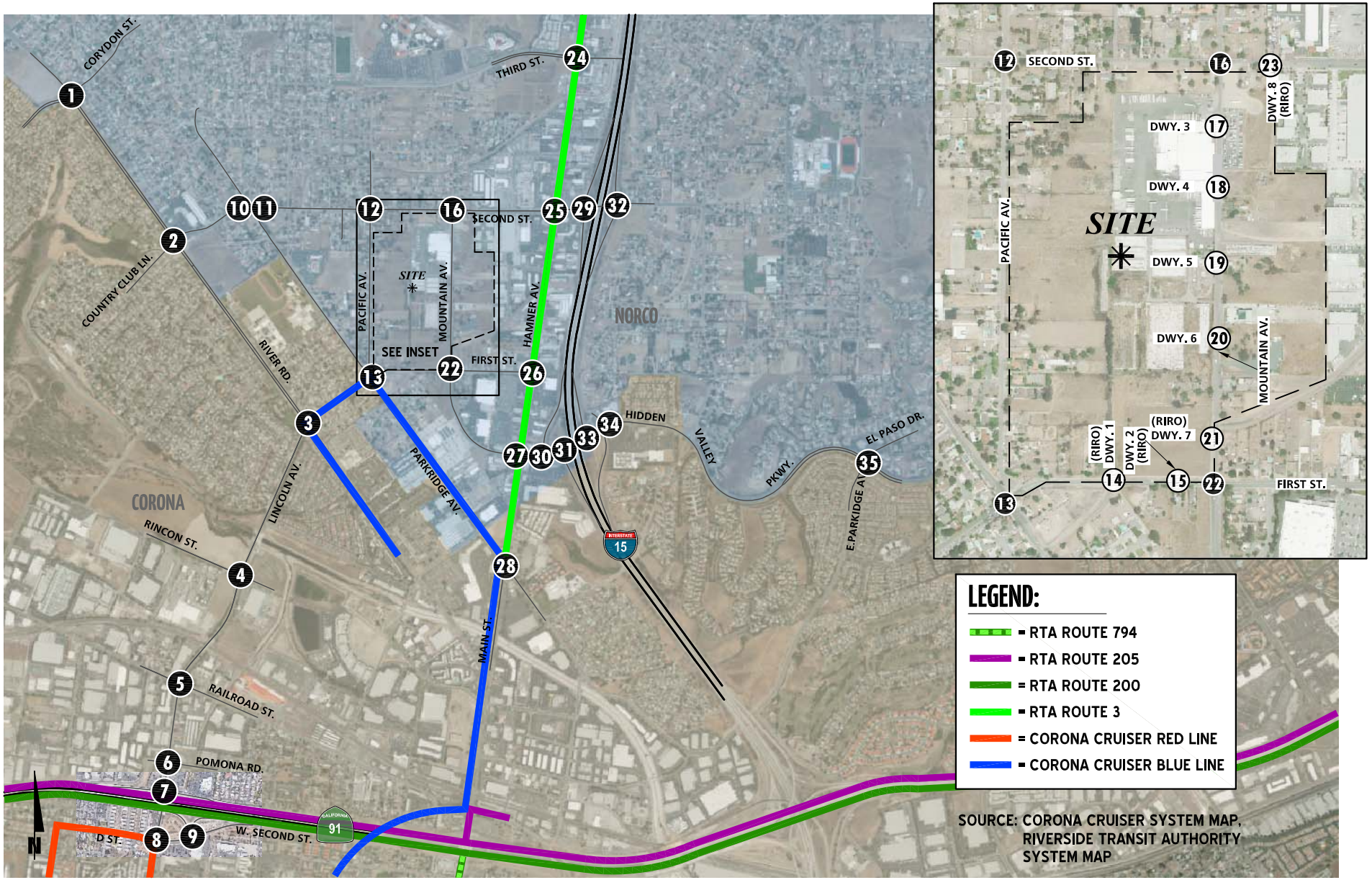
Local Streets are two-lane undivided roadways with a 60-foot right-of-way and 36-foot curb-to-curb measurement. The following study area roadway within the City of Norco is classified as Local Streets:

- Country Club Lane, west of River Road
- First Street, west of Parkridge Street
- Pacific Avenue
- El Paso Drive
- East Parkridge Avenue

3.3 TRANSIT SERVICE

As shown on Exhibit 3-6, the study area is currently served by both the Corona Cruiser and the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region near the City of Norco, with bus service along Hamner Avenue/Main Street, Parkridge Avenue, River Road, D Street, and SR-91 through various routes. However, there are currently no existing transit routes along the Project's adjacent streets of First Street, Second Street, or Mountain Avenue. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the applicant work in conjunction with RTA to potentially provide bus service to the site.

EXHIBIT 3-6: EXISTING TRANSIT ROUTES



URBAN CROSSROADS

3.4 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-7 shows the City of Corona's existing and proposed bike trails. Class II bikeways, also referred to as "bike lanes," are intended to delineate the right-of-way assigned to bicyclists and motorists, and to provide for more predictable movements of each. Bike lane signs and pavement marking help define the bikeway. A more important reason for bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. Hamner Avenue is planned to have a Class II bike lane south of Hidden Valley Parkway. Existing pedestrian facilities within the study area are shown on Exhibit 3-8. There are existing Class II bike lanes along River Road, Corydon Street, and Country Club Road.

Field observations conducted in September 2018 indicates nominal pedestrian and bicycle activity within the study area. Exhibit 3-8 illustrates the existing pedestrian facilities, including sidewalks and crosswalks.

3.5 EXISTING (2018) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in September 2018, while schools were in session. Consistent with standard engineering practice, these traffic counts were conducted either on Tuesday, Wednesday, or Thursday due to potential fluctuations in traffic that typically occur on Mondays, Fridays, Holidays, or weekends. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The weekday AM and weekday PM peak hour count data are representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access, and where there are currently no uses generating traffic. The traffic counts collected in September 2018 include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

EXHIBIT 3-7: CITY OF CORONA EXISTING AND PROPOSED BIKE TRAILS

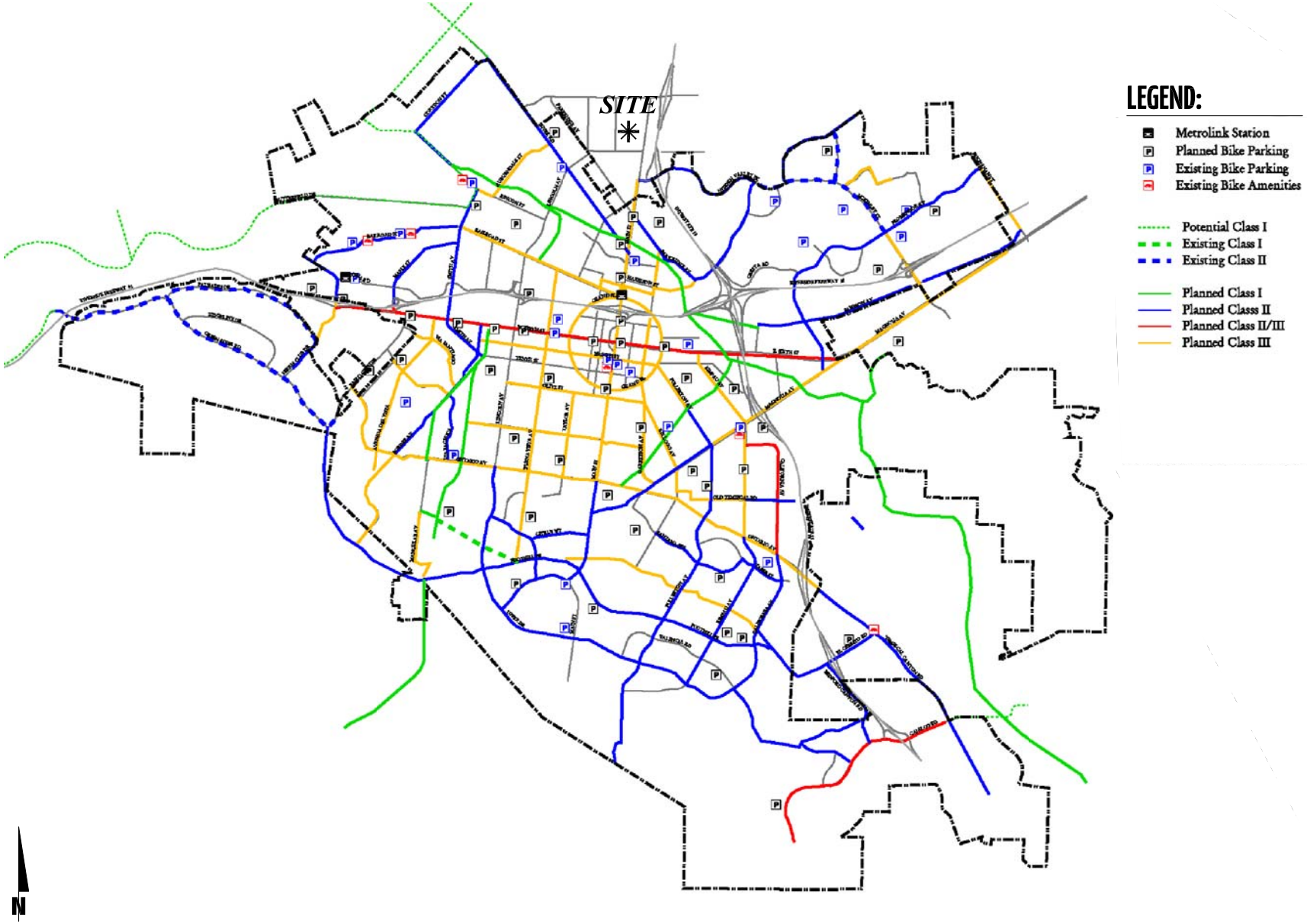
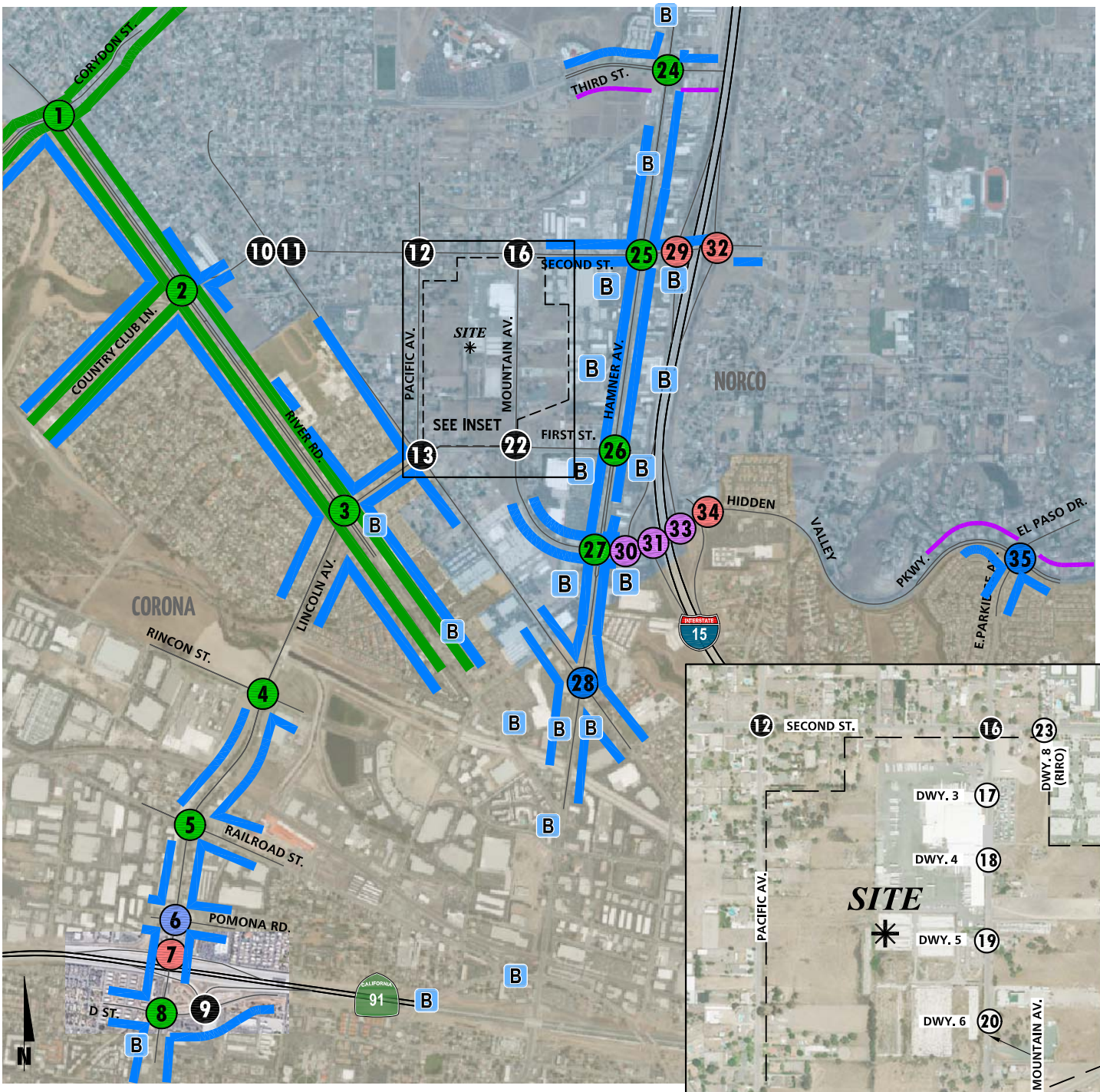


EXHIBIT 3-8: EXISTING PEDESTRIAN FACILITIES



LEGEND:

- = SIDEWALK
- = BIKE LANE
- B = BUS STOP
- 0 = NO CROSSWALK
- 0 = FUTURE INTERSECTION
- = CLASS I HORSE TRAIL
- 0 = CROSSWALK ON FOUR APPROACHES
- 0 = CROSSWALK ON THREE APPROACHES
- 0 = CROSSWALK ON TWO APPROACHES
- 0 = CROSSWALK ON ONE APPROACH
- 0 = SCHOOL CROSSWALK ON FOUR APPROACHES

10899 - peds.dwg

URBAN CROSSROADS

To represent the impact large trucks, buses, and recreational vehicles have on traffic flow, all trucks were converted into PCEs. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the San Bernardino County CMP and are in excess of the factor recommended for use in the County of Riverside traffic study guidelines. (9) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis.

Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-9. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.4452 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.04 percent. As such, the above equation utilizing a factor of 12.4452 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.04 percent (i.e., 1/0.08035 = 12.4452) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing weekday AM and PM peak hour volumes are shown on Exhibit 3-10.

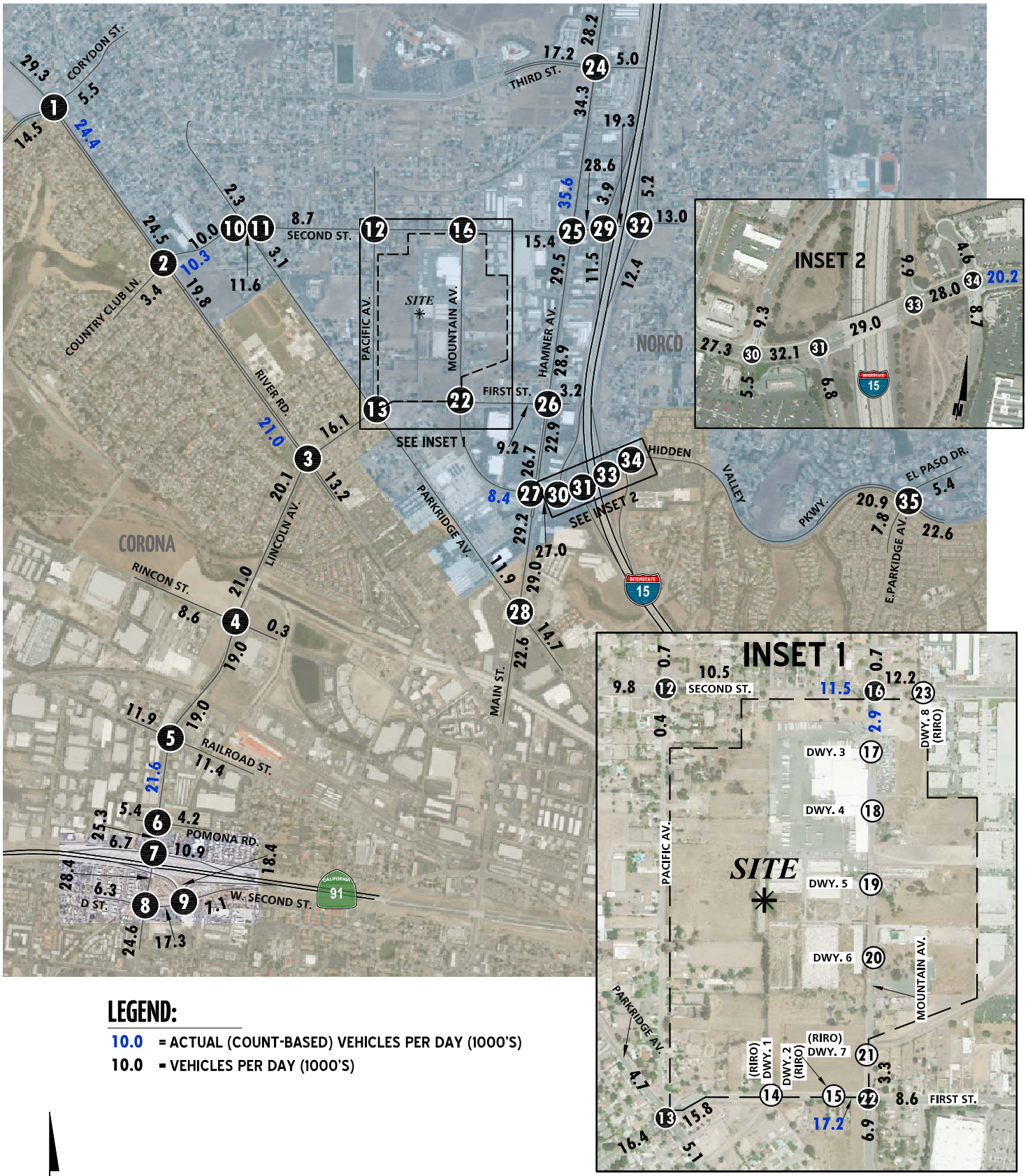
3.6 EXISTING (2018) CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that the following existing study area intersections are currently operating at an unacceptable LOS during the peak hours:

- Parkridge Av. (East) & Second St. (#11) – LOS F AM peak hour only
- Mountain Av. & Second St. (#16) – LOS E AM peak hour only
- Mountain Av. & First St. (#22) – LOS E AM peak hour only
- Hamner Av. & Second St. (#25) – LOS E AM peak hour; LOS F PM peak hour
- I-15 NB Ramps & Second St. (#32) – LOS E AM peak hour only

The study area intersections at Parkridge Avenue (East), Parkridge Avenue (West), and Second Street are located near several existing schools. These schools create heavy congestion along these local residential streets and causes LOS F at the intersection of Parkridge Avenue (East) & Second Street during a 30-minute period in the morning that coincides with the peak morning commute hours. During the PM peak hour, this intersection operates at LOS B.

EXHIBIT 3-9: EXISTING (2018) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



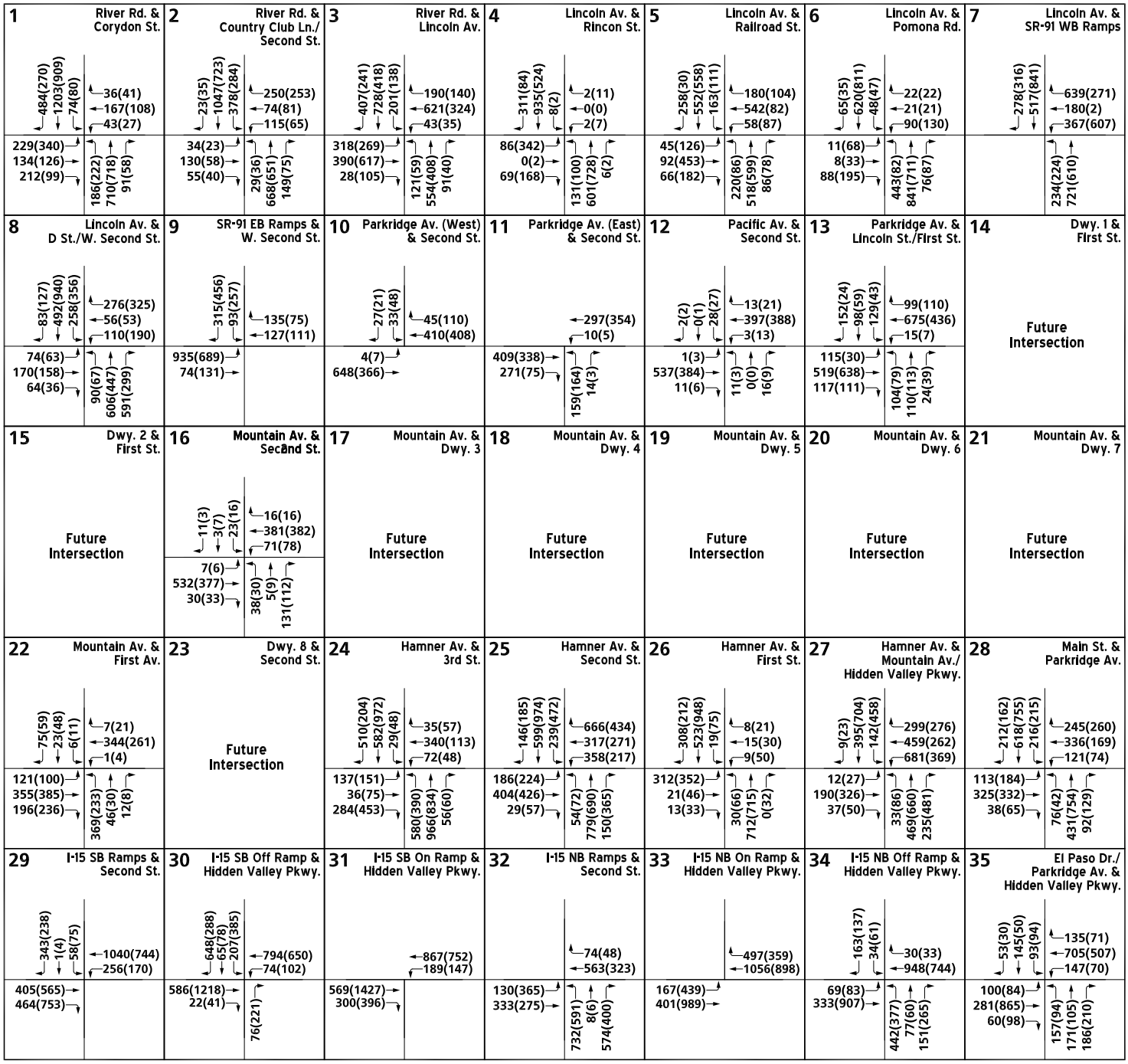
LEGEND:

10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)

10.0 = VEHICLES PER DAY (1000'S)

10899 - adt.dwg

EXHIBIT 3-10: EXISTING (2018) TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

Table 3-1

Intersection Analysis for Existing (2018) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	River Rd. & Corydon St.	TS	1	2	0	1	2	1>	2	1	1>	1	1	d	29.5	33.5	C	C
2	River Rd. & Country Club Ln./Second St.	TS	1	2	d	1	2	d	1	1	1>	1	1	0	29.2	24.7	C	C
3	River Rd. & Lincoln Av.	TS	1	2	1	1	2	1>	2	2	0	1	2	0	42.9	29.2	D	C
4	Lincoln Av. & Rincon St.	TS	1	2	1	1	2	1	1	1	d	1	1	1	16.1	23.8	B	C
5	Lincoln Av. & Railroad St.	TS	1	2	1>	1	2	1	1	2	0	1	2	0	33.3	29.5	C	C
6	Lincoln Av. & Pomona Rd.	TS	1	2	0	1	2	0	1	1	1>	1	1	0	26.7	20.0	C	B
7	Lincoln Av. & SR-91 WB Ramps	TS	2	2	0	0	2	0	0	0	0	1	1	1	21.1	23.2	C	C
8	Lincoln Av. & D St./Second St.	TS	1	2	1>	2	2	0	1	1	0	2	1	1	26.5	34.6	C	C
9	SR-91 EB Ramps & Second St.	TS	0	0	0	1	1	1	2	1	0	0	2	0	27.0	24.7	C	C
10	Parkridge Av. (West) & Second St.	CSS	0	0	0	0	1	0	0	1	0	0	1	0	28.0	17.1	D	C
11	Parkridge Av. (East) & Second St.	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**79.9**	13.3	**F**	B
12	Pacific Av. & Second St.	AWS	0	1	0	0	1	0	0	1	1	0	1	0	21.3	13.3	C	B
13	Parkridge Av. & Lincoln Av./First St.	TS	1	1	1	1	1	1	1	1	1	1	2	0	31.5	27.5	C	C
14	Dwy. 1 & First St.		Future Intersection															
15	Dwy. 2 & First St.		Future Intersection															
16	Mountain Av. & Second St.	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**41.1**	19.1	**E**	C
17	Mountain Av. & Dwy. 3		Future Intersection															
18	Mountain Av. & Dwy. 4		Future Intersection															
19	Mountain Av. & Dwy. 5		Future Intersection															
20	Mountain Av. & Dwy. 6		Future Intersection															
21	Mountain Av. & Dwy. 7		Future Intersection															
22	Mountain Av. & First St.	AWS	0	1	1	0	1	0	0	2	0	0	1	0	**48.4**	23.5	**E**	C
23	Dwy. 8 & Second St.		Future Intersection															
24	Hamner Av. & 3rd St.	TS	2	2	d	1	2	d	1	1	1>	1	1	0	42.4	32.8	D	C
25	Hamner Av. & Second St.	TS	1	2	1	1	2	d	1	2	1	1	2	1	**78.3**	**173.0**	**E**	**F**
26	Hamner Av. & First St.	TS	1	2	d	1	2	d	1	1	1	0	1	1	16.1	22.7	B	C
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	TS	1	2	d	2	2	d	1	2	d	1	2	1	34.3	37.9	C	D
28	Main St. & Parkridge Av.	TS	1	2	1	1	3	1>>	1	2	0	1	1	1	40.5	38.0	D	D
29	I-15 SB Ramp & Second St.	TS	0	0	0	0	1	1	0	2	0	1	2	0	22.6	14.8	C	B
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	TS	0	0	1	1	1	1	0	2	1	1	2	0	16.3	20.4	B	C
31	I-15 SB On-Ramp & Hidden Valley Pkwy.	TS	0	0	0	0	0	0	0	2	0	1	2	0	4.6	3.4	A	A
32	I-15 NB Ramps & Second St.	TS	0	1	1	0	0	0	1	2	0	0	2	0	**56.3**	47.7	**E**	D
33	I-15 NB On-Ramp & Hidden Valley Pkwy.	TS	0	0	0	0	0	0	1	2	0	0	2	1	9.6	10.3	A	B
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	TS	2	1	1	1	0	1	1	2	0	0	2	0	25.2	15.3	C	B
35	Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.	TS	1	2	0	1	2	0	1	2	0	1	2	0	36.5	48.2	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; d= Defacto Right Turn Lane

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

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing (2018) traffic conditions is shown on Exhibit 3-11. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.7 EXISTING (2018) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following intersection currently warrants a traffic signal for Existing (2018) traffic conditions:

- Mountain Av. & First St. (#22)

Existing (2018) traffic conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3.

3.8 EXISTING (2018) CONDITIONS OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. Queuing analysis findings are presented in Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing (2018) traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

Field observations indicate AM peak hour queues for the westbound left turn lane at the I-15 Southbound Ramps on Second Street and PM peak hour queues for the eastbound left turn lane at the I-15 Northbound Ramps on Second Street.

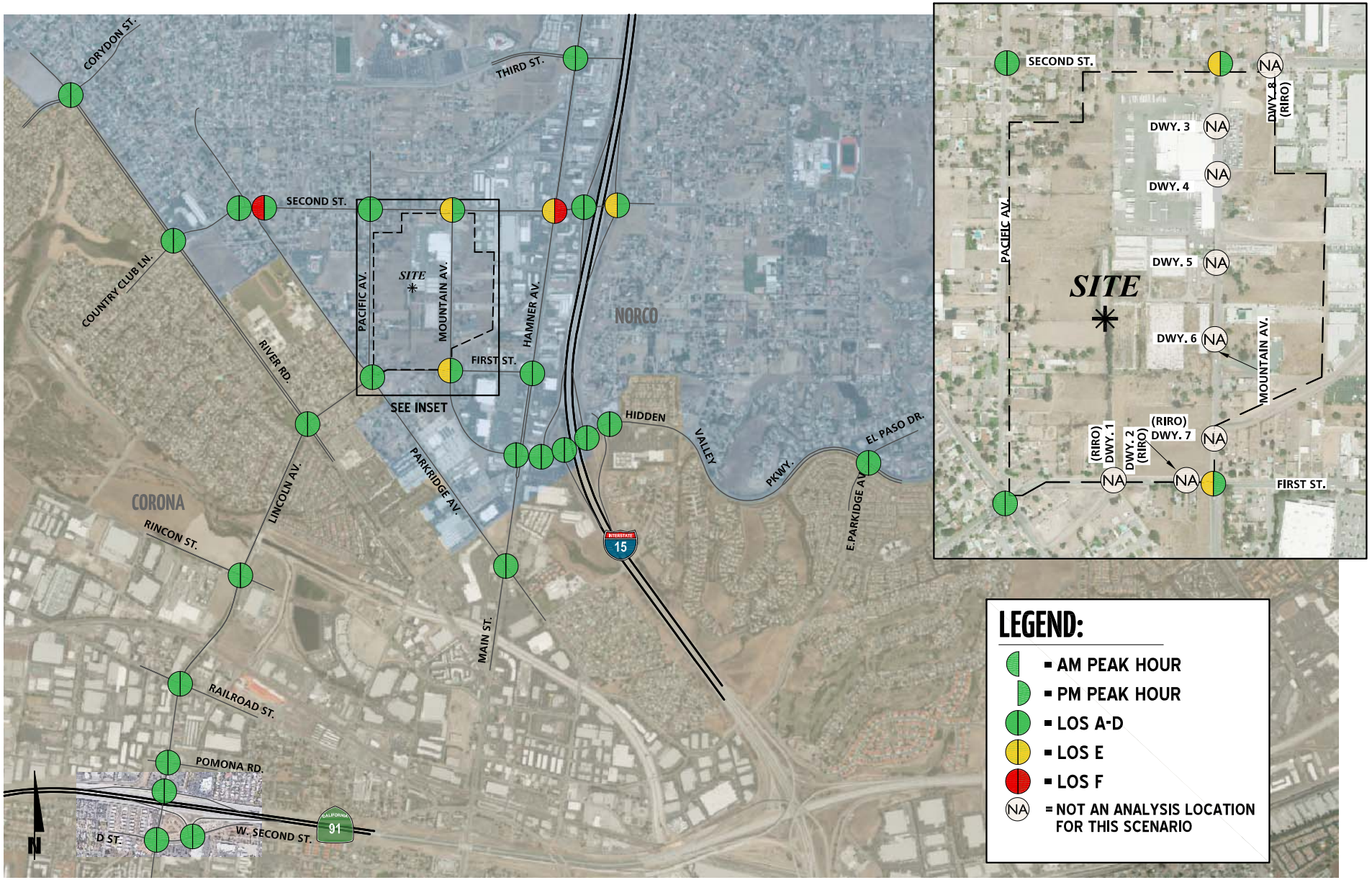
3.9 EXISTING (2018) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

Existing (2018) mainline directional volumes for the AM and PM peak hours are provided on Exhibit 3-12. As shown in Table 3-3, the following freeway segment currently operates at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Existing (2018) traffic conditions:

- I-15 Freeway Southbound, North of Second St. (#3) – LOS E AM peak hour only

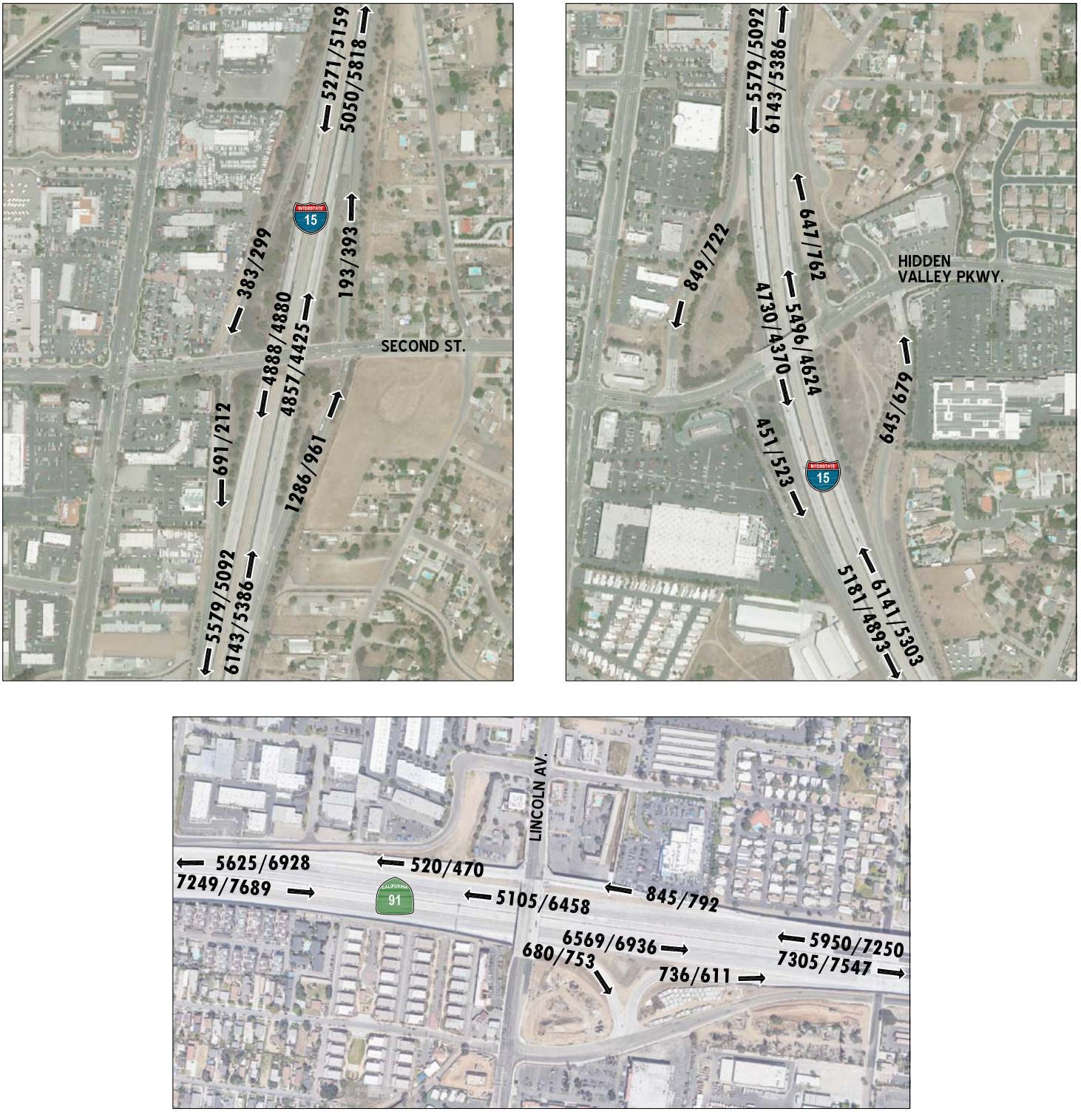
Existing (2018) basic freeway segment analysis worksheets are provided in Appendix 3.5.

EXHIBIT 3-11: EXISTING (2017) SUMMARY OF LOS



URBAN CROSSROADS

EXHIBIT 3-12: EXISTING (2018) FREEWAY MAINLINE VOLUMES



LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

10899 - freeway.dwg

URBAN CROSSROADS

Table 3-2

Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2018) Conditions

	Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable?[1]	
				AM Peak Hour	PM Peak Hour	AM	PM
7	Lincoln Av. & SR-91 WB Ramps	WBL	315	154	212	Yes	Yes
		WBL/T	1,050	160	214	Yes	Yes
		WBR	300	465 [2,3]	115	Yes	Yes
9	SR-91 EB Ramps & Second St.	SBL	930	52	114	Yes	Yes
		SBR	430	54	64	Yes	Yes
29	I-15 SB Ramp & Second St.	SBT/L	1,500	70	108	Yes	Yes
		SBR	340	278	96	Yes	Yes
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	SBL	1,650	158	330 [2]	Yes	Yes
		SBL/T/R	1,650	227	348 [2]	Yes	Yes
		SBR	320	178	68	Yes	Yes
32	I-15 NB Ramps & Second St.	NBL/T	1,265	919 [2]	656 [2]	Yes	Yes
		NBR	1,265	267	97	Yes	Yes
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	NBL	1,375	223	166	Yes	Yes
		NBT	1,300	97	70	Yes	Yes
		NBR	470	57	90	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-91 Freeway mainline.

Table 3-3

Basic Freeway Segment Analysis for Existing (2018) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Density[3]		LOS[4]	
				AM	PM	AM	PM
SR-91	WB	West of Lincoln Av.	5	18.2	22.6	C	C
	EB	West of Lincoln Av.	5	26.6	28.2	D	D
I-15	SB	North of Second St.	3	**35.2**	31.7	**E**	D
		Second St. to Hidden Valley Pkwy.	5	19.1	16.8	C	B
		South of Hidden Valley Pkwy.	4	22.6	20.3	C	C
	NB	North of Second St.	3	30.0	27.3	D	D
		Second St. to Hidden Valley Pkwy.	5	19.9	17.2	C	B
		South of Hidden Valley Pkwy.	4	26.0	21.5	C	C

[1] WB = Westbound; EB = Eastbound; SB = Southbound; NB = Northbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

It should be noted that although the SR-91 Freeway and the I-15 Freeway are found to operate at an acceptable LOS based on the HCS7 analysis, field observations indicate constrained flow conditions during the peak hours in one or both directions during the AM and PM peak hours. Based on field observations, the SR-91 Freeway and I-15 Freeway is slow moving, therefore, fewer vehicles are passing by and being reported in the PeMS data. The LOS for the SR-91 Freeway and the I-15 Freeway mainline analyses is based on the PeMS data and HCS7 software. As a result, the LOS is reported as acceptable, however the freeways may be considered at capacity during the peak hours.

3.10 EXISTING (2018) CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Existing (2018) traffic conditions and the results of this analysis are presented in Table 3-4. As shown in Table 3-4, the merge/diverge areas currently operate at LOS D or better during the peak hours under Existing (2018) traffic conditions, with the exception of the following:

- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS E AM peak hour only
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS E AM peak hour only

Existing (2018) freeway ramp junction operations analysis worksheets are provided in Appendix 3.6.

3.11 RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections and freeway facilities that have been identified as deficient under Existing (2018) traffic conditions in an effort to achieve an acceptable LOS (i.e., LOS D or better).

3.11.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As previously shown in Table 3-1, there are five intersections that currently operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours. The effectiveness of the recommended improvement strategies to address Existing (2018) traffic deficiencies is presented in Table 3-5 and described below:

Parkridge Avenue (East) & Second Street (#11):

- Install a Traffic Signal.
- Add a westbound left turn lane.

Table 3-4

Freeway Ramp Junction Merge/Diverge Analysis for Existing (2018) Conditions

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]
SR-91	WB	Lincoln Av. On-Ramp	5	21.9	C	24.3	C
	EB	Lincoln Av. Off-Ramp	5	33.4	D	34.7	D
I-15	SB	Second St. Off-Ramp	3	**36.1**	**E**	34.5	D
		Second St. On-Ramp	3	**37.9**	**E**	32.7	D
		Hidden Valley Pkwy. Off-Ramp	5	22.4	C	20.1	C
		Hidden Valley Pkwy. On-Ramp	4	24.5	C	23.0	C
	NB	Second St. On-Ramp	4	20.9	C	20.9	C
		Second St. Off-Ramp	5	25.4	C	21.4	C
		Hidden Valley Pkwy. On-Ramp	4	30.3	D	28.1	D
		Hidden Valley Pkwy. Off-Ramp	4	33.1	D	29.5	D

* **BOLD** = Unacceptable Level of Service

[1] NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 3-5

Intersection Analysis for Existing (2018) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
11	Parkridge Av. (East) & Second St.																	
	- Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**79.9**	13.3	**F**	B
	- With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	12.4	9.8	B	A
16	Mountain Av. & Second St.																	
	- Without Improvements	AWS	0	1	0	0	1	0	0	1	0	0	1	0	**41.1**	19.1	**E**	C
	- With Improvements	**TS**	**1**	1	0	0	1	0	**1**	1	0	**1**	1	0	13.4	13.0	B	B
22	Mountain Av. & First St.																	
	- Without Improvements	AWS	0	1	1	0	1	0	0	2	0	0	1	0	**48.4**	23.5	**E**	C
	- With Improvements	**TS**	**1**	1	1	**1**	1	**1**	**1**	2	0	**1**	1	0	26.6	20.6	C	C
25	Hamner Av. & Second St.																	
	- Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**78.3**	**173.0**	**E**	**F**
	- With Improvements[4,5]	TS	1	2	1	**2**	2	**1**	1	2	1	1	2	1	40.3	38.1	D	D
32	I-15 NB Ramps & Second St.																	
	- Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**56.3**	47.7	**E**	D
	- With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	40.9	51.5	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; **1** = Improvement

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

[3] AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement includes modification of the traffic signal to run the northbound and southbound protected left turns as lead-lag, with the southbound left turn running as lag.

[5] Improvement includes restriping the westbound through lane to a shared through-right turn lane. Improvements are consistent with the Second Street from Hamner Avenue to I-15 Southbound Ramp Concept Plan.

Mountain Avenue & Second Street (#16):

- Install a traffic signal.
- Add a northbound, eastbound, and westbound left turn lane. Alignment of the northbound and southbound approaches to be addressed during the design phase.

It should be noted these improvements are consistent with the site adjacent improvements and are to be implemented by the Project.

Mountain Avenue & First Street (#22):

- Install a traffic signal.
- Add a northbound, southbound, eastbound, and westbound left turn lane.
- Add a southbound right turn lane.

It should be noted these improvements are consistent with the site adjacent improvements and are to be implemented by the Project.

Hamner Avenue & Second Street (#25):

- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag. As such, northbound and southbound left turns will run separately (not concurrently).

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

Worksheets for Existing (2018) traffic conditions with improvements, HCM calculation worksheets are provided in Appendices 3.7.

3.11.2 Recommended Improvements to Address Off-Ramp Queues

As shown previously in Table 3-2, there are no existing peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

3.11.3 Recommended Improvements to Address Deficiencies on Freeway Facilities

As shown previously in Table 3-3 and Table 3-4, there are study area freeway mainline segments and ramp junctions that currently operate at an unacceptable LOS for Existing (2018) traffic conditions. The RCTC, in partnership with Caltrans, is investing $455 million to improve the I-15 Freeway between Cajalco Road and SR-60 Freeway. The "I-15 Express Lanes Project" will add two tolled express lanes in each direction, with multiple entrances and exits. Construction began in 2018, and the express lanes will be open to traffic in 2020. However, since this improvement will not be completed until 2020 and since there are no other planned improvements to the SR-

91 Freeway or I-15 Freeway at this time, no improvements have been evaluated for Existing (2018) traffic conditions.

Neither Caltrans nor the State have adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are part of a program tied to implementation is within the jurisdiction of Caltrans.

This Page Intentionally Left Blank

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of the development of 602,130 square feet (sf) of warehousing, 1,426,460 sf of industrial park, 6,520 sf of retail, 6,520 sf of fast-food restaurant without drive-through window, 4,275 sf of fast-food restaurant with drive-through window, and a 12-vehicle fueling position gas station with a 4,095 sf convenience market, for a total development of 2,050,000 sf. The Project is anticipated to be constructed in a single phase by the year 2022.

Vehicular and truck traffic access will be provided via the following driveways (see Exhibit 1-1):

- First Street via Driveway 1 – Right-in, right-out access for passenger cars only
- First Street via Driveway 2 – Right-in, right-out access for passenger cars only
- Mountain Avenue via Driveway 3 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 4 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 5 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 6 – Full access for passenger cars and trucks
- Mountain Avenue via Driveway 7 – Right-in, right-out access for passenger cars only
- Second Street via Driveway 8 – Right-in, right-out access for passenger cars only

Regional access to the Project site is available from the SR-91 Freeway via Lincoln Avenue and Second Street and the I-15 Freeway via Hidden Valley Parkway and Second Street.

4.1 PROJECT TRIP GENERATION

Counts taken on November 7, 2017 for the existing driveways at the Project site have been provided in Appendix 3.1. Table 4-1 summarizes the trip generation for the existing industrial use, which amounts to 750 PCE trips per day on a typical weekday, with 63 AM PCE peak hour trips and 57 PM PCE peak hour trips. These trips have been subtracted from the total trip generation of the proposed Project to determine the net new trips added to the roadway network. Trips associated with existing residential uses in the study area have not been subtracted from the trip generation, in an effort to conduct a conservative analysis. It should be noted, the existing industrial use was operational at the time the existing counts were collected in September 2018.

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Table 4-1

Existing Development Trip Generation Summary

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Actual Vehicles							
Mountain Avenue Driveway							
Passenger Cars:	39	3	42	10	41	51	374
Truck Trips:							
2-axle:	2	2	4	0	0	0	47
3-axle:	0	0	0	0	0	0	8
4+-axle:	3	2	5	1	1	2	96
- Net Truck Trips (Actual)	*5*	*4*	*9*	*1*	*1*	*2*	*152*
Total [1] :	***44***	***7***	***51***	***11***	***42***	***53***	***526***

Passenger Car Equivalent (PCE)							
Mountain Avenue Driveway							
Passenger Cars:	39	3	42	10	41	51	374
Truck Trips:							
2-axle:	3	3	6	0	0	0	72
3-axle:	0	0	0	0	0	0	16
4+-axle:	9	6	15	3	3	6	288
- Net Truck Trips (PCE)	*12*	*9*	*21*	*3*	*3*	*6*	*376*
Total [1] :	***51***	***12***	***63***	***13***	***44***	***57***	***750***

[1] The existing development was counted over a 24-hour period on Tuesday, November 7, 2017.

Trip generation rates used to estimate Project traffic are shown in Table 4-2 and a summary of the Project's trip generation is shown in Table 4-3 in PCE and 4-4 in actual vehicles. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) for Industrial Park (ITE Land Use Code 130), High-Cube Cold Storage Warehousing (ITE Land Use Code 157), Shopping Center (ITE Land Use Code 820), Fast-Food without Drive-Through (ITE Land Use Code 933), Fast-Food with Drive-Through Window (ITE Land Use Code 934), and Gasoline/Service Station with Convenience Market (ITE Land Use Code 945) land uses in their published Trip Generation Manual, 10th Edition, 2017. (1) For the Industrial Park and Warehousing uses, the vehicle mix is based upon data collected by ITE in their Trip Generation Handbook, 3rd Edition, 2017. (10) Truck mix by axle for Industrial Park and High-Cube Cold Storage Warehousing uses is based on the South Coast Air Quality Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage, 2014. (11)

PCE factors have been applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). Consistent with standard traffic engineering practice in Southern California, PCE factors have been utilized due to the expected heavy truck component for the proposed Project land use. PCE factors allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, for the purposes of capacity and level of service analyses. PCE factors are applied to large truck types such as large two-axles, three-axles, 4+-axles. A PCE factor of 1.5 has been applied to large 2-axle trucks, a factor of 2.0 for 3-axle trucks, and a factor of 3.0 for 4+-axle trucks. PCE factors are per the San Bernardino County Transportation Authority CMP.

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses such as fast-food restaurants and gas stations and convenience stores. As the Project is proposed to include these types of land uses, pass-by percentages have been obtained from Tables E.9, E.31, E.32, E.37, and E.38 of the ITE Trip Generation Handbook (3rd Edition, 2017) for the applicable land uses. (10)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. An internal capture reduction was applied to recognize the interactions that would occur between the various complimentary land uses. For example, patrons of the supermarket may also visit the specialty retail, gas station, or fast food restaurants without leaving the site and are therefore considered as vehicle trips that are internal to the site. The National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool was used to compute the internal capture reduction during the peak hours.

As shown in Table 4-3, the Project is anticipated to generate a net total of 8,696 net PCE trips per day on a typical weekday, with 852 net AM PCE peak hour trips and 916 net PM PCE peak hour trips. As shown in Table 4-4, the Project is anticipated to generate a net total of 7,396 net actual trips per day on a typical weekday, with 725 net AM peak hour trips and 780 net PM peak hour trips.

Table 4-2

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Passenger Car Equivalent (PCE)									
Industrial Park[3,4]	TSF	130	0.324	0.076	0.400	0.084	0.316	0.400	3.370
87.00% Passenger Cars			0.282	0.066	0.348	0.073	0.275	0.348	2.932
2.17% 2-Axle Trucks (PCE = 1.5)[5]			0.011	0.003	0.014	0.003	0.011	0.014	0.110
2.69% 3-Axle Trucks (PCE = 2.0)[5]			0.018	0.004	0.022	0.004	0.018	0.022	0.182
8.14% 4-Axle+ Trucks (PCE = 3.0)[5]			0.078	0.018	0.096	0.021	0.078	0.099	0.822
High-Cube Cold Storage Warehouse[6,7]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (30.8%)			0.014	0.004	0.018	0.004	0.010	0.014	0.355
3-Axle Trucks (21.7%)			0.006	0.002	0.007	0.002	0.004	0.006	0.150
4-Axle+ Trucks (32.2%)			0.042	0.013	0.055	0.011	0.031	0.042	1.112
Actual Vehicles									
Industrial Park[3,4]	TSF	130	0.324	0.076	0.400	0.084	0.316	0.400	3.370
87.00% Passenger Cars			0.282	0.066	0.348	0.073	0.275	0.348	2.932
2.17% 2-Axle Trucks			0.007	0.002	0.009	0.002	0.007	0.009	0.073
2.69% 3-Axle Trucks			0.009	0.002	0.011	0.002	0.009	0.011	0.091
8.14% 4-Axle+ Trucks			0.026	0.006	0.032	0.007	0.026	0.033	0.274
High-Cube Cold Storage Warehouse[6,7]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (30.8%)			0.009	0.003	0.012	0.002	0.007	0.009	0.237
3-Axle Trucks (21.7%)			0.003	0.001	0.004	0.001	0.002	0.003	0.075
4-Axle+ Trucks (32.2%)			0.014	0.004	0.018	0.004	0.010	0.014	0.371
General Office	TSF	710	1.00	0.16	1.16	0.18	0.97	1.15	9.74
Shopping Center	TSF	820	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Fast-food Restaurant w/o Drive-Thru	TSF	933	15.06	10.04	25.10	14.17	14.17	28.34	346.23
Fast-food Restaurant w/ Drive-Thru	TSF	934	20.50	19.69	40.19	16.99	15.68	32.67	470.95
Gas Station w/ Market	VFP	945	10.14	10.14	20.27	11.18	11.18	22.36	198.16

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet; VFP = Vehicle Fueling Position

[3] Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Handbook, Third Edition (September 2017).

[4] Truck Mix Source: South Coast Air Quality Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014).
Normalized % - Without Cold Storage:
16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

[5] PCE rates are per San Bernardino County Transportation Authority (SBCTA).

[6] Vehicle Mix Source: Institute of Transportation Engineers (ITE), High Cube Warehouse Vehicle Trip Generation Analysis (October 2016)

[7] Truck Mix Source: South Coast Air Quality Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014).
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks
Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks

Table 4-3

Project Trip Generation Summary (in PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage Warehouse	602.130	TSF							
Passenger Cars:			35	11	46	15	41	56	866
Internal Capture:[3]			-6	-8	-14	-1	-3	-4	-62
Truck Trips:									
2-axle:			8	2	10	2	6	8	214
3-axle:			3	1	4	1	3	4	90
4+-axle:			26	8	34	7	19	26	670
- Net Truck Trips (PCE)[2]			*37*	*11*	*48*	*10*	*28*	*38*	*974*
High-Cube Cold Storage Subtotal:			*66*	*14*	*80*	*24*	*66*	*90*	*1,778*
Industrial Park	1,426.460	TSF							
Passenger Cars:			402	94	496	104	392	496	4,182
Internal Capture:[3]			-31	-37	-68	-7	-12	-19	-162
Truck Trips:									
2-axle:			15	4	19	4	15	19	156
3-axle:			26	6	32	6	26	32	260
4+-axle:			111	26	137	30	111	141	1,174
- Net Truck Trips (PCE)[2]			*152*	*36*	*188*	*40*	*152*	*192*	*1,590*
Industrial Park Subtotal:			*523*	*93*	*616*	*137*	*532*	*669*	*5,610*
Building A: Commercial Retail (50%)	6.520	TSF							
Passenger Cars:			4	2	6	12	13	25	246
Internal Capture:[3]			-2	-2	-4	-6	-4	-10	-98
Pass-by Reduction:[4]			0	0	0	-2	-2	-4	-52
Commercial Retail Subtotal:			*2*	*0*	*2*	*4*	*7*	*11*	*96*
Building A: Fast-food Without Drive-Thru (50%)	6.520	TSF							
Passenger Cars:			98	65	163	92	92	184	2,258
Internal Capture:[3]			-24	-20	-43	-23	-35	-58	-712
Pass-by Reduction:[4]			-22	-22	-44	-29	-29	-58	-774
Fast-food w/o Drive-Thru Subtotal:			*53*	*24*	*76*	*40*	*28*	*68*	*772*
Building B: Gas Station w/ Market	12	VFP							
Passenger Cars:			122	122	244	134	134	268	2,378
Internal Capture:[3]			-22	-22	-44	-71	-42	-113	-1,006
Pass-by Reduction:[4]			-62	-62	-124	-35	-35	-70	-770
Gas Station Subtotal:			*38*	*38*	*76*	*28*	*57*	*85*	*602*
Building C: Fast-food With Drive-Thru	4.275	TSF							
Passenger Cars:			88	84	172	73	67	140	2,014
Internal Capture:[3]			-24	-20	-43	-23	-35	-58	-836
Pass-by Reduction:[4]			-32	-32	-64	-16	-16	-32	-590
Fast-food w/ Drive-Thru Subtotal:			*33*	*33*	*65*	*34*	*16*	*50*	*588*
Project Total (PCE)[5]			**714**	**201**	**915**	**267**	**706**	**973**	**9,446**
Existing Project (PCE)			**-51**	**-12**	**-63**	**-13**	**-44**	**-57**	**-750**
Variance			**663**	**189**	**852**	**254**	**662**	**916**	**8,696**

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Position

[2] Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE. (See Table 4-2)

[3] Internal capture based on the ITE Trip Generation Handbook methodology.

[4] Pass-by trip reductions obtained from the ITE Trip Generation Handbook: Tables E.9, E.31, E.32, E.37, and E.38.

[5] Project Total (PCE) = Passenger Cars + Net Truck Trips (PCE).

Table 4-4

Project Trip Generation Summary (in Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
High-Cube Cold Storage Warehouse	602.130	TSF							
Passenger Cars:			35	11	46	15	41	56	866
Internal Capture:[2]			-6	-8	-14	-1	-3	-4	-62
Truck Trips:									
2-axle:			5	2	7	1	4	5	144
3-axle:			2	1	3	0	1	1	46
4+-axle:			9	3	12	2	6	8	224
- Net Truck Trips (Actual Vehicles)			*16*	*6*	*22*	*3*	*11*	*14*	*414*
High-Cube Cold Storage Subtotal:			*45*	*9*	*54*	*17*	*49*	*66*	*1,218*
Industrial Park	1,426.460	TSF							
Passenger Cars:			402	94	496	104	392	496	4,182
Internal Capture:[2]			-31	-37	-68	-7	-12	-19	-162
Truck Trips:									
2-axle:			10	3	13	3	10	13	104
3-axle:			13	3	16	3	13	16	130
4+-axle:			37	9	46	10	37	47	392
- Net Truck Trips (Actual Vehicles)			*60*	*15*	*75*	*16*	*60*	*76*	*626*
Industrial Park Subtotal:			*431*	*72*	*503*	*113*	*440*	*553*	*4,646*
Building A: Commercial Retail	6.520	TSF							
Passenger Cars:			4	2	6	12	13	25	246
Internal Capture:[2]			-2	-2	-4	-6	-4	-10	-98
Pass-by Reduction:[3]			0	0	0	-2	-2	-4	-52
Commercial Retail Subtotal:			*2*	*0*	*2*	*4*	*7*	*11*	*96*
Building A: Fast-food Without Drive-Thru	6.520	TSF							
Passenger Cars:			98	65	163	92	92	184	2,258
Internal Capture:[2]			-24	-20	-43	-23	-35	-58	-712
Pass-by Reduction:[3]			-22	-22	-44	-29	-29	-58	-774
Fast-food w/o Drive-Thru Subtotal:			*53*	*24*	*76*	*40*	*28*	*68*	*772*
Building B: Gas Station w/ Market	12	VFP							
Passenger Cars:			122	122	244	134	134	268	2,378
Internal Capture:[2]			-22	-22	-44	-71	-42	-113	-1,006
Pass-by Reduction:[3]			-62	-62	-124	-35	-35	-70	-770
Gas Station Subtotal:			*38*	*38*	*76*	*28*	*57*	*85*	*602*
Building C: Fast-food With Drive-Thru	4.275	TSF							
Passenger Cars:			88	84	172	73	67	140	2,014
Internal Capture:[3]			-24	-20	-43	-23	-35	-58	-836
Pass-by Reduction:[4]			-32	-32	-64	-16	-16	-32	-590
Fast-food w/ Drive-Thru Subtotal:			*33*	*33*	*65*	*34*	*16*	*50*	*588*
Project Total (Actual Vehicles) [4]			**601**	**175**	**776**	**236**	**597**	**833**	**7,922**
Existing Project (Actual Vehicle)			**-44**	**-7**	**-51**	**-11**	**-42**	**-53**	**-526**
Variance			**557**	**168**	**725**	**225**	**555**	**780**	**7,396**

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Position

[2] Internal capture based on the ITE Trip Generation Handbook methodology.

[3] Pass-by trip reductions obtained from the ITE Trip Generation Handbook: Tables E.9, E.31, E.32, E.37, and E.38.

[4] Project Total (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Vehicles).

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. There are no potential traffic impacts anticipated to local residential streets as project-related traffic is anticipated to primarily utilize the City's arterials (e.g., no cut-through traffic).

The trip distribution patterns are heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibit 4-1 and Exhibit 4-2 illustrate the trip distribution patterns for the Project for passenger cars and trucks, respectively.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking or bicycling have not been considered in this TIA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

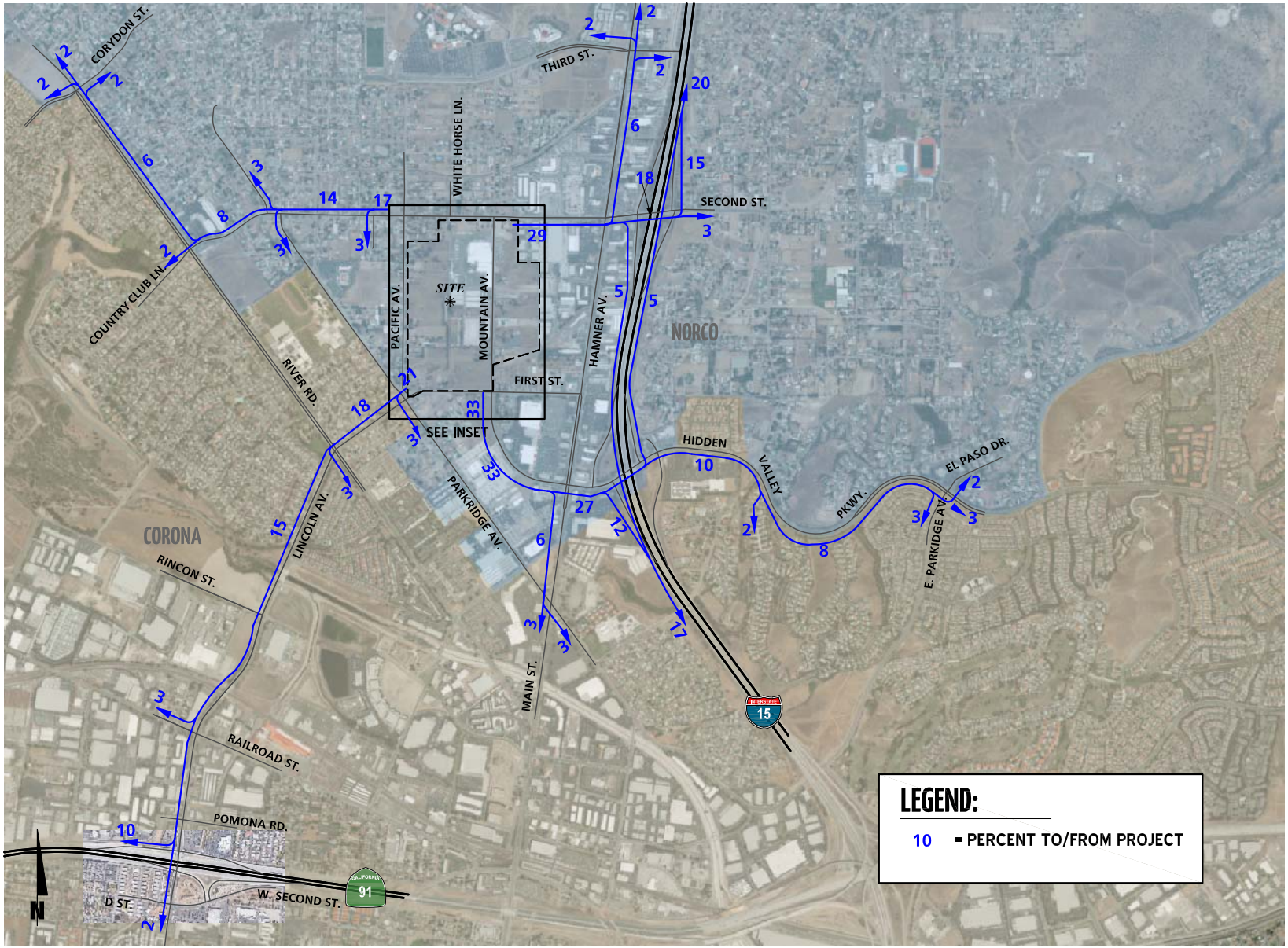
The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT volumes are shown on Exhibit 4-3, and peak hour intersection turning movement volumes are shown on Exhibit 4-4.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon four years of background (ambient) growth at 2% per year for 2022 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 8.24% for 2022 traffic conditions (compounded growth of two percent per year over four years or $1.02^{4\ years}$). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects.

Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

EXHIBIT 4-1 (1OF2): PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



URBAN CROSSROADS

EXHIBIT 4-1 (2OF2): PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

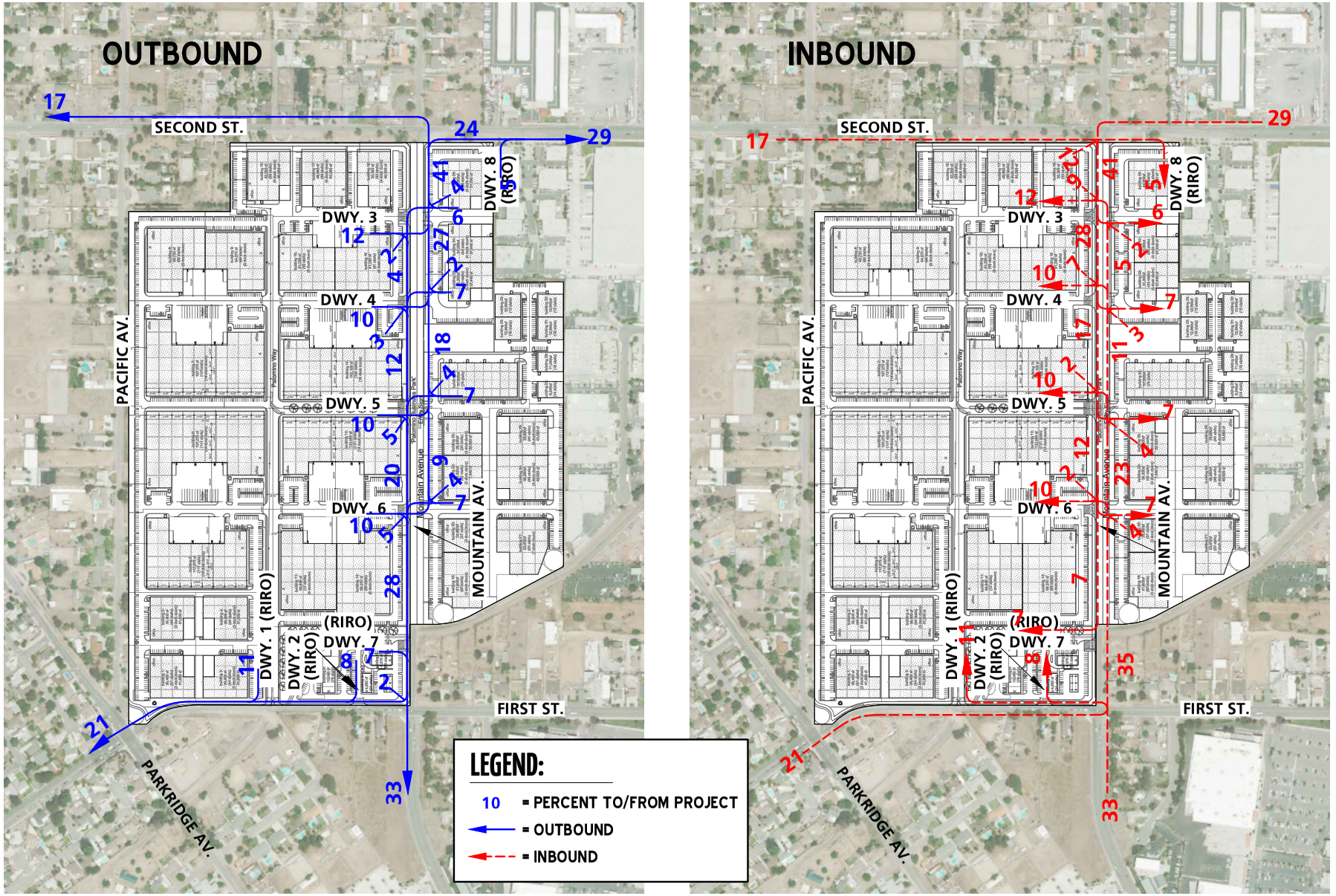
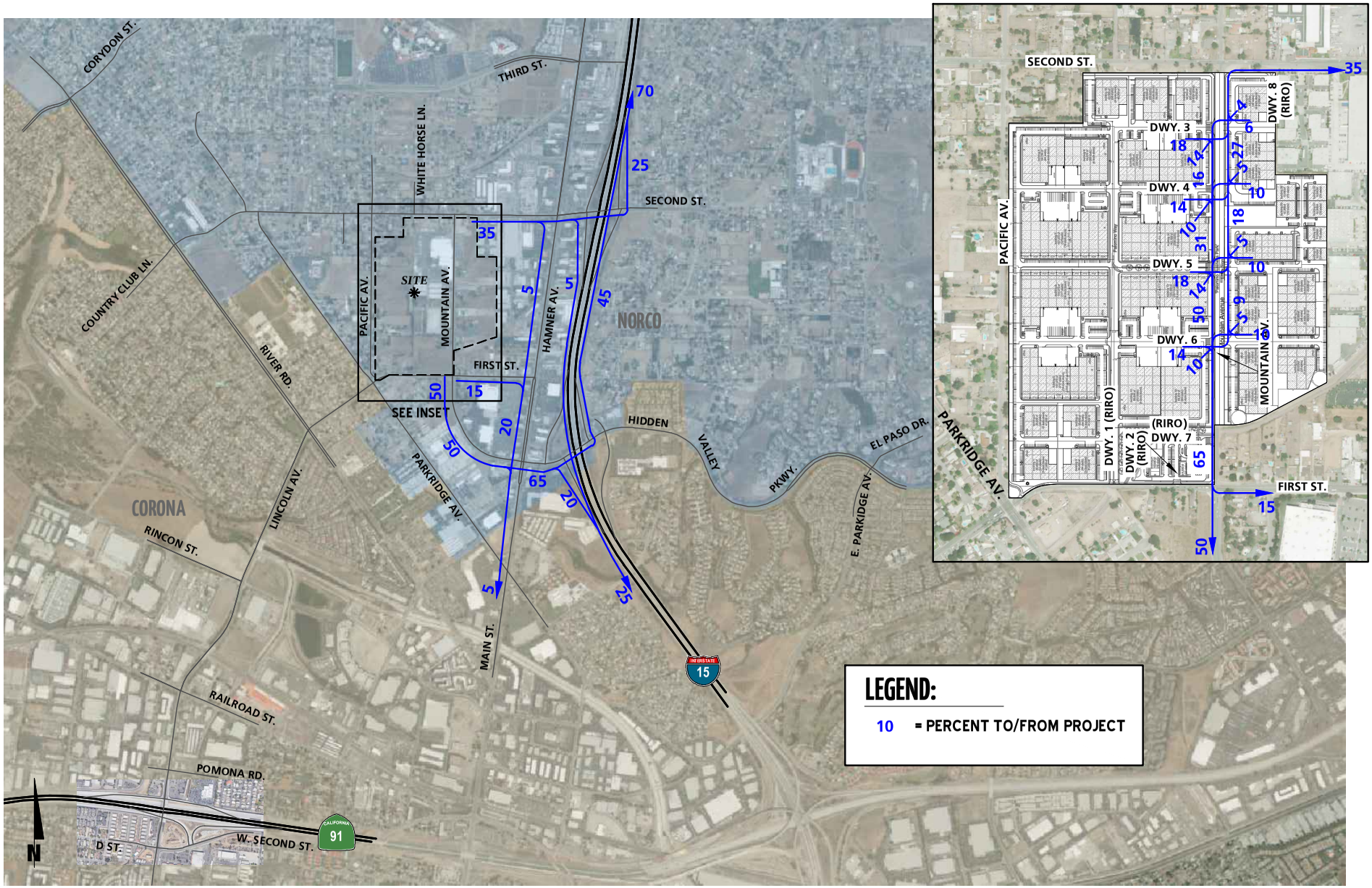


EXHIBIT 4-2: PROJECT (TRUCKS) TRIP DISTRIBUTION



URBAN CROSSROADS

EXHIBIT 4-3: PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

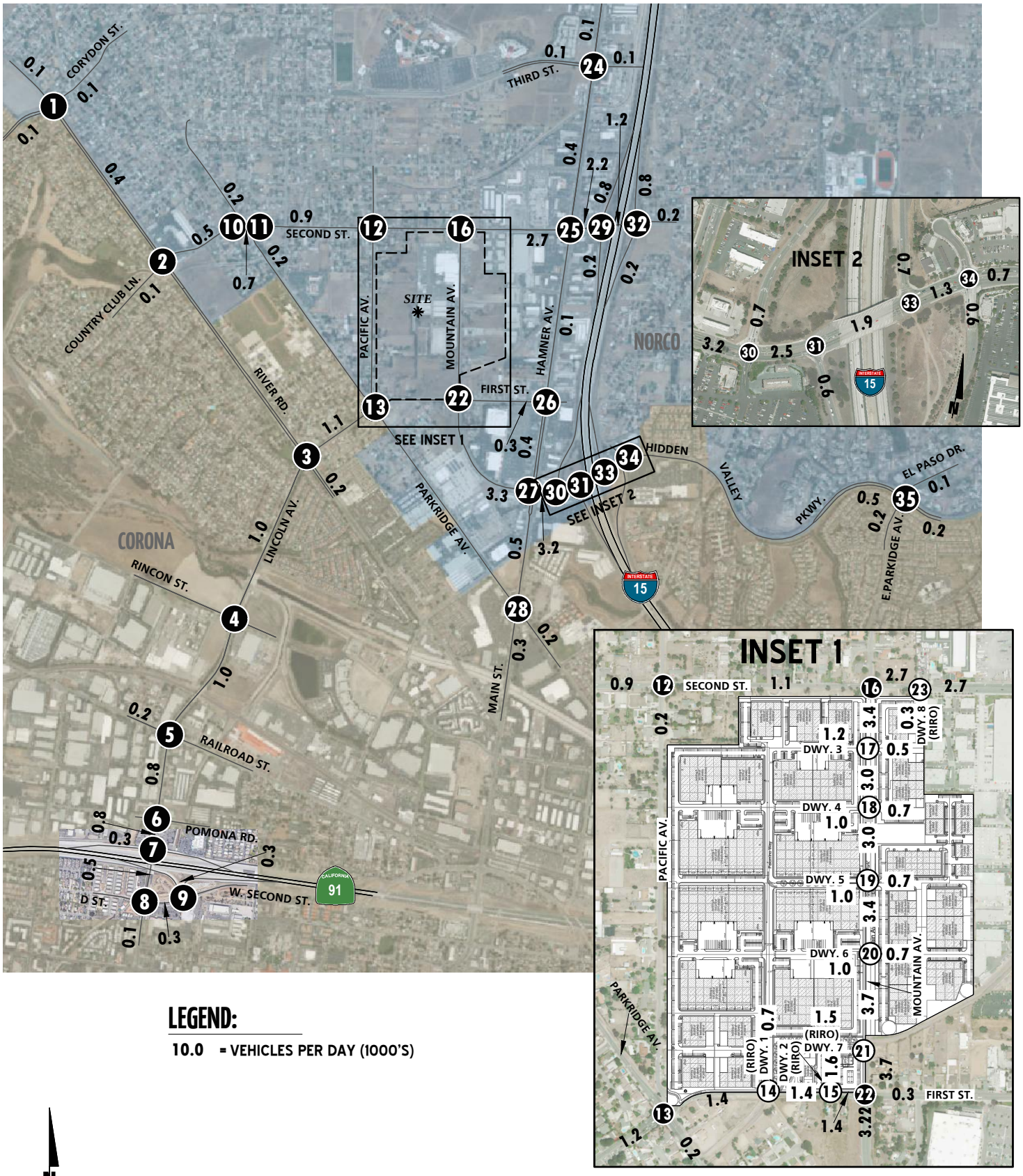
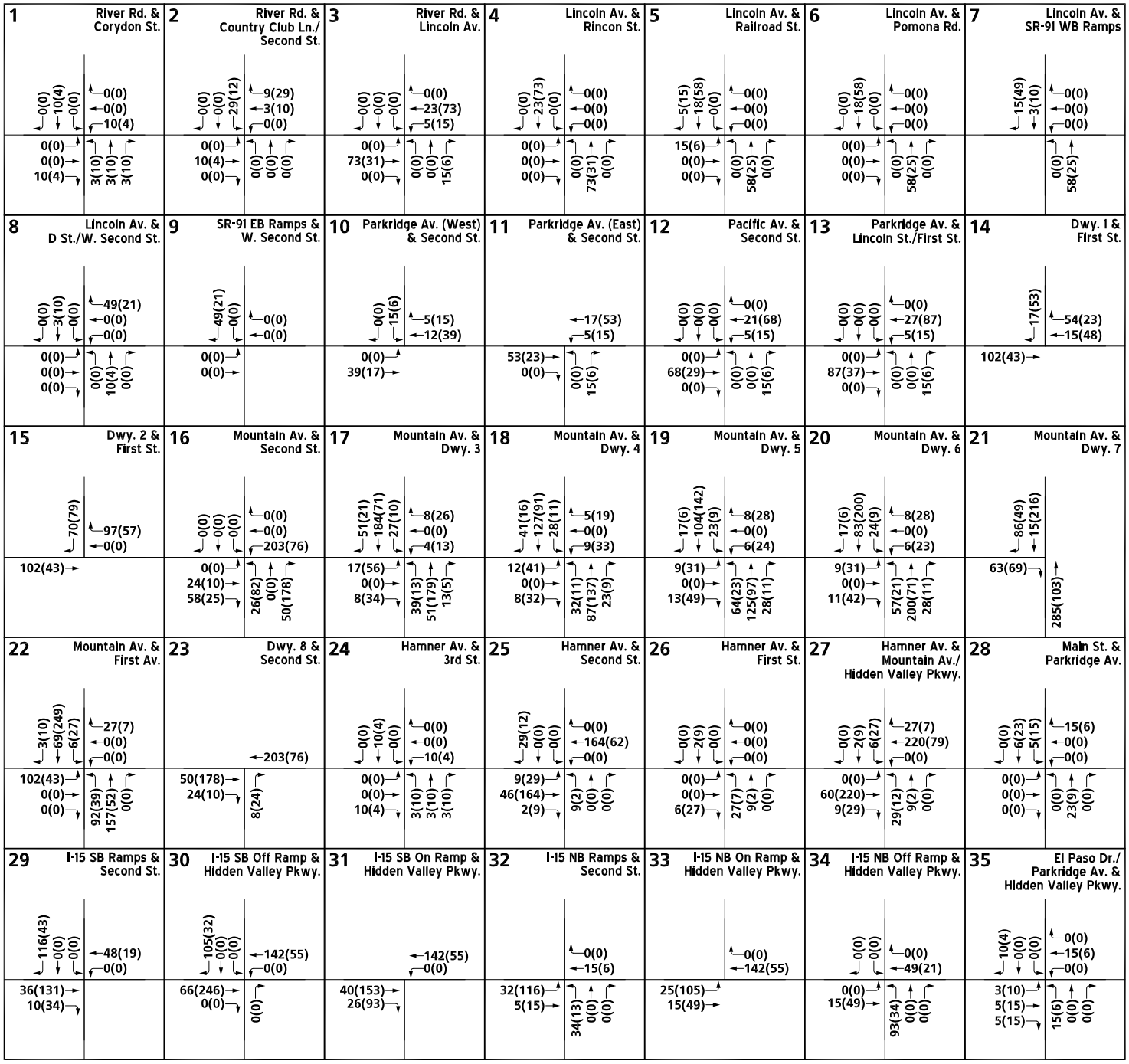


EXHIBIT 4-4: PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

The adopted Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (April 2016) growth forecasts for the City of Norco identifies projected growth in population of 26,900 in 2012 to 32,100 in 2040, or a 19.33% increase over the 28-year period. (12) The change in population equates to roughly a 0.63% growth rate, compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 31.43%, or a 0.98% annual growth rate. Finally, growth in employment over the same 28-year period is projected to increase by 94.7%, or a 2.41% annual growth rate.

Based on a comparison of Existing (2018) traffic volumes to the Opening Year Cumulative forecasts, the average growth rate is estimated at approximately 1.77%, compounded annually between Existing (2018) and Opening Year Cumulative (2022) traffic conditions. The annual growth rate at each individual intersection is not lower than 1.26% compounded annually to as high as 2.92% compounded annually over the same time period.

Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Norco for Opening Year Cumulative (2022) traffic conditions, especially when considered along with the addition of project-related traffic. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate as opposed to understate the potential impacts to traffic and circulation.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Norco. The neighboring jurisdictions of Corona, Eastvale, and County of Riverside have also been contacted to include key projects in their respective cities.

Exhibit 4-5 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown in Table 4-5. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative (2022) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-5 are reflected as part of the background traffic.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative (2022) forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-5, listed in Table 4-5, and have been considered for inclusion.

EXHIBIT 4-5: CUMULATIVE DEVELOPMENT LOCATION MAP

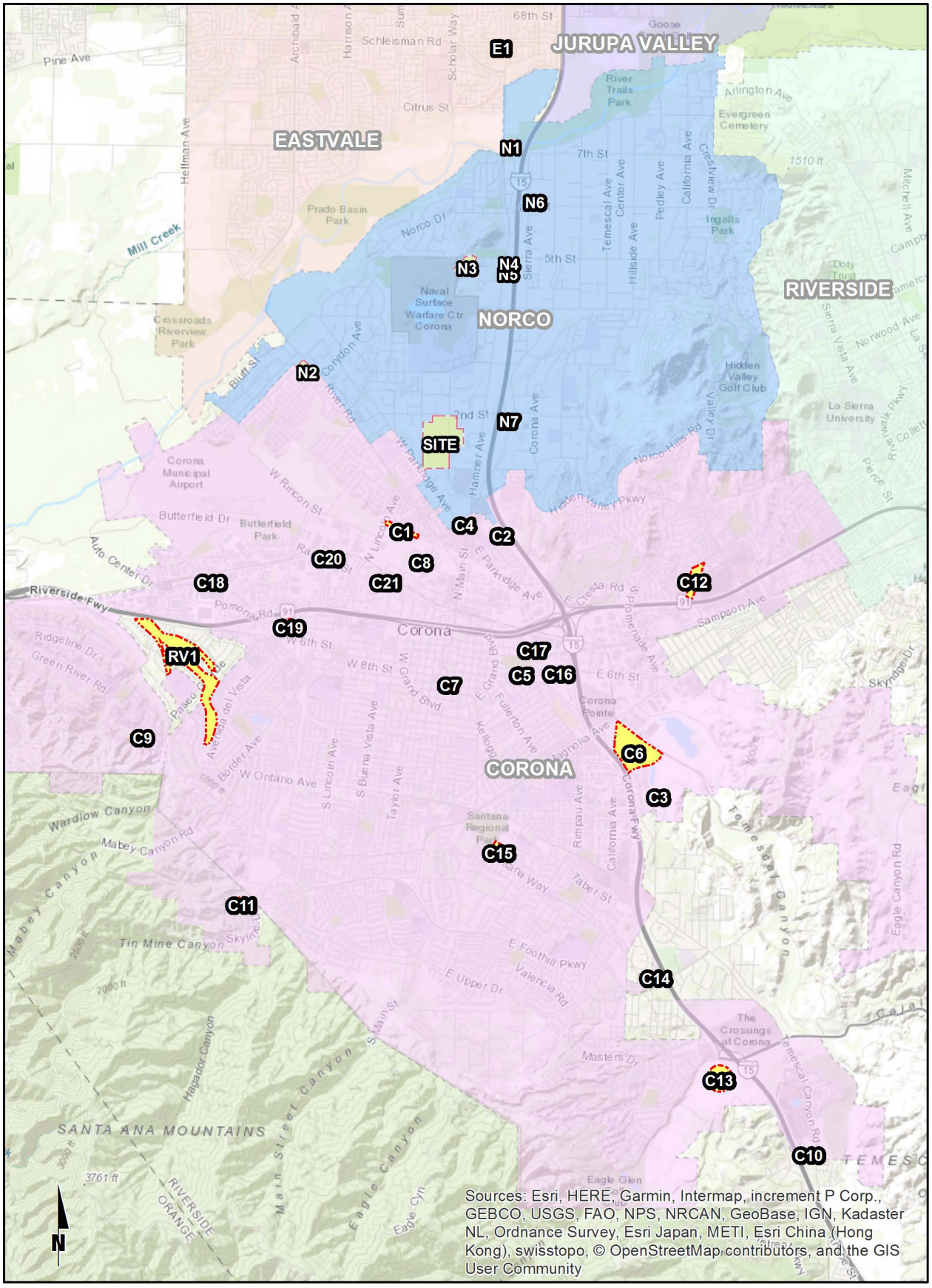


Table 4-5

Cumulative Development Land Use Summary

#	Project/Location	Land Use[1]	Quantity	Units[2]
		City of Norco		
N1	Silverlakes Equestrian[3]	The Field House Restaurant	250	Seats
		Stadium	5,000	Seats
N2	River Road And Corydon Street Commercial Center	General Office	22.000	TSF
		Shopping Center	13.709	TSF
		Supermarket	44.200	TSF
		Pharmacy w/ Drive-Through	14.576	TSF
		Coffee Shop w/ Drive-Through	2.000	TSF
		Fast-Food w/o Drive-Through	7.883	TSF
		Fast-Food w/ Drive-Through	5.978	TSF
		Gas Station w/ Convenience Market	12	VFP
N3	SWC Horseless Carriage Dr./Fifth St.	Warehousing	414.431	TSF
N4	SEC of Hamner Av. / Fifth St.	Hotel	90	RM
N5	3275 Hamner Av.	Hotel	122	RM
N6	SEC of Sierra Av. / Sixth St.	Commercial	37.571	TSF
N7	Norco Carmax	Automobile Sales (Used)	11.447	TSF
		City of Eastvale		
E1	Van Leeuwen GPA	SFDR	224	DU
		City of Corona		
C1	Jeffrey Holbrook West Coast Development	Multi-Family Residential	148	DU
C2	Pecuniary Capital, LLC	Townhomes	60	DU
C3	Nova Homes	SFDR	103	DU
C4	ASTA/Strata	Townhomes	45	DU
C5	C&C Development	Affordable Housing	86	DU
C6	Sherborn, LLC	Industrial	76.00	AC
C7	Corona Regional Medical Center Expansion	Medical Office	332.000	TSF
C8	Roger Egge Private Realty Advisors	Industrial	95.500	TSF
C9	Sierra Bella	SFDR	237	DU
C10	Rexxco - Terrana Apartment Community	Apartments	279	DU
C11	Skyline Heights	SFDR	297	DU
C12	Vista Monterey	Apartments	442	DU
C13	Arantine Hills Master Planned Community	Commercial	80.000	TSF
		Residential	1,621	DU
C14	Foothill Commercial Plaza	Commercial/Retail/Restaurant	82.700	TSF
		Hotel	120	RM
C15	Van Daele Homes	Condos	92	DU
C16	Home Gardens Water District Well Collection Line	Well	--	--
C17	Household Hazardous Waste	Household Collection Facility	3.168	TSF
C18	1548 Maple St.	General Office	6.568	TSF
C19	LA Fitness	Health/Fitness Club	37.000	TSF
C20	Lincoln Av. and Rincon St. Industrial	Industrial	731.000	TSF
C21	Senior Housing	Senior Adult Housing - Attached	64	DU
		County of Riverside		
RV1	Trails at Corona	SFDR	426	DU
		Retail	8.500	TSF

[1] SFDR = Single Family Detached Residential

[2] TSF = Thousand Square Feet; DU = Dwelling Unit; VFP = Vehicle Fueling Position ; AC = Acres; RM = Rooms

[3] Source: From Silverlakes TIA (Revised), Kunzman Associates, September 25, 2008.

Although it is unlikely that all these cumulative projects would be fully built and occupied by Year 2022, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic impacts.

Any other cumulative projects located beyond the study area that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative only ADT volumes are shown on Exhibit 4-6 while cumulative only traffic volumes are shown on Exhibit 4-7.

4.7 TRAFFIC FORECASTS

The "buildup" method was used to approximate E+P and Opening Year Cumulative traffic conditions and is intended to identify the near-term deficiencies on both the existing and planned near-term circulation system. The Opening Year Cumulative traffic condition includes background traffic, traffic generated by other cumulative development projects within the study area and the traffic generated by the proposed Project.

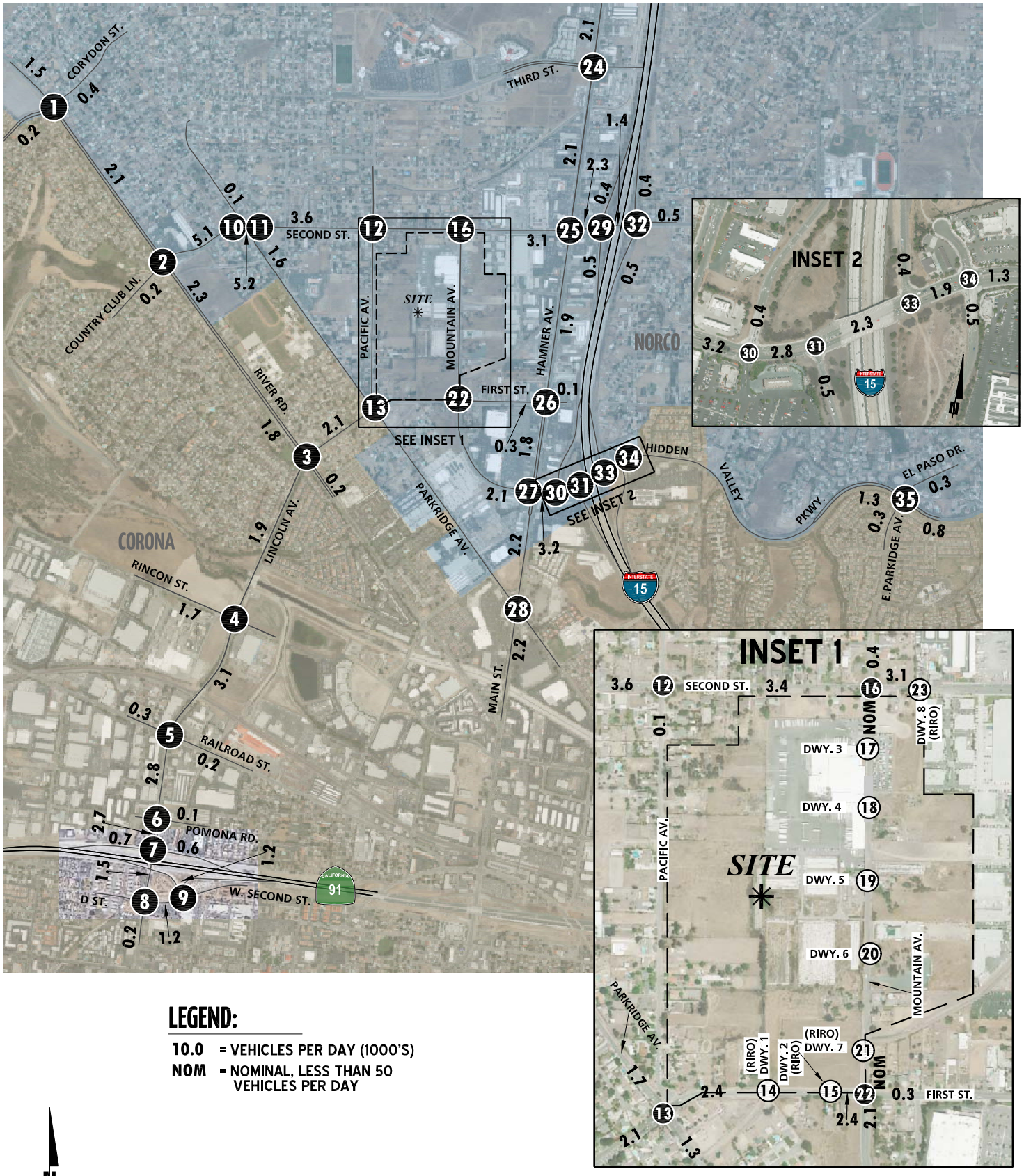
4.8 NEAR-TERM TRAFFIC CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast the near-term 2022 traffic conditions. An ambient growth factor of 8.24% accounts for background (area-wide) traffic increases that occur over time up to the year 2022 from the year 2018 (compounded two percent per year growth over a four-year period). Traffic volumes generated by cumulative development projects are then added to assess the Opening Year Cumulative (2022) traffic conditions. Lastly, Project traffic is added to assess "With Project" traffic conditions. The 2022 roadway network is similar to the existing conditions roadway network with the exception of intersections proposed to be developed by the Project.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

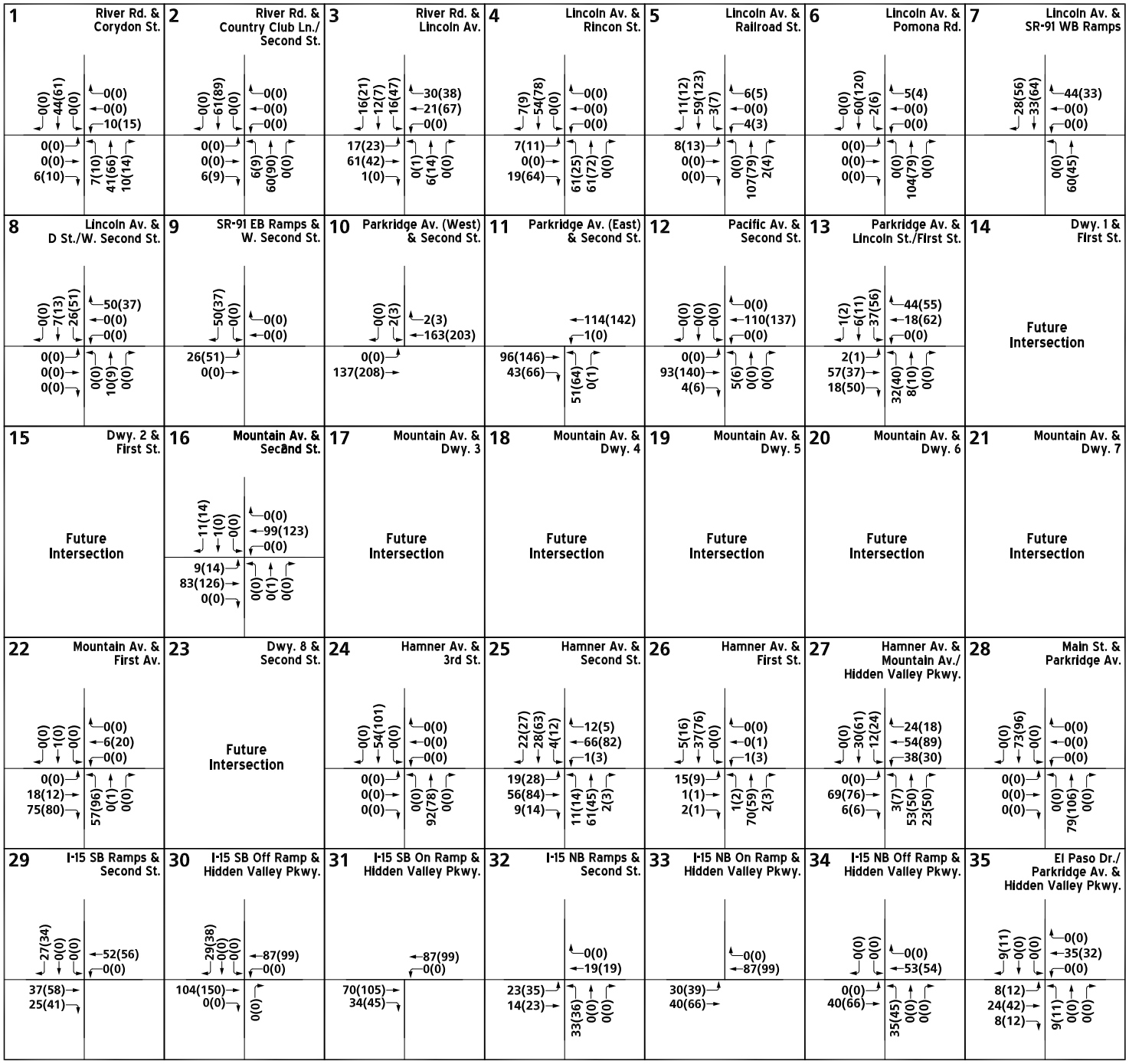
- Opening Year Cumulative Without Project
    - Existing 2018 counts
    - Ambient growth traffic (8.24%)
    - Cumulative Development Project traffic
- Opening Year Cumulative With Project
    - Existing 2018 counts
    - Ambient growth traffic (8.24%)
    - Cumulative Development Project traffic
    - Project traffic

EXHIBIT 4-6: CUMULATIVE ONLY AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



10899 - adt.dwg

EXHIBIT 4-7: CUMULATIVE ONLY TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

4.9 HORIZON YEAR (2040) CONDITIONS

"Buildout" traffic projections for Horizon Year With Project conditions are based on traffic model forecasts and were derived from the Riverside County Transportation Analysis Model (RivTAM). The Horizon Year traffic conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the TUMF, can accommodate the long-range cumulative traffic at the target LOS identified in the City of Norco General Plan.

In some instances, the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Horizon Year (2040) turning volumes were compared to Opening Year Cumulative (2022) volumes in order to ensure a minimum growth as a part of the refinement process, where applicable. The minimum growth includes any additional growth between Opening Year Cumulative (2022) and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and the ambient growth between Existing and Opening Year Cumulative (2022) traffic conditions. The initial estimate of the future Horizon Year (2040) peak hour turning movements were then reviewed by Urban Crossroads for reasonableness at intersections where model results showed unreasonable turning movements. The initial raw model estimates were adjusted to achieve flow conservation (where applicable), reasonable growth, and reasonable diversion between parallel routes. Post-processing worksheets for Horizon Year with Project traffic conditions are provided in Appendix 4.1.

This Page Intentionally Left Blank

5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway mainline analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the Project driveways and those facilities assumed to be in place prior to or constructed by the Project to provide site access are also assumed to be in place for E+P conditions.

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 shows the ADT volumes which can be expected for E+P traffic conditions. E+P weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 5-2.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, which indicates that with the addition of Project traffic, the following additional study area intersection is anticipated to operate at an unacceptable LOS during the peak hours under E+P traffic conditions, in addition to the intersections previously identified under Existing (2018) traffic conditions:

- Parkridge Av. (West) & Second St. (#10) – LOS E AM peak hour only

It should be noted this intersection is located near several existing schools. These schools create heavy congestion along these local residential streets during the morning drop-off periods that coincide with the peak morning commute hours. This study area intersection is anticipated to experience high delays during a 30-minute period during the morning peak hour when drop-offs are occurring at local schools but operates at acceptable LOS during other hours throughout the day for E+P traffic conditions.

A summary of the peak hour intersection LOS for E+P conditions are shown on Exhibit 5-3. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

EXHIBIT 5-1: E+P AVERAGE DAILY TRAFFIC (ADT)

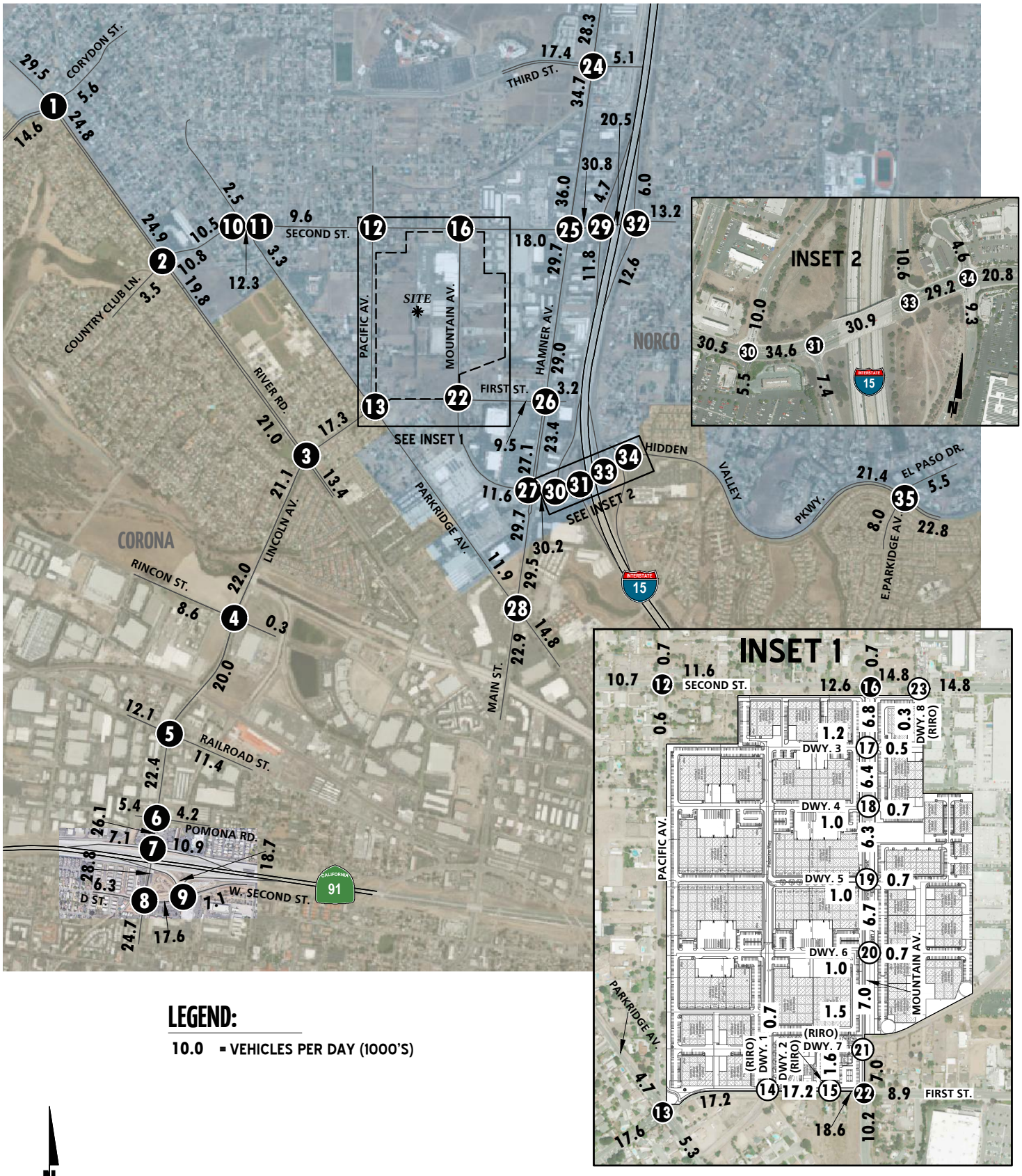
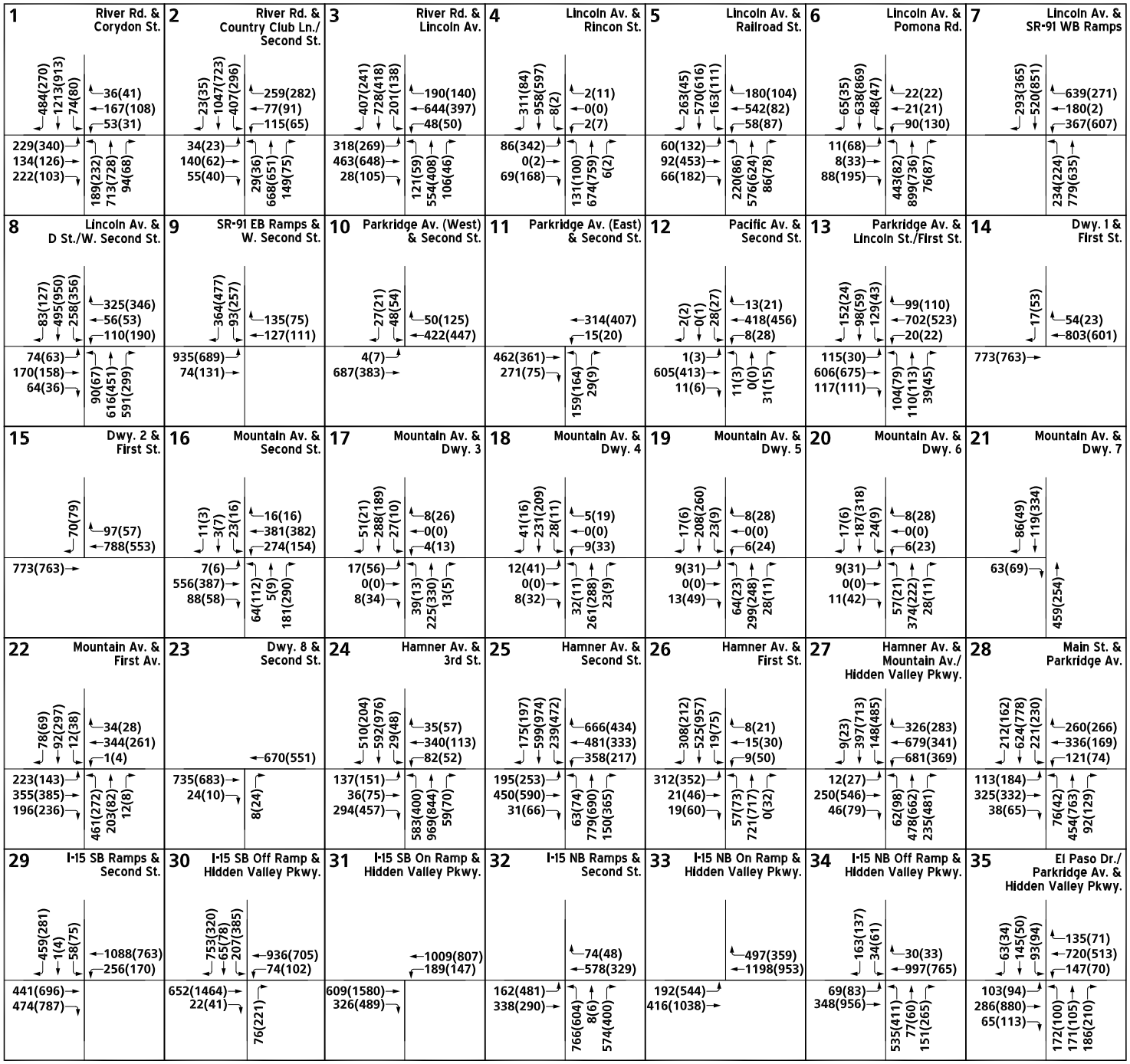


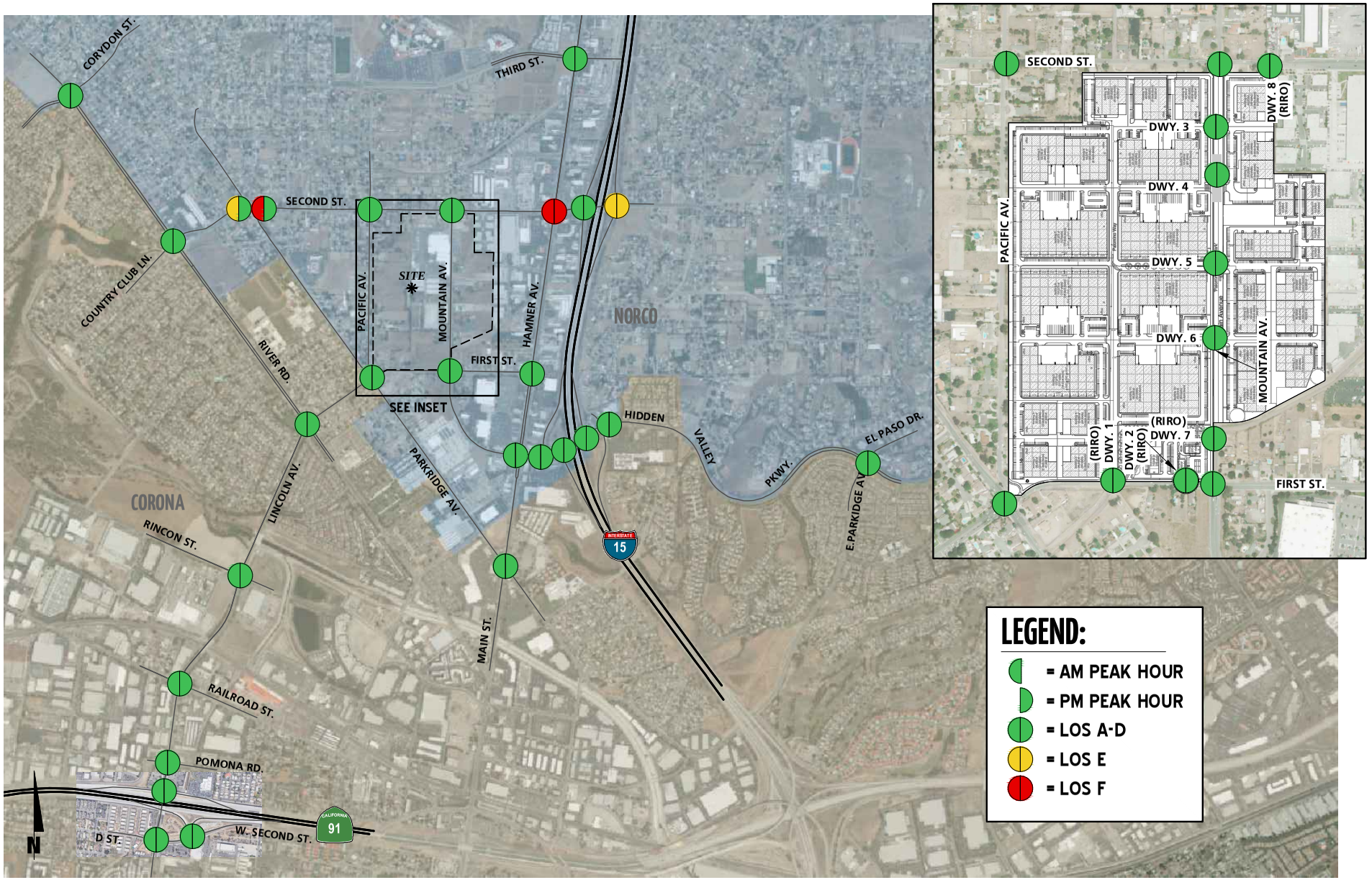
EXHIBIT 5-2: E+P TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 5-3: E+P SUMMARY OF LOS



URBAN CROSSROADS

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2018) Delay[1] (secs.) AM	Existing (2018) Delay[1] (secs.) PM	Existing (2018) Level of Service AM	Existing (2018) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM
1	River Rd. & Corydon St.	TS	29.5	33.5	C	C	29.9	34.3	C	C
2	River Rd. & Country Club Ln./Second St.	TS	29.2	24.7	C	C	30.9	27.0	C	C
3	River Rd. & Lincoln Av.	TS	42.9	29.2	D	C	43.0	29.5	D	C
4	Lincoln Av. & Rincon St.	TS	16.1	23.8	B	C	16.2	24.1	B	C
5	Lincoln Av. & Railroad St.	TS	33.3	29.5	C	C	34.3	29.7	C	C
6	Lincoln Av. & Pomona Rd.	TS	26.7	20.0	C	B	26.8	20.0	C	B
7	Lincoln Av. & SR-91 WB Ramps	TS	21.1	23.2	C	C	21.3	23.4	C	C
8	Lincoln Av. & D St./Second St.	TS	26.5	34.6	C	C	27.1	35.2	C	D
9	SR-91 EB Ramps & Second St.	TS	27.0	24.7	C	C	27.6	25.0	C	C
10	Parkridge Av. (West) & Second St.	CSS	28.0	17.1	D	C	**39.8**	19.0	**E**	C
11	Parkridge Av. (East) & Second St.	AWS	**79.9**	13.3	**F**	B	**>100.0**	15.5	**F**	C
12	Pacific Av. & Second St.	AWS	21.3	13.3	C	B	31.9	16.0	D	C
13	Parkridge Av. & Lincoln Av./First St.	TS	31.5	27.5	C	C	33.6	29.2	C	C
14	Dwy. 1 & First St.	**CSS**	Future Intersection				11.8	10.9	B	B
15	Dwy. 2 & First St.	**CSS**	Future Intersection				12.8	11.2	B	B
16	Mountain Av. & Second St.	AWS/**TS**[3]	**41.1**	19.1	**E**	C	22.8	17.3	C	B
17	Mountain Av. & Dwy. 3	**CSS**	Future Intersection				13.7	12.4	B	B
18	Mountain Av. & Dwy. 4	**CSS**	Future Intersection				9.2	9.3	A	A
19	Mountain Av. & Dwy. 5	**TS**	Future Intersection				8.1	9.5	A	A
20	Mountain Av. & Dwy. 6	**CSS**	Future Intersection				11.9	12.2	B	B
21	Mountain Av. & Dwy. 7	**CSS**	Future Intersection				9.2	9.9	A	A
22	Mountain Av. & First St.	AWS/**TS**[3]	**48.4**	23.5	**E**	C	42.2	24.7	D	C
23	Dwy. 8 & Second St.	**CSS**	Future Intersection				14.6	14.2	B	B
24	Hamner Av. & 3rd St.	TS	42.4	32.8	D	C	42.5	33.1	D	C
25	Hamner Av. & Second St.	TS	**78.3**	**173.0**	**E**	**F**	**82.2**	**187.2**	**F**	**F**
26	Hamner Av. & First St.	TS	16.1	22.7	B	C	16.8	23.1	B	C
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	TS	34.3	37.9	C	D	48.8	48.6	D	D
28	Main St. & Parkridge Av.	TS	40.5	38.0	D	D	40.9	39.2	D	D
29	I-15 SB Ramp & Second St.	TS	22.6	14.8	C	B	32.8	16.6	C	B
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	TS	16.3	20.4	B	C	16.9	23.9	B	C
31	I-15 SB On-Ramp & Hidden Valley Pkwy.	TS	4.6	3.4	A	A	6.9	3.8	A	A
32	I-15 NB Ramps & Second St.	TS	**56.3**	47.7	**E**	D	**63.9**	**57.7**	**E**	**E**
33	I-15 NB On-Ramp & Hidden Valley Pkwy.	TS	9.6	10.3	A	B	10.1	10.4	B	B
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	TS	25.2	15.3	C	B	28.9	15.6	C	B
35	Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.	TS	36.5	48.2	D	D	38.4	49.8	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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

2 CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

3 A traffic signal will be constructed by the Project as part of the site adjacent roadway improvements (see Exhibit 1-4)

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

For E+P conditions, the following additional unsignalized study area intersection is anticipated to meet the peak hour volume-based traffic signal warrant, in addition to the intersections previously warranted under Existing conditions (see Appendix 5.2):

- Mountain Av. & Second St. (#16)

5.5 E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. Queuing analysis findings are presented in Table 5-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 5-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under E+P traffic conditions, consistent with Existing (2018) traffic conditions. Worksheets for E+P traffic conditions off-ramp queuing analysis are provided in Appendix 5.3.

5.6 E+P CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

E+P mainline directional volumes for the AM and PM peak hours are provided on Exhibit 5-4. As shown in Table 5-3, there are no additional study area freeway segments anticipated to operate at an unacceptable LOS during one or more peak hours, in addition to the segment previously identified under Existing (2018) traffic conditions. E+P basic freeway segment analysis worksheets are provided in Appendix 5.4.

As previously noted, the basic freeway segment analysis is based on the reported PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeways are considered at capacity during the peak hours. Section 3.9 *Existing Conditions Basic Freeway Segment Analysis* discusses the SR-91 Freeway and the I-15 Freeway constrained flow in greater detail.

5.7 E+P CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for E+P traffic conditions and the results of this analysis are presented in Table 5-4. As shown in Table 5-4, there are no additional study area ramp junctions anticipated to operate at an unacceptable LOS during the peak hours, in addition to the ramp junctions previously identified under Existing (2018) traffic conditions. E+P freeway ramp junction operations analysis worksheets are provided in Appendix 5.5.

Table 5-2

Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions

	Intersection	Movement	Available Stacking Distance (Feet)	Existing (2018) 95th Percentile Queue (Feet) AM Peak Hour	Existing (2018) 95th Percentile Queue (Feet) PM Peak Hour	Existing (2018) Acceptable? [1] AM	Existing (2018) Acceptable? [1] PM	E+P 95th Percentile Queue (Feet) AM Peak Hour	E+P 95th Percentile Queue (Feet) PM Peak Hour	E+P Acceptable? [1] AM	E+P Acceptable? [1] PM
7	Lincoln Av. & SR-91 WB Ramps	WBL	315	154	212	Yes	Yes	154	212	Yes	Yes
		WBL/T	1,050	160	214	Yes	Yes	160	214	Yes	Yes
		WBR	300	476 [2,3]	115	Yes	Yes	476 [2,3]	120	Yes	Yes
9	SR-91 EB Ramps & Second St.	SBL	930	52	114	Yes	Yes	54	115	Yes	Yes
		SBR	430	54	64	Yes	Yes	58	65	Yes	Yes
29	I-15 SB Ramp & Second St.	SBT/L	1,500	70	108	Yes	Yes	70	102	Yes	Yes
		SBR	340	278	96	Yes	Yes	496 [2,3]	147	Yes	Yes
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	SBL	1,650	158	330 [2]	Yes	Yes	158	350 [2]	Yes	Yes
		SBL/T/R	1,650	227	348 [2]	Yes	Yes	279	364 [2]	Yes	Yes
		SBR	320	178	68	Yes	Yes	254	71	Yes	Yes
32	I-15 NB Ramps & Second St.	NBL/T	1,265	919 [2]	656 [2]	Yes	Yes	1,006 [2]	704 [2]	Yes	Yes
		NBR	1,265	267	97	Yes	Yes	273	114	Yes	Yes
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	NBL	1,375	223	166	Yes	Yes	305 [2]	181	Yes	Yes
		NBT	1,300	97	70	Yes	Yes	97	70	Yes	Yes
		NBR	470	57	90	Yes	Yes	57	95	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-15 or SR-91 Freeway mainline.

Table 5-3

Basic Freeway Segment Analysis for E+P Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Existing (2018)				E+P			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-91	WB	West of Lincoln Av.	5	18.2	22.6	C	C	18.2	22.8	C	C
	EB	West of Lincoln Av.	5	26.6	28.2	D	D	26.9	28.3	D	D
I-15	SB	North of Second St.	3	**35.2**	31.7	**E**	D	**36.3**	32.1	**E**	D
		Second St. to Hidden Valley Pkwy.	5	19.1	16.8	C	B	19.4	16.9	C	B
		South of Hidden Valley Pkwy.	4	22.6	20.3	C	C	22.7	20.7	C	C
	NB	North of Second St.	3	30.0	27.3	D	D	30.3	28.4	D	D
		Second St. to Hidden Valley Pkwy.	5	19.9	17.2	C	B	20.1	17.5	C	B
		South of Hidden Valley Pkwy.	4	26.0	21.5	C	C	26.5	21.7	D	C

[1] WB = Westbound; EB = Eastbound; SB = Southbound; NB = Northbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 5-4

Freeway Ramp Junction Merge/Diverge Analysis for E+P Conditions

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	Existing (2018)				E+P			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-91	WB	Lincoln Av. On-Ramp	5	21.9	C	24.3	C	22.0	C	24.7	C
	EB	Lincoln Av. Off-Ramp	5	33.4	D	34.7	D	33.8	D	34.9	D
I-15	SB	Second St. Off-Ramp	3	**36.1**	**E**	34.5	D	**36.6**	**E**	34.7	D
		Second St. On-Ramp	3	**37.9**	**E**	32.7	D	**38.4**	**E**	33.0	D
		Hidden Valley Pkwy. Off-Ramp	5	22.4	C	20.1	C	22.7	C	20.2	C
		Hidden Valley Pkwy. On-Ramp	4	24.5	C	23.0	C	24.7	C	23.6	C
	NB	Second St. On-Ramp	4	20.9	C	20.9	C	21.3	C	21.7	C
		Second St. Off-Ramp	5	25.4	C	21.4	C	25.6	C	21.7	C
		Hidden Valley Pkwy. On-Ramp	4	30.3	D	28.1	D	30.5	D	28.6	D
		Hidden Valley Pkwy. Off-Ramp	4	33.1	D	29.5	D	33.9	D	29.8	D

* **BOLD** = Unacceptable Level of Service

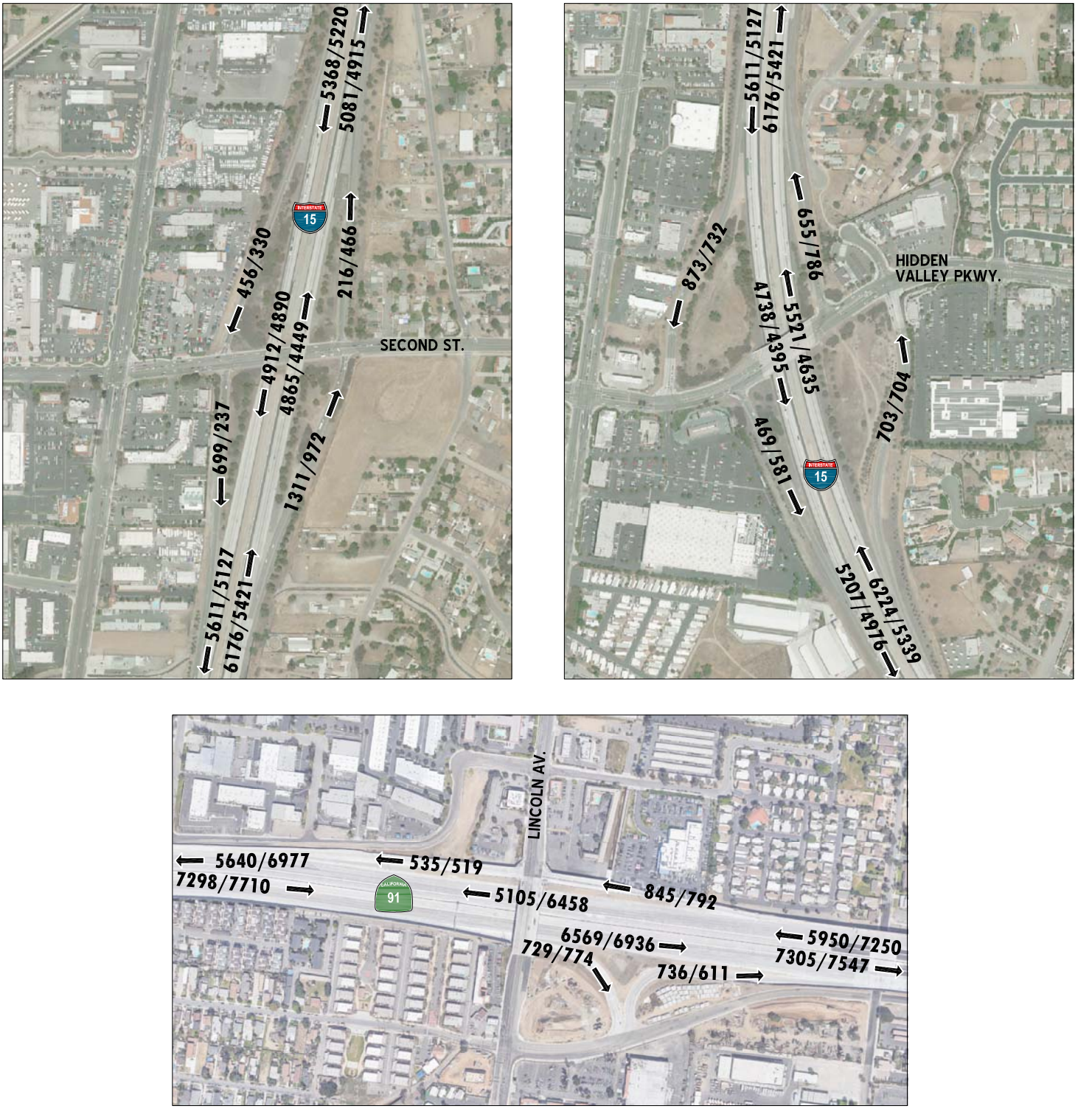
[1] NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

EXHIBIT 5-4: E+P FREEWAY MAINLINE VOLUMES



10899 - freeway.dwg

5.8 RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections and freeway facilities that have been identified as deficient under E+P traffic conditions in an effort to achieve an acceptable LOS (i.e., LOS D or better).

5.8.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As shown previously in Table 5-1, there are four intersections anticipated to operate at an unacceptable LOS (LOS E or worse) with the addition of Project traffic. The effectiveness of the recommended improvement strategies discussed below to address E+P traffic deficiencies is presented in Table 5-5 and are described below:

Parkridge Avenue (West) & Second Street (#10):

- Install a traffic signal.
- Add an eastbound left turn lane.

Parkridge Avenue (East) & Second Street (#11):

- Install a Traffic Signal.
- Add a westbound left turn lane.

Hamner Avenue & Second Street (#25):

- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag. As such, northbound and southbound left turns will run separately (not concurrently).

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

Worksheets for E+P conditions, with improvements, HCM calculation worksheets are provided in Appendices 5.6.

5.8.2 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously in Table 5-2, there are no peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

Table 5-5

Intersection Analysis for E+P Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
10	Parkridge Av. (West) & Second St.																	
	Existing:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	28.0	17.1	D	C
	-With Improvements		Not Applicable															
	E+P:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	**39.8**	19.0	**E**	C
	-With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	9.8	9.8	A	A
11	Parkridge Av. (East) & Second St.																	
	Existing:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**79.9**	13.3	**F**	B
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	12.4	9.8	B	A
	E+P:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**>100.0**	15.5	**F**	C
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	17.0	10.9	B	B
25	Hamner Av. & Second St.																	
	Existing:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**78.3**	**173.0**	**E**	**F**
	-With Improvements[4,5]	TS	1	2	1	**2**	2	**1**	1	2	1	1	2	1	40.3	38.1	D	D
	E+P:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**82.2**	**187.2**	**F**	**F**
	-With Improvements[4,5]	TS	1	2	1	**2**	2	**1**	1	2	1	1	2	1	42.1	43.7	D	D
32	I-15 NB Ramps & Second St.																	
	Existing:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**56.3**	47.7	**E**	D
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	40.9	51.5	D	D
	E+P:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**63.9**	**57.7**	**E**	**E**
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	41.9	52.1	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; **1** = Improvement

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

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement includes modification of the traffic signal to run the northbound and southbound protected left turns as lead-lag, with the southbound left turn running as lag.

[5] Improvement includes restriping the westbound through lane to a shared through-right turn lane. Improvements are consistent with the Second Street from Hamner Avenue to I-15 Southbound Ramp Concept Plan.

5.8.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously in Table 5-3 and Table 5-4, there are study area freeway mainline segments and ramp junctions that currently operate at an unacceptable LOS for E+P traffic conditions. The RCTC, in partnership with Caltrans, is investing $455 million to improve the I-15 Freeway between Cajalco Road and SR-60 Freeway. Since the "I-15 Express Lanes Project" improvement will not be completed until 2020 and since there are no other planned improvements to the SR-91 Freeway or I-15 Freeway at this time, no improvements have been evaluated for E+P traffic conditions.

Neither Caltrans nor the State have adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are part of a program tied to implementation is within the jurisdiction of Caltrans.

This Page Intentionally Left Blank

6 OPENING YEAR CUMULATIVE (2022) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2022) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway mainline analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2022) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

6.2 OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% plus traffic from pending and approved but not yet constructed known development projects in the area. Exhibit 6-1 shows the ADT volumes which can be expected for Opening Year Cumulative (2022) Without Project. The Opening Year Cumulative (2022) Without Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 6-2.

6.3 OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 8.24%, traffic from pending and approved but not yet constructed known development projects in the area and the addition of Project traffic. Exhibit 6-3 shows the ADT volumes which can be expected for Opening Year Cumulative (2022) With Project. The Opening Year Cumulative (2022) With Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 6-4.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)

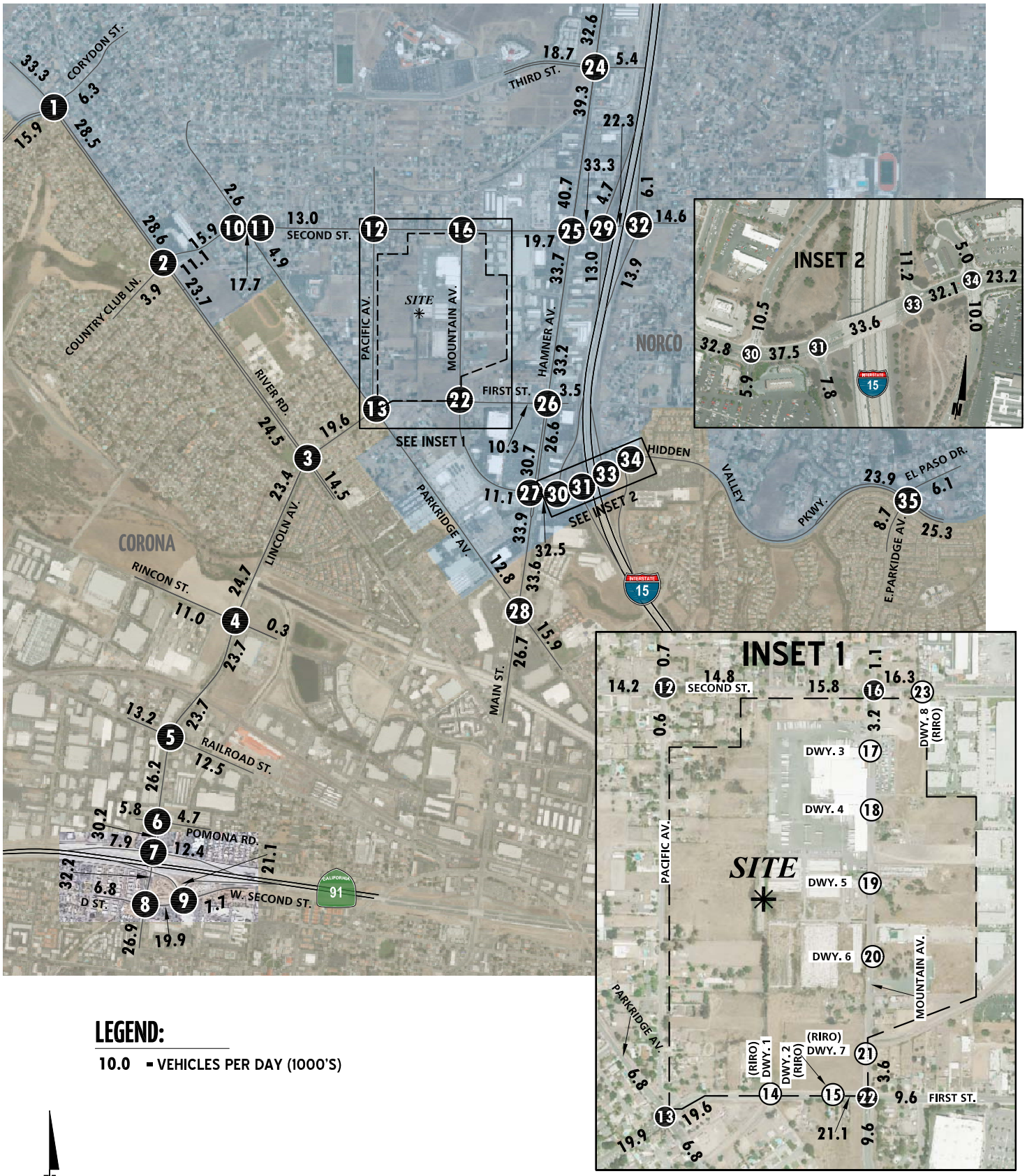
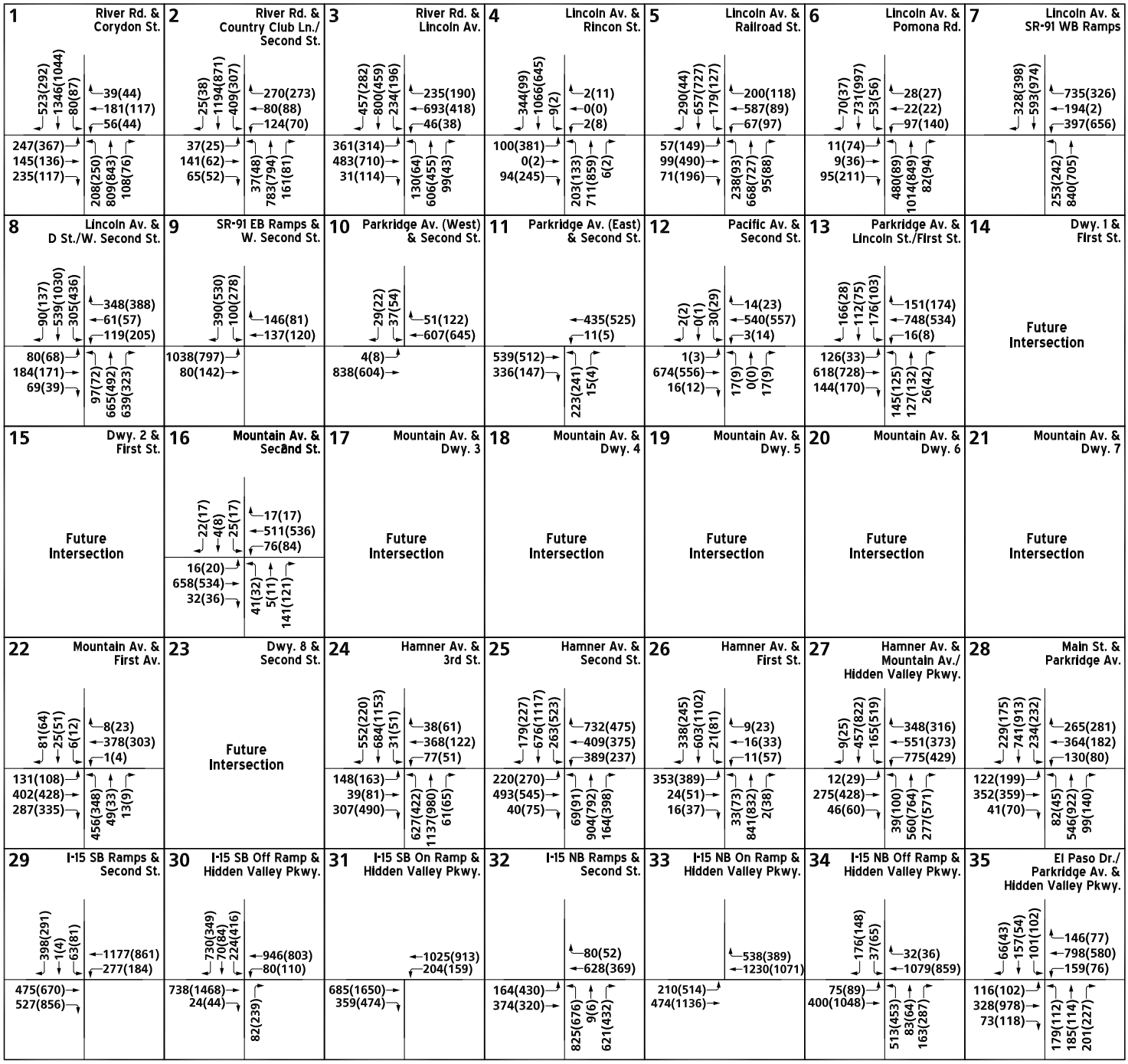


EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2022) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)

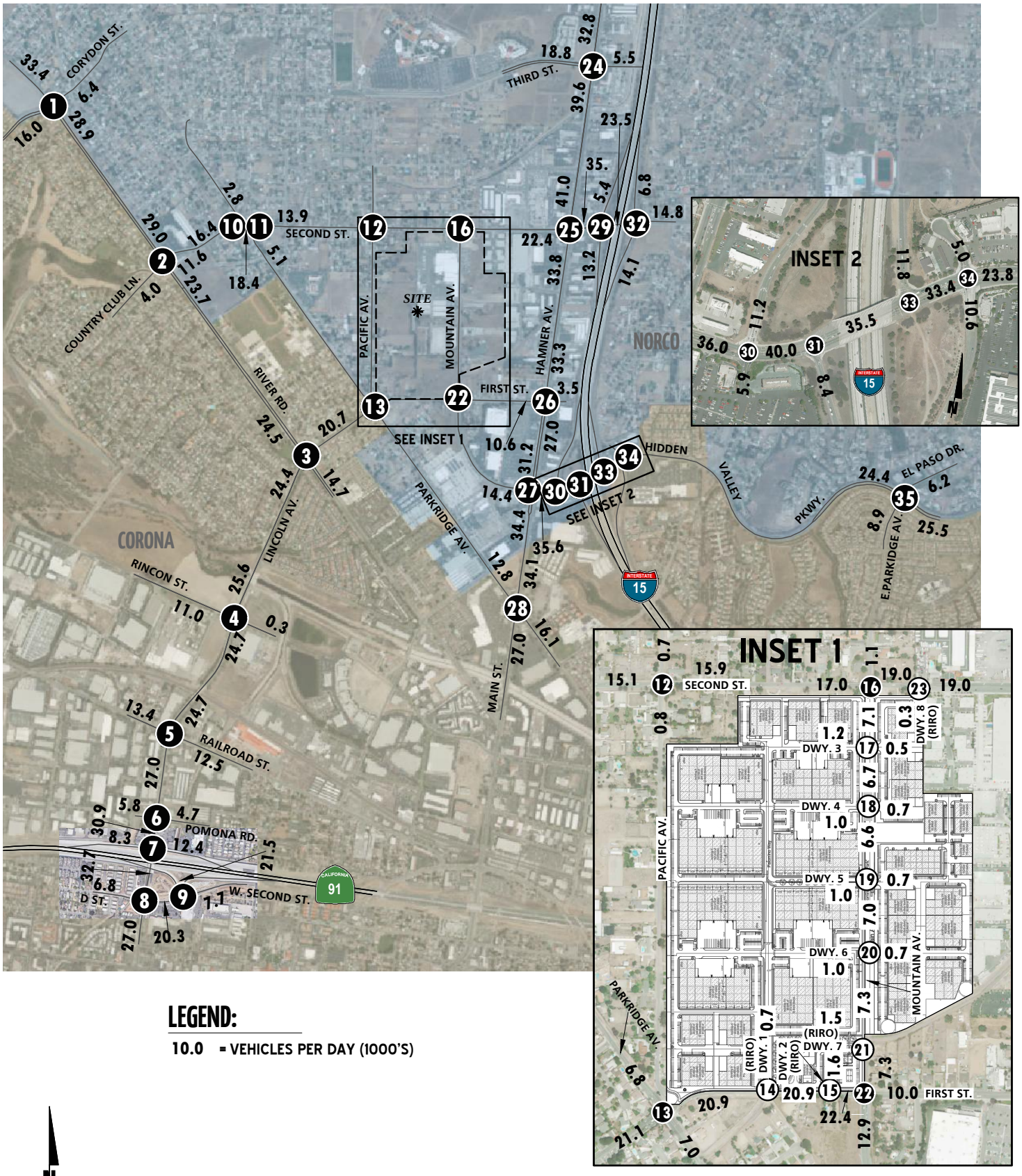
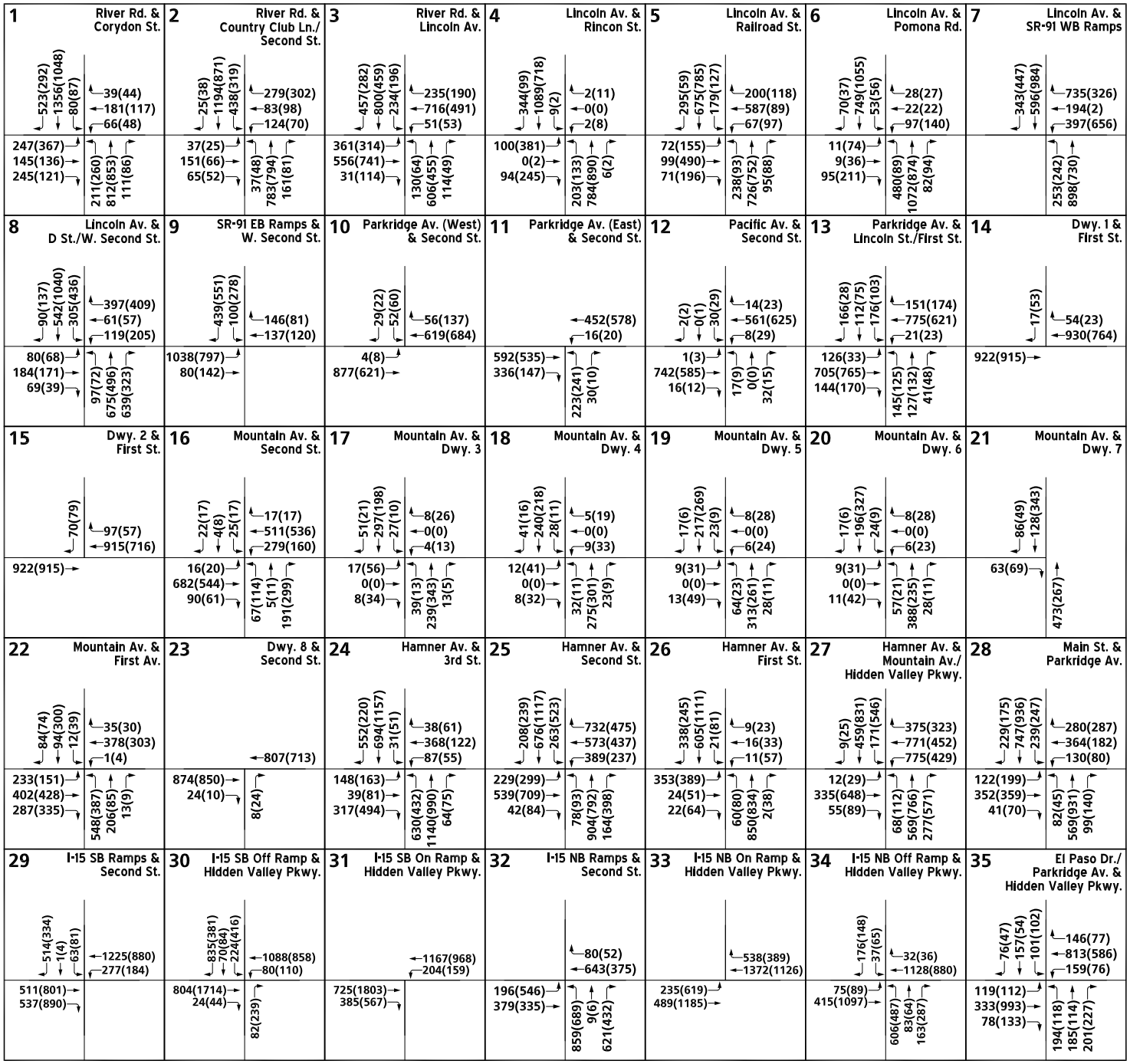


EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2022) Without Project conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the following intersections are anticipated to operate at unacceptable LOS:

- Parkridge Av. (West) & Second St. (#10) – LOS F AM peak hour; LOS E PM peak hour
- Parkridge Av. (East) & Second St. (#11) – LOS F AM and PM peak hours
- Pacific Av. & Second St. (#12) – LOS F AM peak hour only
- Mountain Av. & Second St. (#16) – LOS F AM and PM peak hours
- Mountain Av. & First St. (#22) – LOS F AM and PM peak hours
- Hamner Av. & Second St. (#25) – LOS F AM and PM peak hours
- Hamner Av. & Mountain Av./Hidden Valley Pkwy. (#27) – LOS E AM and PM peak hours
- I-15 Northbound Ramps & Second St. (#32) – LOS E AM peak hour only

A summary of the peak hour intersection LOS for Opening Year Cumulative Without Project conditions is shown on Exhibit 6-5. The intersection operations analysis worksheets for Opening Year Cumulative Without Project traffic conditions are included in Appendix 6.1 of this TIA.

As shown in Table 6-1 and illustrated on Exhibit 6-6, there are no additional study area intersections anticipated to operate at an unacceptable LOS (LOS E or worse) with the addition of Project traffic during one or more peak hours, in addition to the intersections previously identified under Opening Year Cumulative (2022) Without Project traffic conditions. The intersection operations analysis worksheets for Opening Year Cumulative (2022) With Project traffic conditions are included in Appendix 6.2 of this TIA.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

For Opening Year Cumulative (2022) Without Project traffic conditions, the following additional unsignalized study area intersection is anticipated to meet the peak hour volume-based traffic signal warrants, in addition to the intersections previously warranted under Existing (2018) and E+P traffic conditions (see Appendix 6.3):

- Parkridge Av. (East) & Second St. (#11)

For Opening Year Cumulative (2022) With Project conditions, there are no additional unsignalized intersections anticipated to meet the peak hour volume-based traffic signal warrants, in addition to the intersections previously warranted under Existing, E+P, and Opening Year Cumulative (2022) Without Project conditions (see Appendix 6.4).

Table 6-1

Intersection Analysis for Opening Year Cumulative (2022) Conditions

#	Intersection	Traffic Control[2]	2022 Without Project				2022 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	River Rd. & Corydon St.	TS	34.1	38.6	C	D	34.6	39.6	C	D
2	River Rd. & Country Club Ln./Second St.	TS	32.6	26.7	C	C	34.5	29.5	C	C
3	River Rd. & Lincoln Av.	TS	51.0	32.7	D	C	51.2	33.0	D	C
4	Lincoln Av. & Rincon St.	TS	21.5	27.3	C	C	21.9	27.8	C	C
5	Lincoln Av. & Railroad St.	TS	38.2	34.4	D	C	39.9	35.1	D	D
6	Lincoln Av. & Pomona Rd.	TS	28.8	21.1	C	C	28.8	21.1	C	C
7	Lincoln Av. & SR-91 WB Ramps	TS	24.0	25.5	C	C	24.4	26.1	C	C
8	Lincoln Av. & D St./Second St.	TS	29.1	43.4	C	D	30.2	45.9	C	D
9	SR-91 EB Ramps & Second St.	TS	27.8	24.8	C	C	28.9	25.1	C	C
10	Parkridge Av. (West) & Second St.	CSS	**85.3**	**36.0**	**F**	**E**	**>100.0**	**44.2**	**F**	**E**
11	Parkridge Av. (East) & Second St.	AWS	**>100.0**	**54.2**	**F**	**F**	**>100.0**	**76.4**	**F**	**F**
12	Pacific Av. & Second St.	AWS	**55.0**	27.6	**F**	D	**84.0**	**42.1**	**F**	**E**
13	Parkridge Av. & Lincoln Av./First St.	TS	40.0	33.4	D	C	43.9	36.6	D	D
14	Dwy. 1 & First St.	**CSS**	Future Intersection				12.6	11.9	B	B
15	Dwy. 2 & First St.	**CSS**	Future Intersection				13.8	12.2	B	B
16	Mountain Av. & Second St.	AWS/**TS**[3]	**>100.0**	**74.4**	**F**	**F**	34.2	22.3	C	C
17	Mountain Av. & Dwy. 3	**CSS**	Future Intersection				13.9	12.7	B	B
18	Mountain Av. & Dwy. 4	**CSS**	Future Intersection				12.5	12.6	B	B
19	Mountain Av. & Dwy. 5	**TS**	Future Intersection				8.1	9.5	A	A
20	Mountain Av. & Dwy. 6	**CSS**	Future Intersection				13.1	12.4	B	B
21	Mountain Av. & Dwy. 7	**CSS**	Future Intersection				9.2	10.0	A	B
22	Mountain Av. & First St.	AWS/**TS**[3]	**95.7**	**70.5**	**F**	**F**	45.8	32.5	D	C
23	Dwy. 8 & Second St.	**CSS**	Future Intersection				16.8	17.0	C	C
24	Hamner Av. & 3rd St.	TS	50.5	44.8	D	D	50.7	47.9	D	D
25	Hamner Av. & Second St.	TS	**94.9**	**>200.0**	**F**	**F**	**99.2**	**>200.0**	**F**	**F**
26	Hamner Av. & First St.	TS	17.3	24.8	B	C	17.3	25.3	B	C
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	TS	**60.5**	**68.7**	**E**	**E**	**73.0**	**72.2**	**E**	**E**
28	Main St. & Parkridge Av.	TS	44.5	42.2	D	D	47.1	43.5	D	D
29	I-15 SB Ramp & Second St.	TS	28.9	17.3	C	B	44.1	20.1	D	C
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	TS	17.4	27.9	B	C	17.9	30.0	B	C
31	I-15 SB On-Ramp & Hidden Valley Pkwy.	TS	4.9	3.9	A	A	8.7	5.1	A	A
32	I-15 NB Ramps & Second St.	TS	**69.5**	52.5	**E**	D	**77.6**	**74.1**	**E**	**E**
33	I-15 NB On-Ramp & Hidden Valley Pkwy.	TS	10.3	11.1	B	B	10.6	11.2	B	B
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	TS	27.7	16.4	C	B	30.7	16.8	C	B
35	Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.	TS	33.9	50.1	C	D	34.0	52.1	C	D

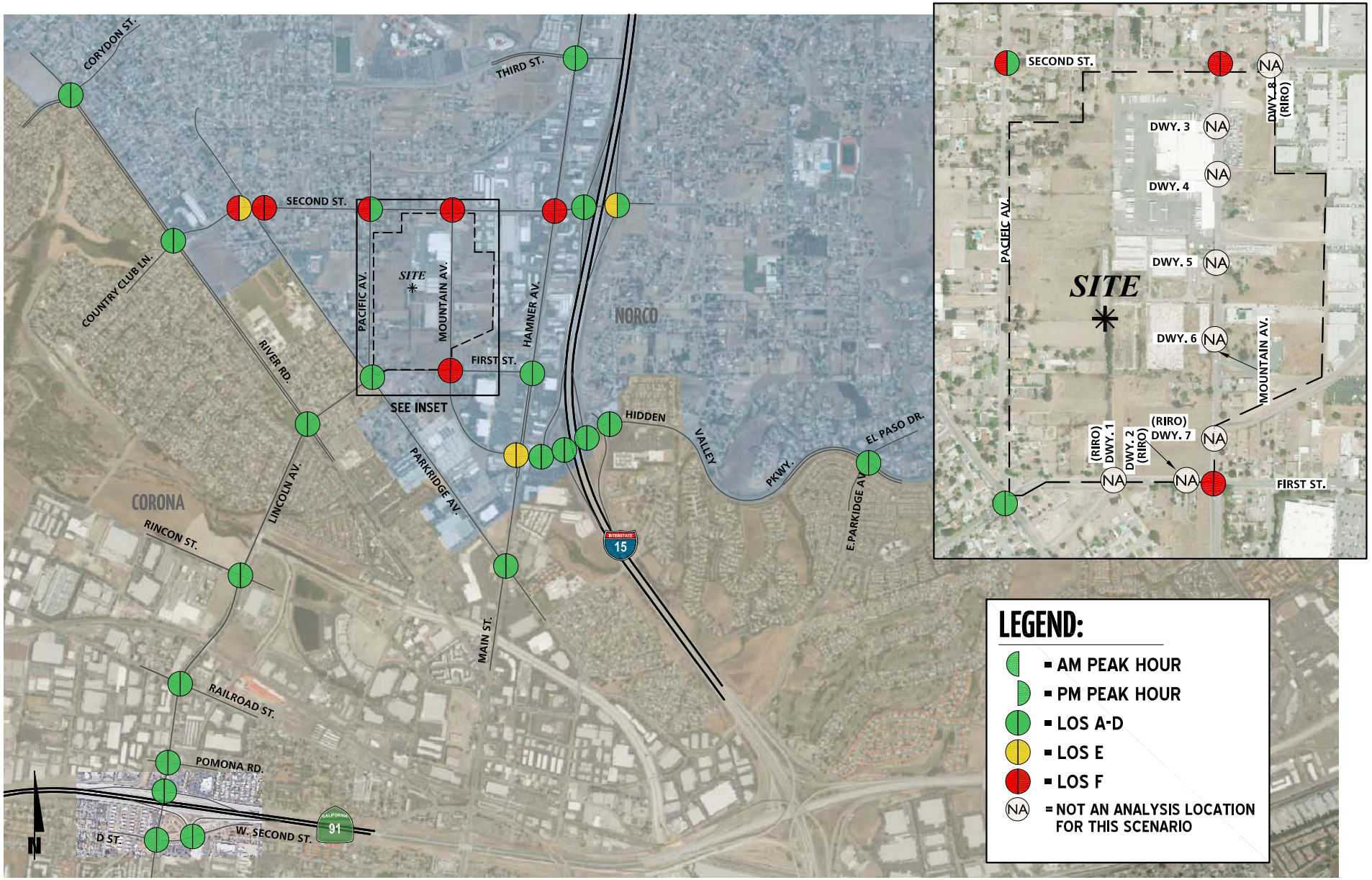
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

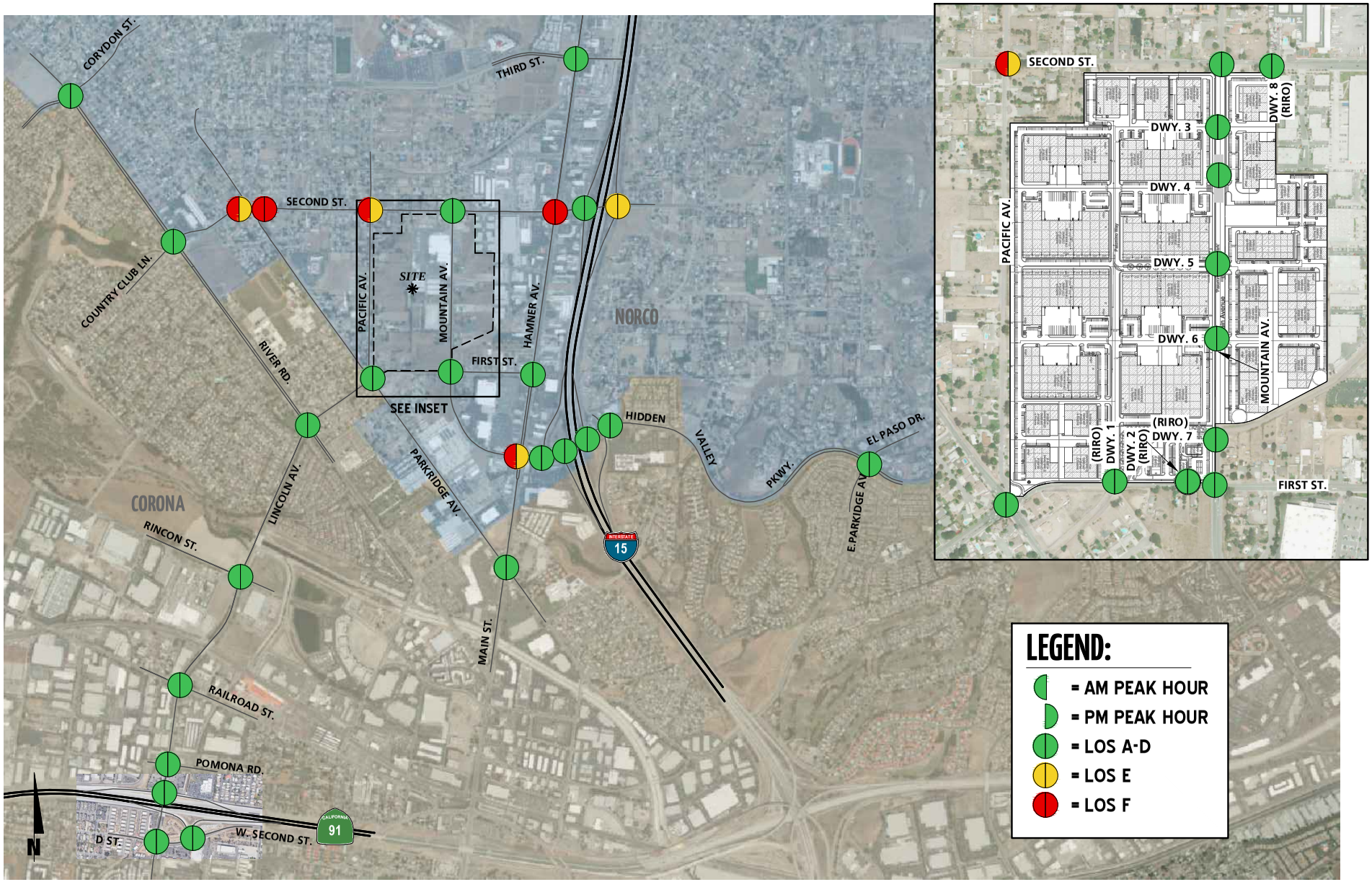
[3] A traffic signal will be constructed by the Project as part of the site adjacent roadway improvements (see Exhibit 1-4)

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT SUMMARY OF LOS



URBAN CROSSROADS

EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2022) WITH PROJECT SUMMARY OF LOS



URBAN CROSSROADS

6.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. Queuing analysis findings are presented in Table 6-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 6-2, there are no movements anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Opening Year Cumulative (2022) Without Project and With Project traffic conditions. Worksheets for Opening Year Cumulative (2020) Without Project and With Project traffic conditions off-ramp queuing analyses are provided in Appendices 6.5 and 6.6, respectively.

6.7 BASIC FREEWAY SEGMENT ANALYSIS

Opening Year Cumulative (2022) Without Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 6-7. As shown in Table 6-3 and consistent with Existing (2018) traffic conditions, the following freeway segment is anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Opening Year Cumulative (2022) traffic conditions:

- I-15 Freeway Southbound, North of Second St. (#3) – LOS E AM and PM peak hours

Opening Year Cumulative (2022) Without Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 6-8. There are no additional study area freeway segments anticipated to operate at an unacceptable LOS with the addition of Project traffic. Opening Year Cumulative (2022) Without Project and With Project basic freeway segment analysis worksheets are provided in Appendix 6.7 and 6.8, respectively.

As previously noted, the basic freeway segment analysis is based on the reported PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeways are considered at capacity during the peak hours. Section 3.9 *Existing Conditions Basic Freeway Segment Analysis* discusses the SR-91 Freeway and the I-15 Freeway constrained flow in greater detail.

Table 6-2

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2022) Conditions

	Intersection	Movement	Available Stacking Distance (Feet)	2022 Without Project				2022 With Project			
				95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
				AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
7	Lincoln Av. & SR-91 WB Ramps	WBL	315	169	222	Yes	Yes	169	222	Yes	Yes
		WBL/T	1050	174	224	Yes	Yes	174	224	Yes	Yes
		WBR	300	596 [2,3]	164	Yes	Yes	596 [2,3]	169	Yes	Yes
9	SR-91 EB Ramps & Second St.	SBL	930	56	132	Yes	Yes	58	134	Yes	Yes
		SBR	430	59	70	Yes	Yes	63	71	Yes	Yes
29	I-15 SB Ramp & Second St.	SBT/L	1500	76	105	Yes	Yes	76	100	Yes	Yes
		SBR	340	405 [2,3]	186	Yes	Yes	629 [2,3]	230	Yes	Yes
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	SBL	1650	171	389 [2]	Yes	Yes	171	410 [2]	Yes	Yes
		SBL/T/R	1650	278	401 [2]	Yes	Yes	351	415 [2]	Yes	Yes
		SBR	320	240	74	Yes	Yes	321 [3]	75	Yes	Yes
32	I-15 NB Ramps & Second St.	NBL/T	1265	1,088 [2]	812 [2]	Yes	Yes	1,149 [2]	837 [2]	Yes	Yes
		NBR	1265	376	143	Yes	Yes	382	148	Yes	Yes
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	NBL	1375	285 [2]	200	Yes	Yes	350 [2]	215	Yes	Yes
		NBT	1300	102	74	Yes	Yes	100	74	Yes	Yes
		NBR	470	59	130	Yes	Yes	58	135	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-15 or SR-91 Freeway mainline.

Table 6-3

Basic Freeway Segment Analysis for Opening Year Cumulative (2022) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2022 Without Project				2022 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-91	WB	West of Lincoln Av.	5	19.9	25.2	C	C	19.9	25.4	C	C
	EB	West of Lincoln Av.	5	30.0	31.9	D	D	30.0	31.6	D	D
I-15	SB	North of Second St.	3	**40.9**	**37.1**	**E**	**E**	**43.2**	**37.6**	**E**	**E**
		Second St. to Hidden Valley Pkwy.	5	21.1	18.4	C	C	21.4	18.6	C	C
		South of Hidden Valley Pkwy.	4	25.2	22.6	C	C	25.4	23.0	C	C
	NB	North of Second St.	3	34.7	31.3	D	D	35.0	32.7	D	D
		Second St. to Hidden Valley Pkwy.	5	22.0	18.9	C	C	22.2	19.2	C	C
		South of Hidden Valley Pkwy.	4	29.5	24.0	D	C	30.0	24.2	D	C

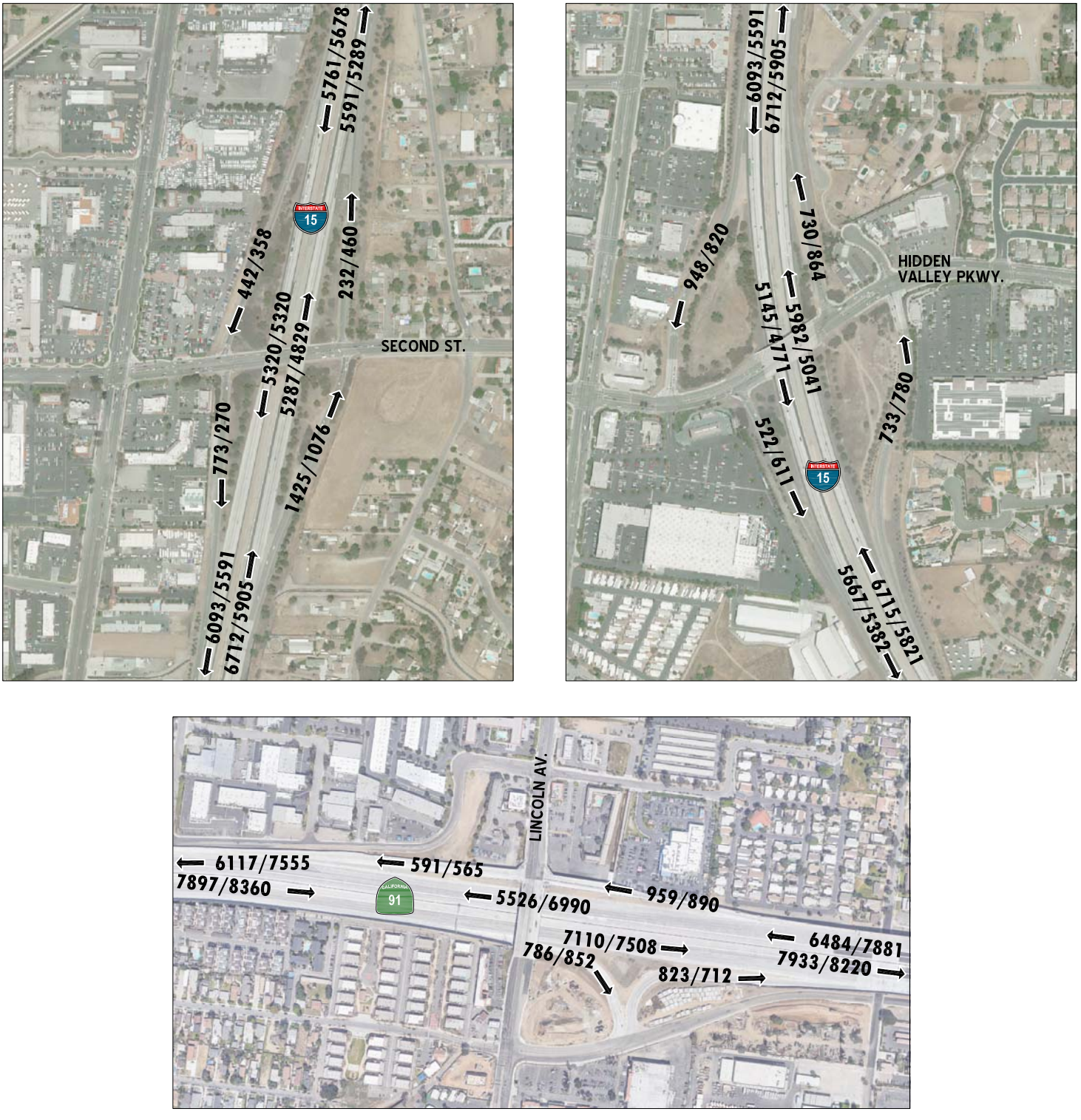
[1] WB = Westbound; EB = Eastbound; SB = Southbound; NB = Northbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

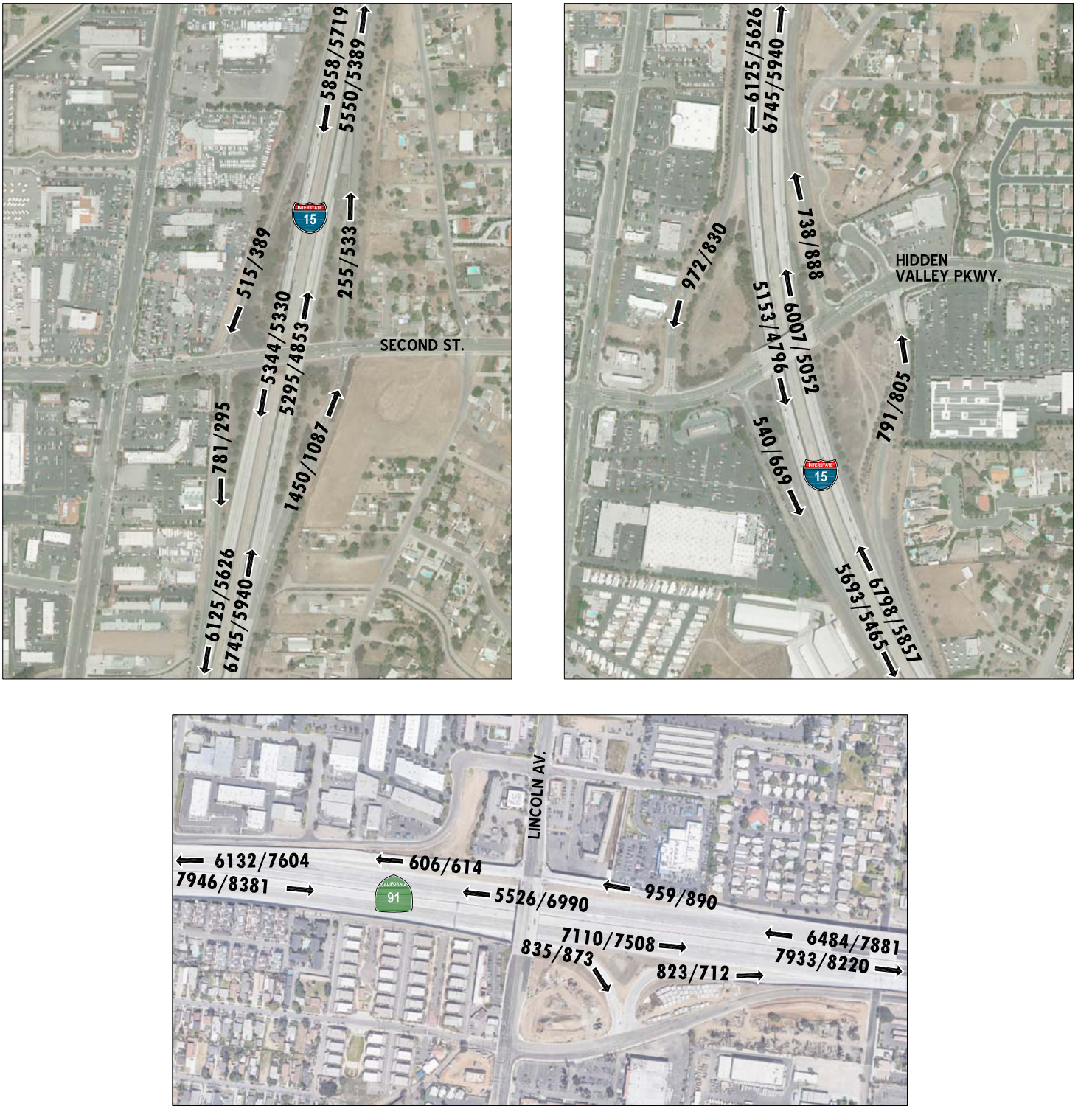
[4] LOS = Level of Service

EXHIBIT 6-7: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES



10899 - freeway.dwg

EXHIBIT 6-8: OPENING YEAR CUMULATIVE (2022) WITH PROJECT FREEWAY MAINLINE VOLUMES



10899 - freeway.dwg

6.8 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Opening Year Cumulative (2022) traffic conditions and the results of this analysis are presented in Table 6-4. As shown in Table 6-4, the following ramp junctions were found to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Opening Year Cumulative (2022) Without Project traffic conditions:

- SR-91 Freeway, Eastbound off-ramp at Lincoln Av. (#2) – LOS E AM and PM peak hours
- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS E AM and PM peak hours
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS F AM peak hour; LOS E PM peak hour
- I-15 Freeway, Northbound off-ramp at Hidden Valley Pkwy. (#10) – LOS E AM peak hour only

Opening Year Cumulative (2022) Without Project freeway ramp junction operations analysis worksheets are provided in Appendix 6.9.

As shown in Table 6-4, there are no additional study area ramp junctions anticipated to operate at an unacceptable LOS during the peak hours under Opening Year Cumulative (2022) With Project traffic conditions, in addition to the ramp junctions previously identified under Opening Year Cumulative (2022) Without Project traffic conditions. Opening Year Cumulative (2022) With Project freeway ramp junction operations analysis worksheets are provided in Appendix 6.10.

6.9 RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better).

6.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As shown previously in Table 6-1, there are six intersections anticipated to operate at an unacceptable LOS (LOS E or worse) with the addition of Project traffic. The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative (2022) traffic deficiencies is presented in Table 6-5 and are described below:

Parkridge Avenue (West) & Second Street (#10):

- Install a Traffic Signal.
- Add an eastbound left turn lane.

Table 6-4

Freeway Ramp Junction Merge/Diverge Analysis for Opening Year Cumulative (2022) Conditions

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	2022 Without Project				2022 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-91	WB	Lincoln Av. On-Ramp	5	23.6	C	26.0	C	23.7	C	26.4	C
	EB	Lincoln Av. Off-Ramp	5	**36.3**	**E**	**37.7**	**E**	**36.5**	**E**	**37.6**	**E**
I-15	SB	Second St. Off-Ramp	3	**38.8**	**E**	**36.8**	**E**	**40.3**	**E**	**37.0**	**E**
		Second St. On-Ramp	3	**41.0**	**F**	**35.4**	**E**	**41.3**	**F**	**35.7**	**E**
		Hidden Valley Pkwy. Off-Ramp	5	23.1	C	21.7	C	23.6	C	21.9	C
		Hidden Valley Pkwy. On-Ramp	4	26.6	C	25.1	C	26.8	C	25.8	C
	NB	Second St. On-Ramp	4	22.7	C	22.9	C	23.0	C	23.6	C
		Second St. Off-Ramp	5	26.7	C	23.3	C	27.0	C	23.6	C
		Hidden Valley Pkwy. On-Ramp	4	32.7	D	30.4	D	32.9	D	30.8	D
		Hidden Valley Pkwy. Off-Ramp	4	**36.0**	**E**	32.2	D	**36.8**	**E**	32.5	D

* **BOLD** = Unacceptable Level of Service

[1] NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 6-5

Intersection Analysis for Opening Year Cumulative (2022) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
10	Parkridge Av. (West) & Second St.																	
	2022 Without Project:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	**85.3**	**36.0**	**F**	**E**
	-With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	10.0	9.7	A	A
	2022 With Project:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	**>100.0**	**44.2**	**F**	**E**
	-With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	10.0	9.7	A	A
11	Parkridge Av. (East) & Second St.																	
	2022 Without Project:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**>100.0**	**54.2**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	27.8	10.8	C	B
	2022 With Project:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**>100.0**	**76.4**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	39.0	11.4	D	B
12	Pacific Av. & Second St.																	
	2022 Without Project:																	
	-Without Improvements	AWS	0	1	0	0	1	0	0	1	1	0	1	0	**55.0**	**27.6**	**F**	**D**
	-With Improvements[4]	**TS**	0	1	0	0	1	0	**1**	1	**0**	**1**	1	0	17.8	12.2	B	B
	2022 With Project:																	
	-Without Improvements	AWS	0	1	0	0	1	0	0	1	1	0	1	0	**84.0**	**42.1**	**F**	**E**
	-With Improvements[4]	**TS**	0	1	0	0	1	0	**1**	1	**0**	**1**	1	0	17.8	12.6	B	B
25	Hamner Av. & Second St.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**94.9**	**>200.0**	**F**	**F**
	-With Improvements[5,6]	TS	1	2	1	**2**	2	**1**	**2**	2	**0**	**2**	**1**	1	40.3	35.0	D	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**99.2**	**>200.0**	**F**	**F**
	-With Improvements[5,6]	TS	1	2	1	**2**	2	**1**	**2**	2	**0**	**2**	**1**	1	45.5	40.7	D	D
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	d	2	2	d	1	2	d	1	2	1	**60.5**	**68.7**	**E**	**E**
	-With Improvements[7]	TS	1	2	**1>**	2	2	d	1	2	d	**2**	**1**	**1>**	50.3	39.2	D	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	d	2	2	d	1	2	d	1	2	1	**73.0**	**72.2**	**E**	**E**
	-With Improvements[7]	TS	1	2	**1>**	2	2	d	1	2	d	**2**	**1**	**1>**	51.9	41.5	D	D
32	I-15 NB Ramps & Second St.																	
	2022 Without Project:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**69.5**	**52.5**	**E**	**D**
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	38.0	43.0	D	D
	2022 With Project:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**77.6**	**74.1**	**E**	**E**
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	39.0	49.8	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; **1** = Improvement

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

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement includes restriping the eastbound approach to provide a left and shared through-right turn lane.

[5] Improvement includes modification of the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, and run the eastbound and westbound left turns as lead-lag, with the westbound left turn running as lag.

[6] Improvement includes restriping the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane, and restriping the westbound approach to provide two left turn lanes, one through lane, and one right turn lane

[7] Improvement includes restriping the westbound shared left-through lane to a westbound through lane.

Parkridge Avenue (East) & Second Street (#11):

- Install a Traffic Signal.
- Add a westbound left turn lane.

Pacific Avenue & Second Street (#12):

- Install a traffic signal.
- Restripe the eastbound approach to provide a left turn lane and a shared through-right turn lane.
- Add a westbound left turn lane.

Hamner Avenue & Second Street (#25):

- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Restripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane.
- Restripe the westbound approach to provide two left turn lanes, one through lane, and one right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, and run the eastbound and westbound left turns as lead-lag, with the westbound left running as lag. As such, northbound/southbound and eastbound/westbound left turns will run separately (not concurrently).

Hamner Avenue & Mountain Avenue/Hidden Valley Parkway (#27):

- Stripe a northbound right turn lane.
- Restripe the westbound shared left-through lane to a westbound left turn lane.
- Modify the traffic signal to provide overlap phasing for the northbound and westbound right turn lanes.

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

Worksheets for Opening Year Cumulative (2022) Without Project and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 6.11 and 6.12, respectively.

6.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously in Table 6-2, there are no peak hour queuing issues at the SR-91 Freeway at Lincoln Avenue and Second Street interchanges, or the I-15 Freeway at Hidden Valley Parkway and Second Street interchanges. As such, no improvements have been recommended.

6.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

The RCTC, in partnership with Caltrans, is investing $455 million to improve the I-15 Freeway between Cajalco Road and SR-60 Freeway. The "I-15 Express Lanes Project" will add two tolled express lanes in each direction, with multiple entrances and exits. Construction began in 2018, and the express lanes will be open to traffic in 2020.

Caltrans typically assumes a reduction of fourteen percent to the freeway mainline through volumes to account for vehicles utilizing the express lanes. The reduction to the I-15 Freeway mainline volumes (14% per lane for 2 lanes, or 28% total) has been applied to account for the proposed express lanes. The analysis has been performed assuming the same number of mixed-flow lanes and on and off-ramp configurations as existing baseline conditions at the I-15 Freeway study area interchanges.

As shown in Table 6-6, the I-15 Freeway mainline segments are anticipated to operate at an acceptable LOS with the improvements discussed above. Similarly, Table 6-7 shows that the I-15 Freeway ramp junctions are anticipated to operate at an acceptable LOS with the improvements discussed above. Worksheets for Opening Year Cumulative (2022) With Project conditions freeway mainline level of service analysis, with improvements, are provided in Appendix 6.13. Opening Year Cumulative (2022) With Project freeway ramp junction level of service analysis worksheets, with improvements, are provided in Appendix 6.14.

Table 6-6

Basic Freeway Segment Analysis for Opening Year Cumulative (2022) With Project Conditions With Improvements

Freeway	Direction[1]	Mainline Segment	Lanes[2]	With Improvements			
				Density[3]		LOS[4]	
				AM	PM	AM	PM
I-15	SB	North of Second St.	3	26.5	23.7	D	C
		Second St. to Hidden Valley Pkwy.	5	15.7	13.6	B	B
		South of Hidden Valley Pkwy.	4	18.2	16.5	C	B
	NB	North of Second St.	3	22.6	21.4	C	C
		Second St. to Hidden Valley Pkwy.	5	16.0	14.0	B	B
		South of Hidden Valley Pkwy.	4	20.3	17.0	C	B

[1] SB = Southbound; NB = Northbound

[2] Number of lanes are in the specified direction and is based on existing conditions. The I-15 Freeway express lanes are assumed to be completed.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 6-7

Freeway Ramp Junction Merge/Diverge Analysis for Opening Year Cumulative (2022) With Project Conditions With Improvements

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	With Improvements			
				AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]
I-15	SB	Second St. Off-Ramp	3	32.0	D	30.0	D
		Second St. On-Ramp	3	34.0	D	28.3	D
		Hidden Valley Pkwy. Off-Ramp	5	20.9	C	18.5	B
		Hidden Valley Pkwy. On-Ramp	4	21.9	C	21.2	C
	NB	Second St. On-Ramp	4	18.0	B	19.1	B
		Second St. Off-Ramp	5	24.0	C	20.6	C
		Hidden Valley Pkwy. On-Ramp	4	27.3	C	26.0	C
		Hidden Valley Pkwy. Off-Ramp	4	29.1	D	25.8	C

* **BOLD** = Unacceptable Level of Service

[1] NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on existing conditions. The I-15 Freeway express lanes are assumed to be completed.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

This Page Intentionally Left Blank

7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway mainline analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year conditions are consistent with the following improvements discussed below:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year With Project conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

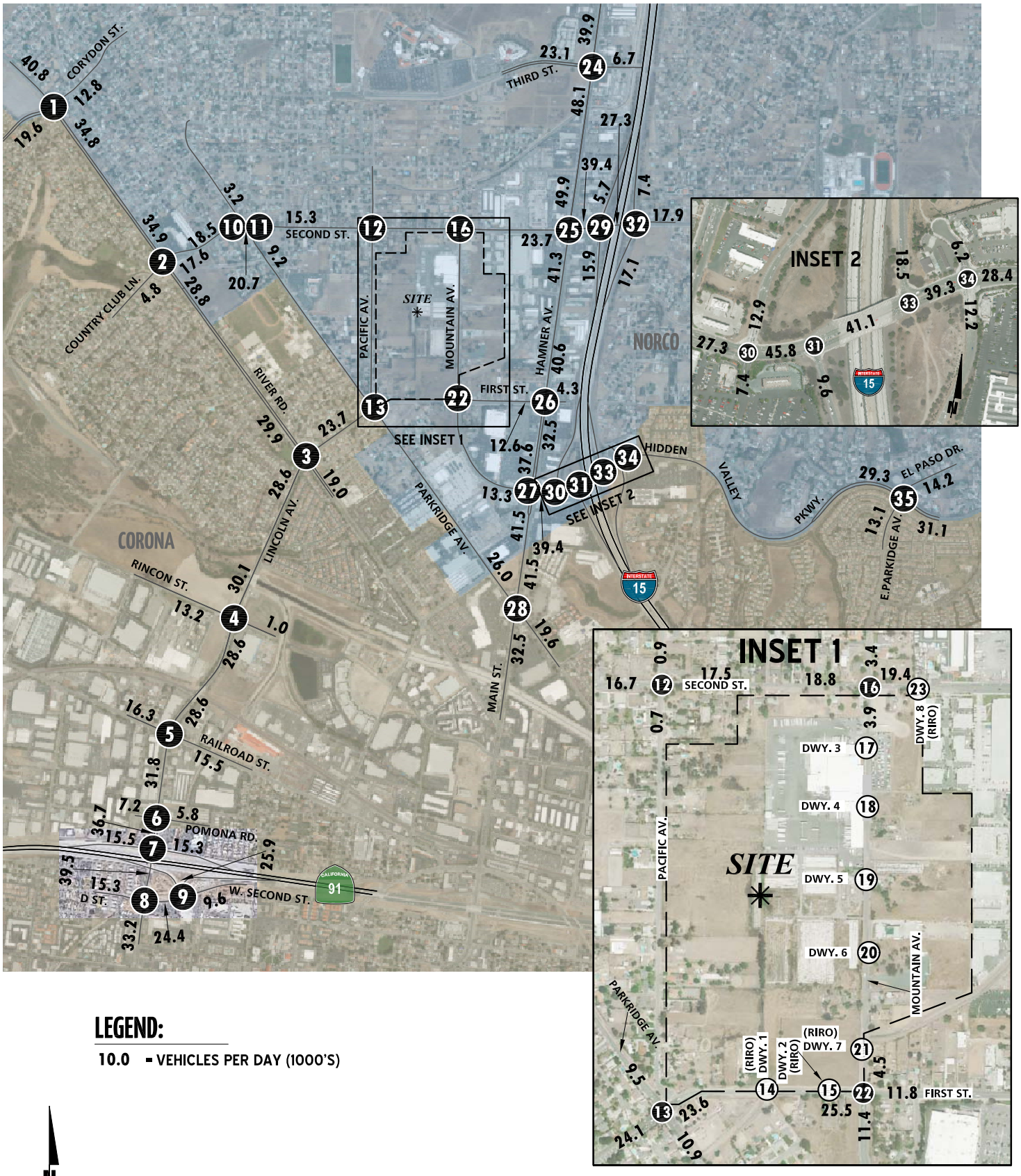
7.2 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM. Exhibit 7-1 shows the ADT volumes which can be expected for Horizon Year (2040) Without Project. The Horizon Year (2040) Without Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 7-2.

7.3 HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM, plus proposed Project volumes. Exhibit 7-3 shows the ADT volumes which can be expected for Horizon Year (2040) With Project. The Horizon Year (2040) With Project weekday AM and PM peak hour intersection turning movement volumes are shown on Exhibit 7-4.

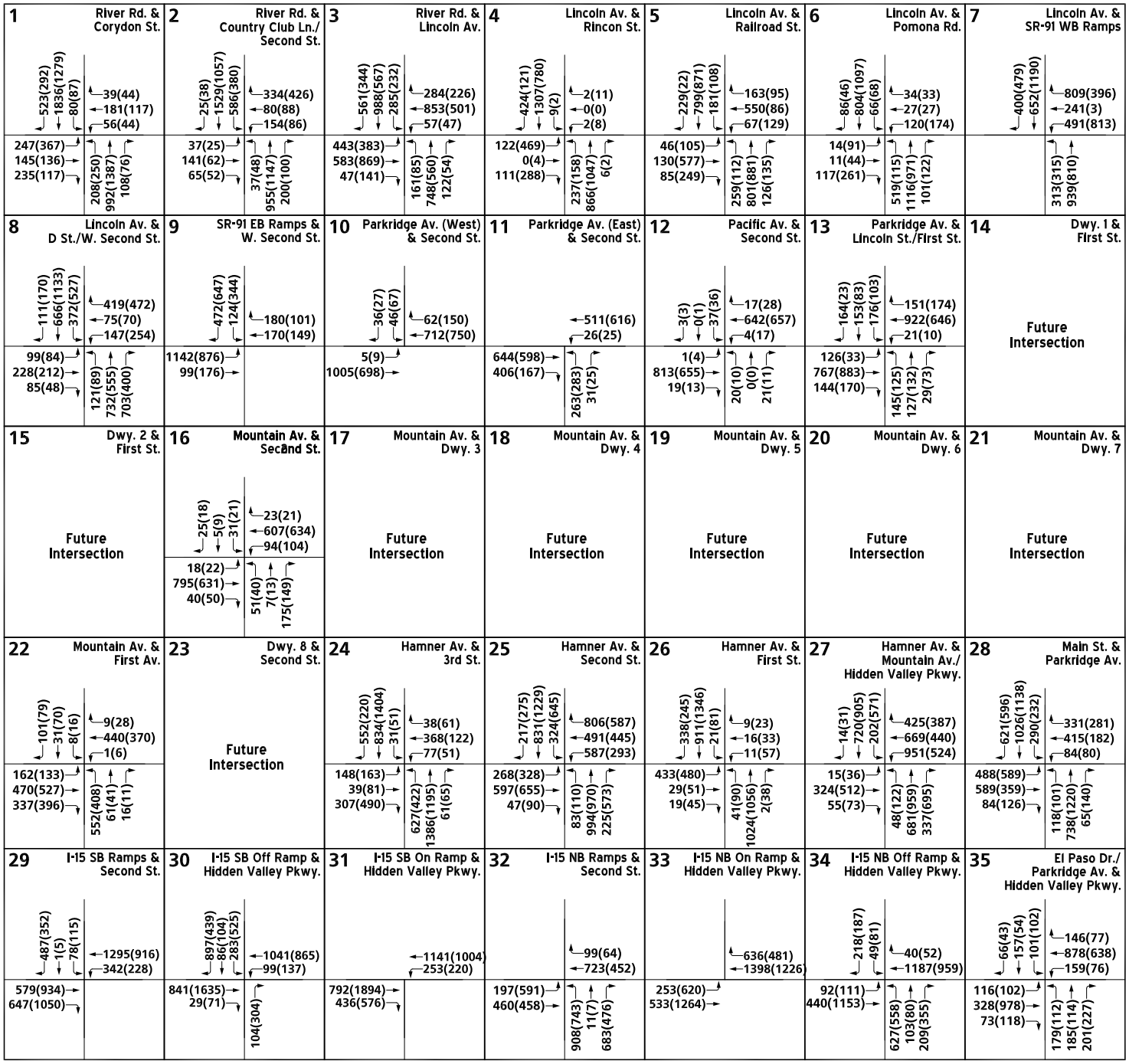
EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

EXHIBIT 7-2: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 7-3: HORIZON YEAR (2040) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)

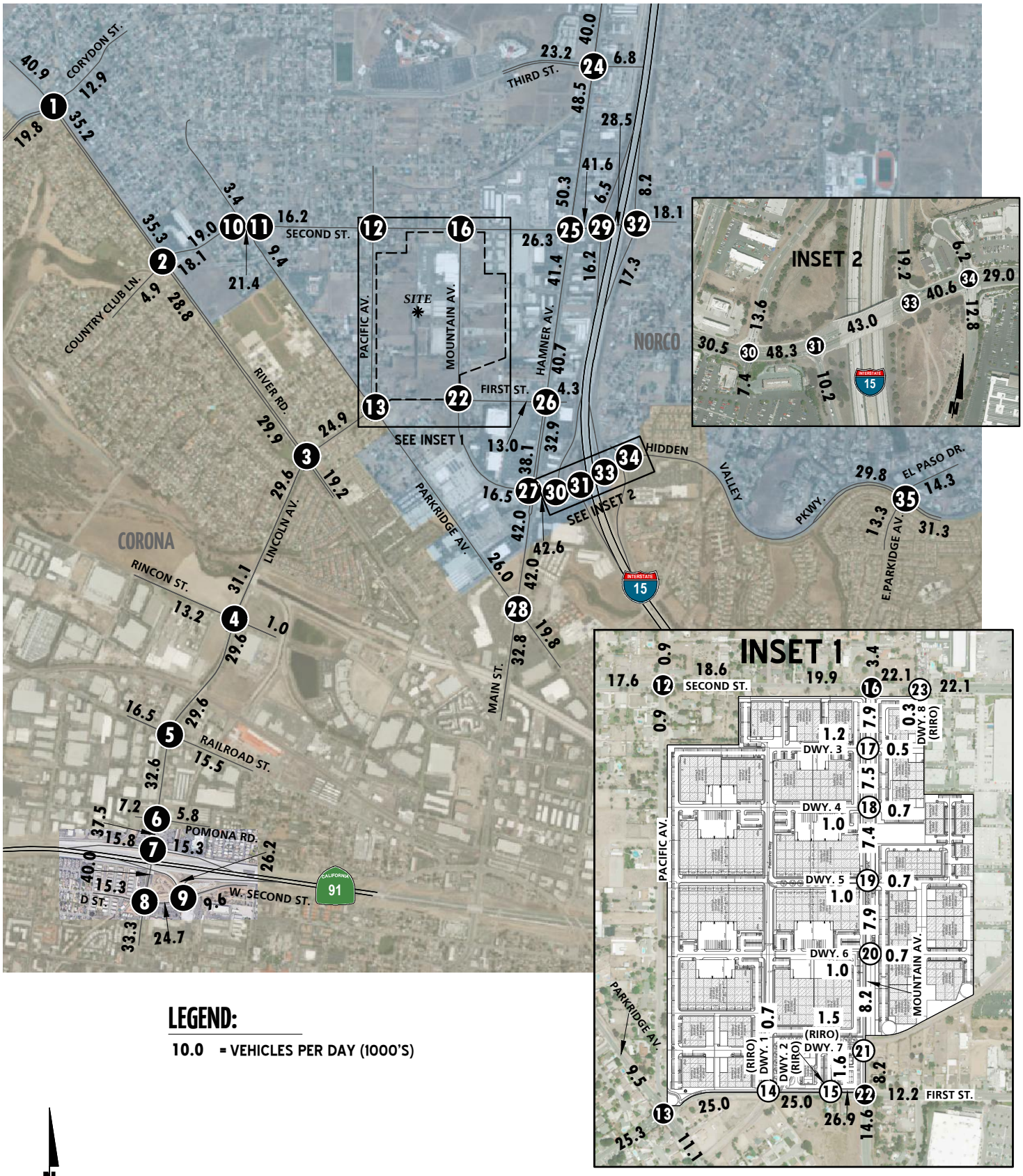
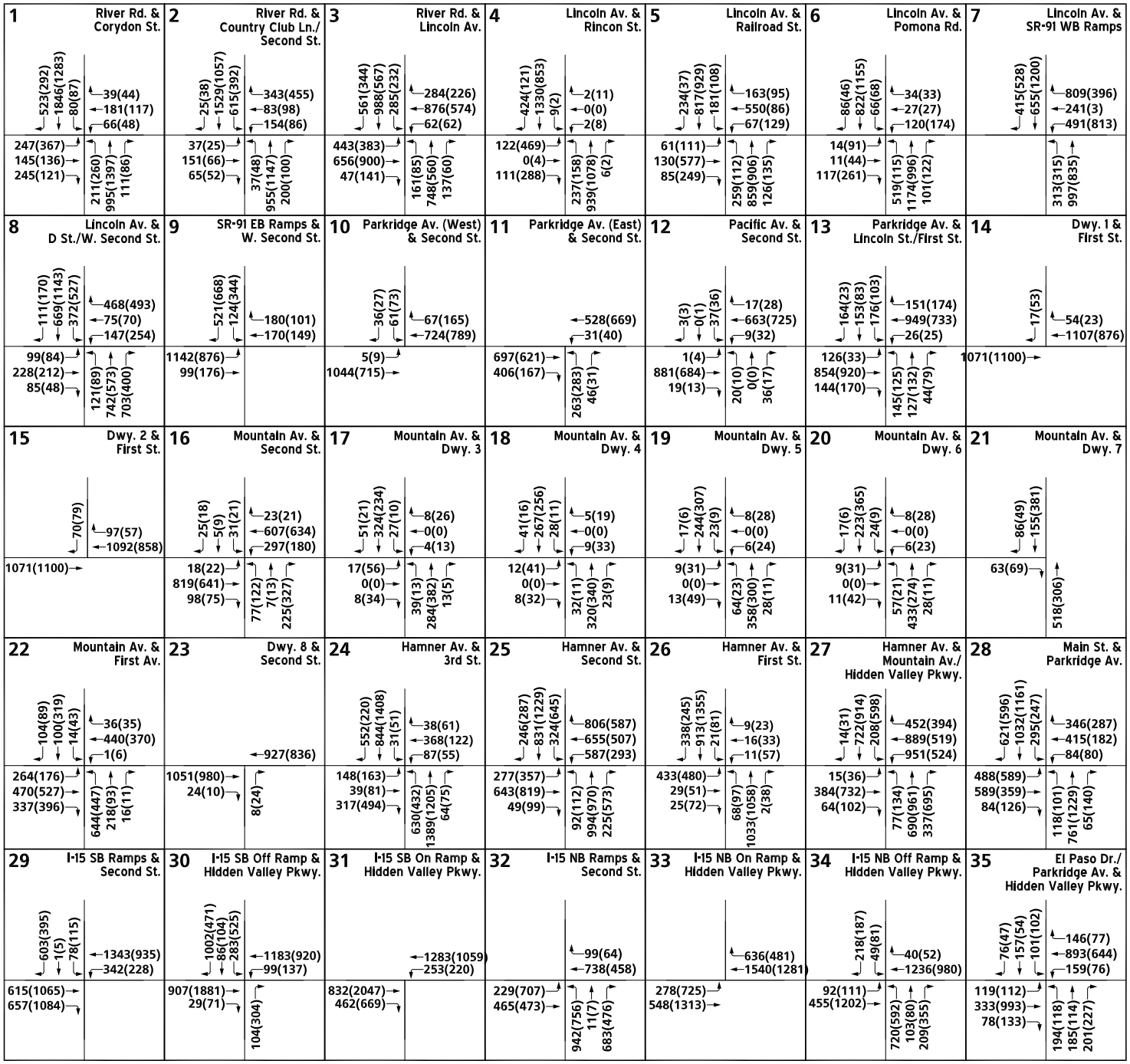


EXHIBIT 7-4: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

7.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2040) Without and With Project traffic conditions with Existing roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. The intersection analysis results are summarized in Table 7-1 and illustrated on Exhibit 7-5 which indicates that the following study area intersections are anticipated to operate at an unacceptable LOS during one or more peak hours for Horizon Year (2040) Without Project traffic conditions:

- River Rd. & Corydon St. (#1) – LOS E AM and PM peak hours
- River Rd. & Lincoln Av. (#3) – LOS F AM peak hour only
- Parkridge Av. (West) & Second St. (#10) – LOS F AM and PM peak hours
- Parkridge Av. (East) & Second St. (#11) – LOS F AM and PM peak hours
- Pacific Av. & Second St. (#12) – LOS F AM and PM peak hours
- Mountain Av. & Second St. (#16) – LOS F AM and PM peak hours
- Mountain Av. & First St. (#22) – LOS F AM and PM peak hours
- Hamner Av. & Second St. (#25) – LOS F AM and PM peak hours
- Hamner Av. & Mountain Av./Hidden Valley Pkwy. (#27) – LOS F AM and PM peak hours
- Main St. & Parkridge Av. (#28) – LOS F AM and PM peak hours
- I-15 Southbound Ramps & Second St. (#29) – LOS E AM peak hour only
- I-15 Northbound Ramps & Second St. (#32) – LOS F AM and PM peak hours

As shown in Table 7-1 and illustrated on Exhibit 7-6, with the addition of Project traffic, there are no additional intersections anticipated to result in an unacceptable LOS (i.e., LOS E or worse) in addition to the intersections previously identified under Horizon Year (2040) Without Project conditions.

The intersection operations analysis worksheets for Horizon Year (2040) Without Project and With Project conditions are included in Appendix 7.1 and 7.2, respectively.

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

For Horizon Year (2040) Without Project traffic conditions, there are no unsignalized study area intersection anticipated to meet the peak hour volume-based traffic signal warrants, in addition to the intersections previously warranted under Existing (2018), E+P, and Opening Year Cumulative (2022) traffic conditions (see Appendix 7.3):

For Horizon Year (2040) With Project conditions, the following unsignalized study area intersection is anticipated to meet the peak hour volume-based traffic signal warrants in addition to the intersections previously warranted under Existing, E+P, and Opening Year Cumulative (2022) Without Project conditions (see Appendix 7.4):

- Parkridge Av. (West) & Second St. (#10)

Table 7-1

Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	River Rd. & Corydon St.	TS	**57.4**	**57.1**	**E**	**E**	**58.8**	**58.6**	**E**	**E**
2	River Rd. & Country Club Ln./Second St.	TS	49.8	46.6	D	D	53.0	53.8	D	D
3	River Rd. & Lincoln Av.	TS	**87.0**	37.9	**F**	D	**88.8**	39.3	**F**	D
4	Lincoln Av. & Rincon St.	TS	26.7	37.0	C	D	27.6	38.1	C	D
5	Lincoln Av. & Railroad St.	TS	35.5	44.2	D	D	37.2	45.4	D	D
6	Lincoln Av. & Pomona Rd.	TS	32.4	24.6	C	D	32.7	24.8	C	C
7	Lincoln Av. & SR-91 WB Ramps	TS	30.5	38.1	C	D	30.8	42.9	C	D
8	Lincoln Av. & D St./Second St.	TS	35.8	52.1	D	D	37.5	52.1	D	D
9	SR-91 EB Ramps & Second St.	TS	28.5	24.1	C	C	30.0	24.3	C	C
10	Parkridge Av. (West) & Second St.	CSS	**>100.0**	**72.3**	**F**	**F**	**>100.0**	**99.2**	**F**	**F**
11	Parkridge Av. (East) & Second St.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
12	Pacific Av. & Second St.	AWS	**>100.0**	**61.5**	**F**	**F**	**>100.0**	**89.8**	**F**	**F**
13	Parkridge Av. & Lincoln Av./First St.	TS	44.7	42.4	D	D	52.0	49.4	D	D
14	Dwy. 1 & First St.	**CSS**	Future Intersection				13.8	12.6	B	B
15	Dwy. 2 & First St.	**CSS**	Future Intersection				15.5	13.2	B	B
16	Mountain Av. & Second St.	AWS/**TS**[3]	**>100.0**	**>100.0**	**F**	**F**	49.2	47.1	D	D
17	Mountain Av. & Dwy. 3	**CSS**	Future Intersection				14.7	13.5	B	B
18	Mountain Av. & Dwy. 4	**CSS**	Future Intersection				13.6	14.4	B	B
19	Mountain Av. & Dwy. 5	**TS**	Future Intersection				6.0	7.7	A	A
20	Mountain Av. & Dwy. 6	**CSS**	Future Intersection				13.9	13.1	B	B
21	Mountain Av. & Dwy. 7	**CSS**	Future Intersection				9.3	10.2	A	B
22	Mountain Av. & First St.	AWS/**TS**[3]	**>100.0**	**>100.0**	**F**	**F**	**72.4**	52.3	**E**	D
23	Dwy. 8 & Second St.	**CSS**	Future Intersection				20.4	19.7	C	C
24	Hamner Av. & 3rd St.	TS	51.7	42.2	D	D	52.0	44.6	D	D
25	Hamner Av. & Second St.	TS	**131.3**	**>200.0**	**F**	**F**	**135.9**	**>200.0**	**F**	**F**
26	Hamner Av. & First St.	TS	19.7	32.1	B	C	20.4	32.9	C	C
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.	TS	**105.6**	**112.3**	**F**	**F**	**141.3**	**116.1**	**F**	**F**
28	Main St. & Parkridge Av.	TS	**154.4**	**130.2**	**F**	**F**	**155.5**	**134.1**	**F**	**F**
29	I-15 SB Ramp & Second St.	TS	**60.0**	42.8	**E**	D	**84.2**	**75.2**	**F**	**E**
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	TS	21.6	43.8	C	D	23.6	53.3	C	D
31	I-15 SB On-Ramp & Hidden Valley Pkwy.	TS	3.0	7.2	A	A	3.0	15.7	A	B
32	I-15 NB Ramps & Second St.	TS	**105.8**	**85.0**	**F**	**F**	**114.8**	**114.4**	**F**	**F**
33	I-15 NB On-Ramp & Hidden Valley Pkwy.	TS	6.9	12.5	A	B	7.2	12.6	A	B
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	TS	32.3	18.9	C	B	42.3	19.5	D	B
35	Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.	TS	40.5	46.4	D	D	42.5	49.1	D	D

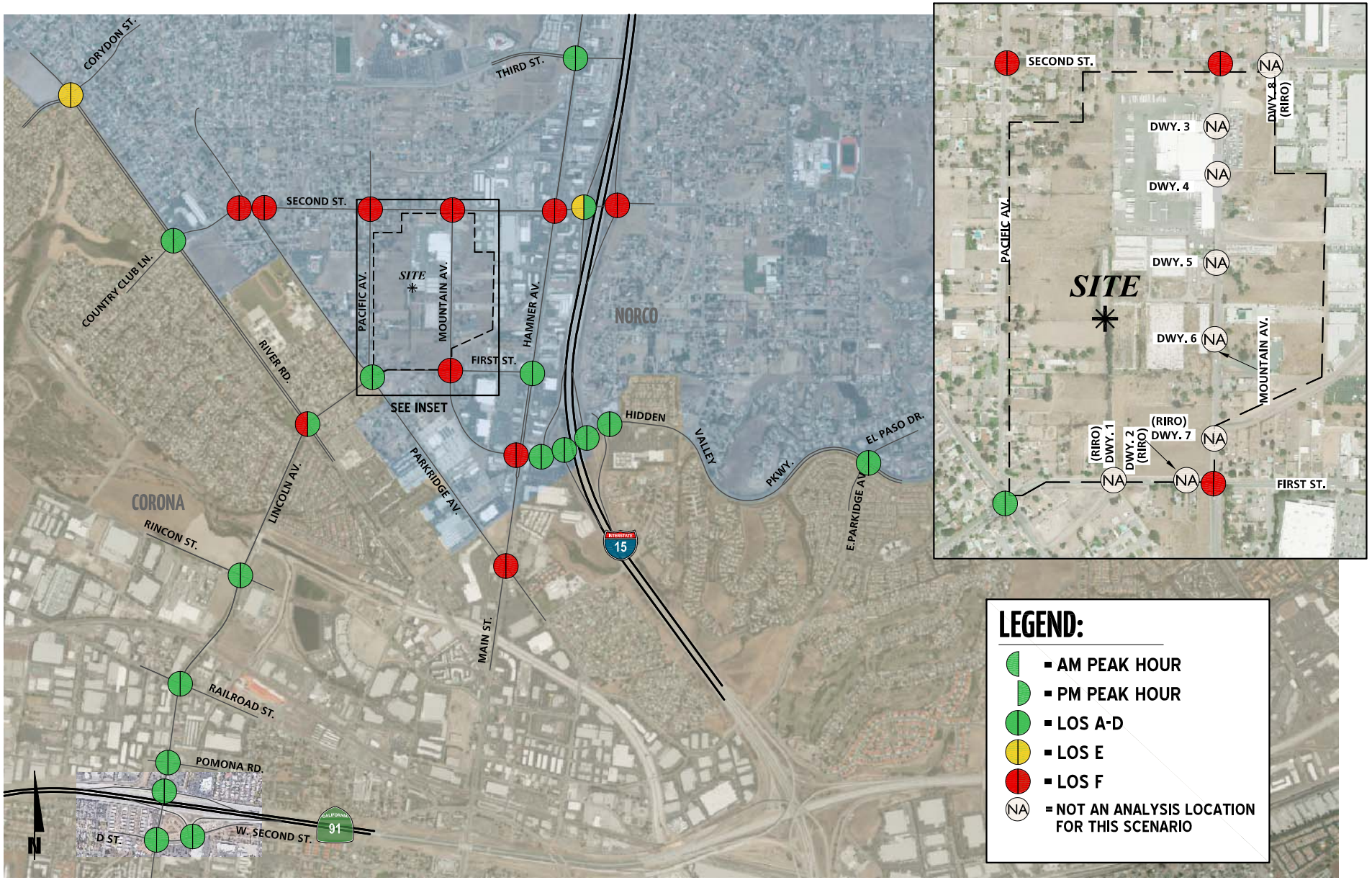
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

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

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

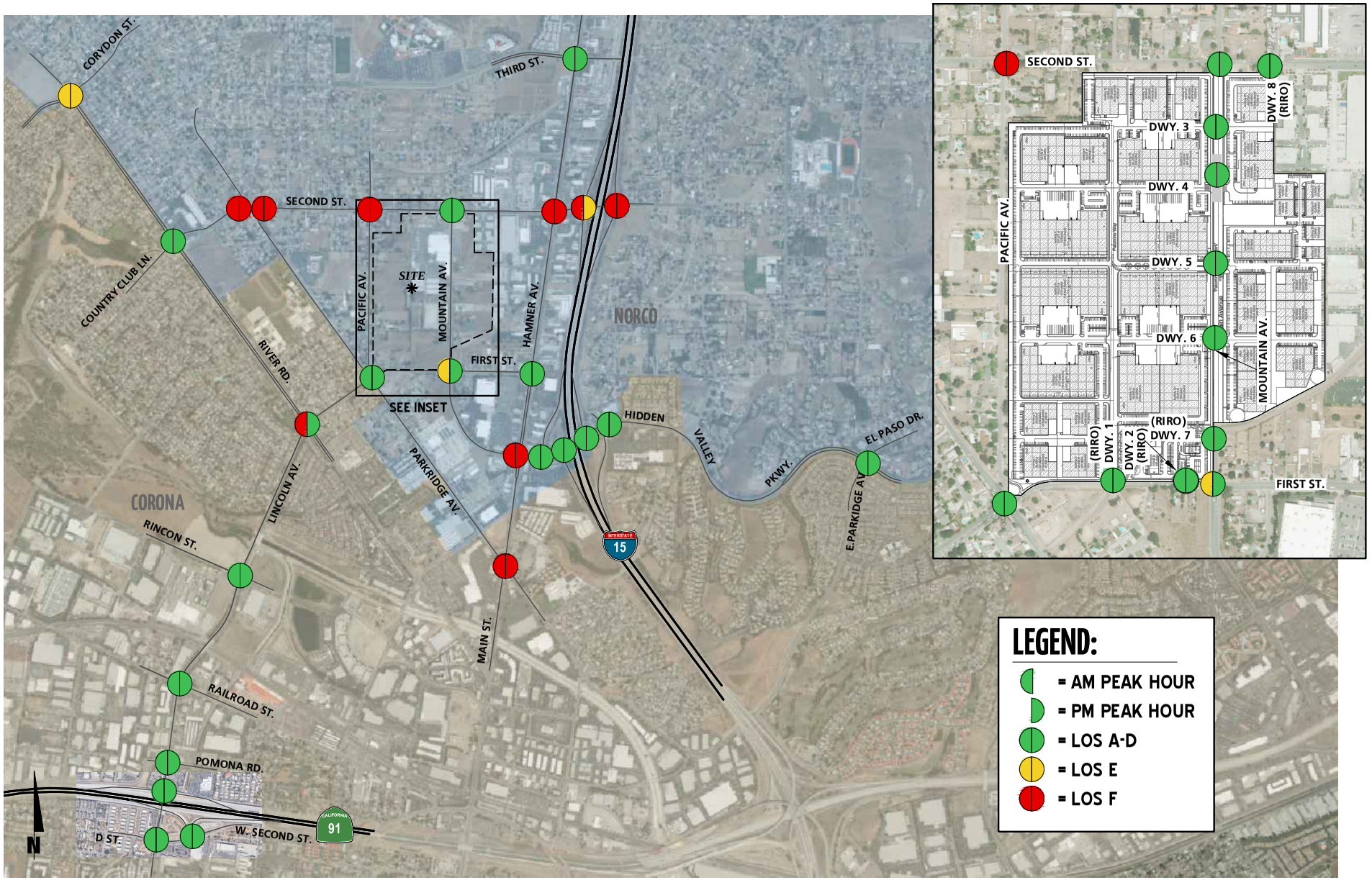
[3] A traffic signal will be constructed by the Project as part of the site adjacent roadway improvements (see Exhibit 1-4)

EXHIBIT 7-5: HORIZON YEAR (2040) WITHOUT PROJECT SUMMARY OF LOS



URBAN CROSSROADS

EXHIBIT 7-6: HORIZON YEAR (2040) WITH PROJECT SUMMARY OF LOS



URBAN CROSSROADS

7.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the SR-91 Freeway at the Lincoln Avenue and Second Street interchanges and the I-15 Freeway at the Second Street and Hidden Valley Parkway interchanges to assess vehicle queues for the off-ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the SR-91 Freeway or the I-15 Freeway mainline. Queuing analysis findings are presented in Table 7-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 7-2, the following movement is anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) Without Project traffic conditions:

- I-15 Northbound Ramps & Second St. (#32) NBL/T – AM peak hour only

There are no movements anticipated to experience queuing during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project traffic. Worksheets for Horizon Year (2040) Without Project and With Project traffic conditions off-ramp queuing analyses are provided in Appendices 7.5 and 7.6, respectively.

7.7 BASIC FREEWAY SEGMENT ANALYSIS

Horizon Year (2040) Without Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 7-7. As shown in Table 7-3, the following freeway segments are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2040) Without Project traffic conditions:

- SR-91 Freeway Eastbound, West of Second Av. (#2) – LOS F PM peak hour only
- I-15 Freeway Southbound, North of Second St. (#3) – LOS F AM and PM peak hours
- I-15 Freeway Northbound, North of Second St. (#6) – LOS E AM peak hour; LOS F PM peak hour

Horizon Year (2040) With Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 7-8. There are no additional study area freeway segments anticipated to operate at an unacceptable LOS with the addition of Project traffic. Horizon Year (2040) Without Project and With Project basic freeway segment analysis worksheets are provided in Appendix 7.7 and 7.8, respectively.

As previously noted, the basic freeway segment analysis is based on the reported PeMS data. However, field observations indicate constrained flow. As a result, the LOS is reported as acceptable, however the freeways are considered at capacity during the peak hours. Section 3.9 *Existing Conditions Basic Freeway Segment Analysis* discusses the SR-91 Freeway and the I-15 Freeway constrained flow in greater detail.

Table 7-2

Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2040) Conditions

	Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project			
				95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
				AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
7	Lincoln Av. & SR-91 WB Ramps	WBL	315	214	423 [2]	Yes	No	214	423 [2]	Yes	No
		WBL/T	1050	222	426 [2]	Yes	Yes	222	426 [2]	Yes	Yes
		WBR	300	686 [2,3]	224 [2]	Yes	Yes	686 [2,3]	245 [2]	Yes	Yes
9	SR-91 EB Ramps & Second St.	SBL	930	64	153	Yes	Yes	65	154	Yes	Yes
		SBR	430	63	68	Yes	Yes	67	68	Yes	Yes
29	I-15 SB Ramp & Second St.	SBT/L	1500	96	135	Yes	Yes	96	135	Yes	Yes
		SBR	340	628 [2,3]	250	Yes	Yes	851 [2,3]	335 [2]	Yes	Yes
30	I-15 SB Off-Ramp & Hidden Valley Pkwy.	SBL	1650	221	445 [2]	Yes	Yes	221	487 [2]	Yes	Yes
		SBL/T/R	1650	453 [2]	462 [2]	Yes	Yes	602 [2]	504 [2]	Yes	Yes
		SBR	320	411 [3]	156	Yes	Yes	544 [2,3]	183	Yes	Yes
32	I-15 NB Ramps & Second St.	NBL/T	1265	**1,288** [2]	987 [2]	**No**	Yes	**1,349** [2]	1,009 [2]	**No**	Yes
		NBR	1265	614 [2]	228	Yes	Yes	617 [2]	239	Yes	Yes
34	I-15 NB Off-Ramp & Hidden Valley Pkwy.	NBL	1375	357 [2]	242	Yes	Yes	437 [2]	274 [2]	Yes	Yes
		NBT	1300	120	86	Yes	Yes	120	86	Yes	Yes
		NBR	470	63	253 [2]	Yes	Yes	63	258 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-15 and SR-91 Freeway mainline.

Table 7-3

Basic Freeway Segment Analysis for Horizon Year (2040) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2040 Without Project				2040 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
SR-91	WB	West of Lincoln Av.	5	29.9	24.6	D	C	30.0	24.8	D	C
	EB	West of Lincoln Av.	5	29.9	--[5]	D	**F**	30.2	--[5]	D	**F**
I-15	SB	North of Second St.	3	--[5]	--[5]	**F**	**F**	--[5]	--[5]	**F**	**F**
		Second St. to Hidden Valley Pkwy.	5	22.7	24.5	C	C	22.8	24.6	C	C
		South of Hidden Valley Pkwy.	4	26.7	31.7	D	D	26.8	32.8	D	D
	NB	North of Second St.	3	**40.7**	--[5]	**E**	**F**	**41.1**	--[5]	**E**	**F**
		Second St. to Hidden Valley Pkwy.	5	24.6	25.3	C	C	24.8	25.4	C	C
		South of Hidden Valley Pkwy.	4	33.8	34.4	D	D	34.5	34.7	D	D

* **BOLD** = Unacceptable Level of Service

[1] WB = Westbound; EB = Eastbound; SB = Southbound; NB = Northbound

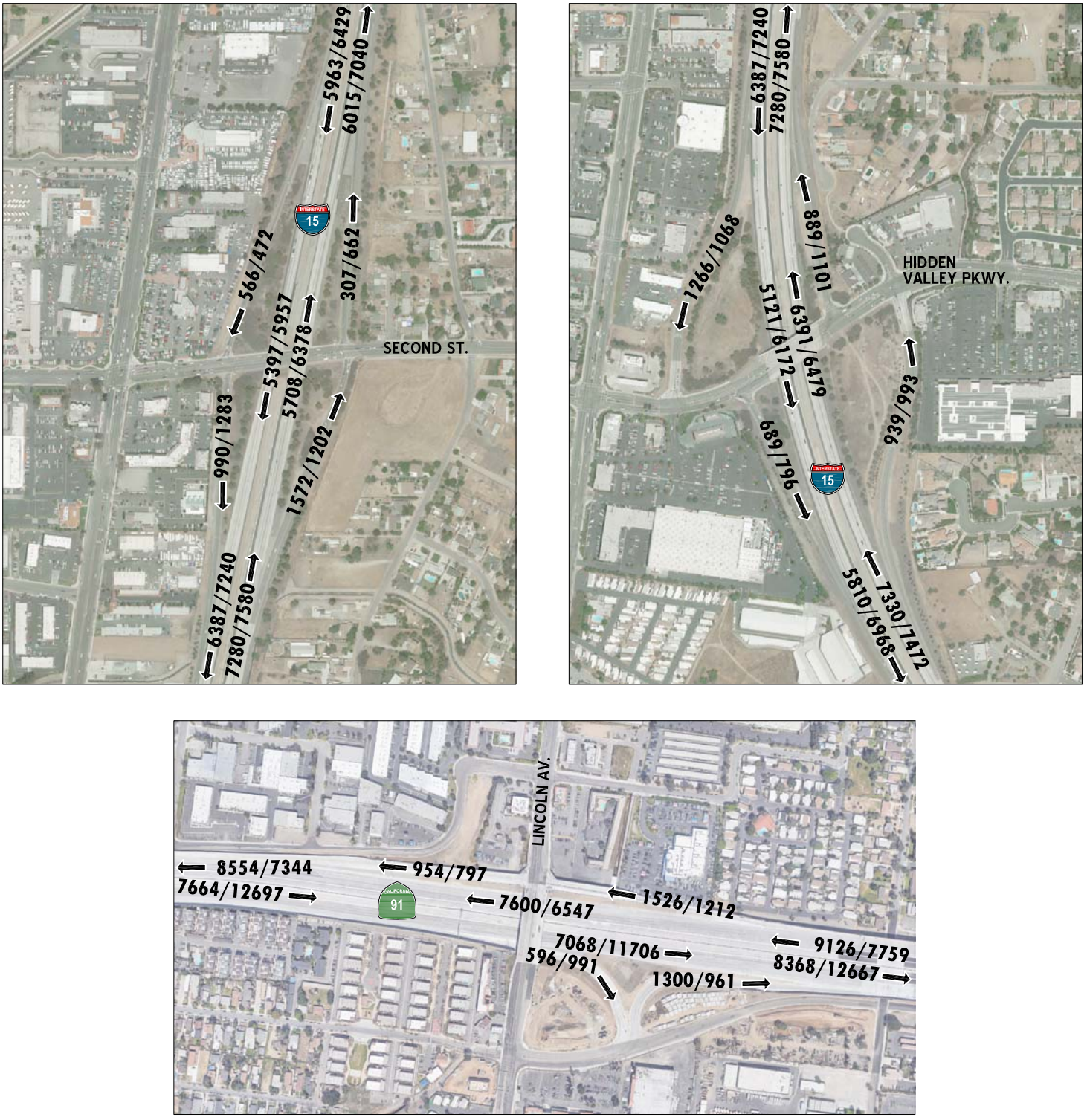
[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

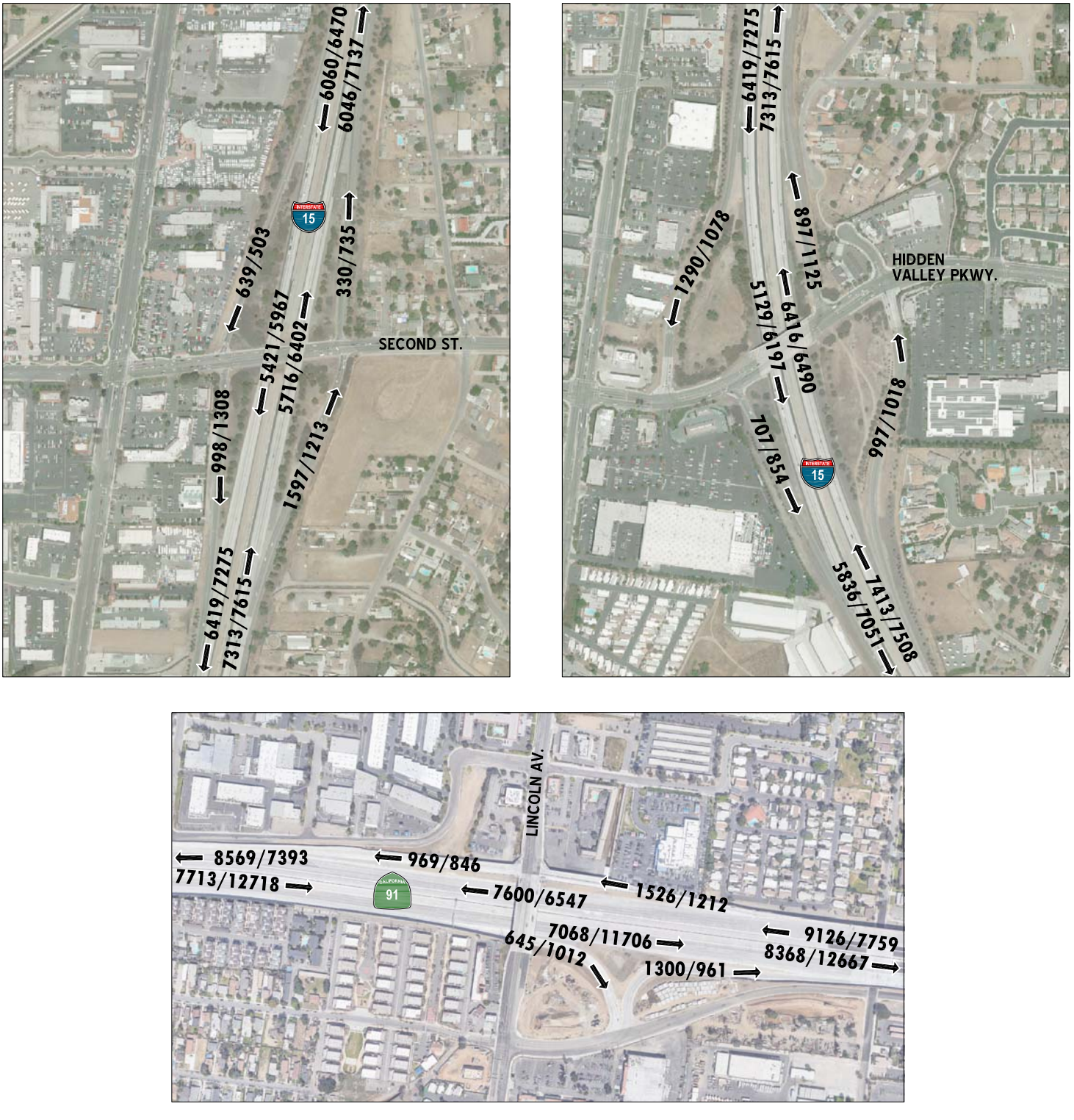
[5] HCS7 does not report density for freeway facilities operating at LOS F.

EXHIBIT 7-7: HORIZON YEAR (2040) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES



10899 - freeway.dwg

EXHIBIT 7-8: HORIZON YEAR (2040) WITH PROJECT FREEWAY MAINLINE VOLUMES



LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

10899 - freeway.dwg

URBAN CROSSROADS

7.8 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Horizon Year (2040) traffic conditions and the results of this analysis are presented in Table 7-4. As shown in Table 7-4, the following ramp junctions were found to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2040) Without Project traffic conditions:

- SR-91 Freeway, Eastbound off-ramp at Lincoln Av. (#2) – LOS E AM peak hour; LOS F PM peak hour
- I-15 Freeway, Southbound off-ramp at Second St. (#3) – LOS F AM and PM peak hours
- I-15 Freeway, Southbound on-ramp at Second St. (#4) – LOS F AM and PM peak hours
- I-15 Freeway, Northbound on-ramp at Hidden Valley Pkwy. (#9) – LOS E AM and PM peak hours
- I-15 Freeway, Northbound off-ramp at Hidden Valley Pkwy. (#10) – LOS E AM and PM peak hours

Horizon Year (2040) Without Project freeway ramp junction operations analysis worksheets are provided in Appendix 7.9.

As shown in Table 7-4, there are no additional study area ramp junctions anticipated to operate at an unacceptable LOS during the peak hours under Horizon Year (2040) With Project traffic conditions, in addition to those listed under Horizon Year (2040) Without Project traffic conditions. Horizon Year (2040) With Project freeway ramp junction operations analysis worksheets are provided in Appendix 7.10.

7.9 HORIZON YEAR DEFICIENCIES AND IMPROVEMENTS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better).

7.9.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

As shown previously in Table 7-1, there are ten intersections anticipated to operate at an unacceptable LOS (LOS E or worse) with the addition of Project traffic. The effectiveness of the recommended improvement strategies discussed below to address Horizon Year (2040) traffic deficiencies is presented in Table 7-5 and are described below:

River Road & Corydon Street (#1):

- Add a 2nd northbound left turn lane. North and southbound left turns may need to operate with lead-lag phasing in order to accommodate the future alignment of the turn lanes.

River Road & Lincoln Avenue (#3):

- Add a 2nd southbound left turn lane. The existing median may need to be removed to accommodate the 2nd southbound left turn lane.
- Add a westbound right turn lane.

Table 7-4

Freeway Ramp Junction Merge/Diverge Analysis for Horizon Year (2040) Conditions

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	2040 Without Project				2040 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]	Density[3]	LOS[4]
SR-91	WB	Lincoln Av. On-Ramp	5	30.6	D	27.3	C	30.7	D	27.7	C
	EB	Lincoln Av. Off-Ramp	5	**35.3**	**E**	**59.2**	**F**	**35.8**	**E**	**59.4**	**F**
I-15	SB	Second St. Off-Ramp	3	**42.0**	**F**	**43.3**	**F**	**43.6**	**F**	**43.7**	**F**
		Second St. On-Ramp	3	**44.4**	**F**	**48.4**	**F**	**45.3**	**F**	**48.7**	**F**
		Hidden Valley Pkwy. Off-Ramp	5	26.3	C	25.6	C	26.8	C	25.8	C
		Hidden Valley Pkwy. On-Ramp	4	28.5	D	31.7	D	28.7	D	32.4	D
	NB	Second St. On-Ramp	4	25.1	C	29.9	D	25.3	C	30.7	D
		Second St. Off-Ramp	5	29.1	D	26.9	C	29.3	D	27.1	C
		Hidden Valley Pkwy. On-Ramp	4	**35.7**	**E**	**37.4**	**E**	**35.9**	**E**	**37.8**	**E**
		Hidden Valley Pkwy. Off-Ramp	4	**40.1**	**E**	**40.3**	**E**	**40.8**	**E**	**40.6**	**E**

* **BOLD** = Unacceptable Level of Service

[1] NB = Northbound; SB = Southbound, EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 7-5

Intersection Analysis for Horizon Year (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	River Rd. & Corydon St.																	
	2040 Without Project:																	
	-Without Improvements	TS	2	2	0	1	2	1>	2	1	1>	1	1	d	**57.4**	**57.1**	**E**	**E**
	-With Improvements	TS	**2**	2	0	1	2	1>	2	1	1>	1	1	d	42.8	43.9	D	D
	2040 With Project:																	
	-Without Improvements	TS	2	2	0	1	2	1>	2	1	1>	1	1	d	**58.8**	**58.6**	**E**	**E**
	-With Improvements	TS	**2**	2	0	1	2	1>	2	1	1>	1	1	d	43.9	44.8	D	D
3	River Rd. & Lincoln Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	2	2	0	1	2	0	**87.0**	**37.9**	**F**	**D**
	-With Improvements	TS	1	2	1	**2**	2	1>	2	2	0	1	2	**1**	52.7	31.5	D	C
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	2	2	0	1	2	0	**88.8**	**39.3**	**F**	**D**
	-With Improvements	TS	1	2	1	**2**	2	1>	2	2	0	1	2	**1**	53.4	31.9	D	C
10	Parkridge Av. (West) & Second St.																	
	2040 Without Project:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	**>100.0**	**72.3**	**F**	**F**
	-With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	9.9	9.9	A	A
	2040 With Project:																	
	-Without Improvements	CSS	0	0	0	0	1	0	0	1	0	0	1	0	**>100.0**	**99.2**	**F**	**F**
	-With Improvements	**TS**	0	0	0	0	1	0	**1**	1	0	0	1	0	9.9	10.1	A	B
11	Parkridge Av. (East) & Second St.																	
	2040 Without Project:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	36.9	14.0	D	B
	2040 With Project:																	
	-Without Improvements	AWS	0	1	0	0	0	0	0	1	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	0	0	0	1	0	**1**	1	0	47.4	15.2	D	B
12	Pacific Av. & Second St.																	
	2040 Without Project:																	
	-Without Improvements	AWS	0	1	0	0	1	0	0	1	1	0	1	0	**>100.0**	**61.5**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	1	0	**1**	1	**0**	**1**	1	0	18.0	12.4	B	B
	2040 With Project:																	
	-Without Improvements	AWS	0	1	0	0	1	0	0	1	1	0	1	0	**>100.0**	**89.8**	**F**	**F**
	-With Improvements	**TS**	0	1	0	0	1	0	**1**	1	**0**	**1**	1	0	19.3	12.8	B	B
22	Mountain Av. & First St.																	
	2040 Without Project:																	
	-Without Improvements	AWS	0	1	1	0	1	0	0	2	0	0	1	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements	**TS**	**1**	1	1	**1**	1	**1**	**1**	2	0	**1**	**2**	0	34.0	27.9	C	C
	2040 With Project:																	
	-Without Improvements	**TS**	**1**	1	1	**1**	1	**1**	**1**	2	0	**1**	1	0	**72.4**	**52.3**	**E**	**D**
	-With Improvements	**TS**	**1**	1	1	**1**	1	**1**	**1**	2	0	**1**	**2**	0	48.0	43.3	D	D
25	Hamner Av. & Second St.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**131.3**	**>200.0**	**F**	**F**
	-With Improvements[4,5,6]	TS	1	**3**	**0**	**2**	2	**1**	**2**	2	**0**	**2**	**1**	**1>**	40.2	45.9	D	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	d	1	2	1	1	2	1	**135.9**	**>200.0**	**F**	**F**
	-With Improvements[4,5,6]	TS	1	**3**	**0**	**2**	2	**1**	**2**	2	**0**	**2**	**1**	**1>**	54.0	54.6	D	D

Table 7-5

Intersection Analysis for Horizon Year (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
27	Hamner Av. & Mountain Av./Hidden Valley Pkwy.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	d	2	2	d	1	2	d	1	2	1	**105.6**	**112.3**	**F**	**F**
	-With Improvements[7]	TS	1	2	**1>**	2	**3**	**1>**	1	2	d	**2**	**1**	**1>**	37.7	41.1	D	D
	-Without Improvements	TS	1	2	d	2	2	d	1	2	d	1	2	1	**141.3**	**116.1**	**F**	**F**
	-With Improvements[7]	TS	1	2	**1>**	2	**3**	**1>**	1	2	d	**2**	**1**	**1>**	45.1	54.0	D	D
28	Main St. & Parkridge Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	3	1>>	1	2	0	1	1	1	**154.4**	**130.2**	**F**	**F**
	-With Improvements	TS	1	**3**	**0**	1	3	1>>	**2**	**1**	0	1	1	1	54.6	40.8	D	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	3	1>>	1	2	0	1	1	1	**155.5**	**134.1**	**F**	**F**
	-With Improvements	TS	1	**3**	**0**	1	3	1>>	**2**	**1**	0	1	1	1	54.9	42.4	D	D
29	I-15 SB Ramp & Second St.																	
	2040 Without Project:																	
	-Without Improvements	TS	0	0	0	0	1	1	0	2	0	1	2	0	**60.0**	**42.8**	**E**	**D**
	-With Improvements	TS	0	0	0	0	1	1	0	2	**1**	1	2	0	33.8	20.2	C	C
	2040 With Project:																	
	-Without Improvements	TS	0	0	0	0	1	1	0	2	0	1	2	0	**84.2**	**75.2**	**F**	**E**
	-With Improvements	TS	0	0	0	0	1	1	0	2	**1**	1	2	0	47.3	22.8	D	C
32	I-15 NB Ramps & Second St.																	
	2040 Without Project:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**105.8**	**85.0**	**F**	**F**
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	52.7	42.2	D	D
	2040 With Project:																	
	-Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	0	**114.8**	**114.4**	**F**	**F**
	-With Improvements	TS	**1**	1	1	0	0	0	1	2	0	0	2	0	53.9	54.7	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; d= Defacto Right Turn Lane; **1** = Improvement

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

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement includes restriping the eastbound and westbound shared left-through lane to an exclusive through lane.

[5] Improvement includes modification of the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, and run the eastbound and westbound left turns as lead-lag, with the westbound left turn running as lag.

[6] Improvement includes restriping the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane, and restriping the westbound approach to provide two left turn lanes, one through lane, and one right turn lane

[7] Improvement includes restriping the westbound shared left-through lane to a westbound through lane.

Parkridge Avenue (West) & Second Street (#10):

- Install a traffic signal.
- Add an eastbound left turn lane.

Parkridge Avenue (East) & Second Street (#11):

- Install a traffic signal.
- Add a westbound left turn lane.

Pacific Avenue & Second Street (#12):

- Install a traffic signal.
- Restripe the eastbound approach to provide a left turn lane and a shared through-right turn lane.
- Add a westbound left turn lane.

Mountain Avenue & First Street (#22):

- Install a traffic signal.
- Add a southbound, eastbound, and westbound left turn lane.
- Add a southbound right turn lane.
- Add a 2nd westbound through lane.

Hamner Avenue & Second Street (#25):

- Restripe the northbound right turn lane as a shared through-right turn lane.
- Add a 2nd southbound left turn lane.
- Stripe a southbound right turn lane.
- Restripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane.
- Restripe the westbound approach to provide two left turn lanes, one through lane, and one right turn lane.
- Modify the traffic signal to run the northbound and southbound left turns as lead-lag, with the southbound left turn running as lag, protect the eastbound and westbound left turns, run the eastbound and westbound left turns as lead-lag, with the westbound left turn running as lag, and implement overlap phasing for the westbound right turn lane. As such, northbound/southbound and eastbound/westbound left turns will run separately (not concurrently).

Hamner Avenue & Mountain Avenue/Hidden Valley Parkway (#27):

- Stripe a northbound right turn lane.
- Restripe to provide a 3rd through lane and add a southbound right turn lane.
- Restripe the westbound shared left-through lane to a westbound left turn lane.
- Modify the traffic signal to provide overlap phasing for the northbound, southbound, and westbound right turn lanes.

Main Street & Parkridge Avenue (#28):

- Restripe the northbound free-right turn lane as a shared through-right turn lane.
- Restripe the eastbound approach to provide two left turn lanes and one shared through-right turn lane.

I-15 Southbound Ramps & Second Street (#29):

- Add an eastbound right turn lane.

I-15 Northbound Ramps & Second Street (#32):

- Add a northbound left turn lane.

Worksheets for Horizon Year (2040) Without Project and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 7.11 and 7.12, respectively.

The Project Applicant shall participate in the funding of off-site improvements, including traffic signals, that are needed to serve cumulative traffic conditions through the payment of Western Riverside County TUMF, City of Norco Streets, Traffic Signals, and Bridges Fee Program, or a fair share contribution as directed by the City. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases. Each of the improvements discussed above have been identified as being included as part of TUMF fee program, City fee program, or fair share contribution in Section 1.7 *Local and Regional Funding Mechanisms* of this TIA.

7.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously in Table 7-2, there is one movement anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2040) traffic conditions. Table 7-6 shows the effectiveness of the improvement strategies at the intersection that experiences off-ramp queuing issues during Horizon Year (2040) traffic conditions. With the proposed intersection improvements at the study area freeway ramp-to-arterial intersection (see Table 7-5), the analysis indicates that there are no queuing issues anticipated that may potentially "spill back" onto the I-15 Freeway mainline during the peak hours for Horizon Year (2040) traffic conditions (see Table 7-6). Off-ramp queuing analysis worksheets with improvements for Horizon Year (2040) Without Project and With Project are provided in Appendix 7.13 and 7.14, respectively.

Table 7-6

Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2040) Conditions With Improvements

Intersection	Movement	Available Stacking Distance (Feet)	2040 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM
32 I-15 NB Ramps & Second St.	NBL	**650**	646 [2]	426	Yes	Yes
	NBT	1265	627 [2]	437	Yes	Yes
	NBR	1265	620 [2]	225	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer

7.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

The RCTC, in partnership with Caltrans, is investing $455 million to improve the I-15 Freeway between Cajalco Road and SR-60 Freeway. The "I-15 Express Lanes Project" will add two tolled express lanes in each direction, with multiple entrances and exits. Construction began in 2018, and the express lanes will be open to traffic in 2020.

Caltrans typically assumes a reduction of fourteen percent to the freeway mainline through volumes to account for vehicles utilizing the express lanes. The reduction to the I-15 Freeway mainline volumes (14% per lane for 2 lanes, or 28% total) has been applied to account for the proposed express lanes. The analysis has been performed assuming the same number of mixed-flow lanes and on and off-ramp configurations as existing baseline conditions at the I-15 Freeway study area interchanges.

As shown in Table 7-7, the I-15 Freeway mainline segments are anticipated to improve operations to an acceptable LOS. Table 7-8 shows that the I-15 Freeway ramp junctions are anticipated to improve operations with the improvements discussed above, with the exception of the I-15 Southbound on-ramp at Second Street, which is anticipated to continue to operate at an unacceptable LOS during the peak hours. Worksheets for Horizon Year (2040) With Project conditions freeway mainline level of service analysis, with improvements, are provided in Appendix 7.15. Horizon Year (2040) With Project freeway ramp junction level of service analysis worksheets, with improvements, are provided in Appendix 7.16.

Table 7-7

Basic Freeway Segment Analysis for Horizon Year (2040) With Project Conditions With Improvements

Freeway	Direction[1]	Mainline Segment	Lanes[2]	With Improvements			
				Density[3]		LOS[4]	
				AM	PM	AM	PM
I-15	SB	North of Second St.	3	28.8	28.2	D	D
		Second St. to Hidden Valley Pkwy.	5	16.8	17.6	B	B
		South of Hidden Valley Pkwy.	4	19.1	21.6	C	C
	NB	North of Second St.	3	25.1	30.9	C	D
		Second St. to Hidden Valley Pkwy.	5	17.3	17.9	B	B
		South of Hidden Valley Pkwy.	4	22.6	22.2	C	C

[1] SB = Southbound; NB = Northbound

[2] Number of lanes are in the specified direction and is based on existing conditions. The I-15 Freeway express lanes are assumed to be completed.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 7-8

Freeway Ramp Junction Merge/Diverge Analysis for Horizon Year (2040) With Project Conditions With Improvements

Freeway	Direction[1]	Ramp or Segment	Lanes on Freeway[2]	With Improvements			
				AM Peak Hour		PM Peak Hour	
				Density[3]	LOS[4]	Density[3]	LOS[4]
I-15	SB	Second St. Off-Ramp	3	33.6	D	33.1	D
		Second St. On-Ramp	3	**36.7**	**E**	**39.0**	**E**
		Hidden Valley Pkwy. Off-Ramp	5	24.0	C	22.3	C
		Hidden Valley Pkwy. On-Ramp	4	23.8	C	26.4	C
	NB	Second St. On-Ramp	4	19.9	B	24.6	C
		Second St. Off-Ramp	5	25.9	C	23.7	C
		Hidden Valley Pkwy. On-Ramp	4	29.7	D	31.6	D
		Hidden Valley Pkwy. Off-Ramp	4	32.4	D	32.0	D

* **BOLD** = Unacceptable Level of Service

[1] NB = Northbound; SB = Southbound

[2] Number of lanes are in the specified direction and is based on existing conditions. The I-15 Freeway express lanes are assumed to be completed.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

8 REFERENCES

1. **Institute of Transportation Engineers.** *Trip Generation.* 10th Edition. 2017.

2. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2011 Program Update.* Fall 2011.

3. **Riverside County Transportation Commission.** *2011 Riverside County Congestion Management Program.* County of Riverside : RCTC, December 14, 2011.

4. **California Department of Transportation.** *Guide for the Preparation of Traffic Impact Studies.* December 2002.

5. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2016 Program Update.* July 2017.

6. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.

7. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2017.

8. **Transportation, California Department of.** *Freeway Performance Measurement (PeMS).* [Online] http://pems.dot.ca.gov/.

9. **San Bernardino County Transportation Authority.** *Congestion Management Program for County of San Bernardino.* County of San Bernardino : s.n., Updated 2016.

10. **Institute of Transportation Engineers.** *Trip Generation Handbook.* 2017.

11. **South Coast Air Quality Management District.** *Warehouse Truck Trip Study Data Results and Usage.* 2014.

12. **Southern California Association of Governments.** *2016 Regional Transportation Plan/Sustainable Communities Strategy.* April 2016.

This Page Intentionally Left Blank

APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

This Page Intentionally Left Blank

URBAN CROSSROADS

260 E. Baker St. | Suite 200 | Costa Mesa, CA 92626 | (949) 660-1994
urbanxroads.com

October 20, 2017 (Revised)

SCOPE OF WORK

To: Steve King, City of Norco

From: Charlene So, Urban Crossroads, Inc.

Subject: Palomino Business Park Traffic Impact Analysis Scope

PROJECT DESCRIPTION

The proposed Palomino Business Park is generally located south of 2nd Street, north of 1st Street, west of Pacific Avenue, and on either side of Mountain Avenue in the City of Norco. As shown on the conceptual site plan, the project will consist of approximately 800,360 square feet of warehousing use within 6 buildings ranging in size between 103,300 square feet to 149,930 square feet, 893,860 square feet of industrial park use within 22 buildings, 6,520 square feet of commercial retail use, 6,520 square feet of in-line fast-food restaurant use without drive-through window, a 4,275 square foot fast-food restaurant with drive-through window, a 12-vehicle fueling position gas station with convenience market, and a 12-vehicle fueling position gas station with convenience market on the southwest corner of Mountain Avenue and 1st Street. The preliminary site plan in which the traffic study will be based on is shown on Exhibit 1.

For purposes of this traffic analysis, the project will be constructed over a single phase with an anticipated Opening Year of 2020.

PROJECT STUDY ASSUMPTIONS

Study Area

As shown on Exhibit 2, the proposed Project site currently contains homes and industrial uses and is generally surrounded by residential, industrial and commercial retail uses. The study area, as shown on Exhibit 2, is generally bounded by 3rd Street to the north, Hidden Valley Parkway to the south, the SR-91 Freeway o the west, and Parkridge Avenue to the east. Consistent with the County of Riverside traffic study guidelines, the study area includes any intersection of Collector or higher classification street with another Collector roadway or higher classification street, at which the proposed project will add 50 or more peak hour trips. The proposed intersection analysis locations are identified on Exhibit 2.

Analysis Scenarios

Consistent with County of Riverside traffic study guidelines, the following analysis scenarios will be analyzed for this traffic study:

- Existing (2017)
- Existing + Project
- Opening Year Cumulative Without and With Project

Required Level of Service

Since the City of Norco does not have traffic study guidelines, the guidelines prepared by the County of Riverside are proposed to be used. The County has established, as a county-wide target, a Level of Service C on all County-maintained roads and conventional State Highways. As an exception, Level of Service D is allowed in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional State Highways, or at freeway ramp intersections. LOS E may be allowed in designated community centers to the extent that it would support transit-oriented development and pedestrian communities. It is our understanding that the City of Norco also accepts LOS D on its intersections, consistent with the County of Riverside. Based on this policy, level of service D is acceptable at all study area intersections.

Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. Trip generation rates for the Project are shown in Table 1, while a trip generation summary illustrating daily and peak hour trip generation estimates are provided in Table 2.

The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual, 10th Edition, 2017. For purposes of this analysis, ITE land use codes 150 (Warehousing), 130 (Industrial Park), 820 (Shopping Center), 933 (Fast-food Restaurant Without Drive-Through Window), 934 (Fast-food Restaurant With Drive-Through Window), and 945 (Gas Station with Convenience Market) have been used to derive site specific trip generation estimates. As noted on Table 1, refinements to these raw trip generation estimates have been made to provide a more detailed breakdown of trips by vehicle mix. Vehicle mix percentages were obtained from the City of Fontana Truck Trip Generation Study (August 2003), a recognized source throughout the County of San Bernardino for estimating vehicle mix for the warehouse use. The vehicle mix for the industrial park was obtained from the Providence Business Park Trip Generation Assessment (prepared by Urban Crossroads, August 6, 2013). The trip generation assessment identified a trip generation and vehicle mix based on 4 locally surveyed sites that are similar in nature to that proposed by the Project. However, adjustments have been made to the 4+-Axle trucks based on the intended use for the smaller industrial park buildings.

Finally, passenger car equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be

represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in Appendix B of the San Bernardino County *Congestion Management Program* (CMP), 2016 Update. Note that these procedures are consistent with those adapted by the County of Riverside for warehouse/distribution center projects.

Project daily and peak hour trip generation by vehicle type is shown in Table 2. The proposed Project is anticipated to generate a net total of approximately 8,202 PCE trip-ends per day with 762 PCE AM peak hour trips and 921 PCE PM peak hour trips. For informational purposes, the Project trip generation based on actual vehicles is shown on Table 3. PCE based trip generation is higher than the actual vehicles as it utilizes factors that have been applied to the heavy trucks. As such, the PCE trip generation is more conservative than the actual vehicle trip generation.

As noted previously, the project site appears to contain existing residential and industrial uses. We are proposing to inventory the existing and occupied uses (through review of aerial imagery and field observation), estimate the trips generated by these uses, and apply a reduction for these trips against the vehicle trips forecast for the proposed project since traffic generated by these existing uses will be captured in the traffic count data.

Project Trip Distributions

The project trip distribution patterns for both passenger cars and trucks have been developed in consultation with the applicant. Passenger car distribution patterns will be based on existing and planned land uses and roadway infrastructure in the area. Truck distribution patterns will be based on City truck routes, proximity to the freeway system and the applicant's input on percentage of traffic oriented to the Port of Long Beach or other destination.

The following exhibits illustrate the truck and passenger car trip distributions for the project under each analysis scenario:

- Exhibit 3: Project (Passenger Car) Trip Distribution
- Exhibit 4: Project (4+Axle Trucks) Trip Distribution

Ambient Growth Rate

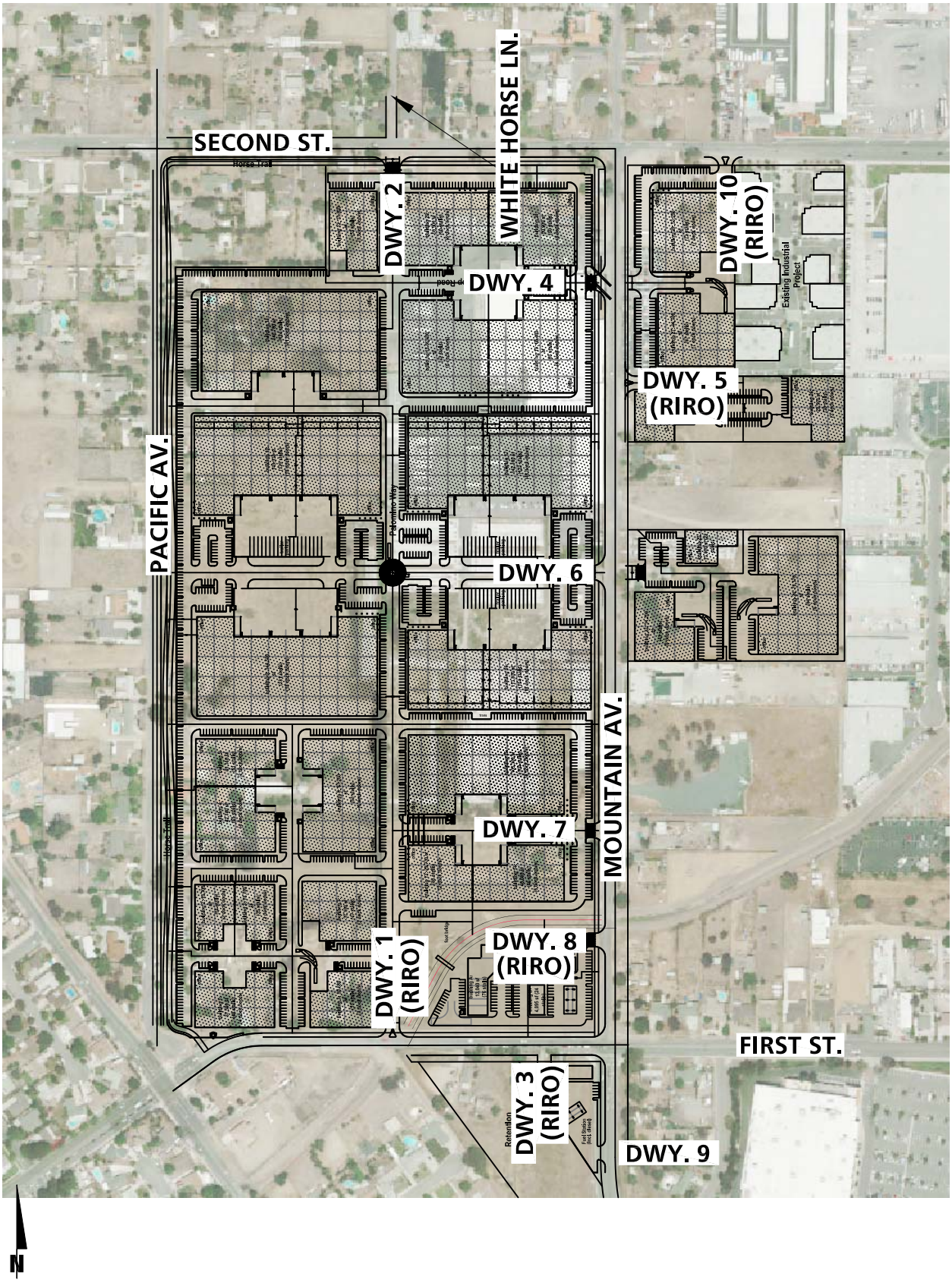
Consistent with other City of Norco traffic studies performed by Urban Crossroads, an ambient growth rate of 2 percent per year, compounded over 3 years, will be used for this analysis. If during development of the cumulative project list a substantial number of cumulative projects are identified in or near the project study area, the consultant will contact City staff to explore reducing the ambient growth rate in an effort to not overstate background traffic volumes for future traffic conditions.

Cumulative Development Projects

It is requested that the City provide a current list of cumulative projects and applicable land use and intensity information for inclusion in our traffic study.

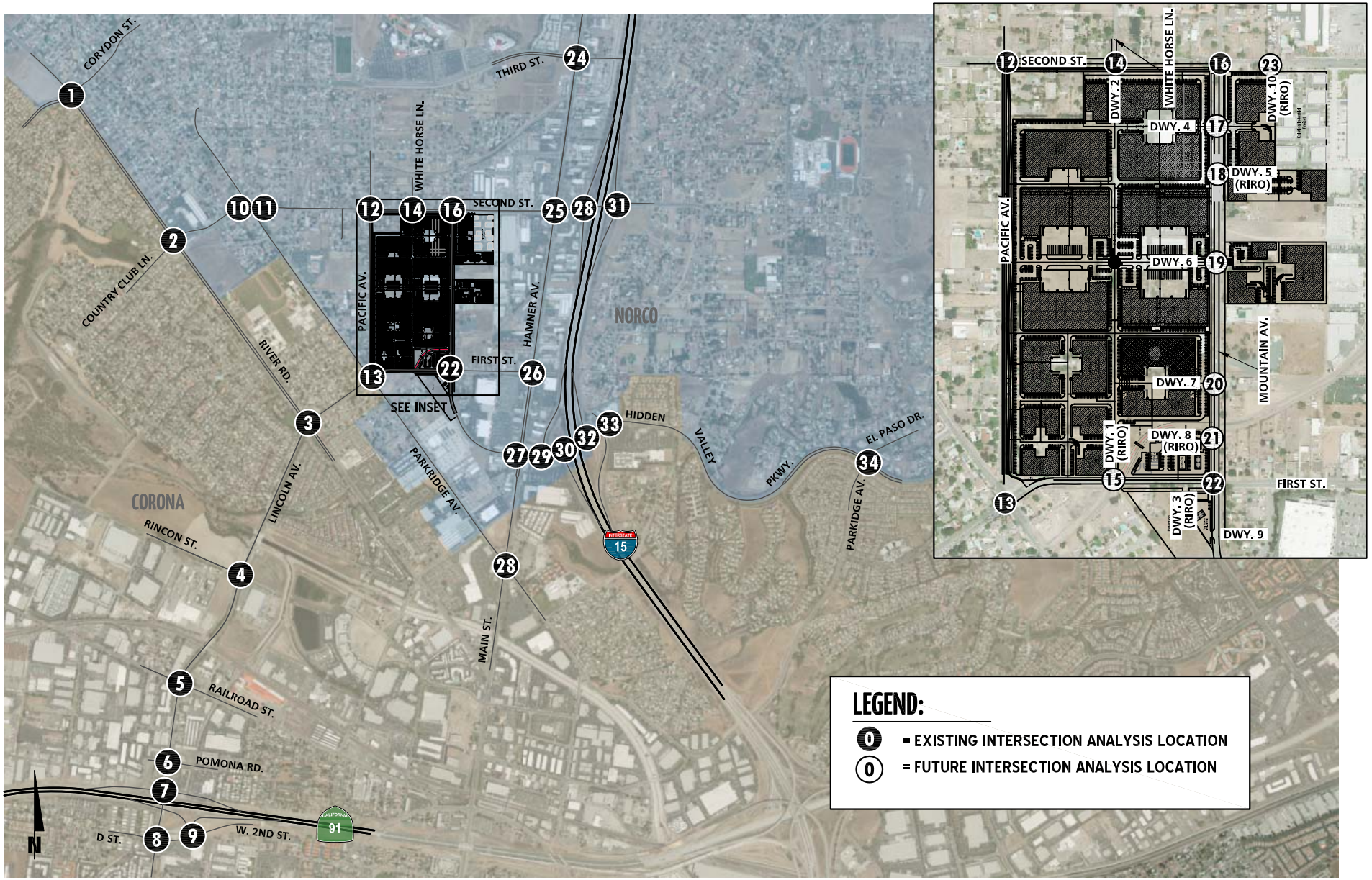
If you have any questions or comments, I can be reached at (949) 336-5982.

EXHIBIT 1: PRELIMINARY SITE PLAN



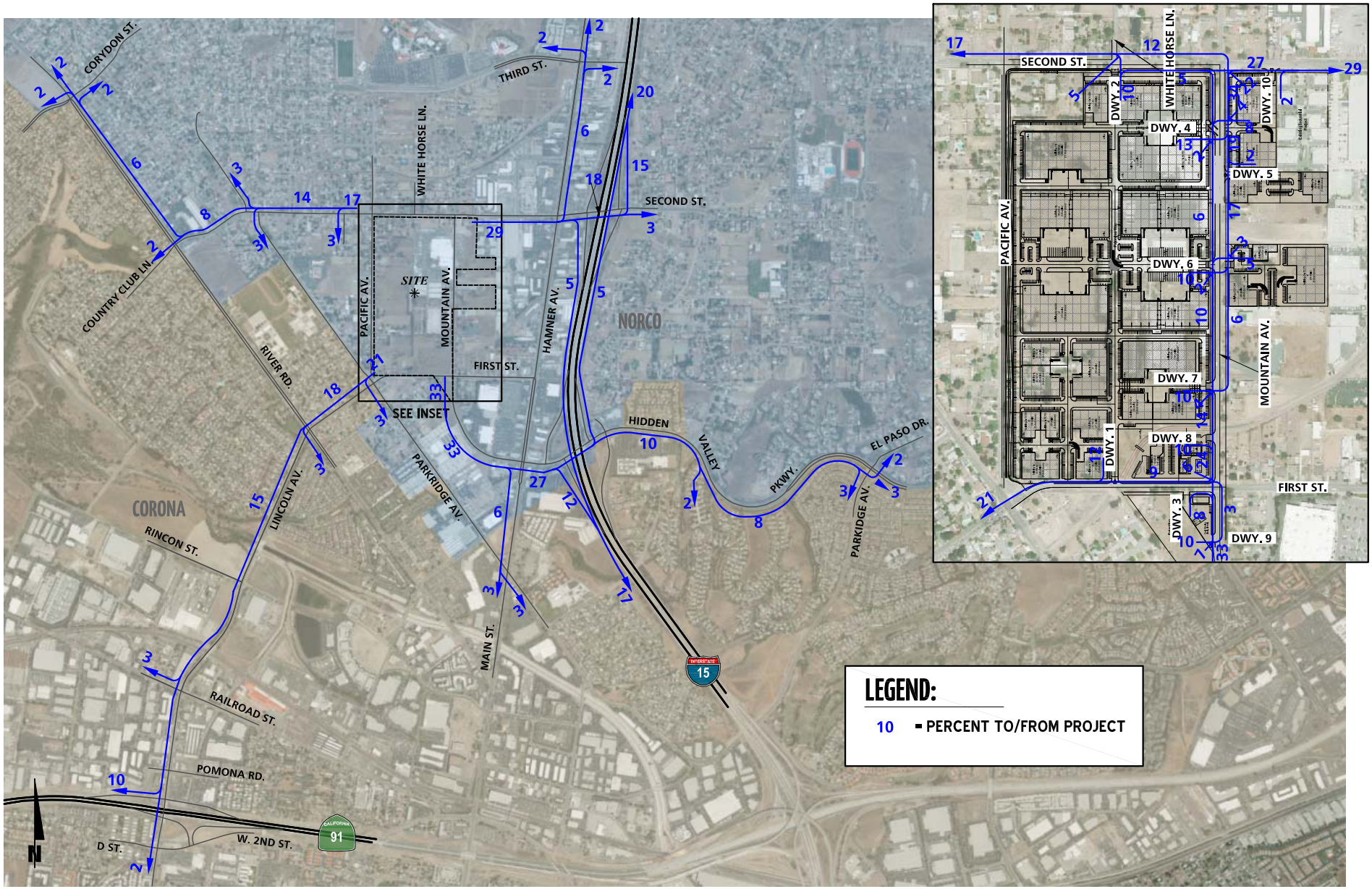
10899 - siteplan.dwg

EXHIBIT 2: LOCATION MAP



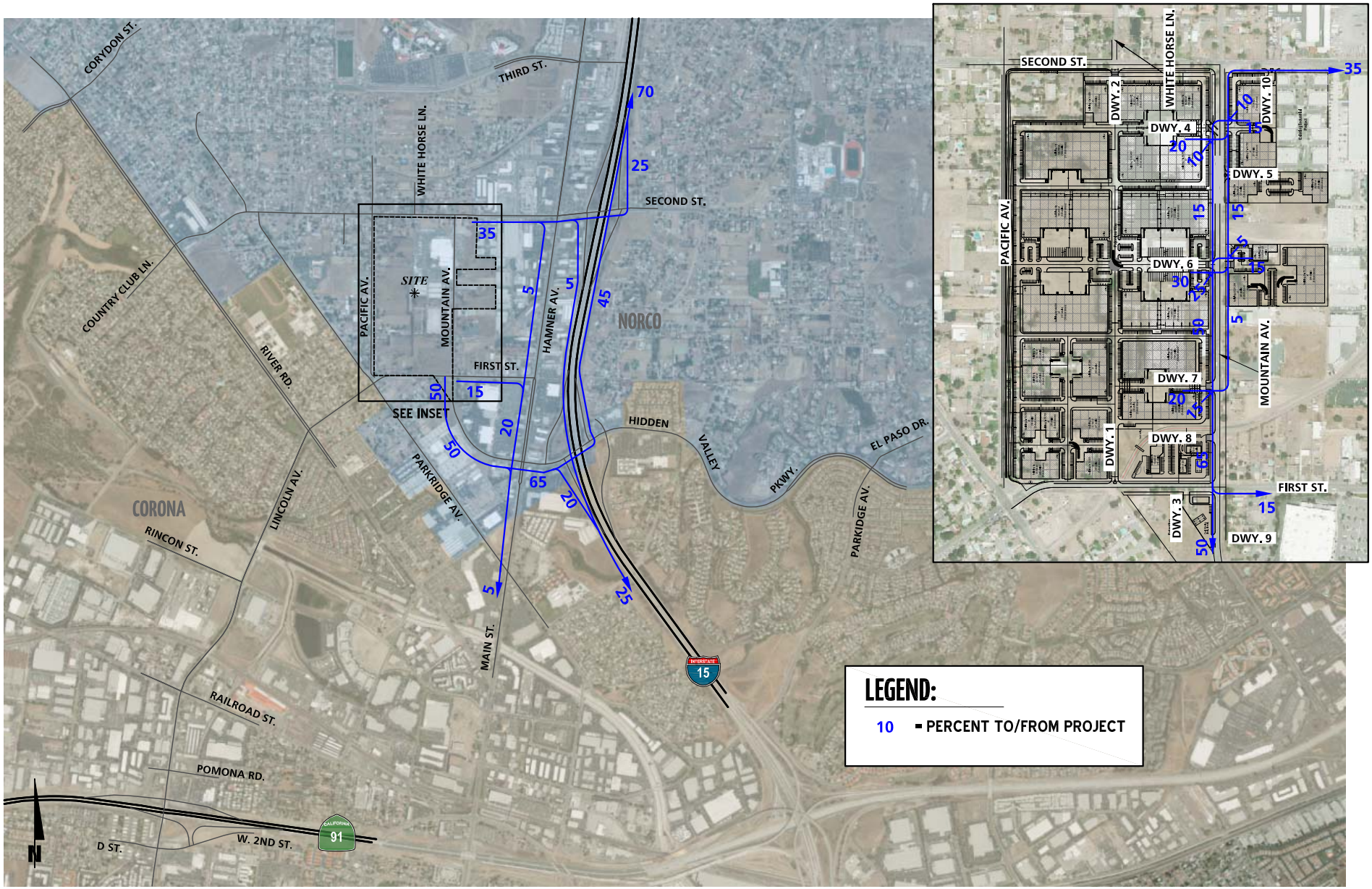
URBAN CROSSROADS

EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



URBAN CROSSROADS

EXHIBIT 4: PROJECT (4+-AXLE TRUCKS) TRIP DISTRIBUTION



URBAN CROSSROADS

Table 1

Project Trip Generation Rates[1]

Land Use	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Passenger Car Equivalent (PCE)									
Industrial Park[3]	TSF	130	0.32	0.08	0.40	0.08	0.32	0.40	3.37
81.0% Passenger Cars			0.262	0.062	0.324	0.068	0.256	0.324	2.730
10.1% 2-Axle Trucks (PCE = 1.5)			0.049	0.012	0.061	0.013	0.048	0.061	0.511
4.9% 3-Axle Trucks (PCE = 2.0)			0.032	0.001	0.007	0.002	0.006	0.007	0.061
4.0% 4-Axle+ Trucks (PCE = 3.0)			0.039	0.018	0.096	0.020	0.076	0.096	0.809
Warehousing[4]	TSF	150	0.13	0.04	0.17	0.05	0.14	0.19	1.74
79.57% Passenger Cars			0.104	0.031	0.135	0.041	0.110	0.151	1.385
3.46% 2-Axle Trucks (PCE = 1.5)			0.007	0.002	0.009	0.003	0.007	0.010	0.090
4.64% 3-Axle Trucks (PCE = 2.0)			0.012	0.004	0.016	0.005	0.013	0.018	0.161
12.33% 4-Axle+ Trucks (PCE = 3.0)			0.048	0.014	0.063	0.019	0.051	0.070	0.644
Actual Vehicles									
Industrial Park[3]	TSF	130	0.32	0.08	0.40	0.08	0.32	0.40	3.37
81.0% Passenger Cars			0.262	0.062	0.324	0.068	0.256	0.324	2.730
10.1% 2-Axle Trucks			0.033	0.008	0.040	0.008	0.032	0.040	0.340
4.9% 3-Axle Trucks			0.016	0.001	0.004	0.001	0.003	0.004	0.030
4.0% 4-Axle+ Trucks			0.013	0.006	0.032	0.007	0.025	0.032	0.270
Warehousing[4]	TSF	150	0.13	0.04	0.17	0.05	0.14	0.19	1.74
79.57% Passenger Cars			0.104	0.031	0.135	0.041	0.110	0.151	1.385
3.46% 2-Axle Trucks			0.005	0.001	0.006	0.002	0.005	0.007	0.060
4.64% 3-Axle Trucks			0.006	0.002	0.008	0.002	0.006	0.009	0.081
12.33% 4-Axle+ Trucks			0.016	0.005	0.021	0.006	0.017	0.023	0.215
Shopping Center	TSF	820	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Fast-food Restaurant w/o Drive-Thru	TSF	933	15.06	10.04	25.10	14.17	14.17	28.34	346.23
Fast-food Restaurant w/ Drive-Thru	TSF	934	20.50	19.69	40.19	16.99	15.68	32.67	470.95
Gas Station w/ Market	VFP	945	10.14	10.14	20.27	11.18	11.18	22.36	198.16

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet; VFP = Vehicle Fueling Position

[3] Vehicle Mix Source: Providence Business Park Trip Generation Assessment, August 6, 2013. PCE rates are per SBCTA.

[3] Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 150 (Heavy Warehouse), August 2003. PCE rates are per SANBAG.

Table 2

Project Trip Generation Summary (in PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse	800.360	TSF							
Passenger Cars:			83	25	108	33	88	121	1,108
Internal Capture:			-11	-13	-24	-2	-5	-7	-66
Truck Trips:									
2-axle:			5	2	7	2	6	8	72
3-axle:			10	3	13	4	10	14	129
4+-axle:			39	12	50	15	41	56	515
- Net Truck Trips (PCE) [2]			*54*	*17*	*70*	*21*	*57*	*78*	*716*
Warehouse Subtotal:			*126*	*29*	*154*	*52*	*140*	*192*	*1,758*
Industrial Park	893.860	TSF							
Passenger Cars:			235	55	290	61	229	290	2,440
Internal Capture:[3]			-45	-52	-97	-9	-20	-29	-242
Truck Trips:									
2-axle:			44	10	54	11	43	54	456
3-axle:			28	1	6	1	5	6	54
4+-axle:			35	16	86	18	68	86	723
- Net Truck Trips (PCE) [2]			*107*	*27*	*146*	*30*	*116*	*146*	*1,233*
Industrial Park Subtotal:			*297*	*30*	*339*	*82*	*325*	*407*	*3,431*
Building A: Commercial Retail	6.520	TSF							
Passenger Cars:			4	2	6	12	13	25	246
Internal Capture:[3]			-3	-3	-5	-5	-3	-8	-83
Pass-by Reduction:[4]			0	0	0	-2	-2	-4	-55
Commercial Retail Subtotal:			*1*	*-1*	*1*	*5*	*8*	*13*	*107*
Building A: Fast-food Without Drive-Thru	6.520	TSF							
Passenger Cars:			98	65	164	92	92	185	2,257
Internal Capture:[3]			-38	-32	-70	-26	-35	-61	-738
Pass-by Reduction:[4]			-16	-16	-32	-29	-29	-58	-759
Fast-food w/o Drive-Thru Subtotal:			*45*	*17*	*63*	*38*	*28*	*67*	*759*
Building B: Gas Station w/ Market	12.000	VFP							
Passenger Cars:			122	122	243	134	134	268	2,378
Internal Capture:[3]			-20	-21	-40	-41	-25	-66	-588
Pass-by Reduction:[4]			-63	-63	-126	-52	-52	-104	-1,002
Gas Station Subtotal:			*39*	*38*	*77*	*41*	*57*	*98*	*788*
Building C: Fast-food With Drive-Thru	4.275	TSF							
Passenger Cars:			88	84	172	73	67	140	2,013
Internal Capture:[3]			-38	-32	-70	-26	-35	-61	-870
Pass-by Reduction:[4]			-25	-25	-50	-16	-16	-32	-572
Fast-food w/ Drive-Thru Subtotal:			*26*	*27*	*53*	*32*	*16*	*48*	*572*

Table 2

Project Trip Generation Summary (in PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
SWC: Gas Station w/ Market	12.000	VFP							
Passenger Cars:			122	122	243	134	134	268	2,378
Internal Capture:[3]			-20	-21	-40	-41	-25	-66	-588
Pass-by Reduction:[4]			-63	-63	-126	-52	-52	-104	-1,002
Gas Station Subtotal:			*39*	*38*	*77*	*41*	*57*	*98*	*788*
Project Total (PCE) [5]			**573**	**179**	**762**	**290**	**630**	**921**	**8,202**

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Position

[2] Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE. (See Table 1)

[3] Internal capture based on the ITE Trip Generation Handbook methodology.

[3] Pass-by trip reductions obtained from the ITE Trip Generation Handbook: Tables F.9, F.31, F.32, F.37, and F.38.

[5] Project Total (PCE) = Passenger Cars + Net Truck Trips (PCE).

Table 3

Project Trip Generation Summary (in Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Warehouse	800.360	TSF							
Passenger Cars:			83	25	108	33	88	121	1,108
Internal Capture:			-11	-13	-24	-2	-5	-7	-66
Truck Trips:									
2-axle:			4	1	5	1	4	5	48
3-axle:			5	1	6	2	5	7	65
4+-axle:			13	4	17	5	14	19	172
- Net Truck Trips (Actual Vehicles)			*22*	*6*	*28*	*8*	*23*	*31*	*285*
Warehouse Subtotal:			*94*	*18*	*112*	*39*	*106*	*145*	*1,327*
Industrial Park	893.860	TSF							
Passenger Cars:			235	55	290	61	229	290	2,440
Internal Capture:[2]			-45	-52	-97	-9	-20	-29	-242
Truck Trips:									
2-axle:			29	7	36	8	29	36	304
3-axle:			14	1	3	1	3	3	27
4+-axle:			12	5	29	6	23	29	241
- Net Truck Trips (Actual Vehicles)			*55*	*13*	*68*	*15*	*55*	*68*	*572*
Industrial Park Subtotal:			*245*	*16*	*261*	*67*	*264*	*329*	*2,770*
Building A: Commercial Retail	6.520	TSF							
Passenger Cars:			4	2	6	12	13	25	246
Internal Capture:[2]			-3	-3	-5	-5	-3	-8	-83
Pass-by Reduction:[3]			0	0	0	-2	-2	-4	-55
Commercial Retail Subtotal:			*1*	*-1*	*1*	*5*	*8*	*13*	*107*
Building A: Fast-food Without Drive-Thru	6.520	TSF							
Passenger Cars:			98	65	164	92	92	185	2,257
Internal Capture:[2]			-38	-32	-70	-26	-35	-61	-738
Pass-by Reduction:[3]			-16	-16	-32	-29	-29	-58	-759
Fast-food w/o Drive-Thru Subtotal:			*45*	*17*	*63*	*38*	*28*	*67*	*759*
Building B: Gas Station w/ Market	12	VFP							
Passenger Cars:			122	122	243	134	134	268	2,378
Internal Capture:[2]			-20	-21	-40	-41	-25	-66	-588
Pass-by Reduction:[3]			-63	-63	-126	-52	-52	-104	-1,002
Gas Station Subtotal:			*39*	*38*	*77*	*41*	*57*	*98*	*788*
Building C: Fast-food With Drive-Thru	4.275	TSF							
Passenger Cars:			88	84	172	73	67	140	2,013
Internal Capture:[3]			-38	-32	-70	-26	-35	-61	-870
Pass-by Reduction:[4]			-25	-25	-50	-16	-16	-32	-572
Fast-food w/ Drive-Thru Subtotal:			*26*	*27*	*53*	*32*	*16*	*48*	*572*

Table 3

Project Trip Generation Summary (in Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
SWC: Gas Station w/ Market	12	VFP							
Passenger Cars:			122	122	243	134	134	268	2,378
Internal Capture:[3]			-20	-21	-40	-41	-25	-66	-588
Pass-by Reduction:[4]			-63	-63	-126	-52	-52	-104	-1,002
Gas Station Subtotal:			*39*	*38*	*77*	*41*	*57*	*98*	*788*
Project Total (Actual Vehicles) [4]			**489**	**154**	**642**	**262**	**535**	**796**	**7,110**

[1] TSF = Thousand Square Feet; VFP = Vehicle Fueling Position

[2] Internal capture based on the ITE Trip Generation Handbook methodology.

[3] Pass-by trip reductions obtained from the ITE Trip Generation Handbook: Tables F.9, F.31, F.32, F.37, and F.38.

[4] Project Total (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Vehicles).

APPENDIX 1.2:

PROJECT DRIVEWAY AND SITE ADJACENT QUEUING ANALYSIS

This Page Intentionally Left Blank

Intersection: 14: 1st St. & Dwy. 1

Movement	EB	SB
Directions Served	T	R
Maximum Queue (ft)	345	34
Average Queue (ft)	263	13
95th Queue (ft)	496	38
Link Distance (ft)	330	368
Upstream Blk Time (%)	33	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: 1st St. & Dwy. 2

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	414	419	7	63
Average Queue (ft)	369	364	0	30
95th Queue (ft)	475	494	5	55
Link Distance (ft)	394	394	105	113
Upstream Blk Time (%)	20	20		
Queuing Penalty (veh)	108	109		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Mountain Av. & 2nd St.

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	149	643	150	287	115	214	108
Average Queue (ft)	20	552	145	272	55	110	45
95th Queue (ft)	82	761	171	283	106	186	88
Link Distance (ft)		628		267	332	332	358
Upstream Blk Time (%)		22		47			
Queuing Penalty (veh)		0		439			
Storage Bay Dist (ft)	100		100				
Storage Blk Time (%)		43	55	20			
Queuing Penalty (veh)		8	348	61			

Intersection: 17: Mountain Av. & Dwy. 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	31	36	60	49
Average Queue (ft)	18	11	10	7
95th Queue (ft)	43	35	39	31
Link Distance (ft)	531	266	241	332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Mountain Av. & Dwy. 4

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	36	40	48	4	56	9
Average Queue (ft)	17	13	7	0	9	0
95th Queue (ft)	42	38	31	3	35	6
Link Distance (ft)	376	355	503	503	241	241
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 19: Mountain Av. & Dwy. 5

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	35	35	76	91	106	43	69	109
Average Queue (ft)	14	10	34	19	32	17	16	29
95th Queue (ft)	40	33	63	60	86	43	53	78
Link Distance (ft)	622	331		695	695		503	503
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100			100		
Storage Blk Time (%)			0	0			0	
Queuing Penalty (veh)			0	0			0	

Intersection: 20: Mountain Av. & Dwy. 6

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	36	35	61	43
Average Queue (ft)	17	12	11	8
95th Queue (ft)	43	37	41	33
Link Distance (ft)	580	496	271	695
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: Mountain Av. & Dwy. 7

Movement	EB
Directions Served	R
Maximum Queue (ft)	60
Average Queue (ft)	29
95th Queue (ft)	50
Link Distance (ft)	138
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Mountain Av. & 1st St.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	104	173	137	18	248	227	300	538	393	71	161	95
Average Queue (ft)	101	152	112	1	158	136	294	463	32	12	67	38
95th Queue (ft)	109	177	125	9	224	209	324	706	208	44	126	72
Link Distance (ft)		105	105		1082	1082		523	523		243	243
Upstream Blk Time (%)	54	75	48					33	0			
Queuing Penalty (veh)	0	400	256					0	0			
Storage Bay Dist (ft)	175			100			250			100		
Storage Blk Time (%)	54	75			39		47	0			5	
Queuing Penalty (veh)	128	197			0		103	0			1	

Intersection: 23: Dwy. 8 & 2nd St.

Movement	WB	NB
Directions Served	T	R
Maximum Queue (ft)	1162	30
Average Queue (ft)	1162	8
95th Queue (ft)	1162	28
Link Distance (ft)	1146	152
Upstream Blk Time (%)	79	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 2158

Intersection: 14: 1st St. & Dwy. 1

Movement	EB	SB
Directions Served	T	R
Maximum Queue (ft)	15	64
Average Queue (ft)	0	26
95th Queue (ft)	10	52
Link Distance (ft)	330	368
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: 1st St. & Dwy. 2

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	274	309	7	72
Average Queue (ft)	100	135	0	30
95th Queue (ft)	231	271	5	58
Link Distance (ft)	373	373	124	125
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Mountain Av. & 2nd St.

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	149	435	150	282	180	298	122
Average Queue (ft)	29	255	118	185	84	148	39
95th Queue (ft)	94	391	174	296	148	264	91
Link Distance (ft)		628		267	332	332	358
Upstream Blk Time (%)				4		0	
Queuing Penalty (veh)				30		0	
Storage Bay Dist (ft)	100		100				
Storage Blk Time (%)		30	23	15			
Queuing Penalty (veh)		6	153	27			

Intersection: 17: Mountain Av. & Dwy. 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	72	46	42	58
Average Queue (ft)	35	24	3	6
95th Queue (ft)	57	49	21	31
Link Distance (ft)	531	266	228	332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Mountain Av. & Dwy. 4

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LTR	R	LT	LT
Maximum Queue (ft)	58	53	36	40	35
Average Queue (ft)	30	21	11	3	3
95th Queue (ft)	51	50	36	19	21
Link Distance (ft)	394	355	355	503	228
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 19: Mountain Av. & Dwy. 5

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	70	71	47	85	108	61	118	75
Average Queue (ft)	31	26	16	22	41	11	40	22
95th Queue (ft)	56	53	42	61	92	41	91	56
Link Distance (ft)	622	331		695	695		503	503
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100			100		
Storage Blk Time (%)				0			1	
Queuing Penalty (veh)				0			0	

Intersection: 20: Mountain Av. & Dwy. 6

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	59	44	53	28
Average Queue (ft)	32	28	8	2
95th Queue (ft)	54	46	35	13
Link Distance (ft)	580	532	270	695
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: Mountain Av. & Dwy. 7

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	67	127
Average Queue (ft)	31	13
95th Queue (ft)	57	76
Link Distance (ft)	138	270
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: Mountain Av. & 1st St.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	123	166	138	34	211	204	300	460	37	150	250	77
Average Queue (ft)	103	132	124	6	128	101	235	87	5	57	179	30
95th Queue (ft)	138	166	144	24	192	176	317	303	25	138	267	59
Link Distance (ft)		124	124		1080	1080		845	845		241	241
Upstream Blk Time (%)	6	25	25								4	
Queuing Penalty (veh)	0	137	138								10	
Storage Bay Dist (ft)	175			100			250			100		
Storage Blk Time (%)	6	25			23		9			1	41	
Queuing Penalty (veh)	17	44			1		9			4	18	

Intersection: 23: Dwy. 8 & 2nd St.

Movement	WB	NB
Directions Served	T	R
Maximum Queue (ft)	475	55
Average Queue (ft)	56	19
95th Queue (ft)	327	47
Link Distance (ft)	1146	152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 594

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – OCTOBER 2017

This Page Intentionally Left Blank

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	River	LOCATION #:	1
	EAST & WEST:	Corydon	CONTROL:	SIGNAL

NOTES:

AM NB queue

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

Add U-Turns to Left Turns

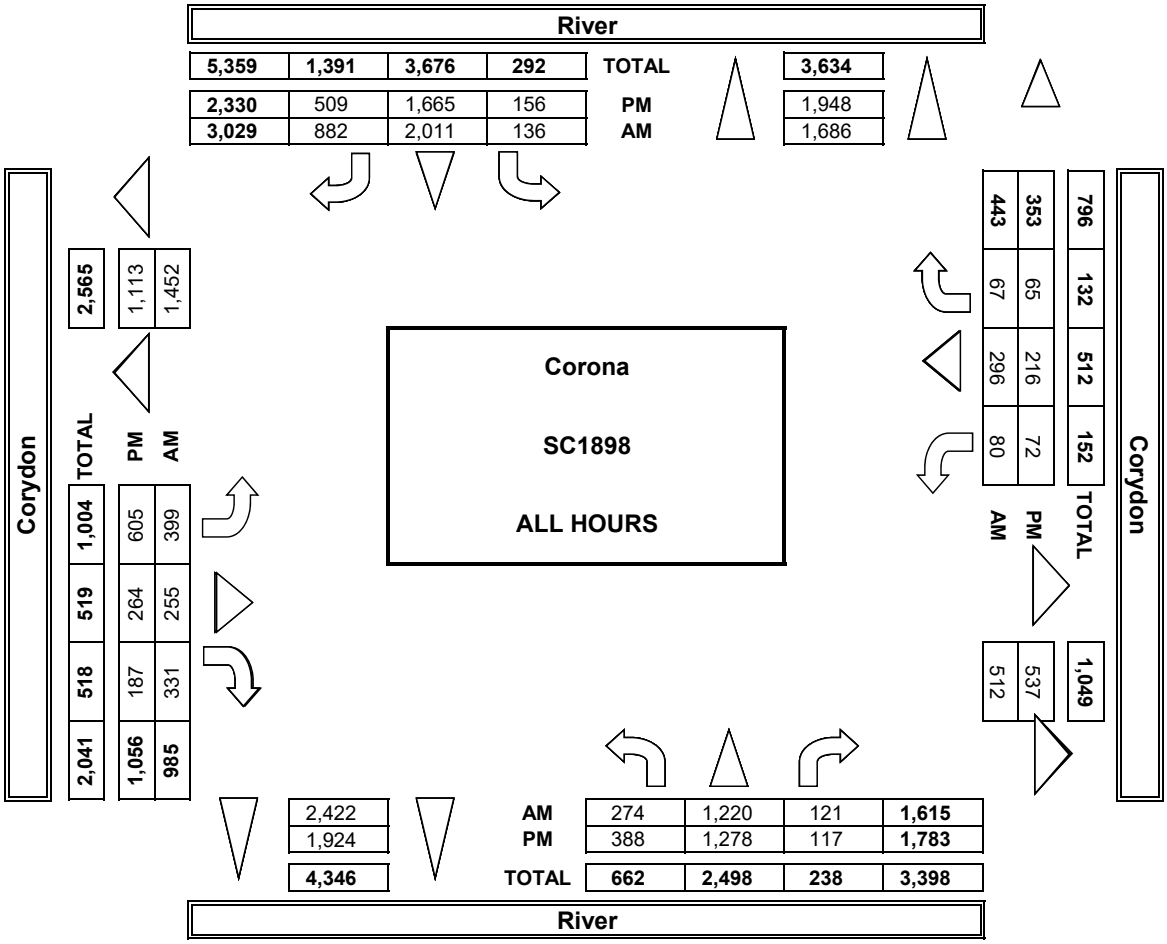
		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	20	210	5	21	179	102	74	52	55	11	19	11	759
	7:15 AM	32	156	30	20	240	114	74	41	70	12	45	7	841
	7:30 AM	55	190	34	20	271	127	61	34	57	12	54	12	927
	7:45 AM	56	191	12	18	341	132	48	24	44	5	30	8	909
	8:00 AM	33	149	13	14	305	102	38	30	32	11	33	6	766
	8:15 AM	33	95	14	14	238	94	42	35	26	6	38	4	639
	8:30 AM	24	121	8	17	242	102	33	23	21	11	36	7	645
	8:45 AM	21	108	5	12	195	109	29	16	26	12	41	12	586
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	274	1,220	121	136	2,011	882	399	255	331	80	296	67	6,072
	APPROACH %	17%	76%	7%	4%	66%	29%	41%	26%	34%	18%	67%	15%	
	APP/DEPART	1,615	/	1,686	3,029	/	2,422	985	/	512	443	/	1,452	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	176	686	89	72	1,157	475	221	129	203	40	162	33	3,443
	APPROACH %	19%	72%	9%	4%	68%	28%	40%	23%	37%	17%	69%	14%	
	PEAK HR FACTOR		0.852			0.868			0.747			0.753		0.929
	APP/DEPART	951	/	940	1,704	/	1,400	553	/	290	235	/	813	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	38	153	19	17	228	61	57	32	22	14	34	2	677
	4:15 PM	41	112	15	19	187	70	54	33	23	11	29	6	600
	4:30 PM	43	162	8	28	183	59	85	37	22	12	24	7	670
	4:45 PM	46	149	19	16	191	54	76	40	24	9	23	10	657
	5:00 PM	52	173	15	20	207	69	84	30	23	5	29	11	718
	5:15 PM	50	200	13	8	219	60	80	34	14	9	27	14	728
	5:30 PM	59	161	11	18	231	67	98	32	23	8	21	3	732
	5:45 PM	59	168	17	30	219	69	71	26	36	4	29	12	740
	VOLUMES	388	1,278	117	156	1,665	509	605	264	187	72	216	65	5,522
	APPROACH %	22%	72%	7%	7%	71%	22%	57%	25%	18%	20%	61%	18%	
	APP/DEPART	1,783	/	1,948	2,330	/	1,924	1,056	/	537	353	/	1,113	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	220	702	56	76	876	265	333	122	96	26	106	40	2,918
	APPROACH %	22%	72%	6%	6%	72%	22%	60%	22%	17%	15%	62%	23%	
	PEAK HR FACTOR		0.930			0.957			0.900			0.860		0.986
	APP/DEPART	978	/	1,075	1,217	/	998	551	/	254	172	/	591	0

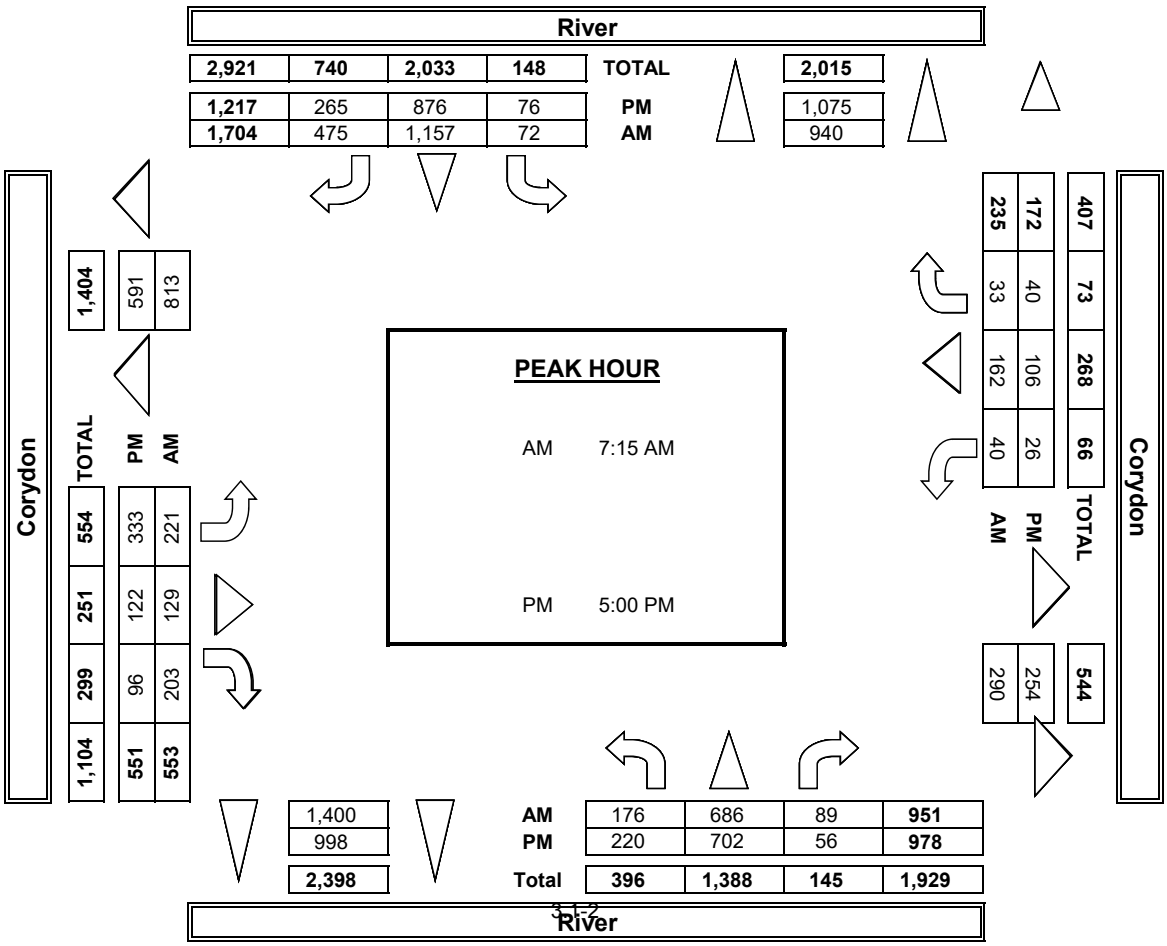
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	16	197	5	20	169	98	69	51	53	10	17	9	714
7:15 AM	31	142	28	19	227	111	68	38	67	8	42	5	786
7:30 AM	48	182	33	18	257	125	56	30	54	12	50	12	877
7:45 AM	53	178	12	17	318	125	44	21	38	4	28	6	844
8:00 AM	28	134	11	13	287	96	33	30	30	11	31	5	709
8:15 AM	28	90	14	14	223	91	33	35	25	6	38	4	601
8:30 AM	22	107	7	16	231	101	28	21	21	10	33	6	603
8:45 AM	18	92	5	10	183	102	27	15	24	11	40	11	538
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	244	1,122	115	127	1,895	849	358	241	312	72	279	58	5,672
APPROACH %	16%	76%	8%	4%	66%	30%	39%	26%	34%	18%	68%	14%	
APP/DEPART	1,481	/	1,538	2,871	/	2,279	911	/	483	409	/	1,372	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	148	699	78	74	971	459	237	140	212	34	137	32	3,221
APPROACH %	16%	76%	8%	5%	65%	31%	40%	24%	36%	17%	67%	16%	
PEAK HR FACTOR		0.879			0.817			0.851			0.686		0.918
APP/DEPART	925	/	968	1,504	/	1,217	589	/	292	203	/	744	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	37	148	16	17	212	55	51	28	21	14	34	1	634
4:15 PM	40	106	14	18	175	63	49	30	21	9	28	5	558
4:30 PM	42	157	8	25	176	56	83	36	21	11	21	7	643
4:45 PM	44	143	17	16	179	52	73	37	23	8	22	9	623
5:00 PM	49	166	14	20	196	66	83	29	21	5	28	11	688
5:15 PM	50	195	12	7	208	57	78	33	13	8	27	14	702
5:30 PM	58	156	11	17	220	65	94	29	22	7	20	2	701
5:45 PM	59	163	16	26	206	67	66	25	34	4	28	12	706
VOLUMES	379	1,234	108	146	1,572	481	577	247	176	66	208	61	5,255
APPROACH %	22%	72%	6%	7%	71%	22%	58%	25%	18%	20%	62%	18%	
APP/DEPART	1,721	/	1,872	2,199	/	1,814	1,000	/	501	335	/	1,068	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	216	680	53	70	830	255	321	116	90	24	103	39	2,797
APPROACH %	23%	72%	6%	6%	72%	22%	61%	22%	17%	14%	62%	23%	
PEAK HR FACTOR		0.923			0.956			0.909			0.847		0.990
APP/DEPART	949	/	1,040	1,155	/	944	527	/	239	166	/	574	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	2	11	0	1	6	3	4	0	2	0	1	2	32
	7:15 AM	1	5	1	1	8	2	4	2	1	3	3	2	33
	7:30 AM	1	4	0	2	10	2	4	3	0	0	4	0	30
	7:45 AM	2	8	0	1	16	5	2	1	4	0	0	1	40
	8:00 AM	3	12	0	0	11	2	5	0	1	0	1	1	36
	8:15 AM	3	4	0	0	13	3	7	0	1	0	0	0	31
	8:30 AM	1	10	1	0	4	1	5	2	0	1	3	0	28
	8:45 AM	3	16	0	1	7	6	1	1	2	0	0	1	38
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	16	70	2	6	75	24	32	9	11	4	12	7	268
	APPROACH %	18%	80%	2%	6%	71%	23%	62%	17%	21%	17%	52%	30%	
	APP/DEPART	88	/	109	105	/	90	52	/	17	23	/	52	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	7	29	1	4	45	11	15	6	6	3	8	4	139
	APPROACH %	19%	78%	3%	7%	75%	18%	56%	22%	22%	20%	53%	27%	
	PEAK HR FACTOR		0.617			0.682			0.964			0.469		0.869
	APP/DEPART	37	/	48	60	/	54	27	/	11	15	/	26	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	3	2	0	12	5	3	3	1	0	0	1	31
	4:15 PM	1	4	1	1	8	3	3	3	2	1	1	1	29
	4:30 PM	1	4	0	1	6	2	1	1	0	1	3	0	20
	4:45 PM	2	6	2	0	10	1	3	3	1	1	1	1	31
	5:00 PM	2	7	1	0	11	3	1	1	1	0	0	0	27
	5:15 PM	0	3	1	1	8	3	1	1	1	1	0	0	20
	5:30 PM	1	3	0	1	6	2	4	2	0	1	1	1	22
	5:45 PM	0	5	1	2	10	2	5	1	2	0	1	0	29
	VOLUMES	8	35	8	6	71	21	21	15	8	5	7	4	209
	APPROACH %	16%	69%	16%	6%	72%	21%	48%	34%	18%	31%	44%	25%	
	APP/DEPART	51	/	60	98	/	84	44	/	29	16	/	36	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	5	17	5	2	36	11	10	10	4	3	5	3	111
	APPROACH %	19%	63%	19%	4%	73%	22%	42%	42%	17%	27%	45%	27%	
	PEAK HR FACTOR		0.675			0.721			0.750			0.688		0.895
	APP/DEPART	27	/	30	49	/	43	24	/	17	11	/	21	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	1	1	1
0	0	0	1
0	1	0	0
0	1	2	1
0	0	0	1
0	1	1	0
0	1	0	0
0	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	6	5	4
0	2	2	3
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1
0	2	0	0
1	0	0	1
1	0	1	0
0	1	0	0
0	1	0	1
0	1	0	0
2	5	1	4
1	2	0	3

River

NORTH SIDE

Corydon WEST SIDE EAST SIDE **Corydon**

SOUTH SIDE

River

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	1	1	1	0	0	1	1	0	5
	7:15 AM	0	3	1	0	0	0	0	1	2	1	0	0	8
	7:30 AM	2	1	0	0	1	0	0	1	1	0	0	0	6
	7:45 AM	0	0	0	0	2	1	0	0	1	0	1	1	6
	8:00 AM	2	1	0	0	2	2	0	0	0	0	0	0	7
	8:15 AM	2	1	0	0	0	0	2	0	0	0	0	0	5
	8:30 AM	0	3	0	1	2	0	0	0	0	0	0	1	7
	8:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	6	9	1	1	9	4	4	2	4	2	2	2	46
	APPROACH %	38%	56%	6%	7%	64%	29%	40%	20%	40%	33%	33%	33%	
	APP/DEPART	16	/	15	14	/	15	10	/	4	6	/	12	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	4	5	1	0	5	3	0	2	4	1	1	1	27
	APPROACH %	40%	50%	10%	0%	63%	38%	0%	33%	67%	33%	33%	33%	
	PEAK HR FACTOR		0.625			0.500			0.500			0.375		0.844
	APP/DEPART	10	/	6	8	/	10	6	/	3	3	/	8	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	2	0	1	1	0	0	0	0	6
	4:15 PM	0	1	0	0	3	3	2	0	0	0	0	0	9
	4:30 PM	0	1	0	2	0	1	1	0	1	0	0	0	6
	4:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	1	0	0	1	0	1	0	0	0	0	0	3
	5:30 PM	0	0	0	0	5	0	0	1	1	0	0	0	7
	5:45 PM	0	0	0	2	1	0	0	0	0	0	0	0	3
	VOLUMES	0	5	0	4	13	5	5	2	2	0	1	0	37
	APPROACH %	0%	100%	0%	18%	59%	23%	56%	22%	22%	0%	100%	0%	
	APP/DEPART	5	/	10	22	/	15	9	/	6	1	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	4	0	2	6	5	4	1	1	0	0	0	23
	APPROACH %	0%	100%	0%	15%	46%	38%	67%	17%	17%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.542			0.750			0.000		0.639
	APP/DEPART	4	/	8	13	/	7	6	/	3	0	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	1	0	0	

River

NORTH SIDE

Corydon WEST SIDE EAST SIDE **Corydon**

SOUTH SIDE

River

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

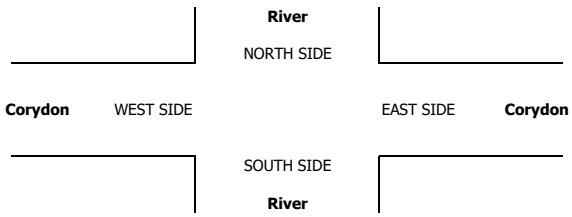
		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	2	1	0	0	3	0	0	0	0	0	0	0	6
	7:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	7:30 AM	1	0	0	0	2	0	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	1	0	0	0	1	0	0	0	2
	8:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:30 AM	1	1	0	0	2	0	0	0	0	0	0	0	4
	8:45 AM	0	0	0	0	1	1	0	0	0	0	1	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	4	0	0	17	1	0	0	1	0	1	0	28
	APPROACH %	50%	50%	0%	0%	94%	6%	0%	0%	100%	0%	100%	0%	
	APP/DEPART	8	/	4	18	/	18	1	/	0	1	/	6	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	3	2	0	0	9	0	0	0	1	0	0	0	15
	APPROACH %	60%	40%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.417			0.750			0.250			0.000		0.625
	APP/DEPART	5	/	2	9	/	10	1	/	0	0	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	VOLUMES	0	4	0	0	5	0	0	0	0	0	0	0	9
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	4	/	4	5	/	5	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	3	0	0	4	0	0	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.375			0.500			0.000			0.000		0.583
	APP/DEPART	3	/	3	4	/	4	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

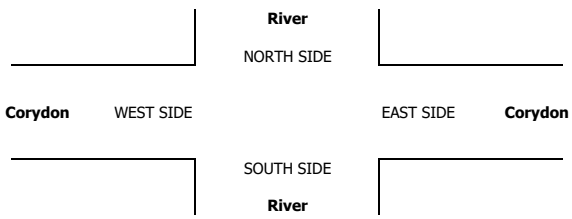
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	1
TUESDAY	EAST & WEST:	Corydon	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Corydon)			WESTBOUND (Corydon)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
	7:15 AM	0	5	0	0	2	1	2	0	0	0	0	0	10
	7:30 AM	3	3	1	0	1	0	1	0	2	0	0	0	11
	7:45 AM	1	5	0	0	4	1	2	2	0	1	1	0	17
	8:00 AM	0	1	2	1	2	2	0	0	1	0	1	0	10
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
	8:45 AM	0	0	0	1	3	0	0	0	0	1	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	15	3	2	15	4	5	3	3	2	2	0	58
	APPROACH %	18%	68%	14%	10%	71%	19%	45%	27%	27%	50%	50%	0%	
	APP/DEPART	22	/	20	21	/	20	11	/	8	4	/	10	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	4	14	3	1	9	4	5	2	3	1	2	0	48
	APPROACH %	19%	67%	14%	7%	64%	29%	50%	20%	30%	33%	67%	0%	
	PEAK HR FACTOR		0.750			0.700			0.625			0.375		0.706
	APP/DEPART	21	/	19	14	/	13	10	/	6	3	/	10	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	0	2	1	2	0	0	0	0	0	6
	4:15 PM	0	0	0	0	1	1	0	0	0	1	0	0	3
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	1	0	4	2	2	0	1	1	0	0	12
	APPROACH %	50%	0%	50%	0%	67%	33%	67%	0%	33%	100%	0%	0%	
	APP/DEPART	2	/	2	6	/	6	3	/	1	1	/	3	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	1	0	4	2	2	0	0	1	0	0	10
	APPROACH %	0%	0%	100%	0%	67%	33%	100%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.250			0.500			0.250			0.250		0.417
	APP/DEPART	1	/	2	6	/	5	2	/	1	1	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	River	LOCATION #:	2
	EAST & WEST:	Second	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	10	205	21	80	154	3	7	40	8	19	7	32	586
	7:15 AM	6	165	54	83	214	3	13	45	20	25	11	74	713
	7:30 AM	8	171	61	97	254	11	8	50	18	45	31	60	814
	7:45 AM	8	180	17	96	274	4	8	18	7	25	19	58	714
	8:00 AM	4	135	17	93	259	4	4	16	8	14	12	46	612
	8:15 AM	5	105	8	60	219	2	12	19	6	25	15	24	500
	8:30 AM	2	98	11	66	204	11	9	6	16	14	9	39	485
	8:45 AM	10	101	6	61	165	4	4	16	14	20	7	38	446
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	53	1,160	195	636	1,743	42	65	210	97	187	111	371	4,870
	APPROACH %	4%	82%	14%	26%	72%	2%	17%	56%	26%	28%	17%	55%	
	APP/DEPART	1,408	/	1,629	2,421	/	2,027	372	/	1,008	669	/	206	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	26	651	149	369	1,001	22	33	129	53	109	73	238	2,853
	APPROACH %	3%	79%	18%	27%	72%	2%	15%	60%	25%	26%	17%	57%	
	PEAK HR FACTOR		0.860			0.930			0.689			0.772		0.876
	APP/DEPART	826	/	939	1,392	/	1,163	215	/	630	420	/	121	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	11	151	13	60	211	7	2	5	9	25	16	60	570
	4:15 PM	12	118	19	59	151	7	12	4	12	15	9	49	467
	4:30 PM	8	157	16	62	161	4	3	15	8	28	18	31	511
	4:45 PM	11	154	17	57	149	7	5	8	7	15	8	49	487
	5:00 PM	6	158	21	62	158	9	5	7	9	14	18	60	527
	5:15 PM	12	173	21	67	177	12	6	11	9	17	21	69	595
	5:30 PM	10	151	18	65	183	5	4	24	10	12	25	56	563
	5:45 PM	7	151	14	77	181	9	8	15	10	20	17	66	575
	VOLUMES	77	1,213	139	509	1,371	60	45	89	74	146	132	440	4,295
	APPROACH %	5%	85%	10%	26%	71%	3%	22%	43%	36%	20%	18%	61%	
	APP/DEPART	1,429	/	1,749	1,940	/	1,591	208	/	686	718	/	269	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	35	633	74	271	699	35	23	57	38	63	81	251	2,260
	APPROACH %	5%	85%	10%	27%	70%	3%	19%	48%	32%	16%	21%	64%	
	PEAK HR FACTOR		0.900			0.941			0.776			0.923		0.950
	APP/DEPART	742	/	941	1,005	/	800	118	/	368	395	/	151	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	3	0	0	3
0	2	0	0	2
0	1	0	0	1
0	8	0	0	8
0	6	0	0	6
0	4	0	0	4
0	3	0	0	3
0	6	0	0	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	33	0	0	33
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	0	3
0	3	0	0	3
0	2	0	0	2
0	9	0	0	9
0	9	0	0	9
0	11	0	0	11
0	7	0	0	7
0	7	0	0	7
0	51	0	0	51

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
8	0	5	11
18	0	5	24
22	0	11	10
7	1	2	15
5	1	5	24
3	0	6	7
1	3	14	28
2	1	10	19
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
66	6	58	138
52	2	23	73
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	3	6	23
3	1	8	17
6	1	2	12
7	3	6	26
11	0	8	26
7	4	5	22
9	0	7	20
3	1	4	17
49	13	46	163
30	5	24	85

River

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

River

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	1	0	0	1	2
7:15 AM	0	1	0	0	1
7:30 AM	1	1	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	1	2	0	2	5
8:15 AM	1	0	0	1	2
8:30 AM	1	0	0	0	1
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	5	4	0	4	13
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	2	1	3
4:15 PM	0	0	1	2	3
4:30 PM	1	0	0	1	2
4:45 PM	0	1	0	1	2
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	3	3
5:30 PM	0	0	0	3	3
5:45 PM	0	0	1	6	7
TOTAL	1	2	4	17	24

PEDESTRIAN CROSSINGS

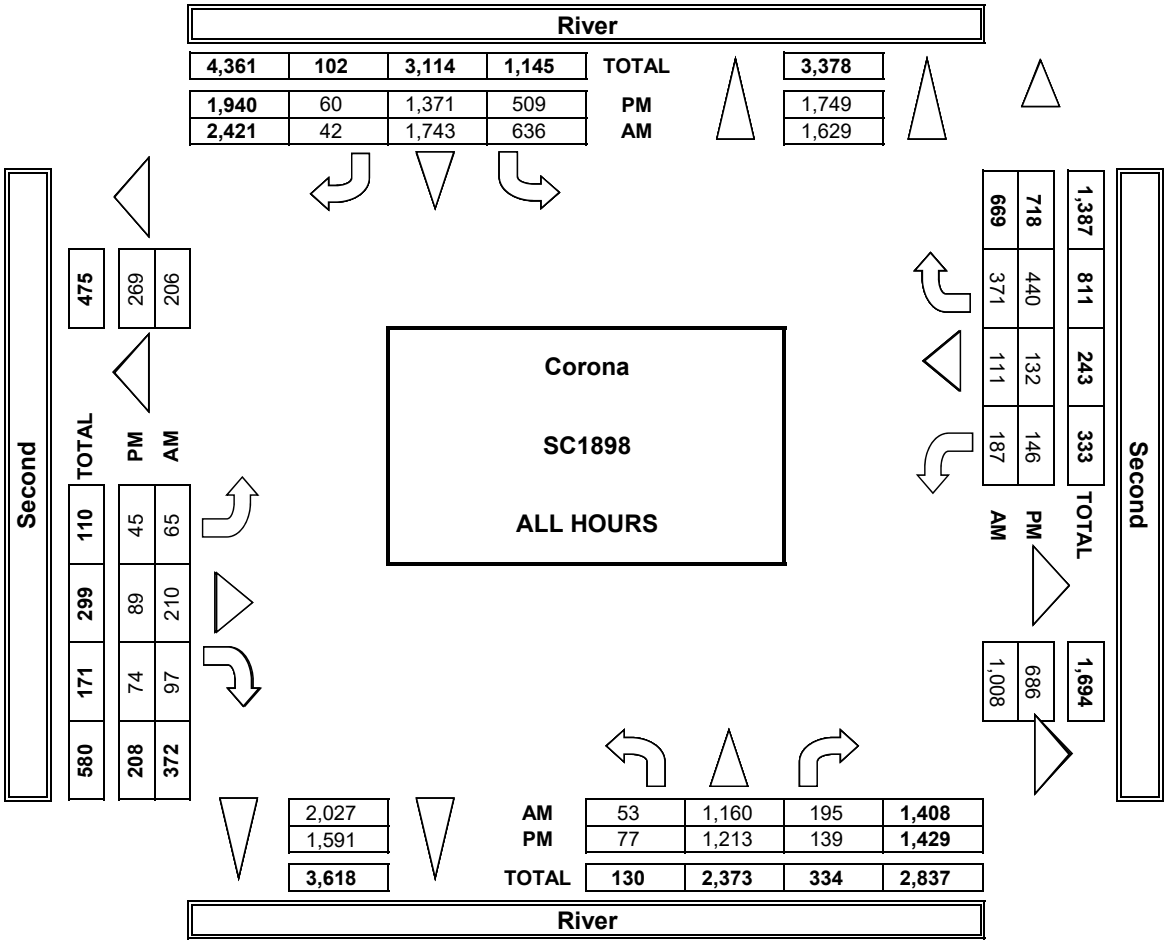
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	2	0	2	5
1	0	0	1	2
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	2	0	3	9
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3
0	0	1	2	3
0	0	0	1	1
0	1	0	1	2
0	0	0	0	0
0	0	0	3	3
0	0	0	3	3
0	0	1	4	5
0	1	4	15	20

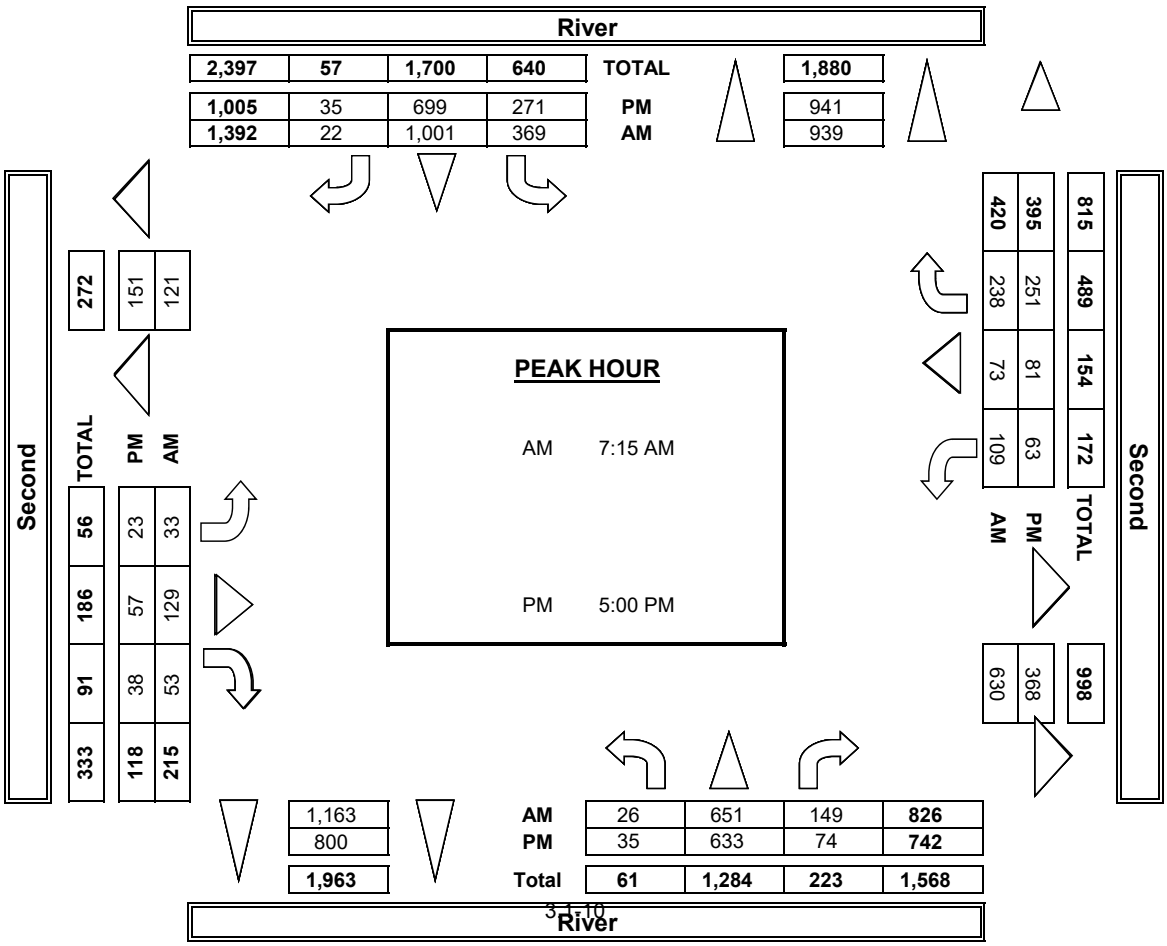
BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
1	0	0	1	2
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	2	0	1	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
1	1	0	2	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	River	LOCATION #:	2
	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	9	188	21	79	147	3	7	39	8	19	7	30	557
7:15 AM	5	158	54	79	201	3	11	44	18	21	10	67	671
7:30 AM	7	163	61	96	238	9	8	49	17	42	31	54	775
7:45 AM	8	171	16	94	257	4	8	18	7	21	19	52	675
8:00 AM	4	124	16	83	243	3	4	16	7	13	11	39	563
8:15 AM	5	99	8	50	206	2	12	17	5	25	15	23	467
8:30 AM	2	92	10	64	193	10	9	6	14	12	9	33	454
8:45 AM	8	91	5	48	158	3	4	15	12	19	7	32	402
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	48	1,086	191	593	1,643	37	63	204	88	172	109	330	4,564
APPROACH %	4%	82%	14%	26%	72%	2%	18%	57%	25%	28%	18%	54%	
APP/DEPART	1,325	/	1,512	2,273	/	1,903	355	/	955	611	/	194	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	24	616	147	335	939	19	31	127	49	97	71	212	2,684
APPROACH %	3%	78%	19%	26%	72%	1%	15%	61%	24%	26%	19%	56%	
PEAK HR FACTOR		0.852			0.923			0.699			0.748		0.866
APP/DEPART	787	/	876	1,310	/	1,085	207	/	609	380	/	114	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	10	146	13	56	200	7	2	5	8	23	16	57	543
4:15 PM	12	112	17	47	140	6	11	3	12	15	9	48	432
4:30 PM	8	153	16	58	155	4	3	15	8	26	18	31	495
4:45 PM	10	146	17	56	140	5	5	8	6	15	8	47	463
5:00 PM	6	152	21	59	149	9	5	7	8	14	18	58	506
5:15 PM	12	167	20	59	168	12	6	11	9	16	21	69	570
5:30 PM	9	144	18	60	175	5	4	23	9	12	25	56	540
5:45 PM	6	144	14	74	172	9	8	15	9	18	17	65	551
VOLUMES	73	1,164	136	469	1,299	57	44	87	69	139	132	431	4,100
APPROACH %	5%	85%	10%	26%	71%	3%	22%	44%	35%	20%	19%	61%	
APP/DEPART	1,373	/	1,689	1,825	/	1,507	200	/	642	702	/	262	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	33	607	73	219	664	35	23	56	35	60	81	248	2,167
APPROACH %	5%	85%	10%	23%	70%	4%	20%	49%	31%	15%	21%	64%	
PEAK HR FACTOR		0.896			0.932			0.792			0.917		0.950
APP/DEPART	713	/	911	951	/	759	114	/	348	389	/	149	0

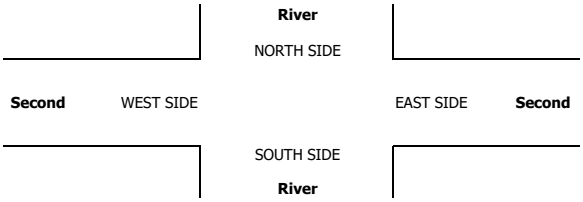
U-TURNS

	NB	SB	EB	WB	TTL
7:00 AM	0	3	0	0	3
7:15 AM	0	2	0	0	2
7:30 AM	0	1	0	0	1
7:45 AM	0	8	0	0	8
8:00 AM	0	6	0	0	6
8:15 AM	0	4	0	0	4
8:30 AM	0	3	0	0	3
8:45 AM	0	6	0	0	6
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
VOLUMES	0	33	0	0	33
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	3	0	0	3
4:15 PM	0	3	0	0	3
4:30 PM	0	2	0	0	2
4:45 PM	0	9	0	0	9
5:00 PM	0	9	0	0	9
5:15 PM	0	10	0	0	10
5:30 PM	0	7	0	0	7
5:45 PM	0	7	0	0	7
VOLUMES	0	50	0	0	50

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
7:00 AM	8	0	5	11
7:15 AM	18	0	4	21
7:30 AM	22	0	10	8
7:45 AM	7	1	2	13
8:00 AM	5	0	5	20
8:15 AM	3	0	5	7
8:30 AM	1	3	12	25
8:45 AM	2	1	8	16
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
VOLUMES	66	5	51	121
03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	3	3	5	23
4:15 PM	1	1	8	16
4:30 PM	6	1	2	12
4:45 PM	7	3	6	25
5:00 PM	11	0	7	26
5:15 PM	7	4	5	22
5:30 PM	9	0	7	20
5:45 PM	3	1	3	17
VOLUMES	47	13	43	161

52	1	21	62	
30	5	22	85	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	2
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	10	0	1	4	0	0	0	0	0	0	1	16
	7:15 AM	0	3	0	3	7	0	0	1	2	2	0	4	22
	7:30 AM	0	3	0	0	10	0	0	1	0	1	0	1	16
	7:45 AM	0	5	0	1	9	0	0	0	0	3	0	4	22
	8:00 AM	0	8	0	4	14	0	0	0	1	0	1	4	32
	8:15 AM	0	5	0	8	11	0	0	1	0	0	0	1	26
	8:30 AM	0	5	1	1	5	1	0	0	1	1	0	5	20
	8:45 AM	0	10	0	8	4	1	0	1	2	0	0	6	32
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	49	1	26	64	2	0	4	6	7	1	26	186
	APPROACH %	0%	98%	2%	28%	70%	2%	0%	40%	60%	21%	3%	76%	
	APP/DEPART	50	/	75	92	/	77	10	/	31	34	/	3	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	28	1	21	34	2	0	2	4	1	1	16	110
	APPROACH %	0%	97%	3%	37%	60%	4%	0%	33%	67%	6%	6%	89%	
	PEAK HR FACTOR		0.725			0.750			0.500			0.750		0.859
	APP/DEPART	29	/	44	57	/	39	6	/	24	18	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	5	0	1	10	0	0	0	1	1	0	0	19
	4:15 PM	0	6	1	8	6	1	1	1	0	0	0	1	25
	4:30 PM	0	4	0	3	5	0	0	0	0	1	0	0	13
	4:45 PM	1	7	0	1	8	1	0	0	1	0	0	1	20
	5:00 PM	0	6	0	2	9	0	0	0	1	0	0	2	20
	5:15 PM	0	5	1	6	7	0	0	0	0	1	0	0	20
	5:30 PM	1	5	0	5	4	0	0	1	1	0	0	0	17
	5:45 PM	1	7	0	2	7	0	0	0	1	2	0	1	21
	VOLUMES	4	45	2	28	56	2	1	2	5	5	0	5	155
	APPROACH %	8%	88%	4%	33%	65%	2%	13%	25%	63%	50%	0%	50%	
	APP/DEPART	51	/	52	86	/	66	8	/	31	10	/	6	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	2	23	1	14	27	0	0	1	3	3	0	3	78
	APPROACH %	8%	88%	4%	33%	64%	0%	0%	25%	75%	50%	0%	50%	
	PEAK HR FACTOR		0.813			0.700			0.500			0.500		0.780
	APP/DEPART	26	/	27	42	/	33	4	/	16	6	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	2
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

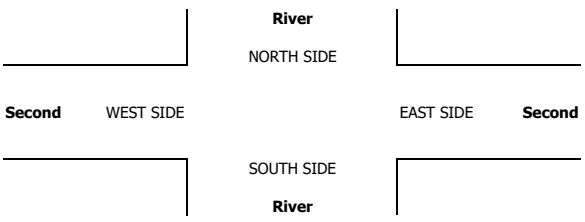
		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	7:15 AM	0	2	0	1	2	0	1	0	0	1	0	1	8
	7:30 AM	1	1	0	1	2	0	0	0	0	2	0	1	8
	7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:00 AM	0	0	0	1	0	1	0	0	0	0	0	1	3
	8:15 AM	0	1	0	2	0	0	0	0	1	0	0	0	4
	8:30 AM	0	0	0	1	1	0	0	0	0	0	0	1	3
	8:45 AM	1	0	0	0	3	0	0	0	0	1	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	7	0	6	11	1	1	0	1	4	0	4	37
	APPROACH %	22%	78%	0%	33%	61%	6%	50%	0%	50%	50%	0%	50%	
	APP/DEPART	9	/	12	18	/	16	2	/	6	8	/	3	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	6	0	2	7	0	1	0	0	3	0	2	22
	APPROACH %	14%	86%	0%	22%	78%	0%	100%	0%	0%	60%	0%	40%	
	PEAK HR FACTOR		0.583			0.750			0.250			0.417		0.688
	APP/DEPART	7	/	9	9	/	10	1	/	2	5	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	3	0	0	0	0	0	1	0	2	6
	4:15 PM	0	0	0	2	4	0	0	0	0	0	0	0	6
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	1	0	0	0	1	0	0	0	0	0	1	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	5:30 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	0	1	0	6	11	1	0	0	0	1	0	3	23
	APPROACH %	0%	100%	0%	33%	61%	6%	0%	0%	0%	25%	0%	75%	
	APP/DEPART	1	/	4	18	/	12	0	/	6	4	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	5	5	1	0	0	0	1	0	3	16
	APPROACH %	0%	100%	0%	45%	45%	9%	0%	0%	0%	25%	0%	75%	
	PEAK HR FACTOR		0.250			0.458			0.000			0.333		0.667
	APP/DEPART	1	/	4	11	/	6	0	/	5	4	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	1
0	0	0	1
0	0	0	0
0	1	0	1
0	0	1	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	1	4
0	0	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	2
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	7:15 AM	1	0	0	0	2	0	0	0	0	0	0	0	3
	7:30 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	7:45 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
	8:00 AM	0	1	0	1	1	0	0	0	0	0	0	1	4
	8:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:30 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	8:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	6	0	2	16	0	0	0	0	0	0	1	27
	APPROACH %	25%	75%	0%	11%	89%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	8	/	7	18	/	16	0	/	2	1	/	2	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	4	0	0	11	0	0	0	0	0	0	0	16
	APPROACH %	20%	80%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.417			0.688			0.000			0.000		0.800
	APP/DEPART	5	/	4	11	/	11	0	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	1	1	0	0	0	0	0	0	0	3
	5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	VOLUMES	0	3	0	2	3	0	0	0	0	0	0	0	8
	APPROACH %	0%	100%	0%	40%	60%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	3	/	3	5	/	3	0	/	2	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	3	0	2	2	0	0	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.375			0.500			0.000			0.000		0.583
	APP/DEPART	3	/	3	4	/	2	0	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	2
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	1	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	1	1	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	0	1	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	1	1	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	2
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

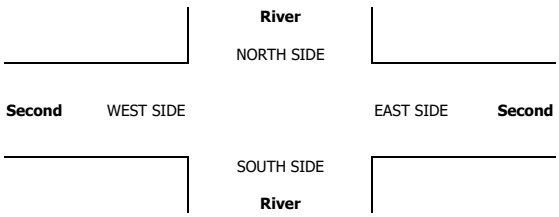
		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	1	1	0	0	0	0	0	1	0	0	0	1	4
	7:15 AM	0	2	0	0	2	0	1	0	0	1	1	2	9
	7:30 AM	0	3	0	0	1	2	0	0	1	0	0	4	11
	7:45 AM	0	4	1	1	2	0	0	0	0	1	0	2	11
	8:00 AM	0	2	1	4	1	0	0	0	0	1	0	1	10
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	3	0	0	0	0	1	0	0	4
	8:45 AM	0	0	1	4	0	0	0	0	0	0	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	12	3	9	9	2	1	2	1	4	1	10	55
	APPROACH %	6%	75%	19%	45%	45%	10%	25%	50%	25%	27%	7%	67%	
	APP/DEPART	16	/	23	20	/	14	4	/	14	15	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	11	2	5	6	2	1	0	1	3	1	9	41
	APPROACH %	0%	85%	15%	38%	46%	15%	50%	0%	50%	23%	8%	69%	
	PEAK HR FACTOR		0.650			0.650			0.500			0.813		0.932
	APP/DEPART	13	/	21	13	/	10	2	/	7	13	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	4:15 PM	0	0	1	2	1	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	1	0	0	0	0	0	1	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	4	2	0	0	0	0	1	0	1	9
	APPROACH %	0%	0%	100%	67%	33%	0%	0%	0%	0%	50%	0%	50%	
	APP/DEPART	1	/	1	6	/	3	0	/	5	2	/	0	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	1	3	2	0	0	0	0	1	0	1	8
	APPROACH %	0%	0%	100%	60%	40%	0%	0%	0%	0%	50%	0%	50%	
	PEAK HR FACTOR		0.250			0.417			0.000			0.500		0.500
	APP/DEPART	1	/	1	5	/	3	0	/	4	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	1
0	0	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	2
0	0	1	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: River
EAST & WEST: Lincoln

PROJECT #: SC1898
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	22	145	24	36	113	70	67	90	4	7	133	55	766
	7:15 AM	30	153	25	44	154	71	93	109	7	7	147	47	887
	7:30 AM	23	159	26	58	233	111	92	80	4	17	138	41	982
	7:45 AM	33	76	15	60	191	146	59	101	11	9	174	39	914
	8:00 AM	28	80	18	32	115	86	55	73	7	9	137	25	665
	8:15 AM	24	47	14	29	132	68	27	63	8	1	129	28	570
	8:30 AM	12	51	14	24	135	79	42	60	7	8	114	23	569
	8:45 AM	16	50	18	28	104	68	35	63	6	5	112	22	527
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	188	761	154	311	1,177	699	470	639	54	63	1,084	280	5,880
	APPROACH %	17%	69%	14%	14%	54%	32%	40%	55%	5%	4%	76%	20%	
	APP/DEPART	1,103	/	1,515	2,187	/	1,296	1,163	/	1,100	1,427	/	1,969	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	108	533	90	198	691	398	311	380	26	40	592	182	3,549
	APPROACH %	15%	73%	12%	15%	54%	31%	43%	53%	4%	5%	73%	22%	
	PEAK HR FACTOR		0.879			0.800			0.858			0.917		0.904
	APP/DEPART	731	/	1,028	1,287	/	759	717	/	666	814	/	1,096	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	16	89	10	38	117	74	53	141	17	7	72	35	669
	4:15 PM	21	67	10	40	91	55	40	100	17	8	83	56	588
	4:30 PM	4	104	5	37	105	68	59	166	30	12	77	36	703
	4:45 PM	23	99	14	31	103	61	52	135	30	7	76	31	662
	5:00 PM	10	82	8	35	100	54	78	167	19	10	90	32	685
	5:15 PM	20	112	12	33	93	49	67	131	19	5	78	38	657
	5:30 PM	13	100	12	46	117	49	42	146	28	5	94	36	688
	5:45 PM	20	79	13	49	108	73	59	94	19	7	88	38	647
	VOLUMES	127	732	84	309	834	483	450	1,080	179	61	658	302	5,299
	APPROACH %	13%	78%	9%	19%	51%	30%	26%	63%	10%	6%	64%	30%	
	APP/DEPART	943	/	1,486	1,626	/	1,077	1,709	/	1,471	1,021	/	1,265	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	57	397	39	136	401	232	256	599	98	34	321	137	2,707
	APPROACH %	12%	81%	8%	18%	52%	30%	27%	63%	10%	7%	65%	28%	
	PEAK HR FACTOR		0.856			0.915			0.902			0.932		0.963
	APP/DEPART	493	/	790	769	/	535	953	/	774	492	/	608	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	2	0	0	2
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	4	0	0	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
3	2	0	0	5

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
11	31	1	9
9	20	2	7
12	29	2	4
6	37	6	2
7	36	2	4
6	19	3	0
6	13	4	3
6	12	3	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
63	197	23	33
38	117	11	22
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
7	31	4	6
4	35	7	15
2	17	6	9
7	38	10	8
5	24	5	11
4	16	5	15
7	22	8	3
5	31	6	11
41	214	51	78
18	95	26	43

River

NORTH SIDE

Lincoln WEST SIDE EAST SIDE **Lincoln**

SOUTH SIDE

River

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	13	4	7	6	30
7:15 AM	16	4	2	3	25
7:30 AM	3	3	0	2	8
7:45 AM	1	3	1	1	6
8:00 AM	6	1	0	2	9
8:15 AM	0	0	3	0	3
8:30 AM	1	0	0	0	1
8:45 AM	2	0	0	0	2
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	42	15	13	14	84
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	1	0	0	1
4:15 PM	1	1	0	1	3
4:30 PM	0	3	1	0	4
4:45 PM	1	0	0	0	1
5:00 PM	1	6	0	0	7
5:15 PM	0	0	1	0	1
5:30 PM	0	3	0	0	3
5:45 PM	0	0	0	0	0
TOTAL	3	14	2	1	20

PEDESTRIAN CROSSINGS

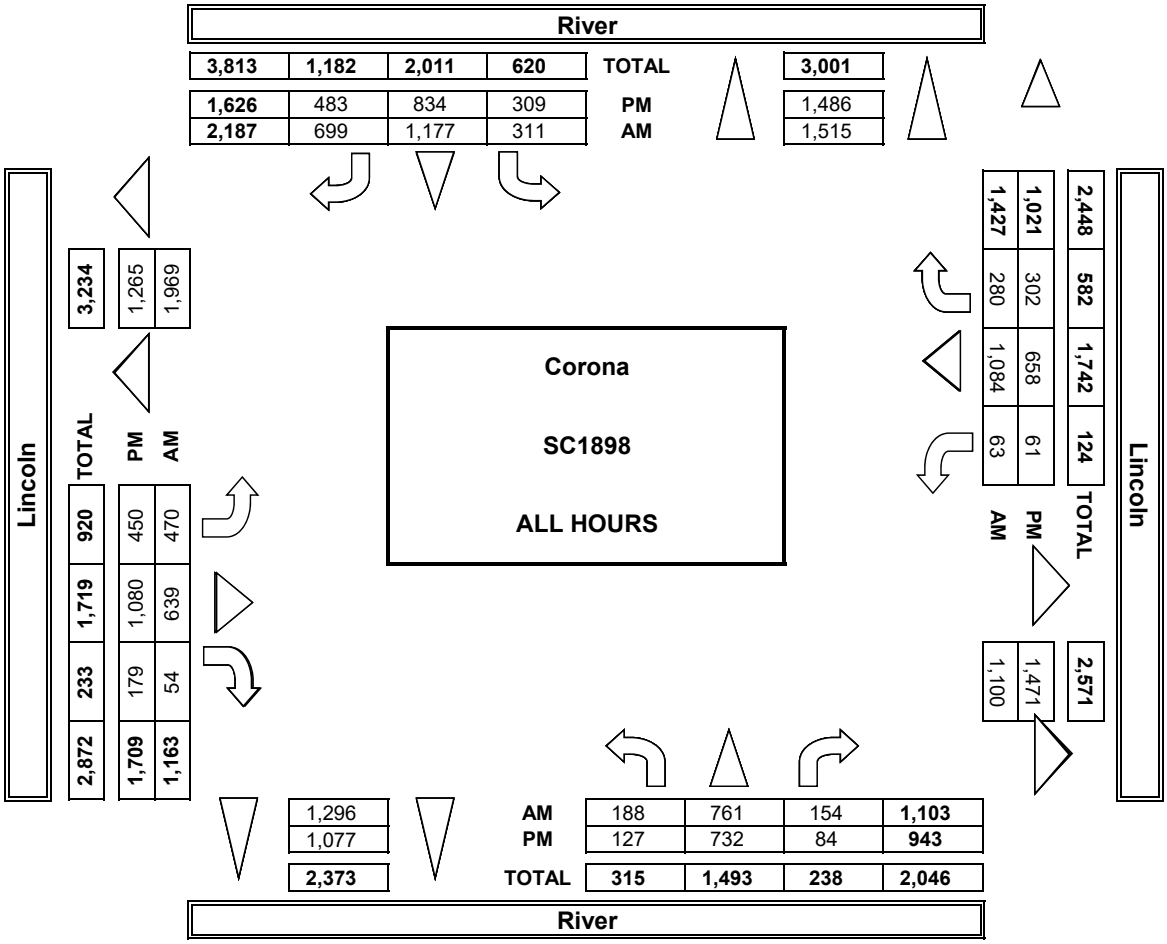
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
12	4	5	6	27
16	4	2	3	25
3	3	0	2	8
1	3	1	1	6
6	1	0	2	9
0	0	3	0	3
1	0	0	0	1
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
41	15	11	14	81
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
1	1	0	1	3
0	3	0	0	3
0	0	0	0	0
1	5	0	0	6
0	0	1	0	1
0	3	0	0	3
0	0	0	0	0
2	13	1	1	17

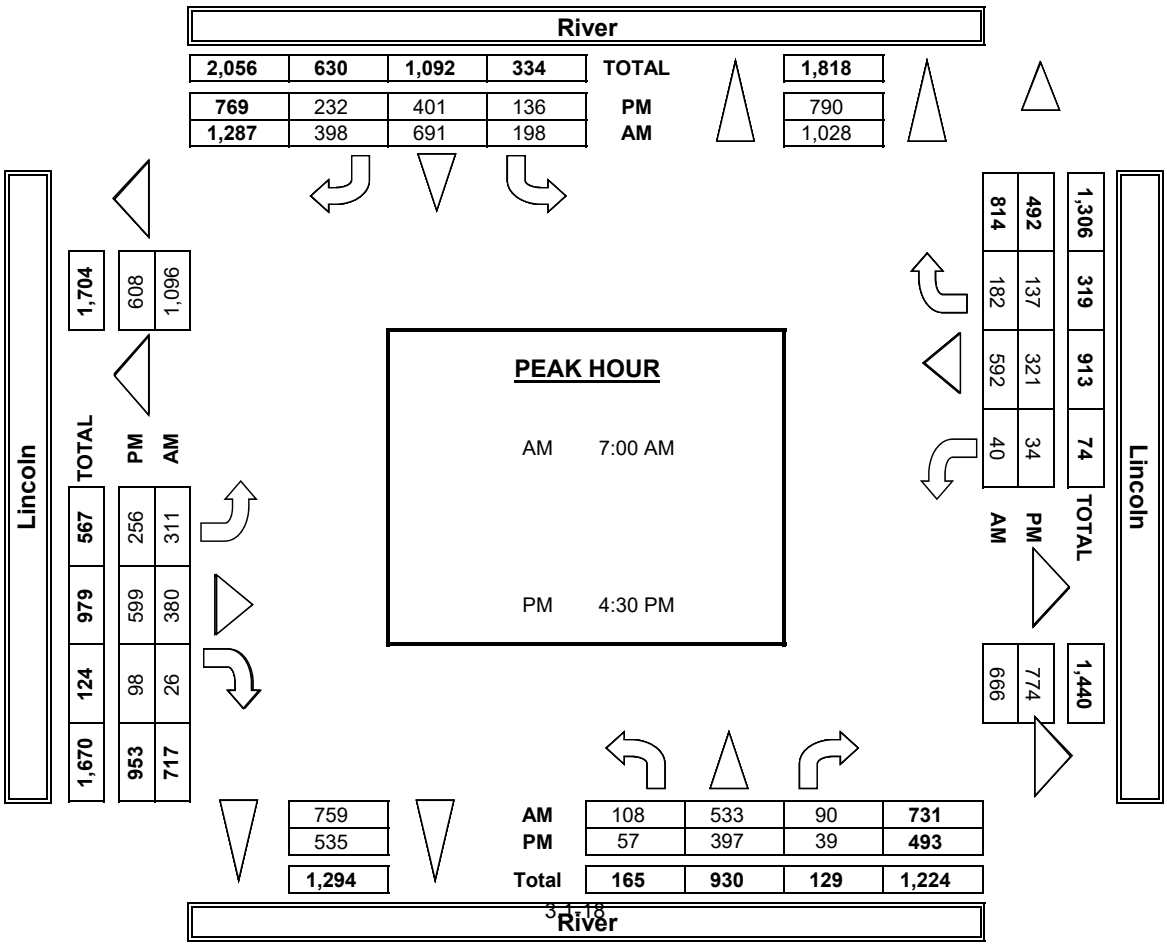
BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
1	0	2	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	2	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	1	0	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	River	LOCATION #:	3
	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

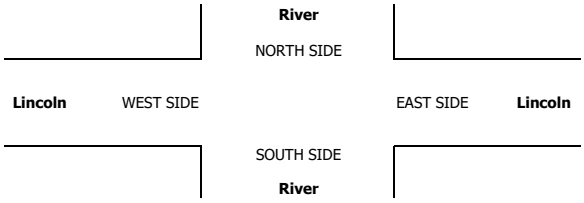
	NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	18	133	24	36	108	67	64	87	4	6	124	51	722
7:15 AM	25	148	24	44	149	66	90	100	5	6	134	44	835
7:30 AM	18	155	23	55	215	107	86	71	4	17	124	39	914
7:45 AM	28	72	14	57	183	136	56	88	10	9	159	39	851
8:00 AM	25	79	18	31	105	78	48	61	7	9	127	22	610
8:15 AM	21	45	12	27	122	63	25	55	6	1	115	26	518
8:30 AM	10	48	14	23	126	67	40	45	7	8	104	21	513
8:45 AM	11	45	16	26	99	66	29	49	3	4	101	17	466
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	156	725	145	299	1,107	650	438	556	46	60	988	259	5,429
APPROACH %	15%	71%	14%	15%	54%	32%	42%	53%	4%	5%	76%	20%	
APP/DEPART	1,026	/	1,426	2,056	/	1,214	1,040	/	996	1,307	/	1,793	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	88	508	85	190	655	376	296	346	23	38	541	173	3,322
APPROACH %	13%	74%	12%	16%	54%	31%	45%	52%	3%	5%	72%	23%	
PEAK HR FACTOR		0.865			0.811			0.853			0.908		0.909
APP/DEPART	682	/	979	1,223	/	717	665	/	621	752	/	1,005	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	16	87	10	36	110	68	48	136	16	7	69	33	636
4:15 PM	20	64	9	37	83	47	35	92	16	8	80	56	547
4:30 PM	4	100	4	37	100	64	52	160	27	11	72	35	666
4:45 PM	22	96	13	30	100	56	46	126	25	7	75	29	625
5:00 PM	10	82	7	34	93	51	70	160	18	10	89	29	653
5:15 PM	19	107	12	31	89	46	64	126	18	5	77	38	632
5:30 PM	13	98	9	44	109	48	36	144	24	5	92	36	658
5:45 PM	17	76	13	47	102	65	55	87	19	6	87	36	610
VOLUMES	121	710	77	296	786	445	406	1,031	163	59	641	292	5,027
APPROACH %	13%	78%	8%	19%	51%	29%	25%	64%	10%	6%	65%	29%	
APP/DEPART	908	/	1,410	1,527	/	1,011	1,600	/	1,402	992	/	1,204	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	53	385	36	132	382	217	232	572	88	33	313	131	2,576
APPROACH %	11%	81%	8%	18%	52%	30%	26%	64%	10%	7%	66%	27%	
PEAK HR FACTOR		0.862			0.909			0.899			0.932		0.967
APP/DEPART	476	/	748	731	/	505	892	/	740	477	/	583	0

U-TURNS

	NB	SB	EB	WB	TTL
7:00 AM	0	2	0	0	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
	1	4	0	0	5
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	1	1	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	2	0	0	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	1	0	0	1
	3	2	0	0	5

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
7:00 AM	11	30	1	8
7:15 AM	8	20	2	7
7:30 AM	9	29	2	4
7:45 AM	6	35	5	2
8:00 AM	7	30	2	4
8:15 AM	5	17	3	0
8:30 AM	6	13	4	3
8:45 AM	5	12	2	1
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
	57	186	21	29
	34	114	10	21
03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	7	31	4	6
4:15 PM	4	32	7	15
4:30 PM	1	16	5	8
4:45 PM	7	34	7	8
5:00 PM	4	23	5	9
5:15 PM	4	15	5	15
5:30 PM	6	22	6	3
5:45 PM	5	28	6	10
	38	201	45	74
	16	88	22	40



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	3
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

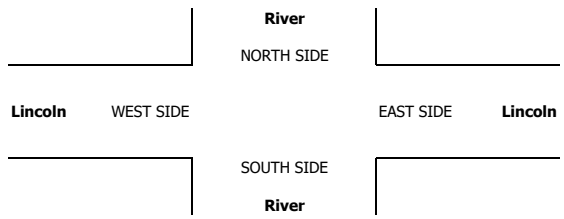
		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	3	4	0	0	2	1	3	2	0	1	5	3	24
	7:15 AM	4	0	0	0	2	3	1	1	1	0	7	1	20
	7:30 AM	5	1	0	3	9	3	1	3	0	0	11	1	37
	7:45 AM	3	3	0	3	3	5	1	9	0	0	10	0	37
	8:00 AM	2	1	0	1	8	6	5	5	0	0	8	3	39
	8:15 AM	3	0	0	2	8	4	2	3	2	0	8	1	33
	8:30 AM	2	2	0	1	5	7	2	2	0	0	8	1	30
	8:45 AM	3	5	1	2	3	1	4	3	2	1	7	4	36
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	25	16	1	12	40	30	19	28	5	2	64	14	256
	APPROACH %	60%	38%	2%	15%	49%	37%	37%	54%	10%	3%	80%	18%	
	APP/DEPART	42	/	49	82	/	48	52	/	41	80	/	118	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	12	5	0	9	28	18	9	20	2	0	37	5	146
	APPROACH %	67%	28%	0%	16%	51%	33%	29%	65%	6%	0%	88%	12%	
	PEAK HR FACTOR		0.750			0.917			0.775			0.875		0.936
	APP/DEPART	18	/	19	55	/	31	31	/	29	42	/	67	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	2	5	5	5	1	1	0	3	2	25
	4:15 PM	0	2	0	3	2	6	3	4	1	0	3	0	24
	4:30 PM	0	1	1	0	4	3	7	6	2	0	3	1	28
	4:45 PM	0	2	0	1	3	5	5	7	3	0	1	2	29
	5:00 PM	0	0	1	1	6	3	8	3	0	0	1	3	26
	5:15 PM	1	2	0	2	2	3	3	4	1	0	1	0	19
	5:30 PM	0	1	2	2	5	1	6	2	1	0	2	0	22
	5:45 PM	3	3	0	2	3	6	4	4	0	0	1	2	28
	VOLUMES	4	12	4	13	30	32	41	31	9	0	15	10	201
	APPROACH %	20%	60%	20%	17%	40%	43%	51%	38%	11%	0%	60%	40%	
	APP/DEPART	20	/	63	75	/	39	81	/	48	25	/	51	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	5	2	5	15	17	23	20	6	0	8	6	107
	APPROACH %	0%	71%	29%	14%	41%	46%	47%	41%	12%	0%	57%	43%	
	PEAK HR FACTOR		0.875			0.841			0.817			0.875		0.922
	APP/DEPART	7	/	34	37	/	21	49	/	27	14	/	25	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	1	0	1
0	0	0	0
0	0	0	0
0	1	0	0
0	5	0	0
0	1	0	0
0	0	0	0
1	0	1	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	8	1	4
0	7	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	11	4	4
2	8	3	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	3
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:15 AM	1	1	0	0	0	0	0	0	0	0	1	0	3
	7:30 AM	0	0	1	0	4	0	0	0	0	0	0	0	5
	7:45 AM	0	0	0	0	1	1	0	0	1	0	1	0	4
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	2
	8:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
	8:45 AM	0	0	0	0	2	1	0	0	0	0	1	0	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	1	1	0	8	3	0	0	1	0	4	2	21
	APPROACH %	33%	33%	33%	0%	73%	27%	0%	0%	100%	0%	67%	33%	
	APP/DEPART	3	/	3	11	/	9	1	/	1	6	/	8	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	1	1	0	5	1	0	0	1	0	2	1	13
	APPROACH %	33%	33%	33%	0%	83%	17%	0%	0%	100%	0%	67%	33%	
	PEAK HR FACTOR		0.375			0.375			0.250			0.750		0.650
	APP/DEPART	3	/	2	6	/	6	1	/	1	3	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:15 PM	0	1	0	0	6	0	0	1	0	0	0	0	8
	4:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
	4:45 PM	1	0	0	0	0	0	1	1	1	0	0	0	4
	5:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
	5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:30 PM	0	0	0	0	1	0	0	0	2	0	0	0	3
	5:45 PM	0	0	0	0	3	1	0	0	0	0	0	0	4
	VOLUMES	1	1	0	0	15	1	1	3	4	1	0	0	27
	APPROACH %	50%	50%	0%	0%	94%	6%	13%	38%	50%	100%	0%	0%	
	APP/DEPART	2	/	2	16	/	20	8	/	3	1	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	1	0	0	7	0	1	3	2	1	0	0	16
	APPROACH %	50%	50%	0%	0%	100%	0%	17%	50%	33%	100%	0%	0%	
	PEAK HR FACTOR		0.500			0.292			0.500			0.250		0.500
	APP/DEPART	2	/	2	7	/	10	6	/	3	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	3
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	1	6	0	0	3	1	0	0	0	0	2	0	13
7:15 AM	0	2	0	0	2	0	0	1	0	1	2	2	10
7:30 AM	0	0	0	0	4	0	2	0	0	0	1	0	7
7:45 AM	1	0	0	0	3	0	0	0	0	0	0	0	4
8:00 AM	1	0	0	0	2	1	0	0	0	0	1	0	5
8:15 AM	0	2	1	0	2	0	0	0	0	0	2	0	7
8:30 AM	0	1	0	0	2	0	0	0	0	0	2	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	11	1	0	18	2	2	1	0	1	11	3	53
APPROACH %	20%	73%	7%	0%	90%	10%	67%	33%	0%	7%	73%	20%	
APP/DEPART	15	/	16	20	/	19	3	/	2	15	/	16	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	2	8	0	0	12	1	2	1	0	1	5	2	34
APPROACH %	20%	80%	0%	0%	92%	8%	67%	33%	0%	13%	63%	25%	
PEAK HR FACTOR		0.357			0.813			0.375			0.400		0.654
APP/DEPART	10	/	12	13	/	13	3	/	1	8	/	8	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	1	1	0	0	0	0	3
4:30 PM	0	3	0	0	0	0	0	0	1	0	0	0	4
4:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
5:15 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
5:30 PM	0	1	0	0	2	0	0	0	1	0	0	0	4
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	2
VOLUMES	0	9	0	0	3	2	1	4	3	0	0	0	22
APPROACH %	0%	100%	0%	0%	60%	40%	13%	50%	38%	0%	0%	0%	
APP/DEPART	9	/	10	5	/	6	8	/	4	0	/	2	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	4	0	0	3	1	0	3	1	0	0	0	12
APPROACH %	0%	100%	0%	0%	75%	25%	0%	75%	25%	0%	0%	0%	
PEAK HR FACTOR		0.333			0.500			1.000			0.000		0.750
APP/DEPART	4	/	4	4	/	4	4	/	3	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	3
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

	NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
VOLUMES	0	0	0	0	0	0	0	0	0	1	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
APP/DEPART	0	/	0	0	/	1	0	/	0	1	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	1	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250
APP/DEPART	0	/	0	0	/	1	0	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	River	LOCATION #:	3
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND (River)			SOUTHBOUND (River)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	0	1	0	1	0	0	2	0	6
	7:15 AM	0	2	1	0	1	2	2	7	1	0	3	0	19
	7:30 AM	0	3	2	0	1	1	3	6	0	0	2	1	19
	7:45 AM	1	1	1	0	1	4	2	4	0	0	4	0	18
	8:00 AM	0	0	0	0	0	1	2	7	0	0	1	0	11
	8:15 AM	0	0	1	0	0	1	0	5	0	0	3	0	10
	8:30 AM	0	0	0	0	1	3	0	13	0	0	0	1	18
	8:45 AM	2	0	1	0	0	0	2	11	1	0	2	0	19
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	8	6	0	4	13	11	54	2	0	17	2	120
	APPROACH %	18%	47%	35%	0%	24%	76%	16%	81%	3%	0%	89%	11%	
	APP/DEPART	17	/	21	17	/	6	67	/	60	19	/	33	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	6	4	0	3	8	9	24	1	0	10	1	67
	APPROACH %	9%	55%	36%	0%	27%	73%	26%	71%	3%	0%	91%	9%	
	PEAK HR FACTOR		0.550			0.550			0.850			0.688		0.882
	APP/DEPART	11	/	16	11	/	4	34	/	28	11	/	19	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	1	0	4	0	0	0	0	5
	4:15 PM	1	0	1	0	0	1	1	2	0	0	0	0	6
	4:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	3
	4:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	VOLUMES	1	0	3	0	0	3	1	11	0	0	2	0	21
	APPROACH %	25%	0%	75%	0%	0%	100%	8%	92%	0%	0%	100%	0%	
	APP/DEPART	4	/	1	3	/	0	12	/	14	2	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	0	2	0	0	3	1	7	0	0	2	0	16
	APPROACH %	33%	0%	67%	0%	0%	100%	13%	88%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.750			0.500			0.250		0.667
	APP/DEPART	3	/	1	3	/	0	8	/	9	2	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
	EAST & WEST:	Rincon	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	21	127	1	2	193	60	16	1	22	1	1	0	445
	7:15 AM	25	160	0	0	218	59	20	0	23	1	0	0	506
	7:30 AM	16	168	1	3	213	80	17	0	10	0	0	1	509
	7:45 AM	35	170	2	2	272	75	23	0	15	0	0	1	595
	8:00 AM	43	88	1	1	197	87	19	0	16	0	0	0	452
	8:15 AM	33	73	1	0	173	55	14	0	16	0	0	1	366
	8:30 AM	24	98	1	0	174	49	12	0	12	1	0	0	371
	8:45 AM	19	100	1	0	165	46	12	0	17	0	1	0	361
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	216	984	8	8	1,605	511	133	1	131	3	2	3	3,605
	APPROACH %	18%	81%	1%	0%	76%	24%	50%	0%	49%	38%	25%	38%	
	APP/DEPART	1,208	/	1,120	2,124	/	1,739	265	/	17	8	/	729	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	119	586	4	6	900	301	79	0	64	1	0	2	2,062
	APPROACH %	17%	83%	1%	0%	75%	25%	55%	0%	45%	33%	0%	67%	
	PEAK HR FACTOR		0.856			0.865			0.831			0.750		0.866
	APP/DEPART	709	/	667	1,207	/	965	143	/	10	3	/	420	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	18	153	0	0	121	26	79	0	27	4	0	2	430
	4:15 PM	17	135	2	0	151	21	49	1	16	0	0	0	392
	4:30 PM	23	160	0	0	116	17	121	0	56	1	0	3	497
	4:45 PM	25	169	1	1	144	23	69	0	26	1	0	1	460
	5:00 PM	20	200	1	0	127	23	77	0	42	2	0	4	496
	5:15 PM	23	175	0	0	127	19	60	2	38	3	0	2	449
	5:30 PM	19	175	0	0	117	25	86	0	34	2	0	0	458
	5:45 PM	23	153	0	1	153	30	35	0	23	0	0	1	419
	VOLUMES	168	1,320	4	2	1,056	184	576	3	262	13	0	13	3,601
	APPROACH %	11%	88%	0%	0%	85%	15%	68%	0%	31%	50%	0%	50%	
	APP/DEPART	1,492	/	1,910	1,242	/	1,331	841	/	8	26	/	352	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	91	704	2	1	514	82	327	2	162	7	0	10	1,902
	APPROACH %	11%	88%	0%	0%	86%	14%	67%	0%	33%	41%	0%	59%	
	PEAK HR FACTOR		0.902			0.888			0.694			0.708		0.957
	APP/DEPART	797	/	1,042	597	/	683	491	/	4	17	/	173	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	15	13	0
0	20	14	0
1	5	6	1
0	12	11	1
0	13	13	0
0	3	7	0
0	7	7	0
0	2	10	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	77	81	2
1	50	44	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	8	13	2
0	2	10	0
0	5	28	3
1	4	15	0
0	5	26	3
0	5	14	1
0	6	20	0
0	4	15	0
1	39	141	9
1	19	83	7

Lincoln

NORTH SIDE

Rincon WEST SIDE EAST SIDE **Rincon**

SOUTH SIDE

Lincoln

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	0	1
7:30 AM	1	1	0	0	2
7:45 AM	0	1	0	0	1
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	1	0	0	0	1
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	4	3	0	0	7
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	3	0	0	0	3
5:45 PM	0	0	0	0	0
TOTAL	5	0	0	0	5

PEDESTRIAN CROSSINGS

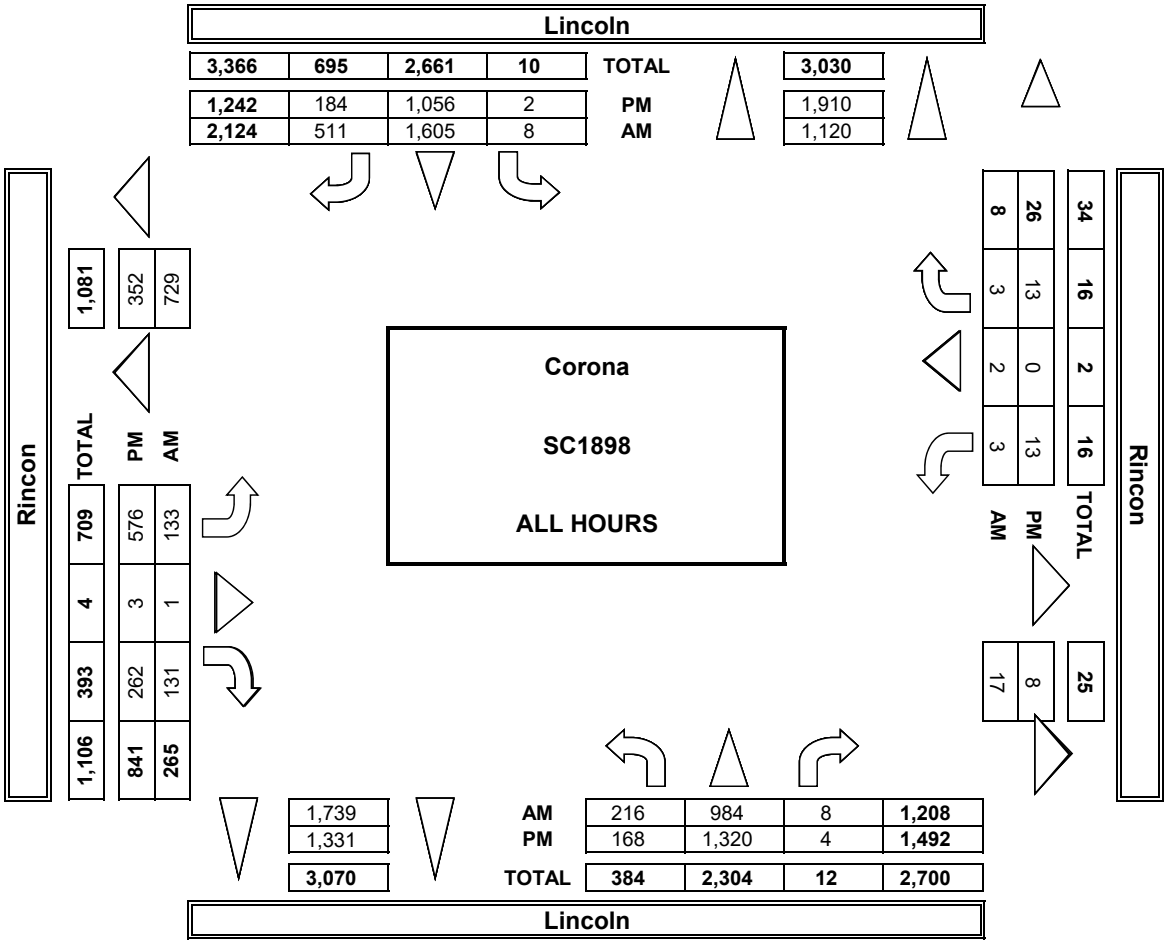
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	1	0	0	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
4	0	0	0	4

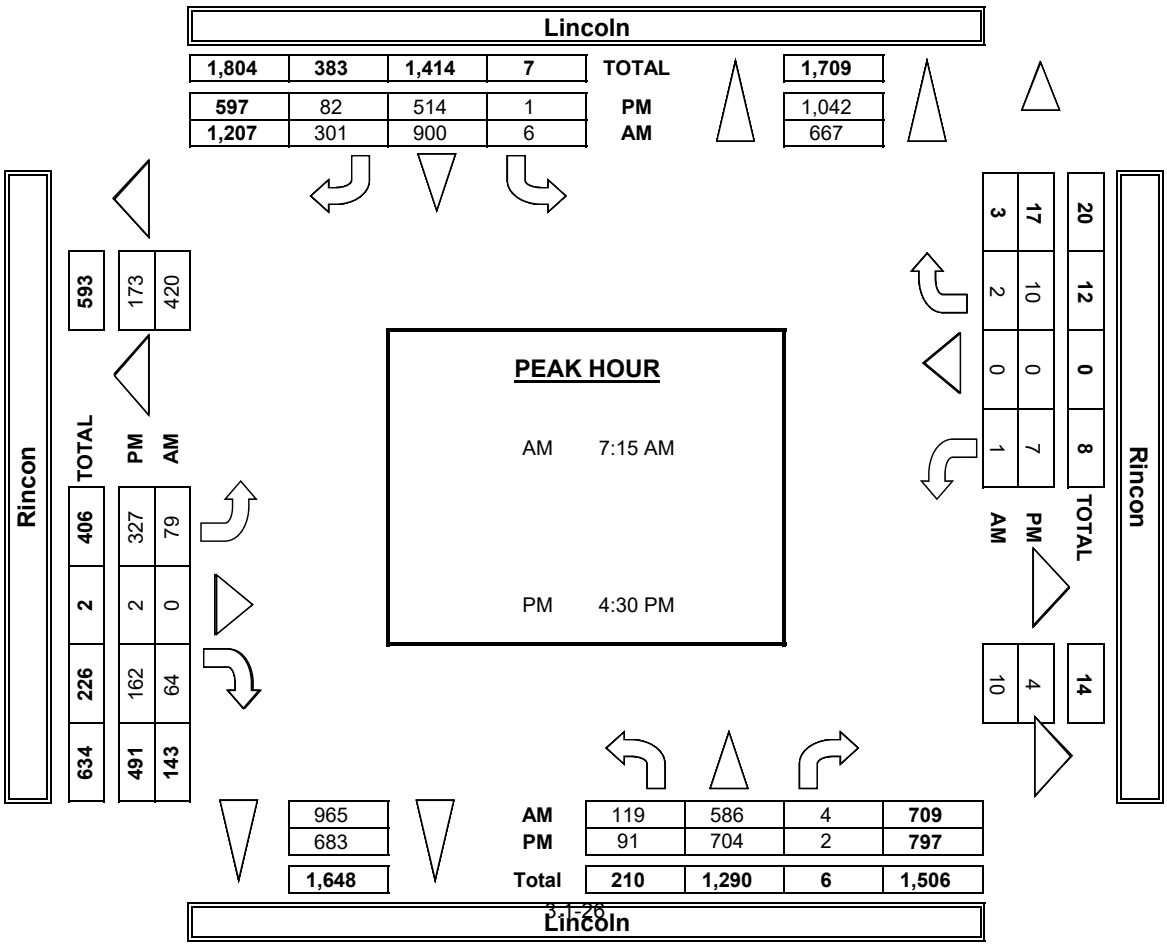
BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Lincoln	LOCATION #:	4
	EAST & WEST:	Rincon	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM 7:00 AM	18	121	1	2	175	57	15	0	18	0	0	0	407
7:15 AM	22	148	0	0	201	57	18	0	21	0	0	0	467
7:30 AM	13	152	1	2	198	73	16	0	10	0	0	1	466
7:45 AM	34	156	2	2	251	71	19	0	13	0	0	1	549
8:00 AM	42	77	0	1	180	83	15	0	14	0	0	0	412
8:15 AM	32	63	1	0	153	47	12	0	13	0	0	0	321
8:30 AM	22	80	0	0	157	45	10	0	11	0	0	0	325
8:45 AM	14	80	1	0	151	44	10	0	14	0	1	0	315
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	197	877	6	7	1,466	477	115	0	114	0	1	2	3,262
APPROACH %	18%	81%	1%	0%	75%	24%	50%	0%	50%	0%	33%	67%	
APP/DEPART	1,080	/	994	1,950	/	1,580	229	/	13	3	/	675	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	111	533	3	5	830	284	68	0	58	0	0	2	1,894
APPROACH %	17%	82%	0%	0%	74%	25%	54%	0%	46%	0%	0%	100%	
PEAK HR FACTOR		0.842			0.863			0.808			0.500		0.862
APP/DEPART	647	/	603	1,119	/	888	126	/	8	2	/	395	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	14	142	0	0	112	25	76	0	24	4	0	2	399
4:15 PM	15	126	0	0	139	20	45	1	15	0	0	0	361
4:30 PM	21	153	0	0	110	17	112	0	54	1	0	3	471
4:45 PM	23	156	1	0	139	22	67	0	24	1	0	0	433
5:00 PM	20	187	1	0	122	23	72	0	42	2	0	4	473
5:15 PM	22	166	0	0	121	18	56	2	36	3	0	2	426
5:30 PM	19	165	0	0	112	24	83	0	33	2	0	0	438
5:45 PM	22	143	0	1	142	30	33	0	22	0	0	1	394
VOLUMES	156	1,238	2	1	997	179	544	3	250	13	0	12	3,395
APPROACH %	11%	89%	0%	0%	85%	15%	68%	0%	31%	52%	0%	48%	
APP/DEPART	1,396	/	1,794	1,177	/	1,260	797	/	6	25	/	335	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	86	662	2	0	492	80	307	2	156	7	0	9	1,803
APPROACH %	11%	88%	0%	0%	86%	14%	66%	0%	34%	44%	0%	56%	
PEAK HR FACTOR		0.901			0.888			0.700			0.667		0.953
APP/DEPART	750	/	978	572	/	655	465	/	4	16	/	166	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	15	12	0
0	19	13	0
1	5	6	1
0	12	10	1
0	13	12	0
0	3	5	0
0	6	7	0
0	2	8	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	75	73	2
1	49	41	2
0	0	0	0
0	0	0	0
0	0	0	0
0	8	12	2
0	2	10	0
0	5	26	3
1	3	14	0
0	5	26	3
0	5	13	1
0	6	20	0
0	4	14	0
1	38	135	9
1	18	79	7

Lincoln

NORTH SIDE

Rincon WEST SIDE EAST SIDE **Rincon**

SOUTH SIDE

Lincoln

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
TUESDAY	EAST & WEST:	Rincon	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	2	4	0	0	11	2	1	1	2	0	1	0	24
	7:15 AM	0	4	0	0	11	2	1	0	1	0	0	0	19
	7:30 AM	2	4	0	0	13	5	1	0	0	0	0	0	25
	7:45 AM	0	8	0	0	11	4	4	0	2	0	0	0	29
	8:00 AM	0	5	0	0	13	3	3	0	1	0	0	0	25
	8:15 AM	1	5	0	0	15	8	2	0	2	0	0	0	33
	8:30 AM	1	5	1	0	12	2	2	0	0	1	0	0	24
	8:45 AM	2	7	0	0	8	1	2	0	1	0	0	0	21
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	42	1	0	94	27	16	1	9	1	1	0	200
	APPROACH %	16%	82%	2%	0%	78%	22%	62%	4%	35%	50%	50%	0%	
	APP/DEPART	51	/	58	121	/	104	26	/	2	2	/	36	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	3	22	0	0	52	20	10	0	5	0	0	0	112
	APPROACH %	12%	88%	0%	0%	72%	28%	67%	0%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.781			0.783			0.625			0.000		0.848
	APP/DEPART	25	/	32	72	/	57	15	/	0	0	/	23	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	8	0	0	6	1	3	0	2	0	0	0	21
	4:15 PM	1	5	1	0	10	1	3	0	0	0	0	0	21
	4:30 PM	1	6	0	0	4	0	8	0	2	0	0	0	21
	4:45 PM	0	9	0	1	4	0	1	0	0	0	0	1	16
	5:00 PM	0	9	0	0	5	0	5	0	0	0	0	0	19
	5:15 PM	0	9	0	0	6	1	3	0	1	0	0	0	20
	5:30 PM	0	9	0	0	4	1	1	0	1	0	0	0	16
	5:45 PM	0	7	0	0	10	0	2	0	1	0	0	0	20
	VOLUMES	3	62	1	1	49	4	26	0	7	0	0	1	154
	APPROACH %	5%	94%	2%	2%	91%	7%	79%	0%	21%	0%	0%	100%	
	APP/DEPART	66	/	90	54	/	56	33	/	1	1	/	7	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	28	1	0	24	2	15	0	4	0	0	1	79
	APPROACH %	9%	88%	3%	0%	89%	7%	79%	0%	21%	0%	0%	100%	
	PEAK HR FACTOR		0.889			0.614			0.475			0.250		0.940
	APP/DEPART	32	/	45	27	/	28	19	/	1	1	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
TUESDAY	EAST & WEST:	Rincon	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Rincon			WESTBOUND Rincon			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
	8:45 AM	0	0	0	0	1	1	0	0	1	0	0	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	2	4	0	0	2	1	0	0	11
	APPROACH %	100%	0%	0%	0%	33%	67%	0%	0%	100%	100%	0%	0%	
	APP/DEPART	2	/	0	6	/	5	2	/	0	1	/	6	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	1	0	0	0	1	3	0	0	2	0	0	0	7
	APPROACH %	100%	0%	0%	0%	25%	75%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.500			0.500			0.000		0.583
	APP/DEPART	1	/	0	4	/	3	2	/	0	0	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	2	0	0	0	1	0	0	2	0	0	0	5
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	VOLUMES	0	4	0	0	3	1	2	0	2	0	0	0	12
	APPROACH %	0%	100%	0%	0%	75%	25%	50%	0%	50%	0%	0%	0%	
	APP/DEPART	4	/	6	4	/	5	4	/	0	0	/	1	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	3	0	0	0	1	2	0	2	0	0	0	8
	APPROACH %	0%	100%	0%	0%	0%	100%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.375			0.250			0.500			0.000		0.400
	APP/DEPART	3	/	5	1	/	2	4	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
TUESDAY	EAST & WEST:	Rincon	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	3	1	0	0	2	1	0	0	7
	7:15 AM	3	0	0	0	2	0	1	0	1	0	0	0	7
	7:30 AM	1	2	0	1	0	0	0	0	0	0	0	0	4
	7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
	8:00 AM	0	0	1	0	2	1	0	0	0	0	0	0	4
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	8:30 AM	1	0	0	0	2	0	0	0	1	0	0	0	4
	8:45 AM	3	0	0	0	1	0	0	0	1	0	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	9	2	1	1	12	2	1	0	5	1	0	1	35
	APPROACH %	75%	17%	8%	7%	80%	13%	17%	0%	83%	50%	0%	50%	
	APP/DEPART	12	/	4	15	/	18	6	/	2	2	/	11	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	5	2	0	1	6	1	1	0	3	1	0	0	20
	APPROACH %	71%	29%	0%	13%	75%	13%	25%	0%	75%	100%	0%	0%	
	PEAK HR FACTOR		0.583			0.500			0.500			0.250		0.714
	APP/DEPART	7	/	3	8	/	10	4	/	1	1	/	6	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	0	0	0	0	0	0	0	1	0	0	0	3
	4:15 PM	1	1	1	0	0	0	1	0	0	0	0	0	4
	4:30 PM	1	1	0	0	0	0	1	0	0	0	0	0	3
	4:45 PM	2	0	0	0	0	0	1	0	0	0	0	0	3
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	1	0	0	0	0	0	1	0	1	0	0	0	3
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	8	4	1	0	0	0	4	0	2	0	0	0	19
	APPROACH %	62%	31%	8%	0%	0%	0%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	13	/	8	0	/	2	6	/	1	0	/	8	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	6	2	1	0	0	0	3	0	1	0	0	0	13
	APPROACH %	67%	22%	11%	0%	0%	0%	75%	0%	25%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.000			1.000			0.000		0.813
	APP/DEPART	9	/	5	0	/	1	4	/	1	0	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
TUESDAY	EAST & WEST:	Rincon	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	4
TUESDAY	EAST & WEST:	Rincon	CONTROL:	SIGNAL

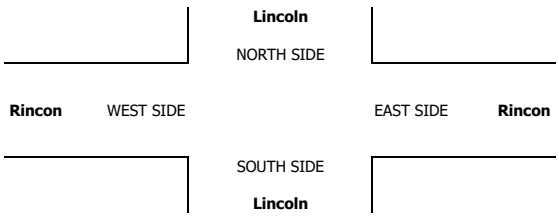
CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Rincon)			WESTBOUND (Rincon)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	7:15 AM	0	8	0	0	4	0	0	0	0	0	0	0	12
	7:30 AM	0	10	0	0	2	1	0	0	0	0	0	0	13
	7:45 AM	0	6	0	0	8	0	0	0	0	0	0	0	14
	8:00 AM	0	6	0	0	2	0	1	0	0	0	0	0	9
	8:15 AM	0	5	0	0	4	0	0	0	1	0	0	0	10
	8:30 AM	0	13	0	0	2	0	0	0	0	0	0	0	15
	8:45 AM	0	13	0	0	4	0	0	0	0	0	0	0	17
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	63	0	0	30	1	1	0	1	0	0	0	96
	APPROACH %	0%	100%	0%	0%	97%	3%	50%	0%	50%	0%	0%	0%	
	APP/DEPART	63	/	64	31	/	31	2	/	0	0	/	1	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	37	0	0	12	0	1	0	1	0	0	0	51
	APPROACH %	0%	100%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.712			0.750			0.500			0.000		0.750
	APP/DEPART	37	/	38	12	/	13	2	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	3	0	0	2	0	0	0	0	0	0	0	6
	4:15 PM	0	3	0	0	1	0	0	0	1	0	0	0	5
	4:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	VOLUMES	1	12	0	0	7	0	0	0	1	0	0	0	21
	APPROACH %	8%	92%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	13	/	12	7	/	8	1	/	0	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	8	0	0	6	0	0	0	1	0	0	0	16
	APPROACH %	11%	89%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.563			0.750			0.250			0.000		0.667
	APP/DEPART	9	/	8	6	/	7	1	/	0	0	/	1	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
	EAST & WEST:	Railroad	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Railroad)			WESTBOUND (Railroad)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	46	93	11	24	136	58	14	18	15	14	151	31	611
	7:15 AM	44	127	20	41	120	63	11	17	14	11	124	52	644
	7:30 AM	47	128	29	42	128	54	5	15	10	15	102	42	617
	7:45 AM	67	154	21	50	146	66	12	25	14	12	128	46	741
	8:00 AM	47	94	13	41	138	56	8	23	16	16	97	25	574
	8:15 AM	56	76	11	24	112	58	3	14	10	4	110	25	503
	8:30 AM	58	77	11	31	89	57	7	25	17	11	99	37	519
	8:45 AM	43	96	13	21	112	45	7	23	20	16	52	24	472
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	408	845	129	274	981	457	67	160	116	99	863	282	4,681
	APPROACH %	30%	61%	9%	16%	57%	27%	20%	47%	34%	8%	69%	23%	
	APP/DEPART	1,382	/	1,194	1,712	/	1,197	343	/	563	1,244	/	1,727	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	204	502	81	157	530	241	42	75	53	52	505	171	2,613
	APPROACH %	26%	64%	10%	17%	57%	26%	25%	44%	31%	7%	69%	23%	
	PEAK HR FACTOR		0.813			0.885			0.833			0.929		0.882
	APP/DEPART	787	/	715	928	/	636	170	/	313	728	/	949	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	15	107	14	42	105	8	38	116	41	24	20	25	555
	4:15 PM	20	97	20	26	125	12	31	72	41	17	22	19	502
	4:30 PM	18	138	14	40	132	6	33	144	62	16	17	25	645
	4:45 PM	28	136	23	21	134	12	26	102	39	20	18	25	584
	5:00 PM	9	149	19	27	146	2	45	117	42	23	26	28	633
	5:15 PM	24	153	18	21	134	7	17	70	31	21	18	24	538
	5:30 PM	21	142	18	26	113	5	27	97	44	20	13	22	548
	5:45 PM	28	127	13	41	130	8	13	49	30	15	17	27	498
	VOLUMES	163	1,049	139	244	1,019	60	230	767	330	156	151	195	4,503
	APPROACH %	12%	78%	10%	18%	77%	5%	17%	58%	25%	31%	30%	39%	
	APP/DEPART	1,351	/	1,474	1,323	/	1,505	1,327	/	1,150	502	/	374	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	79	576	74	109	546	27	121	433	174	80	79	102	2,400
	APPROACH %	11%	79%	10%	16%	80%	4%	17%	59%	24%	31%	30%	39%	
	PEAK HR FACTOR		0.935			0.958			0.762			0.847		0.930
	APP/DEPART	729	/	799	682	/	800	728	/	616	261	/	185	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
3	21	9	4
10	19	8	6
16	19	5	14
10	14	7	7
2	15	10	8
6	19	6	12
4	25	7	3
2	17	7	5
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
53	149	59	59
39	73	29	31
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	4	3	3
5	4	6	3
5	2	8	9
11	7	5	7
8	0	11	12
7	3	13	9
7	1	5	7
5	2	7	8
53	23	58	58
31	12	37	37

Lincoln

NORTH SIDE

Railroad WEST SIDE EAST SIDE **Railroad**

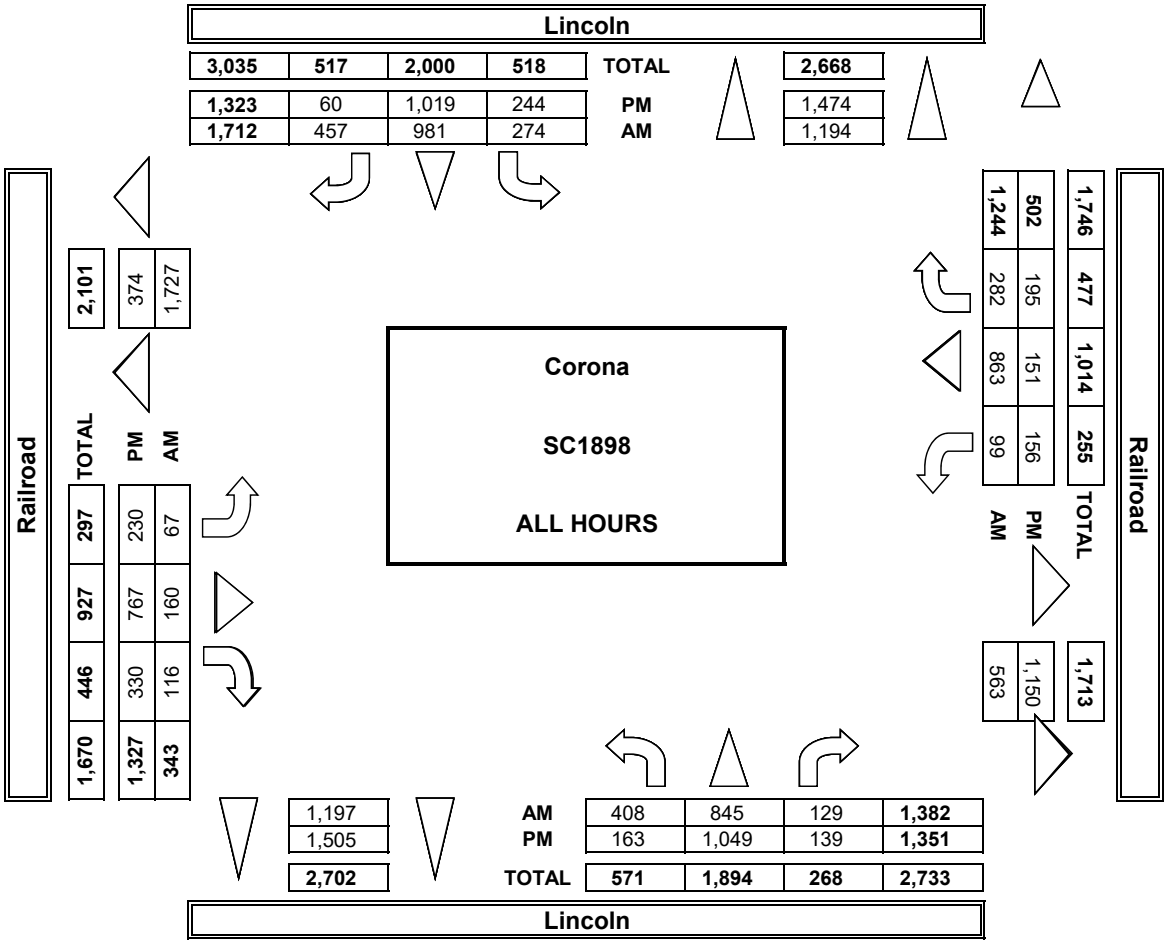
SOUTH SIDE

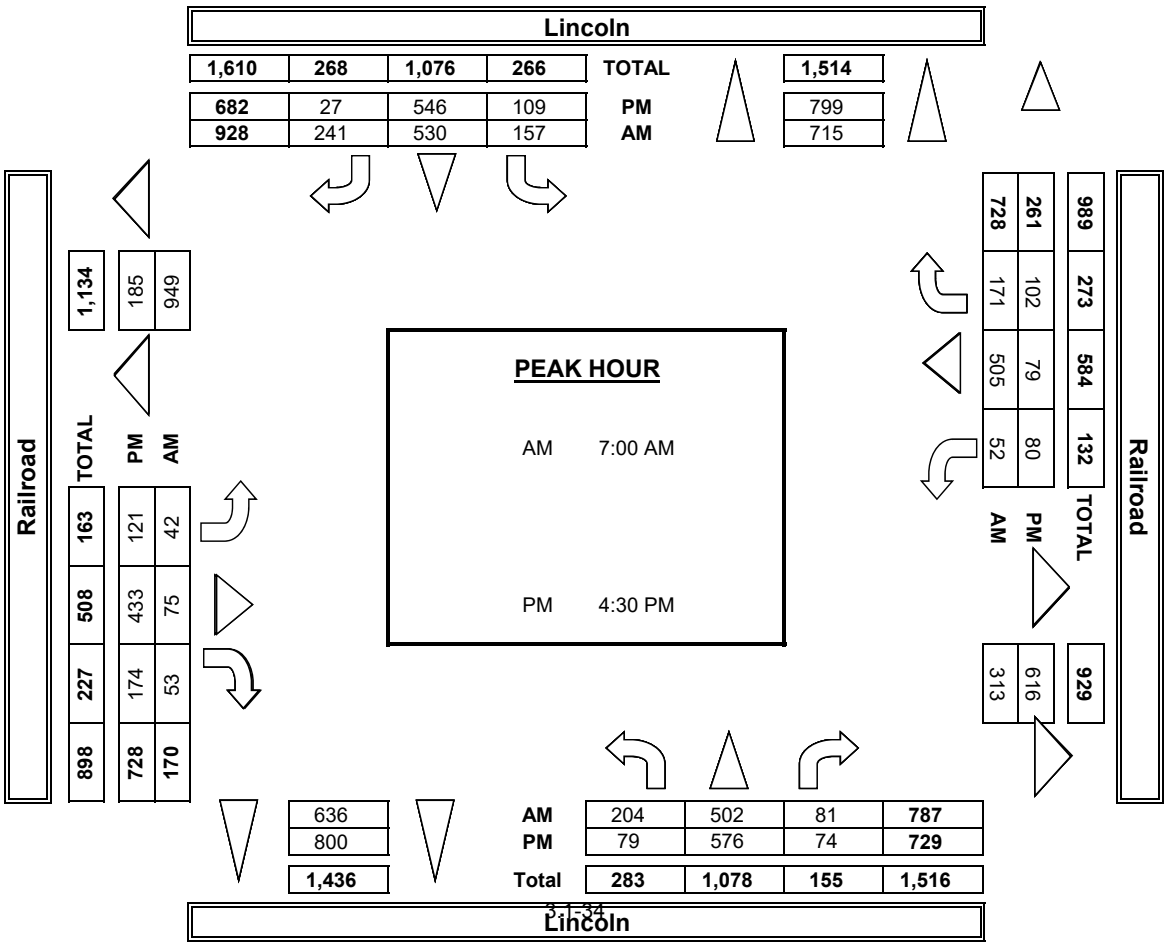
Lincoln

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	1	0	2	0	1	0	0	1	0	0	1	0	1
	7:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	7:30 AM	0	1	2	1	4	0	0	1	1	2	0	1	1	0	2
	7:45 AM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
	8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1	4	3	3	11	1	2	1	2	6	0	2	2	1	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	4	0	5	0	0	0	0	0	0	1	4	0	5
	4:30 PM	3	0	1	0	4	3	0	0	0	3	0	0	1	0	1
	4:45 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	5:00 PM	0	2	0	1	3	0	2	0	1	3	0	0	0	0	0
	5:15 PM	0	2	1	0	3	0	2	0	0	2	0	0	1	0	1
	5:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2
	5:45 PM	1	1	3	0	5	0	1	0	0	1	1	0	3	0	4
	TOTAL	4	6	12	1	23	3	5	1	1	10	1	1	11	0	13

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Lincoln	LOCATION #:	5
	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

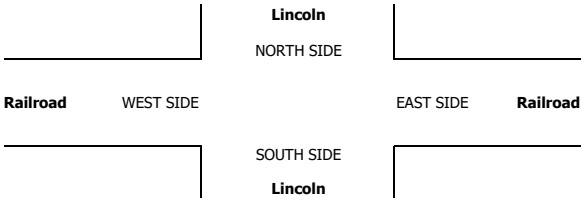
	NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Railroad)			WESTBOUND (Railroad)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	36	88	10	20	125	52	13	16	12	11	141	28	552
7:15 AM	41	122	20	41	109	57	7	12	11	10	106	46	582
7:30 AM	40	117	24	41	120	48	3	11	6	14	87	35	546
7:45 AM	62	144	21	47	133	63	11	16	10	11	121	40	679
8:00 AM	42	88	8	40	123	50	8	13	13	12	88	19	504
8:15 AM	51	72	6	18	106	49	2	8	8	3	96	20	439
8:30 AM	49	67	8	27	79	52	5	20	11	7	79	25	429
8:45 AM	37	83	11	18	99	40	6	18	14	10	42	16	394
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	358	781	108	252	894	411	55	114	85	78	760	229	4,125
APPROACH %	29%	63%	9%	16%	57%	26%	22%	45%	33%	7%	71%	21%	
APP/DEPART	1,247	/	1,065	1,557	/	1,058	254	/	474	1,067	/	1,528	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	178	471	75	149	487	220	34	55	39	46	455	149	2,359
APPROACH %	25%	65%	10%	17%	57%	26%	27%	43%	30%	7%	70%	23%	
PEAK HR FACTOR		0.798			0.881			0.780			0.903		0.869
APP/DEPART	725	/	654	856	/	573	128	/	279	650	/	853	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	9	96	14	38	99	7	38	103	39	21	15	21	500
4:15 PM	14	88	19	22	118	11	27	66	38	13	17	17	450
4:30 PM	16	131	12	36	129	5	33	140	59	16	15	23	615
4:45 PM	28	127	21	19	130	8	23	95	37	18	18	23	547
5:00 PM	6	141	18	27	141	2	42	110	42	21	24	26	600
5:15 PM	19	145	16	20	126	7	16	67	29	18	17	24	504
5:30 PM	20	137	16	26	106	5	24	97	43	19	12	22	527
5:45 PM	24	118	12	38	122	7	11	47	27	13	17	25	461
VOLUMES	136	983	128	226	971	52	214	725	314	139	135	181	4,204
APPROACH %	11%	79%	10%	18%	78%	4%	17%	58%	25%	31%	30%	40%	
APP/DEPART	1,247	/	1,378	1,249	/	1,424	1,253	/	1,079	455	/	323	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	69	544	67	102	526	22	114	412	167	73	74	96	2,266
APPROACH %	10%	80%	10%	16%	81%	3%	16%	59%	24%	30%	30%	40%	
PEAK HR FACTOR		0.944			0.956			0.747			0.856		0.921
APP/DEPART	680	/	754	650	/	766	693	/	581	243	/	165	0

U-TURNS

NB	SB	EB	WB	TTL
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
3	18	7	3
10	18	6	6
14	16	3	11
10	14	6	7
2	13	8	5
4	16	5	9
4	23	3	3
2	16	5	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
49	134	43	47
37	66	22	27
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	4	3	3
5	4	6	3
3	2	8	9
11	5	4	5
8	0	11	12
6	3	11	9
7	1	5	7
4	2	6	8
49	21	54	56
28	10	34	35



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
TUESDAY	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

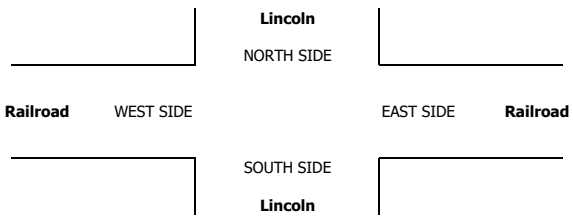
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Railroad)			WESTBOUND (Railroad)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	7	3	1	1	6	4	1	1	2	2	9	1	38
	7:15 AM	3	0	0	0	8	3	2	5	1	1	14	2	39
	7:30 AM	6	3	3	0	6	6	2	4	3	0	10	2	45
	7:45 AM	4	6	0	1	8	1	1	3	3	1	7	0	35
	8:00 AM	3	4	5	0	10	5	0	9	2	3	6	3	50
	8:15 AM	3	4	3	2	5	8	1	5	2	0	10	1	44
	8:30 AM	0	3	2	2	8	4	1	5	3	4	13	3	48
	8:45 AM	4	6	2	2	8	3	0	3	4	3	6	3	44
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	30	29	16	8	59	34	8	35	20	14	75	15	343
	APPROACH %	40%	39%	21%	8%	58%	34%	13%	56%	32%	13%	72%	14%	
	APP/DEPART	75	/	52	101	/	93	63	/	59	104	/	139	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	10	17	12	6	31	20	2	22	11	10	35	10	186
	APPROACH %	26%	44%	31%	11%	54%	35%	6%	63%	31%	18%	64%	18%	
	PEAK HR FACTOR		0.813			0.950			0.795			0.688		0.930
	APP/DEPART	39	/	29	57	/	52	35	/	40	55	/	65	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	5	9	0	2	4	1	0	5	2	1	4	1	34
	4:15 PM	4	6	1	2	6	1	2	6	2	3	3	0	36
	4:30 PM	2	6	2	2	3	1	0	2	2	0	1	2	23
	4:45 PM	0	5	1	1	3	3	2	5	1	2	0	0	23
	5:00 PM	3	7	1	0	5	0	3	5	0	1	2	0	27
	5:15 PM	4	7	2	1	7	0	1	3	0	2	1	0	28
	5:30 PM	0	5	2	0	6	0	2	0	1	1	1	0	18
	5:45 PM	4	8	1	3	7	1	1	0	1	2	0	0	28
	VOLUMES	22	53	10	11	41	7	11	26	9	12	12	3	217
	APPROACH %	26%	62%	12%	19%	69%	12%	24%	57%	20%	44%	44%	11%	
	APP/DEPART	85	/	67	59	/	62	46	/	47	27	/	41	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	11	26	4	7	16	6	4	18	7	6	8	3	116
	APPROACH %	27%	63%	10%	24%	55%	21%	14%	62%	24%	35%	47%	18%	
	PEAK HR FACTOR		0.732			0.806			0.725			0.708		0.806
	APP/DEPART	41	/	33	29	/	29	29	/	29	17	/	25	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	2	2	0
0	0	1	0
2	3	1	1
0	0	1	0
0	1	2	2
2	3	1	1
0	1	2	0
0	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	11	11	4
2	6	6	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	2	1	0
2	2	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
TUESDAY	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Railroad			WESTBOUND Railroad			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
	7:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
	7:45 AM	0	0	0	1	0	0	0	2	0	0	0	1	4
	8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
	8:30 AM	3	0	0	0	0	0	0	0	0	0	2	0	5
	8:45 AM	0	0	0	1	1	0	0	0	1	1	1	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	0	1	2	2	0	0	2	3	2	5	2	23
	APPROACH %	80%	0%	20%	50%	50%	0%	0%	40%	60%	22%	56%	22%	
	APP/DEPART	5	/	2	4	/	7	5	/	5	9	/	9	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	4	0	0	1	2	0	0	0	1	2	4	0	14
	APPROACH %	100%	0%	0%	33%	67%	0%	0%	0%	100%	33%	67%	0%	
	PEAK HR FACTOR		0.333			0.375			0.250			0.750		0.700
	APP/DEPART	4	/	0	3	/	5	1	/	1	6	/	8	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	1	0	1	0	0	3
	4:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
	4:45 PM	0	1	1	0	1	1	0	0	1	0	0	1	6
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
	VOLUMES	0	2	1	0	3	1	0	2	2	2	2	1	16
	APPROACH %	0%	67%	33%	0%	75%	25%	0%	50%	50%	40%	40%	20%	
	APP/DEPART	3	/	3	4	/	7	4	/	3	5	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	1	0	2	1	0	1	2	2	2	1	13
	APPROACH %	0%	50%	50%	0%	67%	33%	0%	33%	67%	40%	40%	20%	
	PEAK HR FACTOR		0.250			0.375			0.750			0.625		0.542
	APP/DEPART	2	/	2	3	/	6	3	/	2	5	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

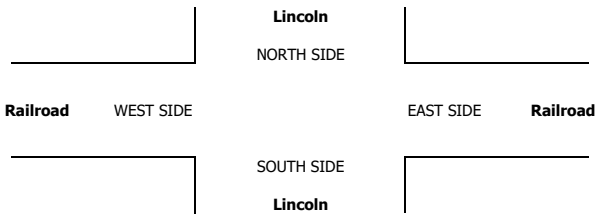
NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	1
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	1

0	0	1	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1

0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
TUESDAY	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Railroad)			WESTBOUND (Railroad)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	2	1	0	2	3	1	0	1	1	1	1	0	13
	7:15 AM	0	1	0	0	1	3	0	0	0	0	3	2	10
	7:30 AM	0	2	1	0	0	0	0	0	1	1	4	0	9
	7:45 AM	1	1	0	0	0	1	0	3	1	0	0	0	7
	8:00 AM	1	1	0	0	1	1	0	1	1	1	3	0	10
	8:15 AM	2	0	2	0	0	1	0	1	0	0	3	0	9
	8:30 AM	6	1	0	0	1	1	0	0	2	0	5	0	16
	8:45 AM	2	2	0	0	2	1	0	1	1	1	3	1	14
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	14	9	3	2	8	9	0	7	7	4	22	3	88
	APPROACH %	54%	35%	12%	11%	42%	47%	0%	50%	50%	14%	76%	10%	
	APP/DEPART	26	/	12	19	/	19	14	/	12	29	/	45	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	11	4	2	0	4	4	0	3	4	2	14	1	49
	APPROACH %	65%	24%	12%	0%	50%	50%	0%	43%	57%	12%	82%	6%	
	PEAK HR FACTOR		0.607			0.667			0.875			0.850		0.766
	APP/DEPART	17	/	5	8	/	10	7	/	5	17	/	29	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	1	0	1	0	0	0	6	0	1	1	0	11
	4:15 PM	2	2	0	1	0	0	2	0	1	0	1	0	9
	4:30 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
	4:45 PM	0	2	0	0	0	0	1	2	0	0	0	0	5
	5:00 PM	0	0	0	0	0	0	0	2	0	1	0	0	3
	5:15 PM	1	1	0	0	1	0	0	0	2	1	0	0	6
	5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	2
	5:45 PM	0	1	0	0	0	0	1	1	2	0	0	0	5
	VOLUMES	5	8	0	2	1	0	5	13	5	3	2	0	44
	APPROACH %	38%	62%	0%	67%	33%	0%	22%	57%	22%	60%	40%	0%	
	APP/DEPART	13	/	13	3	/	9	23	/	15	5	/	7	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	6	0	2	0	0	3	10	1	1	2	0	28
	APPROACH %	33%	67%	0%	100%	0%	0%	21%	71%	7%	33%	67%	0%	
	PEAK HR FACTOR		0.563			0.500			0.583			0.375		0.636
	APP/DEPART	9	/	9	2	/	2	14	/	12	3	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
TUESDAY	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Railroad)			WESTBOUND (Railroad)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	5
TUESDAY	EAST & WEST:	Railroad	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Railroad			WESTBOUND Railroad			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	1	1	0	1	2	1	0	0	0	0	0	1	7
7:15 AM	0	4	0	0	2	0	2	0	0	0	1	2	11
7:30 AM	1	6	0	1	2	0	0	0	0	0	0	5	15
7:45 AM	0	3	0	1	5	1	0	1	0	0	0	5	16
8:00 AM	0	1	0	1	3	0	0	0	0	0	0	3	8
8:15 AM	0	0	0	4	1	0	0	0	0	0	0	4	9
8:30 AM	0	6	1	2	0	0	1	0	1	0	0	9	20
8:45 AM	0	5	0	0	2	1	1	1	0	1	0	4	15
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	26	1	10	17	3	4	2	1	1	1	33	101
APPROACH %	7%	90%	3%	33%	57%	10%	57%	29%	14%	3%	3%	94%	
APP/DEPART	29	/	63	30	/	19	7	/	13	35	/	6	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	10	1	8	9	1	1	1	1	0	0	21	53
APPROACH %	0%	91%	9%	44%	50%	6%	33%	33%	33%	0%	0%	100%	
PEAK HR FACTOR		0.393			0.643			0.375			0.583		0.663
APP/DEPART	11	/	32	18	/	10	3	/	10	21	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	1	1	0	0	1	0	0	0	3	7
4:15 PM	0	1	0	1	1	0	0	0	0	0	0	2	5
4:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	1	0	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
VOLUMES	0	3	0	5	3	0	0	1	0	0	0	10	22
APPROACH %	0%	100%	0%	63%	38%	0%	0%	100%	0%	0%	0%	100%	
APP/DEPART	3	/	13	8	/	3	1	/	6	10	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	3	0	5	2	0	0	1	0	0	0	6	17
APPROACH %	0%	100%	0%	71%	29%	0%	0%	100%	0%	0%	0%	100%	
PEAK HR FACTOR		0.750			0.875			0.250			0.500		0.607
APP/DEPART	3	/	9	7	/	2	1	/	6	6	/	0	0

U-TURNS

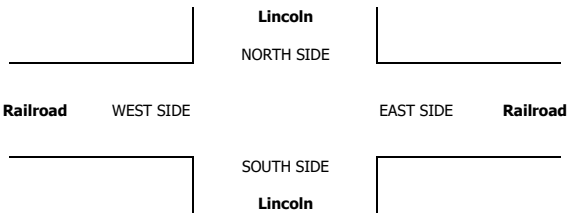
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	2
0	0	0	0
0	0	0	1
0	0	0	2
0	0	1	0
0	0	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	7
0	0	1	3

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Lincoln
EAST & WEST: Pomona

PROJECT #: SC1898
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

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

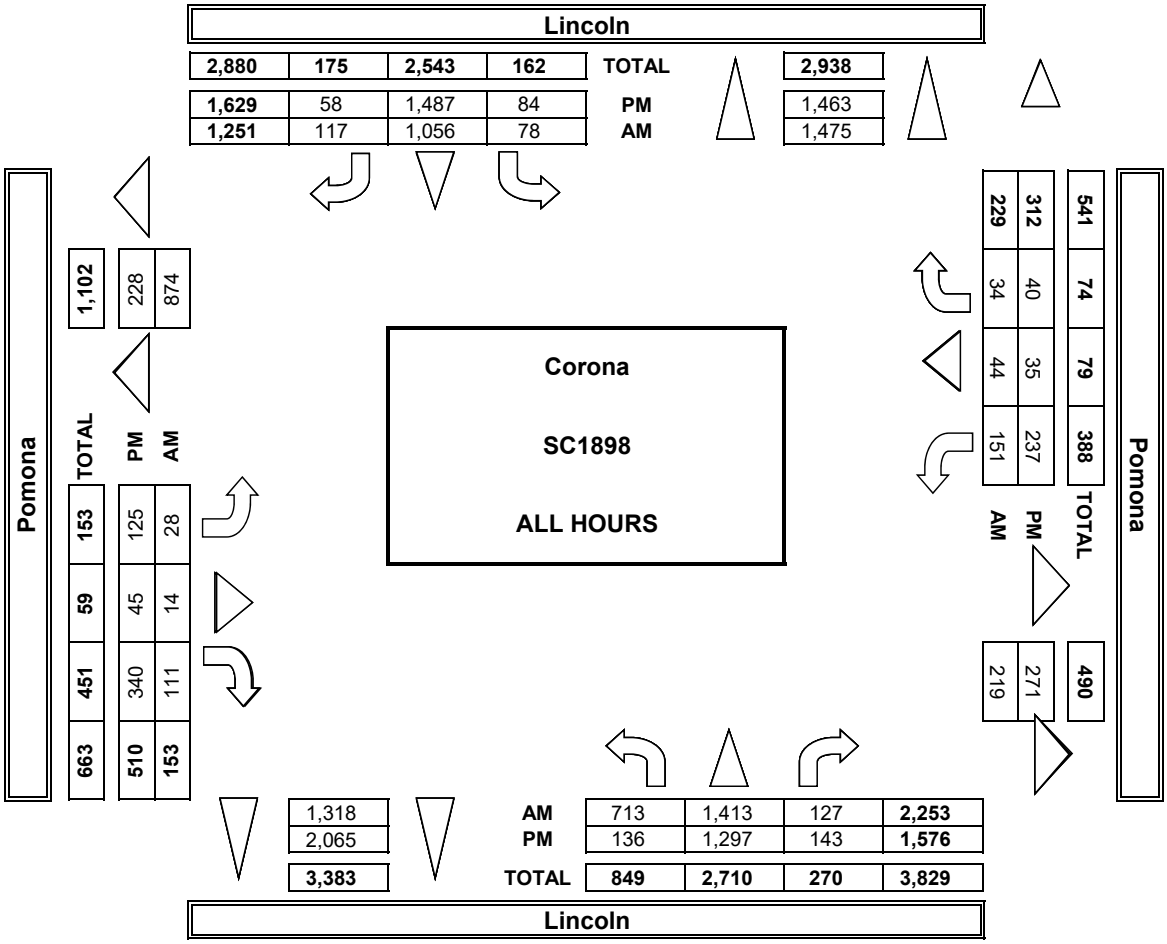
Add U-Turns to Left Turns

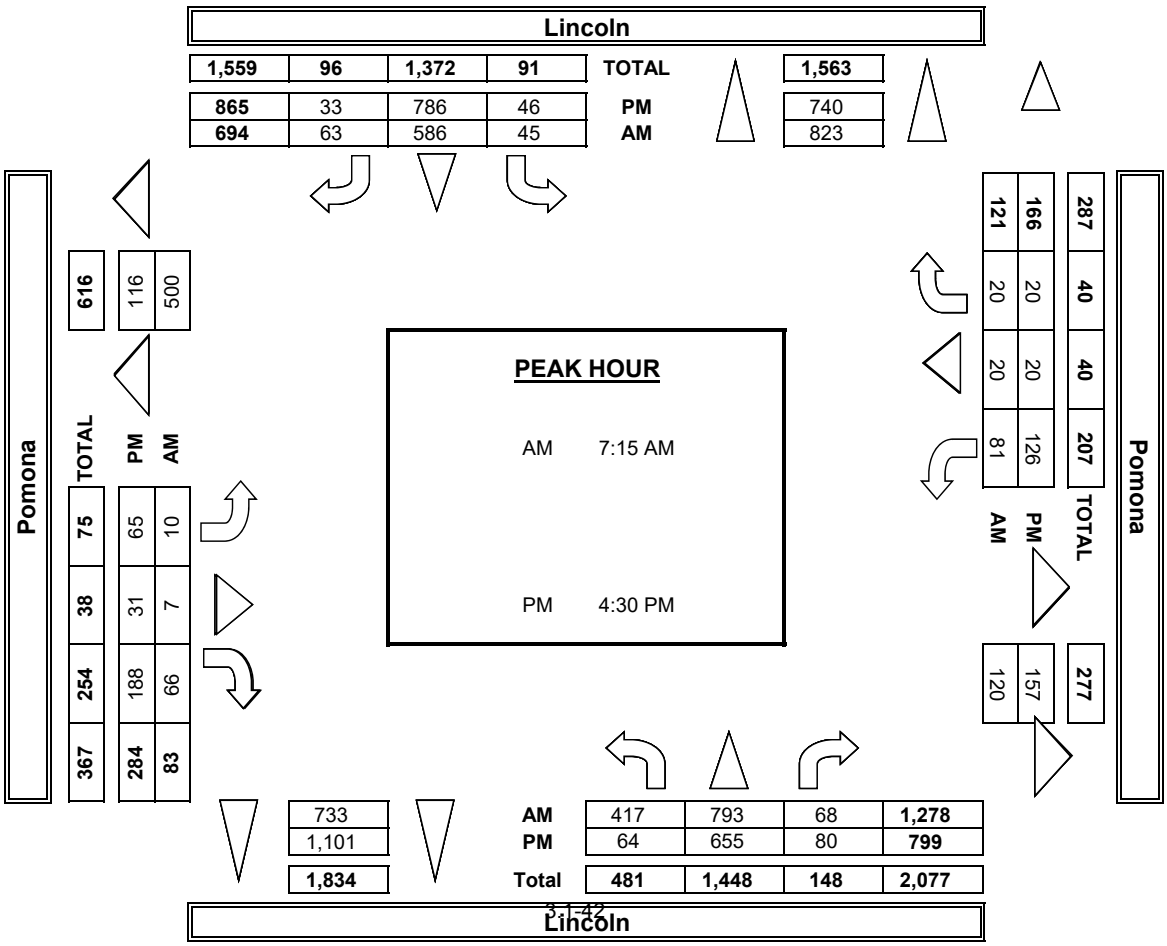
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Pomona)			WESTBOUND (Pomona)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	75	148	14	8	141	19	4	2	15	23	12	3	464
AM	7:15 AM	96	209	12	15	139	16	2	2	12	23	2	5	533
AM	7:30 AM	106	201	21	12	144	14	3	2	19	21	9	5	557
AM	7:45 AM	103	226	19	14	146	21	5	2	19	25	4	5	589
AM	8:00 AM	112	157	16	4	157	12	0	1	16	12	5	5	497
AM	8:15 AM	72	161	16	8	110	11	1	0	6	15	5	4	409
AM	8:30 AM	70	155	12	10	100	9	5	2	13	14	5	5	400
AM	8:45 AM	79	156	17	7	119	15	8	3	11	18	2	2	437
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	713	1,413	127	78	1,056	117	28	14	111	151	44	34	3,886
AM	APPROACH %	32%	63%	6%	6%	84%	9%	18%	9%	73%	66%	19%	15%	
AM	APP/DEPART	2,253	/	1,475	1,251	/	1,318	153	/	219	229	/	874	0
AM	BEGIN PEAK HR		7:15 AM											
AM	VOLUMES	417	793	68	45	586	63	10	7	66	81	20	20	2,176
AM	APPROACH %	33%	62%	5%	6%	84%	9%	12%	8%	80%	67%	17%	17%	
AM	PEAK HR FACTOR		0.918			0.959			0.798			0.864		0.924
AM	APP/DEPART	1,278	/	823	694	/	733	83	/	120	121	/	500	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	29	119	18	9	158	7	24	4	59	34	4	3	468
PM	4:15 PM	19	151	15	5	191	11	12	4	37	24	5	5	479
PM	4:30 PM	21	157	22	10	207	9	15	9	65	27	3	4	549
PM	4:45 PM	18	181	22	12	183	6	16	10	41	26	3	3	521
PM	5:00 PM	10	149	20	12	215	8	17	9	48	34	6	7	535
PM	5:15 PM	15	168	16	12	181	10	17	3	34	39	8	6	509
PM	5:30 PM	18	194	17	16	175	3	16	5	25	26	3	7	505
PM	5:45 PM	6	178	13	8	177	4	8	1	31	27	3	5	461
PM	VOLUMES	136	1,297	143	84	1,487	58	125	45	340	237	35	40	4,027
PM	APPROACH %	9%	82%	9%	5%	91%	4%	25%	9%	67%	76%	11%	13%	
PM	APP/DEPART	1,576	/	1,463	1,629	/	2,065	510	/	271	312	/	228	0
PM	BEGIN PEAK HR		4:30 PM											
PM	VOLUMES	64	655	80	46	786	33	65	31	188	126	20	20	2,114
PM	APPROACH %	8%	82%	10%	5%	91%	4%	23%	11%	66%	76%	12%	12%	
PM	PEAK HR FACTOR		0.904			0.920			0.798			0.783		0.963
PM	APP/DEPART	799	/	740	865	/	1,101	284	/	157	166	/	116	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Lincoln	LOCATION #:	6
	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

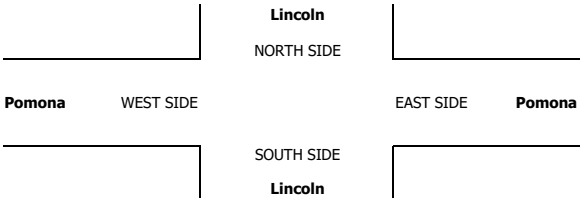
	NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Pomona)			WESTBOUND (Pomona)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM 7:00 AM	65	135	13	8	128	16	3	2	14	21	11	2	418
7:15 AM	92	196	12	14	124	16	1	1	6	23	2	5	492
7:30 AM	98	181	17	9	132	14	3	2	16	19	9	4	504
7:45 AM	96	214	16	13	134	18	4	2	12	21	4	4	538
8:00 AM	105	142	16	4	140	11	0	1	7	11	4	5	446
8:15 AM	66	147	16	8	102	9	1	0	4	12	5	4	374
8:30 AM	62	137	11	9	84	6	5	2	8	13	5	4	346
8:45 AM	70	139	16	7	98	14	5	3	9	16	2	2	381
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	654	1,291	117	72	942	104	22	13	76	136	42	30	3,499
APPROACH %	32%	63%	6%	6%	84%	9%	20%	12%	68%	65%	20%	14%	
APP/DEPART	2,062	/	1,343	1,118	/	1,154	111	/	202	208	/	800	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	391	733	61	40	530	59	8	6	41	74	19	18	1,980
APPROACH %	33%	62%	5%	6%	84%	9%	15%	11%	75%	67%	17%	16%	
PEAK HR FACTOR		0.909			0.953			0.655			0.867		0.920
APP/DEPART	1,185	/	759	629	/	645	55	/	107	111	/	469	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	19	106	15	7	149	6	21	4	55	31	4	3	420
4:15 PM	15	133	15	5	176	10	11	4	32	22	4	5	432
4:30 PM	15	149	21	10	198	9	13	8	62	26	3	3	517
4:45 PM	16	175	21	12	177	4	13	10	38	26	3	3	498
5:00 PM	8	138	17	12	211	7	16	7	45	32	5	6	504
5:15 PM	12	156	16	11	171	10	17	3	31	36	8	5	476
5:30 PM	14	184	16	15	168	3	15	4	25	26	3	6	479
5:45 PM	6	166	13	8	166	4	8	1	31	27	3	4	437
VOLUMES	105	1,207	134	80	1,416	53	114	41	319	226	33	35	3,763
APPROACH %	7%	83%	9%	5%	91%	3%	24%	9%	67%	77%	11%	12%	
APP/DEPART	1,446	/	1,357	1,549	/	1,962	474	/	254	294	/	190	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	50	618	75	45	757	30	59	28	176	120	19	17	1,995
APPROACH %	7%	83%	10%	5%	91%	4%	22%	11%	67%	77%	12%	11%	
PEAK HR FACTOR		0.877			0.904			0.792			0.796		0.965
APP/DEPART	744	/	694	832	/	1,054	263	/	148	156	/	99	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
	0	0	0	0	0
PM 03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	1	0	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
	1	1	0	0	2

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	4	1	9	1
7:15 AM	2	1	5	3
7:30 AM	5	0	11	2
7:45 AM	1	2	10	1
8:00 AM	2	0	6	3
8:15 AM	3	0	3	2
8:30 AM	1	0	8	0
8:45 AM	1	0	7	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
	19	4	59	12
	10	3	32	9
PM 03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	2	0	24	1
4:15 PM	0	0	11	4
4:30 PM	5	0	14	1
4:45 PM	3	0	15	2
5:00 PM	3	0	10	1
5:15 PM	1	1	12	0
5:30 PM	2	0	13	2
5:45 PM	0	0	18	2
	16	1	117	13
	12	1	51	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	6
TUESDAY	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Pomona)			WESTBOUND (Pomona)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	4	8	1	0	6	2	1	0	1	2	1	1	27
	7:15 AM	3	7	0	1	10	0	0	0	2	0	0	0	23
	7:30 AM	7	11	2	3	8	0	0	0	2	0	0	0	33
	7:45 AM	6	8	1	1	7	2	1	0	5	2	0	1	34
	8:00 AM	4	10	0	0	11	1	0	0	8	1	1	0	36
	8:15 AM	2	7	0	0	5	2	0	0	2	2	0	0	20
	8:30 AM	6	3	0	0	12	3	0	0	4	1	0	0	29
	8:45 AM	4	9	1	0	13	1	3	0	2	2	0	0	35
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	36	63	5	5	72	11	5	0	26	10	2	2	237
	APPROACH %	35%	61%	5%	6%	82%	13%	16%	0%	84%	71%	14%	14%	
	APP/DEPART	104	/	70	88	/	108	31	/	10	14	/	49	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	20	36	3	5	36	3	1	0	17	3	1	1	126
	APPROACH %	34%	61%	5%	11%	82%	7%	6%	0%	94%	60%	20%	20%	
	PEAK HR FACTOR		0.738			0.917			0.563			0.417		0.875
	APP/DEPART	59	/	38	44	/	56	18	/	8	5	/	24	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	5	10	3	2	5	1	3	0	2	3	0	0	34
	4:15 PM	3	12	0	0	12	1	1	0	4	2	1	0	36
	4:30 PM	3	6	1	0	8	0	2	1	2	1	0	1	25
	4:45 PM	1	4	1	0	4	2	2	0	2	0	0	0	16
	5:00 PM	1	10	3	0	3	1	0	1	3	2	1	1	26
	5:15 PM	2	11	0	1	6	0	0	0	3	2	0	1	26
	5:30 PM	2	9	1	1	6	0	1	1	0	0	0	1	22
	5:45 PM	0	10	0	0	8	0	0	0	0	0	0	1	19
	VOLUMES	17	72	9	4	52	5	9	3	16	10	2	5	204
	APPROACH %	17%	73%	9%	7%	85%	8%	32%	11%	57%	59%	12%	29%	
	APP/DEPART	98	/	86	61	/	78	28	/	16	17	/	24	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	12	32	5	2	29	4	8	1	10	6	1	1	111
	APPROACH %	24%	65%	10%	6%	83%	11%	42%	5%	53%	75%	13%	13%	
	PEAK HR FACTOR		0.681			0.673			0.950			0.667		0.771
	APP/DEPART	49	/	41	35	/	45	19	/	8	8	/	17	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	1	0
0	0	2	0
0	0	2	0
0	0	4	1
0	0	7	0
0	0	2	0
0	0	3	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	23	1
0	0	15	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	7	2
1	0	5	0

Lincoln

NORTH SIDE

Pomona WEST SIDE EAST SIDE **Pomona**

SOUTH SIDE

Lincoln

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	6
TUESDAY	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Pomona			WESTBOUND Pomona			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	1	0	0	1	0	0	1	2	0	0	0	6
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	2
	7:45 AM	0	0	1	0	0	0	0	0	1	0	0	0	2
	8:00 AM	1	1	0	0	1	0	0	0	0	0	0	0	3
	8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
	8:30 AM	1	3	0	0	0	0	0	0	0	0	0	0	4
	8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	5	1	0	5	0	0	1	3	1	0	1	21
	APPROACH %	40%	50%	10%	0%	100%	0%	0%	25%	75%	50%	0%	50%	
	APP/DEPART	10	/	6	5	/	9	4	/	2	2	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	2	1	0	2	0	0	1	3	1	0	1	13
	APPROACH %	40%	40%	20%	0%	100%	0%	0%	25%	75%	50%	0%	50%	
	PEAK HR FACTOR		0.625			0.500			0.333			0.250		0.542
	APP/DEPART	5	/	3	2	/	6	4	/	2	2	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
	4:45 PM	1	1	0	0	1	0	0	0	0	0	0	0	3
	5:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:30 PM	2	1	0	0	0	0	0	0	0	0	0	0	3
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	6	2	0	0	5	0	1	1	0	1	0	0	16
	APPROACH %	75%	25%	0%	0%	100%	0%	50%	50%	0%	100%	0%	0%	
	APP/DEPART	8	/	3	5	/	6	2	/	1	1	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	2	0	0	1	0	1	1	0	1	0	0	9
	APPROACH %	60%	40%	0%	0%	100%	0%	50%	50%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.417			0.125			0.250			0.250		0.563
	APP/DEPART	5	/	3	1	/	2	2	/	1	1	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	1	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	1	0

NRR	SRR	ERR	WRR
1	0	1	0

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NRR	SRR	ERR	WRR
0	0	0	0

Lincoln

NORTH SIDE

Pomona WEST SIDE EAST SIDE **Pomona**

SOUTH SIDE

Lincoln

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	6
TUESDAY	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

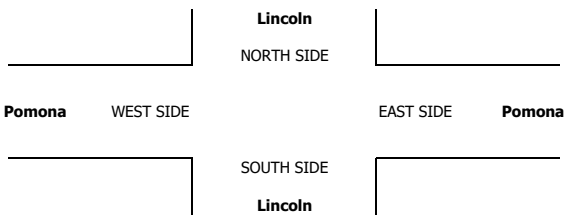
	NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Pomona)			WESTBOUND (Pomona)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	6	3	0	0	4	1	0	0	0	0	0	0	14
7:15 AM	0	2	0	0	2	0	0	0	2	0	0	0	6
7:30 AM	1	2	1	0	2	0	0	0	1	1	0	0	8
7:45 AM	1	2	1	0	1	0	0	0	1	2	0	0	8
8:00 AM	2	3	0	0	2	0	0	0	1	0	0	0	8
8:15 AM	3	6	0	0	1	0	0	0	0	1	0	0	11
8:30 AM	1	5	0	0	3	0	0	0	1	0	0	0	10
8:45 AM	5	3	0	0	4	0	0	0	0	0	0	0	12
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	19	26	2	0	19	1	0	0	6	4	0	0	77
APPROACH %	40%	55%	4%	0%	95%	5%	0%	0%	100%	100%	0%	0%	
APP/DEPART	47	/	26	20	/	29	6	/	2	4	/	20	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	11	17	0	0	10	0	0	0	2	1	0	0	41
APPROACH %	39%	61%	0%	0%	100%	0%	0%	0%	100%	100%	0%	0%	
PEAK HR FACTOR		0.778			0.625			0.500			0.250		0.854
APP/DEPART	28	/	17	10	/	13	2	/	0	1	/	11	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	3	2	0	0	1	0	0	0	2	0	0	0	8
4:15 PM	1	5	0	0	2	0	0	0	1	0	0	0	9
4:30 PM	2	2	0	0	0	0	0	0	1	0	0	0	5
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:00 PM	1	1	0	0	1	0	0	0	0	0	0	0	3
5:15 PM	0	1	0	0	4	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
VOLUMES	7	14	0	0	11	0	0	0	4	0	0	0	36
APPROACH %	33%	67%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	21	/	14	11	/	15	4	/	0	0	/	7	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	6	10	0	0	4	0	0	0	4	0	0	0	24
APPROACH %	38%	63%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR		0.667			0.500			0.500			0.000		0.667
APP/DEPART	16	/	10	4	/	8	4	/	0	0	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	6
TUESDAY	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Pomona)			WESTBOUND (Pomona)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	6
TUESDAY	EAST & WEST:	Pomona	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

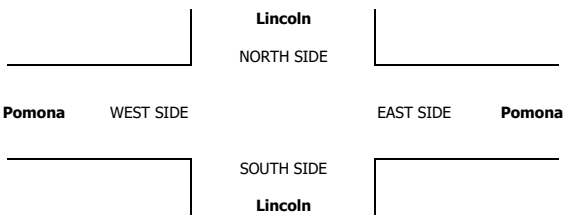
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Pomona			WESTBOUND Pomona			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	7:15 AM	0	3	0	0	2	0	1	0	0	0	0	0	6
	7:30 AM	0	7	1	0	2	0	0	0	0	0	0	0	10
	7:45 AM	0	2	0	0	4	1	0	0	0	0	0	0	7
	8:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:30 AM	0	7	1	0	1	0	0	0	0	0	0	1	10
	8:45 AM	0	5	0	0	2	0	0	0	0	0	0	0	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	28	2	0	18	1	1	0	0	0	0	1	51
	APPROACH %	0%	93%	7%	0%	95%	5%	100%	0%	0%	0%	0%	100%	
	APP/DEPART	30	/	30	19	/	18	1	/	2	1	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	14	1	0	11	1	1	0	0	0	0	0	28
	APPROACH %	0%	93%	7%	0%	92%	8%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.469			0.600			0.250			0.000		0.700
	APP/DEPART	15	/	15	12	/	11	1	/	1	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	3	0	1	0	1	0	0	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%	
	APP/DEPART	2	/	3	3	/	4	2	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	2	0	0	2	0	1	0	1	0	0	0	6
	APPROACH %	0%	100%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.250			0.000		0.750
	APP/DEPART	2	/	3	2	/	3	2	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Lincoln
EAST & WEST: SR-91 WB Ramps

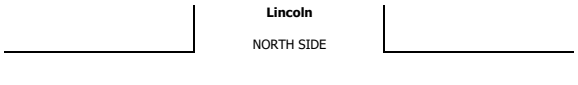
PROJECT #: SC1898
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

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

Add U-Turns to Left Turns

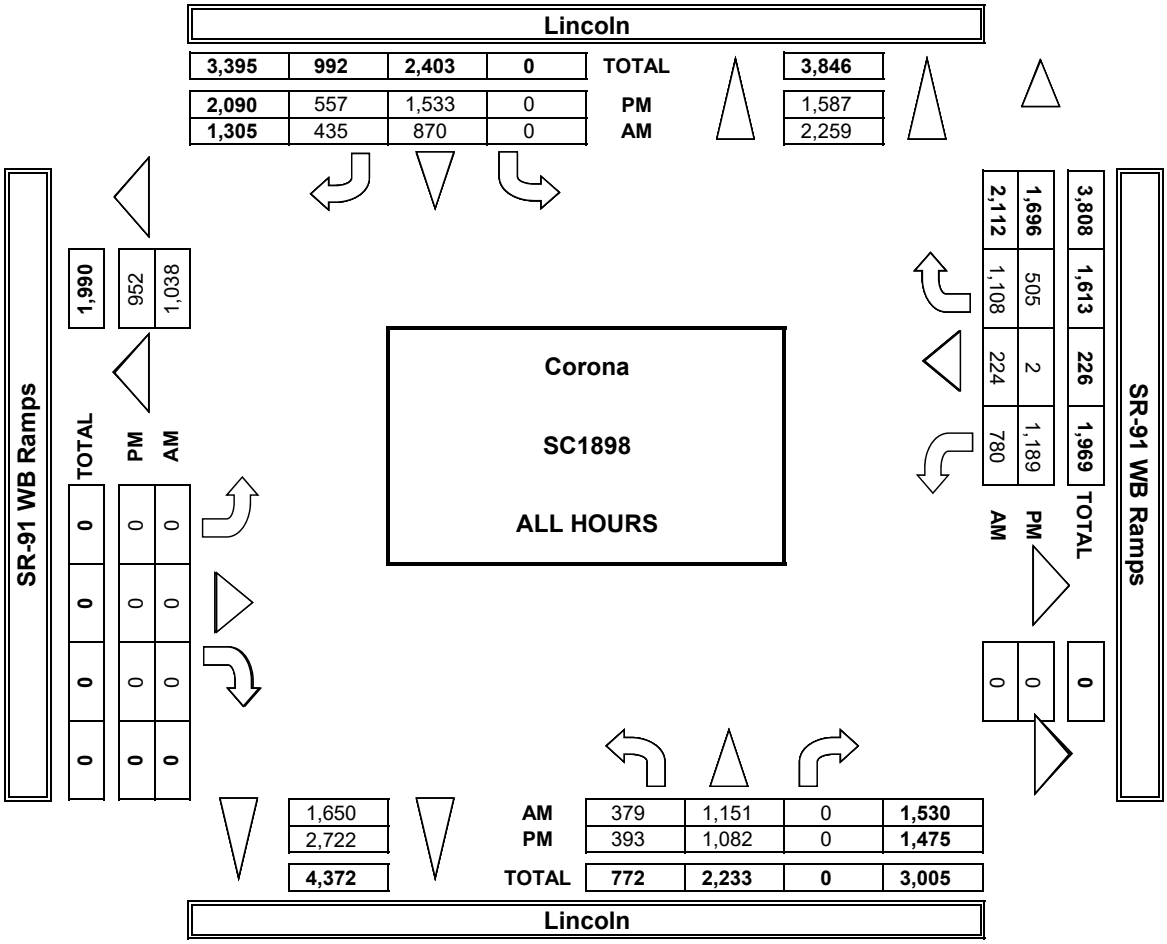
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (SR-91 WB Ramps)			WESTBOUND (SR-91 WB Ramps)				U-TURNS					RTOR			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	67	139	0	0	102	61	0	0	0	74	32	102	577	0	0	0	0	0	0	11	0	61
	7:15 AM	65	179	0	0	131	57	0	0	0	84	35	132	683	0	0	0	0	0	0	13	0	62
	7:30 AM	57	180	0	0	120	55	0	0	0	72	24	151	659	0	0	0	0	0	0	21	0	60
	7:45 AM	39	186	0	0	110	68	0	0	0	102	25	166	696	0	0	0	0	0	0	13	0	72
	8:00 AM	53	128	0	0	116	78	0	0	0	81	35	154	645	0	0	0	0	0	0	12	0	61
	8:15 AM	40	109	0	0	90	41	0	0	0	104	36	142	562	0	0	0	0	0	0	8	0	79
	8:30 AM	29	107	0	0	94	38	0	0	0	126	22	130	546	0	0	0	0	0	0	4	0	76
	8:45 AM	29	123	0	0	107	37	0	0	0	137	15	131	579	0	0	0	0	0	0	15	0	67
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	379	1,151	0	0	870	435	0	0	0	780	224	1,108	4,947	0	0	0	0	0	0	97	0	538
	APPROACH %	25%	75%	0%	0%	67%	33%	0%	0%	0%	37%	11%	52%										
	APP/DEPART	1,530	/	2,259	1,305	/	1,650	0	/	0	2,112	/	1,038	0									
	BEGIN PEAK HR		7:15 AM																				
	VOLUMES	214	673	0	0	477	258	0	0	0	339	119	603	2,683						0	59	0	255
	APPROACH %	24%	76%	0%	0%	65%	35%	0%	0%	0%	32%	11%	57%										
	PEAK HR FACTOR		0.909			0.947			0.000			0.905		0.964									
	APP/DEPART	887	/	1,276	735	/	816	0	/	0	1,061	/	591	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	43	118	0	0	190	87	0	0	0	148	0	60	646	0	0	0	0	0	0	21	0	22
	4:15 PM	48	120	0	0	174	65	0	0	0	130	0	61	598	0	0	0	0	0	0	22	0	29
	4:30 PM	48	135	0	0	231	71	0	0	0	124	1	58	668	0	0	0	0	0	0	28	0	28
	4:45 PM	48	152	0	0	194	62	0	0	0	156	0	80	692	0	0	0	0	0	0	27	0	37
	5:00 PM	58	131	0	0	210	93	0	0	0	156	1	48	697	0	0	0	0	0	0	26	0	20
	5:15 PM	52	140	0	0	185	75	0	0	0	156	0	65	673	0	0	0	0	0	0	13	0	33
	5:30 PM	53	152	0	0	167	53	0	0	0	160	0	68	653	0	0	0	0	0	0	15	0	23
	5:45 PM	43	134	0	0	182	51	0	0	0	159	0	65	634	0	0	0	0	0	0	18	0	22
	VOLUMES	393	1,082	0	0	1,533	557	0	0	0	1,189	2	505	5,261	0	0	0	0	0	0	170	0	214
	APPROACH %	27%	73%	0%	0%	73%	27%	0%	0%	0%	70%	0%	30%										
	APP/DEPART	1,475	/	1,587	2,090	/	2,722	0	/	0	1,696	/	952	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	206	558	0	0	820	301	0	0	0	592	2	251	2,730						0	94	0	118
	APPROACH %	27%	73%	0%	0%	73%	27%	0%	0%	0%	70%	0%	30%										
	PEAK HR FACTOR		0.955			0.925			0.000			0.895		0.979									
	APP/DEPART	764	/	809	1,121	/	1,412	0	/	0	845	/	509	0									

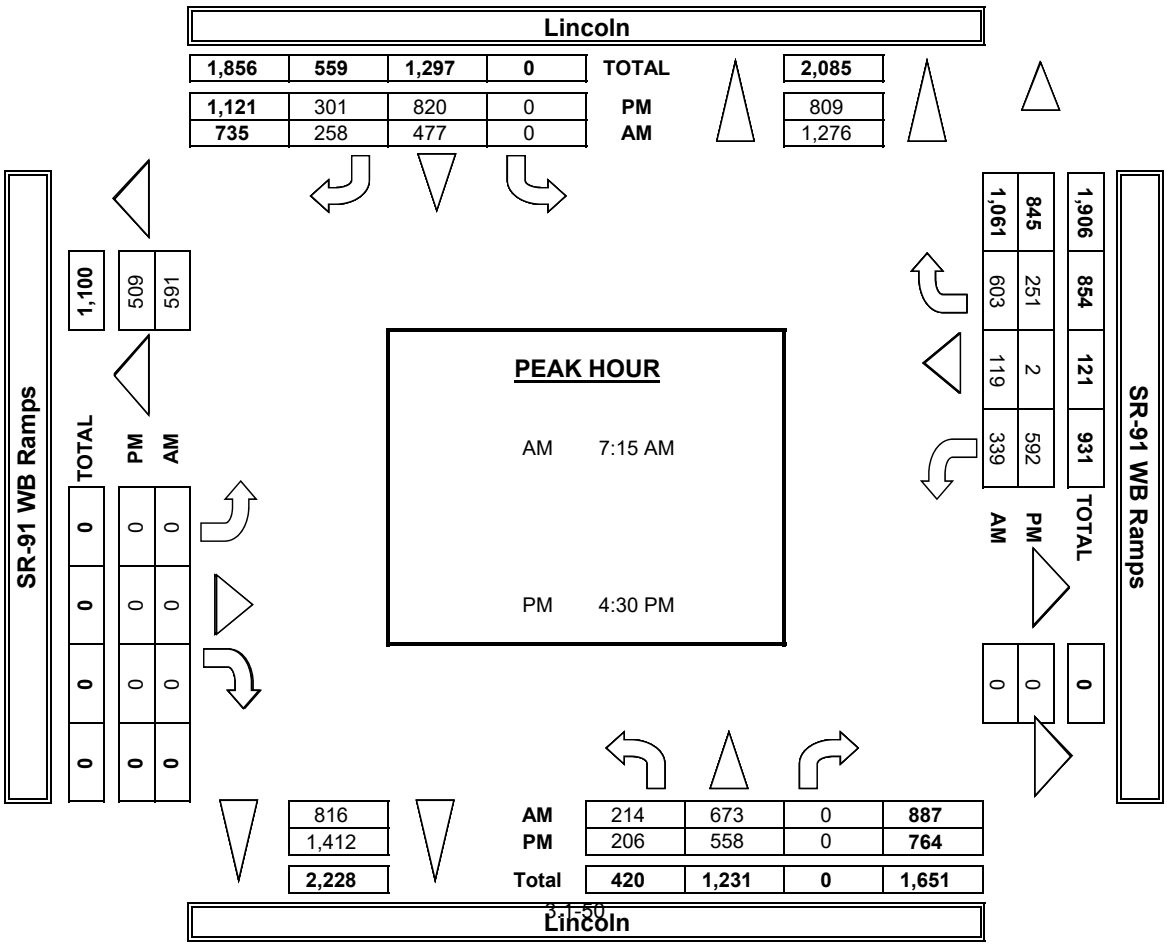


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	4	2	0	0	6	2	2	0	0	4	2	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	7:45 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:00 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:15 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	8:30 AM	1	1	0	0	2	0	1	0	0	1	1	0	0	0	1
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	7	11	0	0	18	4	11	0	0	15	3	0	0	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	2	0	0	4	1	2	0	0	3	1	0	0	0	1
	4:15 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	5:00 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	5:15 PM	4	2	0	0	6	4	2	0	0	6	0	0	0	0	0
	5:30 PM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	5:45 PM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	TOTAL	9	10	0	0	19	8	10	0	0	18	1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (SR-91 WB Ramps)			WESTBOUND (SR-91 WB Ramps)			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	65	133	0	0	90	56	0	0	0	67	28	88	527
	7:15 AM	58	170	0	0	119	48	0	0	0	78	28	122	623
	7:30 AM	51	158	0	0	106	53	0	0	0	64	14	141	587
	7:45 AM	38	173	0	0	92	63	0	0	0	90	18	160	634
	8:00 AM	47	120	0	0	101	69	0	0	0	73	21	139	570
	8:15 AM	34	104	0	0	77	36	0	0	0	96	16	128	491
	8:30 AM	27	97	0	0	78	30	0	0	0	115	13	115	475
	8:45 AM	23	106	0	0	88	34	0	0	0	129	9	117	506
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	343	1,061	0	0	751	389	0	0	0	712	147	1,010	4,413
	APPROACH %	24%	76%	0%	0%	66%	34%	0%	0%	0%	38%	8%	54%	
	APP/DEPART	1,404	/	2,071	1,140	/	1,463	0	/	0	1,869	/	879	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	194	621	0	0	418	233	0	0	0	305	81	562	2,414
	APPROACH %	24%	76%	0%	0%	64%	36%	0%	0%	0%	32%	9%	59%	
	PEAK HR FACTOR		0.894			0.957			0.000			0.884		0.952
	APP/DEPART	815	/	1,183	651	/	723	0	/	0	948	/	508	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	38	111	0	0	177	81	0	0	0	139	0	46	592
	4:15 PM	45	111	0	0	160	61	0	0	0	129	0	51	557
	4:30 PM	45	128	0	0	219	69	0	0	0	118	1	52	632
	4:45 PM	46	144	0	0	184	62	0	0	0	149	0	76	661
	5:00 PM	54	116	0	0	203	91	0	0	0	152	1	41	658
	5:15 PM	50	131	0	0	180	66	0	0	0	153	0	58	638
	5:30 PM	49	146	0	0	161	52	0	0	0	153	0	62	623
	5:45 PM	39	126	0	0	174	46	0	0	0	154	0	60	599
	VOLUMES	366	1,013	0	0	1,458	528	0	0	0	1,147	2	446	4,960
	APPROACH %	27%	73%	0%	0%	73%	27%	0%	0%	0%	72%	0%	28%	
	APP/DEPART	1,379	/	1,459	1,986	/	2,605	0	/	0	1,595	/	896	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	195	519	0	0	786	288	0	0	0	572	2	227	2,589
	APPROACH %	27%	73%	0%	0%	73%	27%	0%	0%	0%	71%	0%	28%	
	PEAK HR FACTOR		0.939			0.913			0.000			0.890		0.979
	APP/DEPART	714	/	746	1,074	/	1,358	0	/	0	801	/	485	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	11	0	56
0	13	0	59
0	21	0	59
0	13	0	71
0	11	0	59
0	8	0	72
0	4	0	72
0	13	0	63
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	94	0	511
0	58	0	248
0	0	0	0
0	0	0	0
0	21	0	15
0	22	0	26
0	28	0	26
0	27	0	35
0	26	0	19
0	11	0	30
0	15	0	21
0	18	0	22
0	168	0	194
0	92	0	110

Lincoln

NORTH SIDE

SR-91 WB Ramps WEST SIDE EAST SIDE **SR-91 WB Ramps**

SOUTH SIDE

Lincoln

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

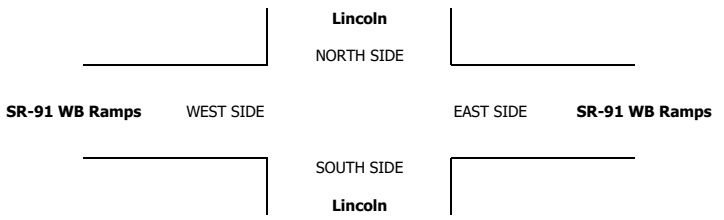
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND SR-91 WB Ramps			WESTBOUND SR-91 WB Ramps			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	2	4	0	0	6	3	0	0	0	6	2	6	29
	7:15 AM	7	3	0	0	6	5	0	0	0	3	1	10	35
	7:30 AM	6	11	0	0	8	2	0	0	0	5	2	8	42
	7:45 AM	1	8	0	0	12	4	0	0	0	6	3	3	37
	8:00 AM	5	6	0	0	8	8	0	0	0	7	1	10	45
	8:15 AM	5	4	0	0	11	3	0	0	0	6	2	4	35
	8:30 AM	2	2	0	0	14	4	0	0	0	10	2	6	40
	8:45 AM	5	8	0	0	13	2	0	0	0	8	0	9	45
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	33	46	0	0	78	31	0	0	0	51	13	56	308
	APPROACH %	42%	58%	0%	0%	72%	28%	0%	0%	0%	43%	11%	47%	
	APP/DEPART	79	/	102	109	/	129	0	/	0	120	/	77	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	17	20	0	0	46	17	0	0	0	31	5	29	165
	APPROACH %	46%	54%	0%	0%	73%	27%	0%	0%	0%	48%	8%	45%	
	PEAK HR FACTOR		0.712			0.875			0.000			0.903		0.917
	APP/DEPART	37	/	49	63	/	77	0	/	0	65	/	39	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	4	5	0	0	8	4	0	0	0	7	0	7	35
	4:15 PM	2	7	0	0	12	2	0	0	0	1	0	5	29
	4:30 PM	3	5	0	0	10	2	0	0	0	6	0	4	30
	4:45 PM	2	7	0	0	7	0	0	0	0	6	0	3	25
	5:00 PM	3	14	0	0	7	1	0	0	0	4	0	6	35
	5:15 PM	2	9	0	0	5	4	0	0	0	1	0	4	25
	5:30 PM	3	6	0	0	5	1	0	0	0	5	0	4	24
	5:45 PM	3	8	0	0	7	3	0	0	0	5	0	2	28
	VOLUMES	22	61	0	0	61	17	0	0	0	35	0	35	231
	APPROACH %	27%	73%	0%	0%	78%	22%	0%	0%	0%	50%	0%	50%	
	APP/DEPART	83	/	96	78	/	96	0	/	0	70	/	39	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	10	33	0	0	36	5	0	0	0	17	0	18	119
	APPROACH %	23%	77%	0%	0%	88%	12%	0%	0%	0%	49%	0%	51%	
	PEAK HR FACTOR		0.632			0.732			0.000			0.625		0.850
	APP/DEPART	43	/	51	41	/	53	0	/	0	35	/	15	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	5
0	0	0	3
0	0	0	1
0	0	0	1
0	1	0	1
0	0	0	3
0	0	0	3
0	2	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	3	0	20
0	3	0	10
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	5
0	0	0	2
0	0	0	1
0	0	0	2
0	0	0	1
0	1	0	2
0	0	0	2
0	0	0	0
0	1	0	15
0	0	0	6



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

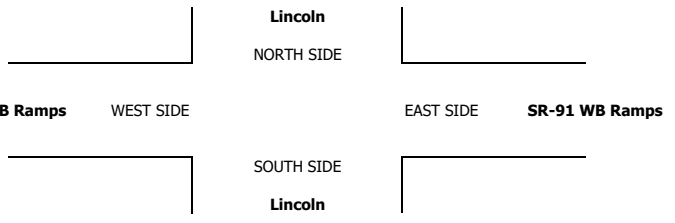
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND SR-91 WB Ramps			WESTBOUND SR-91 WB Ramps			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	1	0	0	2	1	0	0	0	2	1	0	7
	7:30 AM	0	2	0	0	1	0	0	0	0	2	2	0	7
	7:45 AM	0	1	0	0	1	0	0	0	0	3	0	0	5
	8:00 AM	0	0	0	0	1	1	0	0	0	0	2	1	5
	8:15 AM	0	0	0	0	0	1	0	0	0	1	0	2	4
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	3
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	0	0	6	3	0	0	0	9	5	6	33
	APPROACH %	0%	100%	0%	0%	67%	33%	0%	0%	0%	45%	25%	30%	
	APP/DEPART	4	/	10	9	/	15	0	/	0	20	/	8	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	4	0	0	5	2	0	0	0	7	5	1	24
	APPROACH %	0%	100%	0%	0%	71%	29%	0%	0%	0%	54%	38%	8%	
	PEAK HR FACTOR		0.500			0.583			0.000			0.813		0.857
	APP/DEPART	4	/	5	7	/	12	0	/	0	13	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	2	0	0	0	0	0	0	3	5
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	1	0	0	0	0	0	1	2
	5:30 PM	0	0	0	0	0	0	0	0	0	2	0	1	3
	5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	VOLUMES	0	1	0	0	4	3	0	0	0	2	0	7	17
	APPROACH %	0%	100%	0%	0%	57%	43%	0%	0%	0%	22%	0%	78%	
	APP/DEPART	1	/	8	7	/	6	0	/	0	9	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	0	4	1	0	0	0	0	0	5	11
	APPROACH %	0%	100%	0%	0%	80%	20%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.250			0.625			0.000			0.417		0.550
	APP/DEPART	1	/	6	5	/	4	0	/	0	5	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND SR-91 WB Ramps			WESTBOUND SR-91 WB Ramps			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	3	2	0	0	0	0	2	8	15
	7:15 AM	0	2	0	0	2	3	0	0	0	1	5	0	13
	7:30 AM	0	1	0	0	3	0	0	0	0	1	6	2	13
	7:45 AM	0	2	0	0	1	1	0	0	0	2	4	3	13
	8:00 AM	1	1	0	0	3	0	0	0	0	1	11	4	21
	8:15 AM	1	1	0	0	1	1	0	0	0	1	18	7	30
	8:30 AM	0	0	0	0	1	4	0	0	0	0	7	6	18
	8:45 AM	1	4	0	0	3	1	0	0	0	0	6	5	20
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	11	0	0	17	12	0	0	0	6	59	35	143
	APPROACH %	21%	79%	0%	0%	59%	41%	0%	0%	0%	6%	59%	35%	
	APP/DEPART	14	/	46	29	/	23	0	/	0	100	/	74	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	3	6	0	0	8	6	0	0	0	2	42	22	89
	APPROACH %	33%	67%	0%	0%	57%	43%	0%	0%	0%	3%	64%	33%	
	PEAK HR FACTOR		0.450			0.700			0.000			0.635		0.742
	APP/DEPART	9	/	28	14	/	10	0	/	0	66	/	51	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	1	0	0	2	2	0	0	0	1	0	4	11
	4:15 PM	0	1	0	0	1	1	0	0	0	0	0	5	8
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
	4:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
	5:00 PM	1	1	0	0	0	1	0	0	0	0	0	1	4
	5:15 PM	0	0	0	0	0	4	0	0	0	2	0	1	7
	5:30 PM	1	0	0	0	0	0	0	0	0	0	0	1	2
	5:45 PM	1	0	0	0	1	1	0	0	0	0	0	3	6
	VOLUMES	4	5	0	0	6	9	0	0	0	4	0	16	44
	APPROACH %	44%	56%	0%	0%	40%	60%	0%	0%	0%	20%	0%	80%	
	APP/DEPART	9	/	21	15	/	10	0	/	0	20	/	13	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	4	0	0	5	3	0	0	0	2	0	10	25
	APPROACH %	20%	80%	0%	0%	63%	38%	0%	0%	0%	17%	0%	83%	
	PEAK HR FACTOR		0.625			0.500			0.000			0.600		0.568
	APP/DEPART	5	/	14	8	/	7	0	/	0	12	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

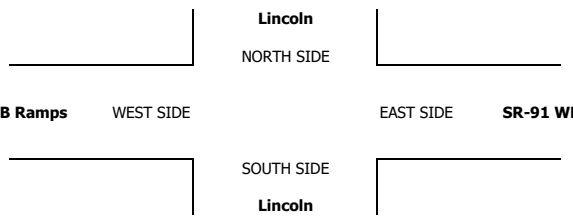
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND SR-91 WB Ramps			WESTBOUND SR-91 WB Ramps			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	7
TUESDAY	EAST & WEST:	SR-91 WB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

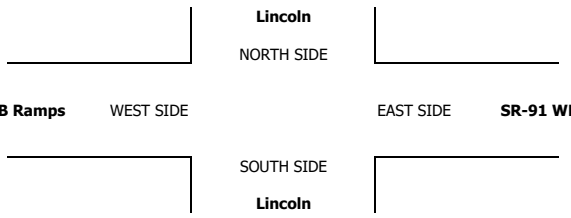
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND SR-91 WB Ramps			WESTBOUND SR-91 WB Ramps			
	LANES:	NL 2	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	7:15 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	7:30 AM	0	8	0	0	2	0	0	0	0	0	0	0	10
	7:45 AM	0	2	0	0	4	0	0	0	0	1	0	0	7
	8:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	8:30 AM	0	8	0	0	1	0	0	0	0	1	0	0	10
	8:45 AM	0	5	0	0	2	0	0	0	0	0	0	0	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	29	0	0	18	0	0	0	0	2	0	1	50
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	67%	0%	33%	
	APP/DEPART	29	/	30	18	/	20	0	/	0	3	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	15	0	0	11	0	0	0	0	1	0	0	27
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.469			0.688			0.000			0.250		0.675
	APP/DEPART	15	/	15	11	/	12	0	/	0	1	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
	4:15 PM	1	1	0	0	1	0	0	0	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	2	0	0	4	0	0	0	0	1	0	0	8
	APPROACH %	33%	67%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	3	/	2	4	/	5	0	/	0	1	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	2	0	0	3	0	0	0	0	1	0	0	7
	APPROACH %	33%	67%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.375			0.750			0.000			0.250		0.583
	APP/DEPART	3	/	2	3	/	4	0	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Lincoln
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

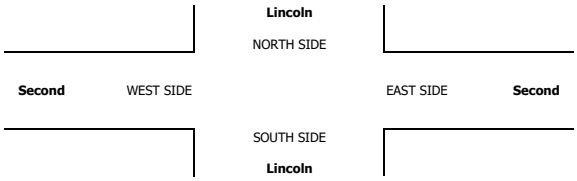
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	14	145	151	58	96	15	9	49	14	16	15	50	632
	7:15 AM	16	163	143	52	136	19	20	46	19	26	13	56	709
	7:30 AM	30	144	139	54	117	15	19	36	20	35	8	79	696
	7:45 AM	28	140	143	63	115	31	23	34	10	20	16	65	688
	8:00 AM	25	111	89	52	138	19	11	37	30	18	20	50	600
	8:15 AM	14	94	102	50	127	19	12	31	13	16	14	42	534
	8:30 AM	10	76	113	60	117	25	16	41	6	23	15	44	546
	8:45 AM	22	98	103	52	152	19	12	27	7	25	15	48	580
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	159	971	983	441	998	162	122	301	119	179	116	434	4,985
	APPROACH %	8%	46%	47%	28%	62%	10%	23%	56%	22%	25%	16%	60%	
	APP/DEPART	2,113	/	1,526	1,601	/	1,313	542	/	1,725	729	/	421	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	88	592	576	227	464	80	71	165	63	97	52	250	2,725
	APPROACH %	7%	47%	46%	29%	60%	10%	24%	55%	21%	24%	13%	63%	
	PEAK HR FACTOR		0.975			0.922			0.879			0.818		0.961
	APP/DEPART	1,256	/	912	771	/	628	299	/	968	399	/	217	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	15	93	67	90	202	26	15	44	6	37	12	46	653
	4:15 PM	17	93	63	79	204	28	20	32	4	31	12	58	641
	4:30 PM	19	102	59	123	175	22	18	48	13	38	12	67	696
	4:45 PM	18	102	73	100	240	31	10	42	13	54	8	76	767
	5:00 PM	13	99	68	99	249	29	18	29	4	43	16	79	746
	5:15 PM	13	117	61	82	218	37	14	42	8	44	14	75	725
	5:30 PM	19	118	87	61	219	29	19	40	10	43	13	72	730
	5:45 PM	19	101	67	93	230	32	16	35	15	49	13	55	725
	VOLUMES	133	825	545	727	1,737	234	130	312	73	339	100	528	5,683
	APPROACH %	9%	55%	36%	27%	64%	9%	25%	61%	14%	35%	10%	55%	
	APP/DEPART	1,503	/	1,483	2,698	/	2,168	515	/	1,584	967	/	448	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	63	436	289	342	926	126	61	153	35	184	51	302	2,968
	APPROACH %	8%	55%	37%	25%	66%	9%	24%	61%	14%	34%	9%	56%	
	PEAK HR FACTOR		0.879			0.924			0.902			0.973		0.967
	APP/DEPART	788	/	799	1,394	/	1,155	249	/	784	537	/	230	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
1	0	1	0	2
0	0	0	0	0
3	0	0	0	3
0	0	0	0	0
6	0	0	0	6
2	0	0	0	2
2	0	0	0	2
3	0	0	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
17	0	1	0	18
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
3	0	0	0	3
1	0	0	0	1
3	0	0	0	3
1	0	0	0	1
3	0	0	0	3
3	0	0	0	3
3	0	0	0	3
19	0	0	0	19

RTOR

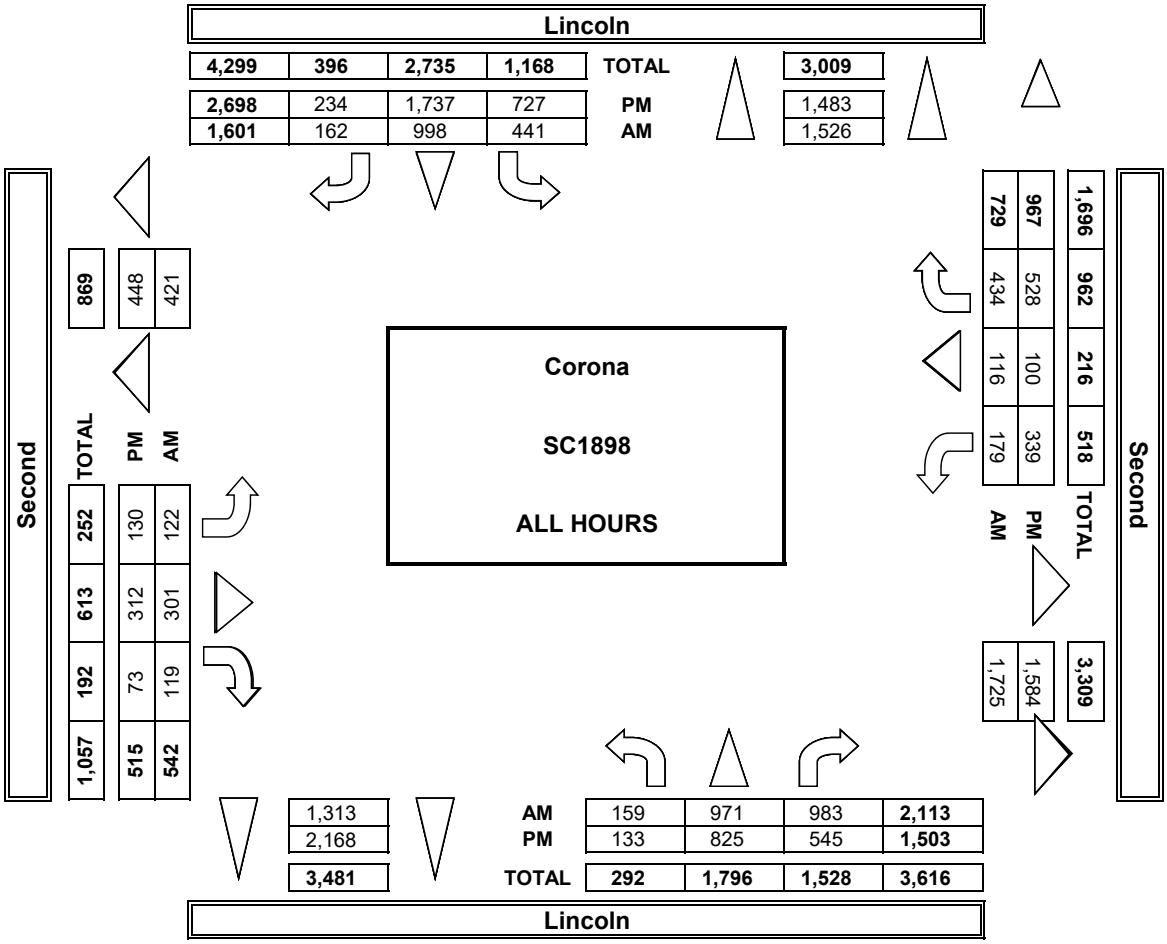
NRR	SRR	ERR	WRR
0	0	0	0
55	4	2	24
62	1	4	22
54	1	8	42
38	5	3	26
50	0	5	32
44	5	2	22
44	3	1	27
23	4	1	22
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
370	23	26	217
209	11	17	114
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
30	3	1	30
32	2	1	43
26	2	4	35
34	3	1	39
47	0	0	43
32	1	0	43
45	1	5	44
43	1	1	31
289	13	13	308
158	5	6	169

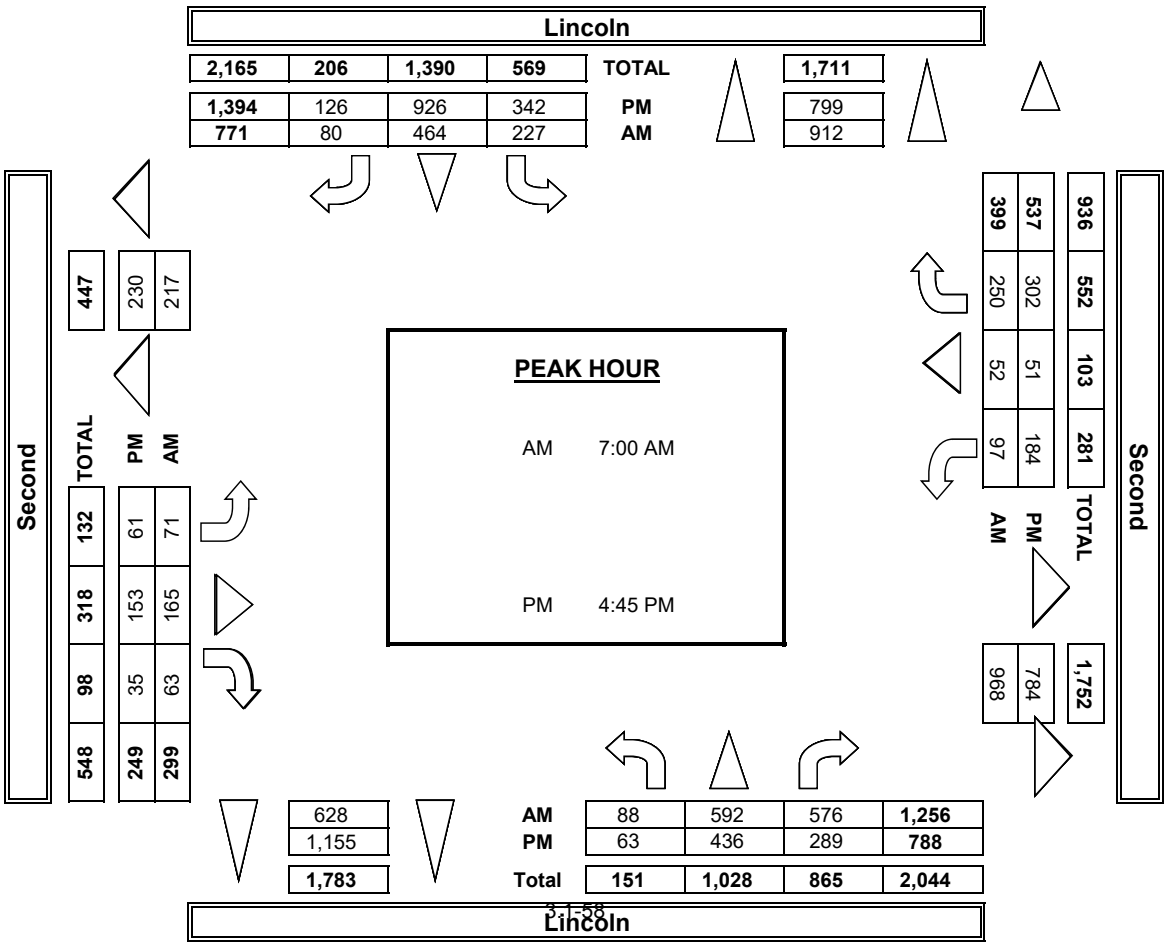


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	2	1	1	0	4	2	0	1	0	3	0	1	0	0	1
	7:15 AM	0	2	1	0	3	0	2	1	0	3	0	0	0	0	0
	7:30 AM	0	0	2	0	2	0	0	1	0	1	0	0	1	0	1
	7:45 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	8:00 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:15 AM	1	2	4	0	7	1	1	4	0	6	0	1	0	0	1
	8:30 AM	2	0	5	0	7	1	0	5	0	6	1	0	0	0	1
	8:45 AM	1	0	4	0	5	1	0	3	0	4	0	0	1	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	6	8	18	0	32	5	6	16	0	27	1	2	2	0	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	1	1	1	5	2	1	1	1	5	0	0	0	0	0
	4:15 PM	0	1	4	0	5	0	1	3	0	4	0	0	1	0	1
	4:30 PM	0	2	7	0	9	0	2	7	0	9	0	0	0	0	0
	4:45 PM	0	3	3	0	6	0	3	3	0	6	0	0	0	0	0
	5:00 PM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	5:15 PM	2	2	4	0	8	2	2	2	0	6	0	0	2	0	2
	5:30 PM	4	3	6	0	13	4	3	5	0	12	0	0	1	0	1
	5:45 PM	1	0	4	0	5	0	0	3	0	3	1	0	1	0	2
	TOTAL	9	12	29	3	53	8	12	24	3	47	1	0	5	0	6

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Lincoln	LOCATION #:	8
	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

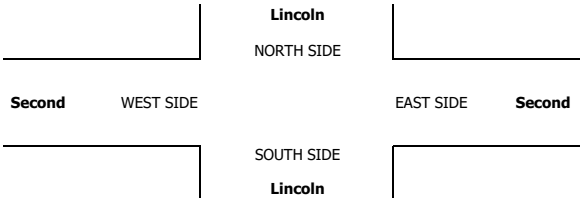
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	14	140	145	47	88	15	9	46	13	14	15	46	592
	7:15 AM	14	155	138	46	126	19	17	44	18	24	12	51	664
	7:30 AM	29	133	134	45	105	12	17	35	19	24	6	65	624
	7:45 AM	28	132	133	51	99	28	22	32	10	14	15	56	620
	8:00 AM	22	105	88	43	122	18	11	35	25	15	18	43	545
	8:15 AM	14	88	98	39	119	19	12	31	11	16	13	37	497
	8:30 AM	10	66	105	52	103	22	15	38	5	19	13	41	489
	8:45 AM	21	86	99	44	137	17	11	24	7	24	15	41	526
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	152	905	940	367	899	150	114	285	108	150	107	380	4,557
	APPROACH %	8%	45%	47%	26%	63%	11%	22%	56%	21%	24%	17%	60%	
	APP/DEPART	1,997	/	1,398	1,416	/	1,174	507	/	1,592	637	/	393	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	81	560	550	189	418	74	64	157	60	76	48	218	2,500
	APPROACH %	7%	47%	46%	28%	61%	11%	23%	56%	21%	22%	14%	64%	
	PEAK HR FACTOR		0.973			0.891			0.892			0.900		0.941
	APP/DEPART	1,195	/	842	681	/	558	282	/	896	342	/	204	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	15	87	60	84	190	25	15	43	6	36	12	38	611
	4:15 PM	16	89	56	64	196	28	18	28	4	28	10	47	584
	4:30 PM	18	99	55	117	168	21	17	44	10	35	11	60	655
	4:45 PM	17	99	68	90	231	31	10	38	12	50	8	71	725
	5:00 PM	13	93	64	95	242	28	18	28	4	40	15	68	708
	5:15 PM	10	113	56	76	214	36	11	39	7	41	12	70	685
	5:30 PM	17	115	82	58	214	29	19	38	8	43	13	67	703
	5:45 PM	19	100	63	91	223	31	14	35	15	47	12	47	697
	VOLUMES	125	795	504	675	1,678	229	122	293	66	320	93	468	5,368
	APPROACH %	9%	56%	35%	26%	65%	9%	25%	61%	14%	36%	11%	53%	
	APP/DEPART	1,424	/	1,385	2,582	/	2,083	481	/	1,472	881	/	428	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	47	420	270	319	901	124	58	143	31	174	48	276	2,821
	APPROACH %	6%	56%	36%	24%	67%	9%	25%	62%	13%	35%	10%	55%	
	PEAK HR FACTOR		0.873			0.921			0.892			0.965		0.973
	APP/DEPART	747	/	754	1,344	/	1,116	232	/	732	498	/	219	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	1	0	1	0	2
7:15 AM	0	0	0	0	0
7:30 AM	3	0	0	0	3
7:45 AM	0	0	0	0	0
8:00 AM	6	0	0	0	6
8:15 AM	2	0	0	0	2
8:30 AM	2	0	0	0	2
8:45 AM	3	0	0	0	3
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
VOLUMES	17	0	1	0	18
PM 03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	2	0	0	0	2
4:15 PM	3	0	0	0	3
4:30 PM	1	0	0	0	1
4:45 PM	1	0	0	0	1
5:00 PM	3	0	0	0	3
5:15 PM	3	0	0	0	3
5:30 PM	3	0	0	0	3
5:45 PM	3	0	0	0	3
VOLUMES	19	0	0	0	19

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	51	4	2	23
7:15 AM	61	1	4	19
7:30 AM	52	1	7	36
7:45 AM	33	5	3	23
8:00 AM	50	0	5	27
8:15 AM	42	5	2	21
8:30 AM	40	2	1	26
8:45 AM	22	2	1	20
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
VOLUMES	351	20	25	195
7:00 AM	197	11	16	101
PM 03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	29	3	1	25
4:15 PM	28	2	1	36
4:30 PM	23	2	4	31
4:45 PM	32	3	1	37
5:00 PM	45	0	0	35
5:15 PM	31	1	0	41
5:30 PM	43	1	5	43
5:45 PM	40	1	1	27
VOLUMES	271	13	13	275
4:45 PM	151	5	6	156



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	8
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

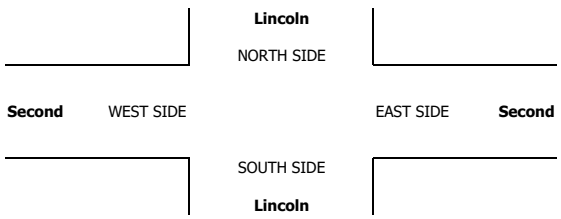
		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	0	3	6	7	5	0	0	3	0	1	0	4	29
	7:15 AM	2	4	5	2	7	0	3	1	0	2	0	3	29
	7:30 AM	0	5	3	5	8	2	1	0	1	9	0	11	45
	7:45 AM	0	5	9	10	9	2	1	2	0	5	0	7	50
	8:00 AM	1	4	1	3	10	1	0	2	1	3	0	5	31
	8:15 AM	0	6	4	9	7	0	0	0	0	0	1	3	30
	8:30 AM	0	5	6	5	14	2	0	2	0	2	2	1	39
	8:45 AM	1	6	4	6	12	1	1	2	0	1	0	3	37
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	38	38	47	72	8	6	12	2	23	3	37	290
	APPROACH %	5%	48%	48%	37%	57%	6%	30%	60%	10%	37%	5%	59%	
	APP/DEPART	80	/	81	127	/	97	20	/	97	63	/	15	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	20	17	27	34	5	2	4	2	17	1	26	156
	APPROACH %	3%	53%	45%	41%	52%	8%	25%	50%	25%	39%	2%	59%	
	PEAK HR FACTOR		0.679			0.786			0.667			0.550		0.780
	APP/DEPART	38	/	48	66	/	53	8	/	48	44	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	4	7	4	8	1	0	1	0	1	0	7	33
	4:15 PM	1	3	4	12	7	0	1	3	0	3	2	9	45
	4:30 PM	1	3	4	3	7	1	1	4	2	3	1	7	37
	4:45 PM	0	3	5	7	9	0	0	4	1	4	0	4	37
	5:00 PM	0	5	3	4	6	1	0	1	0	3	1	10	34
	5:15 PM	3	4	4	5	3	1	3	3	0	3	2	5	36
	5:30 PM	2	2	5	3	5	0	0	2	1	0	0	5	25
	5:45 PM	0	1	2	1	5	1	2	0	0	2	1	6	21
	VOLUMES	7	25	34	39	50	5	7	18	4	19	7	53	268
	APPROACH %	11%	38%	52%	41%	53%	5%	24%	62%	14%	24%	9%	67%	
	APP/DEPART	66	/	85	94	/	73	29	/	91	79	/	19	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	2	14	16	26	29	2	2	12	3	13	4	30	153
	APPROACH %	6%	44%	50%	46%	51%	4%	12%	71%	18%	28%	9%	64%	
	PEAK HR FACTOR		1.000			0.750			0.607			0.839		0.850
	APP/DEPART	32	/	46	57	/	45	17	/	54	47	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
4	0	0	1
1	0	0	2
1	0	1	6
4	0	0	3
0	0	0	4
2	0	0	1
4	0	0	0
1	1	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
17	1	1	18
7	0	1	14
0	0	0	0
0	0	0	0
0	0	0	4
3	0	0	6
3	0	0	4
2	0	0	2
2	0	0	8
0	0	0	2
2	0	0	1
2	0	0	4
15	0	0	31
10	0	0	20



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	8
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	1	0	0	0	0	0	1	0	0	2
	7:15 AM	0	0	0	2	1	0	0	1	0	0	0	1	5
	7:30 AM	1	1	1	3	1	0	0	1	0	2	2	0	12
	7:45 AM	0	1	0	1	1	1	0	0	0	1	0	0	5
	8:00 AM	2	1	0	1	1	0	0	0	1	0	0	0	6
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:30 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	3	2	8	6	1	0	2	1	5	2	1	34
	APPROACH %	38%	38%	25%	53%	40%	7%	0%	67%	33%	63%	25%	13%	
	APP/DEPART	8	/	4	15	/	12	3	/	12	8	/	6	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	3	3	1	7	4	1	0	2	1	3	2	1	28
	APPROACH %	43%	43%	14%	58%	33%	8%	0%	67%	33%	50%	33%	17%	
	PEAK HR FACTOR		0.583			0.750			0.750			0.375		0.583
	APP/DEPART	7	/	4	12	/	8	3	/	10	6	/	6	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	4:45 PM	1	0	0	2	0	0	0	0	0	0	0	0	3
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	1	1	1	4	2	0	0	0	0	0	0	0	9
	APPROACH %	33%	33%	33%	67%	33%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	3	/	1	6	/	2	0	/	5	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	1	1	3	0	0	0	0	0	0	0	0	6
	APPROACH %	33%	33%	33%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.375			0.000			0.000		0.500
	APP/DEPART	3	/	1	3	/	0	0	/	4	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

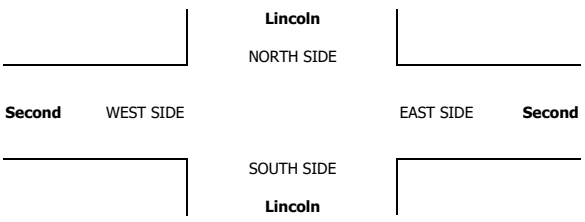
RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1

0	0	0	1

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0

1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	8
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
7:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	3
7:15 AM	0	1	0	1	1	0	0	0	0	0	0	1	4
7:30 AM	0	0	0	1	2	0	0	0	0	0	0	1	4
7:45 AM	0	0	1	1	2	0	0	0	0	0	1	2	7
8:00 AM	0	0	0	5	1	0	0	0	0	0	0	2	8
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	2	3
8:30 AM	0	0	0	1	0	1	0	0	1	1	0	0	4
8:45 AM	0	2	0	2	1	0	0	0	0	0	0	3	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	3	1	15	7	1	0	0	1	1	1	11	41
APPROACH %	0%	75%	25%	65%	30%	4%	0%	0%	100%	8%	8%	85%	
APP/DEPART	4	/	14	23	/	9	1	/	16	13	/	2	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	2	0	9	2	1	0	0	1	1	0	7	23
APPROACH %	0%	100%	0%	75%	17%	8%	0%	0%	100%	13%	0%	88%	
PEAK HR FACTOR		0.250			0.500			0.250			0.667		0.719
APP/DEPART	2	/	9	12	/	4	1	/	9	8	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	1	1	0	0	0	0	0	0	1	4
4:15 PM	0	0	3	2	1	0	0	0	0	0	0	2	8
4:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	1	1	0	0	0	0	0	0	0	2	4
VOLUMES	0	2	4	7	3	0	0	0	0	0	0	7	23
APPROACH %	0%	33%	67%	70%	30%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	6	/	9	10	/	3	0	/	11	7	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	1	3	5	2	0	0	0	0	0	0	4	15
APPROACH %	0%	25%	75%	71%	29%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.333			0.583			0.000			0.500		0.469
APP/DEPART	4	/	5	7	/	2	0	/	8	4	/	0	0

U-TURNS

AM NB	AM SB	AM EB	AM WB	AM TTL	PM NB	PM SB	PM EB	PM WB	PM TTL
0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	8
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND (Lincoln)			SOUTHBOUND (Lincoln)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	1	0	/	0	0	/	0	0

U-TURNS

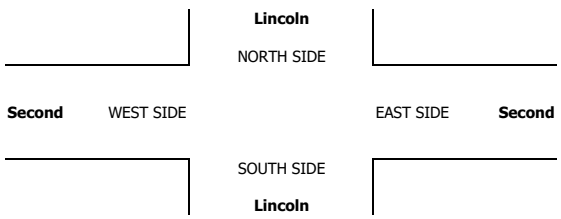
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

AM	PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Lincoln	LOCATION #:	8
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

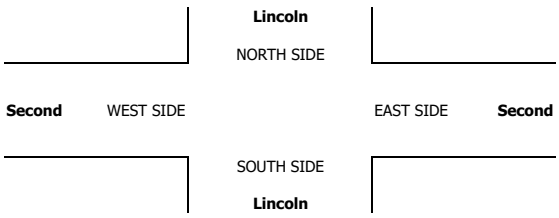
		NORTHBOUND Lincoln			SOUTHBOUND Lincoln			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 1	ET 1	ER 0	WL 2	WT 1	WR 1	TOTAL
AM	7:00 AM	0	2	0	0	3	0	0	0	1	0	0	0	6
	7:15 AM	0	3	0	1	1	0	0	0	1	0	1	0	7
	7:30 AM	0	5	1	0	1	1	1	0	0	0	0	2	11
	7:45 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	8:00 AM	0	1	0	0	4	0	0	0	3	0	2	0	10
	8:15 AM	0	0	0	1	0	0	0	0	2	0	0	0	3
	8:30 AM	0	5	1	2	0	0	1	1	0	0	0	2	12
	8:45 AM	0	4	0	0	1	1	0	1	0	0	0	1	8
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	22	2	4	14	2	2	2	7	0	3	5	63
	APPROACH %	0%	92%	8%	20%	70%	10%	18%	18%	64%	0%	38%	63%	
	APP/DEPART	24	/	29	20	/	21	11	/	8	8	/	5	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	11	1	1	10	1	1	0	4	0	3	2	34
	APPROACH %	0%	92%	8%	8%	83%	8%	20%	0%	80%	0%	60%	40%	
	PEAK HR FACTOR		0.500			0.750			0.417			0.625		0.773
	APP/DEPART	12	/	14	12	/	14	5	/	2	5	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:15 PM	0	1	0	1	0	0	1	1	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	2
	VOLUMES	0	2	2	2	3	0	1	1	3	0	0	0	14
	APPROACH %	0%	50%	50%	40%	60%	0%	20%	20%	60%	0%	0%	0%	
	APP/DEPART	4	/	3	5	/	6	5	/	5	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	2	0	2	2	0	1	1	1	0	0	0	9
	APPROACH %	0%	100%	0%	50%	50%	0%	33%	33%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.375			0.000		0.563
	APP/DEPART	2	/	3	4	/	3	3	/	3	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	0	1
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
	EAST & WEST:	Second	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (SR-91 EB Ramps)			SOUTHBOUND (SR-91 EB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	16	0	69	213	10	0	0	29	30	367
	7:15 AM	0	0	0	17	0	55	235	19	0	0	32	45	403
	7:30 AM	0	0	0	20	0	81	215	18	0	0	34	28	396
	7:45 AM	0	0	0	32	0	70	230	26	0	0	29	25	412
	8:00 AM	0	0	0	30	0	71	150	23	0	0	26	19	319
	8:15 AM	0	0	0	20	0	57	167	19	0	0	23	27	313
	8:30 AM	0	0	0	26	0	43	185	21	0	0	25	16	316
	8:45 AM	0	0	0	24	0	67	171	22	0	0	26	26	336
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	185	0	513	1,566	158	0	0	224	216	2,862
	APPROACH %	0%	0%	0%	27%	0%	73%	91%	9%	0%	0%	51%	49%	
	APP/DEPART	0	/	1,782	698	/	0	1,724	/	343	440	/	737	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	85	0	275	893	73	0	0	124	128	1,578
	APPROACH %	0%	0%	0%	24%	0%	76%	92%	8%	0%	0%	49%	51%	
	PEAK HR FACTOR		0.000			0.882			0.943			0.818		0.958
	APP/DEPART	0	/	1,021	360	/	0	966	/	158	252	/	399	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	37	0	68	161	38	0	0	29	19	352
	4:15 PM	0	0	0	43	0	87	133	35	0	0	22	13	333
	4:30 PM	0	0	0	55	0	106	196	29	0	0	18	16	420
	4:45 PM	0	0	0	63	0	112	158	32	0	0	25	15	405
	5:00 PM	0	0	0	59	0	114	168	32	0	0	27	29	429
	5:15 PM	0	0	0	75	0	88	143	32	0	0	37	11	386
	5:30 PM	0	0	0	66	0	91	161	29	0	0	33	20	400
	5:45 PM	0	0	0	65	0	86	159	34	0	0	29	13	386
	VOLUMES	0	0	0	463	0	752	1,279	261	0	0	220	136	3,111
	APPROACH %	0%	0%	0%	38%	0%	62%	83%	17%	0%	0%	62%	38%	
	APP/DEPART	0	/	1,415	1,215	/	0	1,540	/	724	356	/	972	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	252	0	420	665	125	0	0	107	71	1,640
	APPROACH %	0%	0%	0%	38%	0%	63%	84%	16%	0%	0%	60%	40%	
	PEAK HR FACTOR		0.000			0.960			0.878			0.795		0.956
	APP/DEPART	0	/	736	672	/	0	790	/	377	178	/	527	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	48	0	13
0	46	0	23
0	70	0	11
0	58	0	11
0	63	0	10
0	39	0	11
0	30	0	8
0	38	0	11
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	392	0	98
0	222	0	58
0	0	0	0
0	0	0	0
0	0	0	0
0	50	0	11
0	67	0	10
0	69	0	8
0	77	0	3
0	74	0	21
0	64	0	5
0	59	0	6
0	51	0	7
0	511	0	71
0	284	0	37

SR-91 EB Ramps

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

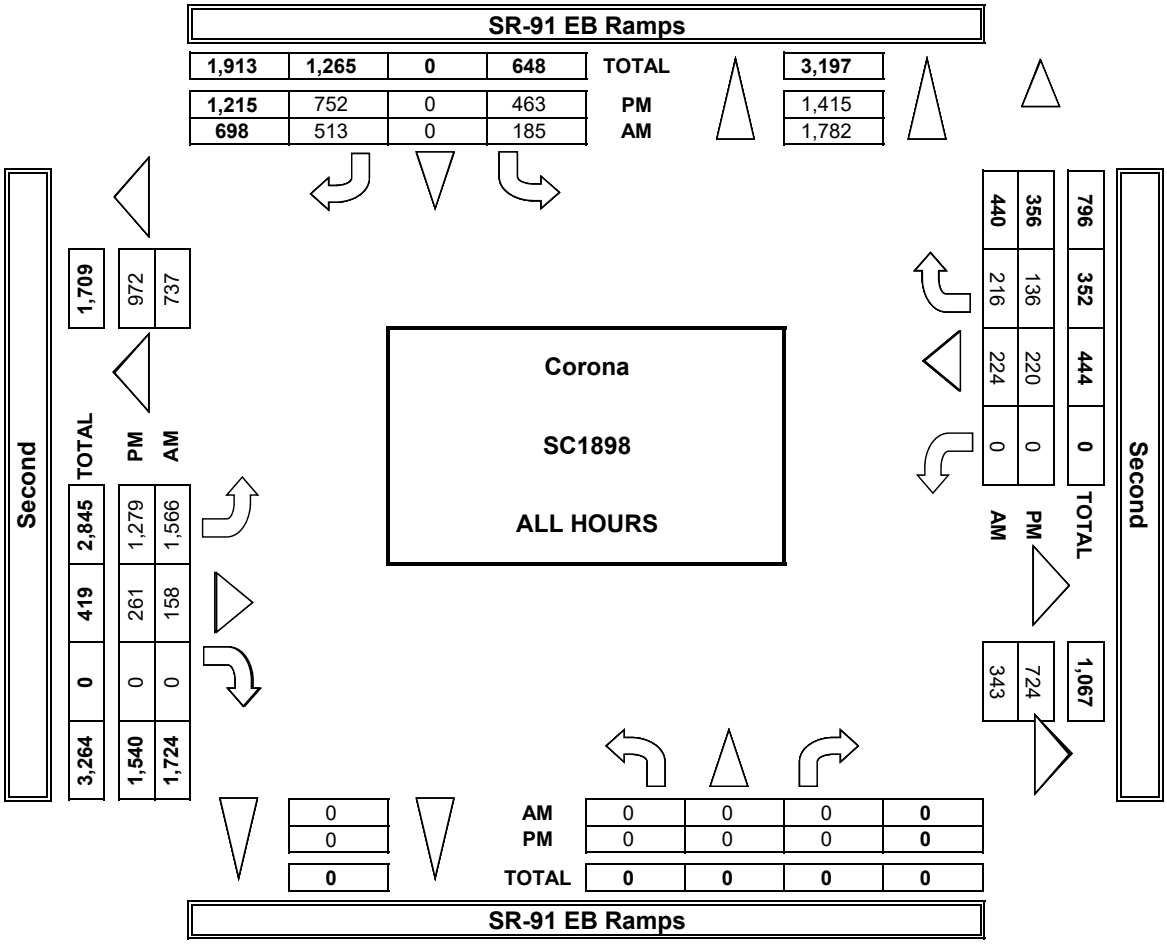
SOUTH SIDE

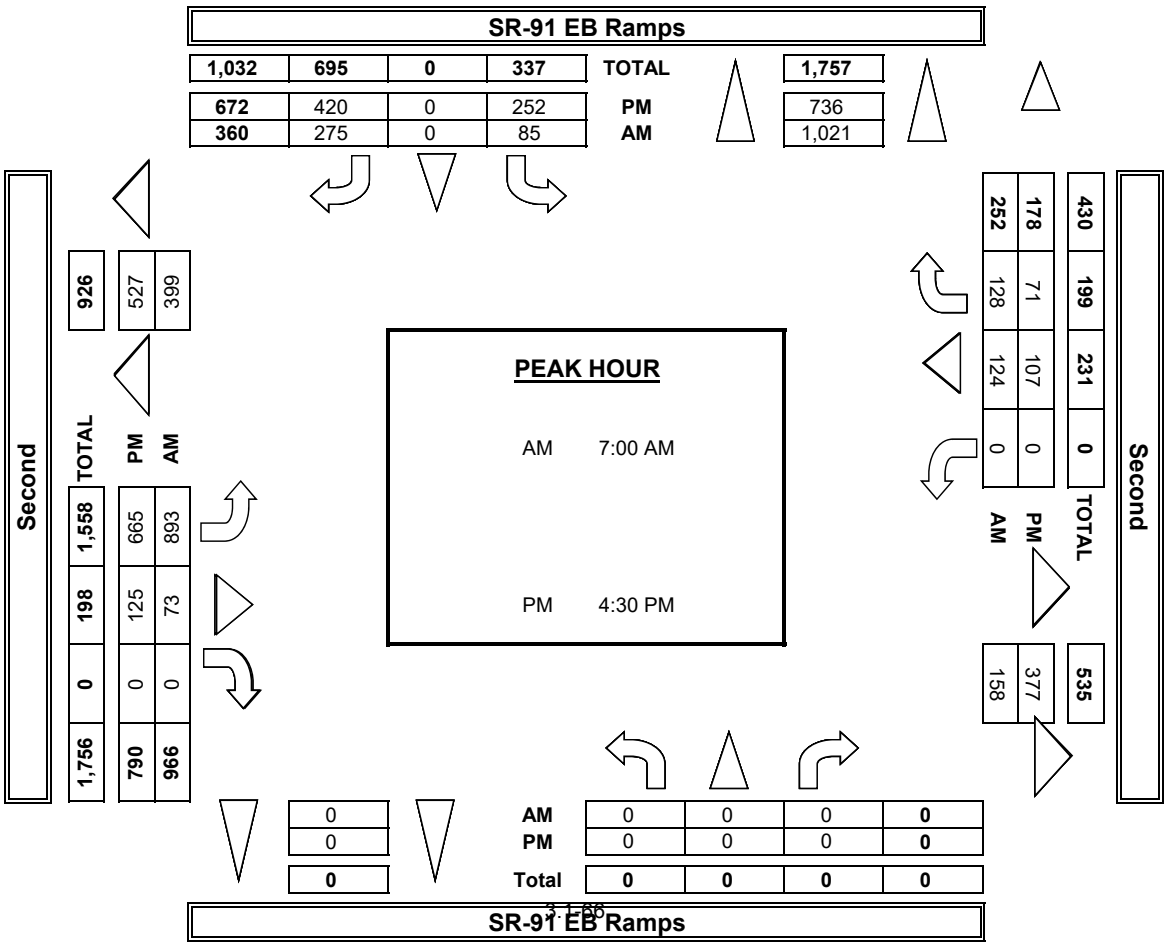
SR-91 EB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

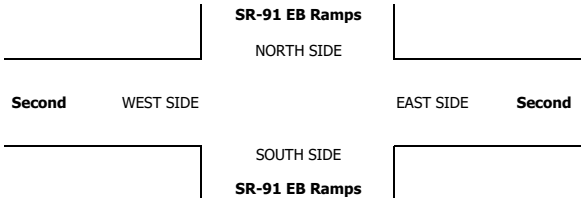
	NORTHBOUND (SR-91 EB Ramps)			SOUTHBOUND (SR-91 EB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	16	0	62	196	10	0	0	29	27	340
7:15 AM	0	0	0	12	0	49	224	19	0	0	31	39	374
7:30 AM	0	0	0	15	0	57	203	17	0	0	31	25	348
7:45 AM	0	0	0	31	0	58	212	23	0	0	29	24	377
8:00 AM	0	0	0	27	0	63	138	21	0	0	23	19	291
8:15 AM	0	0	0	19	0	51	148	19	0	0	21	20	278
8:30 AM	0	0	0	20	0	40	168	19	0	0	24	15	286
8:45 AM	0	0	0	21	0	54	156	19	0	0	24	23	297
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	161	0	434	1,445	147	0	0	212	192	2,591
APPROACH %	0%	0%	0%	27%	0%	73%	91%	9%	0%	0%	52%	48%	
APP/DEPART	0	/	1,637	595	/	0	1,592	/	308	404	/	646	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	74	0	226	835	69	0	0	120	115	1,439
APPROACH %	0%	0%	0%	25%	0%	75%	92%	8%	0%	0%	51%	49%	
PEAK HR FACTOR		0.000			0.843			0.930			0.839		0.954
APP/DEPART	0	/	950	300	/	0	904	/	143	235	/	346	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	32	0	62	149	38	0	0	27	17	325
4:15 PM	0	0	0	40	0	76	111	30	0	0	22	12	291
4:30 PM	0	0	0	52	0	94	183	28	0	0	18	16	391
4:45 PM	0	0	0	62	0	104	145	30	0	0	23	13	377
5:00 PM	0	0	0	55	0	104	163	31	0	0	26	29	408
5:15 PM	0	0	0	72	0	78	135	26	0	0	36	11	358
5:30 PM	0	0	0	63	0	85	154	28	0	0	32	20	382
5:45 PM	0	0	0	61	0	72	152	31	0	0	27	11	354
VOLUMES	0	0	0	437	0	675	1,192	242	0	0	211	129	2,886
APPROACH %	0%	0%	0%	39%	0%	61%	83%	17%	0%	0%	62%	38%	
APP/DEPART	0	/	1,321	1,112	/	0	1,434	/	679	340	/	886	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	0	241	0	380	626	115	0	0	103	69	1,534
APPROACH %	0%	0%	0%	39%	0%	61%	84%	16%	0%	0%	60%	40%	
PEAK HR FACTOR		0.000			0.935			0.878			0.782		0.940
APP/DEPART	0	/	695	621	/	0	741	/	356	172	/	483	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	45	0	13
0	42	0	21
0	48	0	10
0	51	0	11
0	57	0	10
0	36	0	8
0	30	0	7
0	34	0	10
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	343	0	90
0	186	0	55
0	0	0	0
0	0	0	0
0	0	0	0
0	46	0	9
0	59	0	9
0	62	0	8
0	72	0	3
0	70	0	21
0	60	0	5
0	56	0	6
0	43	0	7
0	468	0	68
0	264	0	37



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

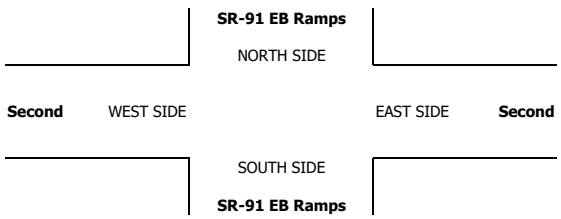
		NORTHBOUND SR-91 EB Ramps			SOUTHBOUND SR-91 EB Ramps			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	5	13	0	0	0	0	1	19
	7:15 AM	0	0	0	4	0	4	8	0	0	0	0	4	20
	7:30 AM	0	0	0	4	0	19	7	0	0	0	2	0	32
	7:45 AM	0	0	0	1	0	7	14	2	0	0	0	0	24
	8:00 AM	0	0	0	2	0	8	8	0	0	0	1	0	19
	8:15 AM	0	0	0	1	0	3	15	0	0	0	1	4	24
	8:30 AM	0	0	0	5	0	1	13	0	0	0	0	1	20
	8:45 AM	0	0	0	3	0	9	13	2	0	0	2	1	30
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	20	0	56	91	4	0	0	6	11	188
	APPROACH %	0%	0%	0%	26%	0%	74%	96%	4%	0%	0%	35%	65%	
	APP/DEPART	0	/	102	76	/	0	95	/	24	17	/	62	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	8	0	37	44	2	0	0	4	4	99
	APPROACH %	0%	0%	0%	18%	0%	82%	96%	4%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.000			0.489			0.719			0.400		0.773
	APP/DEPART	0	/	48	45	/	0	46	/	10	8	/	41	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	3	0	5	9	0	0	0	2	1	20
	4:15 PM	0	0	0	2	0	10	18	3	0	0	0	0	33
	4:30 PM	0	0	0	3	0	10	10	1	0	0	0	0	24
	4:45 PM	0	0	0	0	0	7	10	2	0	0	2	0	21
	5:00 PM	0	0	0	4	0	9	5	0	0	0	1	0	19
	5:15 PM	0	0	0	3	0	10	7	5	0	0	1	0	26
	5:30 PM	0	0	0	2	0	6	7	1	0	0	1	0	17
	5:45 PM	0	0	0	4	0	13	5	2	0	0	1	2	27
	VOLUMES	0	0	0	21	0	70	71	14	0	0	8	3	187
	APPROACH %	0%	0%	0%	23%	0%	77%	84%	16%	0%	0%	73%	27%	
	APP/DEPART	0	/	74	91	/	0	85	/	35	11	/	78	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	8	0	32	47	6	0	0	4	1	98
	APPROACH %	0%	0%	0%	20%	0%	80%	89%	11%	0%	0%	80%	20%	
	PEAK HR FACTOR		0.000			0.769			0.631			0.417		0.742
	APP/DEPART	0	/	48	40	/	0	53	/	14	5	/	36	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	1	0	0
0	2	0	2
0	17	0	0
0	3	0	0
0	6	0	0
0	1	0	3
0	0	0	1
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	32	0	6
0	27	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	3	0	1
0	7	0	0
0	6	0	0
0	4	0	0
0	4	0	0
0	4	0	0
0	3	0	0
0	7	0	0
0	38	0	1
0	20	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

	NORTHBOUND SR-91 EB Ramps			SOUTHBOUND SR-91 EB Ramps			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	2
7:15 AM	0	0	0	1	0	0	2	0	0	0	1	0	4
7:30 AM	0	0	0	0	0	4	4	0	0	0	0	0	8
7:45 AM	0	0	0	0	0	1	4	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	7	13	0	0	0	1	1	23
APPROACH %	0%	0%	0%	13%	0%	88%	100%	0%	0%	0%	50%	50%	
APP/DEPART	0	/	14	8	/	0	13	/	1	2	/	8	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	1	0	6	11	0	0	0	1	0	19
APPROACH %	0%	0%	0%	14%	0%	86%	100%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.438			0.688			0.250		0.594
APP/DEPART	0	/	11	7	/	0	11	/	1	1	/	7	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	1	5	0	0	0	0	1	7
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	6	1	/	0	5	/	0	1	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	1	4	0	0	0	0	1	6
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.250			0.500			0.250		0.750
APP/DEPART	0	/	5	1	/	0	4	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

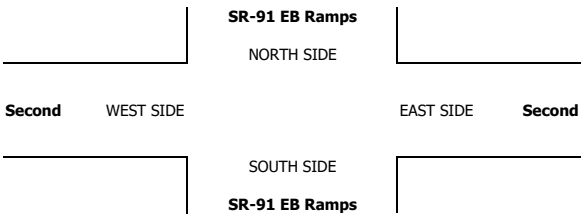
RTOR

NRR	SRR	ERR	WRR
0	1	0	0
0	0	0	0
0	4	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	5	0	0

0	5	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1

0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND SR-91 EB Ramps			SOUTHBOUND SR-91 EB Ramps			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	1	3	0	0	0	0	1	5
	7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	2
	7:30 AM	0	0	0	1	0	1	1	0	0	0	0	1	4
	7:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	4	2	0	0	1	0	7
	8:15 AM	0	0	0	0	0	3	2	0	0	0	0	1	6
	8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	3	2	0	0	0	0	2	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	12	14	2	0	0	1	5	35
	APPROACH %	0%	0%	0%	8%	0%	92%	88%	13%	0%	0%	17%	83%	
	APP/DEPART	0	/	19	13	/	0	16	/	3	6	/	13	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	6	9	2	0	0	1	3	21
	APPROACH %	0%	0%	0%	0%	0%	100%	82%	18%	0%	0%	25%	75%	
	PEAK HR FACTOR		0.000			0.500			0.458			0.500		0.750
	APP/DEPART	0	/	12	6	/	0	11	/	2	4	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	0	1	2	0	0	0	0	0	4
	4:15 PM	0	0	0	1	0	1	4	0	0	0	0	0	6
	4:30 PM	0	0	0	0	0	1	2	0	0	0	0	0	3
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	2	3
	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	1	2	0	0	0	1	0	4
	VOLUMES	0	0	0	3	0	6	10	1	0	0	1	2	23
	APPROACH %	0%	0%	0%	33%	0%	67%	91%	9%	0%	0%	33%	67%	
	APP/DEPART	0	/	12	9	/	0	11	/	4	3	/	7	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	2	0	4	8	0	0	0	0	2	16
	APPROACH %	0%	0%	0%	33%	0%	67%	100%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.000			0.750			0.500			0.250		0.667
	APP/DEPART	0	/	10	6	/	0	8	/	2	2	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND SR-91 EB Ramps			SOUTHBOUND SR-91 EB Ramps			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	SR-91 EB Ramps	LOCATION #:	9
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND SR-91 EB Ramps			SOUTHBOUND SR-91 EB Ramps			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 1.5	ST X	SR 1.5	EL 2	ET 1	ER X	WL X	WT 2	WR 0	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	2	3
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	2	4
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	1	3
8:00 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	0	1	1	3
8:30 AM	0	0	0	1	0	1	2	2	0	0	1	0	7
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	2	0	4	3	5	0	0	4	7	25
APPROACH %	0%	0%	0%	33%	0%	67%	38%	63%	0%	0%	36%	64%	
APP/DEPART	0	/	10	6	/	0	8	/	7	11	/	8	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	0	2	0	2	3	3	0	0	3	2	15
APPROACH %	0%	0%	0%	50%	0%	50%	50%	50%	0%	0%	60%	40%	
PEAK HR FACTOR		0.000			0.500			0.375			0.625		0.536
APP/DEPART	0	/	5	4	/	0	6	/	5	5	/	5	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	1	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	2	0	0	1	4	0	0	0	1	8
APPROACH %	0%	0%	0%	100%	0%	0%	20%	80%	0%	0%	0%	100%	
APP/DEPART	0	/	2	2	/	0	5	/	6	1	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	1	0	0	1	3	0	0	0	1	6
APPROACH %	0%	0%	0%	100%	0%	0%	25%	75%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.250			0.500			0.250		0.500
APP/DEPART	0	/	2	1	/	0	4	/	4	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	1
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	3	0	1

NRR	SRR	ERR	WRR
0	1	0	0

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1

NRR	SRR	ERR	WRR
0	0	0	1

SR-91 EB Ramps

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

SR-91 EB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Parkridge
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 10
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

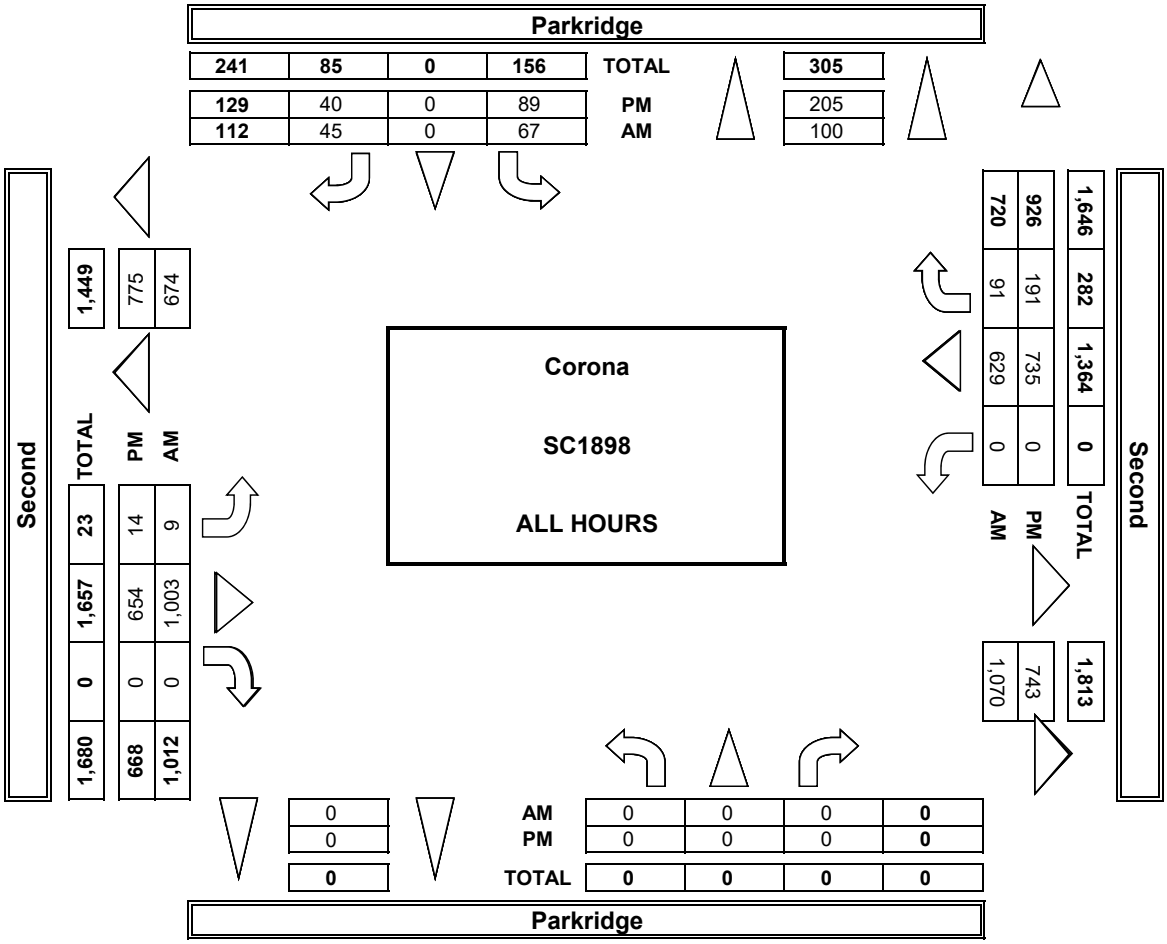
		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	12	0	2	2	139	0	0	62	9	226
	7:15 AM	0	0	0	3	0	10	1	186	0	0	102	6	308
	7:30 AM	0	0	0	8	0	8	1	195	0	0	138	11	361
	7:45 AM	0	0	0	9	0	6	0	120	0	0	94	18	247
	8:00 AM	0	0	0	4	0	5	1	119	0	0	74	19	222
	8:15 AM	0	0	0	9	0	3	3	85	0	0	41	11	152
	8:30 AM	0	0	0	8	0	6	0	76	0	0	68	9	167
	8:45 AM	0	0	0	14	0	5	1	83	0	0	50	8	161
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	67	0	45	9	1,003	0	0	629	91	1,844
	APPROACH %	0%	0%	0%	60%	0%	40%	1%	99%	0%	0%	87%	13%	
	APP/DEPART	0	/	100	112	/	0	1,012	/	1,070	720	/	674	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	32	0	26	4	640	0	0	396	44	1,142
	APPROACH %	0%	0%	0%	55%	0%	45%	1%	99%	0%	0%	90%	10%	
	PEAK HR FACTOR		0.000			0.906			0.821			0.738		0.791
	APP/DEPART	0	/	48	58	/	0	644	/	672	440	/	422	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	7	0	9	4	76	0	0	99	18	213
	4:15 PM	0	0	0	13	0	3	0	74	0	0	79	17	186
	4:30 PM	0	0	0	7	0	3	2	83	0	0	75	27	197
	4:45 PM	0	0	0	15	0	5	1	69	0	0	78	21	189
	5:00 PM	0	0	0	12	0	5	1	80	0	0	93	33	224
	5:15 PM	0	0	0	19	0	6	4	88	0	0	104	19	240
	5:30 PM	0	0	0	10	0	5	0	96	0	0	100	32	243
	5:45 PM	0	0	0	6	0	4	2	88	0	0	107	24	231
	VOLUMES	0	0	0	89	0	40	14	654	0	0	735	191	1,723
	APPROACH %	0%	0%	0%	69%	0%	31%	2%	98%	0%	0%	79%	21%	
	APP/DEPART	0	/	205	129	/	0	668	/	743	926	/	775	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	47	0	20	7	352	0	0	404	108	938
	APPROACH %	0%	0%	0%	70%	0%	30%	2%	98%	0%	0%	79%	21%	
	PEAK HR FACTOR		0.000			0.670			0.935			0.970		0.965
	APP/DEPART	0	/	115	67	/	0	359	/	399	512	/	424	0

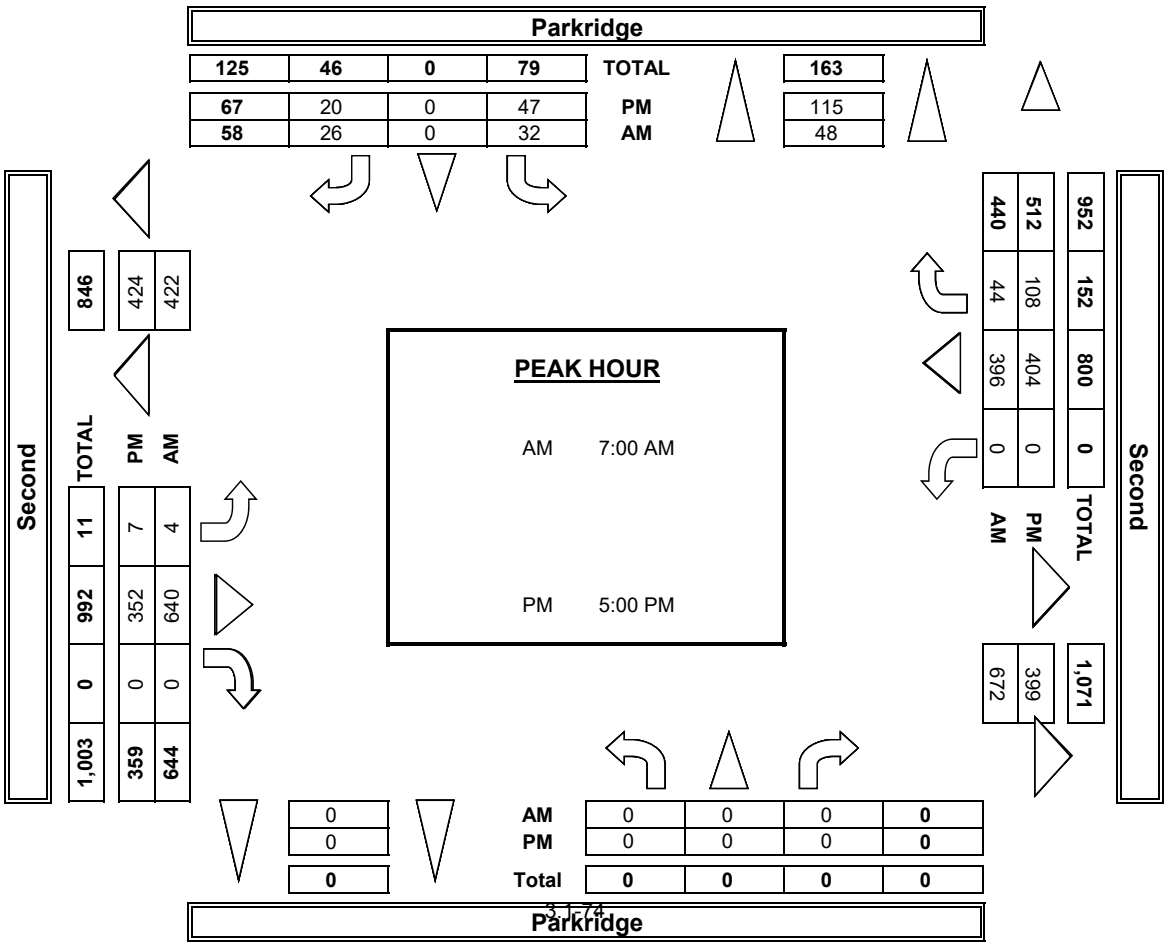
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 1: PASSENGER VEHICLES

NOTES:

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

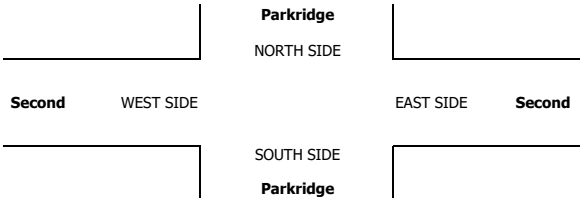
	NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	12	0	2	2	135	0	0	59	9	219
7:15 AM	0	0	0	3	0	9	1	181	0	0	89	6	289
7:30 AM	0	0	0	8	0	8	1	193	0	0	128	10	348
7:45 AM	0	0	0	8	0	6	0	116	0	0	84	17	231
8:00 AM	0	0	0	4	0	5	1	105	0	0	67	17	199
8:15 AM	0	0	0	9	0	3	3	74	0	0	40	10	139
8:30 AM	0	0	0	8	0	5	0	73	0	0	60	7	153
8:45 AM	0	0	0	13	0	4	0	68	0	0	43	8	136
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	65	0	42	8	945	0	0	570	84	1,714
APPROACH %	0%	0%	0%	61%	0%	39%	1%	99%	0%	0%	87%	13%	
APP/DEPART	0	/	92	107	/	0	953	/	1,010	654	/	612	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	31	0	25	4	625	0	0	360	42	1,087
APPROACH %	0%	0%	0%	55%	0%	45%	1%	99%	0%	0%	90%	10%	
PEAK HR FACTOR		0.000			0.875			0.811			0.728		0.781
APP/DEPART	0	/	46	56	/	0	629	/	656	402	/	385	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	7	0	9	4	71	0	0	93	17	201
4:15 PM	0	0	0	13	0	3	0	61	0	0	78	17	172
4:30 PM	0	0	0	6	0	3	2	78	0	0	73	27	189
4:45 PM	0	0	0	14	0	5	1	66	0	0	73	19	178
5:00 PM	0	0	0	12	0	5	1	75	0	0	89	32	214
5:15 PM	0	0	0	19	0	5	4	81	0	0	103	19	231
5:30 PM	0	0	0	9	0	5	0	91	0	0	99	31	235
5:45 PM	0	0	0	6	0	4	2	84	0	0	105	23	224
VOLUMES	0	0	0	86	0	39	14	607	0	0	713	185	1,644
APPROACH %	0%	0%	0%	69%	0%	31%	2%	98%	0%	0%	79%	21%	
APP/DEPART	0	/	199	125	/	0	621	/	693	898	/	752	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	46	0	19	7	331	0	0	396	105	904
APPROACH %	0%	0%	0%	71%	0%	29%	2%	98%	0%	0%	79%	21%	
PEAK HR FACTOR		0.000			0.677			0.929			0.963		0.962
APP/DEPART	0	/	112	65	/	0	338	/	377	501	/	415	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

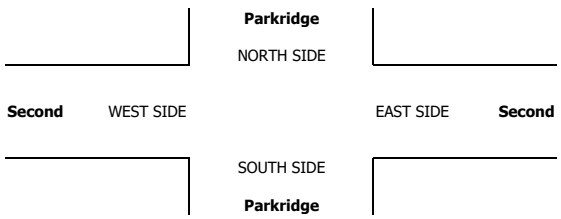
NOTES:

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

		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	4	0	0	1	0	5
	7:15 AM	0	0	0	0	0	1	0	4	0	0	6	0	11
	7:30 AM	0	0	0	0	0	0	0	2	0	0	4	1	7
	7:45 AM	0	0	0	1	0	0	0	3	0	0	7	1	12
	8:00 AM	0	0	0	0	0	0	0	6	0	0	4	2	12
	8:15 AM	0	0	0	0	0	0	0	8	0	0	1	1	10
	8:30 AM	0	0	0	0	0	1	0	2	0	0	5	1	9
	8:45 AM	0	0	0	0	0	0	1	8	0	0	7	0	16
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	2	1	37	0	0	35	6	82
	APPROACH %	0%	0%	0%	33%	0%	67%	3%	97%	0%	0%	85%	15%	
	APP/DEPART	0	/	7	3	/	0	38	/	38	41	/	37	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	1	1	24	0	0	17	4	47
	APPROACH %	0%	0%	0%	0%	0%	100%	4%	96%	0%	0%	81%	19%	
	PEAK HR FACTOR		0.000			0.250			0.694			0.750		0.734
	APP/DEPART	0	/	5	1	/	0	25	/	24	21	/	18	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	2	0	0	2	1	5
	4:15 PM	0	0	0	0	0	0	0	8	0	0	1	0	9
	4:30 PM	0	0	0	1	0	0	0	4	0	0	1	0	6
	4:45 PM	0	0	0	1	0	0	0	3	0	0	3	1	8
	5:00 PM	0	0	0	0	0	0	0	4	0	0	4	1	9
	5:15 PM	0	0	0	0	0	1	0	5	0	0	1	0	7
	5:30 PM	0	0	0	1	0	0	0	5	0	0	1	1	8
	5:45 PM	0	0	0	0	0	0	0	3	0	0	2	1	6
	VOLUMES	0	0	0	3	0	1	0	34	0	0	15	5	58
	APPROACH %	0%	0%	0%	75%	0%	25%	0%	100%	0%	0%	75%	25%	
	APP/DEPART	0	/	5	4	/	0	34	/	37	20	/	16	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	2	0	1	0	17	0	0	9	3	32
	APPROACH %	0%	0%	0%	67%	0%	33%	0%	100%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.000			0.750			0.531			0.600		0.889
	APP/DEPART	0	/	3	3	/	0	17	/	19	12	/	10	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

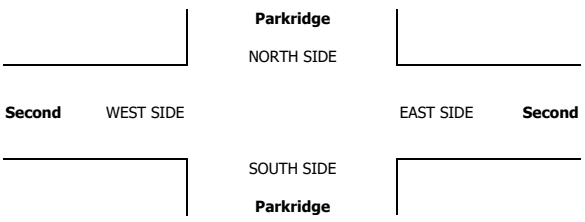
		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:30 AM	0	0	0	0	0	0	0	1	0	0	2	1	4
	8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	6	0	0	8	1	16
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	89%	11%	
	APP/DEPART	0	/	1	1	/	0	6	/	6	9	/	9	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	1	0	5	0	0	3	1	10
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.000			0.250			0.625			0.333		0.625
	APP/DEPART	0	/	1	1	/	0	5	/	5	4	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	3	0	0	3	0	6
	4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	6	0	0	4	0	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	6	/	6	4	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	5	0	0	4	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.417			0.333		0.375
	APP/DEPART	0	/	0	0	/	0	5	/	5	4	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

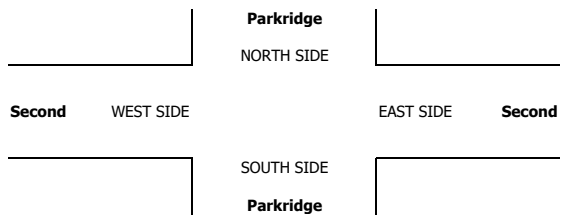
	NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.375
APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	10
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 6:	NOTES:
BUSES	

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

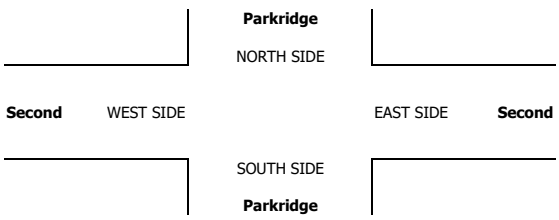
		NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	5
	7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
	7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:00 AM	0	0	0	0	0	0	0	6	0	0	1	0	7
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	1	0	0	0	5	0	0	0	0	6
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	13	0	0	15	0	29
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	13	/	14	15	/	15	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	7	0	0	12	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.292			0.600		0.679
	APP/DEPART	0	/	0	0	/	0	7	/	7	12	/	12	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	5	0	0	3	0	8
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	5	/	5	3	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	5	0	0	2	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.417			0.500		0.583
	APP/DEPART	0	/	0	0	/	0	5	/	5	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Parkridge
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 11
CONTROL: STOP ALL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

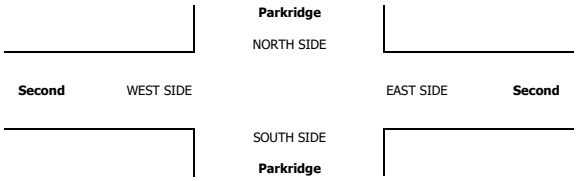
		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
AM	7:00 AM	18	0	2	0	0	0	0	116	35	3	52	0	226
	7:15 AM	38	0	3	0	0	0	0	88	101	1	70	0	301
	7:30 AM	49	0	4	0	0	0	0	99	104	3	100	0	359
	7:45 AM	50	0	4	0	0	0	0	100	29	2	62	0	247
	8:00 AM	21	0	1	0	0	0	0	102	21	3	72	0	220
	8:15 AM	18	0	0	0	0	0	0	78	16	0	33	0	145
	8:30 AM	21	0	1	0	0	0	0	68	16	1	56	0	163
	8:45 AM	18	0	0	0	0	0	0	83	14	1	40	0	156
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	233	0	15	0	0	0	0	734	336	14	485	0	1,817
	APPROACH %	94%	0%	6%	0%	0%	0%	0%	69%	31%	3%	97%	0%	
	APP/DEPART	248	/	0	0	/	350	1,070	/	749	499	/	718	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	155	0	13	0	0	0	0	403	269	9	284	0	1,133
	APPROACH %	92%	0%	8%	0%	0%	0%	0%	60%	40%	3%	97%	0%	
	PEAK HR FACTOR		0.778			0.000			0.828			0.711		0.789
	APP/DEPART	168	/	0	0	/	278	672	/	416	293	/	439	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	26	0	3	0	0	0	0	75	8	0	91	0	203
	4:15 PM	28	0	0	0	0	0	0	74	13	3	68	0	186
	4:30 PM	29	0	1	0	0	0	0	78	12	2	73	0	195
	4:45 PM	37	0	1	0	0	0	0	67	17	0	62	0	184
	5:00 PM	36	0	0	0	0	0	0	77	15	1	90	0	219
	5:15 PM	47	0	0	0	0	0	0	83	24	0	76	0	230
	5:30 PM	39	0	1	0	0	0	0	87	19	1	92	0	239
	5:45 PM	41	0	2	0	0	0	0	78	16	3	90	0	230
	VOLUMES	283	0	8	0	0	0	0	619	124	10	642	0	1,686
	APPROACH %	97%	0%	3%	0%	0%	0%	0%	83%	17%	2%	98%	0%	
	APP/DEPART	291	/	0	0	/	134	743	/	627	652	/	925	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	163	0	3	0	0	0	0	325	74	5	348	0	918
	APPROACH %	98%	0%	2%	0%	0%	0%	0%	81%	19%	1%	99%	0%	
	PEAK HR FACTOR		0.883			0.000			0.932			0.949		0.960
	APP/DEPART	166	/	0	0	/	79	399	/	328	353	/	511	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

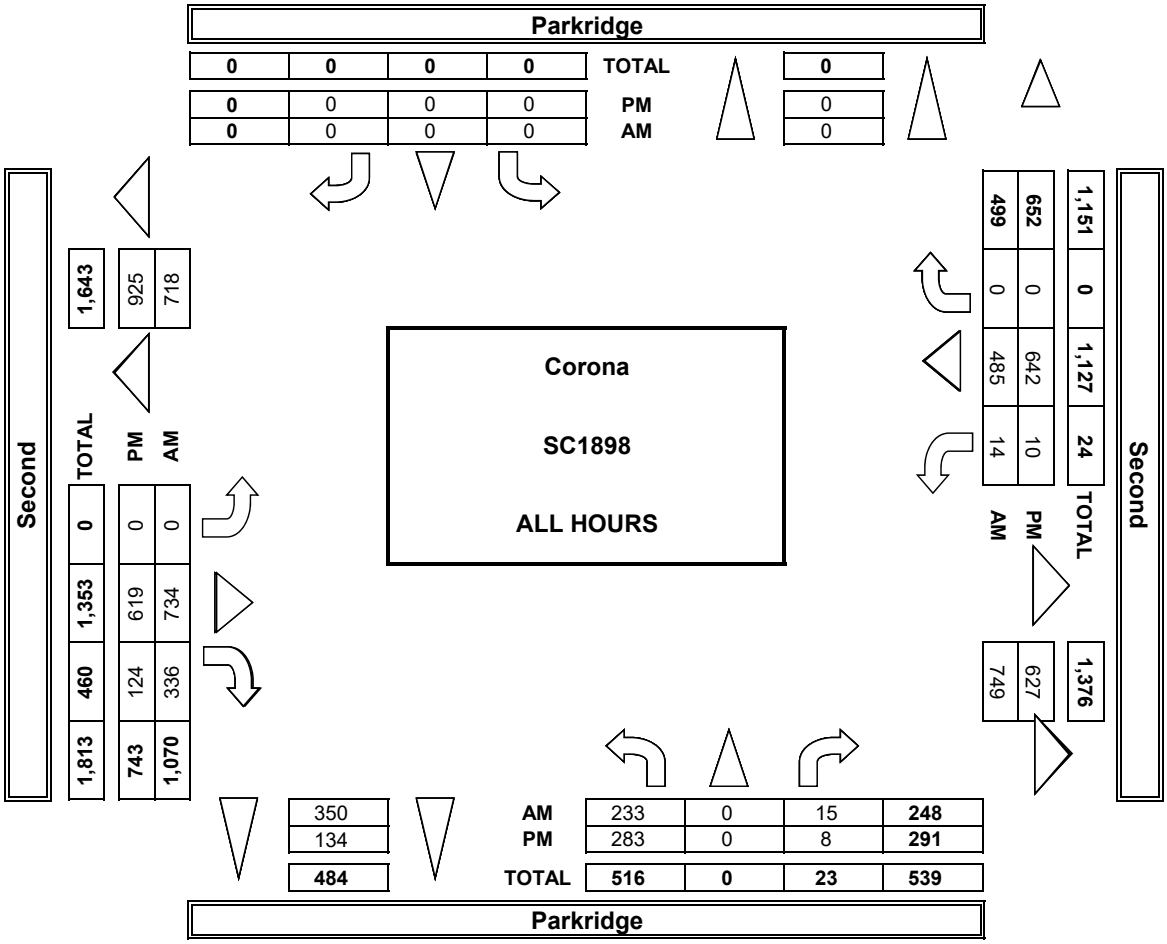
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

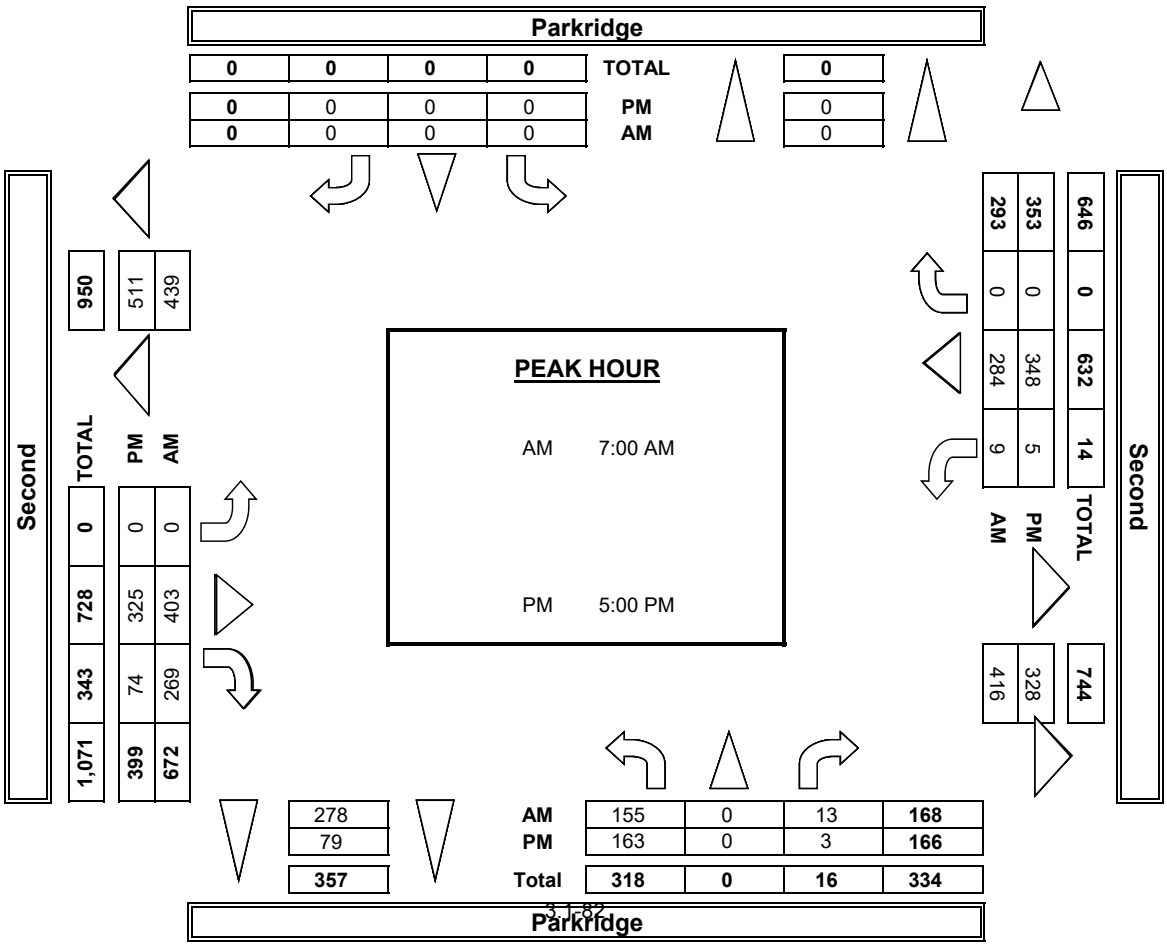


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	2	2	0	4	0	2	0	0	2	0	0	2	0	2
	7:30 AM	0	2	2	0	4	0	2	2	0	4	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	5	5	0	10	0	5	2	0	7	0	0	3	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	1	2	0	0	1	0	1	0	0	0	1	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	TOTAL	0	0	2	2	4	0	0	1	0	1	0	0	1	2	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

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

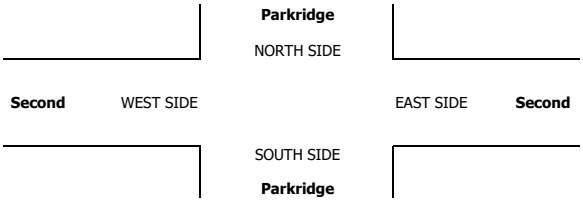
	NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
7:00 AM	18	0	2	0	0	0	0	112	35	3	49	0	219
7:15 AM	37	0	2	0	0	0	0	84	100	1	58	0	282
7:30 AM	46	0	3	0	0	0	0	99	102	3	92	0	345
7:45 AM	48	0	4	0	0	0	0	95	29	1	53	0	230
8:00 AM	19	0	1	0	0	0	0	91	18	3	65	0	197
8:15 AM	18	0	0	0	0	0	0	69	14	0	32	0	133
8:30 AM	21	0	1	0	0	0	0	65	16	0	46	0	149
8:45 AM	17	0	0	0	0	0	0	70	11	1	34	0	133
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	224	0	13	0	0	0	0	685	325	12	429	0	1,688
APPROACH %	95%	0%	5%	0%	0%	0%	0%	68%	32%	3%	97%	0%	
APP/DEPART	237	/	0	0	/	337	1,010	/	698	441	/	653	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	149	0	11	0	0	0	0	390	266	8	252	0	1,076
APPROACH %	93%	0%	7%	0%	0%	0%	0%	59%	41%	3%	97%	0%	
PEAK HR FACTOR		0.769			0.000			0.816			0.684		0.780
APP/DEPART	160	/	0	0	/	274	656	/	401	260	/	401	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	25	0	1	0	0	0	0	70	8	0	85	0	189
4:15 PM	28	0	0	0	0	0	0	61	13	3	67	0	172
4:30 PM	29	0	1	0	0	0	0	72	12	2	71	0	187
4:45 PM	34	0	1	0	0	0	0	63	17	0	58	0	173
5:00 PM	36	0	0	0	0	0	0	73	14	1	85	0	209
5:15 PM	47	0	0	0	0	0	0	77	23	0	75	0	222
5:30 PM	38	0	1	0	0	0	0	81	19	1	91	0	231
5:45 PM	41	0	1	0	0	0	0	74	16	2	87	0	221
VOLUMES	278	0	5	0	0	0	0	571	122	9	619	0	1,604
APPROACH %	98%	0%	2%	0%	0%	0%	0%	82%	18%	1%	99%	0%	
APP/DEPART	283	/	0	0	/	131	693	/	576	628	/	897	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	162	0	2	0	0	0	0	305	72	4	338	0	883
APPROACH %	99%	0%	1%	0%	0%	0%	0%	81%	19%	1%	99%	0%	
PEAK HR FACTOR		0.872			0.000			0.943			0.929		0.956
APP/DEPART	164	/	0	0	/	76	377	/	307	342	/	500	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

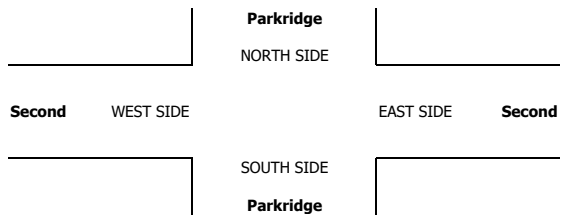
		NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	4	0	0	1	0	5
	7:15 AM	0	0	1	0	0	0	0	4	0	0	6	0	11
	7:30 AM	2	0	1	0	0	0	0	0	2	0	3	0	8
	7:45 AM	1	0	0	0	0	0	0	4	0	1	7	0	13
	8:00 AM	1	0	0	0	0	0	0	6	0	0	5	0	12
	8:15 AM	0	0	0	0	0	0	0	6	2	0	1	0	9
	8:30 AM	0	0	0	0	0	0	0	2	0	1	6	0	9
	8:45 AM	1	0	0	0	0	0	0	8	0	0	6	0	15
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	5	0	2	0	0	0	0	34	4	2	35	0	82
	APPROACH %	71%	0%	29%	0%	0%	0%	0%	89%	11%	5%	95%	0%	
	APP/DEPART	7	/	0	0	/	6	38	/	36	37	/	40	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	2	0	0	0	0	0	0	22	2	1	18	0	45
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	92%	8%	5%	95%	0%	
	PEAK HR FACTOR		0.500			0.000			0.750			0.679		0.750
	APP/DEPART	2	/	0	0	/	3	24	/	22	19	/	20	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	0	0	0	0	2	0	0	3	0	6
	4:15 PM	0	0	0	0	0	0	0	8	0	0	1	0	9
	4:30 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	4:45 PM	1	0	0	0	0	0	0	4	0	0	3	0	8
	5:00 PM	0	0	0	0	0	0	0	4	0	0	5	0	9
	5:15 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	5:30 PM	1	0	0	0	0	0	0	6	0	0	1	0	8
	5:45 PM	0	0	0	0	0	0	0	3	0	0	3	0	6
	VOLUMES	2	0	1	0	0	0	0	37	0	0	18	0	58
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	3	/	0	0	/	0	37	/	38	18	/	20	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	1	0	0	0	0	0	0	21	0	0	10	0	32
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.000			0.656			0.500		0.889
	APP/DEPART	1	/	0	0	/	0	21	/	21	10	/	11	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

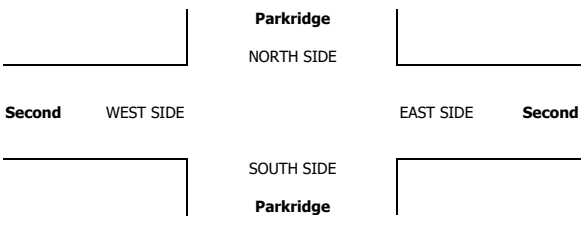
		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	0	0	0	0	1	0	1	0	3
	7:30 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	5	1	0	7	0	15
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	83%	17%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	1	6	/	5	7	/	9	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	5	0	0	4	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.625			0.333		0.563
	APP/DEPART	0	/	0	0	/	0	5	/	5	4	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	0	0	0	0	0	3	0	0	2	0	6
	4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	5	1	0	2	0	10
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	83%	17%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	1	6	/	5	2	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	0	0	0	0	0	0	5	0	0	2	0	9
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			0.417			0.250		0.375
	APP/DEPART	2	/	0	0	/	0	5	/	5	2	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

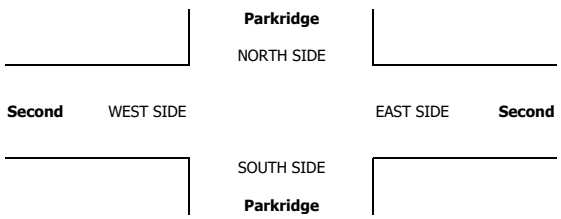
		NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.375
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
	APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

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

	NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250
APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0

U-TURNS

AM NB	AM SB	AM EB	AM WB	AM TTL	PM NB	PM SB	PM EB	PM WB	PM TTL
0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	11
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	5
	7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
	7:45 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
	8:00 AM	1	0	0	0	0	0	0	3	3	0	0	0	7
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	3	3	0	0	0	6
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	8	6	0	13	0	29
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	57%	43%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	6	14	/	8	13	/	15	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	0	0	0	0	0	0	4	3	0	10	0	19
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	57%	43%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			0.292			0.500		0.679
	APP/DEPART	2	/	0	0	/	3	7	/	4	10	/	12	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	2
	VOLUMES	1	0	2	0	0	0	0	4	1	1	2	0	11
	APPROACH %	33%	0%	67%	0%	0%	0%	0%	80%	20%	33%	67%	0%	
	APP/DEPART	3	/	0	0	/	2	5	/	6	3	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	0	1	0	0	0	0	4	0	0	2	0	8
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			0.333			0.500		0.667
	APP/DEPART	2	/	0	0	/	0	4	/	5	2	/	3	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Parkridge

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

Parkridge

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Pacific
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 12
CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	5	0	2	13	0	0	0	144	1	1	59	4	229
	7:15 AM	2	0	6	4	0	1	1	132	6	0	104	1	257
	7:30 AM	3	0	6	4	0	1	0	115	4	1	136	4	274
	7:45 AM	1	0	2	6	0	0	0	138	0	1	83	2	233
	8:00 AM	2	0	1	10	0	1	0	124	0	1	78	2	219
	8:15 AM	2	0	3	6	0	0	1	99	0	1	53	5	170
	8:30 AM	0	0	4	3	0	1	0	83	0	5	57	3	156
	8:45 AM	0	0	2	6	1	1	1	84	1	2	56	3	157
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	15	0	26	52	1	5	3	919	12	12	626	24	1,695
	APPROACH %	37%	0%	63%	90%	2%	9%	0%	98%	1%	2%	95%	4%	
	APP/DEPART	41	/	27	58	/	25	934	/	997	662	/	646	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	11	0	16	27	0	2	1	529	11	3	382	11	993
	APPROACH %	41%	0%	59%	93%	0%	7%	0%	98%	2%	1%	96%	3%	
	PEAK HR FACTOR		0.750			0.558			0.933			0.702		0.906
	APP/DEPART	27	/	12	29	/	14	541	/	572	396	/	395	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	4	6	0	0	1	88	2	5	105	8	220
	4:15 PM	1	0	2	9	0	2	1	83	1	3	78	2	182
	4:30 PM	1	0	1	7	0	0	0	78	3	2	86	3	181
	4:45 PM	0	0	2	4	0	1	0	92	1	2	70	9	181
	5:00 PM	0	0	2	6	0	0	2	88	1	5	96	6	206
	5:15 PM	0	0	1	2	1	0	0	95	1	1	89	3	193
	5:30 PM	0	0	3	8	0	2	1	98	1	3	100	5	221
	5:45 PM	3	0	2	10	0	0	0	92	2	4	100	7	220
	VOLUMES	6	0	17	52	1	5	5	714	12	25	724	43	1,604
	APPROACH %	26%	0%	74%	90%	2%	9%	1%	98%	2%	3%	91%	5%	
	APP/DEPART	23	/	48	58	/	38	731	/	783	792	/	735	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	3	0	8	26	1	2	3	373	5	13	385	21	840
	APPROACH %	27%	0%	73%	90%	3%	7%	1%	98%	1%	3%	92%	5%	
	PEAK HR FACTOR		0.550			0.725			0.953			0.944		0.950
	APP/DEPART	11	/	24	29	/	19	381	/	407	419	/	390	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Pacific

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

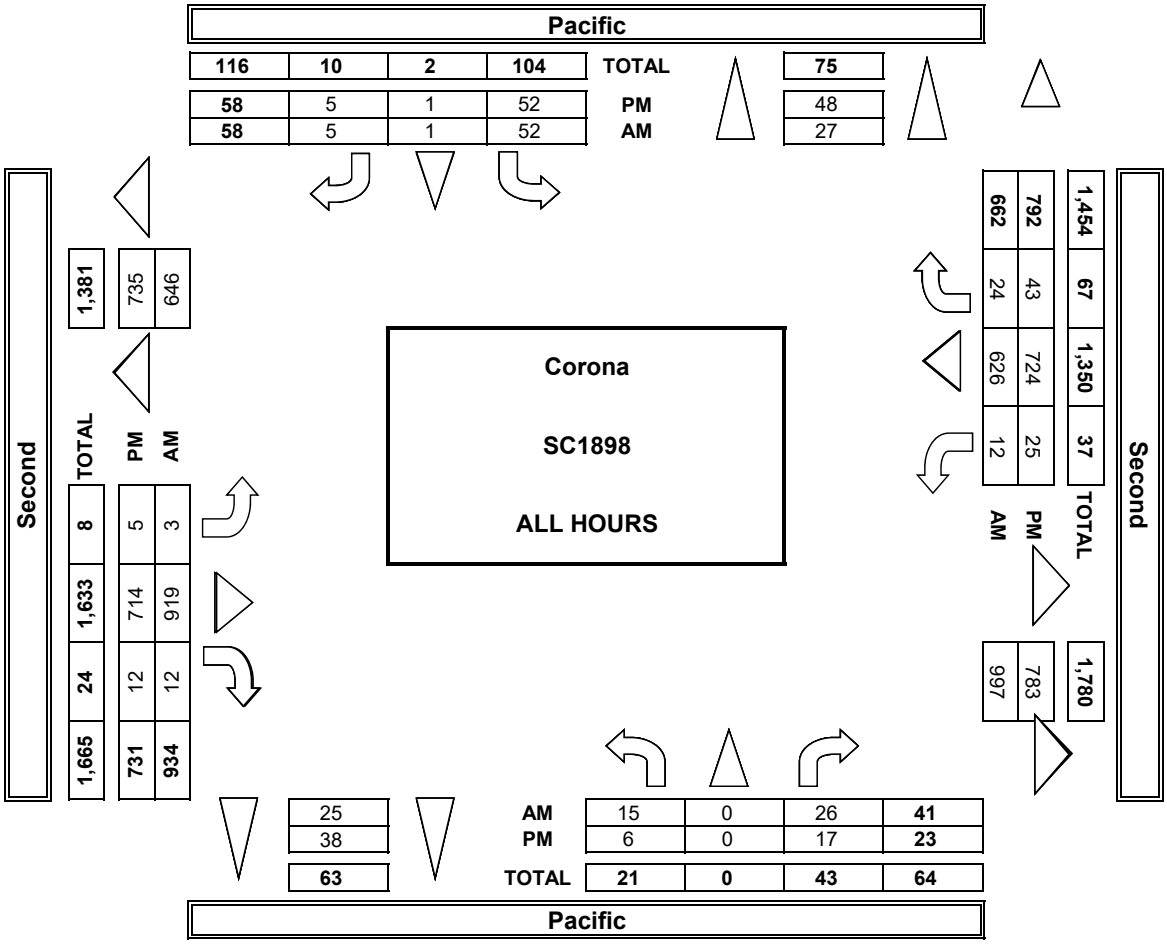
SOUTH SIDE

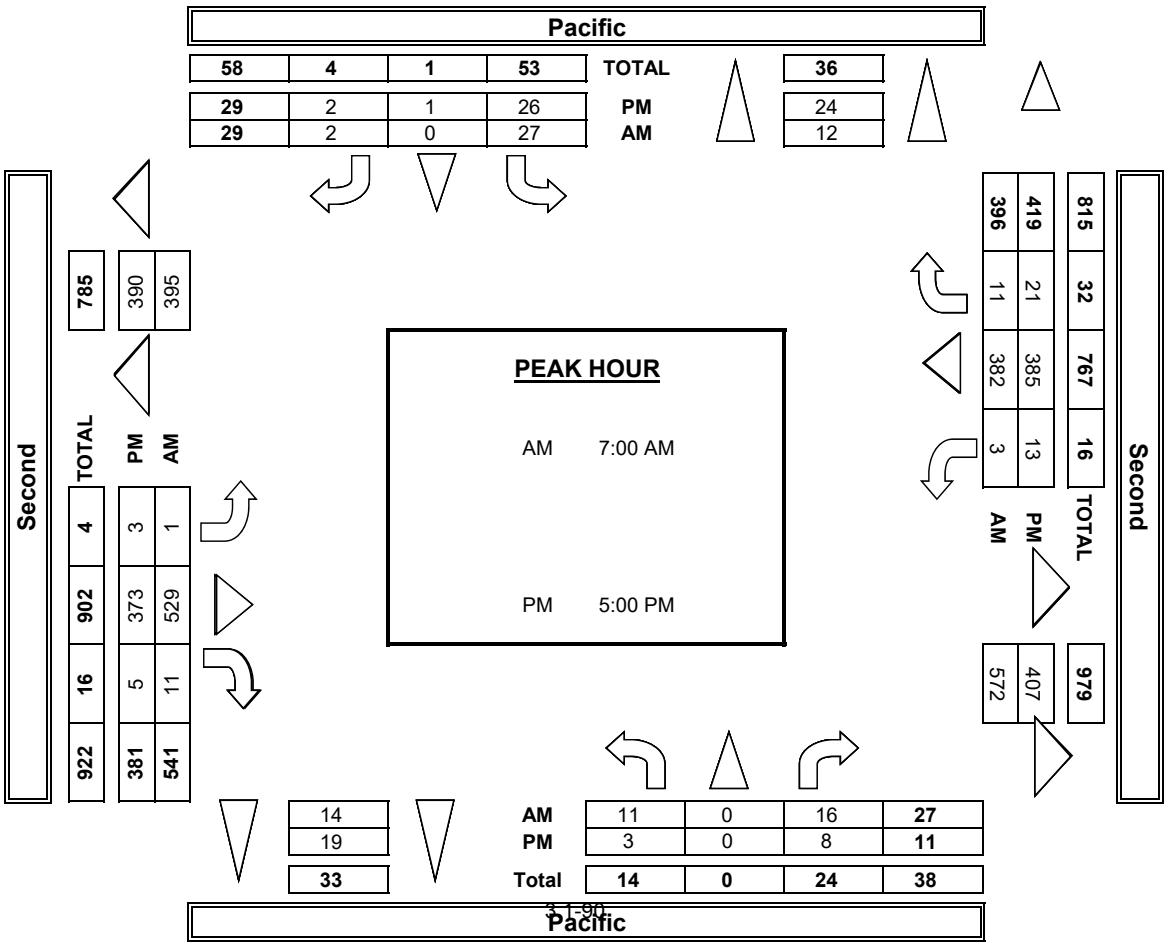
Pacific

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	2	0	2	0	0	1	0	1	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:45 AM	0	0	3	0	3	0	0	2	0	2	0	0	1	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	7	0	9	0	2	3	0	5	0	0	4	0	4
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

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

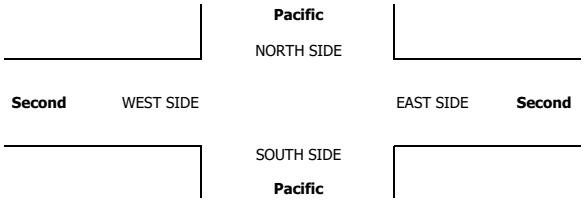
	NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	5	0	2	12	0	0	0	141	1	1	56	2	220
7:15 AM	2	0	6	4	0	1	1	126	5	0	91	1	237
7:30 AM	2	0	6	3	0	1	0	114	4	1	128	4	263
7:45 AM	1	0	2	6	0	0	0	132	0	1	70	2	214
8:00 AM	2	0	1	9	0	1	0	115	0	1	73	2	204
8:15 AM	2	0	3	5	0	0	1	88	0	1	49	5	154
8:30 AM	0	0	4	3	0	1	0	78	0	5	50	3	144
8:45 AM	0	0	2	6	1	1	1	77	1	2	47	3	141
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	14	0	26	48	1	5	3	871	11	12	564	22	1,577
APPROACH %	35%	0%	65%	89%	2%	9%	0%	98%	1%	2%	94%	4%	
APP/DEPART	40	/	25	54	/	24	885	/	945	598	/	583	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	10	0	16	25	0	2	1	513	10	3	345	9	934
APPROACH %	38%	0%	62%	93%	0%	7%	0%	98%	2%	1%	97%	3%	
PEAK HR FACTOR		0.813			0.563			0.923			0.671		0.888
APP/DEPART	26	/	10	27	/	13	524	/	554	357	/	357	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	4	5	0	0	1	76	2	5	98	8	200
4:15 PM	1	0	1	9	0	2	1	76	1	3	77	2	173
4:30 PM	1	0	1	6	0	0	0	73	2	2	85	3	173
4:45 PM	0	0	1	4	0	0	0	86	1	2	67	9	170
5:00 PM	0	0	2	6	0	0	2	85	1	5	94	6	201
5:15 PM	0	0	0	2	1	0	0	89	1	1	89	3	186
5:30 PM	0	0	3	7	0	2	1	95	0	3	100	5	216
5:45 PM	3	0	2	10	0	0	0	87	2	4	95	7	210
VOLUMES	6	0	14	49	1	4	5	667	10	25	705	43	1,529
APPROACH %	30%	0%	70%	91%	2%	7%	1%	98%	1%	3%	91%	6%	
APP/DEPART	20	/	48	54	/	36	682	/	730	773	/	715	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	3	0	7	25	1	2	3	356	4	13	378	21	813
APPROACH %	30%	0%	70%	89%	4%	7%	1%	98%	1%	3%	92%	5%	
PEAK HR FACTOR		0.500			0.700			0.945			0.954		0.941
APP/DEPART	10	/	24	28	/	18	363	/	388	412	/	383	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

	NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
7:15 AM	0	0	0	0	0	0	0	6	0	0	8	0	14
7:30 AM	0	0	0	1	0	0	0	1	0	0	4	0	6
7:45 AM	0	0	0	0	0	0	0	4	0	0	9	0	13
8:00 AM	0	0	0	1	0	0	0	3	0	0	3	0	7
8:15 AM	0	0	0	1	0	0	0	6	0	0	4	0	11
8:30 AM	0	0	0	0	0	0	0	3	0	0	3	0	6
8:45 AM	0	0	0	0	0	0	0	3	0	0	5	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	3	0	0	0	29	0	0	37	0	69
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	3	/	0	29	/	32	37	/	37	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	2	0	0	0	14	0	0	24	0	40
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.500			0.583			0.667		0.714
APP/DEPART	0	/	0	2	/	0	14	/	16	24	/	24	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	0	0	0	5	0	0	4	0	10
4:15 PM	0	0	1	0	0	0	0	4	0	0	1	0	6
4:30 PM	0	0	0	1	0	0	0	4	1	0	0	0	6
4:45 PM	0	0	1	0	0	1	0	5	0	0	2	0	9
5:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5
5:15 PM	0	0	1	0	0	0	0	4	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	3	1	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	2	0	0	4	0	6
VOLUMES	0	0	3	2	0	1	0	30	2	0	13	0	51
APPROACH %	0%	0%	100%	67%	0%	33%	0%	94%	6%	0%	100%	0%	
APP/DEPART	3	/	0	3	/	2	32	/	35	13	/	14	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	2	2	0	1	0	18	1	0	7	0	31
APPROACH %	0%	0%	100%	67%	0%	33%	0%	95%	5%	0%	100%	0%	
PEAK HR FACTOR		0.500			0.750			0.950			0.438		0.775
APP/DEPART	2	/	0	3	/	1	19	/	22	7	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

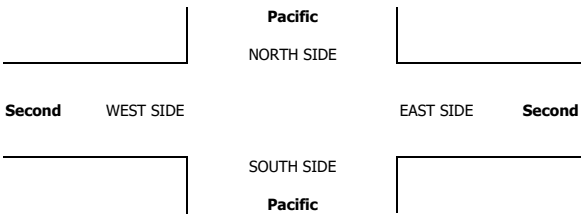
		NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
	8:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	8	0	0	8	0	16
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	8	/	8	8	/	8	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	7	0	0	6	0	13
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.438			0.500		0.813
	APP/DEPART	0	/	0	0	/	0	7	/	7	6	/	6	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	0	0	1	0	0	0	7	0	0	3	0	11
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	7	/	8	3	/	3	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	0	0	0	0	0	6	0	0	3	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.300			0.250		0.281
	APP/DEPART	0	/	0	0	/	0	6	/	6	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

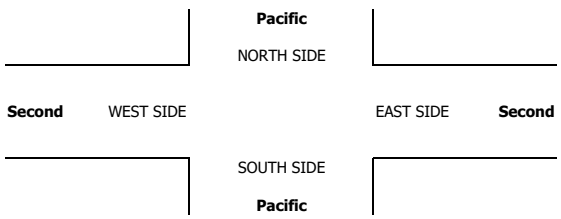
	NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	1	4
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	50%	50%	
APP/DEPART	0	/	1	0	/	0	2	/	2	2	/	1	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.750
APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

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

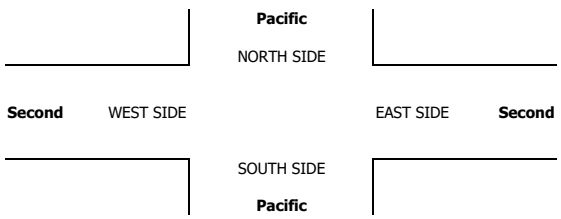
	NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
VOLUMES	0	0	0	0	0	0	0	1	0	0	2	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	1	0	0	1	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250
APP/DEPART	0	/	0	0	/	0	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Pacific	LOCATION #:	12
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

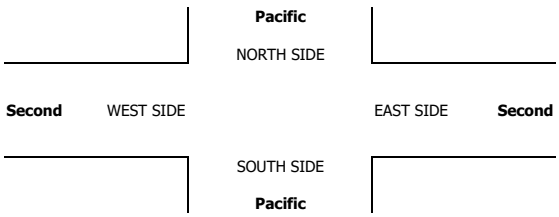
	NORTHBOUND (Pacific)			SOUTHBOUND (Pacific)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	0	0	2	1	4
7:15 AM	0	0	0	0	0	0	0	0	1	0	4	0	5
7:30 AM	1	0	0	0	0	0	0	0	0	0	3	0	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
8:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	2	0	0	4	0	6
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	1	0	0	0	9	1	0	16	1	29
APPROACH %	100%	0%	0%	100%	0%	0%	0%	90%	10%	0%	94%	6%	
APP/DEPART	1	/	1	1	/	1	10	/	10	17	/	17	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	1	0	0	0	0	0	0	6	1	0	9	0	17
APPROACH %	100%	0%	0%	0%	0%	0%	0%	86%	14%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.000			0.350			0.563		0.850
APP/DEPART	1	/	0	0	/	1	7	/	6	9	/	10	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	7	0	0	1	0	8
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	7	/	7	1	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	6	0	0	1	0	7
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.583
APP/DEPART	0	/	0	0	/	0	6	/	6	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Parkridge
EAST & WEST: Lincoln

PROJECT #: SC1898
LOCATION #: 13
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

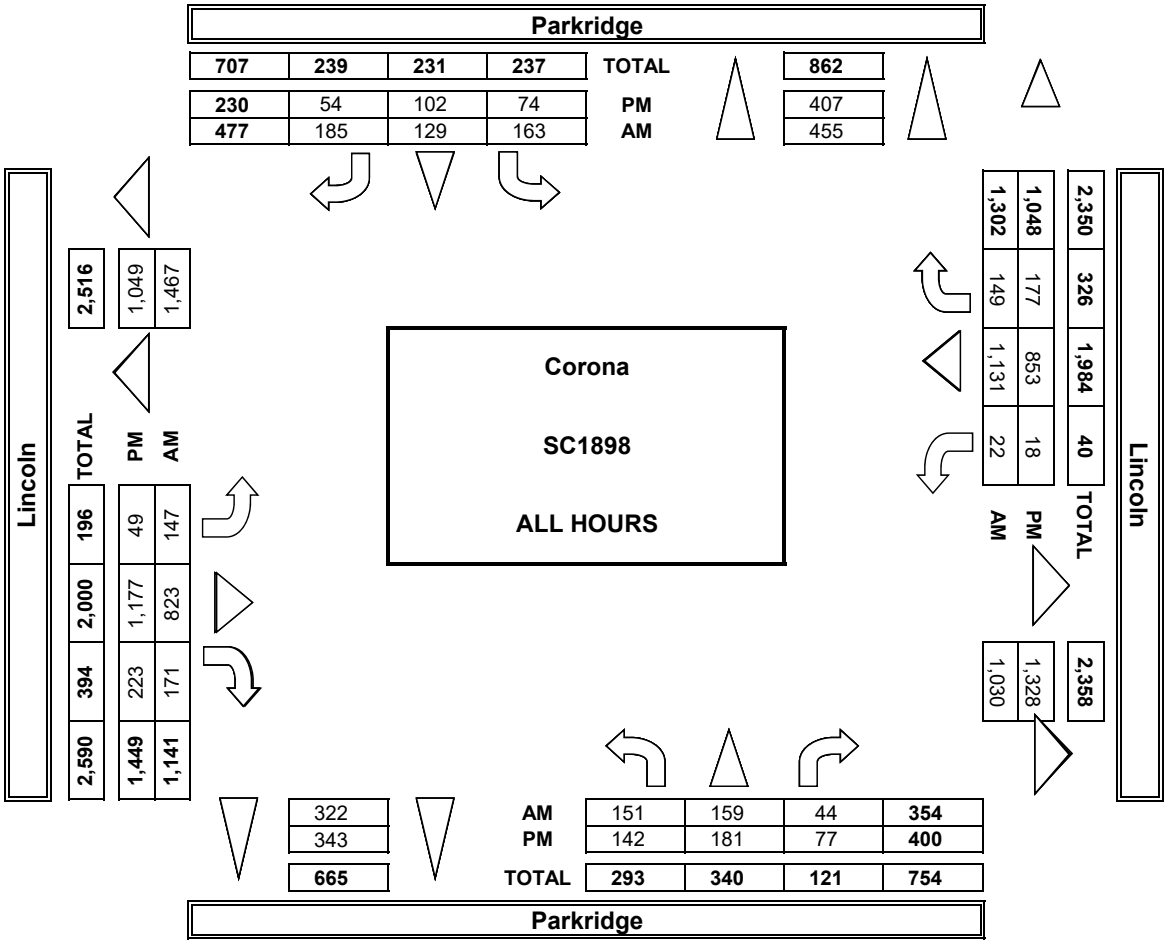
		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	16	20	8	13	13	8	20	140	13	4	162	13	430
	7:15 AM	38	38	5	34	23	44	42	105	34	1	163	33	560
	7:30 AM	27	34	5	41	33	53	34	125	36	4	168	31	591
	7:45 AM	15	14	5	37	28	47	18	128	32	2	137	18	481
	8:00 AM	11	10	8	14	11	11	3	90	19	4	125	10	316
	8:15 AM	11	13	1	8	14	11	6	89	9	0	137	14	313
	8:30 AM	18	21	5	9	4	4	9	73	10	2	122	17	294
	8:45 AM	15	9	7	7	3	7	15	73	18	5	117	13	289
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	151	159	44	163	129	185	147	823	171	22	1,131	149	3,274
	APPROACH %	43%	45%	12%	34%	27%	39%	13%	72%	15%	2%	87%	11%	
	APP/DEPART	354	/	455	477	/	322	1,141	/	1,030	1,302	/	1,467	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	96	106	23	125	97	152	114	498	115	11	630	95	2,062
	APPROACH %	43%	47%	10%	33%	26%	41%	16%	69%	16%	1%	86%	13%	
	PEAK HR FACTOR		0.694			0.736			0.932			0.906		0.872
	APP/DEPART	225	/	315	374	/	223	727	/	646	736	/	878	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	19	11	17	6	8	12	4	153	32	5	99	13	379
	4:15 PM	10	21	8	7	11	7	3	117	20	1	118	19	342
	4:30 PM	22	19	10	12	5	4	4	175	32	1	108	15	407
	4:45 PM	13	18	6	8	20	7	10	140	29	5	98	21	375
	5:00 PM	15	29	11	7	16	2	7	164	29	0	103	25	408
	5:15 PM	20	15	7	14	14	3	8	134	30	0	115	32	392
	5:30 PM	23	34	10	11	14	6	6	171	28	4	115	26	448
	5:45 PM	20	34	8	9	14	13	7	123	23	2	97	26	376
	VOLUMES	142	181	77	74	102	54	49	1,177	223	18	853	177	3,127
	APPROACH %	36%	45%	19%	32%	44%	23%	3%	81%	15%	2%	81%	17%	
	APP/DEPART	400	/	407	230	/	343	1,449	/	1,328	1,048	/	1,049	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	78	112	36	41	58	24	28	592	110	6	430	109	1,624
	APPROACH %	35%	50%	16%	33%	47%	20%	4%	81%	15%	1%	79%	20%	
	PEAK HR FACTOR		0.843			0.854			0.890			0.927		0.906
	APP/DEPART	226	/	249	123	/	174	730	/	669	545	/	532	0

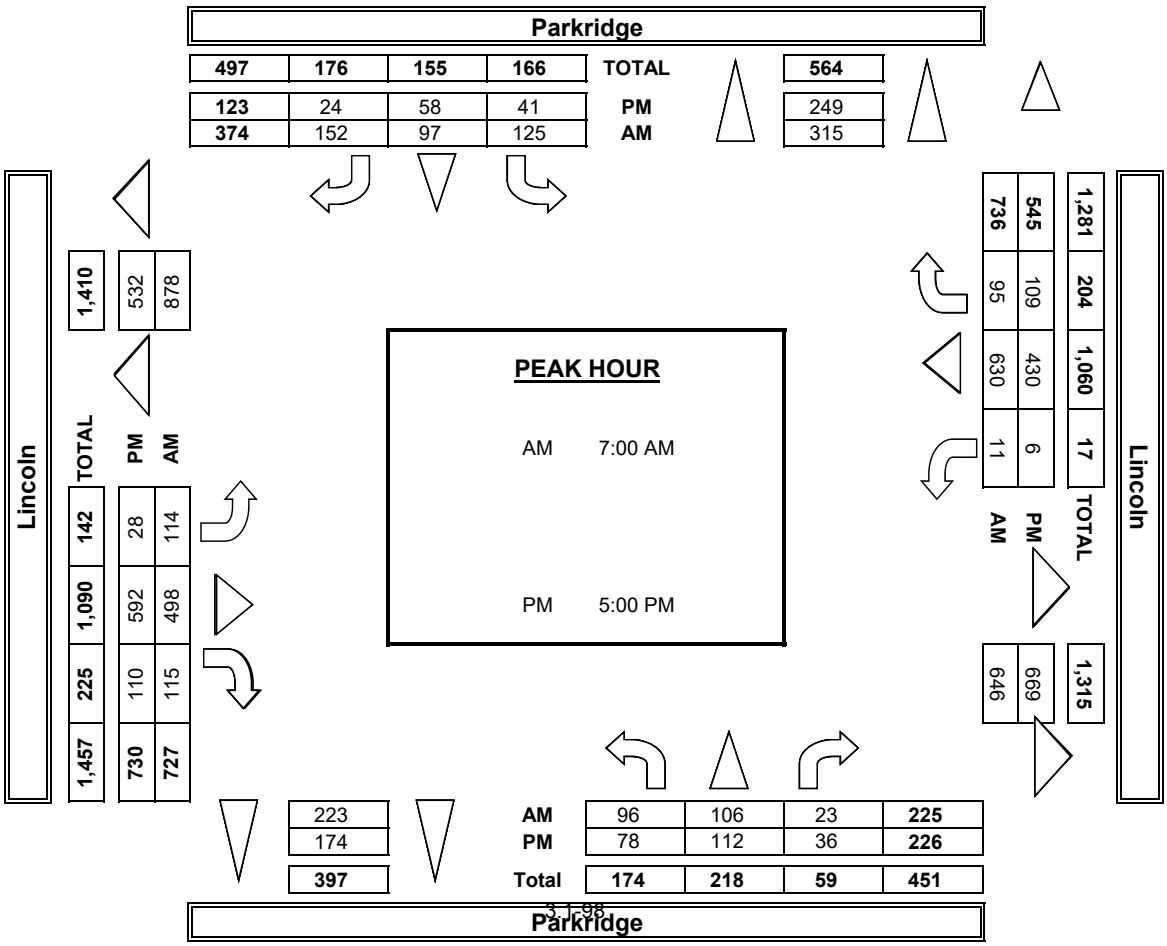
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	14	20	7	13	13	8	20	137	13	3	149	13	410
7:15 AM	35	35	5	33	23	44	42	95	33	1	153	33	532
7:30 AM	25	30	5	39	33	52	32	113	33	4	160	31	557
7:45 AM	14	12	5	37	27	47	16	119	30	2	125	18	452
8:00 AM	10	9	8	14	9	10	3	79	18	3	112	9	284
8:15 AM	8	13	1	7	14	10	6	78	8	0	123	13	281
8:30 AM	16	19	5	8	4	4	4	64	8	2	111	17	262
8:45 AM	15	8	5	7	3	2	10	62	17	4	104	11	248
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	137	146	41	158	126	177	133	747	160	19	1,037	145	3,026
APPROACH %	42%	45%	13%	34%	27%	38%	13%	72%	15%	2%	86%	12%	
APP/DEPART	324	/	424	461	/	305	1,040	/	946	1,201	/	1,351	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	88	97	22	122	96	151	110	464	109	10	587	95	1,951
APPROACH %	43%	47%	11%	33%	26%	41%	16%	68%	16%	1%	85%	14%	
PEAK HR FACTOR		0.690			0.744			0.959			0.887		0.876
APP/DEPART	207	/	302	369	/	215	683	/	608	692	/	826	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	18	10	15	6	8	11	4	142	31	5	99	13	362
4:15 PM	10	21	8	7	11	7	3	110	17	1	116	18	329
4:30 PM	20	19	10	12	5	4	3	169	32	1	103	15	393
4:45 PM	13	15	6	7	20	6	8	139	27	4	96	21	362
5:00 PM	15	29	10	6	16	2	5	158	28	0	101	25	395
5:15 PM	19	14	7	14	13	3	7	131	29	0	113	32	382
5:30 PM	23	33	10	11	14	6	5	169	27	4	114	26	442
5:45 PM	20	33	8	9	14	12	7	115	23	2	95	26	364
VOLUMES	138	174	74	72	101	51	42	1,133	214	17	837	176	3,029
APPROACH %	36%	45%	19%	32%	45%	23%	3%	82%	15%	2%	81%	17%	
APP/DEPART	386	/	392	224	/	332	1,389	/	1,279	1,030	/	1,026	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	77	109	35	40	57	23	24	573	107	6	423	109	1,583
APPROACH %	35%	49%	16%	33%	48%	19%	3%	81%	15%	1%	79%	20%	
PEAK HR FACTOR		0.837			0.857			0.876			0.928		0.895
APP/DEPART	221	/	242	120	/	170	704	/	648	538	/	523	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
6	7	5	0
3	21	9	1
2	17	5	4
1	18	13	2
8	8	2	0
0	7	3	0
3	4	3	0
1	1	4	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
24	83	44	8
12	63	32	7
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
34	39	47	23
14	19	26	16

Parkridge

NORTH SIDE

Lincoln WEST SIDE EAST SIDE **Lincoln**

SOUTH SIDE

Parkridge

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	1	0	0	0	0	0	0	2	0	1	10	0	14
	7:15 AM	1	0	0	1	0	0	0	2	1	0	4	0	9
	7:30 AM	1	3	0	0	0	0	0	7	1	0	5	0	17
	7:45 AM	1	2	0	0	1	0	1	6	1	0	9	0	21
	8:00 AM	1	1	0	0	1	1	0	5	0	1	9	1	20
	8:15 AM	3	0	0	1	0	0	0	5	0	0	9	1	19
	8:30 AM	2	0	0	0	0	0	1	1	1	0	9	0	14
	8:45 AM	0	1	0	0	0	1	1	4	0	1	8	1	17
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	10	7	0	2	2	2	3	32	4	3	63	3	131
	APPROACH %	59%	41%	0%	33%	33%	33%	8%	82%	10%	4%	91%	4%	
	APP/DEPART	17	/	13	6	/	9	39	/	34	69	/	75	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	6	6	0	1	2	1	1	23	2	1	32	2	77
	APPROACH %	50%	50%	0%	25%	50%	25%	4%	88%	8%	3%	91%	6%	
	PEAK HR FACTOR		0.750			0.500			0.813			0.795		0.917
	APP/DEPART	12	/	9	4	/	5	26	/	24	35	/	39	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	1	2	0	0	1	0	7	1	0	0	0	13
	4:15 PM	0	0	0	0	0	0	0	3	1	0	2	1	7
	4:30 PM	1	0	0	0	0	0	1	6	0	0	3	0	11
	4:45 PM	0	1	0	1	0	1	2	1	1	1	2	0	10
	5:00 PM	0	0	1	0	0	0	0	4	1	0	2	0	8
	5:15 PM	1	1	0	0	0	0	1	3	1	0	2	0	9
	5:30 PM	0	0	0	0	0	0	1	2	0	0	1	0	4
	5:45 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	VOLUMES	3	3	3	1	0	2	5	31	5	1	13	1	68
	APPROACH %	33%	33%	33%	33%	0%	67%	12%	76%	12%	7%	87%	7%	
	APP/DEPART	9	/	9	3	/	6	41	/	35	15	/	18	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	2	2	1	0	2	3	17	3	1	7	1	41
	APPROACH %	33%	33%	33%	33%	0%	67%	13%	74%	13%	11%	78%	11%	
	PEAK HR FACTOR		0.375			0.375			0.719			0.750		0.788
	APP/DEPART	6	/	6	3	/	4	23	/	20	9	/	11	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

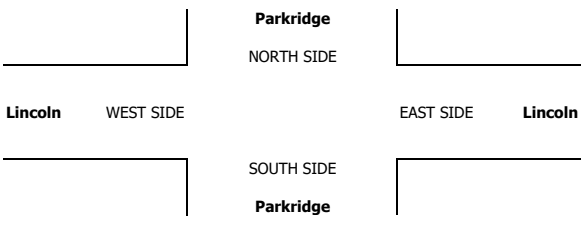
	NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM VOLUMES	2	1	0	1	0	0	0	0	0	0	5	1	10
APPROACH %	67%	33%	0%	100%	0%	0%	0%	0%	0%	0%	83%	17%	
APP/DEPART	3	/	2	1	/	0	0	/	1	6	/	7	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	1	0	0	0	0	0	0	4	1	6
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	80%	20%	
PEAK HR FACTOR		0.000			0.250			0.000			0.417		0.500
APP/DEPART	0	/	1	1	/	0	0	/	1	5	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
PM VOLUMES	1	0	0	0	1	0	1	1	0	0	1	0	5
APPROACH %	100%	0%	0%	0%	100%	0%	50%	50%	0%	0%	100%	0%	
APP/DEPART	1	/	1	1	/	1	2	/	1	1	/	2	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	0	0	0	1	0	1	0	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			0.250			0.250		0.750
APP/DEPART	0	/	1	1	/	1	1	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:15 AM	1	0	0	0	0	0	0	1	0	0	3	0	5
	7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	8:45 AM	0	0	1	0	0	0	0	0	0	0	2	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	1	0	0	0	0	1	1	0	11	0	16
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
	APP/DEPART	3	/	0	0	/	1	2	/	2	11	/	13	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	1	0	0	0	0	0	1	0	7	0	9
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.000			0.250			0.875		0.750
	APP/DEPART	1	/	0	0	/	1	1	/	1	7	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	0	1	0	0	0	0	0	3	1	0	0	0	5
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	75%	25%	0%	0%	0%	
	APP/DEPART	1	/	1	0	/	1	4	/	3	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	0	0	0	0	1	1	0	0	0	3
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.500			0.000		0.750
	APP/DEPART	1	/	1	0	/	1	2	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Parkridge)			SOUTHBOUND (Parkridge)			EASTBOUND (Lincoln)			WESTBOUND (Lincoln)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	VOLUMES	0	1	0	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	1	0	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500
	APP/DEPART	1	/	1	1	/	0	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Parkridge	LOCATION #:	13
TUESDAY	EAST & WEST:	Lincoln	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

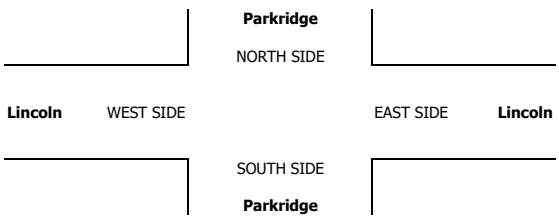
		NORTHBOUND Parkridge			SOUTHBOUND Parkridge			EASTBOUND Lincoln			WESTBOUND Lincoln			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	1	0	0	2	0	4
	7:15 AM	0	2	0	0	0	0	0	7	0	0	3	0	12
	7:30 AM	0	1	0	2	0	1	2	5	2	0	2	0	15
	7:45 AM	0	0	0	0	0	0	1	3	1	0	3	0	8
	8:00 AM	0	0	0	0	1	0	0	6	1	0	2	0	10
	8:15 AM	0	0	0	0	0	1	0	6	0	0	2	0	9
	8:30 AM	0	2	0	0	0	0	4	8	1	0	0	0	15
	8:45 AM	0	0	1	0	0	4	4	7	1	0	1	0	18
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	2	2	1	6	11	43	6	0	15	0	91
	APPROACH %	0%	71%	29%	22%	11%	67%	18%	72%	10%	0%	100%	0%	
	APP/DEPART	7	/	16	9	/	7	60	/	47	15	/	21	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	2	1	0	1	5	8	27	3	0	5	0	52
	APPROACH %	0%	67%	33%	0%	17%	83%	21%	71%	8%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.375			0.731			0.625		0.722
	APP/DEPART	3	/	10	6	/	4	38	/	28	5	/	10	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	4:15 PM	0	0	0	0	0	0	0	3	1	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	5:00 PM	0	0	0	1	0	0	1	1	0	0	0	0	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
	VOLUMES	0	2	0	1	0	0	1	9	3	0	2	0	18
	APPROACH %	0%	100%	0%	100%	0%	0%	8%	69%	23%	0%	100%	0%	
	APP/DEPART	2	/	3	1	/	3	13	/	10	2	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	1	0	0	1	4	2	0	2	0	11
	APPROACH %	0%	100%	0%	100%	0%	0%	14%	57%	29%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.250			0.438			0.250		0.688
	APP/DEPART	1	/	2	1	/	2	7	/	5	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
1	3	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	4	0	0
1	4	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: White Horse
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 14
CONTROL: STOP S

NOTES:

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

Add U-Turns to Left Turns

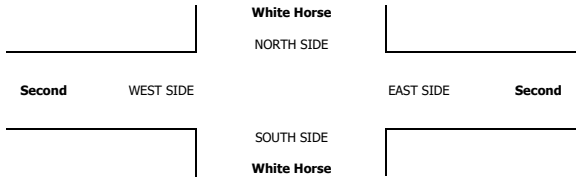
	NORTHBOUND (White Horse)			SOUTHBOUND (White Horse)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM 7:00 AM	0	0	0	1	0	0	0	160	0	0	74	0	235
7:15 AM	0	0	0	1	0	2	0	135	0	0	108	1	247
7:30 AM	0	0	0	0	0	0	0	125	0	0	139	1	265
7:45 AM	0	0	0	1	0	0	0	148	0	0	74	0	223
8:00 AM	0	0	0	0	0	0	0	141	0	0	87	0	228
8:15 AM	0	0	0	0	0	0	0	105	0	0	52	0	157
8:30 AM	0	0	0	0	0	0	0	88	0	0	69	0	157
8:45 AM	0	0	0	1	0	0	0	99	0	0	58	0	158
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	4	0	2	0	1,001	0	0	661	2	1,670
APPROACH %	0%	0%	0%	67%	0%	33%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	2	6	/	0	1,001	/	1,005	663	/	663	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	3	0	2	0	568	0	0	395	2	970
APPROACH %	0%	0%	0%	60%	0%	40%	0%	100%	0%	0%	99%	1%	
PEAK HR FACTOR		0.000			0.417			0.888			0.709		0.915
APP/DEPART	0	/	2	5	/	0	568	/	571	397	/	397	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	0	98	0	0	112	1	212
4:15 PM	0	0	0	0	0	0	0	91	0	0	86	0	177
4:30 PM	0	0	0	0	0	0	0	90	0	0	88	0	178
4:45 PM	0	0	0	0	0	0	0	100	0	0	80	0	180
5:00 PM	0	0	0	0	0	0	0	98	0	0	107	0	205
5:15 PM	0	0	0	0	0	0	0	96	0	0	90	0	186
5:30 PM	0	0	0	0	0	0	0	112	0	0	105	0	217
5:45 PM	0	0	0	1	0	0	1	98	0	0	117	0	217
VOLUMES	0	0	0	1	0	1	1	783	0	0	785	1	1,572
APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	2	2	/	0	784	/	784	786	/	786	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	1	0	0	1	404	0	0	419	0	825
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			0.904			0.895		0.950
APP/DEPART	0	/	1	1	/	0	405	/	405	419	/	419	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM 7:00 AM	0	0	1	0	1
7:15 AM	0	0	1	0	1
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	0	0	5	0	5
PM 3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	3	3

PEDESTRIAN CROSSINGS

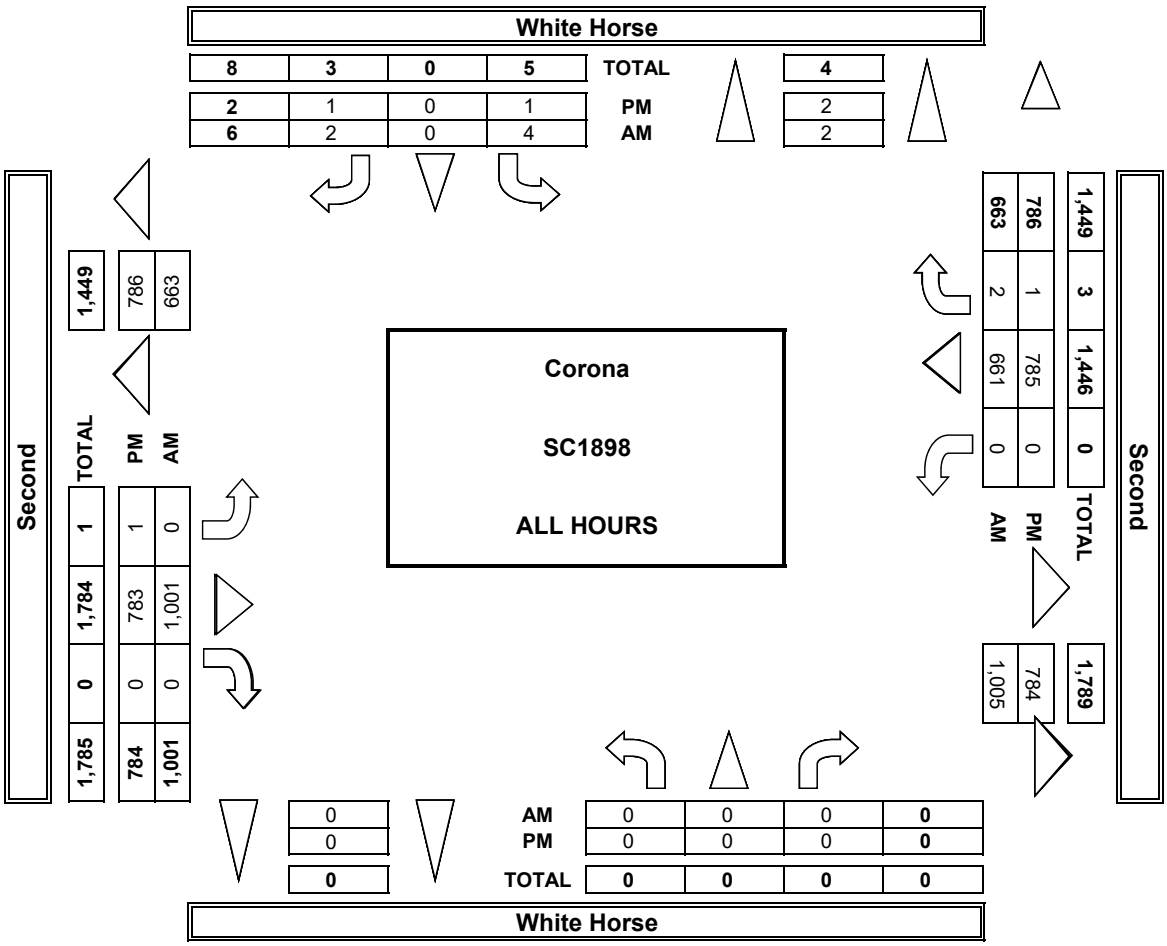
	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	0	0	2	0	2
PM 3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

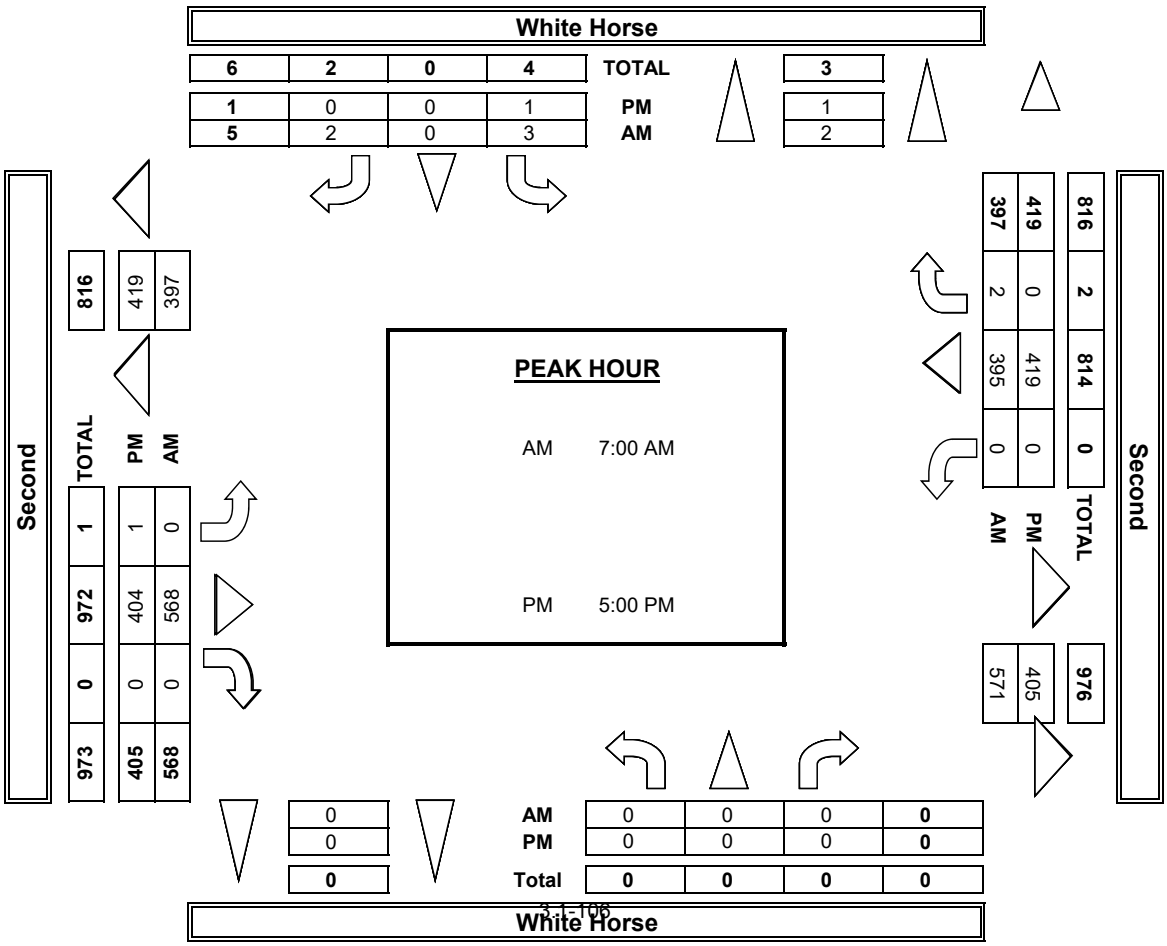
BICYCLE CROSSINGS

	ES	WS	SS	NS	TOTAL
AM 7:00 AM	0	0	1	0	1
7:15 AM	0	0	1	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	0	0	3	0	3
PM 3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	3	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 1: PASSENGER VEHICLES

NOTES:

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

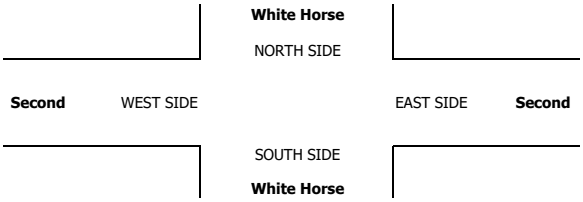
	NORTHBOUND (White Horse)			SOUTHBOUND (White Horse)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	1	0	0	0	156	0	0	67	0	224
7:15 AM	0	0	0	1	0	2	0	128	0	0	97	1	229
7:30 AM	0	0	0	0	0	0	0	124	0	0	131	1	256
7:45 AM	0	0	0	1	0	0	0	142	0	0	64	0	207
8:00 AM	0	0	0	0	0	0	0	132	0	0	78	0	210
8:15 AM	0	0	0	0	0	0	0	94	0	0	50	0	144
8:30 AM	0	0	0	0	0	0	0	81	0	0	60	0	141
8:45 AM	0	0	0	1	0	0	0	91	0	0	50	0	142
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	4	0	2	0	948	0	0	597	2	1,553
APPROACH %	0%	0%	0%	67%	0%	33%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	2	6	/	0	948	/	952	599	/	599	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	3	0	2	0	550	0	0	359	2	916
APPROACH %	0%	0%	0%	60%	0%	40%	0%	100%	0%	0%	99%	1%	
PEAK HR FACTOR		0.000			0.417			0.881			0.684		0.895
APP/DEPART	0	/	2	5	/	0	550	/	553	361	/	361	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	88	0	0	106	0	194
4:15 PM	0	0	0	0	0	0	0	83	0	0	85	0	168
4:30 PM	0	0	0	0	0	0	0	82	0	0	87	0	169
4:45 PM	0	0	0	0	0	0	0	95	0	0	77	0	172
5:00 PM	0	0	0	0	0	0	0	92	0	0	105	0	197
5:15 PM	0	0	0	0	0	0	0	89	0	0	90	0	179
5:30 PM	0	0	0	0	0	0	0	107	0	0	105	0	212
5:45 PM	0	0	0	1	0	0	1	94	0	0	112	0	208
VOLUMES	0	0	0	1	0	0	1	730	0	0	767	0	1,499
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	1	1	/	0	731	/	731	767	/	767	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	1	0	0	1	382	0	0	412	0	796
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			0.895			0.920		0.939
APP/DEPART	0	/	1	1	/	0	383	/	383	412	/	412	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

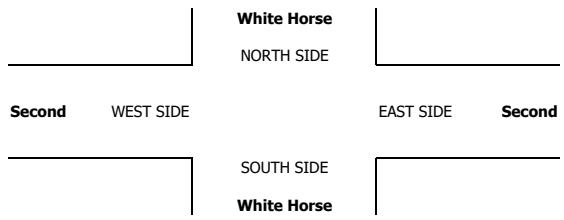
		NORTHBOUND White Horse			SOUTHBOUND White Horse			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	3	0	6
	7:15 AM	0	0	0	0	0	0	0	7	0	0	6	0	13
	7:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	7:45 AM	0	0	0	0	0	0	0	4	0	0	8	0	12
	8:00 AM	0	0	0	0	0	0	0	4	0	0	7	0	11
	8:15 AM	0	0	0	0	0	0	0	6	0	0	2	0	8
	8:30 AM	0	0	0	0	0	0	0	5	0	0	5	0	10
	8:45 AM	0	0	0	0	0	0	0	3	0	0	4	0	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	33	0	0	38	0	71
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	33	/	33	38	/	38	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	19	0	0	22	0	41
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.792			0.688		0.854
	APP/DEPART	0	/	0	0	/	0	19	/	19	22	/	22	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	1	0	3	0	0	3	1	8
	4:15 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	4:30 PM	0	0	0	0	0	0	0	7	0	0	0	0	7
	4:45 PM	0	0	0	0	0	0	0	4	0	0	2	0	6
	5:00 PM	0	0	0	0	0	0	0	5	0	0	2	0	7
	5:15 PM	0	0	0	0	0	0	0	6	0	0	0	0	6
	5:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	2	0	0	4	0	6
	VOLUMES	0	0	0	0	0	1	0	35	0	0	12	1	49
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	92%	8%	
	APP/DEPART	0	/	1	1	/	0	35	/	35	13	/	13	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	1	0	19	0	0	6	1	27
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	86%	14%	
	PEAK HR FACTOR		0.000			0.250			0.679			0.438		0.844
	APP/DEPART	0	/	1	1	/	0	19	/	19	7	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

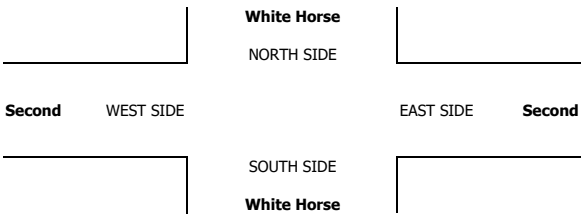
		NORTHBOUND White Horse			SOUTHBOUND White Horse			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
	8:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	8	0	0	7	0	15
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	8	/	8	7	/	7	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	7	0	0	5	0	12
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.438			0.417		0.750
	APP/DEPART	0	/	0	0	/	0	7	/	7	5	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	8	0	0	3	0	11
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	8	/	8	3	/	3	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	0	0	0	0	0	6	0	0	3	0	9
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.300			0.250		0.281
	APP/DEPART	0	/	0	0	/	0	6	/	6	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

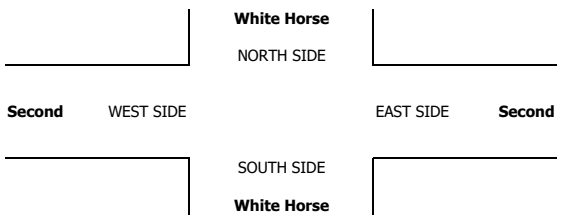
	NORTHBOUND White Horse			SOUTHBOUND White Horse			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	0	0	2	0	4
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	2	/	2	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.750
APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	2	0	0	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
APP/DEPART	0	/	0	0	/	0	2	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND White Horse			SOUTHBOUND White Horse			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	0	0	0	0	0	0	0	1	0	0	2	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	1	/	1	0

U-TURNS					
	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

White Horse

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

White Horse

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	White Horse	LOCATION #:	14
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP S

CLASS 6:	NOTES:
BUSES	

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

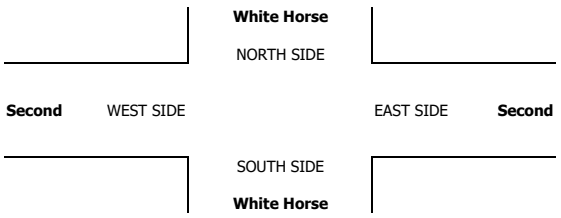
	NORTHBOUND White Horse			SOUTHBOUND White Horse			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	3	0	0	4	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	10	0	0	17	0	27
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	10	/	10	17	/	17	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	5	0	0	9	0	14
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.313			0.563		0.875
APP/DEPART	0	/	0	0	/	0	5	/	5	9	/	9	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	7	0	0	1	0	8
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	7	/	7	1	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	6	0	0	1	0	7
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.583
APP/DEPART	0	/	0	0	/	0	6	/	6	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Mountain	LOCATION #:	17
	EAST & WEST:	Second	CONTROL:	STOP ALL

NOTES:

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

Add U-Turns to Left Turns

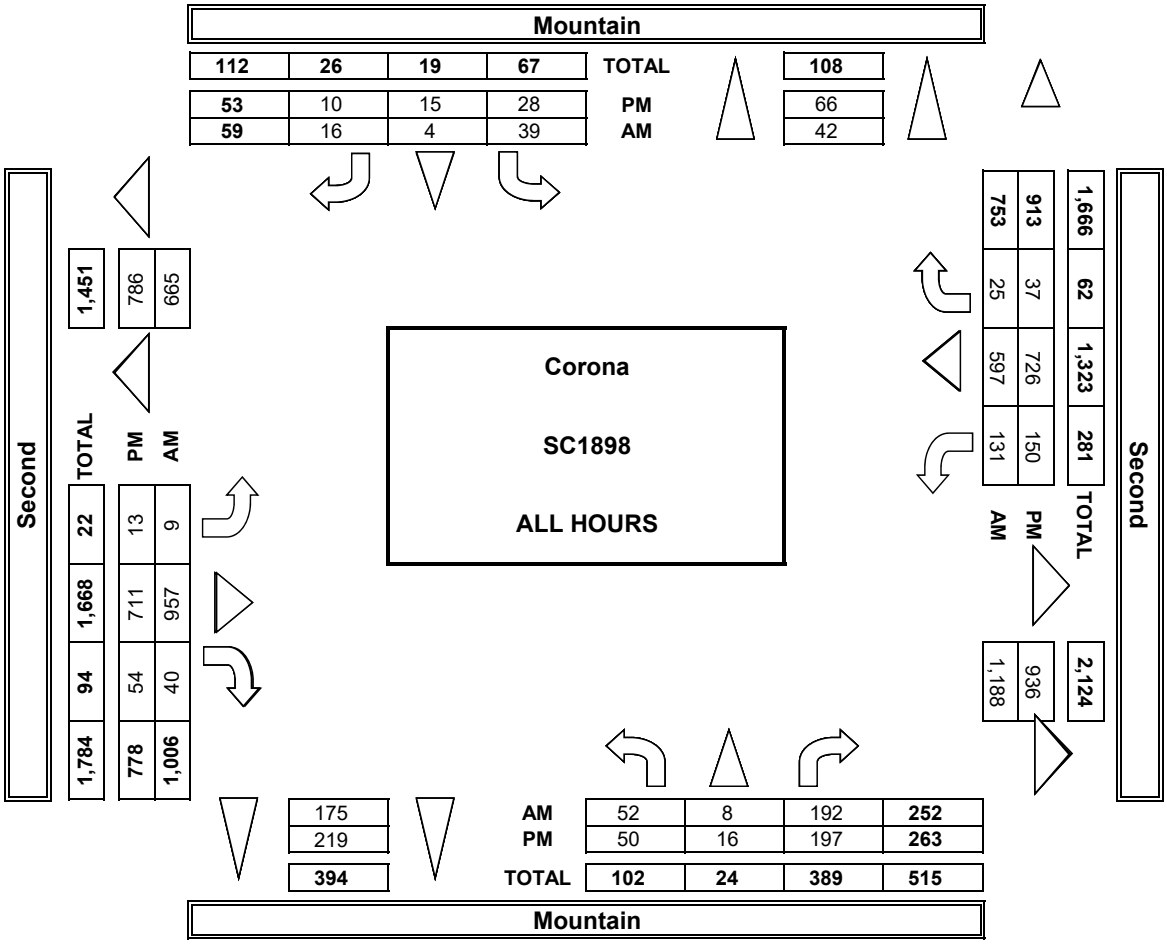
		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	5	1	13	6	1	1	2	150	2	13	59	2	255
	7:15 AM	7	2	28	5	1	5	2	131	5	19	95	1	301
	7:30 AM	18	1	29	6	1	3	2	119	11	18	122	8	338
	7:45 AM	5	2	39	6	1	0	2	142	5	21	79	4	306
	8:00 AM	7	0	29	4	0	2	0	131	7	11	69	2	262
	8:15 AM	3	0	14	4	0	0	0	107	3	11	56	3	201
	8:30 AM	4	1	19	2	0	2	0	88	3	23	59	3	204
	8:45 AM	3	1	21	6	0	3	1	89	4	15	58	2	203
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	52	8	192	39	4	16	9	957	40	131	597	25	2,070
	APPROACH %	21%	3%	76%	66%	7%	27%	1%	95%	4%	17%	79%	3%	
	APP/DEPART	252	/	42	59	/	175	1,006	/	1,188	753	/	665	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	37	5	125	21	3	10	6	523	28	69	365	15	1,207
	APPROACH %	22%	3%	75%	62%	9%	29%	1%	94%	5%	15%	81%	3%	
	PEAK HR FACTOR		0.870			0.773			0.935			0.758		0.893
	APP/DEPART	167	/	26	34	/	100	557	/	669	449	/	412	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	6	0	22	2	1	1	1	90	9	17	109	5	263
	4:15 PM	2	4	27	4	2	3	1	81	6	21	81	5	237
	4:30 PM	4	4	23	3	2	1	3	80	2	25	84	7	238
	4:45 PM	8	2	16	3	3	2	2	93	7	18	73	4	231
	5:00 PM	8	2	27	5	0	0	2	83	4	17	101	2	251
	5:15 PM	5	1	25	2	6	2	1	89	5	12	74	3	225
	5:30 PM	9	2	27	4	1	0	1	104	8	25	101	5	287
	5:45 PM	8	1	30	5	0	1	2	91	13	15	103	6	275
	VOLUMES	50	16	197	28	15	10	13	711	54	150	726	37	2,007
	APPROACH %	19%	6%	75%	53%	28%	19%	2%	91%	7%	16%	80%	4%	
	APP/DEPART	263	/	66	53	/	219	778	/	936	913	/	786	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	30	6	109	16	7	3	6	367	30	69	379	16	1,038
	APPROACH %	21%	4%	75%	62%	27%	12%	1%	91%	7%	15%	82%	3%	
	PEAK HR FACTOR		0.929			0.650			0.892			0.885		0.904
	APP/DEPART	145	/	28	26	/	106	403	/	492	464	/	412	0

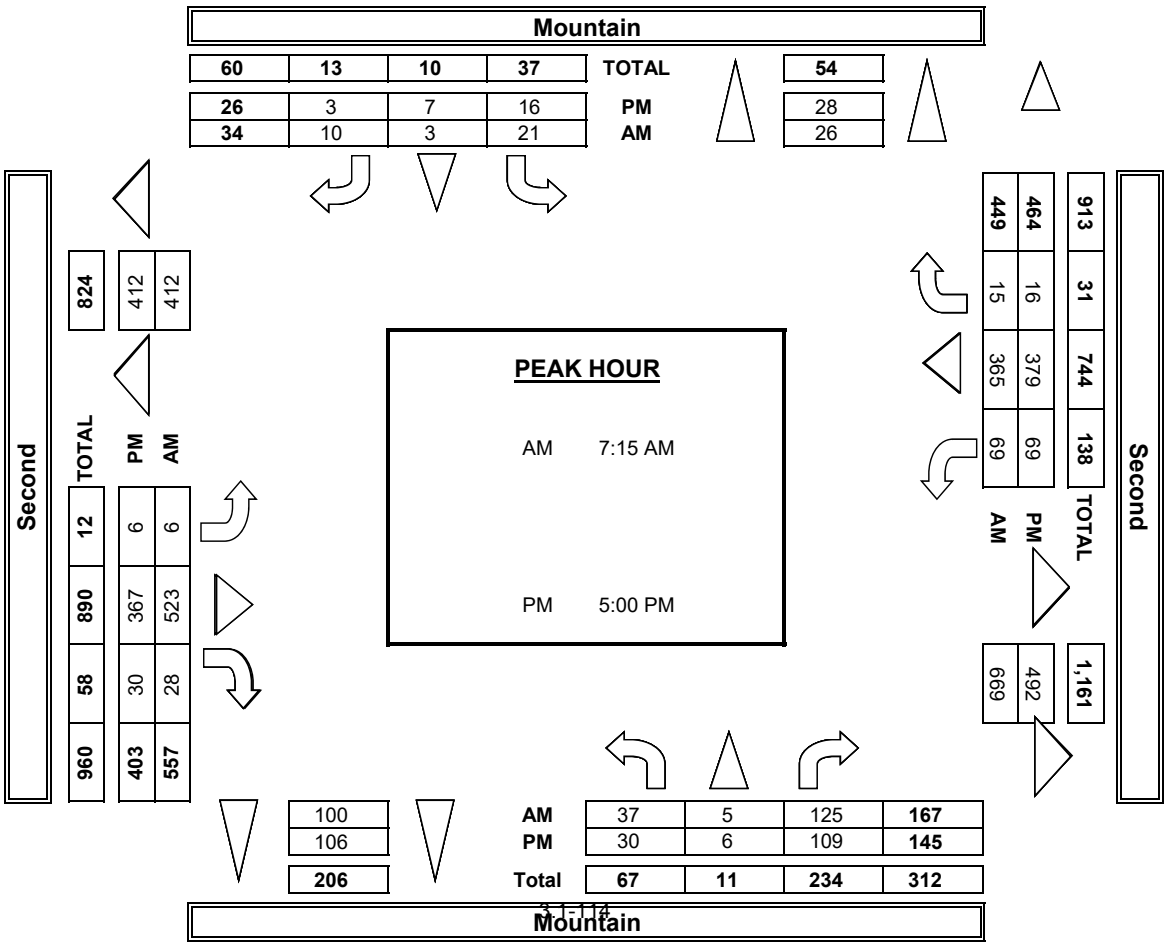
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	4	1	13	6	1	1	2	147	2	9	54	2	242
7:15 AM	6	1	26	4	1	4	2	128	4	16	87	1	280
7:30 AM	16	1	25	4	0	3	1	118	10	16	118	6	318
7:45 AM	5	2	32	5	1	0	2	137	5	18	67	4	278
8:00 AM	7	0	19	4	0	2	0	120	6	11	61	2	232
8:15 AM	3	0	10	4	0	0	0	98	3	7	53	3	181
8:30 AM	4	1	13	1	0	2	0	80	2	19	51	3	176
8:45 AM	3	1	12	5	0	3	1	81	4	13	46	1	170
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	48	7	150	33	3	15	8	909	36	109	537	22	1,877
APPROACH %	23%	3%	73%	65%	6%	29%	1%	95%	4%	16%	80%	3%	
APP/DEPART	205	/	37	51	/	148	953	/	1,092	668	/	600	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	31	5	96	19	3	8	7	530	21	59	326	13	1,118
APPROACH %	23%	4%	73%	63%	10%	27%	1%	95%	4%	15%	82%	3%	
PEAK HR FACTOR		0.786			0.833			0.924			0.711		0.879
APP/DEPART	132	/	25	30	/	83	558	/	645	398	/	365	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	6	0	19	2	1	1	1	79	8	17	102	5	241
4:15 PM	2	4	20	4	2	3	1	71	6	19	81	4	217
4:30 PM	4	4	22	2	2	1	3	76	2	22	82	7	227
4:45 PM	8	2	13	3	3	1	1	87	7	16	70	2	213
5:00 PM	8	1	25	5	0	0	2	79	4	15	99	2	240
5:15 PM	5	1	23	2	6	2	1	86	3	11	74	3	217
5:30 PM	9	2	27	4	1	0	1	100	7	22	101	5	279
5:45 PM	8	1	28	5	0	1	2	86	12	15	99	6	263
VOLUMES	50	15	177	27	15	9	12	664	49	137	708	34	1,897
APPROACH %	21%	6%	73%	53%	29%	18%	2%	92%	7%	16%	81%	4%	
APP/DEPART	242	/	61	51	/	201	725	/	868	879	/	767	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	30	5	103	16	7	3	6	351	26	63	373	16	999
APPROACH %	22%	4%	75%	62%	27%	12%	2%	92%	7%	14%	83%	4%	
PEAK HR FACTOR		0.908			0.650			0.887			0.883		0.895
APP/DEPART	138	/	27	26	/	96	383	/	470	452	/	406	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	2	0	1	2	0	5
7:15 AM	1	0	1	0	0	1	0	3	1	1	3	0	11
7:30 AM	1	0	0	1	0	0	1	1	0	1	1	1	7
7:45 AM	0	0	0	1	0	0	0	4	0	1	9	0	15
8:00 AM	0	0	2	0	0	0	0	5	1	0	6	0	14
8:15 AM	0	0	0	0	0	0	0	5	0	0	3	0	8
8:30 AM	0	0	2	1	0	0	0	5	1	4	4	0	17
8:45 AM	0	0	0	1	0	0	0	4	0	1	8	1	15
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	0	5	4	0	1	1	29	3	9	36	2	92
APPROACH %	29%	0%	71%	80%	0%	20%	3%	88%	9%	19%	77%	4%	
APP/DEPART	7	/	3	5	/	12	33	/	38	47	/	39	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	4	2	0	0	0	19	2	5	21	1	54
APPROACH %	0%	0%	100%	100%	0%	0%	0%	90%	10%	19%	78%	4%	
PEAK HR FACTOR		0.500			0.500			0.875			0.675		0.794
APP/DEPART	4	/	1	2	/	7	21	/	25	27	/	21	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	0	5	1	0	4	0	11
4:15 PM	0	0	2	0	0	0	0	6	0	0	0	0	8
4:30 PM	0	0	1	0	0	0	0	3	0	1	1	0	6
4:45 PM	0	0	2	0	0	1	1	5	0	1	2	2	14
5:00 PM	0	0	1	0	0	0	0	4	0	0	2	0	7
5:15 PM	0	0	2	0	0	0	0	2	1	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	3	1	1	0	0	5
5:45 PM	0	0	2	0	0	0	0	3	0	0	3	0	8
VOLUMES	0	0	11	0	0	1	1	31	3	3	12	2	64
APPROACH %	0%	0%	100%	0%	0%	100%	3%	89%	9%	18%	71%	12%	
APP/DEPART	11	/	3	1	/	6	35	/	42	17	/	13	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	6	0	0	1	1	19	1	2	7	2	39
APPROACH %	0%	0%	100%	0%	0%	100%	5%	90%	5%	18%	64%	18%	
PEAK HR FACTOR		0.750			0.250			0.875			0.550		0.696
APP/DEPART	6	/	3	1	/	3	21	/	25	11	/	8	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Mountain

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

Mountain

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

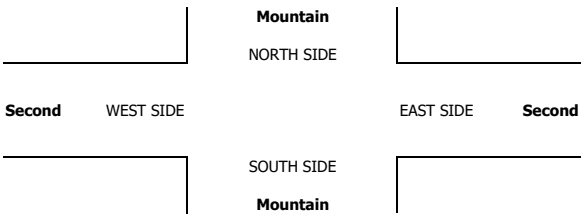
	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	1	0	0	0	0	1	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	4	0	3	0	0	7
8:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	0	0	7	1	3	7	0	19
APPROACH %	0%	0%	0%	100%	0%	0%	0%	88%	13%	30%	70%	0%	
APP/DEPART	0	/	0	1	/	4	8	/	8	10	/	7	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	0	0	0	0	0	7	0	3	5	0	15
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	38%	63%	0%	
PEAK HR FACTOR		0.000			0.000			0.438			0.667		0.536
APP/DEPART	0	/	0	0	/	3	7	/	7	8	/	5	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	4	0	0	3	0	7
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	1	3
4:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	1	0	0	0	8	0	1	3	1	14
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	20%	60%	20%	
APP/DEPART	0	/	1	1	/	1	8	/	9	5	/	3	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	0	0	0	1	0	0	0	6	0	1	3	1	12
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	20%	60%	20%	
PEAK HR FACTOR		0.000			0.250			0.375			0.417		0.429
APP/DEPART	0	/	1	1	/	1	6	/	7	5	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	3	0	0	0	0	2	0	1	2	0	8
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	33%	67%	0%	
APP/DEPART	3	/	0	0	/	1	2	/	5	3	/	2	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	1	0	0	0	0	2	0	0	1	0	4
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.000			0.500			0.125		0.500
APP/DEPART	1	/	0	0	/	0	2	/	3	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	1	0	0	0	0	0	1	1	7	0	0	10
APPROACH %	0%	100%	0%	0%	0%	0%	0%	50%	50%	100%	0%	0%	
APP/DEPART	1	/	1	0	/	8	2	/	1	7	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	1	0	0	0	0	0	1	1	4	0	0	7
APPROACH %	0%	100%	0%	0%	0%	0%	0%	50%	50%	100%	0%	0%	
PEAK HR FACTOR		0.250			0.000			0.500			0.500		0.583
APP/DEPART	1	/	1	0	/	5	2	/	1	4	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

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

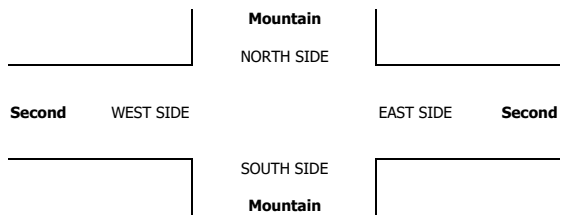
	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	1	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
APP/DEPART	1	/	0	0	/	0	0	/	1	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
VOLUMES	0	0	0	0	0	0	0	0	1	0	2	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	1	1	/	0	2	/	2	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	1	0	1	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250
APP/DEPART	0	/	0	0	/	1	1	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	17
TUESDAY	EAST & WEST:	Second	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Second			WESTBOUND Second			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	1	0	0	0	0	0	0	1	0	2	2	0	6
7:15 AM	0	1	1	1	0	0	0	0	0	2	4	0	9
7:30 AM	1	0	3	0	1	0	0	0	0	1	2	1	9
7:45 AM	0	0	6	0	0	0	0	0	0	2	2	0	10
8:00 AM	0	0	8	0	0	0	0	5	0	0	0	0	13
8:15 AM	0	0	4	0	0	0	0	0	0	1	0	0	5
8:30 AM	0	0	3	0	0	0	0	1	0	0	1	0	5
8:45 AM	0	0	8	0	0	0	0	3	0	1	4	0	16
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	1	33	1	1	0	0	10	0	9	15	1	73
APPROACH %	6%	3%	92%	50%	50%	0%	0%	100%	0%	36%	60%	4%	
APP/DEPART	36	/	2	2	/	10	10	/	44	25	/	17	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	1	1	18	1	1	0	0	5	0	5	8	1	41
APPROACH %	5%	5%	90%	50%	50%	0%	0%	100%	0%	36%	57%	7%	
PEAK HR FACTOR		0.625			0.500			0.250			0.583		0.788
APP/DEPART	20	/	2	2	/	6	5	/	24	14	/	9	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	2	0	0	0	0	2	0	0	0	0	4
4:15 PM	0	0	5	0	0	0	0	3	0	0	0	0	8
4:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
4:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	9	0	0	0	0	7	0	2	1	0	19
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	67%	33%	0%	
APP/DEPART	9	/	0	0	/	2	7	/	16	3	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	8	0	0	0	0	6	0	1	1	0	16
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	50%	50%	0%	
PEAK HR FACTOR		0.400			0.000			0.500			0.250		0.500
APP/DEPART	8	/	0	0	/	1	6	/	14	2	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Mountain	LOCATION #:	23
	EAST & WEST:	First	CONTROL:	STOP ALL

NOTES:

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

Add U-Turns to Left Turns

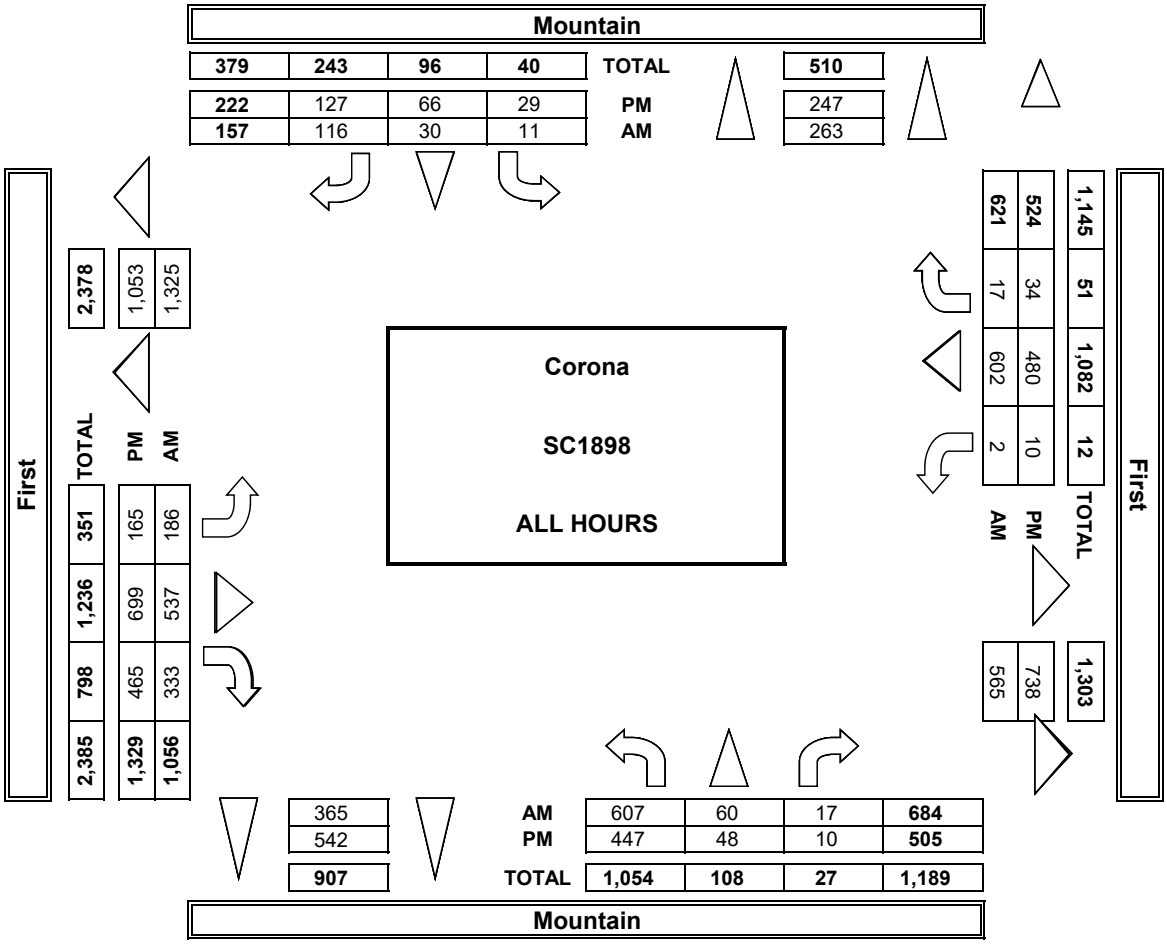
		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	102	6	2	1	3	13	21	101	40	0	66	0	355
	7:15 AM	98	10	6	0	3	17	27	79	41	1	93	2	377
	7:30 AM	92	19	4	1	8	17	34	68	56	0	92	1	392
	7:45 AM	65	6	0	3	3	16	33	98	57	0	81	4	366
	8:00 AM	64	7	0	2	2	8	24	65	31	0	75	2	280
	8:15 AM	62	3	3	0	4	15	17	42	40	0	70	1	257
	8:30 AM	70	4	0	3	3	16	13	47	35	1	67	4	263
	8:45 AM	54	5	2	1	4	14	17	37	33	0	58	3	228
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	607	60	17	11	30	116	186	537	333	2	602	17	2,518
	APPROACH %	89%	9%	2%	7%	19%	74%	18%	51%	32%	0%	97%	3%	
	APP/DEPART	684	/	263	157	/	365	1,056	/	565	621	/	1,325	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	357	41	12	5	17	63	115	346	194	1	332	7	1,490
	APPROACH %	87%	10%	3%	6%	20%	74%	18%	53%	30%	0%	98%	2%	
	PEAK HR FACTOR		0.891			0.817			0.871			0.885		0.950
	APP/DEPART	410	/	163	85	/	212	655	/	363	340	/	752	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	45	6	2	5	9	19	20	87	61	2	54	7	317
	4:15 PM	70	6	0	4	7	16	19	82	50	1	53	1	309
	4:30 PM	47	3	0	4	4	20	19	89	62	2	57	3	310
	4:45 PM	45	8	3	5	7	15	14	105	55	0	63	5	325
	5:00 PM	54	8	2	1	7	12	22	83	62	2	70	4	327
	5:15 PM	71	4	2	2	8	12	24	97	51	2	61	3	337
	5:30 PM	61	6	1	2	12	18	23	89	65	0	65	6	348
	5:45 PM	54	7	0	6	12	15	24	67	59	1	57	5	307
	VOLUMES	447	48	10	29	66	127	165	699	465	10	480	34	2,580
	APPROACH %	89%	10%	2%	13%	30%	57%	12%	53%	35%	2%	92%	6%	
	APP/DEPART	505	/	247	222	/	542	1,329	/	738	524	/	1,053	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	231	26	8	10	34	57	83	374	233	4	259	18	1,337
	APPROACH %	87%	10%	3%	10%	34%	56%	12%	54%	34%	1%	92%	6%	
	PEAK HR FACTOR		0.860			0.789			0.975			0.924		0.960
	APP/DEPART	265	/	127	101	/	272	690	/	392	281	/	546	0

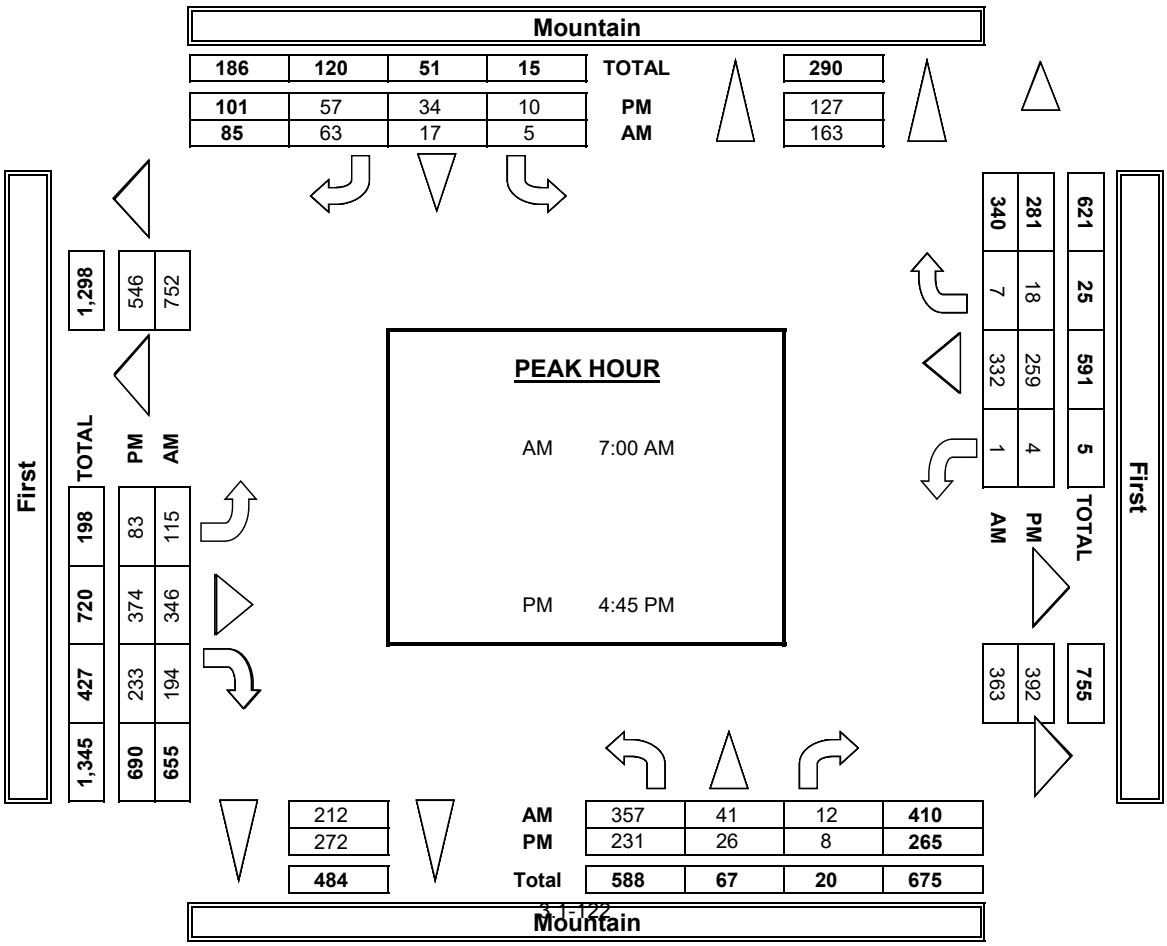
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

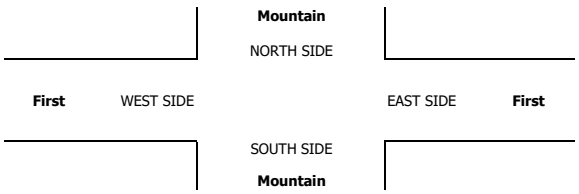
CLASS 1:	NOTES:
PASSENGER VEHICLES	

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

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	99	5	2	1	2	10	20	98	40	0	62	0	339
	7:15 AM	93	9	6	0	3	16	23	73	40	1	89	2	355
	7:30 AM	91	17	4	1	7	16	30	65	53	0	89	1	374
	7:45 AM	61	6	0	3	3	14	29	93	55	0	75	4	343
	8:00 AM	54	5	0	1	2	8	17	58	29	0	69	2	245
	8:15 AM	54	3	3	0	3	12	12	38	39	0	62	1	227
	8:30 AM	66	3	0	3	3	15	9	43	33	1	60	3	239
	8:45 AM	44	4	2	1	3	12	8	35	32	0	53	3	197
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	562	52	17	10	26	103	148	503	321	2	559	16	2,319
	APPROACH %	89%	8%	3%	7%	19%	74%	15%	52%	33%	0%	97%	3%	
	APP/DEPART	631	/	216	139	/	349	972	/	530	577	/	1,224	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	344	37	12	5	15	56	102	329	188	1	315	7	1,411
	APPROACH %	88%	9%	3%	7%	20%	74%	16%	53%	30%	0%	98%	2%	
	PEAK HR FACTOR		0.877			0.792			0.874			0.878		0.943
	APP/DEPART	393	/	146	76	/	204	619	/	346	323	/	715	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	44	4	1	5	9	19	15	82	59	2	54	7	301
	4:15 PM	68	6	0	4	7	16	17	80	50	1	51	1	301
	4:30 PM	45	3	0	4	4	19	18	86	62	2	55	3	301
	4:45 PM	44	8	3	5	6	15	12	102	54	0	63	4	316
	5:00 PM	52	7	2	1	7	12	20	78	61	2	70	4	316
	5:15 PM	71	4	2	2	8	12	22	95	50	2	60	3	331
	5:30 PM	60	6	1	2	11	18	23	87	63	0	64	6	341
	5:45 PM	53	7	0	5	12	15	22	66	56	1	56	5	298
	VOLUMES	437	45	9	28	64	126	149	676	455	10	473	33	2,505
	APPROACH %	89%	9%	2%	13%	29%	58%	12%	53%	36%	2%	92%	6%	
	APP/DEPART	491	/	227	218	/	530	1,280	/	713	516	/	1,035	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	226	25	8	10	32	57	77	362	228	4	257	17	1,304
	APPROACH %	87%	10%	3%	10%	32%	58%	12%	54%	34%	1%	92%	6%	
	PEAK HR FACTOR		0.844			0.798			0.964			0.914		0.956
	APP/DEPART	260	/	119	99	/	265	667	/	380	278	/	540	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1	0	0	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1	0	0	0	1	

RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	3	1	0	0	1	1	0	2	0	0	2	0	10
7:15 AM	3	1	0	0	0	0	1	2	0	0	1	0	8
7:30 AM	1	1	0	0	0	0	0	3	2	0	2	0	9
7:45 AM	3	0	0	0	0	0	1	4	1	0	5	0	14
8:00 AM	8	0	0	1	0	0	1	6	2	0	4	0	22
8:15 AM	6	0	0	0	1	1	0	3	1	0	7	0	19
8:30 AM	3	1	0	0	0	1	0	1	1	0	6	1	14
8:45 AM	7	0	0	0	0	1	1	1	1	0	4	0	15
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	34	4	0	1	2	4	4	22	8	0	31	1	111
APPROACH %	89%	11%	0%	14%	29%	57%	12%	65%	24%	0%	97%	3%	
APP/DEPART	38	/	9	7	/	10	34	/	23	32	/	69	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	24	1	0	1	1	3	2	11	5	0	21	1	70
APPROACH %	96%	4%	0%	20%	20%	60%	11%	61%	28%	0%	95%	5%	
PEAK HR FACTOR		0.781			0.625			0.500			0.786		0.795
APP/DEPART	25	/	4	5	/	6	18	/	12	22	/	48	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	0	0	1	5	2	0	0	0	10
4:15 PM	2	0	0	0	0	0	0	2	0	0	2	0	6
4:30 PM	2	0	0	0	0	0	1	2	0	0	2	0	7
4:45 PM	1	0	0	0	0	0	1	2	0	0	0	0	4
5:00 PM	2	0	0	0	0	0	1	4	1	0	0	0	8
5:15 PM	0	0	0	0	0	0	2	1	0	0	1	0	4
5:30 PM	1	0	0	0	0	0	0	2	2	0	1	0	6
5:45 PM	1	0	0	0	0	0	2	1	3	0	1	0	8
VOLUMES	9	2	0	0	0	0	8	19	8	0	7	0	53
APPROACH %	82%	18%	0%	0%	0%	0%	23%	54%	23%	0%	100%	0%	
APP/DEPART	11	/	10	0	/	8	35	/	19	7	/	16	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	5	2	0	0	0	0	3	11	2	0	4	0	27
APPROACH %	71%	29%	0%	0%	0%	0%	19%	69%	13%	0%	100%	0%	
PEAK HR FACTOR		0.875			0.000			0.500			0.500		0.675
APP/DEPART	7	/	5	0	/	2	16	/	11	4	/	9	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

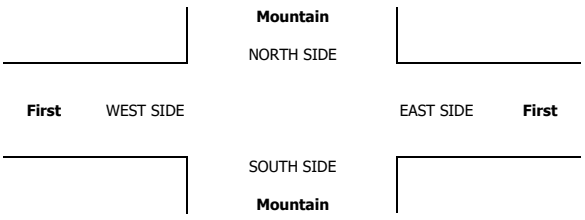
	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
8:45 AM	2	0	0	0	1	0	0	0	0	0	1	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	0	0	0	1	0	0	0	1	0	3	0	8
APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%	
APP/DEPART	3	/	0	1	/	2	1	/	0	3	/	6	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	2	0	0	0	1	0	0	0	1	0	2	0	6
APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.250			0.250			0.500		0.375
APP/DEPART	2	/	0	1	/	2	1	/	0	2	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	1	0	0	1	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	
APP/DEPART	0	/	1	0	/	1	1	/	0	1	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	1	0	0	1	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250
APP/DEPART	0	/	1	0	/	1	1	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	2	0	0	0	0	0	0	1	0	0	1	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	3
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	8	0	0	0	0	1	0	2	0	0	2	0	13
APPROACH %	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
APP/DEPART	8	/	0	1	/	0	2	/	2	2	/	11	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	6	0	0	0	0	1	0	1	0	0	0	0	8
APPROACH %	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.750			0.250			0.250			0.000		0.667
APP/DEPART	6	/	0	1	/	0	1	/	1	0	/	7	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	1	0	1	0	0	3	0	0	0	0	6
APPROACH %	0%	50%	50%	0%	100%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	2	/	1	1	/	1	3	/	4	0	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	1	0	0	1	0	0	3	0	0	0	0	5
APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.250			0.250			0.750			0.000		0.625
APP/DEPART	1	/	1	1	/	1	3	/	3	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

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

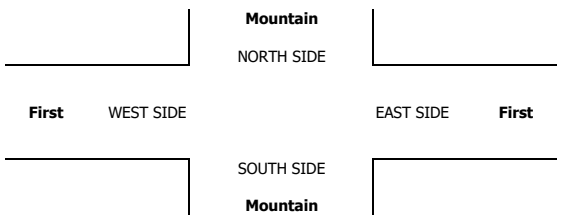
	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Mountain	LOCATION #:	23
TUESDAY	EAST & WEST:	First	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

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

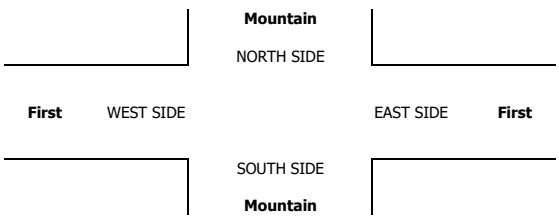
	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND First			WESTBOUND First			
LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	2	1	1	0	0	0	0	4
7:15 AM	0	0	0	0	0	1	3	3	1	0	2	0	10
7:30 AM	0	1	0	0	1	1	4	0	1	0	1	0	9
7:45 AM	0	0	0	0	0	2	3	1	1	0	1	0	8
8:00 AM	0	2	0	0	0	0	6	1	0	0	2	0	11
8:15 AM	0	0	0	0	0	1	5	1	0	0	1	0	8
8:30 AM	0	0	0	0	0	0	4	3	0	0	0	0	7
8:45 AM	0	0	0	0	0	1	8	0	0	0	0	0	9
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	3	0	0	1	8	34	10	3	0	7	0	66
APPROACH %	0%	100%	0%	0%	11%	89%	72%	21%	6%	0%	100%	0%	
APP/DEPART	3	/	37	9	/	4	47	/	10	7	/	15	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	3	0	0	1	4	16	5	3	0	6	0	38
APPROACH %	0%	100%	0%	0%	20%	80%	67%	21%	13%	0%	100%	0%	
PEAK HR FACTOR		0.375			0.625			0.857			0.750		0.864
APP/DEPART	3	/	19	5	/	4	24	/	5	6	/	10	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	4	0	0	0	0	0	5
4:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	0	1	1	8	1	1	0	0	0	13
APPROACH %	100%	0%	0%	0%	50%	50%	80%	10%	10%	0%	0%	0%	
APP/DEPART	1	/	8	2	/	2	10	/	1	0	/	2	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	1	0	0	0	0	1	7	1	0	0	0	0	10
APPROACH %	100%	0%	0%	0%	0%	100%	88%	13%	0%	0%	0%	0%	
PEAK HR FACTOR		0.250			0.250			0.500			0.000		0.500
APP/DEPART	1	/	7	1	/	0	8	/	1	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Thu, Sep 27, 18	NORTH & SOUTH:	Hamner	LOCATION #:	26
	EAST & WEST:	Third	CONTROL:	SIGNAL

NOTES:

AM SB queue

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

Add U-Turns to Left Turns

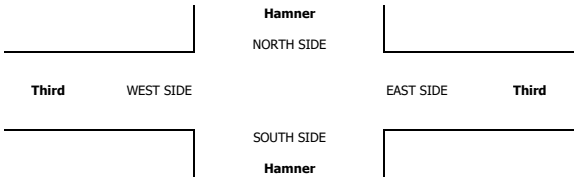
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	96	238	18	6	109	53	19	7	45	8	36	11	646
	7:15 AM	147	239	26	9	109	102	29	9	85	16	71	8	850
	7:30 AM	130	203	13	6	120	159	46	12	95	25	97	10	916
	7:45 AM	156	244	11	6	144	163	39	7	56	21	82	4	933
	8:00 AM	144	249	6	7	176	84	22	8	46	8	90	13	853
	8:15 AM	74	160	3	5	144	49	13	4	33	11	17	7	520
	8:30 AM	69	166	3	1	184	35	10	1	16	11	16	9	521
	8:45 AM	67	198	1	8	188	35	7	2	26	10	20	11	573
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	883	1,697	81	48	1,174	680	185	50	402	110	429	73	5,812
	APPROACH %	33%	64%	3%	3%	62%	36%	29%	8%	63%	18%	70%	12%	
	APP/DEPART	2,661	/	1,954	1,902	/	1,686	637	/	179	612	/	1,993	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	577	935	56	28	549	508	136	36	282	70	340	35	3,552
	APPROACH %	37%	60%	4%	3%	51%	47%	30%	8%	62%	16%	76%	8%	
	PEAK HR FACTOR		0.951			0.867			0.742			0.843		0.952
	APP/DEPART	1,568	/	1,105	1,085	/	901	454	/	120	445	/	1,426	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	145	195	11	16	259	66	57	50	175	11	54	8	1,047
	4:15 PM	53	232	14	20	313	28	40	19	103	9	4	8	843
	4:30 PM	44	209	8	15	275	17	18	15	67	20	8	12	708
	4:45 PM	53	219	17	21	279	17	24	9	78	10	11	14	752
	5:00 PM	49	208	17	12	233	15	28	11	83	11	11	11	689
	5:15 PM	67	209	12	9	281	32	36	14	99	12	11	15	797
	5:30 PM	132	204	14	10	261	66	27	10	69	10	27	12	842
	5:45 PM	141	188	16	16	181	90	60	40	202	14	64	16	1,028
	VOLUMES	684	1,664	109	119	2,082	331	290	168	876	97	190	96	6,706
	APPROACH %	28%	68%	4%	5%	82%	13%	22%	13%	66%	25%	50%	25%	
	APP/DEPART	2,457	/	2,049	2,532	/	3,056	1,334	/	396	383	/	1,205	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	389	809	59	47	956	203	151	75	453	47	113	54	3,356
	APPROACH %	31%	64%	5%	4%	79%	17%	22%	11%	67%	22%	53%	25%	
	PEAK HR FACTOR		0.898			0.895			0.562			0.569		0.816
	APP/DEPART	1,257	/	1,013	1,206	/	1,457	679	/	181	214	/	705	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	0	2
1	0	1	0	2

RTOR

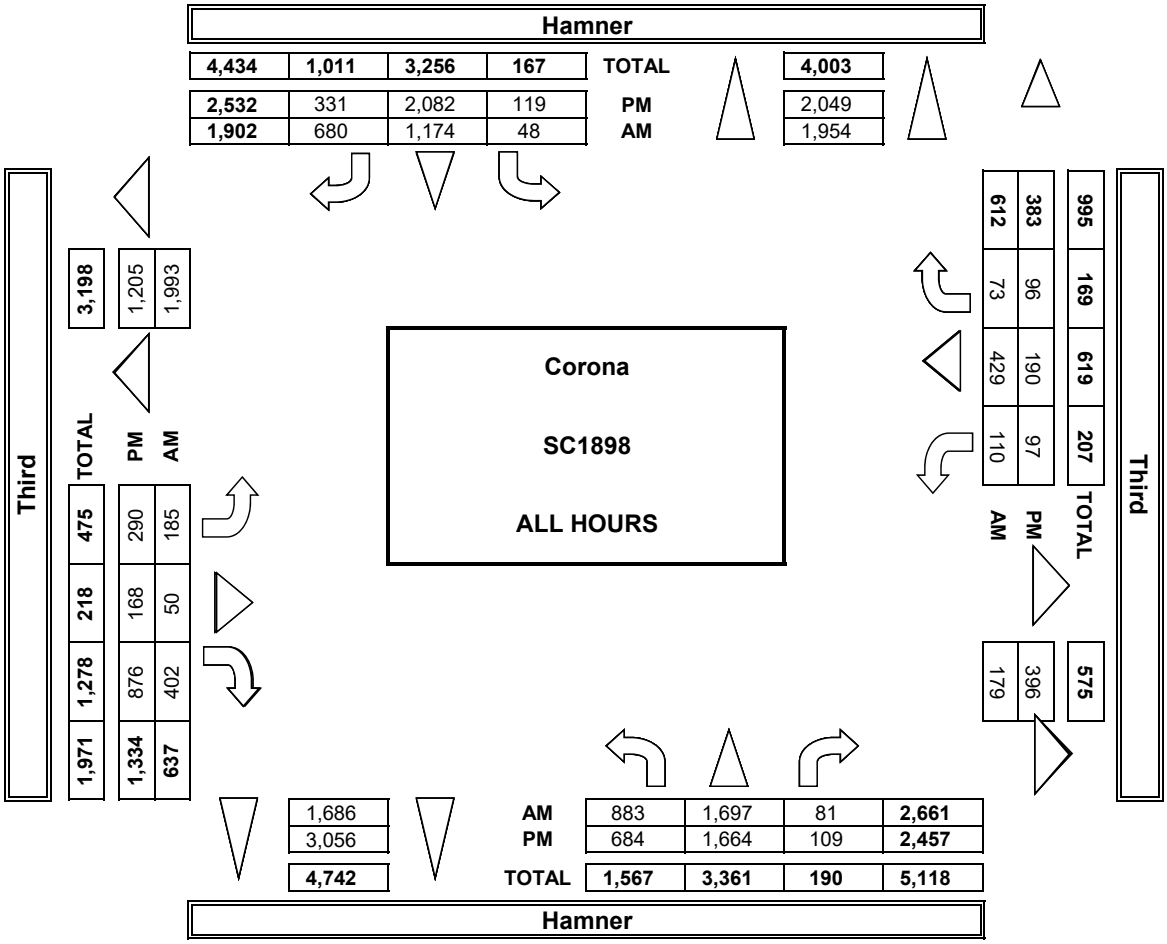
NRR	SRR	ERR	WRR
0	0	0	0
8	22	28	0
12	18	41	0
3	41	38	0
5	29	37	0
1	21	23	4
1	21	20	4
0	4	12	2
0	14	16	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
30	170	215	14
21	109	139	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	21	63	0
3	13	33	1
3	9	24	5
9	4	28	4
4	5	34	4
4	13	29	3
2	16	39	4
1	24	77	4
31	105	327	25
11	58	179	15

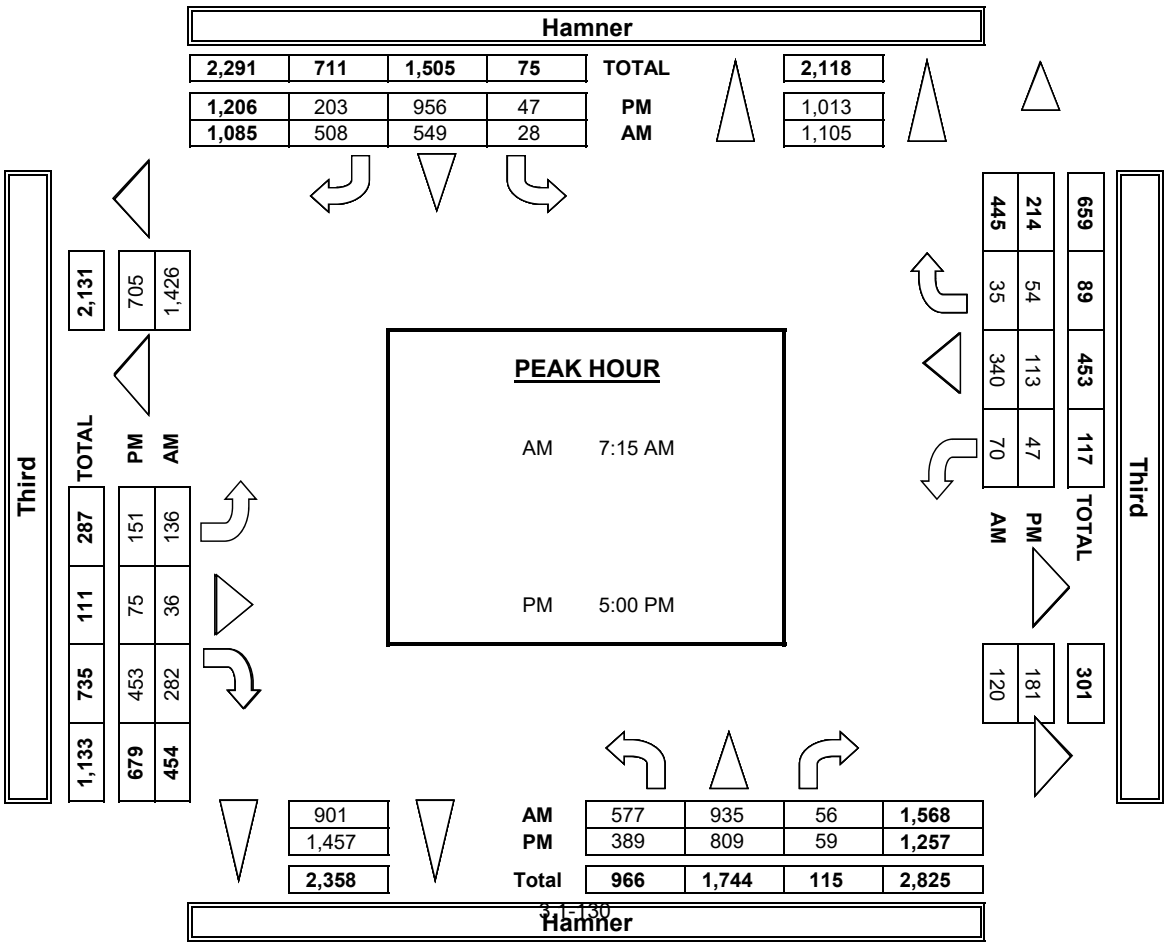


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	7:15 AM	3	1	0	2	6	2	1	0	1	4	1	0	0	1	2
	7:30 AM	3	0	0	2	5	3	0	0	2	5	0	0	0	0	0
	7:45 AM	3	2	0	2	7	2	2	0	2	6	1	0	0	0	1
	8:00 AM	1	2	1	0	4	1	2	1	0	4	0	0	0	0	0
	8:15 AM	1	1	0	2	4	1	1	0	2	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	11	6	2	10	29	9	6	2	9	26	2	0	0	1	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	3	0	0	4	1	3	0	0	4	0	0	0	0	0
	4:15 PM	3	1	0	3	7	3	0	0	3	6	0	1	0	0	1
	4:30 PM	1	0	0	3	4	1	0	0	1	2	0	0	0	2	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	2	0	0	1	3	2	0	0	1	3	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	5:45 PM	0	1	0	1	2	0	1	0	0	1	0	0	0	1	1
	TOTAL	7	6	1	8	22	7	5	1	5	18	0	1	0	3	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
7:00 AM	94	223	18	6	94	51	19	7	40	8	35	11	606
7:15 AM	145	227	25	9	97	101	27	9	82	16	71	8	817
7:30 AM	130	191	13	6	106	159	45	12	95	23	97	10	887
7:45 AM	153	223	10	6	131	161	39	7	53	20	82	4	889
8:00 AM	140	235	6	6	159	82	22	8	44	6	90	13	811
8:15 AM	74	154	3	5	130	48	12	4	32	8	17	7	494
8:30 AM	67	154	3	1	161	33	9	1	11	7	16	9	472
8:45 AM	65	179	1	8	170	35	7	2	24	10	20	11	532
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	868	1,586	79	47	1,048	670	180	50	381	98	428	73	5,508
APPROACH %	34%	63%	3%	3%	59%	38%	29%	8%	62%	16%	71%	12%	
APP/DEPART	2,533	/	1,838	1,765	/	1,527	611	/	176	599	/	1,967	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	568	876	54	27	493	503	132	36	274	65	340	35	3,404
APPROACH %	38%	58%	4%	3%	48%	49%	30%	8%	62%	15%	77%	8%	
PEAK HR FACTOR		0.943			0.858			0.729			0.846		0.957
APP/DEPART	1,498	/	1,043	1,023	/	832	443	/	117	440	/	1,412	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	145	184	10	16	247	64	56	50	173	11	53	7	1,016
4:15 PM	53	224	13	18	294	27	40	18	103	9	4	8	811
4:30 PM	44	196	7	15	268	16	18	15	65	18	8	12	682
4:45 PM	52	210	16	21	270	17	23	9	77	10	11	12	728
5:00 PM	49	194	16	12	227	15	28	11	83	11	11	11	668
5:15 PM	67	197	12	8	273	31	36	14	99	12	11	14	774
5:30 PM	132	195	14	10	252	66	27	10	68	10	27	12	823
5:45 PM	139	181	15	16	177	89	60	40	202	13	64	15	1,011
VOLUMES	681	1,581	103	116	2,008	325	288	167	870	94	189	91	6,513
APPROACH %	29%	67%	4%	5%	82%	13%	22%	13%	66%	25%	51%	24%	
APP/DEPART	2,365	/	1,959	2,449	/	2,973	1,325	/	386	374	/	1,195	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	386	767	57	46	929	201	150	75	452	46	113	52	3,276
APPROACH %	32%	63%	5%	4%	79%	17%	22%	11%	67%	22%	54%	25%	
PEAK HR FACTOR		0.888			0.896			0.561			0.573		0.810
APP/DEPART	1,211	/	969	1,176	/	1,428	678	/	178	211	/	701	0

U-TURNS

AM NB	AM SB	AM EB	AM WB	AM TTL	PM NB	PM SB	PM EB	PM WB	PM TTL
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	1	0	1	0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					0	0	0	0	0
					1	0	1	0	2
					0	0	0	0	0
					1	0	1	0	2

RTOR

AM NRR	AM SRR	AM ERR	AM WRR	PM NRR	PM SRR	PM ERR	PM WRR
8	20	23	0				
12	18	40	0				
3	41	38	0				
5	27	35	0				
1	20	21	4				
1	20	20	4				
0	4	9	2				
0	14	14	4				
0	0	0	0				
0	0	0	0				
0	0	0	0				
0	0	0	0				
30	164	200	14				
21	106	134	4				
				0	0	0	0
				0	0	0	0
				0	0	0	0
				0	0	0	0
				4	21	63	0
				2	13	33	1
				2	9	24	5
				8	4	28	3
				4	5	34	4
				4	13	29	3
				2	16	38	4
				1	24	77	3
				27	105	326	23
				11	58	178	14

Hamner

NORTH SIDE

Third WEST SIDE EAST SIDE **Third**

SOUTH SIDE

Hamner

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	0	8	0	0	11	0	0	0	1	0	0	0	20
	7:15 AM	0	7	0	0	9	1	0	0	0	0	0	0	17
	7:30 AM	0	7	0	0	10	0	1	0	0	1	0	0	19
	7:45 AM	3	11	0	0	6	1	0	0	3	0	0	0	24
	8:00 AM	2	10	0	1	11	2	0	0	1	2	0	0	29
	8:15 AM	0	4	0	0	6	1	0	0	0	0	0	0	11
	8:30 AM	2	8	0	0	13	1	1	0	5	2	0	0	32
	8:45 AM	1	13	0	0	9	0	0	0	1	0	0	0	24
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	68	0	1	75	6	2	0	11	5	0	0	176
	APPROACH %	11%	89%	0%	1%	91%	7%	15%	0%	85%	100%	0%	0%	
	APP/DEPART	76	/	70	82	/	91	13	/	1	5	/	14	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	5	35	0	1	39	4	1	0	7	4	0	0	96
	APPROACH %	13%	88%	0%	2%	89%	9%	13%	0%	88%	100%	0%	0%	
	PEAK HR FACTOR		0.714			0.786			0.333			0.500		0.750
	APP/DEPART	40	/	36	44	/	50	8	/	1	4	/	9	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	11	0	0	6	1	0	0	0	0	1	1	20
	4:15 PM	0	5	1	1	16	1	0	1	0	0	0	0	25
	4:30 PM	0	11	1	0	5	0	0	0	2	2	0	0	21
	4:45 PM	0	8	1	0	9	0	0	0	0	0	0	0	18
	5:00 PM	0	12	1	0	6	0	0	0	0	0	0	0	19
	5:15 PM	0	11	0	1	6	0	0	0	0	0	0	1	19
	5:30 PM	0	7	0	0	8	0	0	0	0	0	0	0	15
	5:45 PM	1	5	1	0	2	1	0	0	0	1	0	0	11
	VOLUMES	1	70	5	2	58	3	0	1	2	3	1	2	148
	APPROACH %	1%	92%	7%	3%	92%	5%	0%	33%	67%	50%	17%	33%	
	APP/DEPART	76	/	72	63	/	63	3	/	8	6	/	5	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	35	3	1	36	2	0	1	2	2	1	1	84
	APPROACH %	0%	92%	8%	3%	92%	5%	0%	33%	67%	50%	25%	25%	
	PEAK HR FACTOR		0.792			0.542			0.375			0.500		0.840
	APP/DEPART	38	/	36	39	/	40	3	/	5	4	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	3	0	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	2	3	/	3	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	1	0	0	2	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.500			0.000			0.000		0.750
	APP/DEPART	1	/	1	2	/	2	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	2	0	0	0	1	0	0	0	3
	4:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	VOLUMES	0	4	0	0	6	0	0	0	1	0	0	2	13
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	
	APP/DEPART	4	/	6	6	/	7	1	/	0	2	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	0	5	0	0	0	1	0	0	2	9
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	
	PEAK HR FACTOR		0.250			0.625			0.250			0.250		0.750
	APP/DEPART	1	/	3	5	/	6	1	/	0	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

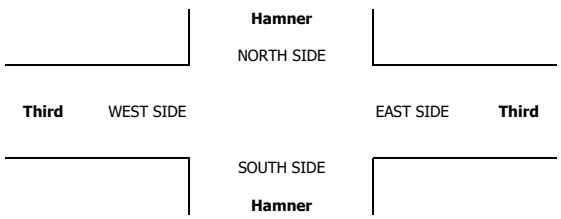
	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
7:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	1	0	0	4	0	0	0	0	0	0	0	5
7:45 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
8:45 AM	0	3	0	0	5	0	0	0	0	0	0	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	12	0	0	16	0	0	0	0	0	0	0	28
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	12	/	12	16	/	16	0	/	0	0	/	0	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	6	0	0	9	0	0	0	0	0	0	0	15
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.450			0.000			0.000		0.469
APP/DEPART	6	/	6	9	/	9	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	1	1	0	0	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
VOLUMES	0	6	0	1	4	0	0	0	0	0	0	1	12
APPROACH %	0%	100%	0%	20%	80%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	6	/	7	5	/	4	0	/	1	1	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	5	0	0	2	0	0	0	0	0	0	0	7
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.625			0.250			0.000			0.000		0.583
APP/DEPART	5	/	5	2	/	2	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	2	0	0	0	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.000			0.000			0.000		0.500
	APP/DEPART	2	/	2	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/27/18	NORTH & SOUTH:	Hamner	LOCATION #:	26
THURSDAY	EAST & WEST:	Third	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Third)			WESTBOUND (Third)			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 0.5	WT 1	WR 0.5	TOTAL
7:00 AM	2	6	0	0	1	2	0	0	4	0	1	0	16
7:15 AM	2	3	1	0	3	0	2	0	3	0	0	0	14
7:30 AM	0	4	0	0	0	0	0	0	0	1	0	0	5
7:45 AM	0	7	1	0	6	1	0	0	0	1	0	0	16
8:00 AM	2	3	0	0	3	0	0	0	1	0	0	0	9
8:15 AM	0	2	0	0	7	0	1	0	1	3	0	0	14
8:30 AM	0	1	0	0	8	1	0	0	0	2	0	0	12
8:45 AM	1	2	0	0	4	0	0	0	1	0	0	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	7	28	2	0	32	4	3	0	10	7	1	0	94
APPROACH %	19%	76%	5%	0%	89%	11%	23%	0%	77%	88%	13%	0%	
APP/DEPART	37	/	31	36	/	49	13	/	2	8	/	12	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	2	13	1	0	24	2	1	0	2	6	0	0	51
APPROACH %	13%	81%	6%	0%	92%	8%	33%	0%	67%	100%	0%	0%	
PEAK HR FACTOR		0.500			0.722			0.150			0.500		0.797
APP/DEPART	16	/	14	26	/	32	3	/	1	6	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	2	1	1	0	1	0	0	0	6
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	2
4:45 PM	1	0	0	0	0	0	1	0	1	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
VOLUMES	2	1	1	0	5	3	2	0	3	0	0	0	17
APPROACH %	50%	25%	25%	0%	63%	38%	40%	0%	60%	0%	0%	0%	
APP/DEPART	4	/	3	8	/	8	5	/	1	0	/	5	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	1	1	1	0	3	2	2	0	2	0	0	0	12
APPROACH %	33%	33%	33%	0%	60%	40%	50%	0%	50%	0%	0%	0%	
PEAK HR FACTOR		0.750			0.417			0.500			0.000		0.500
APP/DEPART	3	/	3	5	/	5	4	/	1	0	/	3	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Hamner
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 27
CONTROL: SIGNAL

NOTES: Queue AM/PM EB

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

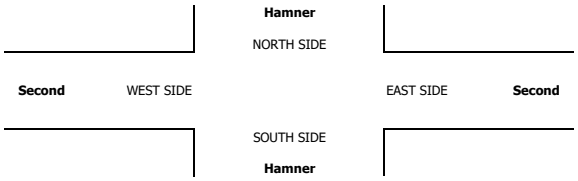
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	11	154	65	63	94	19	51	105	3	63	70	138	836
	7:15 AM	8	221	33	55	122	42	48	100	1	77	77	165	949
	7:30 AM	10	198	35	61	150	46	46	84	6	105	91	160	992
	7:45 AM	20	214	41	56	161	29	48	98	9	86	68	170	1,000
	8:00 AM	10	123	33	49	145	24	43	104	8	80	73	155	847
	8:15 AM	9	103	38	65	107	24	28	84	10	68	57	129	722
	8:30 AM	13	104	38	57	126	21	22	77	7	68	88	101	722
	8:45 AM	10	115	24	71	171	23	30	68	12	72	52	141	789
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	91	1,232	307	477	1,076	228	316	720	56	619	576	1,159	6,857
	APPROACH %	6%	76%	19%	27%	60%	13%	29%	66%	5%	26%	24%	49%	
	APP/DEPART	1,630	/	2,707	1,781	/	1,768	1,092	/	1,504	2,354	/	878	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	48	756	142	221	578	141	185	386	24	348	309	650	3,788
	APPROACH %	5%	80%	15%	24%	61%	15%	31%	65%	4%	27%	24%	50%	
	PEAK HR FACTOR		0.860			0.914			0.960			0.918		0.947
	APP/DEPART	946	/	1,591	940	/	960	595	/	749	1,307	/	488	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	24	171	67	119	269	55	42	91	18	48	68	82	1,054
	4:15 PM	16	140	80	129	292	37	39	107	13	43	51	79	1,026
	4:30 PM	29	148	85	118	260	33	32	105	14	51	67	82	1,024
	4:45 PM	19	173	97	115	239	29	38	102	20	54	44	60	990
	5:00 PM	13	158	97	115	247	40	42	112	18	61	59	69	1,031
	5:15 PM	18	178	82	116	245	42	64	100	15	44	61	117	1,082
	5:30 PM	19	168	95	110	261	52	55	103	11	54	63	103	1,094
	5:45 PM	19	170	76	123	206	50	60	93	9	55	67	135	1,063
	VOLUMES	157	1,306	679	945	2,019	338	372	813	118	410	480	727	8,364
	APPROACH %	7%	61%	32%	29%	61%	10%	29%	62%	9%	25%	30%	45%	
	APP/DEPART	2,142	/	2,405	3,302	/	2,581	1,303	/	2,437	1,617	/	941	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	69	674	350	464	959	184	221	408	53	214	250	424	4,270
	APPROACH %	6%	62%	32%	29%	60%	11%	32%	60%	8%	24%	28%	48%	
	PEAK HR FACTOR		0.969			0.950			0.953			0.864		0.976
	APP/DEPART	1,093	/	1,319	1,607	/	1,244	682	/	1,222	888	/	485	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
4	0	0	0	4
1	0	0	0	1
2	0	0	0	2
3	0	0	0	3
2	0	0	0	2
4	0	0	0	4
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
17	0	0	0	17
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
5	0	0	0	5
2	0	0	0	2
8	0	0	0	8
1	0	0	0	1
3	0	0	0	3
6	0	0	0	6
6	0	0	0	6
34	0	0	0	34

RTOR

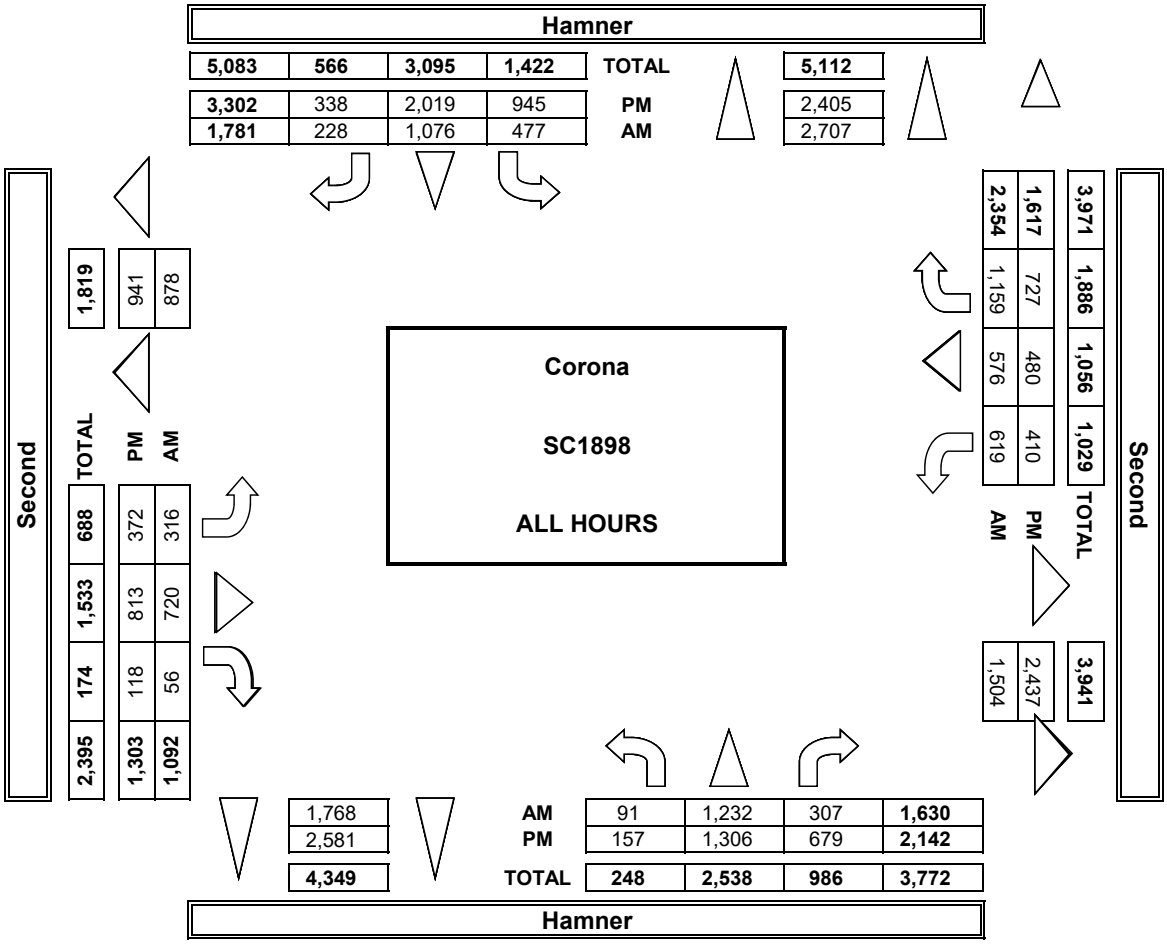
NRR	SRR	ERR	WRR
0	0	0	0
31	9	2	52
17	10	1	79
18	18	2	66
13	5	3	86
22	7	4	82
15	5	4	52
15	4	5	73
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
148	63	27	568
70	40	10	313
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
31	14	14	37
23	10	5	48
37	6	7	58
35	9	10	34
24	8	13	44
26	10	7	53
44	13	5	47
32	8	7	60
252	78	68	381
126	39	32	204

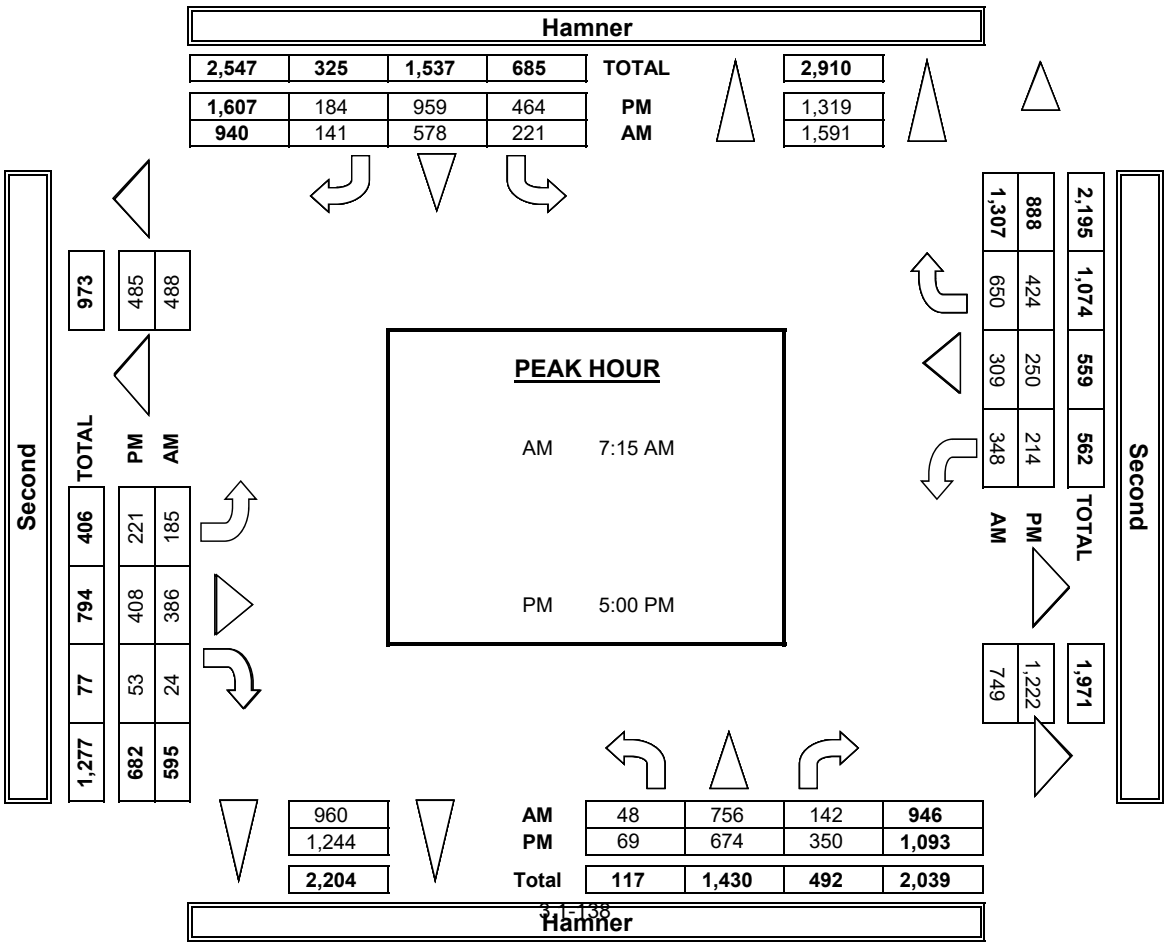


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	3	1	5	0	0	2	1	3	0	1	1	0	2
	7:15 AM	0	0	2	1	3	0	0	2	1	3	0	0	0	0	0
	7:30 AM	0	2	4	0	6	0	2	4	0	6	0	0	0	0	0
	7:45 AM	1	0	1	1	3	1	0	1	0	2	0	0	0	1	1
	8:00 AM	7	1	4	0	12	7	1	4	0	12	0	0	0	0	0
	8:15 AM	0	3	0	0	3	0	1	0	0	1	0	2	0	0	2
	8:30 AM	1	3	3	1	8	1	3	3	1	8	0	0	0	0	0
	8:45 AM	0	1	1	1	3	0	1	0	1	2	0	0	1	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	9	11	18	5	43	9	8	16	4	37	0	3	2	1	6
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	0	2	0	4	1	0	2	0	3	1	0	0	0	1
	4:15 PM	1	1	0	1	3	1	1	0	0	2	0	0	0	1	1
	4:30 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	4:45 PM	1	2	2	1	6	1	2	2	1	6	0	0	0	0	0
	5:00 PM	2	1	1	0	4	2	0	1	0	3	0	1	0	0	1
	5:15 PM	1	0	4	0	5	1	0	4	0	5	0	0	0	0	0
	5:30 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	7	6	11	3	27	6	5	11	2	24	1	1	0	1	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

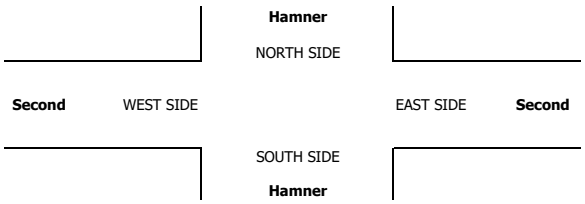
	NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Second			WESTBOUND Second			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
7:00 AM	11	148	61	48	81	18	50	101	2	59	67	137	783
7:15 AM	8	211	30	47	110	41	46	96	1	75	75	163	903
7:30 AM	9	193	32	57	144	45	46	76	5	101	86	153	947
7:45 AM	14	197	41	55	148	28	48	91	7	79	61	170	939
8:00 AM	7	114	29	41	126	20	42	100	5	74	70	150	778
8:15 AM	7	97	32	59	100	22	25	79	7	59	50	121	658
8:30 AM	11	98	34	55	105	19	22	71	6	65	70	101	657
8:45 AM	8	106	21	65	153	20	29	60	11	67	41	137	718
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	75	1,164	280	427	967	213	308	674	44	579	520	1,132	6,383
APPROACH %	5%	77%	18%	27%	60%	13%	30%	66%	4%	26%	23%	51%	
APP/DEPART	1,519	/	2,604	1,607	/	1,606	1,026	/	1,381	2,231	/	792	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	35	749	164	207	483	132	190	364	15	314	289	623	3,572
APPROACH %	4%	78%	17%	25%	59%	16%	33%	64%	3%	26%	24%	51%	
PEAK HR FACTOR		0.947			0.835			0.930			0.901		0.943
APP/DEPART	955	/	1,562	822	/	819	569	/	735	1,226	/	456	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	18	166	62	117	262	51	41	86	14	45	60	74	996
4:15 PM	12	136	76	123	284	34	38	99	10	42	45	78	977
4:30 PM	27	143	84	116	252	33	32	101	14	45	62	78	987
4:45 PM	16	166	96	113	229	28	36	95	18	50	43	57	947
5:00 PM	11	154	90	113	244	40	41	110	17	59	53	67	999
5:15 PM	18	168	80	114	238	42	64	95	12	43	59	114	1,047
5:30 PM	19	164	90	108	251	51	51	99	11	53	59	99	1,055
5:45 PM	18	166	73	122	198	49	60	84	9	53	65	131	1,028
VOLUMES	139	1,263	651	926	1,958	328	363	769	105	390	446	698	8,036
APPROACH %	7%	62%	32%	29%	61%	10%	29%	62%	8%	25%	29%	46%	
APP/DEPART	2,053	/	2,324	3,212	/	2,485	1,237	/	2,346	1,534	/	881	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	49	652	333	457	931	182	216	388	49	208	236	411	4,129
APPROACH %	5%	62%	32%	29%	59%	12%	33%	59%	8%	24%	28%	48%	
PEAK HR FACTOR		0.962			0.957			0.955			0.858		0.978
APP/DEPART	1,051	/	1,279	1,570	/	1,205	653	/	1,178	855	/	467	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
4	0	0	0	4
1	0	0	0	1
2	0	0	0	2
2	0	0	0	2
2	0	0	0	2
4	0	0	0	4
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
16	0	0	0	16
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
5	0	0	0	5
1	0	0	0	1
8	0	0	0	8
1	0	0	0	1
2	0	0	0	2
3	0	0	0	3
6	0	0	0	6
6	0	0	0	6
32	0	0	0	32

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
28	8	1	52
17	10	1	78
17	18	2	61
13	5	3	86
20	5	1	81
14	5	4	73
14	3	3	52
14	4	5	72
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
137	58	20	555
75	41	7	277
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
28	14	11	34
20	10	5	47
37	6	7	54
35	9	10	32
21	8	12	42
26	10	6	52
42	12	5	46
30	8	7	58
239	77	63	365
119	38	30	198



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

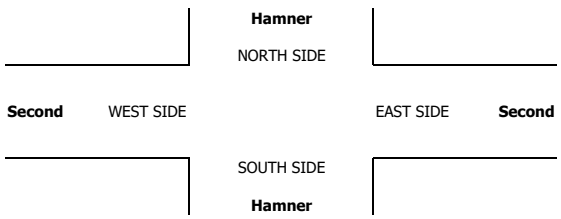
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	1	3	9	7	1	1	2	1	1	2	0	28
	7:15 AM	0	4	0	1	4	1	1	2	0	2	1	1	17
	7:30 AM	1	4	2	2	4	0	0	5	1	1	4	4	28
	7:45 AM	3	8	0	0	9	0	0	2	1	6	3	0	32
	8:00 AM	2	7	4	3	13	2	0	4	3	5	0	2	45
	8:15 AM	0	4	5	2	5	1	2	3	2	8	3	3	38
	8:30 AM	1	3	2	0	17	1	0	3	1	3	8	0	39
	8:45 AM	0	6	1	3	12	2	1	6	0	4	2	2	39
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	37	17	20	71	8	5	27	9	30	23	12	266
	APPROACH %	11%	61%	28%	20%	72%	8%	12%	66%	22%	46%	35%	18%	
	APP/DEPART	61	/	54	99	/	110	41	/	64	65	/	38	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	3	20	12	8	47	6	3	16	6	20	13	7	161
	APPROACH %	9%	57%	34%	13%	77%	10%	12%	64%	24%	50%	33%	18%	
	PEAK HR FACTOR		0.673			0.847			0.893			0.714		0.894
	APP/DEPART	35	/	30	61	/	73	25	/	36	40	/	22	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	3	4	2	5	1	1	2	4	1	2	7	34
	4:15 PM	0	3	2	4	8	2	1	7	2	1	0	1	31
	4:30 PM	2	4	1	2	7	0	0	0	0	3	2	3	24
	4:45 PM	2	3	0	1	6	1	2	6	0	2	0	2	25
	5:00 PM	1	2	5	1	3	0	1	2	1	1	3	2	22
	5:15 PM	0	5	1	0	4	0	0	5	2	1	0	1	19
	5:30 PM	0	2	2	2	8	1	4	2	0	1	1	1	24
	5:45 PM	0	3	2	1	5	1	0	5	0	2	1	4	24
	VOLUMES	7	25	17	13	46	6	9	29	9	12	9	21	203
	APPROACH %	14%	51%	35%	20%	71%	9%	19%	62%	19%	29%	21%	50%	
	APP/DEPART	49	/	55	65	/	68	47	/	59	42	/	21	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	6	13	7	9	26	4	4	15	6	7	4	13	114
	APPROACH %	23%	50%	27%	23%	67%	10%	16%	60%	24%	29%	17%	54%	
	PEAK HR FACTOR		0.722			0.696			0.625			0.600		0.838
	APP/DEPART	26	/	30	39	/	39	25	/	31	24	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
3	1	1	0
0	0	0	0
0	0	0	3
0	0	0	0
2	0	3	0
3	0	2	3
0	1	1	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
9	2	7	6
6	1	6	3
0	0	0	0
0	0	0	0
0	0	0	0
3	0	3	2
1	0	0	1
0	0	0	3
0	0	0	2
2	0	1	2
0	0	1	1
2	1	0	0
1	0	0	2
9	1	5	13
4	0	3	8



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

	NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Second			WESTBOUND Second			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
7:00 AM	0	0	1	3	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	1	1	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:45 AM	1	3	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	1	0	0	0	1	0	0	0	1	0	0	3
8:15 AM	0	0	0	2	1	0	0	0	0	0	2	1	6
8:30 AM	0	1	1	1	0	0	0	1	0	0	1	0	5
8:45 AM	0	0	1	2	3	0	0	0	0	0	0	1	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	6	4	9	4	1	0	2	0	1	3	2	33
APPROACH %	9%	55%	36%	64%	29%	7%	0%	100%	0%	17%	50%	33%	
APP/DEPART	11	/	8	14	/	5	2	/	15	6	/	5	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	2	2	5	4	1	0	1	0	1	3	2	21
APPROACH %	0%	50%	50%	50%	40%	10%	0%	100%	0%	17%	50%	33%	
PEAK HR FACTOR		0.500			0.500			0.250			0.500		0.750
APP/DEPART	4	/	4	10	/	5	1	/	8	6	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	1	0	0	0	0	3
4:15 PM	2	0	1	1	0	0	0	0	1	0	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	1	0	1	0	0	0	0	0	0	0	4
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	2	3
5:45 PM	0	0	0	0	2	0	0	1	0	0	0	0	3
VOLUMES	3	6	3	1	4	0	0	2	1	0	0	2	22
APPROACH %	25%	50%	25%	20%	80%	0%	0%	67%	33%	0%	0%	100%	
APP/DEPART	12	/	8	5	/	6	3	/	6	2	/	2	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	4	2	0	3	0	0	1	0	0	0	2	12
APPROACH %	0%	67%	33%	0%	100%	0%	0%	100%	0%	0%	0%	100%	
PEAK HR FACTOR		0.500			0.375			0.250			0.250		0.750
APP/DEPART	6	/	6	3	/	3	1	/	3	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

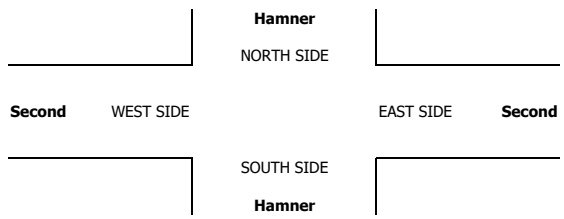
	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	3	1	1	6
7:15 AM	0	1	1	1	0	0	0	1	0	0	1	1	6
7:30 AM	0	0	1	1	1	0	0	1	0	1	0	2	7
7:45 AM	0	1	0	1	1	0	0	3	1	0	1	0	8
8:00 AM	1	1	0	4	1	1	0	0	0	0	0	3	11
8:15 AM	0	0	0	1	0	0	1	1	1	1	1	1	7
8:30 AM	0	0	1	1	2	1	0	2	0	0	1	0	8
8:45 AM	0	0	1	0	2	0	0	2	0	1	1	1	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	3	4	9	7	2	1	11	2	6	6	9	61
APPROACH %	13%	38%	50%	50%	39%	11%	7%	79%	14%	29%	29%	43%	
APP/DEPART	8	/	13	18	/	16	14	/	24	21	/	8	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	1	2	6	5	2	1	5	1	2	3	5	34
APPROACH %	0%	25%	50%	46%	38%	15%	14%	71%	14%	20%	30%	50%	
PEAK HR FACTOR		0.500			0.542			0.438			0.833		0.773
APP/DEPART	4	/	7	13	/	9	7	/	13	10	/	5	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	1	0	0	2	0	2	0	2	3	0	11
4:15 PM	0	1	1	1	0	0	0	1	0	0	2	0	6
4:30 PM	0	0	0	0	0	0	0	4	0	3	2	0	9
4:45 PM	0	2	0	1	1	0	0	1	0	1	1	1	8
5:00 PM	1	0	2	1	0	0	0	0	0	0	3	0	7
5:15 PM	0	2	0	2	0	0	0	0	1	0	2	2	9
5:30 PM	0	0	1	0	0	0	0	2	0	0	3	0	6
5:45 PM	0	1	1	0	1	0	0	3	0	0	1	0	7
VOLUMES	2	6	6	5	2	2	0	13	1	6	17	3	63
APPROACH %	14%	43%	43%	56%	22%	22%	0%	93%	7%	23%	65%	12%	
APP/DEPART	14	/	9	9	/	9	14	/	24	26	/	21	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	1	3	2	2	1	2	0	8	0	6	8	1	34
APPROACH %	17%	50%	33%	40%	20%	40%	0%	100%	0%	40%	53%	7%	
PEAK HR FACTOR		0.750			0.625			0.500			0.750		0.773
APP/DEPART	6	/	4	5	/	7	8	/	12	15	/	11	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	1
1	0	0	1
0	0	0	0
0	1	0	1
0	0	0	1
1	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	2	0	4
1	2	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	0	0
1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	1	0	0	0	1	0	0	0	4
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	2	/	2	1	/	2	1	/	0	0	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	1	0	0	1	0	0	0	1	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.250			0.250			0.000		0.375
	APP/DEPART	1	/	1	1	/	2	1	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	1	0	0	0	0	0	1	1	0	0	4
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	1	1	0	0	0	0	0	0	0	0	1	3
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	2	1	2	0	1	0	0	0	1	1	0	1	9
	APPROACH %	40%	20%	40%	0%	100%	0%	0%	0%	100%	50%	0%	50%	
	APP/DEPART	5	/	2	1	/	3	1	/	2	2	/	2	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	1	1	2	0	1	0	0	0	1	1	0	1	8
	APPROACH %	25%	25%	50%	0%	100%	0%	0%	0%	100%	50%	0%	50%	
	PEAK HR FACTOR		0.500			0.250			0.250			0.500		0.500
	APP/DEPART	4	/	2	1	/	3	1	/	2	2	/	1	0

U-TURNS

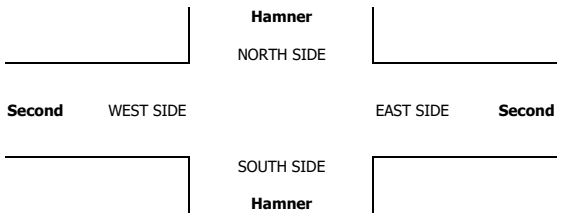
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0

0	0	0	0

0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	27
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

		NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1.5	ET 1.5	ER 1	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	5	0	3	6	0	0	1	0	0	0	0	15
	7:15 AM	0	4	1	5	8	0	1	1	0	0	0	0	20
	7:30 AM	0	0	0	1	1	1	0	1	0	2	1	1	8
	7:45 AM	2	5	0	0	3	1	0	2	0	1	3	0	17
	8:00 AM	0	0	0	1	5	0	1	0	0	0	3	0	10
	8:15 AM	2	2	1	1	1	1	0	1	0	0	1	3	13
	8:30 AM	1	2	0	0	1	0	0	0	0	0	8	0	12
	8:45 AM	2	2	0	1	1	1	0	0	0	0	8	0	15
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	20	2	12	26	4	2	6	0	3	24	4	110
	APPROACH %	24%	69%	7%	29%	62%	10%	25%	75%	0%	10%	77%	13%	
	APP/DEPART	29	/	26	42	/	29	8	/	20	31	/	35	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	2	14	1	9	18	2	1	5	0	3	4	1	60
	APPROACH %	12%	82%	6%	31%	62%	7%	17%	83%	0%	38%	50%	13%	
	PEAK HR FACTOR		0.607			0.558			0.750			0.500		0.750
	APP/DEPART	17	/	16	29	/	21	6	/	15	8	/	8	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	1	0	0	2	1	0	0	0	0	3	1	10
	4:15 PM	2	0	0	0	0	1	0	0	0	0	4	0	7
	4:30 PM	0	1	0	0	1	0	0	0	0	0	1	1	4
	4:45 PM	0	1	0	0	2	0	0	0	1	0	0	0	4
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	4	5	0	0	8	2	0	0	1	1	8	2	31
	APPROACH %	44%	56%	0%	0%	80%	20%	0%	0%	100%	9%	73%	18%	
	APP/DEPART	9	/	7	10	/	10	1	/	0	11	/	14	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	3	0	0	5	2	0	0	1	0	8	2	25
	APPROACH %	57%	43%	0%	0%	71%	29%	0%	0%	100%	0%	80%	20%	
	PEAK HR FACTOR		0.583			0.583			0.250			0.625		0.625
	APP/DEPART	7	/	5	7	/	6	1	/	0	10	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	2

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	2

0	0	0	0	2

Hamner

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

Hamner

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Hamner	LOCATION #:	28
	EAST & WEST:	First	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	7	162	0	5	98	52	95	4	1	2	2	3	431
	7:15 AM	10	175	0	1	123	91	67	4	2	3	1	3	480
	7:30 AM	5	182	0	7	151	83	67	6	2	0	4	1	508
	7:45 AM	8	170	0	6	129	71	76	7	5	2	7	1	482
	8:00 AM	7	111	1	14	135	81	54	3	2	0	5	2	415
	8:15 AM	11	118	0	9	96	56	33	2	4	1	2	1	333
	8:30 AM	11	94	0	6	115	64	51	11	7	8	3	2	372
	8:45 AM	4	121	3	7	126	60	30	6	4	2	1	2	366
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	63	1,133	4	55	973	558	473	43	27	18	25	15	3,387
	APPROACH %	5%	94%	0%	3%	61%	35%	87%	8%	5%	31%	43%	26%	
	APP/DEPART	1,200	/	1,623	1,586	/	1,028	543	/	100	58	/	636	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	30	689	0	19	501	297	305	21	10	7	14	8	1,901
	APPROACH %	4%	96%	0%	2%	61%	36%	91%	6%	3%	24%	48%	28%	
	PEAK HR FACTOR		0.961			0.848			0.840			0.725		0.936
	APP/DEPART	719	/	1,002	817	/	524	336	/	40	29	/	335	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	5	143	3	13	263	58	92	3	9	5	5	7	606
	4:15 PM	4	128	4	19	254	54	81	11	7	11	4	5	582
	4:30 PM	12	145	4	20	253	51	101	9	6	6	5	2	614
	4:45 PM	21	159	4	18	204	49	84	14	10	16	8	6	593
	5:00 PM	10	162	7	18	255	51	89	6	11	8	9	7	633
	5:15 PM	21	198	5	20	219	54	86	14	10	11	4	4	646
	5:30 PM	14	177	16	18	260	56	83	12	1	15	8	4	664
	5:45 PM	18	178	9	6	219	42	64	14	8	16	12	2	588
	VOLUMES	105	1,290	52	132	1,927	415	680	83	62	88	55	37	4,926
	APPROACH %	7%	89%	4%	5%	78%	17%	82%	10%	8%	49%	31%	21%	
	APP/DEPART	1,447	/	2,011	2,474	/	2,094	825	/	263	180	/	558	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	66	696	32	74	938	210	342	46	32	50	29	21	2,536
	APPROACH %	8%	88%	4%	6%	77%	17%	81%	11%	8%	50%	29%	21%	
	PEAK HR FACTOR		0.886			0.915			0.955			0.833		0.955
	APP/DEPART	794	/	1,062	1,222	/	1,031	420	/	149	100	/	294	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
4	0	0	0	4
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
1	2	0	0	3
1	0	0	0	1
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
10	2	0	0	12
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	0	0	0	4
0	0	0	0	0
1	0	0	0	1
2	1	0	0	3
1	0	0	0	1
7	1	0	0	8
1	1	0	0	2
1	1	0	0	2
17	4	0	0	21

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	15	1	3
0	27	1	3
0	16	2	1
0	27	4	1
0	27	2	2
0	20	4	1
0	25	3	1
2	17	3	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	174	20	14
0	85	8	8
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	26	5	6
3	18	7	3
3	20	3	2
1	17	5	4
3	15	7	6
4	23	5	3
2	24	1	3
1	18	7	2
18	161	40	29
10	79	18	16

Hamner

NORTH SIDE

First WEST SIDE EAST SIDE **First**

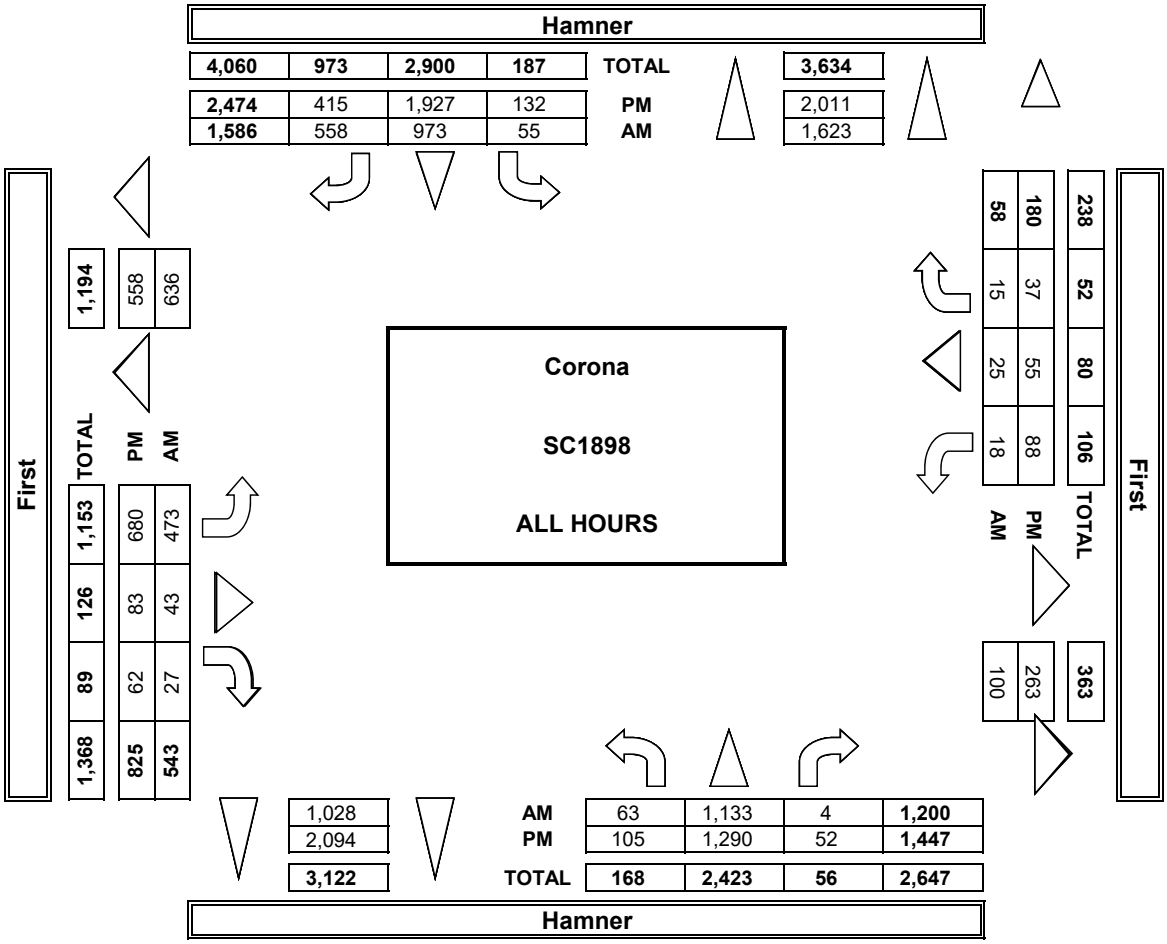
SOUTH SIDE

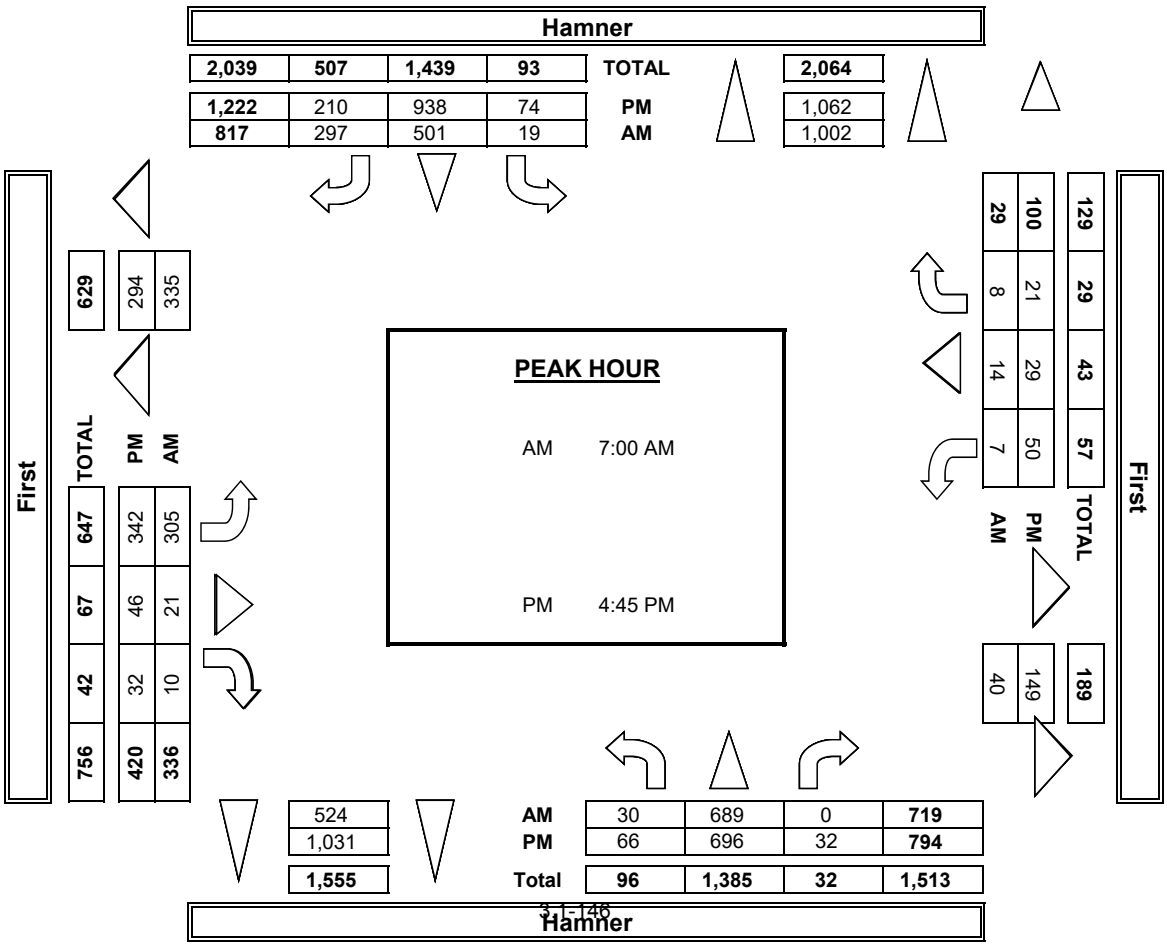
Hamner

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	1	1	2	0	0	1	0	1	0	0	0	1	1
	7:15 AM	2	1	0	0	3	2	1	0	0	3	0	0	0	0	0
	7:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:45 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	4	1	1	7	1	4	1	1	7	0	0	0	0	0
	8:30 AM	1	2	0	0	3	0	0	0	0	0	1	2	0	0	3
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	6	8	2	2	18	4	6	2	1	13	2	2	0	1	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	3	1	3	0	7	2	0	3	0	5	1	1	0	0	2
	4:15 PM	3	1	2	1	7	2	1	1	1	5	1	0	1	0	2
	4:30 PM	1	3	0	3	7	1	3	0	3	7	0	0	0	0	0
	4:45 PM	2	3	0	0	5	2	3	0	0	5	0	0	0	0	0
	5:00 PM	1	2	1	0	4	1	1	1	0	3	0	1	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	2	0	1	1	4	1	0	0	1	2	1	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	12	10	7	5	34	9	8	5	5	27	3	2	2	0	7

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Hamner	LOCATION #:	28
	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

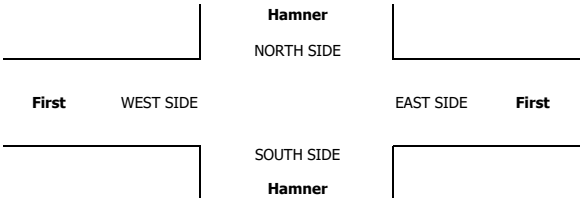
	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	7	157	0	5	83	49	93	4	1	1	2	3	405
7:15 AM	10	165	0	1	113	84	62	4	0	3	1	3	446
7:30 AM	4	170	0	7	140	79	63	6	2	0	4	1	476
7:45 AM	8	160	0	6	117	66	70	7	4	2	6	1	447
8:00 AM	7	98	1	13	121	76	50	3	2	0	4	1	376
8:15 AM	11	108	0	9	87	54	29	2	4	1	1	1	307
8:30 AM	9	87	0	6	103	57	48	11	6	8	2	2	339
8:45 AM	4	110	3	7	111	55	28	6	3	2	1	2	332
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	60	1,055	4	54	875	520	443	43	22	17	21	14	3,128
APPROACH %	5%	94%	0%	4%	60%	36%	87%	8%	4%	33%	40%	27%	
APP/DEPART	1,119	/	1,514	1,449	/	924	508	/	99	52	/	591	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	23	652	0	19	453	278	288	21	7	6	13	8	1,774
APPROACH %	3%	96%	0%	3%	60%	37%	91%	7%	2%	22%	48%	30%	
PEAK HR FACTOR		0.973			0.830			0.806			0.750		0.932
APP/DEPART	681	/	948	750	/	472	316	/	40	27	/	314	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	5	134	3	13	256	57	88	3	8	5	5	7	584
4:15 PM	4	124	4	18	245	51	74	11	6	11	4	5	557
4:30 PM	11	141	4	20	240	48	98	9	6	6	5	2	590
4:45 PM	21	153	4	17	196	47	82	14	10	16	8	6	574
5:00 PM	10	158	7	18	251	51	83	6	10	8	9	7	618
5:15 PM	21	189	5	20	214	52	82	14	9	11	3	4	624
5:30 PM	14	172	16	18	255	55	82	12	1	15	8	4	652
5:45 PM	17	175	9	6	215	40	60	14	8	16	12	2	574
VOLUMES	103	1,246	52	130	1,872	401	649	83	58	88	54	37	4,773
APPROACH %	7%	89%	4%	5%	78%	17%	82%	11%	7%	49%	30%	21%	
APP/DEPART	1,401	/	1,936	2,403	/	2,035	790	/	261	179	/	541	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	52	694	37	59	935	198	307	46	28	50	32	17	2,468
APPROACH %	7%	88%	5%	5%	78%	17%	81%	12%	7%	51%	32%	17%	
PEAK HR FACTOR		0.922			0.911			0.899			0.825		0.946
APP/DEPART	793	/	1,021	1,195	/	1,023	381	/	142	99	/	282	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	4	0	0	0	4
AM 7:15 AM	1	0	0	0	1
AM 7:30 AM	0	0	0	0	0
AM 7:45 AM	1	0	0	0	1
AM 8:00 AM	1	2	0	0	3
AM 8:15 AM	1	0	0	0	1
AM 8:30 AM	2	0	0	0	2
AM 8:45 AM	0	0	0	0	0
AM 9:00 AM	0	0	0	0	0
AM 9:15 AM	0	0	0	0	0
AM 9:30 AM	0	0	0	0	0
AM 9:45 AM	0	0	0	0	0
AM VOLUMES	10	2	0	0	12
PM 03:00 PM	0	0	0	0	0
PM 3:15 PM	0	0	0	0	0
PM 3:30 PM	0	0	0	0	0
PM 3:45 PM	0	0	0	0	0
PM 4:00 PM	4	0	0	0	4
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	1	0	0	0	1
PM 4:45 PM	2	1	0	0	3
PM 5:00 PM	1	0	0	0	1
PM 5:15 PM	7	1	0	0	8
PM 5:30 PM	1	1	0	0	2
PM 5:45 PM	1	1	0	0	2
PM VOLUMES	17	4	0	0	21

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	0	15	1	3
AM 7:15 AM	0	25	0	3
AM 7:30 AM	0	16	2	1
AM 7:45 AM	0	26	3	1
AM 8:00 AM	0	25	2	1
AM 8:15 AM	0	19	4	1
AM 8:30 AM	0	24	3	1
AM 8:45 AM	2	14	3	2
AM 9:00 AM	0	0	0	0
AM 9:15 AM	0	0	0	0
AM 9:30 AM	0	0	0	0
AM 9:45 AM	0	0	0	0
AM VOLUMES	2	164	18	13
AM BEGIN PEAK HR VOLUMES	0	82	6	8
PM 03:00 PM	0	0	0	0
PM 3:15 PM	0	0	0	0
PM 3:30 PM	0	0	0	0
PM 3:45 PM	0	0	0	0
PM 4:00 PM	1	26	5	6
PM 4:15 PM	3	17	6	3
PM 4:30 PM	3	20	3	2
PM 4:45 PM	1	17	5	4
PM 5:00 PM	3	15	6	6
PM 5:15 PM	4	22	5	3
PM 5:30 PM	2	24	1	3
PM 5:45 PM	1	18	7	2
PM VOLUMES	18	159	38	29
PM BEGIN PEAK HR VOLUMES	10	79	19	14



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	28
TUESDAY	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	5	2	1	0	0	0	0	0	8
	7:15 AM	0	6	0	0	4	4	1	0	1	0	0	0	16
	7:30 AM	0	8	0	0	7	2	4	0	0	0	0	0	21
	7:45 AM	0	2	0	0	8	5	4	0	1	0	0	0	20
	8:00 AM	0	8	0	1	9	3	4	0	0	0	1	0	26
	8:15 AM	0	6	0	0	7	2	3	0	0	0	1	0	19
	8:30 AM	2	4	0	0	9	6	1	0	1	0	1	0	24
	8:45 AM	0	8	0	0	11	3	1	0	1	0	0	0	24
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	42	0	1	60	27	19	0	4	0	3	0	158
	APPROACH %	5%	95%	0%	1%	68%	31%	83%	0%	17%	0%	100%	0%	
	APP/DEPART	44	/	61	88	/	64	23	/	1	3	/	32	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	2	26	0	1	36	14	9	0	2	0	3	0	93
	APPROACH %	7%	93%	0%	2%	71%	27%	82%	0%	18%	0%	100%	0%	
	PEAK HR FACTOR		0.875			0.850			0.688			0.750		0.894
	APP/DEPART	28	/	35	51	/	38	11	/	1	3	/	19	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	5	1	4	0	0	0	0	0	11
	4:15 PM	0	1	0	1	5	3	6	0	1	0	0	0	17
	4:30 PM	1	1	0	0	10	3	3	0	0	0	0	0	18
	4:45 PM	0	3	0	1	4	2	2	0	0	0	0	0	12
	5:00 PM	0	1	0	0	4	0	5	0	1	0	0	0	11
	5:15 PM	0	4	0	0	2	1	3	0	1	0	1	0	12
	5:30 PM	0	1	0	0	3	1	1	0	0	0	0	0	6
	5:45 PM	1	2	0	0	2	1	2	0	0	0	0	0	8
	VOLUMES	2	14	0	2	35	12	26	0	3	0	1	0	95
	APPROACH %	13%	88%	0%	4%	71%	24%	90%	0%	10%	0%	100%	0%	
	APP/DEPART	16	/	40	49	/	38	29	/	2	1	/	15	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	6	0	2	23	8	16	0	2	0	0	0	58
	APPROACH %	14%	86%	0%	6%	70%	24%	89%	0%	11%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.635			0.643			0.000		0.806
	APP/DEPART	7	/	22	33	/	25	18	/	2	0	/	9	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	28
TUESDAY	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

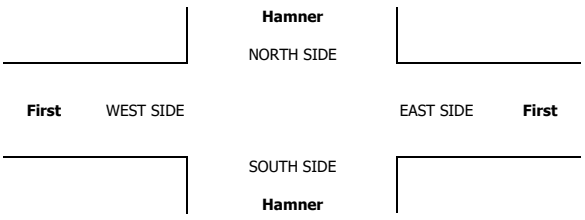
	NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND First			WESTBOUND First			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	2	0	0	0	0	0	0	0	0	1	0	3
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	10	0	0	3	2	0	0	0	0	1	0	16
APPROACH %	0%	100%	0%	0%	60%	40%	0%	0%	0%	0%	100%	0%	
APP/DEPART	10	/	10	5	/	3	0	/	0	1	/	3	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	7	0	0	2	0	0	0	0	0	1	0	10
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.875			0.250			0.000			0.250		0.833
APP/DEPART	7	/	7	2	/	2	0	/	0	1	/	1	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
VOLUMES	0	7	0	0	3	1	0	0	0	0	0	0	11
APPROACH %	0%	100%	0%	0%	75%	25%	0%	0%	0%	0%	0%	0%	
APP/DEPART	7	/	7	4	/	3	0	/	0	0	/	1	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	4	0	0	1	1	0	0	0	0	0	0	6
APPROACH %	0%	100%	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.500			0.000			0.000		0.500
APP/DEPART	4	/	4	2	/	1	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	28
TUESDAY	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	1	1	0	0	0	1	0	0	3
7:15 AM	0	2	0	0	0	1	1	0	1	0	0	0	5
7:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:45 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:00 AM	0	2	0	0	1	0	0	0	0	0	0	1	4
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	2	1	0	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	6	0	0	10	3	1	0	1	1	0	1	23
APPROACH %	0%	100%	0%	0%	77%	23%	50%	0%	50%	50%	0%	50%	
APP/DEPART	6	/	8	13	/	12	2	/	0	2	/	3	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	6	0	0	4	1	1	0	1	0	0	1	14
APPROACH %	0%	100%	0%	0%	80%	20%	50%	0%	50%	0%	0%	100%	
PEAK HR FACTOR		0.750			0.625			0.250			0.250		0.700
APP/DEPART	6	/	8	5	/	5	2	/	0	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	4	0	0	0	0	0	0	1	0	0	0	5
4:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	2
5:15 PM	0	2	0	0	0	0	1	0	0	0	0	0	3
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	2
VOLUMES	0	11	0	0	5	0	3	0	1	0	0	0	20
APPROACH %	0%	100%	0%	0%	100%	0%	75%	0%	25%	0%	0%	0%	
APP/DEPART	11	/	14	5	/	6	4	/	0	0	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	7	0	0	4	0	0	0	1	0	0	0	12
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR		0.438			0.500			0.250			0.000		0.600
APP/DEPART	7	/	7	4	/	5	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	28
TUESDAY	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	2	0	0	0	0	0	0	0	4
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	2	2	/	2	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.250			0.000			0.000		0.750
	APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	2
	VOLUMES	0	4	0	0	2	1	1	0	0	0	0	0	8
	APPROACH %	0%	100%	0%	0%	67%	33%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	4	/	5	3	/	2	1	/	0	0	/	1	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	2	0	0	1	1	1	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	50%	50%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.250			0.000		0.625
	APP/DEPART	2	/	3	2	/	1	1	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	28
TUESDAY	EAST & WEST:	First	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

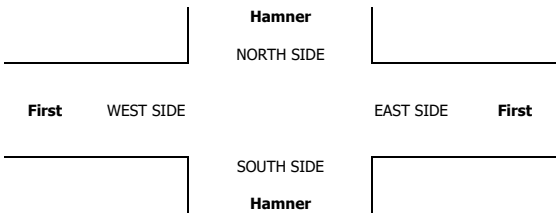
	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (First)			WESTBOUND (First)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
AM 7:00 AM	0	4	0	0	7	0	1	0	0	0	0	0	12
7:15 AM	0	0	0	0	5	2	3	0	0	0	0	0	10
7:30 AM	1	1	0	0	2	2	0	0	0	0	0	0	6
7:45 AM	0	4	0	0	3	0	2	0	0	0	0	0	9
8:00 AM	0	1	0	0	3	2	0	0	0	0	0	0	6
8:15 AM	0	3	0	0	1	0	1	0	0	0	0	0	5
8:30 AM	0	2	0	0	1	0	2	0	0	0	0	0	5
8:45 AM	0	3	0	0	1	0	1	0	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	18	0	0	23	6	10	0	0	0	0	0	58
APPROACH %	5%	95%	0%	0%	79%	21%	100%	0%	0%	0%	0%	0%	
APP/DEPART	19	/	28	29	/	23	10	/	0	0	/	7	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	1	9	0	0	17	4	6	0	0	0	0	0	37
APPROACH %	10%	90%	0%	0%	81%	19%	100%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.625			0.750			0.500			0.000		0.771
APP/DEPART	10	/	15	21	/	17	6	/	0	0	/	5	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
4:15 PM	0	1	0	0	1	0	1	0	0	0	0	0	3
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
5:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
VOLUMES	0	8	0	0	10	0	1	0	0	0	0	0	19
APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
APP/DEPART	8	/	9	10	/	10	1	/	0	0	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	5	0	0	6	0	1	0	0	0	0	0	12
APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.625			0.750			0.250			0.000		0.750
APP/DEPART	5	/	6	6	/	6	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	Hamner	LOCATION #:	29
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	5	104	46	25	79	1	3	31	5	157	108	61	625
	7:15 AM	4	108	55	27	74	2	0	46	7	178	128	69	698
	7:30 AM	7	120	53	46	105	2	6	53	8	143	115	85	743
	7:45 AM	14	115	55	35	117	3	2	56	11	164	84	78	734
	8:00 AM	14	83	54	41	95	7	3	37	6	107	74	71	592
	8:15 AM	10	83	52	45	72	2	3	46	7	117	97	55	589
	8:30 AM	11	96	45	37	108	2	3	28	7	99	82	55	573
	8:45 AM	14	76	35	35	100	3	4	37	6	117	73	56	556
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	79	785	395	291	750	22	24	334	57	1,082	761	530	5,110
	APPROACH %	6%	62%	31%	27%	71%	2%	6%	80%	14%	46%	32%	22%	
	APP/DEPART	1,259	/	1,339	1,063	/	1,890	415	/	1,024	2,373	/	857	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	30	447	209	133	375	8	11	186	31	642	435	293	2,800
	APPROACH %	4%	65%	30%	26%	73%	2%	5%	82%	14%	47%	32%	21%	
	PEAK HR FACTOR		0.932			0.832			0.826			0.913		0.942
	APP/DEPART	686	/	751	516	/	1,050	228	/	529	1,370	/	470	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	30	149	92	121	194	4	3	67	12	79	59	45	855
	4:15 PM	18	112	86	115	184	4	3	72	19	79	64	64	820
	4:30 PM	16	122	126	98	183	2	4	63	17	91	69	58	849
	4:45 PM	24	140	120	112	167	9	5	77	17	91	56	73	891
	5:00 PM	18	145	132	116	176	4	8	79	4	82	57	59	880
	5:15 PM	24	187	111	107	185	5	10	74	13	83	82	65	946
	5:30 PM	20	167	94	116	169	5	2	83	15	96	62	71	900
	5:45 PM	23	154	97	107	162	1	4	80	17	93	69	70	877
	VOLUMES	173	1,176	858	892	1,420	34	39	595	114	694	518	505	7,018
	APPROACH %	8%	53%	39%	38%	61%	1%	5%	80%	15%	40%	30%	29%	
	APP/DEPART	2,207	/	1,720	2,346	/	2,236	748	/	2,346	1,717	/	716	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	86	639	457	451	697	23	25	313	49	352	257	268	3,617
	APPROACH %	7%	54%	39%	39%	60%	2%	6%	81%	13%	40%	29%	31%	
	PEAK HR FACTOR		0.918			0.986			0.968			0.953		0.956
	APP/DEPART	1,182	/	932	1,171	/	1,102	387	/	1,221	877	/	362	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
2	0	0	2	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
5	0	0	4	9
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
1	0	0	0	1
3	0	0	0	3
2	0	0	0	2
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
9	0	0	1	10

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
20	1	3	14
29	2	0	7
31	1	1	8
34	0	1	8
24	4	2	12
23	1	3	10
28	0	1	8
14	0	3	8
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
203	9	14	75
114	4	5	37
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
38	2	5	2
36	1	1	4
51	0	5	3
43	3	4	6
58	2	0	0
59	2	1	3
37	1	1	2
39	0	2	0
361	11	19	20
197	8	6	11

Hamner

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

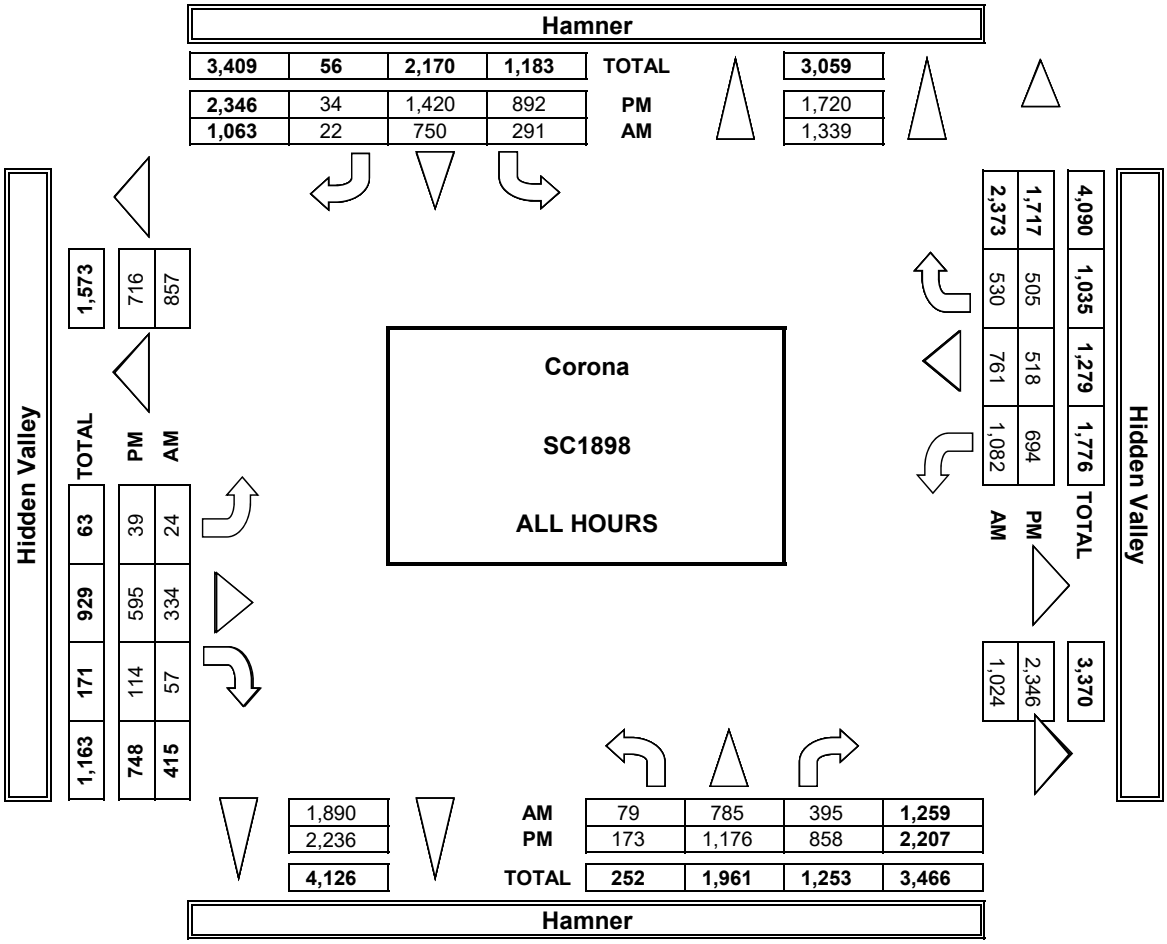
SOUTH SIDE

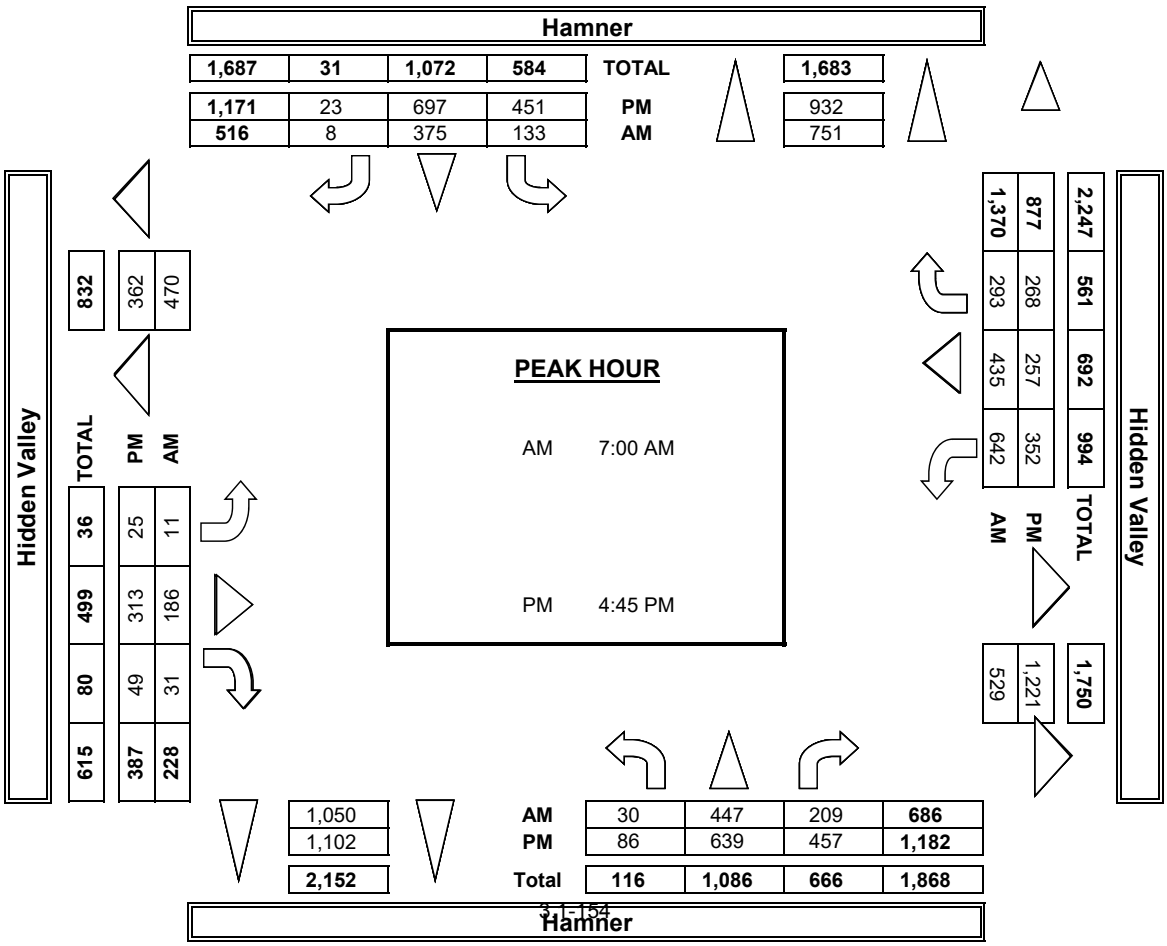
Hamner

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	7:15 AM	2	1	1	0	4	0	1	1	0	2	2	0	0	0	2
	7:30 AM	2	0	0	0	2	0	0	0	0	0	2	0	0	0	2
	7:45 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	8	0	8	17	1	8	0	8	17	0	0	0	0	0
	8:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:45 AM	1	9	1	0	11	1	9	1	0	11	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	7	22	2	9	40	3	22	2	9	36	4	0	0	0	4
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	4:15 PM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	4:30 PM	4	0	0	1	5	3	0	0	0	3	1	0	0	1	2
	4:45 PM	0	1	1	1	3	0	1	1	1	3	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	1	2	4	0	1	1	2	4	0	0	0	0	0
	5:45 PM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	TOTAL	9	4	2	4	19	5	2	2	3	12	4	2	0	1	7

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Hamner	LOCATION #:	29
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — N / W / E / S

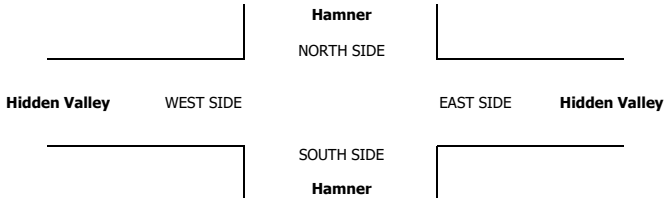
	NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
7:00 AM	4	100	41	20	66	1	2	30	5	139	102	57	567
7:15 AM	4	99	49	25	68	2	0	45	5	169	118	68	652
7:30 AM	6	112	47	44	97	2	6	49	4	136	107	78	688
7:45 AM	13	102	47	32	106	2	2	52	10	156	77	76	675
8:00 AM	12	75	44	34	88	7	3	32	5	100	64	69	533
8:15 AM	10	77	43	44	62	2	3	41	7	105	89	52	535
8:30 AM	10	91	34	34	97	2	2	27	5	89	72	51	514
8:45 AM	13	64	26	34	87	2	2	34	5	95	62	53	477
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	72	720	331	267	671	20	20	310	46	989	691	504	4,641
APPROACH %	6%	64%	29%	28%	70%	2%	5%	82%	12%	45%	32%	23%	
APP/DEPART	1,123	/	1,244	958	/	1,707	376	/	912	2,184	/	778	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	24	413	184	121	337	7	10	176	24	599	404	279	2,582
APPROACH %	4%	66%	29%	26%	72%	2%	5%	84%	11%	47%	31%	22%	
PEAK HR FACTOR		0.945			0.813			0.820			0.904		0.938
APP/DEPART	624	/	702	465	/	963	210	/	482	1,283	/	435	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	27	132	86	116	189	4	3	64	12	77	56	44	810
4:15 PM	18	106	78	115	174	4	3	68	19	75	62	63	785
4:30 PM	16	116	118	96	179	2	3	60	16	82	67	56	811
4:45 PM	24	131	112	107	162	9	5	71	16	86	53	72	848
5:00 PM	18	138	126	113	174	4	7	77	4	76	54	57	848
5:15 PM	24	180	100	105	180	5	8	70	13	78	82	62	907
5:30 PM	20	161	90	114	161	5	2	78	14	93	61	67	866
5:45 PM	22	151	90	107	161	1	4	74	17	88	67	66	848
VOLUMES	169	1,115	800	873	1,380	34	35	562	111	655	502	487	6,723
APPROACH %	8%	54%	38%	38%	60%	1%	5%	79%	16%	40%	31%	30%	
APP/DEPART	2,084	/	1,637	2,287	/	2,154	708	/	2,236	1,644	/	696	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	82	630	406	439	676	15	21	299	48	335	264	252	3,469
APPROACH %	7%	56%	36%	39%	60%	1%	6%	81%	13%	39%	31%	30%	
PEAK HR FACTOR		0.921			0.971			0.968			0.958		0.956
APP/DEPART	1,120	/	903	1,130	/	1,061	368	/	1,144	851	/	361	0

U-TURNS

	NB	SB	EB	WB	TTL
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	1	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	1	1
8:45 AM	2	0	0	2	4
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
	5	0	0	4	9
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	1	0	0	1	2
4:15 PM	1	0	0	0	1
4:30 PM	3	0	0	0	3
4:45 PM	2	0	0	0	2
5:00 PM	1	0	0	0	1
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
	9	0	0	1	10

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
7:00 AM	17	1	3	13
7:15 AM	28	2	0	7
7:30 AM	26	1	1	7
7:45 AM	31	0	0	7
8:00 AM	19	4	2	11
8:15 AM	21	1	3	8
8:30 AM	24	0	0	5
8:45 AM	12	0	3	7
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
	178	9	12	65
	102	4	4	34
03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	35	2	5	2
4:15 PM	34	1	1	4
4:30 PM	49	0	4	2
4:45 PM	40	3	4	5
5:00 PM	55	2	0	0
5:15 PM	56	2	1	3
5:30 PM	36	1	1	2
5:45 PM	36	0	2	0
	341	11	18	18
	183	5	4	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	29
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

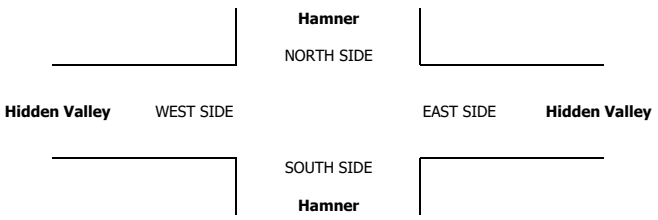
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	1	1	4	2	7	0	1	1	0	14	6	2	39
	7:15 AM	0	7	3	1	1	0	0	0	2	7	7	1	29
	7:30 AM	0	5	2	0	5	0	0	3	1	4	5	6	31
	7:45 AM	1	4	6	2	8	1	0	2	0	5	6	1	36
	8:00 AM	1	6	7	5	5	0	0	3	0	4	9	0	40
	8:15 AM	0	3	5	1	6	0	0	4	0	8	4	2	33
	8:30 AM	1	5	8	2	9	0	1	1	2	7	9	2	47
	8:45 AM	1	8	6	1	8	0	1	2	0	13	7	2	49
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	5	39	41	14	49	1	3	16	5	62	53	16	304
	APPROACH %	6%	46%	48%	22%	77%	2%	13%	67%	21%	47%	40%	12%	
	APP/DEPART	85	/	58	64	/	116	24	/	71	131	/	59	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	3	22	26	9	28	0	2	10	2	32	29	6	169
	APPROACH %	6%	43%	51%	24%	76%	0%	14%	71%	14%	48%	43%	9%	
	PEAK HR FACTOR		0.850			0.841			0.875			0.761		0.862
	APP/DEPART	51	/	30	37	/	62	14	/	45	67	/	32	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	12	6	4	3	0	0	3	0	1	2	0	33
	4:15 PM	0	2	4	0	7	0	0	1	0	1	2	0	17
	4:30 PM	0	5	8	2	4	0	1	3	1	5	2	2	33
	4:45 PM	0	7	7	4	3	0	0	4	1	4	3	0	33
	5:00 PM	0	5	4	3	1	0	1	1	0	4	2	2	23
	5:15 PM	0	4	8	2	4	0	2	3	0	3	0	1	27
	5:30 PM	0	3	3	2	5	0	0	5	0	2	1	4	25
	5:45 PM	1	3	4	0	0	0	0	5	0	5	1	4	23
	VOLUMES	3	41	44	17	27	0	4	25	2	25	13	13	214
	APPROACH %	3%	47%	50%	39%	61%	0%	13%	81%	6%	49%	25%	25%	
	APP/DEPART	88	/	58	44	/	54	31	/	86	51	/	16	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	21	27	11	12	0	4	11	2	16	7	5	116
	APPROACH %	0%	44%	56%	48%	52%	0%	24%	65%	12%	57%	25%	18%	
	PEAK HR FACTOR		0.600			0.821			0.850			0.778		0.879
	APP/DEPART	48	/	30	23	/	30	17	/	49	28	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	1
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	2
0	0	1	1
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
17	0	1	6
9	0	1	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
15	0	1	1
9	0	1	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	29
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

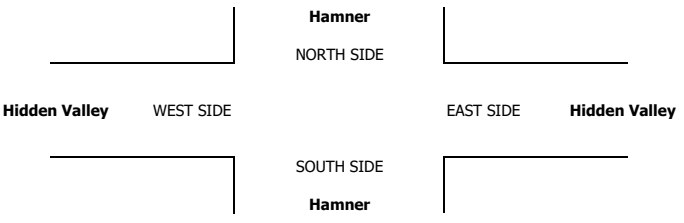
		NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:45 AM	0	2	0	0	1	0	0	0	0	0	0	1	4
	8:00 AM	0	2	2	1	0	0	0	1	0	1	1	0	8
	8:15 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
	8:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	2
	8:45 AM	0	1	1	0	0	0	1	1	0	1	2	0	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	6	4	2	5	0	1	3	0	2	7	1	31
	APPROACH %	0%	60%	40%	29%	71%	0%	25%	75%	0%	20%	70%	10%	
	APP/DEPART	10	/	8	7	/	7	4	/	9	10	/	7	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	3	4	2	2	0	1	2	0	2	5	0	21
	APPROACH %	0%	43%	57%	50%	50%	0%	33%	67%	0%	29%	71%	0%	
	PEAK HR FACTOR		0.438			0.500			0.375			0.583		0.656
	APP/DEPART	7	/	4	4	/	4	3	/	8	7	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	4:15 PM	0	3	0	0	1	0	0	0	0	2	0	0	6
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	7	1	1	1	0	0	0	0	2	0	0	12
	APPROACH %	0%	88%	13%	50%	50%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	8	/	7	2	/	3	0	/	2	2	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	6	0	1	1	0	0	0	0	2	0	0	10
	APPROACH %	0%	100%	0%	50%	50%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.000			0.250		0.417
	APP/DEPART	6	/	6	2	/	3	0	/	1	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
2	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	0	1
3	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	29
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

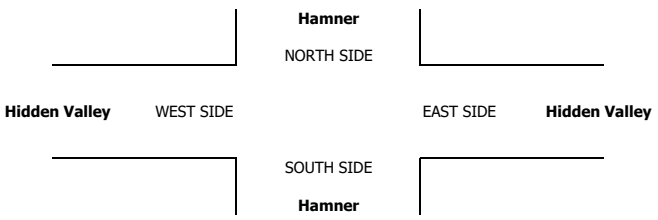
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	0	1	0	1	0	0	0	0	4	0	0	6
	7:15 AM	0	1	3	0	0	0	0	0	0	2	2	0	8
	7:30 AM	1	1	3	2	1	0	0	0	1	3	2	0	14
	7:45 AM	0	3	2	1	1	0	0	0	1	3	1	0	12
	8:00 AM	0	0	1	1	1	0	0	1	1	2	0	2	9
	8:15 AM	0	0	3	0	0	0	0	1	0	4	2	0	10
	8:30 AM	0	0	2	0	0	0	0	0	0	3	1	1	7
	8:45 AM	0	1	2	0	4	0	0	0	1	5	1	0	14
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	6	17	4	8	0	0	2	4	26	9	3	80
	APPROACH %	4%	25%	71%	33%	67%	0%	0%	33%	67%	68%	24%	8%	
	APP/DEPART	24	/	9	12	/	38	6	/	23	38	/	10	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	4	9	4	3	0	0	2	3	12	5	2	45
	APPROACH %	7%	29%	64%	57%	43%	0%	0%	40%	60%	63%	26%	11%	
	PEAK HR FACTOR		0.700			0.583			0.625			0.792		0.804
	APP/DEPART	14	/	6	7	/	18	5	/	15	19	/	6	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	1	0	0	0	0	0	1	1	0	4
	4:15 PM	0	0	4	0	2	0	0	3	0	1	0	0	10
	4:30 PM	0	1	0	0	0	0	0	0	0	4	0	0	5
	4:45 PM	0	1	1	0	0	0	0	2	0	1	0	0	5
	5:00 PM	0	2	1	0	0	0	0	1	0	2	1	0	7
	5:15 PM	0	1	3	0	0	0	0	0	0	1	0	2	7
	5:30 PM	0	1	1	0	0	0	0	0	0	1	0	0	3
	5:45 PM	0	0	3	0	1	0	0	1	0	0	1	0	6
	VOLUMES	0	7	13	1	3	0	0	7	0	11	3	2	47
	APPROACH %	0%	35%	65%	25%	75%	0%	0%	100%	0%	69%	19%	13%	
	APP/DEPART	20	/	9	4	/	14	7	/	21	16	/	3	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	4	6	0	2	0	0	6	0	8	1	0	27
	APPROACH %	0%	40%	60%	0%	100%	0%	0%	100%	0%	89%	11%	0%	
	PEAK HR FACTOR		0.625			0.250			0.500			0.563		0.675
	APP/DEPART	10	/	4	2	/	10	6	/	12	9	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
2	0	0	0
1	0	1	0
0	0	0	1
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	1	2
3	0	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
1	0	0	0
2	0	0	0
4	0	0	0
1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	29
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

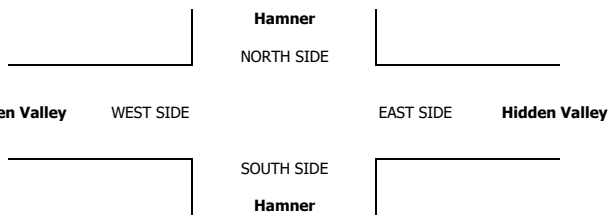
		NORTHBOUND (Hamner)			SOUTHBOUND (Hamner)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	1	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	0	0	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Hamner	LOCATION #:	29
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

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

	NORTHBOUND Hamner			SOUTHBOUND Hamner			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 1.5	ER 0.5	WL 1.5	WT 1.5	WR 1	TOTAL
7:00 AM	0	3	0	3	4	0	0	0	0	0	0	2	12
7:15 AM	0	0	0	1	4	0	0	1	0	0	0	0	6
7:30 AM	0	1	1	0	2	0	0	0	2	0	0	1	7
7:45 AM	0	4	0	0	1	0	0	2	0	0	0	0	7
8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	0	3	1	0	2	0	0	0	0	0	0	1	7
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	1	3
8:45 AM	0	2	0	0	1	0	0	0	0	3	1	1	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	13	2	4	17	0	0	3	2	3	1	6	52
APPROACH %	6%	81%	13%	19%	81%	0%	0%	60%	40%	30%	10%	60%	
APP/DEPART	16	/	19	21	/	22	5	/	9	10	/	2	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	8	1	4	11	0	0	3	2	0	0	3	32
APPROACH %	0%	89%	11%	27%	73%	0%	0%	60%	40%	0%	0%	100%	
PEAK HR FACTOR		0.563			0.536			0.625			0.375		0.667
APP/DEPART	9	/	11	15	/	13	5	/	8	3	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	2	0	0	0	0	0	0	1	5
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	1	0	1	0	0	4
5:30 PM	0	1	0	0	3	0	0	0	1	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	5	0	0	8	0	0	1	1	1	0	3	20
APPROACH %	17%	83%	0%	0%	100%	0%	0%	50%	50%	25%	0%	75%	
APP/DEPART	6	/	8	8	/	10	2	/	1	4	/	1	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	3	0	0	6	0	0	1	1	1	0	1	13
APPROACH %	0%	100%	0%	0%	100%	0%	0%	50%	50%	50%	0%	50%	
PEAK HR FACTOR		0.750			0.500			0.500			0.500		0.650
APP/DEPART	3	/	4	6	/	8	2	/	1	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	0	0	1
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1

Hamner

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

Hamner

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: Main
EAST & WEST: Parkridge

PROJECT #: SC1898
LOCATION #: 30
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Main)			SOUTHBOUND (Main)			EASTBOUND (Parkridge)			WESTBOUND (Parkridge)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	18	105	14	47	125	66	25	43	5	14	56	47	565
	7:15 AM	28	107	19	44	142	58	18	70	8	21	107	65	687
	7:30 AM	15	108	30	52	155	55	30	110	7	31	85	56	734
	7:45 AM	18	117	22	57	169	57	22	74	15	30	64	60	705
	8:00 AM	12	74	16	47	124	34	31	65	6	36	74	49	568
	8:15 AM	7	93	12	32	113	50	15	32	8	23	39	37	461
	8:30 AM	11	95	11	35	144	42	29	31	6	17	39	30	490
	8:45 AM	8	117	7	32	136	41	26	15	4	12	28	41	467
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	117	816	131	346	1,108	403	196	440	59	184	492	385	4,677
	APPROACH %	11%	77%	12%	19%	60%	22%	28%	63%	8%	17%	46%	36%	
	APP/DEPART	1,064	/	1,397	1,857	/	1,357	695	/	917	1,061	/	1,006	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	73	406	87	200	590	204	101	319	36	118	330	230	2,694
	APPROACH %	13%	72%	15%	20%	59%	21%	22%	70%	8%	17%	49%	34%	
	PEAK HR FACTOR		0.901			0.878			0.776			0.878		0.918
	APP/DEPART	566	/	737	994	/	749	456	/	606	678	/	602	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	17	154	23	44	188	44	43	78	11	18	34	63	717
	4:15 PM	9	123	25	45	164	34	30	60	12	11	33	33	579
	4:30 PM	11	163	29	52	191	30	45	72	15	20	46	93	767
	4:45 PM	7	154	28	56	190	37	45	75	16	20	42	67	737
	5:00 PM	8	211	22	42	157	51	46	85	12	18	38	57	747
	5:15 PM	9	187	43	50	182	45	34	84	7	16	42	64	763
	5:30 PM	15	178	32	55	215	27	43	82	26	18	43	64	798
	5:45 PM	9	170	20	50	165	50	51	65	8	16	45	76	725
	VOLUMES	85	1,340	222	394	1,452	318	337	601	107	137	323	517	5,833
	APPROACH %	5%	81%	13%	18%	67%	15%	32%	58%	10%	14%	33%	53%	
	APP/DEPART	1,647	/	2,194	2,164	/	1,702	1,045	/	1,217	977	/	720	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	39	730	125	203	744	160	168	326	61	72	165	252	3,045
	APPROACH %	4%	82%	14%	18%	67%	14%	30%	59%	11%	15%	34%	52%	
	PEAK HR FACTOR		0.927			0.932			0.919			0.948		0.954
	APP/DEPART	894	/	1,150	1,107	/	878	555	/	654	489	/	363	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	0	0	0	1
2	0	0	0	2
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
6	0	0	0	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
6	0	0	0	6

RTOR

NRR	SRR	ERR	WRR
0	0	0	21
0	0	0	34
0	0	2	23
0	0	4	39
0	0	1	20
0	0	4	24
0	0	3	19
0	0	4	26
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	18	206
0	0	7	116
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	4	32
0	0	3	14
0	0	2	43
0	0	5	27
0	0	2	23
0	0	1	27
0	0	2	21
0	0	2	33
0	0	21	220
0	0	10	98

Main

NORTH SIDE

Parkridge WEST SIDE EAST SIDE **Parkridge**

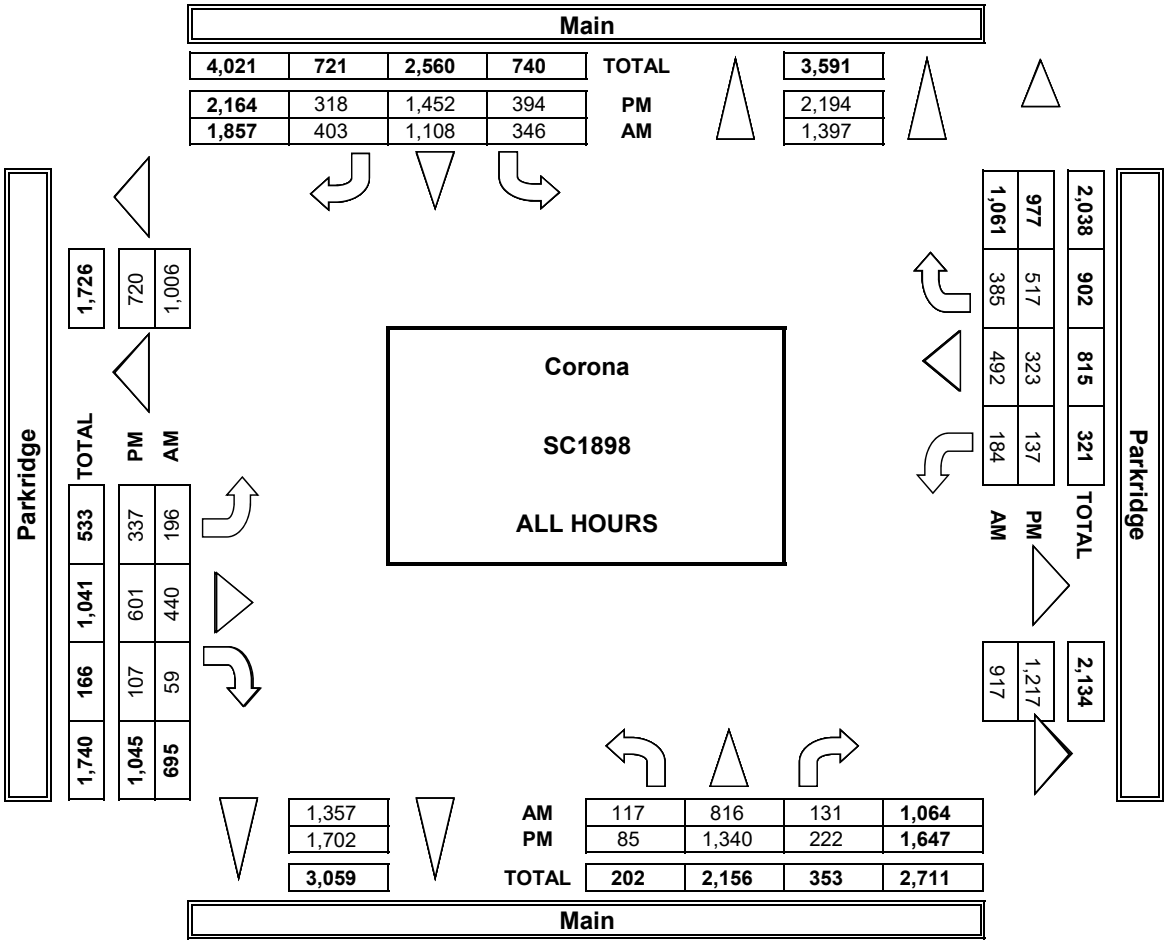
SOUTH SIDE

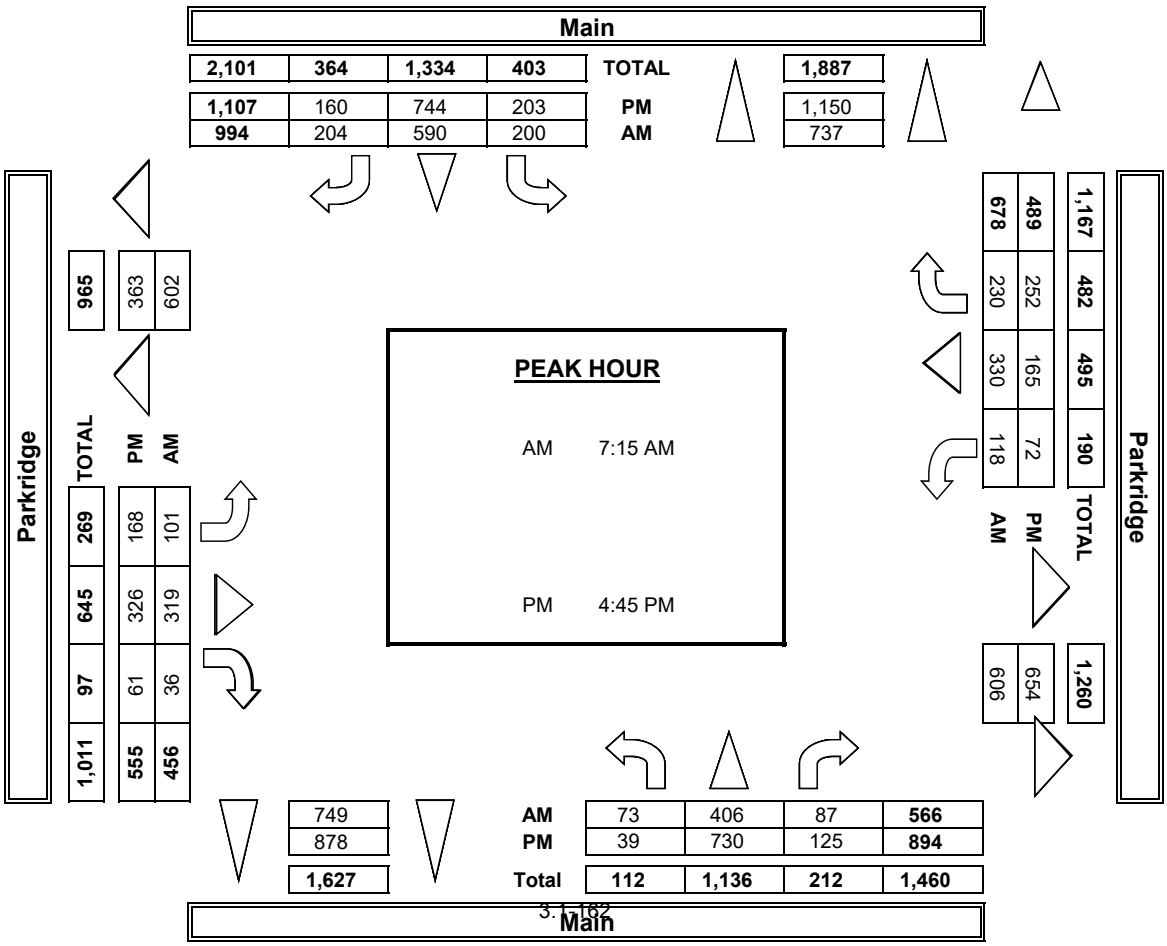
Main

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	7:15 AM	7	2	4	3	16	6	2	3	3	14	1	0	1	0	2
	7:30 AM	8	0	15	2	25	6	0	14	2	22	2	0	1	0	3
	7:45 AM	2	1	4	1	8	2	1	4	1	8	0	0	0	0	0
	8:00 AM	0	1	6	0	7	0	1	6	0	7	0	0	0	0	0
	8:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:30 AM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	8:45 AM	2	0	3	0	5	2	0	3	0	5	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	21	5	32	8	66	18	5	30	8	61	3	0	2	0	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	4	0	2	0	6	3	0	2	0	5	1	0	0	0	1
	4:15 PM	3	1	1	0	5	2	1	1	0	4	1	0	0	0	1
	4:30 PM	4	1	2	1	8	4	1	1	1	7	0	0	1	0	1
	4:45 PM	1	0	2	1	4	1	0	2	1	4	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:15 PM	2	3	2	0	7	2	3	2	0	7	0	0	0	0	0
	5:30 PM	3	0	6	3	12	3	0	4	3	10	0	0	2	0	2
	5:45 PM	2	2	2	0	6	2	2	2	0	6	0	0	0	0	0
	TOTAL	19	8	17	5	49	17	8	14	5	44	2	0	3	0	5

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	Main	LOCATION #:	30
	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (Main)			SOUTHBOUND (Main)			EASTBOUND (Parkridge)			WESTBOUND (Parkridge)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
7:00 AM	16	98	14	43	112	62	21	40	4	14	52	44	520
7:15 AM	26	97	18	40	132	54	17	66	8	21	102	59	640
7:30 AM	13	101	26	48	144	54	27	105	6	31	83	51	689
7:45 AM	18	103	18	50	160	55	18	72	13	26	63	56	652
8:00 AM	10	63	14	45	113	31	27	60	4	35	72	41	515
8:15 AM	6	82	12	27	99	47	13	29	7	21	36	30	409
8:30 AM	10	87	9	31	127	37	22	31	4	16	34	21	429
8:45 AM	7	103	7	25	116	38	25	14	3	11	26	32	407
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	106	734	118	309	1,003	378	170	417	49	175	468	334	4,261
APPROACH %	11%	77%	12%	18%	59%	22%	27%	66%	8%	18%	48%	34%	
APP/DEPART	958	/	1,238	1,690	/	1,233	636	/	844	977	/	946	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	70	399	76	181	548	225	83	283	31	92	300	210	2,501
APPROACH %	13%	73%	14%	19%	57%	24%	21%	71%	8%	15%	50%	35%	
PEAK HR FACTOR		0.972			0.900			0.719			0.827		0.907
APP/DEPART	548	/	692	954	/	674	397	/	540	602	/	595	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	17	139	22	42	179	44	41	77	10	18	30	57	676
4:15 PM	9	117	23	42	156	33	29	54	10	9	30	29	541
4:30 PM	9	144	29	44	184	30	43	69	15	18	42	91	718
4:45 PM	7	145	28	51	181	35	41	73	15	20	39	66	701
5:00 PM	7	197	19	39	155	49	40	82	11	17	37	56	709
5:15 PM	8	176	40	48	175	44	30	81	6	16	41	61	726
5:30 PM	14	170	31	53	207	27	42	82	24	16	38	59	763
5:45 PM	8	164	19	49	161	48	51	65	8	15	42	73	703
VOLUMES	79	1,252	211	368	1,398	310	317	583	99	129	299	492	5,537
APPROACH %	5%	81%	14%	18%	67%	15%	32%	58%	10%	14%	33%	53%	
APP/DEPART	1,542	/	2,061	2,076	/	1,632	999	/	1,162	920	/	682	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	35	707	109	189	698	168	163	310	49	64	158	249	2,901
APPROACH %	4%	83%	13%	18%	66%	16%	31%	59%	9%	14%	34%	53%	
PEAK HR FACTOR		0.952			0.919			0.882			0.906		0.951
APP/DEPART	853	/	1,119	1,055	/	813	522	/	608	471	/	361	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0
AM 7:15 AM	1	0	0	0	1
AM 7:30 AM	2	0	0	0	2
AM 7:45 AM	0	0	0	0	0
AM 8:00 AM	2	0	0	0	2
AM 8:15 AM	0	0	0	0	0
AM 8:30 AM	0	0	0	0	0
AM 8:45 AM	1	0	0	0	1
AM 9:00 AM	0	0	0	0	0
AM 9:15 AM	0	0	0	0	0
AM 9:30 AM	0	0	0	0	0
AM 9:45 AM	0	0	0	0	0
AM VOLUMES	6	0	0	0	6
AM BEGIN PEAK HR (7:00 AM) VOLUMES					
PM 03:00 PM	0	0	0	0	0
PM 3:15 PM	0	0	0	0	0
PM 3:30 PM	0	0	0	0	0
PM 3:45 PM	0	0	0	0	0
PM 4:00 PM	2	0	0	0	2
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	2	0	0	0	2
PM 4:45 PM	0	0	0	0	0
PM 5:00 PM	0	0	0	0	0
PM 5:15 PM	0	0	0	0	0
PM 5:30 PM	1	0	0	0	1
PM 5:45 PM	1	0	0	0	1
PM VOLUMES	6	0	0	0	6
PM BEGIN PEAK HR (5:00 PM) VOLUMES					

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	0	0	0	21
AM 7:15 AM	0	0	0	32
AM 7:30 AM	0	0	1	21
AM 7:45 AM	0	0	2	38
AM 8:00 AM	0	0	1	17
AM 8:15 AM	0	0	4	19
AM 8:30 AM	0	0	1	12
AM 8:45 AM	0	0	3	23
AM 9:00 AM	0	0	0	0
AM 9:15 AM	0	0	0	0
AM 9:30 AM	0	0	0	0
AM 9:45 AM	0	0	0	0
AM VOLUMES	0	0	12	183
AM BEGIN PEAK HR (7:00 AM) VOLUMES	0	0	3	112
PM 03:00 PM	0	0	0	0
PM 3:15 PM	0	0	0	0
PM 3:30 PM	0	0	0	0
PM 3:45 PM	0	0	0	0
PM 4:00 PM	0	0	3	29
PM 4:15 PM	0	0	2	12
PM 4:30 PM	0	0	2	42
PM 4:45 PM	0	0	5	27
PM 5:00 PM	0	0	2	22
PM 5:15 PM	0	0	1	25
PM 5:30 PM	0	0	2	21
PM 5:45 PM	0	0	2	32
PM VOLUMES	0	0	19	210
PM BEGIN PEAK HR (5:00 PM) VOLUMES	0	0	7	100

Main — NORTH SIDE

Parkridge — WEST SIDE — EAST SIDE — **Parkridge**

SOUTH SIDE — **Main**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Main	LOCATION #:	30
TUESDAY	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (Main)			SOUTHBOUND (Main)			EASTBOUND (Parkridge)			WESTBOUND (Parkridge)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	2	5	0	2	10	2	4	2	1	0	0	1	29
	7:15 AM	2	9	0	1	6	2	0	4	0	0	3	4	31
	7:30 AM	2	5	3	2	5	0	1	2	1	0	0	2	23
	7:45 AM	0	7	1	3	3	2	1	0	1	1	1	3	23
	8:00 AM	1	9	1	2	7	1	3	4	1	0	2	4	35
	8:15 AM	1	8	0	2	10	3	1	3	1	1	3	6	39
	8:30 AM	1	5	0	2	13	3	5	0	2	1	3	9	44
	8:45 AM	0	9	0	4	13	2	1	1	0	1	2	7	40
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	9	57	5	18	67	15	16	16	7	4	14	36	264
	APPROACH %	13%	80%	7%	18%	67%	15%	41%	41%	18%	7%	26%	67%	
	APP/DEPART	71	/	109	100	/	78	39	/	39	54	/	38	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	3	31	1	10	43	9	10	8	4	3	10	26	158
	APPROACH %	9%	89%	3%	16%	69%	15%	45%	36%	18%	8%	26%	67%	
	PEAK HR FACTOR		0.795			0.816			0.688			0.750		0.898
	APP/DEPART	35	/	67	62	/	50	22	/	19	39	/	22	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	9	0	2	7	0	0	1	1	0	4	5	29
	4:15 PM	0	4	0	2	6	0	0	0	1	2	3	3	21
	4:30 PM	0	17	0	4	6	0	2	2	0	2	2	2	37
	4:45 PM	0	7	0	3	6	1	3	2	0	0	1	1	24
	5:00 PM	1	12	2	1	2	2	2	3	0	1	1	1	28
	5:15 PM	1	9	0	1	4	1	3	0	1	0	1	3	24
	5:30 PM	0	6	0	2	4	0	0	0	0	2	2	3	19
	5:45 PM	0	5	1	1	2	2	0	0	0	1	3	2	17
	VOLUMES	2	69	3	16	37	6	10	8	3	8	17	20	199
	APPROACH %	3%	93%	4%	27%	63%	10%	48%	38%	14%	18%	38%	44%	
	APP/DEPART	74	/	99	59	/	48	21	/	27	45	/	25	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	2	45	2	9	18	4	10	7	1	3	5	7	113
	APPROACH %	4%	92%	4%	29%	58%	13%	56%	39%	6%	20%	33%	47%	
	PEAK HR FACTOR		0.721			0.775			0.900			0.625		0.764
	APP/DEPART	49	/	62	31	/	22	18	/	18	15	/	11	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Main	LOCATION #:	30
TUESDAY	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (Main)			SOUTHBOUND (Main)			EASTBOUND (Parkridge)			WESTBOUND (Parkridge)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	2	0	0	0	0	2	0	4
	7:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
	7:30 AM	0	1	0	0	2	1	1	1	0	0	0	0	6
	7:45 AM	0	2	0	1	0	0	1	0	0	0	0	0	4
	8:00 AM	0	1	0	0	3	0	1	0	0	0	0	0	5
	8:15 AM	0	0	0	1	2	0	1	0	0	0	0	0	4
	8:30 AM	0	0	0	0	0	2	1	0	0	0	0	0	3
	8:45 AM	0	1	0	1	1	0	0	0	0	0	0	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	0	4	8	5	5	1	0	0	3	0	31
	APPROACH %	0%	100%	0%	24%	47%	29%	83%	17%	0%	0%	100%	0%	
	APP/DEPART	5	/	10	17	/	8	6	/	5	3	/	8	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	4	0	2	7	1	4	1	0	0	0	0	19
	APPROACH %	0%	100%	0%	20%	70%	10%	80%	20%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.833			0.625			0.000		0.792
	APP/DEPART	4	/	8	10	/	7	5	/	3	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	3	0	0	0	0	1	0	0	0	0	0	4
	4:15 PM	0	1	2	1	2	1	0	5	0	0	0	1	13
	4:30 PM	1	1	0	2	0	0	0	0	0	0	2	0	6
	4:45 PM	0	1	0	1	1	0	1	0	0	0	1	0	5
	5:00 PM	0	2	1	1	0	0	1	0	1	0	0	0	6
	5:15 PM	0	0	1	0	1	0	0	3	0	0	0	0	5
	5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	1	8	5	5	6	1	3	8	1	0	3	1	42
	APPROACH %	7%	57%	36%	42%	50%	8%	25%	67%	8%	0%	75%	25%	
	APP/DEPART	14	/	12	12	/	7	12	/	18	4	/	5	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	1	5	3	5	3	1	2	5	1	0	3	1	30
	APPROACH %	11%	56%	33%	56%	33%	11%	25%	63%	13%	0%	75%	25%	
	PEAK HR FACTOR		0.750			0.563			0.400			0.500		0.577
	APP/DEPART	9	/	8	9	/	4	8	/	13	4	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Main	LOCATION #:	30
TUESDAY	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Parkridge			WESTBOUND Parkridge			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	2	0	0	0	0	0	0	2	4
	7:15 AM	0	1	1	2	1	1	1	0	0	0	0	2	9
	7:30 AM	0	0	0	1	1	0	0	0	0	0	1	1	4
	7:45 AM	0	2	0	2	4	0	2	0	0	1	0	0	11
	8:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	2
	8:15 AM	0	2	0	2	1	0	0	0	0	0	0	1	6
	8:30 AM	0	3	1	2	2	0	0	0	0	0	0	0	8
	8:45 AM	1	1	0	2	3	0	0	0	0	0	0	2	9
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	9	2	11	14	2	3	0	0	1	1	9	53
	APPROACH %	8%	75%	17%	41%	52%	7%	100%	0%	0%	9%	9%	82%	
	APP/DEPART	12	/	21	27	/	15	3	/	13	11	/	4	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	3	1	5	8	1	3	0	0	1	1	5	28
	APPROACH %	0%	75%	25%	36%	57%	7%	100%	0%	0%	14%	14%	71%	
	PEAK HR FACTOR		0.500			0.583			0.375			0.875		0.636
	APP/DEPART	4	/	11	14	/	9	3	/	6	7	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	1	0	0	0	1	0	0	0	0	1	4
	4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	2
	4:30 PM	1	0	0	2	1	0	0	1	0	0	0	0	5
	4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
	5:00 PM	0	0	0	1	0	0	3	0	0	0	0	0	4
	5:15 PM	0	1	0	1	0	0	1	0	0	0	0	0	3
	5:30 PM	1	0	0	0	0	0	1	0	1	0	0	2	5
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
	VOLUMES	2	5	1	5	1	0	7	1	1	0	0	4	27
	APPROACH %	25%	63%	13%	83%	17%	0%	78%	11%	11%	0%	0%	100%	
	APP/DEPART	8	/	16	6	/	2	9	/	7	4	/	2	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	1	2	0	2	0	0	5	0	1	0	0	3	14
	APPROACH %	33%	67%	0%	100%	0%	0%	83%	0%	17%	0%	0%	100%	
	PEAK HR FACTOR		0.750			0.167			0.500			0.375		0.700
	APP/DEPART	3	/	10	2	/	1	6	/	2	3	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Main	LOCATION #:	30
TUESDAY	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Parkridge			WESTBOUND Parkridge			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	0	1	0	0	1	1	0	0	0	0	1	0	4
	APPROACH %	0%	100%	0%	0%	50%	50%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	1	/	1	2	/	1	0	/	0	1	/	2	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	1	0	0	1	0	0	0	0	0	1	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.250			0.000			0.250		0.375
	APP/DEPART	1	/	1	1	/	1	0	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Main

NORTH SIDE

Parkridge WEST SIDE EAST SIDE **Parkridge**

SOUTH SIDE

Main

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	Main	LOCATION #:	30
TUESDAY	EAST & WEST:	Parkridge	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

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

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Parkridge			WESTBOUND Parkridge			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	0	2	0	2	1	0	0	1	0	0	2	0	8
	7:15 AM	0	0	0	0	3	1	0	0	0	0	1	0	5
	7:30 AM	0	1	1	1	3	0	0	2	0	0	1	2	11
	7:45 AM	0	3	3	1	2	0	0	2	1	2	0	1	15
	8:00 AM	1	1	1	0	1	1	0	1	1	1	0	3	11
	8:15 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
	8:30 AM	0	0	1	0	2	0	1	0	0	0	2	0	6
	8:45 AM	0	3	0	0	3	1	0	0	1	0	0	0	8
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	11	6	4	16	3	1	6	3	4	6	6	67
	APPROACH %	6%	61%	33%	17%	70%	13%	10%	60%	30%	25%	38%	38%	
	APP/DEPART	18	/	18	23	/	23	10	/	16	16	/	10	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	5	5	2	9	2	0	5	2	3	2	6	42
	APPROACH %	9%	45%	45%	15%	69%	15%	0%	71%	29%	27%	18%	55%	
	PEAK HR FACTOR		0.458			0.813			0.583			0.688		0.700
	APP/DEPART	11	/	11	13	/	14	7	/	12	11	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
	4:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	2	0	0	0	1	0	1	0	4
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	2	0	2	0	0	0	0	0	0	0	5
	5:30 PM	0	1	0	0	3	0	0	0	1	0	2	0	7
	5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	1	5	2	0	9	0	0	1	3	0	3	0	24
	APPROACH %	13%	63%	25%	0%	100%	0%	0%	25%	75%	0%	100%	0%	
	APP/DEPART	8	/	5	9	/	12	4	/	3	3	/	4	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	2	2	0	7	0	0	0	2	0	3	0	16
	APPROACH %	0%	50%	50%	0%	100%	0%	0%	0%	100%	0%	100%	0%	
	PEAK HR FACTOR		0.333			0.583			0.500			0.375		0.571
	APP/DEPART	4	/	2	7	/	9	2	/	2	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	1
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	1
0	0	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Main

NORTH SIDE

Parkridge WEST SIDE EAST SIDE **Parkridge**

SOUTH SIDE

Main

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: I-15 SB Ramps
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 31
CONTROL: SIGNAL

NOTES:
Queue AM/WB

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	30	0	65	0	140	99	64	231	0	629
	7:15 AM	0	0	0	17	0	80	0	84	109	64	274	0	628
	7:30 AM	0	0	0	3	1	97	0	67	113	51	246	0	578
	7:45 AM	0	0	0	6	0	84	0	93	119	71	270	0	643
	8:00 AM	0	0	0	4	2	65	0	72	117	45	242	0	547
	8:15 AM	0	0	0	10	2	75	0	72	113	48	205	0	525
	8:30 AM	0	0	0	8	0	63	0	79	100	45	191	0	486
	8:45 AM	0	0	0	7	2	59	0	56	114	42	247	0	527
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	85	7	588	0	663	884	430	1,906	0	4,564
	APPROACH %	0%	0%	0%	13%	1%	86%	0%	43%	57%	18%	82%	0%	
	APP/DEPART	0	/	0	680	/	1,321	1,548	/	748	2,336	/	2,495	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	56	1	326	0	384	440	250	1,021	0	2,478
	APPROACH %	0%	0%	0%	15%	0%	85%	0%	47%	53%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.948			0.862			0.932		0.963
	APP/DEPART	0	/	0	383	/	691	824	/	440	1,271	/	1,347	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	15	2	66	0	126	174	40	153	0	576
	4:15 PM	0	0	0	12	1	48	0	129	209	50	144	0	593
	4:30 PM	0	0	0	12	1	72	0	133	187	46	131	0	582
	4:45 PM	0	0	0	15	0	47	0	139	194	53	132	0	580
	5:00 PM	0	0	0	22	1	52	0	138	195	40	151	0	599
	5:15 PM	0	0	0	17	0	49	0	133	181	38	185	0	603
	5:30 PM	0	0	0	9	0	64	0	144	180	46	180	0	623
	5:45 PM	0	0	0	22	2	61	0	129	176	41	199	0	630
	VOLUMES	0	0	0	124	7	459	0	1,071	1,496	354	1,275	0	4,786
	APPROACH %	0%	0%	0%	21%	1%	78%	0%	42%	58%	22%	78%	0%	
	APP/DEPART	0	/	0	590	/	1,857	2,567	/	1,195	1,629	/	1,734	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	70	3	226	0	544	732	165	715	0	2,455
	APPROACH %	0%	0%	0%	23%	1%	76%	0%	43%	57%	19%	81%	0%	
	PEAK HR FACTOR		0.000			0.879			0.958			0.917		0.974
	APP/DEPART	0	/	0	299	/	900	1,276	/	614	880	/	941	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	19	15	0
0	3	14	0
0	1	25	0
0	7	11	0
0	17	10	0
0	27	9	0
0	23	4	0
0	9	6	0
0	0	0	0
0	0	0	0
0	0	0	0
0	106	94	0
0	30	65	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	29	5	0
0	24	16	0
0	37	12	0
0	22	7	0
0	21	22	0
0	22	12	0
0	32	17	0
0	18	24	0
0	205	115	0
0	93	75	0

I-15 SB Ramps

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

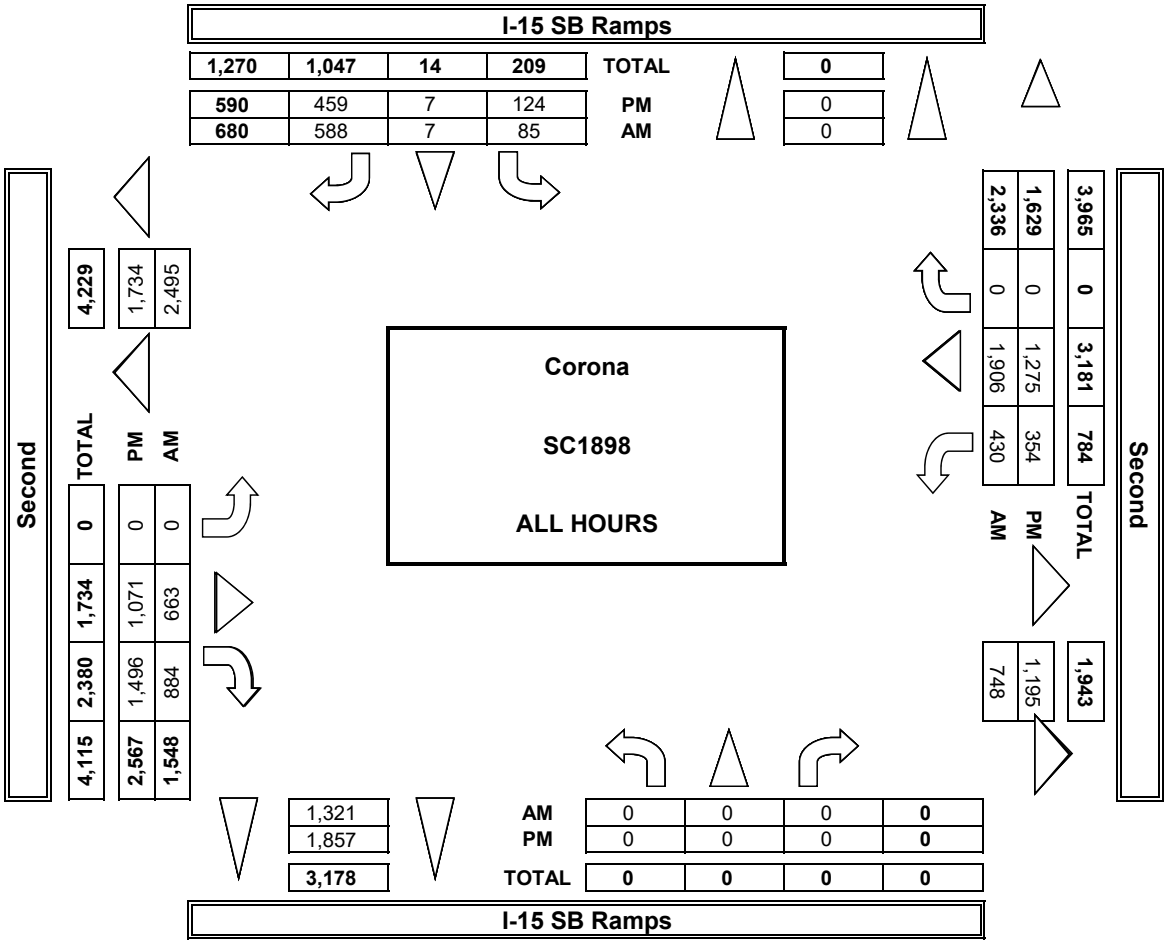
SOUTH SIDE

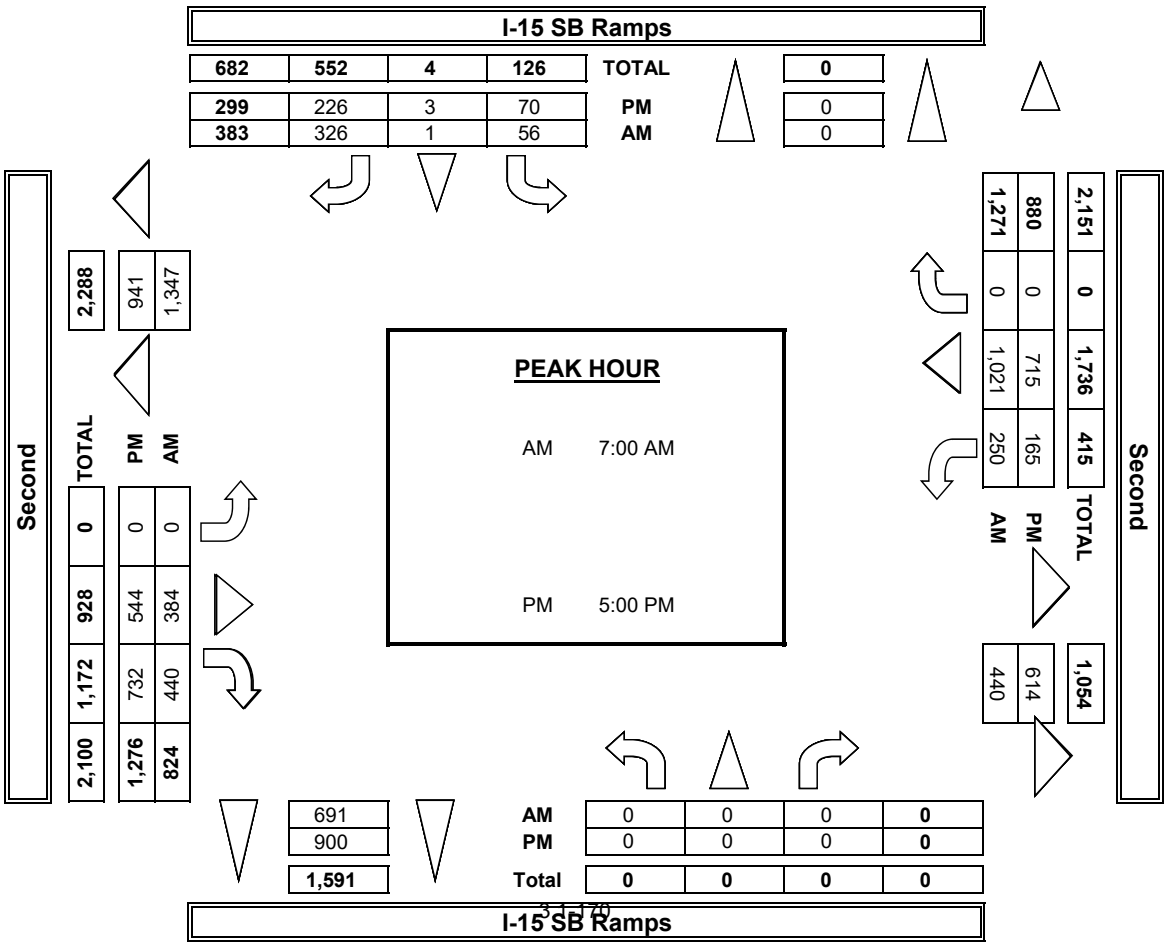
I-15 SB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	4	1	5	0	0	3	1	4	0	0	1	0	1
	7:15 AM	0	0	4	1	5	0	0	3	1	4	0	0	1	0	1
	7:30 AM	0	0	4	0	4	0	0	3	0	3	0	0	1	0	1
	7:45 AM	0	0	4	1	5	0	0	3	0	3	0	0	1	1	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:30 AM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	19	3	22	0	0	15	2	17	0	0	4	1	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	5:00 PM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:45 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	TOTAL	0	0	7	3	10	0	0	6	3	9	0	0	1	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
	EAST & WEST:	Second	CONTROL:	SIGNAL

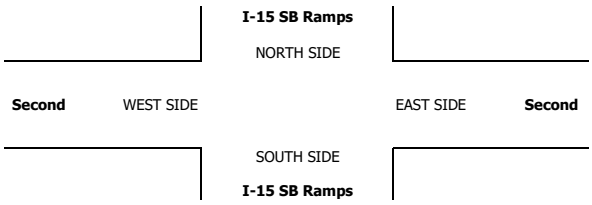
CLASS 1: PASSENGER VEHICLES	NOTES:

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

		NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
	7:00 AM	0	0	0	28	0	60	0	135	83	64	223	0	593
	7:15 AM	0	0	0	17	0	78	0	77	102	60	269	0	603
	7:30 AM	0	0	0	2	1	90	0	62	105	47	237	0	544
	7:45 AM	0	0	0	6	0	80	0	87	115	71	259	0	618
	8:00 AM	0	0	0	3	1	56	0	64	106	40	229	0	499
	8:15 AM	0	0	0	10	0	70	0	63	102	47	192	0	484
	8:30 AM	0	0	0	8	0	54	0	71	90	43	175	0	441
	8:45 AM	0	0	0	6	1	55	0	45	103	41	232	0	483
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	80	3	543	0	604	806	413	1,816	0	4,266
	APPROACH %	0%	0%	0%	13%	0%	87%	0%	43%	57%	19%	81%	0%	
	APP/DEPART	0	/	0	626	/	1,222	1,411	/	684	2,229	/	2,360	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	53	1	308	0	361	405	242	988	0	2,358
	APPROACH %	0%	0%	0%	15%	0%	85%	0%	47%	53%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.953			0.878			0.932		0.954
	APP/DEPART	0	/	0	362	/	648	766	/	414	1,230	/	1,296	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	14	2	62	0	119	169	38	138	0	542
PM	4:15 PM	0	0	0	11	0	47	0	126	198	48	132	0	562
PM	4:30 PM	0	0	0	10	1	65	0	126	184	42	123	0	551
PM	4:45 PM	0	0	0	13	0	44	0	134	184	49	128	0	552
PM	5:00 PM	0	0	0	21	1	49	0	130	190	38	144	0	573
PM	5:15 PM	0	0	0	16	0	46	0	129	174	38	175	0	578
PM	5:30 PM	0	0	0	9	0	59	0	137	171	43	175	0	594
PM	5:45 PM	0	0	0	21	0	59	0	121	171	38	188	0	598
PM	VOLUMES	0	0	0	115	4	431	0	1,022	1,441	334	1,203	0	4,550
PM	APPROACH %	0%	0%	0%	21%	1%	78%	0%	41%	59%	22%	78%	0%	
PM	APP/DEPART	0	/	0	550	/	1,779	2,463	/	1,137	1,537	/	1,634	0
PM	BEGIN PEAK HR		5:00 PM											
PM	VOLUMES	0	0	0	67	1	213	0	517	706	157	682	0	2,343
PM	APPROACH %	0%	0%	0%	24%	0%	76%	0%	42%	58%	19%	81%	0%	
PM	PEAK HR FACTOR		0.000			0.878			0.955			0.928		0.980
PM	APP/DEPART	0	/	0	281	/	864	1,223	/	584	839	/	895	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	1	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	1	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	18	12	0
0	2	14	0
0	1	22	0
0	7	11	0
0	15	8	0
0	25	9	0
0	20	4	0
0	8	6	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	96	86	0
0	28	59	0
0	0	0	0
0	0	0	0
0	0	0	0
0	28	5	0
0	23	14	0
0	34	11	0
0	20	7	0
0	19	21	0
0	19	9	0
0	30	17	0
0	17	24	0
0	190	108	0
0	85	71	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

	NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	1	0	2	0	4	9	0	6	0	22
7:15 AM	0	0	0	0	0	1	0	1	0	3	4	0	9
7:30 AM	0	0	0	1	0	5	0	3	4	4	5	0	22
7:45 AM	0	0	0	0	0	4	0	3	1	0	6	0	14
8:00 AM	0	0	0	0	1	7	0	8	5	4	7	0	32
8:15 AM	0	0	0	0	2	4	0	7	7	0	5	0	25
8:30 AM	0	0	0	0	0	8	0	4	6	2	7	0	27
8:45 AM	0	0	0	1	1	2	0	7	8	1	5	0	25
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	3	4	33	0	37	40	14	45	0	176
APPROACH %	0%	0%	0%	8%	10%	83%	0%	48%	52%	24%	76%	0%	
APP/DEPART	0	/	0	40	/	58	77	/	40	59	/	78	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	1	4	21	0	26	26	7	24	0	109
APPROACH %	0%	0%	0%	4%	15%	81%	0%	50%	50%	23%	77%	0%	
PEAK HR FACTOR		0.000			0.813			0.867			0.705		0.852
APP/DEPART	0	/	0	26	/	37	52	/	27	31	/	45	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	0	2	0	4	4	2	8	0	21
4:15 PM	0	0	0	1	1	1	0	3	8	1	5	0	20
4:30 PM	0	0	0	2	0	2	0	4	2	4	4	0	18
4:45 PM	0	0	0	2	0	2	0	4	7	4	2	0	21
5:00 PM	0	0	0	0	0	1	0	6	4	1	4	0	16
5:15 PM	0	0	0	1	0	2	0	4	4	0	7	0	18
5:30 PM	0	0	0	0	0	2	0	4	6	2	2	0	16
5:45 PM	0	0	0	0	2	2	0	6	2	3	9	0	24
VOLUMES	0	0	0	7	3	14	0	35	37	17	41	0	154
APPROACH %	0%	0%	0%	29%	13%	58%	0%	49%	51%	29%	71%	0%	
APP/DEPART	0	/	0	24	/	57	72	/	42	58	/	55	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	6	1	7	0	15	21	11	19	0	80
APPROACH %	0%	0%	0%	43%	7%	50%	0%	42%	58%	37%	63%	0%	
PEAK HR FACTOR		0.000			0.875			0.818			0.750		0.952
APP/DEPART	0	/	0	14	/	33	36	/	21	30	/	26	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

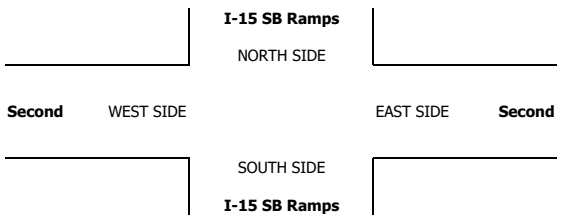
RTOR

NRR	SRR	ERR	WRR
0	1	3	0
0	1	0	0
0	0	2	0
0	0	0	0
0	2	2	0
0	2	0	0
0	3	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	10	7	0

0	8	2	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	1	0
0	1	0	0
0	1	0	0
0	1	1	0
0	2	3	0
0	1	0	0
0	1	0	0
0	8	5	0

0	3	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

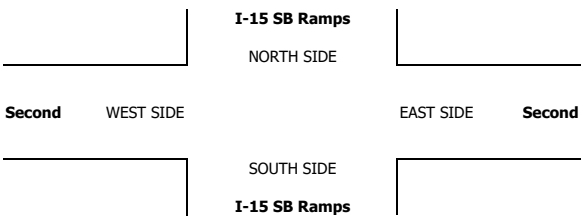
	NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	1	0	1	2	1	0	0	5
7:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	0	4	0	5
8:30 AM	0	0	0	0	0	0	0	1	2	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	1	0	4	8	1	5	0	20
APPROACH %	0%	0%	0%	50%	0%	50%	0%	33%	67%	17%	83%	0%	
APP/DEPART	0	/	0	2	/	9	12	/	5	6	/	6	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	0	0	0	0	0	1	5	0	5	0	11
APPROACH %	0%	0%	0%	0%	0%	0%	0%	17%	83%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.313		0.550
APP/DEPART	0	/	0	0	/	5	6	/	1	5	/	5	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
4:15 PM	0	0	0	0	0	0	0	0	2	0	1	0	3
4:30 PM	0	0	0	0	0	3	0	1	0	0	1	0	5
4:45 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
5:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	2
5:15 PM	0	0	0	0	0	1	0	0	2	0	1	0	4
5:30 PM	0	0	0	0	0	0	0	1	1	0	1	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	5	0	4	6	0	6	0	21
APPROACH %	0%	0%	0%	0%	0%	100%	0%	40%	60%	0%	100%	0%	
APP/DEPART	0	/	0	5	/	6	10	/	4	6	/	11	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	0	0	0	5	0	2	3	0	3	0	13
APPROACH %	0%	0%	0%	0%	0%	100%	0%	40%	60%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.417			0.625			0.750		0.650
APP/DEPART	0	/	0	5	/	3	5	/	2	3	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	3	0	0	4	0	2	0	9
	7:15 AM	0	0	0	0	0	0	0	3	1	0	1	0	5
	7:30 AM	0	0	0	0	0	2	0	1	1	0	0	0	4
	7:45 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
	8:00 AM	0	0	0	1	0	2	0	0	4	0	3	0	10
	8:15 AM	0	0	0	0	0	1	0	0	3	1	1	0	6
	8:30 AM	0	0	0	0	0	1	0	2	2	0	1	0	6
	8:45 AM	0	0	0	0	0	2	0	4	3	0	1	0	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	11	0	12	19	1	10	0	54
	APPROACH %	0%	0%	0%	8%	0%	92%	0%	39%	61%	9%	91%	0%	
	APP/DEPART	0	/	0	12	/	20	31	/	13	11	/	21	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	1	0	6	0	6	12	1	6	0	32
	APPROACH %	0%	0%	0%	14%	0%	86%	0%	33%	67%	14%	86%	0%	
	PEAK HR FACTOR		0.000			0.583			0.643			0.583		0.800
	APP/DEPART	0	/	0	7	/	13	18	/	7	7	/	12	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	2	0	2	1	0	4	0	9
	4:15 PM	0	0	0	0	0	0	0	0	1	1	2	0	4
	4:30 PM	0	0	0	0	0	2	0	2	1	0	1	0	6
	4:45 PM	0	0	0	0	0	1	0	0	1	0	2	0	4
	5:00 PM	0	0	0	1	0	0	0	2	0	1	2	0	6
	5:15 PM	0	0	0	0	0	0	0	0	1	0	2	0	3
	5:30 PM	0	0	0	0	0	3	0	1	1	0	1	0	6
	5:45 PM	0	0	0	1	0	0	0	2	3	0	2	0	8
	VOLUMES	0	0	0	2	0	8	0	9	9	2	16	0	46
	APPROACH %	0%	0%	0%	20%	0%	80%	0%	50%	50%	11%	89%	0%	
	APP/DEPART	0	/	0	10	/	11	18	/	11	18	/	24	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	2	0	3	0	5	5	1	7	0	23
	APPROACH %	0%	0%	0%	40%	0%	60%	0%	50%	50%	13%	88%	0%	
	PEAK HR FACTOR		0.000			0.417			0.500			0.500		0.639
	APP/DEPART	0	/	0	5	/	6	10	/	7	8	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Second			WESTBOUND Second			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	1	0	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	1	2	/	1	1	/	1	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	1	1	0	1	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.375
	APP/DEPART	0	/	0	0	/	1	2	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	31
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

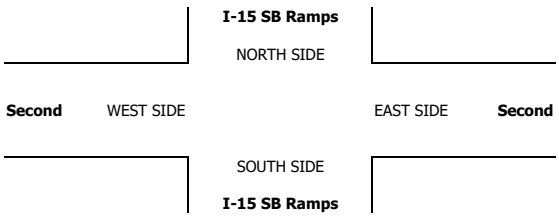
	NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Second			WESTBOUND Second			
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	1	3	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	2	4	0	0	0	6
7:30 AM	0	0	0	0	0	0	0	0	2	0	4	0	6
7:45 AM	0	0	0	0	0	0	0	0	2	0	4	0	6
8:00 AM	0	0	0	0	0	0	0	0	0	1	3	0	4
8:15 AM	0	0	0	0	0	0	0	2	0	0	3	0	5
8:30 AM	0	0	0	0	0	0	0	1	0	0	8	0	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	8	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	6	11	1	30	0	48
APPROACH %	0%	0%	0%	0%	0%	0%	0%	35%	65%	3%	97%	0%	
APP/DEPART	0	/	0	0	/	12	17	/	6	31	/	30	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	0	3	0	1	22	0	26
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	4%	96%	0%	
PEAK HR FACTOR		0.000			0.000			0.375			0.719		0.722
APP/DEPART	0	/	0	0	/	1	3	/	3	23	/	22	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	1	0	0	2	1	8	0	12
APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	100%	11%	89%	0%	
APP/DEPART	0	/	0	1	/	3	2	/	0	9	/	9	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	1	0	8	0	9
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.500		0.563
APP/DEPART	0	/	0	0	/	1	1	/	0	8	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

NOTES:

WB AM queue

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

Add U-Turns to Left Turns

		NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)				U-TURNS					RTOR			
	LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	0	0	10	36	18	167	0	102	2	15	179	0	529	0	0	0	0	0	8	25	0	0
	7:15 AM	0	0	21	50	14	152	0	132	5	14	203	0	591	0	0	0	0	0	14	22	1	0
	7:30 AM	0	0	17	50	9	156	0	136	6	18	210	0	602	0	0	0	0	0	10	18	4	0
	7:45 AM	0	0	17	43	18	124	0	143	8	22	183	0	558	0	0	0	0	0	10	37	3	0
	8:00 AM	0	0	18	44	13	116	0	134	8	13	153	0	499	0	0	0	0	0	11	45	5	0
	8:15 AM	0	0	13	50	5	116	0	136	2	14	130	0	466	0	0	0	0	0	8	45	1	0
	8:30 AM	0	0	18	36	18	104	0	115	8	13	136	0	448	0	0	0	0	0	14	42	4	0
	8:45 AM	0	0	17	45	16	99	0	113	5	31	151	0	477	0	0	0	0	0	11	31	2	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	131	354	111	1,034	0	1,011	44	140	1,345	0	4,170	0	0	0	0	0	86	265	20	0
	APPROACH %	0%	0%	100%	24%	7%	69%	0%	96%	4%	9%	91%	0%										
	APP/DEPART	131	/	0	1,499	/	295	1,055	/	1,496	1,485	/	2,379	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	0	65	179	59	599	0	513	21	69	775	0	2,280						42	102	8	0
	APPROACH %	0%	0%	100%	21%	7%	72%	0%	96%	4%	8%	92%	0%										
	PEAK HR FACTOR		0.774			0.947			0.884			0.925		0.947									
	APP/DEPART	65	/	0	837	/	149	534	/	757	844	/	1,374	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	51	81	21	64	0	281	11	29	138	0	676	0	0	0	0	0	22	28	5	0
	4:15 PM	0	0	50	86	13	59	0	267	7	26	140	0	648	0	0	0	0	0	23	29	0	0
	4:30 PM	0	0	47	101	14	57	0	251	14	33	146	0	663	0	0	0	0	0	22	32	4	0
	4:45 PM	0	0	52	88	13	72	0	300	10	28	164	0	727	0	0	0	0	0	21	37	3	0
	5:00 PM	0	0	47	85	25	68	0	296	11	28	139	0	699	0	0	0	0	0	20	41	9	0
	5:15 PM	0	0	52	97	21	58	0	320	8	28	172	0	756	0	0	0	0	0	17	31	3	0
	5:30 PM	0	0	55	106	14	75	0	261	9	17	158	0	695	0	0	0	0	0	31	42	5	0
	5:45 PM	0	0	45	93	15	76	0	272	10	32	150	0	693	0	0	0	0	0	17	35	1	0
	VOLUMES	0	0	399	737	136	529	0	2,248	80	221	1,207	0	5,557	0	0	0	0	0	173	275	30	0
	APPROACH %	0%	0%	100%	53%	10%	38%	0%	97%	3%	15%	85%	0%										
	APP/DEPART	399	/	0	1,402	/	437	2,328	/	3,384	1,428	/	1,736	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	206	376	73	273	0	1,177	38	101	633	0	2,877						89	151	20	0
	APPROACH %	0%	0%	100%	52%	10%	38%	0%	97%	3%	14%	86%	0%										
	PEAK HR FACTOR		0.936			0.926			0.926			0.918		0.951									
	APP/DEPART	206	/	0	722	/	212	1,215	/	1,759	734	/	906	0									

I-15 SB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

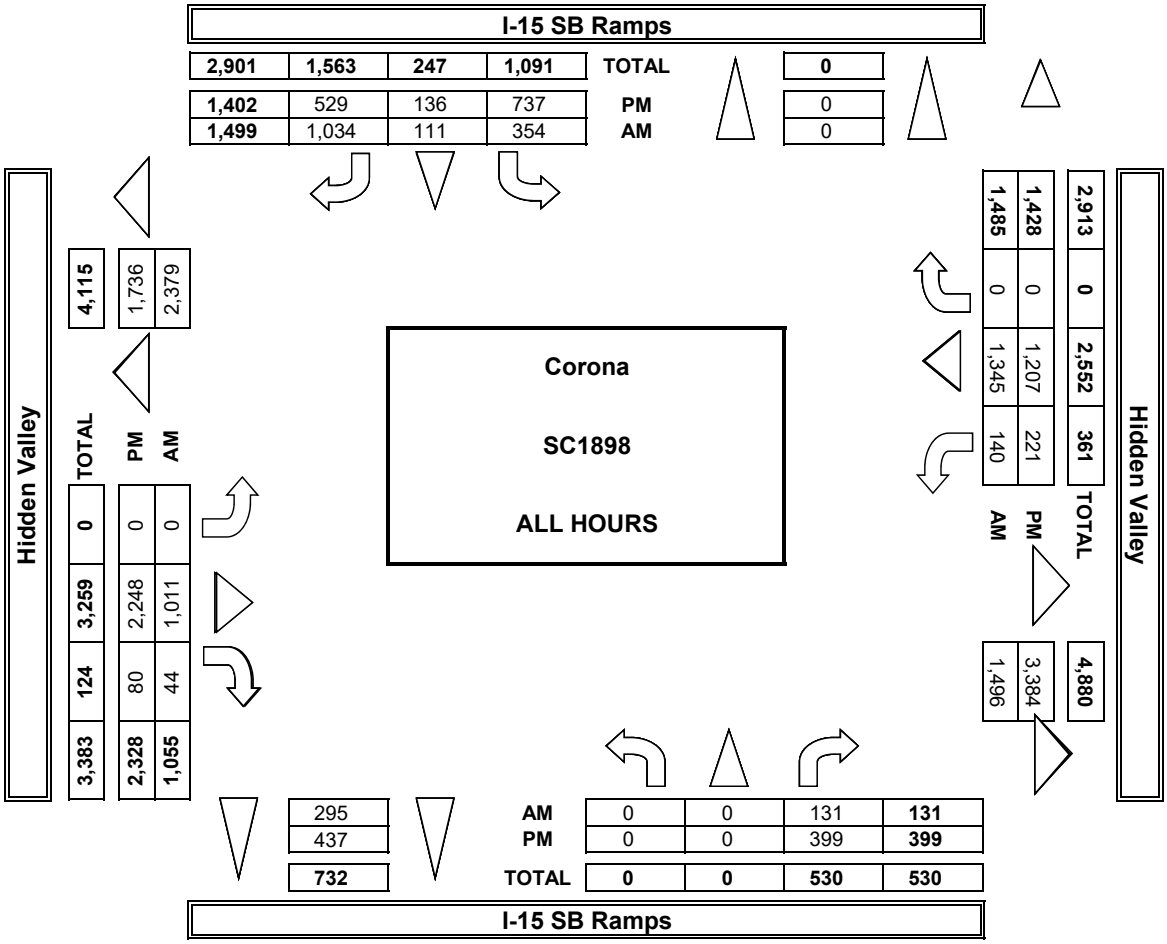
SOUTH SIDE

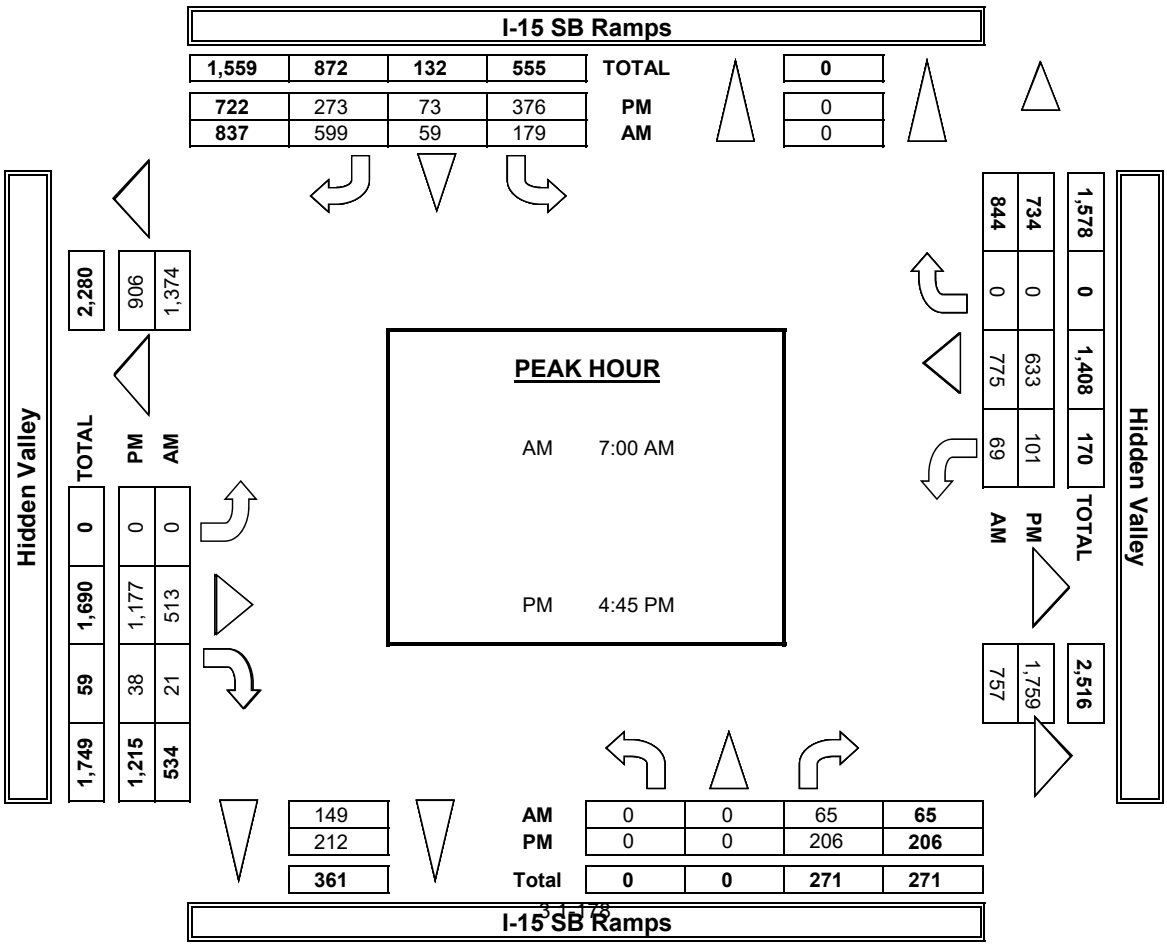
I-15 SB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:15 AM	0	0	0	8	8	0	0	0	8	8	0	0	0	0	0
	8:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	13	13	0	0	0	12	12	0	0	0	1	1
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	3	4	0	0	1	1	2	0	0	0	2	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

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

	NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM 7:00 AM	0	0	8	31	15	147	0	94	1	11	172	0	479
7:15 AM	0	0	15	46	12	140	0	122	5	13	199	0	552
7:30 AM	0	0	17	47	9	149	0	122	6	18	200	0	568
7:45 AM	0	0	14	37	15	116	0	135	6	21	176	0	520
8:00 AM	0	0	15	39	12	104	0	117	3	12	143	0	445
8:15 AM	0	0	8	46	3	103	0	120	2	13	124	0	419
8:30 AM	0	0	15	34	14	92	0	102	6	12	130	0	405
8:45 AM	0	0	12	44	15	88	0	99	5	29	137	0	429
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	104	324	95	939	0	911	34	129	1,281	0	3,817
APPROACH %	0%	0%	100%	24%	7%	69%	0%	96%	4%	9%	91%	0%	
APP/DEPART	104	/	0	1,358	/	258	945	/	1,339	1,410	/	2,220	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	54	161	51	552	0	473	18	63	747	0	2,119
APPROACH %	0%	0%	100%	21%	7%	72%	0%	96%	4%	8%	92%	0%	
PEAK HR FACTOR		0.794			0.932			0.871			0.929		0.933
APP/DEPART	54	/	0	764	/	132	491	/	688	810	/	1,299	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	47	78	17	62	0	269	11	25	136	0	645
4:15 PM	0	0	46	82	11	56	0	251	7	25	135	0	613
4:30 PM	0	0	45	93	13	53	0	240	14	32	136	0	626
4:45 PM	0	0	48	84	12	67	0	288	8	28	157	0	692
5:00 PM	0	0	43	84	21	64	0	286	11	27	134	0	670
5:15 PM	0	0	46	94	21	56	0	306	8	28	168	0	727
5:30 PM	0	0	53	104	13	73	0	249	9	16	153	0	670
5:45 PM	0	0	44	90	15	72	0	260	9	31	147	0	668
VOLUMES	0	0	372	709	123	503	0	2,149	77	212	1,166	0	5,311
APPROACH %	0%	0%	100%	53%	9%	38%	0%	97%	3%	15%	85%	0%	
APP/DEPART	372	/	0	1,335	/	412	2,226	/	3,230	1,378	/	1,669	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	0	190	366	67	260	0	1,129	36	99	612	0	2,759
APPROACH %	0%	0%	100%	53%	10%	38%	0%	97%	3%	14%	86%	0%	
PEAK HR FACTOR		0.896			0.912			0.928			0.907		0.949
APP/DEPART	190	/	0	693	/	202	1,165	/	1,685	711	/	872	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
7	22	0	0
11	21	1	0
10	18	4	0
8	34	2	0
9	40	2	0
5	37	1	0
12	37	4	0
10	28	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
72	237	16	0
36	95	7	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
22	28	5	0
22	27	0	0
20	29	4	0
20	35	3	0
18	38	9	0
14	30	3	0
29	42	5	0
17	35	1	0
162	264	30	0
81	145	20	0

I-15 SB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	2	4	2	17	0	3	1	3	6	0	38
	7:15 AM	0	0	5	3	0	7	0	4	0	1	2	0	22
	7:30 AM	0	0	0	2	0	3	0	7	0	0	7	0	19
	7:45 AM	0	0	3	5	3	4	0	6	1	1	6	0	29
	8:00 AM	0	0	2	4	1	7	0	11	5	1	9	0	40
	8:15 AM	0	0	5	3	2	9	0	9	0	1	4	0	33
	8:30 AM	0	0	3	2	4	8	0	10	2	1	3	0	33
	8:45 AM	0	0	4	1	0	6	0	8	0	0	8	0	27
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	24	24	12	61	0	58	9	8	45	0	241
	APPROACH %	0%	0%	100%	25%	12%	63%	0%	87%	13%	15%	85%	0%	
	APP/DEPART	24	/	0	97	/	29	67	/	106	53	/	106	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	13	14	10	28	0	36	8	4	22	0	135
	APPROACH %	0%	0%	100%	27%	19%	54%	0%	82%	18%	15%	85%	0%	
	PEAK HR FACTOR		0.650			0.929			0.688			0.650		0.844
	APP/DEPART	13	/	0	52	/	22	44	/	63	26	/	50	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	2	3	4	2	0	12	0	4	1	0	28
	4:15 PM	0	0	4	4	1	2	0	8	0	1	2	0	22
	4:30 PM	0	0	2	7	0	2	0	11	0	1	8	0	31
	4:45 PM	0	0	3	4	1	3	0	9	1	0	6	0	27
	5:00 PM	0	0	2	1	3	3	0	7	0	1	3	0	20
	5:15 PM	0	0	6	2	0	0	0	9	0	0	0	0	17
	5:30 PM	0	0	1	0	1	1	0	12	0	1	5	0	21
	5:45 PM	0	0	1	3	0	4	0	8	1	1	2	0	20
	VOLUMES	0	0	21	24	10	17	0	76	2	9	27	0	186
	APPROACH %	0%	0%	100%	47%	20%	33%	0%	97%	3%	25%	75%	0%	
	APP/DEPART	21	/	0	51	/	21	78	/	121	36	/	44	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	11	18	6	9	0	40	1	6	17	0	108
	APPROACH %	0%	0%	100%	55%	18%	27%	0%	98%	2%	26%	74%	0%	
	PEAK HR FACTOR		0.688			0.917			0.854			0.639		0.871
	APP/DEPART	11	/	0	33	/	13	41	/	69	23	/	26	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
1	3	0	0
3	1	0	0
0	0	0	0
2	1	1	0
1	4	3	0
3	6	0	0
2	3	0	0
1	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
13	19	4	0
8	14	4	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
8	7	0	0
3	4	0	0

I-15 SB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

	NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
7:45 AM	0	0	0	1	0	1	0	0	0	0	1	0	3
8:00 AM	0	0	0	0	0	1	0	3	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
8:45 AM	0	0	1	0	0	1	0	3	0	1	1	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	2	3	1	3	0	10	0	1	4	0	24
APPROACH %	0%	0%	100%	43%	14%	43%	0%	100%	0%	20%	80%	0%	
APP/DEPART	2	/	0	7	/	2	10	/	15	5	/	7	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	1	0	0	2	0	10	0	1	2	0	16
APPROACH %	0%	0%	100%	0%	0%	100%	0%	100%	0%	33%	67%	0%	
PEAK HR FACTOR		0.250			0.500			0.833			0.375		0.571
APP/DEPART	1	/	0	2	/	1	10	/	11	3	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	2
4:30 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	2	0	2	0	1	0	0	3	0	8
APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	4	/	0	1	/	3	3	/	5	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	0	0	1	0	2	0	1	0	0	3	0	7
APPROACH %	0%	0%	0%	33%	0%	67%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.750			0.250			0.375		0.583
APP/DEPART	0	/	0	3	/	0	1	/	2	3	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

I-15 SB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	1	3	0	3	0	1	0	0	8
	7:15 AM	0	0	0	0	1	5	0	4	0	0	1	0	11
	7:30 AM	0	0	0	0	0	4	0	5	0	0	1	0	10
	7:45 AM	0	0	0	0	0	3	0	1	0	0	0	0	4
	8:00 AM	0	0	0	0	0	4	0	3	0	0	1	0	8
	8:15 AM	0	0	0	1	0	4	0	4	0	0	1	0	10
	8:30 AM	0	0	0	0	0	4	0	1	0	0	0	0	5
	8:45 AM	0	0	0	0	1	4	0	3	0	1	1	0	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	3	31	0	24	0	2	5	0	66
	APPROACH %	0%	0%	0%	3%	9%	89%	0%	100%	0%	29%	71%	0%	
	APP/DEPART	0	/	0	35	/	5	24	/	25	7	/	36	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	1	1	16	0	11	0	1	3	0	33
	APPROACH %	0%	0%	0%	6%	6%	89%	0%	100%	0%	25%	75%	0%	
	PEAK HR FACTOR		0.000			0.750			0.550			0.500		0.750
	APP/DEPART	0	/	0	18	/	2	11	/	12	4	/	19	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	0	0	0	1	0	0	8	0	0	1	0	10
	4:30 PM	0	0	0	0	1	2	0	0	0	0	0	0	3
	4:45 PM	0	0	1	0	0	1	0	3	1	0	0	0	6
	5:00 PM	0	0	2	0	1	1	0	2	0	0	2	0	8
	5:15 PM	0	0	0	1	0	2	0	4	0	0	3	0	10
	5:30 PM	0	0	1	1	0	1	0	0	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	VOLUMES	0	0	6	2	3	7	0	21	1	0	7	0	47
	APPROACH %	0%	0%	100%	17%	25%	58%	0%	95%	5%	0%	100%	0%	
	APP/DEPART	6	/	0	12	/	4	22	/	29	7	/	14	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	4	2	1	5	0	9	1	0	5	0	27
	APPROACH %	0%	0%	100%	25%	13%	63%	0%	90%	10%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.667			0.313			0.417		0.675
	APP/DEPART	4	/	0	8	/	2	10	/	15	5	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

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

		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	32
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

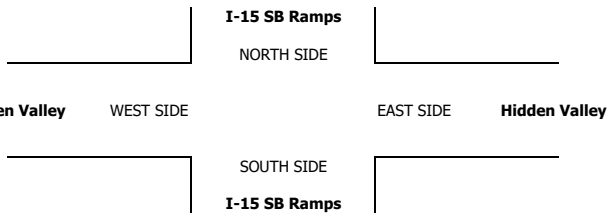
	NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL X	NT X	NR 1	SL 1.3	ST 0.3	SR 1.3	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:15 AM	0	0	0	1	0	0	0	2	0	0	1	0	4
7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
8:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	2	0	0	0	8	1	0	10	0	22
APPROACH %	0%	0%	100%	100%	0%	0%	0%	89%	11%	0%	100%	0%	
APP/DEPART	1	/	0	2	/	1	9	/	11	10	/	10	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	1	0	0	0	7	1	0	3	0	12
APPROACH %	0%	0%	0%	100%	0%	0%	0%	88%	13%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			1.000			0.750		0.750
APP/DEPART	0	/	0	1	/	1	8	/	8	3	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	0	4	0	5
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	1	/	1	4	/	4	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	1	0	0	2	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.500		0.375
APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: I-15 SB Ramps
EAST & WEST: Hidden Valley

PROJECT #: SC1898
LOCATION #: 33
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	107	46	42	190	0	385
	7:15 AM	0	0	0	0	0	0	0	138	58	47	242	0	485
	7:30 AM	0	0	0	0	0	0	0	143	67	46	205	0	461
	7:45 AM	0	0	0	0	0	0	0	137	66	50	195	0	448
	8:00 AM	0	0	0	0	0	0	0	121	79	28	170	0	398
	8:15 AM	0	0	0	0	0	0	0	139	54	28	151	0	372
	8:30 AM	0	0	0	0	0	0	0	120	51	35	153	0	359
	8:45 AM	0	0	0	0	0	0	0	128	46	46	176	0	396
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1,033	467	322	1,482	0	3,304
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	69%	31%	18%	82%	0%	
	APP/DEPART	0	/	0	0	/	785	1,500	/	1,037	1,804	/	1,482	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	539	270	171	812	0	1,792
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	17%	83%	0%	
	PEAK HR FACTOR		0.000			0.000			0.963			0.850		0.924
	APP/DEPART	0	/	0	0	/	439	809	/	541	983	/	812	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	299	100	54	175	0	628
	4:15 PM	0	0	0	0	0	0	0	315	109	34	160	0	618
	4:30 PM	0	0	0	0	0	0	0	312	89	34	182	0	617
	4:45 PM	0	0	0	0	0	0	0	340	86	33	189	0	648
	5:00 PM	0	0	0	0	0	0	0	347	94	40	167	0	648
	5:15 PM	0	0	0	0	0	0	0	358	99	34	191	0	682
	5:30 PM	0	0	0	0	0	0	0	324	99	34	181	0	638
	5:45 PM	0	0	0	0	0	0	0	341	74	41	186	0	642
	VOLUMES	0	0	0	0	0	0	0	2,636	750	304	1,431	0	5,121
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	18%	82%	0%	
	APP/DEPART	0	/	0	0	/	1,051	3,386	/	2,639	1,735	/	1,431	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	1,369	378	141	728	0	2,616
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	16%	84%	0%	
	PEAK HR FACTOR		0.000			0.000			0.956			0.966		0.959
	APP/DEPART	0	/	0	0	/	516	1,747	/	1,372	869	/	728	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	2	2
0	0	0	0	0
0	0	0	3	3

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	4	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	28	0

0	0	15	0

I-15 SB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

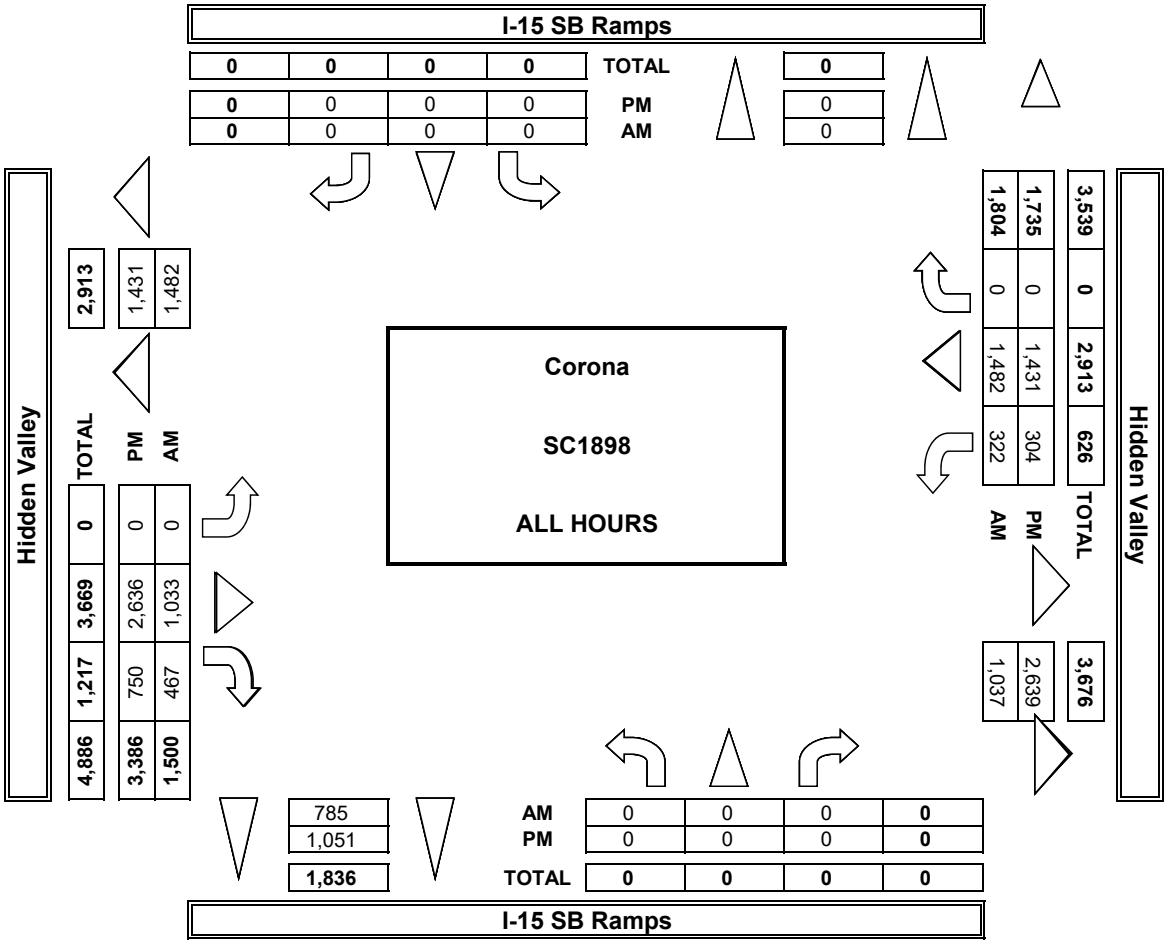
SOUTH SIDE

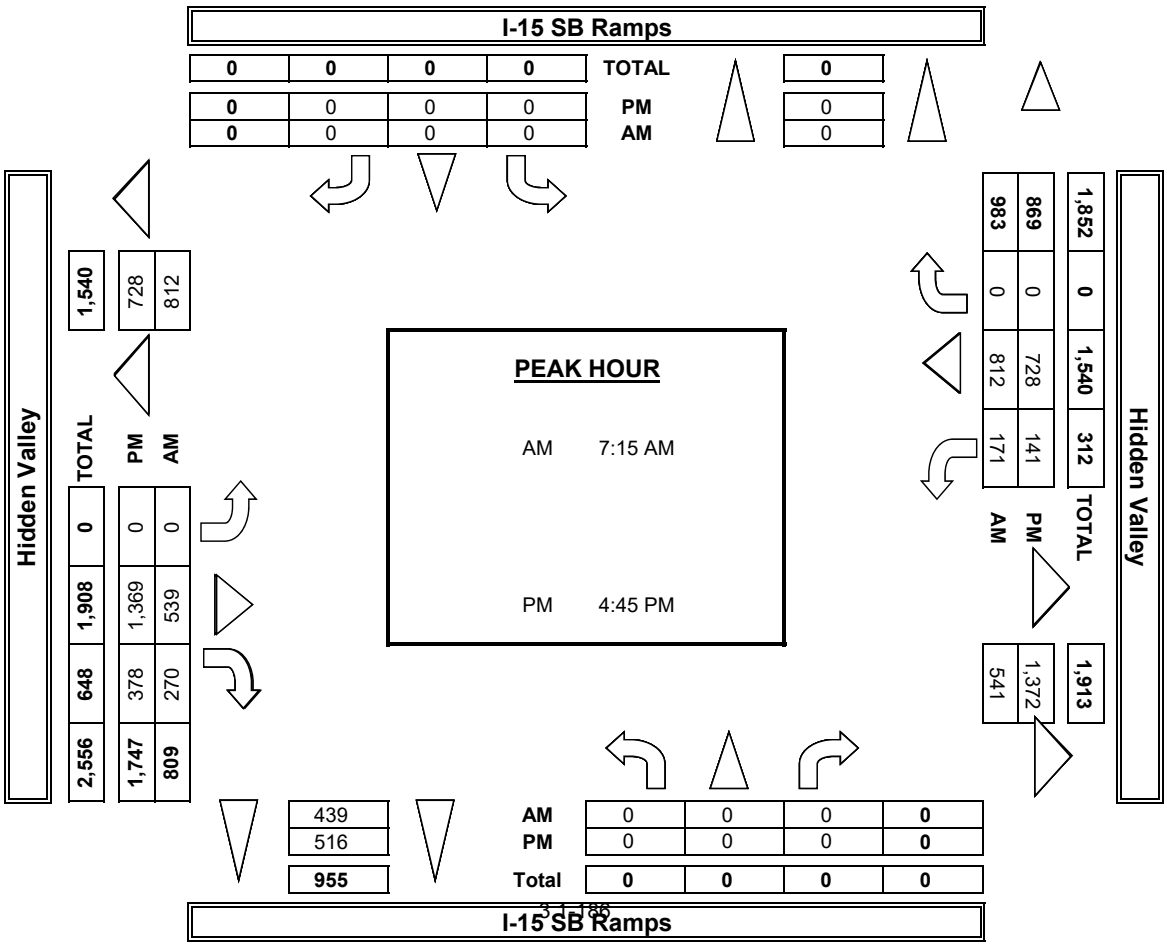
I-15 SB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	2	3	0	0	1	0	1	0	0	0	2	2
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	5:45 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	TOTAL	0	0	4	1	5	0	0	4	0	4	0	0	0	1	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	93	44	42	177	0	356
7:15 AM	0	0	0	0	0	0	0	128	52	44	236	0	460
7:30 AM	0	0	0	0	0	0	0	134	57	41	197	0	429
7:45 AM	0	0	0	0	0	0	0	130	55	48	187	0	420
8:00 AM	0	0	0	0	0	0	0	104	68	23	162	0	357
8:15 AM	0	0	0	0	0	0	0	125	48	23	144	0	340
8:30 AM	0	0	0	0	0	0	0	109	42	31	146	0	328
8:45 AM	0	0	0	0	0	0	0	118	36	46	158	0	358
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	941	402	298	1,407	0	3,048
APPROACH %	0%	0%	0%	0%	0%	0%	0%	70%	30%	17%	83%	0%	
APP/DEPART	0	/	0	0	/	696	1,343	/	945	1,705	/	1,407	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	496	232	154	782	0	1,666
APPROACH %	0%	0%	0%	0%	0%	0%	0%	68%	32%	16%	83%	0%	
PEAK HR FACTOR		0.000			0.000			0.953			0.838		0.905
APP/DEPART	0	/	0	0	/	386	728	/	498	938	/	782	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	288	90	52	169	0	599
4:15 PM	0	0	0	0	0	0	0	299	102	33	154	0	588
4:30 PM	0	0	0	0	0	0	0	299	85	32	173	0	589
4:45 PM	0	0	0	0	0	0	0	325	80	31	183	0	619
5:00 PM	0	0	0	0	0	0	0	334	92	38	162	0	626
5:15 PM	0	0	0	0	0	0	0	340	93	31	184	0	648
5:30 PM	0	0	0	0	0	0	0	314	93	34	176	0	617
5:45 PM	0	0	0	0	0	0	0	326	72	41	180	0	619
VOLUMES	0	0	0	0	0	0	0	2,525	707	292	1,381	0	4,905
APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	17%	83%	0%	
APP/DEPART	0	/	0	0	/	996	3,232	/	2,528	1,673	/	1,381	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	0	0	0	0	0	0	1,314	350	141	702	0	2,510
APPROACH %	0%	0%	0%	0%	0%	0%	0%	79%	21%	17%	83%	0%	
PEAK HR FACTOR		0.000			0.000			0.961			0.957		0.968
APP/DEPART	0	/	0	0	/	491	1,664	/	1,317	846	/	702	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

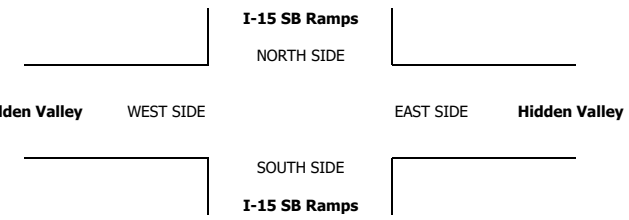
		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	8	2	0	10	0	20
	7:15 AM	0	0	0	0	0	0	0	5	3	2	4	0	14
	7:30 AM	0	0	0	0	0	0	0	5	6	3	6	0	20
	7:45 AM	0	0	0	0	0	0	0	6	9	2	7	0	24
	8:00 AM	0	0	0	0	0	0	0	11	8	4	7	0	30
	8:15 AM	0	0	0	0	0	0	0	8	5	3	4	0	20
	8:30 AM	0	0	0	0	0	0	0	9	8	2	4	0	23
	8:45 AM	0	0	0	0	0	0	0	6	7	0	11	0	24
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	58	48	16	53	0	175
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	55%	45%	23%	77%	0%	
	APP/DEPART	0	/	0	0	/	64	106	/	58	69	/	53	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	34	28	9	26	0	97
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	55%	45%	26%	74%	0%	
	PEAK HR FACTOR		0.000			0.000			0.816			0.795		0.808
	APP/DEPART	0	/	0	0	/	37	62	/	34	35	/	26	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	10	7	1	4	0	22
	4:15 PM	0	0	0	0	0	0	0	14	2	1	3	0	20
	4:30 PM	0	0	0	0	0	0	0	12	4	2	8	0	26
	4:45 PM	0	0	0	0	0	0	0	14	4	1	5	0	24
	5:00 PM	0	0	0	0	0	0	0	9	1	2	3	0	15
	5:15 PM	0	0	0	0	0	0	0	12	6	3	3	0	24
	5:30 PM	0	0	0	0	0	0	0	9	5	0	5	0	19
	5:45 PM	0	0	0	0	0	0	0	11	1	0	5	0	17
	VOLUMES	0	0	0	0	0	0	0	91	30	10	36	0	167
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	75%	25%	22%	78%	0%	
	APP/DEPART	0	/	0	0	/	40	121	/	91	46	/	36	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	50	17	5	20	0	92
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	75%	25%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.000			0.931			0.625		0.885
	APP/DEPART	0	/	0	0	/	22	67	/	50	25	/	20	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

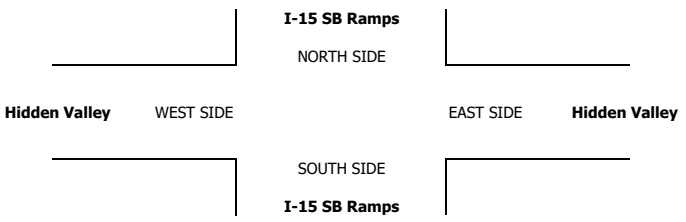
	NORTHBOUND (I-15 SB Ramps)			SOUTHBOUND (I-15 SB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	1	0	1	1	0	3
7:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	2	2	1	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
8:30 AM	0	0	0	0	0	0	0	1	1	0	1	0	3
8:45 AM	0	0	0	0	0	0	0	2	2	0	1	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	8	7	2	5	0	22
APPROACH %	0%	0%	0%	0%	0%	0%	0%	53%	47%	29%	71%	0%	
APP/DEPART	0	/	0	0	/	9	15	/	8	7	/	5	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	0	5	6	1	3	0	15
APPROACH %	0%	0%	0%	0%	0%	0%	0%	45%	55%	25%	75%	0%	
PEAK HR FACTOR		0.000			0.000			0.688			1.000		0.750
APP/DEPART	0	/	0	0	/	7	11	/	5	4	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	2	1	0	3	0	6
APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	1	3	/	2	3	/	3	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	2	1	0	2	0	5
APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.750			0.500		0.625
APP/DEPART	0	/	0	0	/	1	3	/	2	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	7:15 AM	0	0	0	0	0	0	0	1	3	0	2	0	6
	7:30 AM	0	0	0	0	0	0	0	2	3	0	0	0	5
	7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	8:15 AM	0	0	0	0	0	0	0	5	0	2	1	0	8
	8:30 AM	0	0	0	0	0	0	0	1	0	2	1	0	4
	8:45 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	17	8	4	7	0	36
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	68%	32%	36%	64%	0%	
	APP/DEPART	0	/	0	0	/	12	25	/	17	11	/	7	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	0	11	1	4	4	0	20
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	92%	8%	50%	50%	0%	
	PEAK HR FACTOR		0.000			0.000			0.600			0.667		0.625
	APP/DEPART	0	/	0	0	/	5	12	/	11	8	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	3	1	0	0	5
	4:15 PM	0	0	0	0	0	0	0	2	5	0	1	0	8
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	1	1	0	0	3
	5:00 PM	0	0	0	0	0	0	0	3	1	0	2	0	6
	5:15 PM	0	0	0	0	0	0	0	5	0	0	3	0	8
	5:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	4	1	0	1	0	6
	VOLUMES	0	0	0	0	0	0	0	17	12	2	7	0	38
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	59%	41%	22%	78%	0%	
	APP/DEPART	0	/	0	0	/	14	29	/	17	9	/	7	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	13	3	0	6	0	22
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	81%	19%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.800			0.500		0.688
	APP/DEPART	0	/	0	0	/	3	16	/	13	6	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

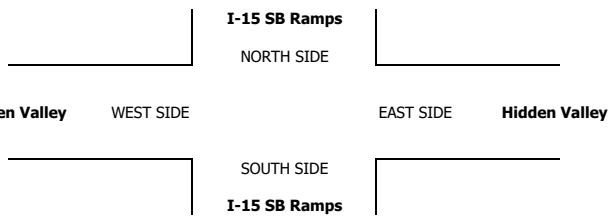
	NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 SB Ramps	LOCATION #:	33
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

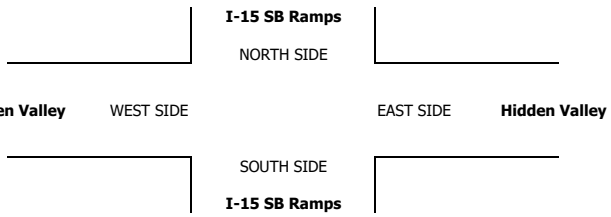
	NORTHBOUND I-15 SB Ramps			SOUTHBOUND I-15 SB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 1.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
7:15 AM	0	0	0	0	0	0	0	3	0	1	0	0	4
7:30 AM	0	0	0	0	0	0	0	1	1	1	1	0	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	9	2	2	10	0	23
APPROACH %	0%	0%	0%	0%	0%	0%	0%	82%	18%	17%	83%	0%	
APP/DEPART	0	/	0	0	/	4	11	/	9	12	/	10	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	7	1	2	3	0	13
APPROACH %	0%	0%	0%	0%	0%	0%	0%	88%	13%	40%	60%	0%	
PEAK HR FACTOR		0.000			0.000			0.667			0.625		0.813
APP/DEPART	0	/	0	0	/	3	8	/	7	5	/	3	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	0	4	0	5
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	1	/	1	4	/	4	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	1	0	0	2	0	3
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.500		0.375
APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: I-15 NB Ramps
EAST & WEST: Second

PROJECT #: SC1898
LOCATION #: 34
CONTROL: SIGNAL

NOTES: Queue AM/EB

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

Add U-Turns to Left Turns

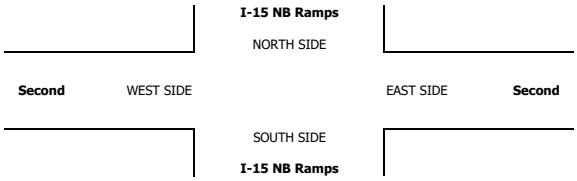
		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	181	4	138	0	0	0	24	144	0	0	114	24	629
AM	7:15 AM	188	1	124	0	0	0	23	78	0	0	149	17	580
AM	7:30 AM	167	2	139	0	0	0	33	37	0	0	130	13	521
AM	7:45 AM	179	0	161	0	0	0	34	64	0	0	159	17	614
AM	8:00 AM	173	2	108	0	0	0	28	48	0	0	114	25	498
AM	8:15 AM	162	1	50	0	0	0	41	41	0	0	91	17	403
AM	8:30 AM	147	1	42	0	0	0	43	44	0	0	89	11	377
AM	8:45 AM	182	0	63	0	0	0	30	33	0	0	107	16	431
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	1,379	11	825	0	0	0	256	489	0	0	953	140	4,053
AM	APPROACH %	62%	0%	37%	0%	0%	0%	34%	66%	0%	0%	87%	13%	
AM	APP/DEPART	2,215	/	407	0	/	0	745	/	1,314	1,093	/	2,332	0
AM	BEGIN PEAK HR		7:00 AM											
AM	VOLUMES	715	7	562	0	0	0	114	323	0	0	552	71	2,344
AM	APPROACH %	56%	1%	44%	0%	0%	0%	26%	74%	0%	0%	89%	11%	
AM	PEAK HR FACTOR		0.944			0.000			0.650			0.885		0.932
AM	APP/DEPART	1,284	/	192	0	/	0	437	/	885	623	/	1,267	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	132	1	70	0	0	0	83	58	0	0	63	9	416
PM	4:15 PM	107	1	64	0	0	0	86	54	0	0	87	11	410
PM	4:30 PM	103	0	81	0	0	0	86	59	0	0	74	12	415
PM	4:45 PM	84	0	74	0	0	0	79	74	0	0	99	17	427
PM	5:00 PM	111	0	89	0	0	0	88	70	0	0	79	13	450
PM	5:15 PM	163	1	127	0	0	0	83	67	0	0	60	16	517
PM	5:30 PM	128	1	80	0	0	0	91	62	0	0	97	9	468
PM	5:45 PM	165	3	92	0	0	0	78	72	0	0	75	8	493
PM	VOLUMES	993	7	677	0	0	0	674	516	0	0	634	95	3,596
PM	APPROACH %	59%	0%	40%	0%	0%	0%	57%	43%	0%	0%	87%	13%	
PM	APP/DEPART	1,677	/	776	0	/	0	1,190	/	1,193	729	/	1,627	0
PM	BEGIN PEAK HR		5:00 PM											
PM	VOLUMES	567	5	388	0	0	0	340	271	0	0	311	46	1,928
PM	APPROACH %	59%	1%	40%	0%	0%	0%	56%	44%	0%	0%	87%	13%	
PM	PEAK HR FACTOR		0.825			0.000			0.967			0.842		0.932
PM	APP/DEPART	960	/	391	0	/	0	611	/	659	357	/	878	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
27	0	0	5
29	0	0	3
38	0	0	1
42	0	0	1
37	0	0	8
15	0	0	4
18	0	0	0
25	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
231	0	0	25
136	0	0	10
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
28	0	0	3
28	0	0	0
39	0	0	5
45	0	0	6
34	0	0	4
48	0	0	3
44	0	0	2
35	0	0	2
301	0	0	25
161	0	0	11



ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	0	7	1	8
7:15 AM	0	0	5	2	7
7:30 AM	0	0	2	0	2
7:45 AM	0	0	5	1	6
8:00 AM	0	0	0	0	0
8:15 AM	0	0	3	0	3
8:30 AM	0	0	2	0	2
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	0	0	24	4	28
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	2	1	3
4:15 PM	0	0	3	1	4
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	3	2	5
5:15 PM	0	0	0	0	0
5:30 PM	0	0	1	1	2
5:45 PM	0	0	0	0	0
TOTAL	0	0	9	5	14

PEDESTRIAN CROSSINGS

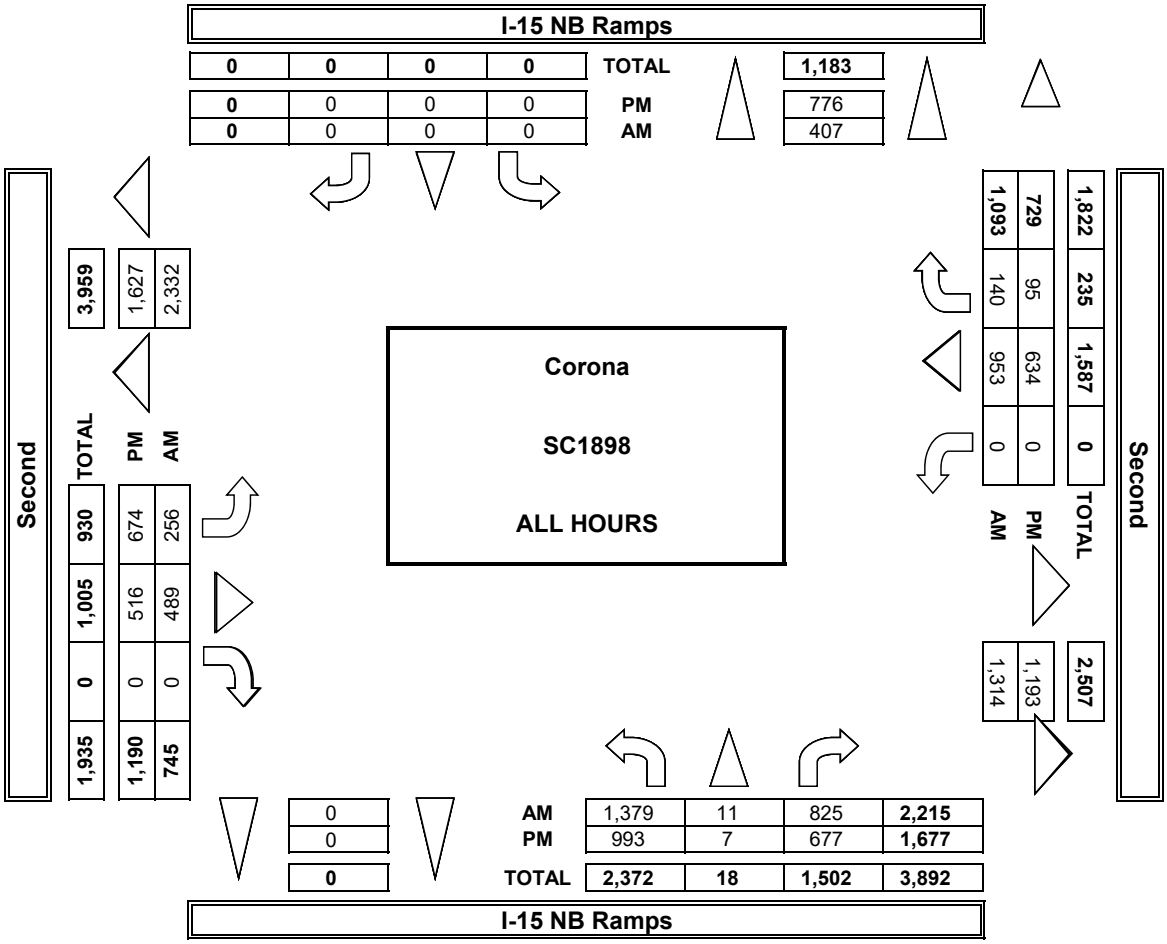
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	6	1	7
0	0	3	1	4
0	0	2	0	2
0	0	4	0	4
0	0	0	0	0
0	0	3	0	3
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	20	2	22
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	2	5
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	8	3	11

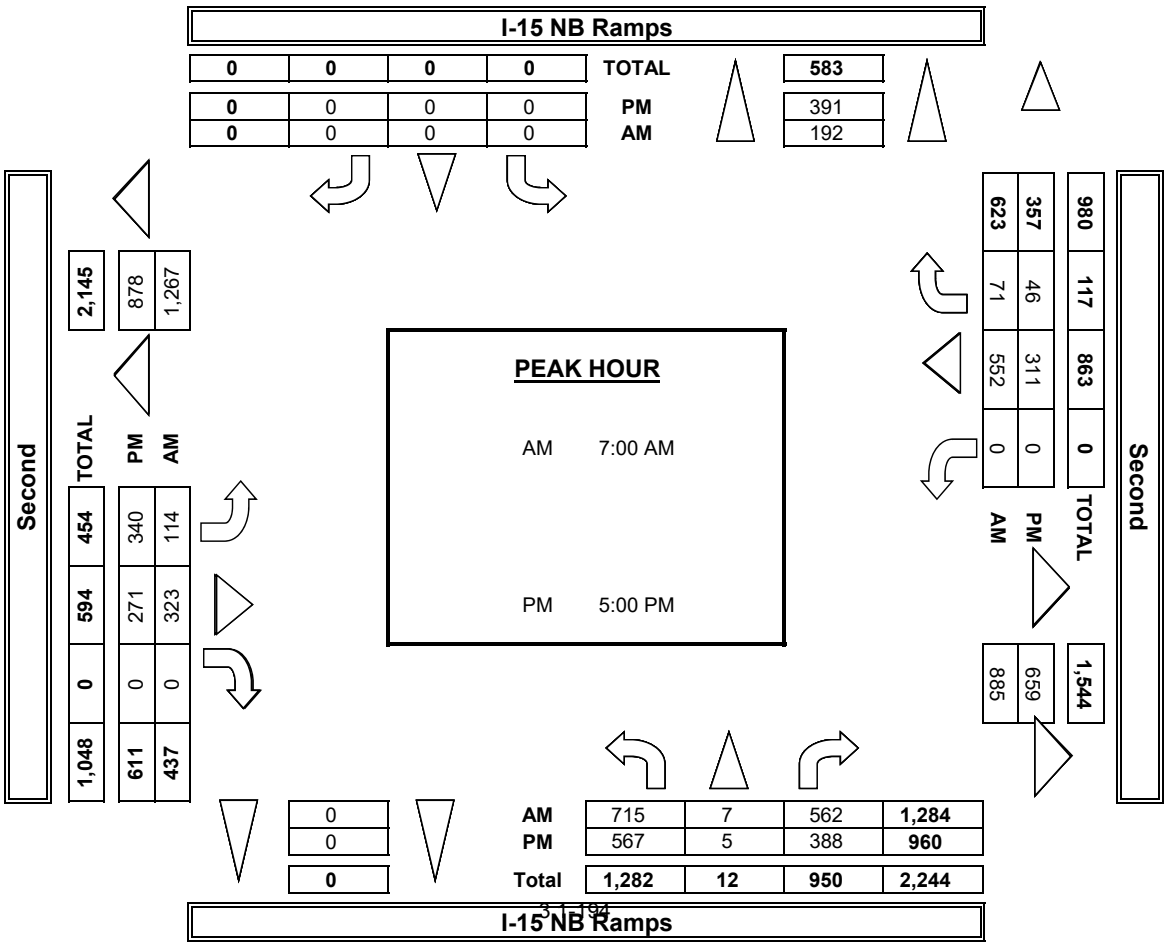
BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
0	0	1	0	1
0	0	2	1	3
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	4	2	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	2	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

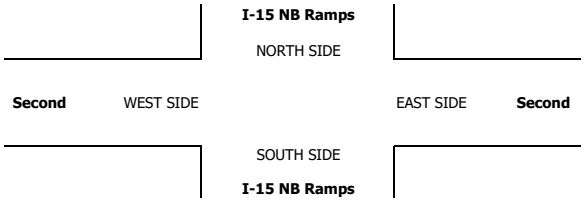
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	176	3	136	0	0	0	23	138	0	0	111	23	610
7:15 AM	187	0	117	0	0	0	20	74	0	0	145	15	558
7:30 AM	157	2	135	0	0	0	29	34	0	0	121	13	491
7:45 AM	175	0	158	0	0	0	31	62	0	0	153	15	594
8:00 AM	164	1	103	0	0	0	23	44	0	0	110	24	469
8:15 AM	150	0	49	0	0	0	36	37	0	0	87	17	376
8:30 AM	136	0	38	0	0	0	38	41	0	0	81	9	343
8:45 AM	169	0	60	0	0	0	22	29	0	0	103	16	399
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1,314	6	796	0	0	0	222	459	0	0	911	132	3,840
APPROACH %	62%	0%	38%	0%	0%	0%	33%	67%	0%	0%	87%	13%	
APP/DEPART	2,116	/	360	0	/	0	681	/	1,255	1,043	/	2,225	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	695	5	546	0	0	0	103	308	0	0	530	66	2,253
APPROACH %	56%	0%	44%	0%	0%	0%	25%	75%	0%	0%	89%	11%	
PEAK HR FACTOR	0.935			0.000			0.638			0.887			0.923
APP/DEPART	1,246	/	174	0	/	0	411	/	854	596	/	1,225	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	119	1	66	0	0	0	76	55	0	0	60	9	386
4:15 PM	101	1	62	0	0	0	81	52	0	0	80	10	387
4:30 PM	96	0	77	0	0	0	82	55	0	0	68	12	390
4:45 PM	80	0	72	0	0	0	77	72	0	0	95	16	412
5:00 PM	105	0	86	0	0	0	84	68	0	0	76	13	432
5:15 PM	156	1	118	0	0	0	76	66	0	0	56	16	489
5:30 PM	126	1	75	0	0	0	86	60	0	0	91	7	446
5:45 PM	157	2	90	0	0	0	70	72	0	0	69	8	468
VOLUMES	940	6	646	0	0	0	632	500	0	0	595	91	3,410
APPROACH %	59%	0%	41%	0%	0%	0%	56%	44%	0%	0%	87%	13%	
APP/DEPART	1,592	/	729	0	/	0	1,132	/	1,146	686	/	1,535	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	544	4	369	0	0	0	316	266	0	0	292	44	1,835
APPROACH %	59%	0%	40%	0%	0%	0%	54%	46%	0%	0%	87%	13%	
PEAK HR FACTOR	0.834			0.000			0.957			0.857			0.938
APP/DEPART	917	/	364	0	/	0	582	/	635	336	/	836	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0
AM 7:15 AM	0	0	0	0	0
AM 7:30 AM	0	0	0	0	0
AM 7:45 AM	0	0	0	0	0
AM 8:00 AM	0	0	0	0	0
AM 8:15 AM	0	0	0	0	0
AM 8:30 AM	0	0	0	0	0
AM 8:45 AM	0	0	0	0	0
AM 9:00 AM	0	0	0	0	0
AM 9:15 AM	0	0	0	0	0
AM 9:30 AM	0	0	0	0	0
AM 9:45 AM	0	0	0	0	0
AM VOLUMES	0	0	0	0	0
PM 03:00 PM	0	0	0	0	0
PM 3:15 PM	0	0	0	0	0
PM 3:30 PM	0	0	0	0	0
PM 3:45 PM	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0
PM 4:45 PM	0	0	0	0	0
PM 5:00 PM	0	0	0	0	0
PM 5:15 PM	0	0	0	0	0
PM 5:30 PM	0	0	0	0	0
PM 5:45 PM	0	0	0	0	0
PM VOLUMES	0	0	0	0	0

	NRR	SRR	ERR	WRR
	0	0	0	0
AM 7:00 AM	27	0	0	5
AM 7:15 AM	27	0	0	3
AM 7:30 AM	36	0	0	1
AM 7:45 AM	41	0	0	1
AM 8:00 AM	36	0	0	8
AM 8:15 AM	14	0	0	4
AM 8:30 AM	16	0	0	0
AM 8:45 AM	22	0	0	3
AM 9:00 AM	0	0	0	0
AM 9:15 AM	0	0	0	0
AM 9:30 AM	0	0	0	0
AM 9:45 AM	0	0	0	0
AM VOLUMES	219	0	0	25
AM PEAK HR VOLUMES	131	0	0	10
PM 03:00 PM	0	0	0	0
PM 3:15 PM	0	0	0	0
PM 3:30 PM	0	0	0	0
PM 3:45 PM	0	0	0	0
PM 4:00 PM	26	0	0	3
PM 4:15 PM	28	0	0	0
PM 4:30 PM	37	0	0	5
PM 4:45 PM	44	0	0	5
PM 5:00 PM	32	0	0	4
PM 5:15 PM	41	0	0	3
PM 5:30 PM	41	0	0	2
PM 5:45 PM	34	0	0	2
PM VOLUMES	283	0	0	24
PM PEAK HR VOLUMES	148	0	0	11



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Second			WESTBOUND Second			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	3	1	2	0	0	0	1	4	0	0	3	1	15
7:15 AM	0	1	5	0	0	0	0	1	0	0	3	2	12
7:30 AM	7	0	3	0	0	0	2	2	0	0	6	0	20
7:45 AM	2	0	0	0	0	0	1	2	0	0	4	2	11
8:00 AM	4	1	3	0	0	0	4	4	0	0	2	1	19
8:15 AM	6	1	1	0	0	0	5	2	0	0	2	0	17
8:30 AM	6	1	3	0	0	0	2	2	0	0	4	1	19
8:45 AM	5	0	3	0	0	0	4	4	0	0	2	0	18
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	33	5	20	0	0	0	19	21	0	0	26	7	131
APPROACH %	57%	9%	34%	0%	0%	0%	48%	53%	0%	0%	79%	21%	
APP/DEPART	58	/	31	0	/	0	40	/	41	33	/	59	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	21	3	10	0	0	0	15	12	0	0	10	2	73
APPROACH %	62%	9%	29%	0%	0%	0%	56%	44%	0%	0%	83%	17%	
PEAK HR FACTOR		0.850			0.000			0.844			0.600		0.961
APP/DEPART	34	/	20	0	/	0	27	/	22	12	/	31	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	8	0	2	0	0	0	4	3	0	0	2	0	19
4:15 PM	2	0	2	0	0	0	3	2	0	0	4	0	13
4:30 PM	3	0	3	0	0	0	2	4	0	0	5	0	17
4:45 PM	2	0	2	0	0	0	1	2	0	0	4	0	11
5:00 PM	4	0	3	0	0	0	2	2	0	0	1	0	12
5:15 PM	4	0	7	0	0	0	6	1	0	0	3	0	21
5:30 PM	0	0	5	0	0	0	2	2	0	0	4	0	13
5:45 PM	6	1	2	0	0	0	6	0	0	0	6	0	21
VOLUMES	29	1	26	0	0	0	26	16	0	0	29	0	127
APPROACH %	52%	2%	46%	0%	0%	0%	62%	38%	0%	0%	100%	0%	
APP/DEPART	56	/	27	0	/	0	42	/	42	29	/	58	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	14	1	17	0	0	0	16	5	0	0	14	0	67
APPROACH %	44%	3%	53%	0%	0%	0%	76%	24%	0%	0%	100%	0%	
PEAK HR FACTOR		0.727			0.000			0.750			0.583		0.798
APP/DEPART	32	/	17	0	/	0	21	/	22	14	/	28	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
1	0	0	0
2	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
10	0	0	0
7	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
2	0	0	0
1	0	0	0
2	0	0	0
6	0	0	0
3	0	0	0
1	0	0	0
16	0	0	0
12	0	0	0

I-15 NB Ramps

NORTH SIDE

Second WEST SIDE EAST SIDE **Second**

SOUTH SIDE

I-15 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

	NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
7:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	2
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
8:15 AM	2	0	0	0	0	0	0	0	0	0	1	0	3
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	0	2	0	0	0	2	3	0	0	3	0	13
APPROACH %	60%	0%	40%	0%	0%	0%	40%	60%	0%	0%	100%	0%	
APP/DEPART	5	/	2	0	/	0	5	/	5	3	/	6	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	3	0	2	0	0	0	1	1	0	0	1	0	8
APPROACH %	60%	0%	40%	0%	0%	0%	50%	50%	0%	0%	100%	0%	
PEAK HR FACTOR		0.625			0.000			0.500			0.250		0.667
APP/DEPART	5	/	1	0	/	0	2	/	3	1	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	2	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	2
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
VOLUMES	3	0	1	0	0	0	4	0	0	0	3	1	12
APPROACH %	75%	0%	25%	0%	0%	0%	100%	0%	0%	0%	75%	25%	
APP/DEPART	4	/	5	0	/	0	4	/	1	4	/	6	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	1	0	1	0	0	0	2	0	0	0	2	1	7
APPROACH %	50%	0%	50%	0%	0%	0%	100%	0%	0%	0%	67%	33%	
PEAK HR FACTOR		0.500			0.000			0.500			0.750		0.875
APP/DEPART	2	/	3	0	/	0	2	/	1	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

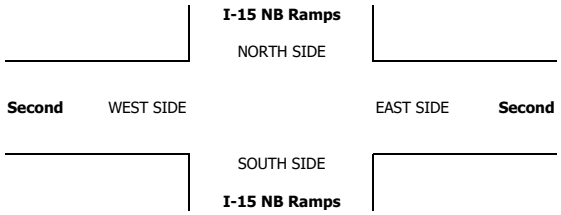
		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	2
	7:15 AM	1	0	1	0	0	0	3	0	0	0	0	0	5
	7:30 AM	1	0	1	0	0	0	2	0	0	0	0	0	4
	7:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	2
	8:00 AM	3	0	0	0	0	0	1	0	0	0	0	0	4
	8:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
	8:30 AM	1	0	0	0	0	0	2	0	0	0	0	1	4
	8:45 AM	1	0	0	0	0	0	4	0	0	0	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	10	0	3	0	0	0	13	0	0	0	1	1	28
	APPROACH %	77%	0%	23%	0%	0%	0%	100%	0%	0%	0%	50%	50%	
	APP/DEPART	13	/	14	0	/	0	13	/	3	2	/	11	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	6	0	0	0	0	0	7	0	0	0	1	1	15
	APPROACH %	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.500			0.000			0.438			0.500		0.750
	APP/DEPART	6	/	8	0	/	0	7	/	0	2	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	0	2	0	0	0	1	0	0	0	1	0	6
	4:15 PM	1	0	0	0	0	0	2	0	0	0	2	1	6
	4:30 PM	2	0	1	0	0	0	2	0	0	0	0	0	5
	4:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	2	0	0	0	0	0	2	0	0	0	1	0	5
	5:15 PM	3	0	1	0	0	0	1	0	0	0	0	0	5
	5:30 PM	1	0	0	0	0	0	1	0	0	0	0	1	3
	5:45 PM	1	0	0	0	0	0	2	0	0	0	0	0	3
	VOLUMES	14	0	4	0	0	0	11	0	0	0	4	2	35
	APPROACH %	78%	0%	22%	0%	0%	0%	100%	0%	0%	0%	67%	33%	
	APP/DEPART	18	/	13	0	/	0	11	/	4	6	/	18	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	7	0	3	0	0	0	5	0	0	0	3	1	19
	APPROACH %	70%	0%	30%	0%	0%	0%	100%	0%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.625			0.000			0.625			0.333		0.792
	APP/DEPART	10	/	6	0	/	0	5	/	3	4	/	10	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Second)			WESTBOUND (Second)			
	LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	1	0	/	0	1	/	0	1	/	1	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	1	0	0	0	1	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250
	APP/DEPART	0	/	1	0	/	0	1	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	34
TUESDAY	EAST & WEST:	Second	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

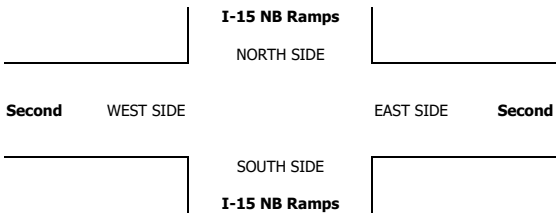
	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Second			WESTBOUND Second			
LANES:	NL 0.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	1	0	0	0	0	2	0	0	0	0	3
7:30 AM	1	0	0	0	0	0	0	0	0	0	3	0	4
7:45 AM	2	0	1	0	0	0	0	0	0	0	2	0	5
8:00 AM	2	0	1	0	0	0	0	0	0	0	2	0	5
8:15 AM	3	0	0	0	0	0	0	2	0	0	0	0	5
8:30 AM	4	0	1	0	0	0	0	1	0	0	4	0	10
8:45 AM	7	0	0	0	0	0	0	0	0	0	1	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	19	0	4	0	0	0	0	6	0	0	12	0	41
APPROACH %	83%	0%	17%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	23	/	0	0	/	0	6	/	10	12	/	31	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	16	0	2	0	0	0	0	3	0	0	7	0	28
APPROACH %	89%	0%	11%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.643			0.000			0.375			0.438		0.700
APP/DEPART	18	/	0	0	/	0	3	/	5	7	/	23	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	3	0	0	0	0	0	0	0	0	0	1	0	4
4:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	7	0	0	0	0	0	0	0	0	0	2	1	10
APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	67%	33%	
APP/DEPART	7	/	1	0	/	0	0	/	0	3	/	9	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	7	0	0	0	0	0	0	0	0	0	1	0	8
APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.583			0.000			0.000			0.250		0.500
APP/DEPART	7	/	0	0	/	0	0	/	0	1	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Sep 18, 18

LOCATION: Corona
NORTH & SOUTH: I-15 NB Ramps
EAST & WEST: Hidden Valley

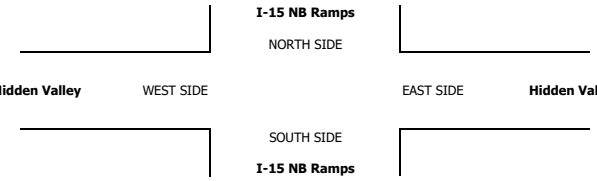
PROJECT #: SC1898
LOCATION #: 35
CONTROL: SIGNAL

NOTES:

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

Add U-Turns to Left Turns

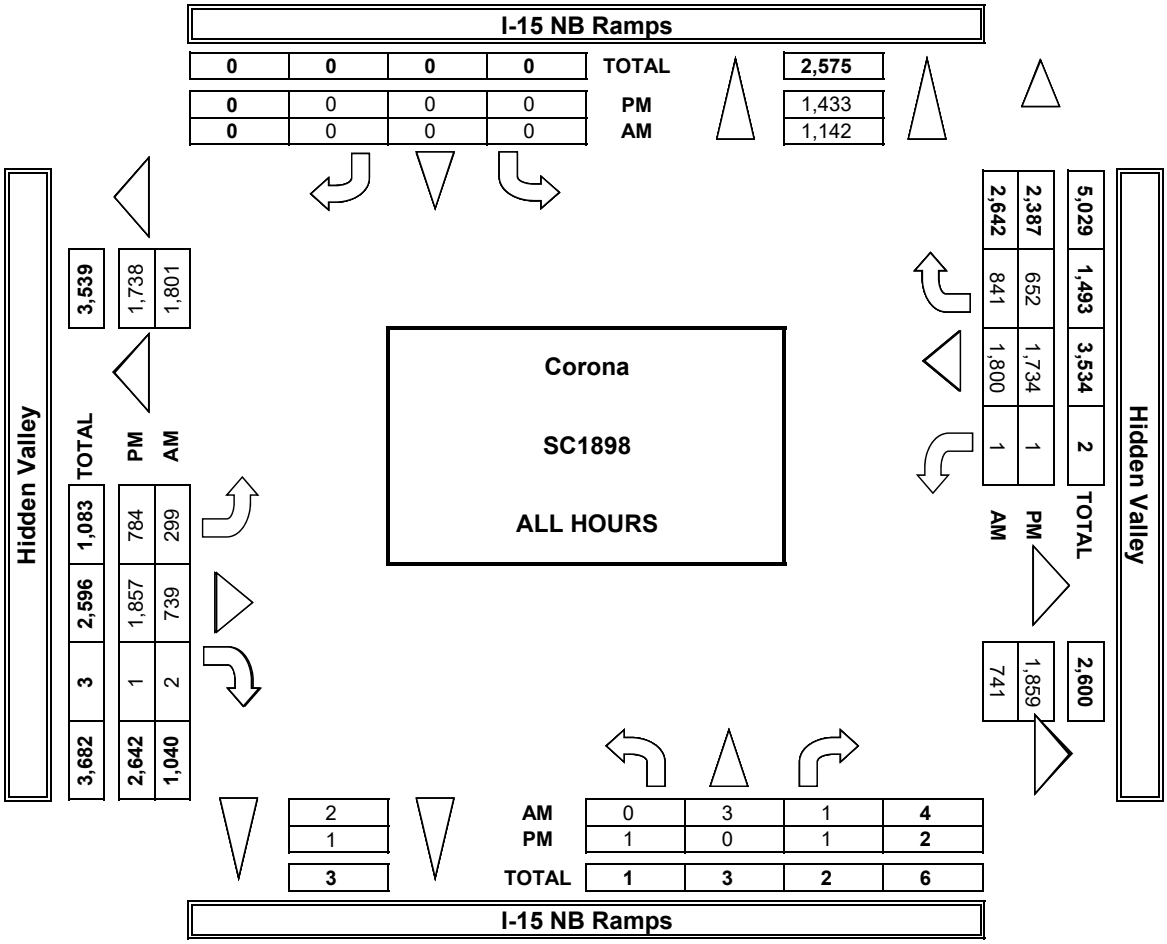
		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)				U-TURNS					RTOR			
	LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	0	1	0	0	0	0	37	68	0	0	231	128	465	0	0	1	0	1	0	0	0	6
	7:15 AM	0	2	1	0	0	0	45	94	1	0	289	143	575	0	0	0	0	0	1	0	0	6
	7:30 AM	0	0	0	0	0	0	41	103	0	0	251	115	510	0	0	0	0	0	0	0	0	4
	7:45 AM	0	0	0	0	0	0	26	114	0	0	245	106	491	0	0	0	0	0	0	0	0	5
	8:00 AM	0	0	0	0	0	0	39	79	0	0	197	85	400	0	0	0	0	0	0	0	0	7
	8:15 AM	0	0	0	0	0	0	37	103	0	1	179	92	412	0	0	0	1	1	0	0	0	8
	8:30 AM	0	0	0	0	0	0	36	84	1	0	186	93	400	0	0	0	0	0	0	0	0	9
	8:45 AM	0	0	0	0	0	0	38	94	0	0	222	79	433	0	0	0	0	0	0	0	0	8
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	1	0	0	0	299	739	2	1	1,800	841	3,686	0	0	1	1	2	1	0	0	53
	APPROACH %	0%	75%	25%	0%	0%	0%	29%	71%	0%	0%	68%	32%										
	APP/DEPART	4	/	1,142	0	/	2	1,040	/	741	2,642	/	1,801	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	3	1	0	0	0	149	379	1	0	1,016	492	2,041						1	0	0	21
	APPROACH %	0%	75%	25%	0%	0%	0%	28%	72%	0%	0%	67%	33%										
	PEAK HR FACTOR		0.333			0.000			0.918			0.873		0.887									
	APP/DEPART	4	/	643	0	/	1	529	/	380	1,508	/	1,017	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	88	211	0	1	230	63	593	0	0	0	1	1	0	0	0	8
	4:15 PM	0	0	0	0	0	0	84	231	0	0	194	78	587	0	0	0	0	0	0	0	0	14
	4:30 PM	0	0	0	0	0	0	97	216	0	0	215	92	620	0	0	1	0	1	0	0	0	17
	4:45 PM	0	0	0	0	0	0	107	232	1	0	223	66	629	0	0	0	0	0	0	0	0	11
	5:00 PM	0	0	0	0	0	0	127	222	0	0	207	85	641	0	0	0	0	0	0	0	0	16
	5:15 PM	0	0	1	0	0	0	99	260	0	0	225	101	686	0	0	1	0	1	1	0	0	10
	5:30 PM	1	0	0	0	0	0	78	247	0	0	214	85	625	0	0	0	0	0	0	0	0	14
	5:45 PM	0	0	0	0	0	0	104	238	0	0	226	82	650	0	0	1	0	1	0	0	0	13
	VOLUMES	1	0	1	0	0	0	784	1,857	1	1	1,734	652	5,031	0	0	3	1	4	1	0	0	103
	APPROACH %	50%	0%	50%	0%	0%	0%	30%	70%	0%	0%	73%	27%										
	APP/DEPART	2	/	1,433	0	/	1	2,642	/	1,859	2,387	/	1,738	0									
	BEGIN PEAK HR		5:00 PM																				
	VOLUMES	1	0	1	0	0	0	408	967	0	0	872	353	2,602						1	0	0	53
	APPROACH %	50%	0%	50%	0%	0%	0%	30%	70%	0%	0%	71%	29%										
	PEAK HR FACTOR		0.500			0.000			0.958			0.939		0.948									
	APP/DEPART	2	/	759	0	/	0	1,375	/	968	1,225	/	875	0									

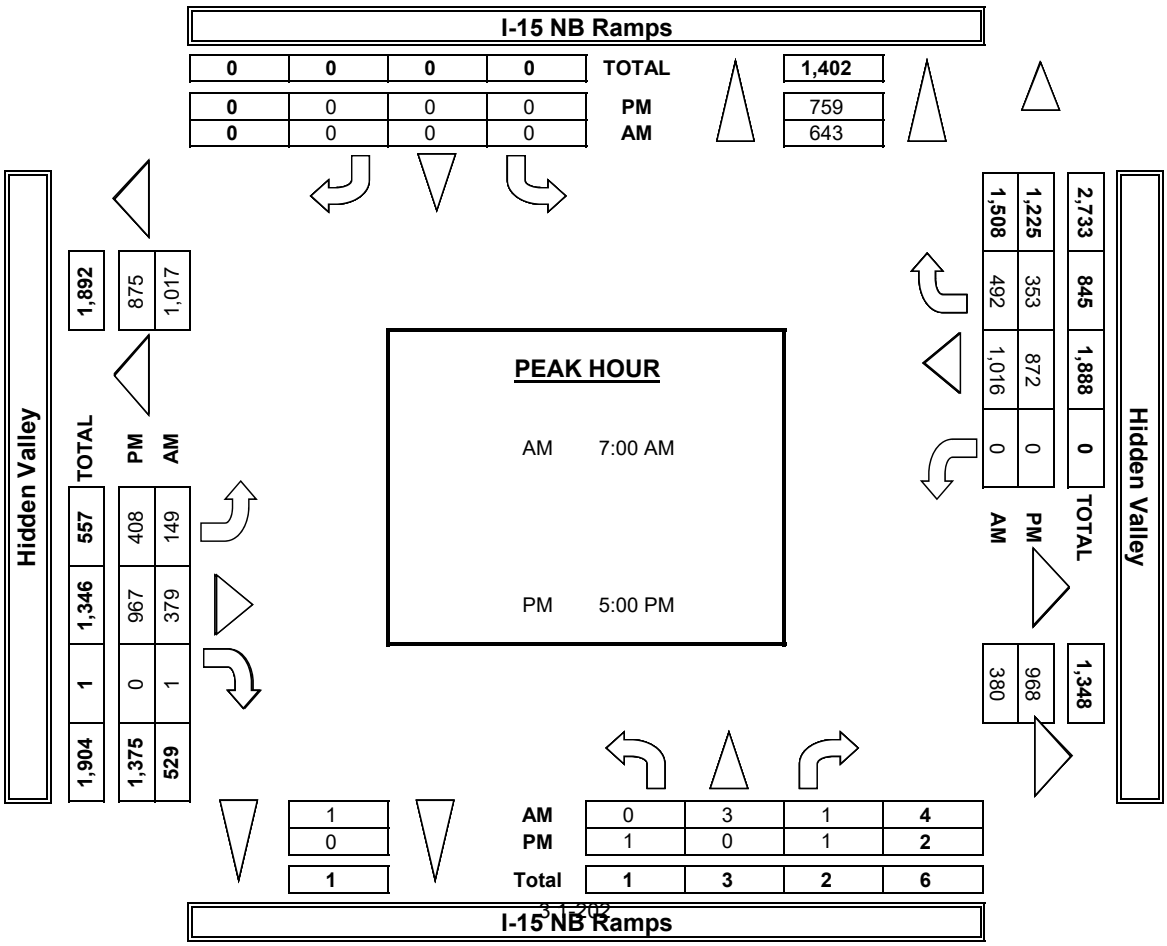


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:15 AM	0	0	0	8	8	0	0	0	8	8	0	0	0	0	0
	8:30 AM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	13	14	0	0	1	11	12	0	0	0	2	2
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	5:45 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	TOTAL	0	0	4	4	8	0	0	4	2	6	0	0	0	2	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	1	0	0	0	0	30	61	0	0	218	126	436
7:15 AM	0	2	1	0	0	0	41	88	1	0	280	140	553
7:30 AM	0	0	0	0	0	0	37	98	0	0	238	112	485
7:45 AM	0	0	0	0	0	0	25	108	0	0	235	102	470
8:00 AM	0	0	0	0	0	0	28	73	0	0	184	84	369
8:15 AM	0	0	0	0	0	0	29	97	0	1	167	91	385
8:30 AM	0	0	0	0	0	0	28	81	1	0	175	90	375
8:45 AM	0	0	0	0	0	0	30	92	0	0	204	78	404
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	3	1	0	0	0	248	698	2	1	1,701	823	3,477
APPROACH %	0%	75%	25%	0%	0%	0%	26%	74%	0%	0%	67%	33%	
APP/DEPART	4	/	1,073	0	/	2	948	/	700	2,525	/	1,702	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	3	1	0	0	0	132	355	1	0	971	480	1,944
APPROACH %	0%	75%	25%	0%	0%	0%	27%	73%	0%	0%	67%	33%	
PEAK HR FACTOR		0.333			0.000			0.906			0.864		0.879
APP/DEPART	4	/	615	0	/	1	489	/	356	1,451	/	972	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	83	207	0	1	222	59	572
4:15 PM	0	0	0	0	0	0	76	224	0	0	187	77	564
4:30 PM	0	0	0	0	0	0	91	207	0	0	204	87	589
4:45 PM	0	0	0	0	0	0	100	224	1	0	215	66	606
5:00 PM	0	0	0	0	0	0	122	213	0	0	200	83	618
5:15 PM	0	0	1	0	0	0	91	248	0	0	215	100	655
5:30 PM	1	0	0	0	0	0	77	240	0	0	209	80	607
5:45 PM	0	0	0	0	0	0	94	233	0	0	220	78	625
VOLUMES	1	0	1	0	0	0	734	1,796	1	1	1,672	630	4,836
APPROACH %	50%	0%	50%	0%	0%	0%	29%	71%	0%	0%	73%	27%	
APP/DEPART	2	/	1,361	0	/	1	2,531	/	1,798	2,303	/	1,676	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	1	0	1	0	0	0	382	934	0	0	844	341	2,505
APPROACH %	50%	0%	50%	0%	0%	0%	29%	71%	0%	0%	71%	29%	
PEAK HR FACTOR		0.500			0.000			0.972			0.940		0.956
APP/DEPART	2	/	723	0	/	0	1,318	/	935	1,185	/	847	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	3	1	4

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	6
1	0	0	6
0	0	0	4
0	0	0	5
0	0	0	6
0	0	0	8
0	0	0	9
0	0	0	8
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	52
1	0	0	21
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	7
0	0	0	14
0	0	0	16
0	0	0	11
0	0	0	16
1	0	0	10
0	0	0	14
0	0	0	13
1	0	0	101
1	0	0	53

I-15 NB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	5	3	0	0	10	2	20
	7:15 AM	0	0	0	0	0	0	3	2	0	0	6	2	13
	7:30 AM	0	0	0	0	0	0	3	2	0	0	9	3	17
	7:45 AM	0	0	0	0	0	0	1	5	0	0	9	3	18
	8:00 AM	0	0	0	0	0	0	6	5	0	0	11	1	23
	8:15 AM	0	0	0	0	0	0	4	4	0	0	7	1	16
	8:30 AM	0	0	0	0	0	0	6	3	0	0	6	1	16
	8:45 AM	0	0	0	0	0	0	4	2	0	0	11	1	18
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	32	26	0	0	69	14	141
	APPROACH %	0%	0%	0%	0%	0%	0%	55%	45%	0%	0%	83%	17%	
	APP/DEPART	0	/	46	0	/	0	58	/	26	83	/	69	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	14	16	0	0	36	8	74
	APPROACH %	0%	0%	0%	0%	0%	0%	47%	53%	0%	0%	82%	18%	
	PEAK HR FACTOR		0.000			0.000			0.682			0.917		0.804
	APP/DEPART	0	/	22	0	/	0	30	/	16	44	/	36	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	4	4	0	0	5	3	16
	4:15 PM	0	0	0	0	0	0	6	7	0	0	4	1	18
	4:30 PM	0	0	0	0	0	0	6	8	0	0	10	4	28
	4:45 PM	0	0	0	0	0	0	6	8	0	0	6	0	20
	5:00 PM	0	0	0	0	0	0	1	9	0	0	5	2	17
	5:15 PM	0	0	0	0	0	0	4	10	0	0	6	1	21
	5:30 PM	0	0	0	0	0	0	1	6	0	0	5	5	17
	5:45 PM	0	0	0	0	0	0	6	5	0	0	5	4	20
	VOLUMES	0	0	0	0	0	0	34	57	0	0	46	20	157
	APPROACH %	0%	0%	0%	0%	0%	0%	37%	63%	0%	0%	70%	30%	
	APP/DEPART	0	/	54	0	/	0	91	/	57	66	/	46	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	17	35	0	0	27	7	86
	APPROACH %	0%	0%	0%	0%	0%	0%	33%	67%	0%	0%	79%	21%	
	PEAK HR FACTOR		0.000			0.000			0.929			0.607		0.768
	APP/DEPART	0	/	24	0	/	0	52	/	35	34	/	27	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

	NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	2	0	0	0	1	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
8:45 AM	0	0	0	0	0	0	2	0	0	0	1	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	5	3	0	0	7	0	15
APPROACH %	0%	0%	0%	0%	0%	0%	63%	38%	0%	0%	100%	0%	
APP/DEPART	0	/	5	0	/	0	8	/	3	7	/	7	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	0	0	0	5	0	0	0	4	0	9
APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.625			1.000		0.750
APP/DEPART	0	/	5	0	/	0	5	/	0	4	/	4	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	1	1	0	0	3	2	7
APPROACH %	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	60%	40%	
APP/DEPART	0	/	3	0	/	0	2	/	1	5	/	3	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	0	0	0	0	0	0	0	1	0	0	3	2	6
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	60%	40%	
PEAK HR FACTOR		0.000			0.000			0.250			0.625		0.500
APP/DEPART	0	/	2	0	/	0	1	/	1	5	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0

0	0	0	1

I-15 NB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	2	1	0	0	1	0	4
	7:15 AM	0	0	0	0	0	0	1	0	0	0	2	0	3
	7:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	3	0	0	0	1	0	4
	8:15 AM	0	0	0	0	0	0	4	1	0	0	3	0	8
	8:30 AM	0	0	0	0	0	0	1	0	0	0	3	0	4
	8:45 AM	0	0	0	0	0	0	2	0	0	0	1	0	3
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	14	3	0	0	11	0	28
	APPROACH %	0%	0%	0%	0%	0%	0%	82%	18%	0%	0%	100%	0%	
	APP/DEPART	0	/	14	0	/	0	17	/	3	11	/	11	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	10	1	0	0	8	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	91%	9%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.550			0.667		0.594
	APP/DEPART	0	/	10	0	/	0	11	/	1	8	/	8	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	2	0	0	0	1	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	3	0	0	0	2	0	5
	5:15 PM	0	0	0	0	0	0	4	1	0	0	3	0	8
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	4	0	0	0	1	0	5
	VOLUMES	0	0	0	0	0	0	15	2	0	0	9	0	26
	APPROACH %	0%	0%	0%	0%	0%	0%	88%	12%	0%	0%	100%	0%	
	APP/DEPART	0	/	15	0	/	0	17	/	2	9	/	9	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	11	2	0	0	6	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	85%	15%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.650			0.500		0.594
	APP/DEPART	0	/	11	0	/	0	13	/	2	6	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0

0	0	0	0

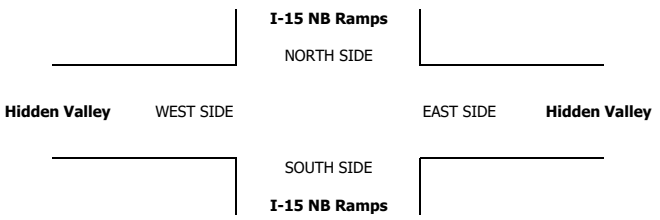
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

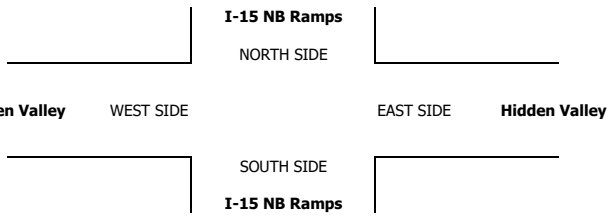
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	35
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley				U-TURNS					RTOR			
LANES:	NL 0	NT 1	NR 0	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	1	1	5	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	9	0	0	12	4	25	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	75%	25%										
APP/DEPART	0	/	4	0	/	0	9	/	9	16	/	12	0									
BEGIN PEAK HR		7:00 AM																				
VOLUMES	0	0	0	0	0	0	0	7	0	0	5	2	14						0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	71%	29%										
PEAK HR FACTOR		0.000			0.000			0.583			0.875		0.700									
APP/DEPART	0	/	2	0	/	0	7	/	7	7	/	5	0									
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	0	4	0	5	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
APP/DEPART	0	/	0	0	/	0	1	/	1	4	/	4	0									
BEGIN PEAK HR		4:00 PM																				
VOLUMES	0	0	0	0	0	0	0	1	0	0	2	0	3						0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
PEAK HR FACTOR		0.000			0.000			0.250			0.500		0.375									
APP/DEPART	0	/	0	0	/	0	1	/	1	2	/	2	0									



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

NOTES:

PM WB queue

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

Add U-Turns to Left Turns

		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	101	19	45	6	0	36	17	53	0	0	223	6	506
	7:15 AM	109	18	38	6	0	43	12	82	0	0	278	5	591
	7:30 AM	86	20	31	9	0	43	24	79	0	0	236	7	535
	7:45 AM	122	19	34	13	0	36	14	100	0	0	193	11	542
	8:00 AM	78	8	30	13	0	32	13	68	0	0	172	14	428
	8:15 AM	68	10	29	12	0	38	13	89	0	0	165	14	438
	8:30 AM	77	14	22	5	0	42	15	70	0	0	161	9	415
	8:45 AM	96	16	33	6	0	41	11	83	0	0	162	18	466
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	737	124	262	70	0	311	119	624	0	0	1,590	84	3,921
	APPROACH %	66%	11%	23%	18%	0%	82%	16%	84%	0%	0%	95%	5%	
	APP/DEPART	1,123	/	327	381	/	0	743	/	956	1,674	/	2,638	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	418	76	148	34	0	158	67	314	0	0	930	29	2,174
	APPROACH %	65%	12%	23%	18%	0%	82%	18%	82%	0%	0%	97%	3%	
	PEAK HR FACTOR		0.917			0.923			0.836			0.847		0.920
	APP/DEPART	642	/	172	192	/	0	381	/	496	959	/	1,506	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	76	14	53	16	0	26	22	189	0	0	191	5	592
	4:15 PM	83	12	57	10	0	31	29	201	0	0	162	9	594
	4:30 PM	83	8	59	12	0	40	17	198	0	0	184	7	608
	4:45 PM	69	14	65	18	0	33	28	203	0	0	186	8	624
	5:00 PM	90	13	73	16	0	41	24	199	0	0	163	11	630
	5:15 PM	83	13	58	19	0	28	22	239	0	0	213	5	680
	5:30 PM	91	19	67	11	0	27	17	230	0	0	181	5	648
	5:45 PM	97	10	65	13	0	37	16	222	0	0	176	11	647
	VOLUMES	672	103	497	115	0	263	175	1,681	0	0	1,456	61	5,023
	APPROACH %	53%	8%	39%	30%	0%	70%	9%	91%	0%	0%	96%	4%	
	APP/DEPART	1,272	/	339	378	/	0	1,856	/	2,293	1,517	/	2,391	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	361	55	263	59	0	133	79	890	0	0	733	32	2,605
	APPROACH %	53%	8%	39%	31%	0%	69%	8%	92%	0%	0%	96%	4%	
	PEAK HR FACTOR		0.959			0.842			0.928			0.877		0.958
	APP/DEPART	679	/	166	192	/	0	969	/	1,212	765	/	1,227	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
29	5	0	0
24	1	0	0
22	6	0	0
22	3	0	3
25	7	0	1
23	3	0	3
20	3	0	2
22	3	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
187	31	0	12
97	15	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
35	1	0	1
32	1	0	1
38	6	0	0
40	7	0	1
44	3	0	1
36	2	0	1
35	4	0	0
31	6	0	2
291	30	0	7
146	15	0	4

I-15 NB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

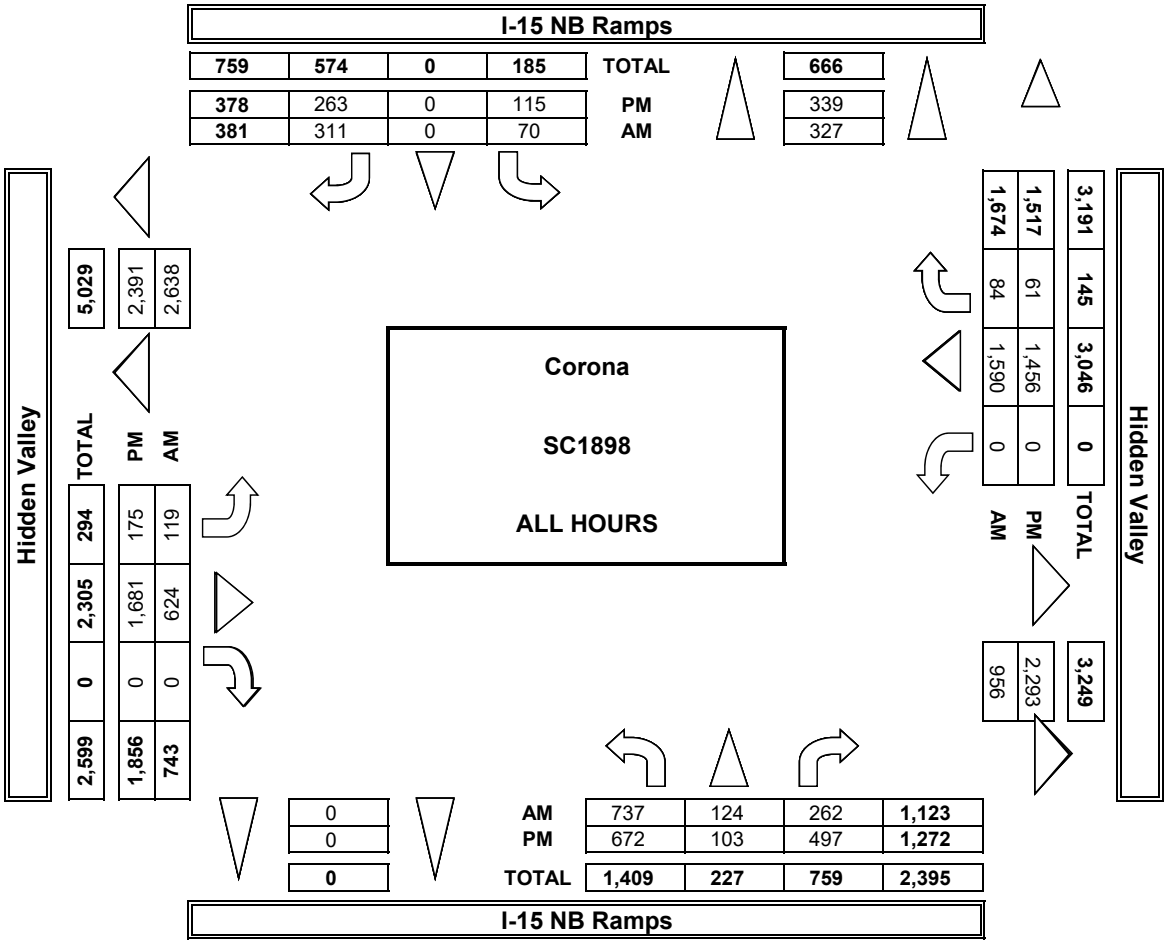
SOUTH SIDE

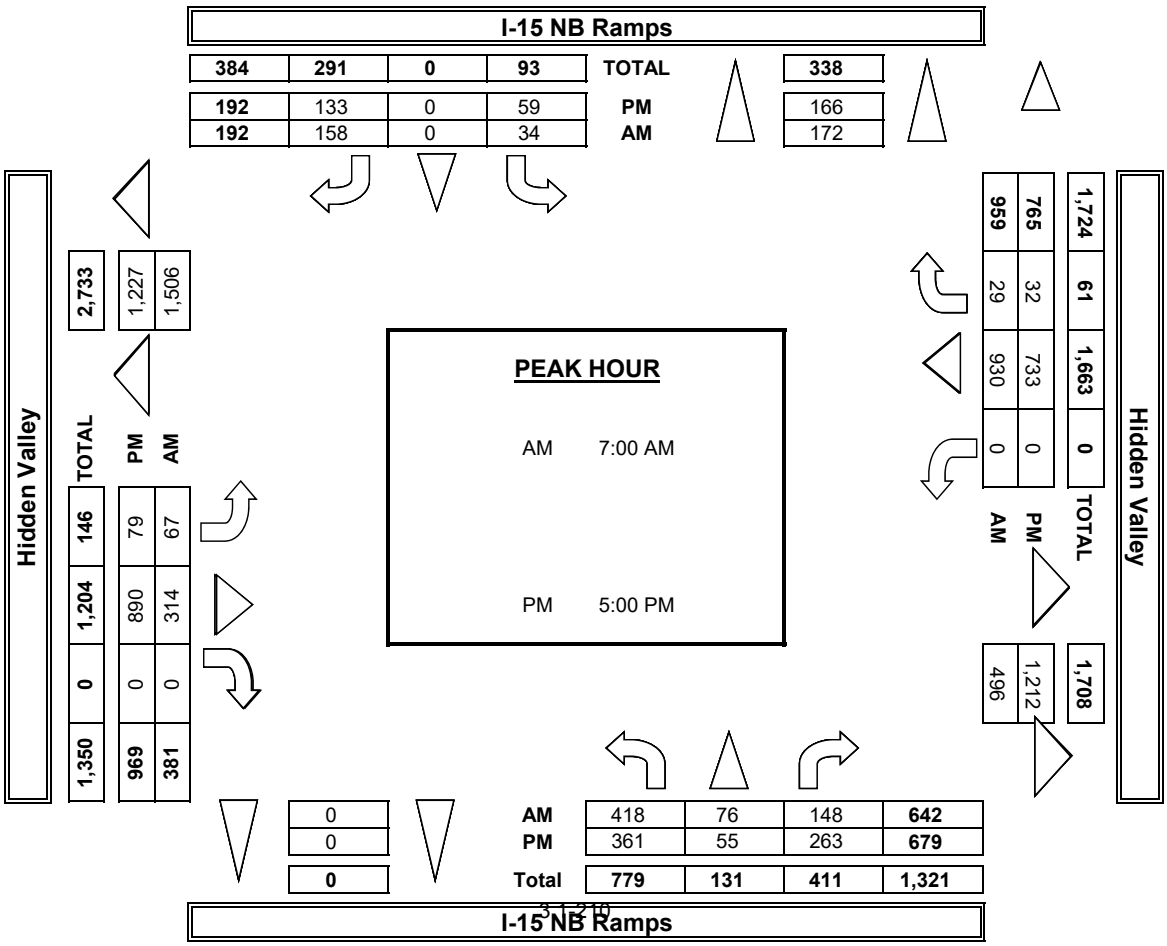
I-15 NB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:15 AM	0	0	0	8	8	0	0	0	8	8	0	0	0	0	0
	8:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:45 AM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	2	10	12	0	0	2	10	12	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	5:45 PM	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0
	TOTAL	0	0	5	2	7	0	0	5	2	7	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	93	19	42	6	0	33	17	46	0	0	219	6	481
7:15 AM	102	18	38	6	0	41	10	77	0	0	274	5	571
7:30 AM	81	18	29	9	0	42	24	74	0	0	228	6	511
7:45 AM	113	19	34	13	0	36	14	95	0	0	188	10	522
8:00 AM	70	8	28	13	0	29	13	62	0	0	168	11	402
8:15 AM	60	9	28	11	0	37	12	84	0	0	161	14	416
8:30 AM	71	14	21	4	0	41	15	67	0	0	154	8	395
8:45 AM	85	15	31	6	0	41	11	81	0	0	154	18	442
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	675	120	251	68	0	300	116	586	0	0	1,546	78	3,740
APPROACH %	65%	11%	24%	18%	0%	82%	17%	83%	0%	0%	95%	5%	
APP/DEPART	1,046	/	314	368	/	0	702	/	905	1,624	/	2,521	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	389	74	143	34	0	152	65	292	0	0	909	27	2,085
APPROACH %	64%	12%	24%	18%	0%	82%	18%	82%	0%	0%	97%	3%	
PEAK HR FACTOR		0.913			0.912			0.819			0.839		0.913
APP/DEPART	606	/	166	186	/	0	357	/	469	936	/	1,450	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	71	14	51	16	0	26	22	185	0	0	184	5	574
4:15 PM	79	12	54	10	0	30	27	195	0	0	159	9	575
4:30 PM	75	8	57	11	0	38	15	190	0	0	178	7	579
4:45 PM	67	14	64	18	0	33	27	195	0	0	180	7	605
5:00 PM	83	11	73	16	0	40	24	193	0	0	161	11	612
5:15 PM	80	12	57	19	0	24	21	230	0	0	209	5	657
5:30 PM	87	17	64	10	0	25	16	224	0	0	177	3	623
5:45 PM	92	9	65	11	0	37	14	217	0	0	172	11	628
VOLUMES	634	97	485	111	0	253	166	1,629	0	0	1,420	58	4,853
APPROACH %	52%	8%	40%	30%	0%	70%	9%	91%	0%	0%	96%	4%	
APP/DEPART	1,216	/	321	364	/	0	1,795	/	2,225	1,478	/	2,307	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	342	49	259	56	0	126	75	864	0	0	719	30	2,520
APPROACH %	53%	8%	40%	31%	0%	69%	8%	92%	0%	0%	96%	4%	
PEAK HR FACTOR		0.967			0.813			0.935			0.875		0.959
APP/DEPART	650	/	154	182	/	0	939	/	1,179	749	/	1,187	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
27	4	0	0
24	1	0	0
21	5	0	0
22	3	0	3
23	6	0	0
22	3	0	3
19	3	0	1
20	3	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
178	28	0	10
94	13	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
35	1	0	1
30	1	0	1
37	6	0	0
39	7	0	1
44	3	0	1
36	2	0	1
34	4	0	0
31	6	0	2
286	30	0	7
145	15	0	4

I-15 NB Ramps

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

I-15 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

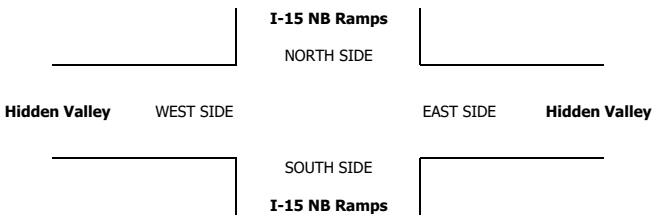
NOTES:

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

		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	7	0	3	0	0	3	0	3	0	0	2	0	18
	7:15 AM	6	0	0	0	0	1	2	1	0	0	1	0	11
	7:30 AM	5	2	2	0	0	1	0	2	0	0	5	1	18
	7:45 AM	9	0	0	0	0	0	0	4	0	0	3	1	17
	8:00 AM	7	0	2	0	0	3	0	5	0	0	3	3	23
	8:15 AM	4	1	1	1	0	1	1	3	0	0	3	0	15
	8:30 AM	5	0	0	1	0	1	0	3	0	0	1	1	12
	8:45 AM	9	1	1	0	0	0	0	2	0	0	3	0	16
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	52	4	9	2	0	10	3	23	0	0	21	6	130
	APPROACH %	80%	6%	14%	17%	0%	83%	12%	88%	0%	0%	78%	22%	
	APP/DEPART	65	/	13	12	/	0	26	/	34	27	/	83	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	25	3	5	1	0	5	1	14	0	0	14	5	73
	APPROACH %	76%	9%	15%	17%	0%	83%	7%	93%	0%	0%	74%	26%	
	PEAK HR FACTOR		0.917			0.500			0.750			0.792		0.793
	APP/DEPART	33	/	9	6	/	0	15	/	20	19	/	44	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	5	0	2	0	0	0	0	4	0	0	3	0	14
	4:15 PM	2	0	3	0	0	1	2	6	0	0	2	0	16
	4:30 PM	7	0	2	1	0	2	2	7	0	0	5	0	26
	4:45 PM	1	0	1	0	0	0	1	8	0	0	5	1	17
	5:00 PM	5	2	0	0	0	1	0	6	0	0	2	0	16
	5:15 PM	1	0	1	0	0	4	1	7	0	0	2	0	16
	5:30 PM	4	2	3	1	0	2	0	6	0	0	4	2	24
	5:45 PM	5	1	0	2	0	0	2	5	0	0	3	0	18
	VOLUMES	30	5	12	4	0	10	8	49	0	0	26	3	147
	APPROACH %	64%	11%	26%	29%	0%	71%	14%	86%	0%	0%	90%	10%	
	APP/DEPART	47	/	16	14	/	0	57	/	65	29	/	66	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	14	2	4	1	0	7	4	28	0	0	14	1	75
	APPROACH %	70%	10%	20%	13%	0%	88%	13%	88%	0%	0%	93%	7%	
	PEAK HR FACTOR		0.556			0.500			0.889			0.625		0.721
	APP/DEPART	20	/	7	8	/	0	32	/	33	15	/	35	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR 0	SRR 0	ERR 0	WRR 0
2	1	0	0
0	0	0	0
1	1	0	0
0	0	0	0
2	1	0	1
1	0	0	0
0	0	0	1
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
7	3	0	2
4	2	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
5	0	0	0
2	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

		NORTHBOUND (I-15 NB Ramps)			SOUTHBOUND (I-15 NB Ramps)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	1	0	0	1	0	3	0	0	4	0	11
	APPROACH %	67%	0%	33%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	3	/	0	1	/	0	3	/	4	4	/	7	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	1	0	2	0	0	3	0	6
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.750		0.750
	APP/DEPART	0	/	0	1	/	0	2	/	2	3	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	1	0	0	0	0	0	0	1	0	0	1	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	1	0	0	3	0	6
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	0	1	/	1	3	/	5	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	2	0	0	0	0	0	0	1	0	0	3	0	6
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			0.250			0.375		0.500
	APP/DEPART	2	/	0	0	/	0	1	/	1	3	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

		NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
	7:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
	7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	3	0	0	0	0	0	0	1	0	0	0	0	4
	8:30 AM	1	0	0	0	0	0	0	0	0	0	2	0	3
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	0	0	0	0	0	0	3	0	0	4	0	14
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	7	/	0	0	/	0	3	/	3	4	/	11	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	5	0	0	0	0	0	0	1	0	0	3	0	9
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.417			0.000			0.250			0.375		0.563
	APP/DEPART	5	/	0	0	/	0	1	/	1	3	/	8	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	5:15 PM	2	1	0	0	0	0	0	1	0	0	1	0	5
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	5	1	0	0	0	0	1	1	0	0	4	0	12
	APPROACH %	83%	17%	0%	0%	0%	0%	50%	50%	0%	0%	100%	0%	
	APP/DEPART	6	/	2	0	/	0	2	/	1	4	/	9	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	4	1	0	0	0	0	1	1	0	0	2	0	9
	APPROACH %	80%	20%	0%	0%	0%	0%	50%	50%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.417			0.000			0.500			0.500		0.450
	APP/DEPART	5	/	2	0	/	0	2	/	1	2	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

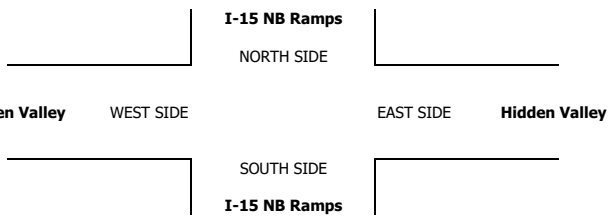
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	36
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley				U-TURNS					RTOR			
LANES:	NL 2	NT 1	NR 1	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM 7:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	0	0	0	0	3	0	4	0	0	0	0	0	1	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	0	4	0	5	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	1	0	0	0	0	9	0	0	15	0	26	0	0	0	0	0	1	0	0	0
APPROACH %	50%	0%	50%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
APP/DEPART	2	/	0	0	/	0	9	/	10	15	/	16	0									
BEGIN PEAK HR		7:00 AM																				
VOLUMES	0	0	0	0	0	0	0	7	0	0	7	0	14						0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
PEAK HR FACTOR		0.000			0.000			0.583			0.875		0.700									
APP/DEPART	0	/	0	0	/	0	7	/	7	7	/	7	0									
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	0	0	0	0	1	0	0	3	0	5	0	0	0	0	0	0	0	0	0
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
APP/DEPART	1	/	0	0	/	0	1	/	1	3	/	4	0									
BEGIN PEAK HR		4:00 PM																				
VOLUMES	1	0	0	0	0	0	0	1	0	0	1	0	3						0	0	0	0
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
PEAK HR FACTOR		0.250			0.000			0.250			0.250		0.375									
APP/DEPART	1	/	0	0	/	0	1	/	1	1	/	2	0									



INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
Tue, Sep 18, 18	NORTH & SOUTH:	El Paso	LOCATION #:	37
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

NOTES:

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

Add U-Turns to Left Turns

		NORTHBOUND (El Paso)			SOUTHBOUND (El Paso)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	30	59	23	15	13	6	24	45	14	41	192	37	499
	7:15 AM	46	45	38	35	41	19	27	75	17	38	209	58	648
	7:30 AM	46	25	71	18	41	14	14	76	14	34	157	17	527
	7:45 AM	34	37	48	24	48	8	32	77	14	30	136	18	506
	8:00 AM	20	18	14	19	22	9	17	73	15	26	125	13	371
	8:15 AM	18	17	25	14	14	3	11	71	10	32	127	23	365
	8:30 AM	32	9	23	17	13	15	6	75	12	35	144	23	404
	8:45 AM	28	9	21	21	14	7	14	70	14	29	112	16	355
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	254	219	263	163	206	81	145	562	110	265	1,202	205	3,675
	APPROACH %	35%	30%	36%	36%	46%	18%	18%	69%	13%	16%	72%	12%	
	APP/DEPART	736	/	566	450	/	581	817	/	988	1,672	/	1,540	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	156	166	180	92	143	47	97	273	59	143	694	130	2,180
	APPROACH %	31%	33%	36%	33%	51%	17%	23%	64%	14%	15%	72%	13%	
	PEAK HR FACTOR		0.884			0.742			0.872			0.793		0.841
	APP/DEPART	502	/	390	282	/	345	429	/	545	967	/	900	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	27	19	38	20	13	7	12	201	22	13	110	20	502
	4:15 PM	16	13	38	21	16	6	14	169	26	19	103	18	459
	4:30 PM	30	24	51	21	18	10	20	169	24	24	117	17	525
	4:45 PM	16	16	31	30	18	11	28	171	25	30	93	21	490
	5:00 PM	23	26	62	33	9	10	22	177	24	11	120	16	533
	5:15 PM	26	28	65	14	12	3	21	239	29	20	157	21	635
	5:30 PM	19	26	50	25	16	7	19	240	20	19	104	18	563
	5:45 PM	25	21	31	22	11	9	20	197	21	19	113	16	505
	VOLUMES	182	173	366	186	113	63	156	1,563	191	155	917	147	4,212
	APPROACH %	25%	24%	51%	51%	31%	17%	8%	82%	10%	13%	75%	12%	
	APP/DEPART	721	/	464	362	/	458	1,910	/	2,116	1,219	/	1,174	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	93	101	208	94	48	29	82	853	94	69	494	71	2,236
	APPROACH %	23%	25%	52%	55%	28%	17%	8%	83%	9%	11%	78%	11%	
	PEAK HR FACTOR		0.845			0.822			0.890			0.801		0.880
	APP/DEPART	402	/	245	171	/	211	1,029	/	1,155	634	/	625	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	4	0	4
0	0	3	0	3
0	0	1	0	1
0	0	1	0	1
0	0	12	1	13

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
6	1	4	16
9	5	6	19
25	5	9	8
14	3	5	4
7	4	6	2
14	2	5	4
11	10	2	2
12	1	3	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
98	31	40	59
54	14	24	47
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
11	5	7	2
10	5	7	0
24	7	14	1
8	7	9	1
23	9	10	2
16	1	15	3
11	6	4	3
12	7	5	1
115	47	71	13
62	23	34	9

El Paso

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

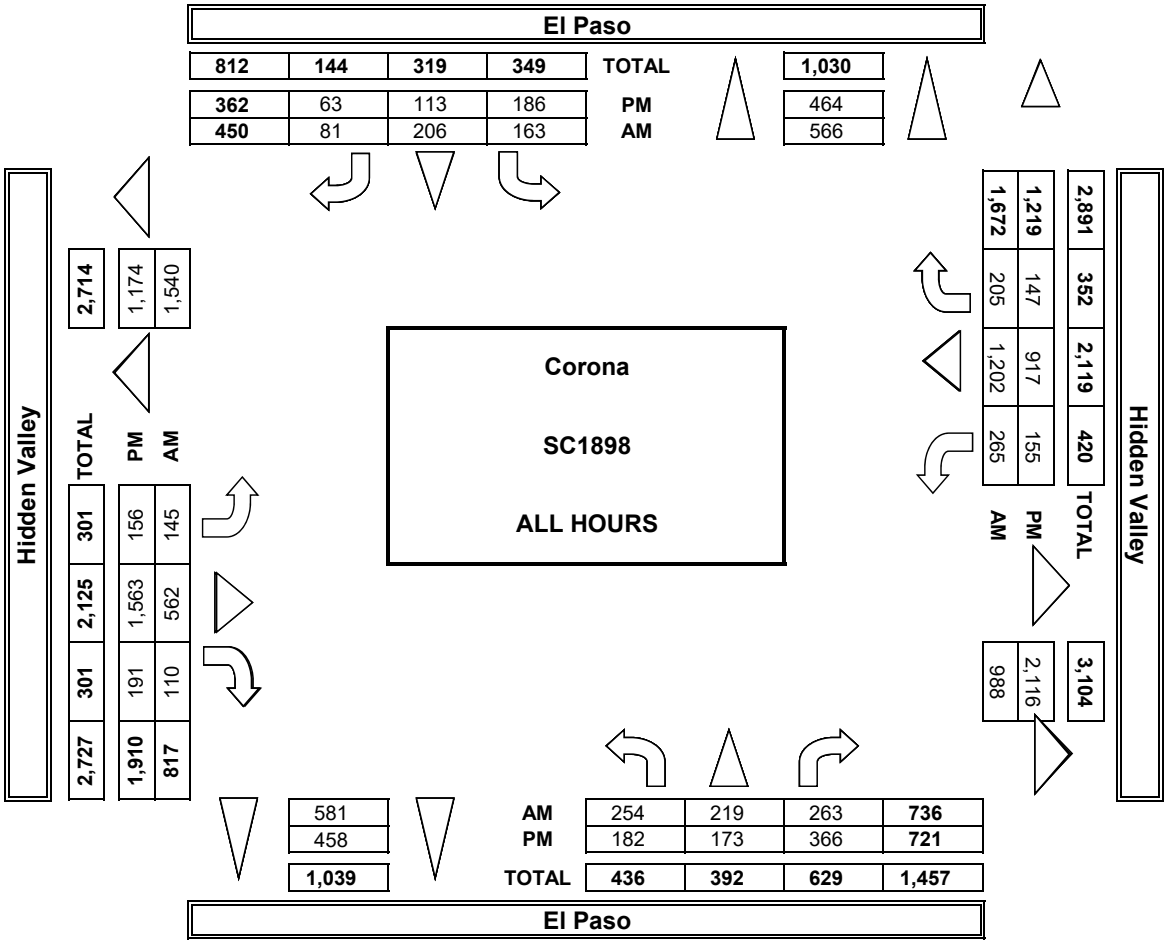
SOUTH SIDE

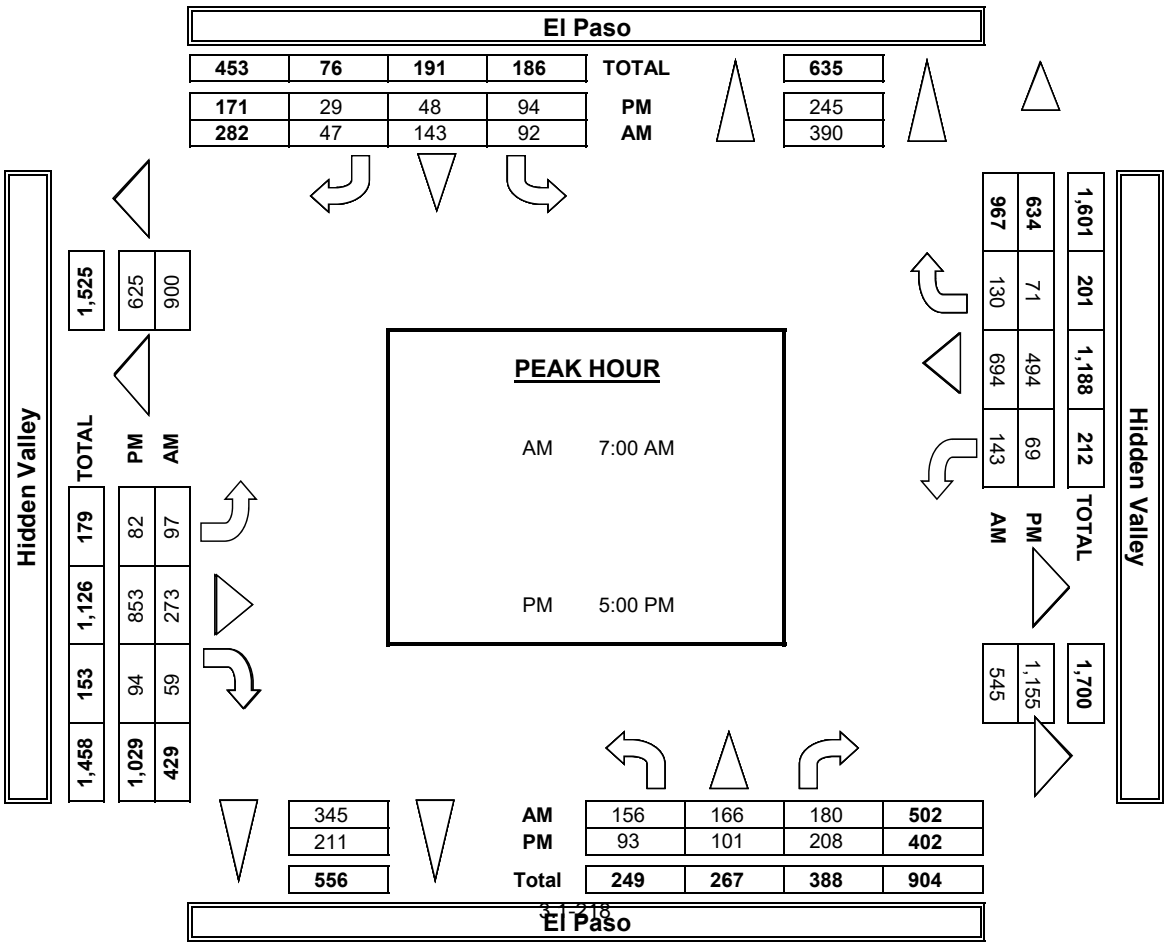
El Paso

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:45 AM	2	3	0	0	5	2	3	0	0	5	0	0	0	0	0
	8:00 AM	0	0	1	1	2	0	0	1	0	1	0	0	0	1	1
	8:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	4	1	1	11	4	3	1	0	8	1	1	0	1	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	4	4	0	0	0	3	3	0	0	0	1	1
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	3	0	0	2	5	2	0	0	2	4	1	0	0	0	1
	5:15 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	3	2	0	7	12	2	2	0	5	9	1	0	0	2	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/18/18 TUESDAY	LOCATION:	Corona	PROJECT #:	SC1898
	NORTH & SOUTH:	El Paso	LOCATION #:	37
	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

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

	NORTHBOUND (El Paso)			SOUTHBOUND (El Paso)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	29	57	20	15	13	6	21	39	13	37	186	37	473
7:15 AM	45	42	31	33	41	18	26	71	17	36	202	56	618
7:30 AM	44	23	67	18	40	14	14	73	13	31	153	16	506
7:45 AM	32	35	46	24	46	6	30	69	14	29	127	17	475
8:00 AM	19	18	12	16	17	9	16	68	14	26	121	11	347
8:15 AM	15	15	23	14	14	3	11	65	10	32	121	22	345
8:30 AM	31	9	23	17	12	11	4	71	12	34	138	21	383
8:45 AM	28	8	15	20	14	6	12	67	13	28	105	15	331
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	243	207	237	157	197	73	134	523	106	253	1,153	195	3,478
APPROACH %	35%	30%	34%	37%	46%	17%	18%	69%	14%	16%	72%	12%	
APP/DEPART	687	/	533	427	/	556	763	/	917	1,601	/	1,472	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	150	157	164	90	140	44	88	252	57	133	668	126	2,072
APPROACH %	32%	33%	35%	33%	51%	16%	22%	63%	14%	14%	72%	14%	
PEAK HR FACTOR		0.879			0.745			0.877			0.788		0.838
APP/DEPART	471	/	371	274	/	330	400	/	506	927	/	865	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	26	17	36	18	13	7	12	198	22	11	105	18	483
4:15 PM	16	13	36	20	15	6	14	161	26	19	103	17	446
4:30 PM	30	24	50	20	17	9	20	161	24	24	112	17	508
4:45 PM	16	15	31	29	17	11	28	167	25	29	89	21	478
5:00 PM	23	25	62	33	8	9	21	172	24	11	117	16	521
5:15 PM	26	28	64	14	12	3	20	231	27	18	152	21	616
5:30 PM	19	25	48	25	15	7	19	232	19	19	102	18	548
5:45 PM	24	21	31	22	11	9	18	195	19	19	104	16	489
VOLUMES	180	168	358	181	108	61	152	1,517	186	150	884	144	4,089
APPROACH %	25%	24%	51%	52%	31%	17%	8%	82%	10%	13%	75%	12%	
APP/DEPART	706	/	453	350	/	443	1,855	/	2,057	1,178	/	1,136	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	92	99	205	94	46	28	70	830	89	67	475	71	2,174
APPROACH %	23%	25%	52%	56%	27%	17%	7%	83%	9%	11%	77%	12%	
PEAK HR FACTOR		0.839			0.840			0.897			0.802		0.882
APP/DEPART	396	/	240	168	/	202	997	/	1,129	613	/	603	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	2	0	2
0	0	1	0	1
0	0	0	0	0
0	0	3	0	3
0	0	3	0	3
0	0	1	0	1
0	0	1	0	1
0	0	11	1	12

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
5	1	4	16
9	4	6	18
23	5	8	8
14	2	5	3
6	4	6	1
12	2	5	4
11	7	2	2
7	1	3	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
87	26	39	56
51	12	23	45
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
11	5	7	1
9	5	7	0
24	7	14	1
8	7	9	1
23	9	10	2
15	1	13	3
11	6	4	3
12	7	5	1
113	47	69	12
61	23	32	9

El Paso

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

El Paso

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	El Paso	LOCATION #:	37
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

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

		NORTHBOUND (El Paso)			SOUTHBOUND (El Paso)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	0	0	2	2	1	3	3	0	13
	7:15 AM	1	3	6	2	0	1	0	2	0	2	5	1	23
	7:30 AM	0	2	3	0	1	0	0	1	1	1	3	1	13
	7:45 AM	1	1	2	0	1	1	2	7	0	1	9	1	26
	8:00 AM	0	0	1	3	2	0	1	4	1	0	3	1	16
	8:15 AM	3	2	2	0	0	0	0	5	0	0	5	0	17
	8:30 AM	1	0	0	0	0	1	2	4	0	1	2	1	12
	8:45 AM	0	0	5	1	0	0	1	3	1	1	5	1	18
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	6	10	19	6	4	3	8	28	4	9	35	6	138
	APPROACH %	17%	29%	54%	46%	31%	23%	20%	70%	10%	18%	70%	12%	
	APP/DEPART	35	/	24	13	/	17	40	/	53	50	/	44	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	6	12	5	4	2	3	14	2	4	20	4	78
	APPROACH %	10%	30%	60%	45%	36%	18%	16%	74%	11%	14%	71%	14%	
	PEAK HR FACTOR		0.500			0.550			0.528			0.636		0.750
	APP/DEPART	20	/	13	11	/	10	19	/	31	28	/	24	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	2	2	0	0	0	3	0	2	5	1	17
	4:15 PM	0	0	2	1	0	0	0	8	0	0	0	1	12
	4:30 PM	0	0	1	0	1	1	0	7	0	0	4	0	14
	4:45 PM	0	1	0	1	0	0	0	4	0	1	3	0	10
	5:00 PM	0	0	0	0	0	1	1	5	0	0	3	0	10
	5:15 PM	0	0	1	0	0	0	1	8	1	2	4	0	17
	5:30 PM	0	0	2	0	1	0	0	8	1	0	2	0	14
	5:45 PM	1	0	0	0	0	0	2	2	2	0	8	0	15
	VOLUMES	1	3	8	4	2	2	4	45	4	5	29	2	109
	APPROACH %	8%	25%	67%	50%	25%	25%	8%	85%	8%	14%	81%	6%	
	APP/DEPART	12	/	8	8	/	11	53	/	57	36	/	33	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	0	3	0	1	1	3	23	4	2	17	0	56
	APPROACH %	25%	0%	75%	0%	50%	50%	10%	74%	13%	11%	89%	0%	
	PEAK HR FACTOR		0.500			0.500			0.775			0.594		0.824
	APP/DEPART	4	/	3	2	/	7	31	/	26	19	/	20	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	El Paso	LOCATION #:	37
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

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

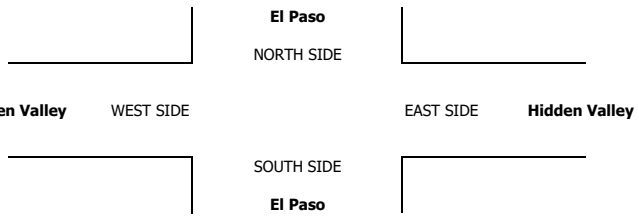
		NORTHBOUND El Paso			SOUTHBOUND El Paso			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:45 AM	0	1	0	0	1	1	0	0	0	0	0	0	3
	8:00 AM	1	0	1	0	1	0	0	0	0	0	1	0	4
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	1	2	0	2	2	1	2	0	0	2	1	14
	APPROACH %	25%	25%	50%	0%	50%	50%	33%	67%	0%	0%	67%	33%	
	APP/DEPART	4	/	3	4	/	2	3	/	4	3	/	5	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	1	1	0	2	1	0	1	0	0	2	1	10
	APPROACH %	33%	33%	33%	0%	67%	33%	0%	100%	0%	0%	67%	33%	
	PEAK HR FACTOR		0.375			0.375			0.250			0.750		0.625
	APP/DEPART	3	/	2	3	/	2	1	/	2	3	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	2	0	0	1	0	0	1	0	4
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	2	/	2	1	/	1	1	/	1	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	2	0	0	1	0	0	1	0	4
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.500			0.250			0.250		0.500
	APP/DEPART	0	/	0	2	/	2	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	2	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	El Paso	LOCATION #:	37
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

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

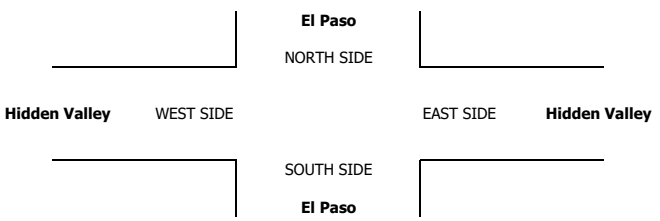
	NORTHBOUND (El Paso)			SOUTHBOUND (El Paso)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	2	0	1	0	1	1	1	6
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	33%	33%	33%	
APP/DEPART	0	/	1	2	/	1	1	/	1	3	/	3	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	2	0	0	0	0	0	1	3
APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.250			0.000			0.250		0.250
APP/DEPART	0	/	1	2	/	0	0	/	0	1	/	2	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
VOLUMES	0	2	0	1	0	0	0	0	1	0	3	0	7
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	100%	0%	100%	0%	
APP/DEPART	2	/	2	1	/	1	1	/	1	3	/	3	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	2	0	0	0	0	0	0	1	0	2	0	5
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR		0.500			0.000			0.250			0.500		0.625
APP/DEPART	2	/	2	0	/	1	1	/	0	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	El Paso	LOCATION #:	37
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

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

		NORTHBOUND (El Paso)			SOUTHBOUND (El Paso)			EASTBOUND (Hidden Valley)			WESTBOUND (Hidden Valley)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Corona	PROJECT #:	SC1898
9/18/18	NORTH & SOUTH:	El Paso	LOCATION #:	37
TUESDAY	EAST & WEST:	Hidden Valley	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

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

	NORTHBOUND El Paso			SOUTHBOUND El Paso			EASTBOUND Hidden Valley			WESTBOUND Hidden Valley			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM 7:00 AM	1	0	3	0	0	0	0	2	0	1	2	0	9
7:15 AM	0	0	1	0	0	0	1	2	0	0	2	0	6
7:30 AM	2	0	1	0	0	0	0	1	0	1	0	0	5
7:45 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
8:00 AM	0	0	0	0	2	0	0	1	0	0	0	1	4
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	1	3
8:30 AM	0	0	0	0	1	0	0	0	0	0	4	0	5
8:45 AM	0	1	0	0	0	1	1	0	0	0	2	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	4	1	5	0	3	1	2	8	0	2	11	2	39
APPROACH %	40%	10%	50%	0%	75%	25%	20%	80%	0%	13%	73%	13%	
APP/DEPART	10	/	5	4	/	5	10	/	13	15	/	16	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	4	0	5	0	0	0	1	6	0	2	4	0	22
APPROACH %	44%	0%	56%	0%	0%	0%	14%	86%	0%	33%	67%	0%	
PEAK HR FACTOR		0.563			0.000			0.583			0.500		0.611
APP/DEPART	9	/	1	0	/	2	7	/	11	6	/	8	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	1	2
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	0	1	0	0	0	0	0	0	1	3
APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	1	/	1	1	/	1	0	/	0	1	/	1	0
BEGIN PEAK HR		3:30 PM											
VOLUMES	1	0	0	0	1	0	0	0	0	0	0	1	3
APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.250			0.250			0.000			0.250		0.375
APP/DEPART	1	/	1	1	/	1	0	/	0	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	1

NRR 0	SRR 0	ERR 0	WRR 0
1	0	0	0

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	1

El Paso

NORTH SIDE

Hidden Valley WEST SIDE EAST SIDE **Hidden Valley**

SOUTH SIDE

El Paso

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS1 River between Second and Corydon

AM	NORTHBOUND														PM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	19	1	0	1	0	0	0	0	0	0	0	0	21	12:00	0	102	15	2	8	1	1	0	0	0	0	0	1	130
0:15	0	15	0	0	1	1	0	0	0	0	0	0	0	17	12:15	0	108	19	0	11	1	1	0	0	0	1	0	0	141
0:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	12:30	0	112	13	0	16	0	1	0	0	0	0	0	0	142
0:45	0	9	0	0	1	0	0	0	0	0	0	0	0	10	12:45	0	126	15	0	15	0	0	0	0	0	1	0	0	157
1:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10	13:00	2	109	14	0	11	2	0	0	0	0	1	0	0	139
1:15	0	3	0	0	0	0	0	0	1	0	1	0	0	5	13:15	0	114	12	0	18	1	0	0	0	0	0	0	1	146
1:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	13:30	0	108	14	0	13	1	0	0	1	0	0	0	0	137
1:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:45	1	116	15	2	5	3	0	0	0	0	1	0	0	143
2:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	14:00	0	128	16	0	15	2	0	1	0	0	1	0	1	164
2:15	0	2	1	0	3	0	0	0	0	0	0	0	0	6	14:15	1	145	23	0	17	2	0	2	0	0	0	0	0	190
2:30	0	1	1	0	1	0	0	0	0	0	0	0	0	3	14:30	1	120	20	0	10	3	2	1	0	0	2	0	1	160
2:45	0	8	1	0	1	0	0	0	0	0	0	0	0	10	14:45	0	167	25	0	11	3	0	1	1	0	1	0	1	210
3:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9	15:00	0	166	17	0	10	2	0	0	1	0	1	0	0	197
3:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7	15:15	1	168	15	0	17	1	0	0	1	0	2	0	0	205
3:30	0	9	3	0	3	0	0	0	1	0	0	0	0	16	15:30	1	151	25	0	19	4	5	0	0	0	0	0	0	205
3:45	0	5	2	0	1	0	0	0	0	0	0	0	0	8	15:45	0	135	17	0	18	3	0	1	0	0	2	0	1	177
4:00	1	15	3	0	0	0	0	0	0	0	0	0	0	19	16:00	0	169	26	0	9	2	1	1	1	0	0	0	0	209
4:15	0	7	3	0	4	0	0	0	1	0	0	0	0	15	16:15	0	148	16	0	16	0	0	1	0	0	0	1	0	182
4:30	0	17	2	1	6	0	0	0	0	0	0	0	0	26	16:30	0	173	17	0	10	2	0	0	0	0	0	0	0	202
4:45	0	27	5	0	4	0	0	0	0	0	0	0	0	36	16:45	0	176	27	0	14	0	1	0	0	0	0	0	0	218
5:00	0	32	6	1	4	0	0	0	0	0	0	0	0	43	17:00	0	191	24	0	23	1	0	0	0	0	0	0	1	240
5:15	1	54	6	0	11	0	0	0	0	0	0	0	0	72	17:15	0	215	20	0	13	4	0	1	0	1	1	0	0	255
5:30	0	83	8	0	17	1	0	1	1	0	0	0	0	111	17:30	0	200	16	0	11	4	0	0	1	0	0	0	1	233
5:45	0	75	13	0	18	0	0	0	0	0	0	0	0	106	17:45	0	203	15	0	18	2	0	0	0	1	0	0	0	239
6:00	0	93	16	0	23	0	0	2	0	0	0	0	0	134	18:00	2	165	16	0	18	3	0	0	0	0	0	0	0	204
6:15	0	133	19	0	22	4	0	0	0	0	0	1	0	179	18:15	0	164	18	0	16	1	1	0	0	0	0	0	0	200
6:30	1	180	23	0	29	1	1	0	0	0	1	2	0	238	18:30	0	156	9	0	9	2	0	0	0	0	0	0	0	176
6:45	0	197	19	0	18	4	0	0	2	0	1	1	0	242	18:45	0	157	14	0	4	1	1	0	0	0	1	0	0	178
7:00	0	206	15	1	17	4	0	0	2	0	0	1	0	246	19:00	0	129	14	0	14	1	1	0	0	0	0	0	0	159
7:15	0	199	24	1	16	2	0	1	0	0	0	0	0	243	19:15	0	132	10	0	12	2	0	1	0	0	0	0	0	157
7:30	0	207	12	0	16	4	0	0	1	0	0	0	0	240	19:30	1	114	12	0	11	1	0	0	0	0	0	0	0	139
7:45	1	208	16	1	25	1	0	0	0	0	0	0	0	252	19:45	1	120	16	0	12	0	0	0	0	0	0	0	0	149
8:00	1	160	18	0	16	3	0	0	0	0	0	0	0	198	20:00	0	117	12	0	8	0	0	0	0	0	0	0	0	137
8:15	0	122	14	0	9	0	1	0	0	0	0	0	0	146	20:15	1	119	13	0	7	2	0	0	0	0	0	0	0	142
8:30	0	120	18	0	15	0	1	0	2	0	0	0	0	156	20:30	0	100	14	0	7	1	0	0	0	0	0	0	0	122
8:45	0	113	13	0	15	0	0	0	0	0	0	0	0	141	20:45	0	91	6	0	9	0	0	0	0	0	0	0	0	106
9:00	0	77	9	0	16	1	0	1	1	0	0	0	0	105	21:00	0	98	8	0	5	0	0	0	0	0	0	0	0	111
9:15	0	74	22	0	7	1	0	0	2	0	0	0	0	106	21:15	1	108	13	0	6	0	0	0	0	0	0	0	0	128
9:30	0	101	7	1	16	2	1	3	1	0	0	0	0	132	21:30	0	80	11	0	7	2	0	0	0	0	0	0	0	100
9:45	0	73	17	2	14	3	1	0	1	0	0	0	0	111	21:45	0	61	6	0	3	0	0	0	0	0	0	0	0	70
10:00	0	92	18	0	17	0	1	0	0	0	0	0	0	128	22:00	0	65	3	0	4	0	0	0	0	0	0	0	0	72
10:15	0	80	16	1	10	1	0	0	0	0	0	0	0	108	22:15	0	47	5	0	1	0	0	0	0	0	0	0	0	53
10:30	0	83	9	1	12	3	0	1	0	0	0	0	0	109	22:30	0	37	4	0	1	0	0	0	0	0	0	0	0	42
10:45	1	75	15	1	7	1	1	1	1	0	0	0	0	103	22:45	0	30	3	1	2	0	0	0	0	0	0	0	0	36
11:00	0	93	14	1	8	2	1	0	0	0	0	0	0	119	23:00	0	28	3	0	0	0	0	0	0	0	0	0	0	31
11:15	1	99	5	0	17	0	0	1	0	0	0	0	0	123	23:15	0	19	2	0	0	0	0	0	0	0	0	0	0	21
11:30	0	99	21	0	15	3	0	0	1	0	0	0	0	139	23:30	0	30	2	0	0	0	0	0	0	0	0	0	0	32
11:45	0	112	13	1	12	3	0	0	1	0	0	0	0	142	23:45	0	23	1	0	2	0	0	0	0	0	0	0	0	26
TOTAL	7	3,422	433	13	448	45	8	11	19	0	3	5	0	4,414	TOTAL	13	5,740	651	5	486	60	15	10	6	2	15	1	8	7,012

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	981

PM PEAK HOUR	5:00 PM
PM PEAK VOLUME	967

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	20	9,162	1,084	18	934	105	23	21	25	2	18	6	8	11,426
% OF TOTAL	0.2%	80.2%	9.5%	0.2%	8.2%	0.9%	0.2%	0.2%	0.2%	0.0%	0.2%	0.1%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	34	19,053	2,049	25	1,307	327	32	34	63	4	42	13	22	23,005
% OF TOTAL	0.3%	166.8%	17.9%	0.2%	11.4%	2.9%	0.3%	0.3%	0.6%	0.0%	0.4%	0.1%	0.2%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS1 River between Second and Corydon

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
0:15	0	10	1	0	0	0	0	0	0	0	0	0	0	11
0:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
0:45	0	11	1	0	1	0	0	0	0	0	0	0	0	13
1:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:30	0	3	0	0	1	0	0	0	0	0	0	0	0	4
1:45	0	4	0	0	1	0	0	0	0	0	0	0	0	5
2:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:15	0	7	1	0	2	1	0	0	0	0	0	0	0	11
2:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:45	0	7	1	0	0	0	0	0	1	0	0	0	0	9
3:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
3:15	0	13	1	0	0	0	0	0	0	0	1	0	0	15
3:30	0	12	3	0	2	0	0	0	1	0	1	0	0	19
3:45	0	10	3	0	1	0	0	0	1	0	2	0	0	17
4:00	0	17	2	0	4	0	0	1	0	0	0	0	0	24
4:15	0	30	3	0	5	0	0	0	0	0	1	0	0	39
4:30	0	24	5	0	0	1	0	0	2	0	1	0	0	33
4:45	0	28	4	0	2	1	0	0	2	0	1	0	0	38
5:00	0	29	7	0	0	0	0	0	1	0	0	0	0	37
5:15	0	31	13	0	5	0	0	0	1	0	0	0	0	50
5:30	0	59	7	0	5	0	0	0	0	0	1	0	0	72
5:45	0	62	7	0	5	2	0	0	0	0	1	0	0	77
6:00	2	70	12	0	2	1	0	0	0	0	0	0	0	87
6:15	0	91	9	0	5	0	0	0	0	0	0	0	1	106
6:30	1	108	13	0	2	2	0	0	1	0	1	0	0	128
6:45	0	190	17	0	4	3	1	0	1	0	0	0	1	217
7:00	0	220	13	0	8	4	0	0	1	0	0	0	0	246
7:15	1	287	16	0	8	7	0	0	2	1	0	0	1	323
7:30	1	297	18	0	9	10	0	1	0	0	2	0	1	339
7:45	0	351	12	0	9	11	0	1	2	0	0	0	1	387
8:00	0	309	13	0	15	7	0	0	2	0	1	0	0	347
8:15	0	256	9	1	5	4	0	0	2	0	0	2	1	280
8:30	1	258	9	1	3	5	0	0	0	0	0	0	1	278
8:45	0	192	14	0	10	6	0	0	0	1	0	0	0	223
9:00	1	136	13	1	10	6	0	0	0	0	0	0	0	167
9:15	0	132	20	1	4	2	0	0	0	0	0	2	0	161
9:30	0	110	24	0	10	1	1	2	2	0	0	0	1	151
9:45	0	121	15	0	8	3	0	0	0	0	0	0	0	147
10:00	0	112	10	0	4	4	0	0	0	0	1	0	1	132
10:15	0	112	16	0	10	2	1	0	1	0	0	0	2	144
10:30	0	84	11	0	4	1	0	0	3	0	0	0	0	103
10:45	0	118	15	0	2	2	1	0	0	0	1	0	0	139
11:00	0	78	18	2	8	3	1	0	0	0	0	0	0	110
11:15	0	103	17	0	6	3	0	1	1	0	0	0	1	132
11:30	0	108	14	0	4	1	0	2	0	0	0	0	0	129
11:45	1	106	12	0	6	2	0	0	0	0	0	0	0	127
TOTAL	8	4,345	406	6	192	95	5	8	27	2	15	4	12	5,125

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	1,396

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	98	8	0	8	1	0	0	0	0	0	0	0	115
12:15	0	106	16	0	9	2	0	0	0	0	0	0	0	133
12:30	0	112	12	0	9	1	0	0	0	0	0	0	0	134
12:45	0	88	12	0	4	3	0	0	1	0	0	0	0	108
13:00	0	104	22	0	8	0	0	0	0	0	0	0	0	134
13:15	0	117	16	0	2	2	0	0	1	0	0	1	0	139
13:30	0	118	14	0	4	2	0	0	0	0	0	0	0	138
13:45	0	109	21	0	5	5	0	0	0	0	0	0	0	140
14:00	0	155	12	1	5	9	1	0	0	0	1	0	0	184
14:15	0	181	21	0	10	2	1	1	0	0	0	0	0	216
14:30	0	147	10	0	7	6	0	0	1	0	1	0	0	172
14:45	0	144	19	0	10	5	0	1	0	0	0	0	0	179
15:00	1	149	17	0	6	7	0	0	0	0	0	0	2	182
15:15	0	158	18	0	6	6	1	1	0	0	0	0	0	190
15:30	1	194	26	0	7	6	0	1	1	0	0	0	0	236
15:45	0	203	17	0	6	6	0	0	2	0	1	0	0	235
16:00	0	244	26	0	9	3	0	0	0	0	1	0	0	283
16:15	0	193	14	0	5	6	0	0	2	0	0	2	0	222
16:30	1	183	21	0	3	10	0	0	0	0	0	0	0	218
16:45	0	183	12	0	2	7	0	0	0	0	0	0	0	204
17:00	0	227	18	0	7	4	0	0	0	0	0	0	0	256
17:15	0	195	25	0	5	6	0	0	1	0	1	0	0	233
17:30	0	208	17	0	1	5	0	0	0	0	3	0	0	234
17:45	0	258	17	0	8	1	0	0	1	0	1	0	0	286
18:00	0	173	11	0	3	8	0	0	0	0	0	0	0	195
18:15	0	157	8	0	2	4	0	1	0	0	0	0	0	172
18:30	1	158	20	0	2	0	1	0	0	0	0	0	0	182
18:45	1	134	13	0	3	2	0	0	0	0	0	0	0	153
19:00	0	134	10	0	5	2	0	0	0	0	0	0	0	151
19:15	0	105	14	0	3	0	0	0	0	0	0	0	0	122
19:30	0	103	10	0	2	1	0	0	1	0	0	0	0	117
19:45	0	73	4	0	3	0	0	0	0	0	0	0	0	80
20:00	0	68	10	0	4	1	0	0	0	0	0	0	0	83
20:15	1	68	11	0	0	0	0	0	0	0	0	0	0	80
20:30	0	60	4	0	1	1	0	0	0	0	0	0	0	66
20:45	0	62	4	0	1	0	0	0	0	0	0	0	0	67
21:00	0	46	6	0	1	0	0	0	0	0	0	0	0	53
21:15	0	39	1	0	1	0	0	0	0	0	0	0	0	41
21:30	0	42	3	0	0	0	0	0	0	0	0	0	0	45
21:45	0	42	3	0	0	0	0	0	0	0	0	0	0	45
22:00	0	38	4	0	1	2	0	0	0	0	0	0	0	45
22:15	0	38	3	0	2	1	0	0	0	0	0	0	0	44
22:30	0	33	3	0	0	0	0	0	0	0	0	0	0	36
22:45	0	20	3	0	0	0	0	0	0	0	0	0	0	23
23:00	0	31	1	0	0	0	0	0	0	0	0	0	0	32
23:15	0	18	0	0	0	0	0	0	0	0	0	0	0	18
23:30	0	12	2	0	1	0	0	0	0	0	0	0	0	15
23:45	0	18	0	0	0	0	0	0	0	0	0	0	0	18
TOTAL	6	5,546	559	1	181	127	4	5	11	0	9	3	2	6,454

PM PEAK HOUR	5:00 PM
PM PEAK VOLUME	1,009

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	14	9,891	965	7	373	222	9	13	38	2	24	7	14	11,579
% OF TOTAL	0.1%	85.4%	8.3%	0.1%	3.2%	1.9%	0.1%	0.1%	0.3%	0.0%	0.2%	0.1%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS2 Second east of River

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
0:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2
0:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:00	0	1	0	0	1	1	0	0	0	0	0	0	0	3
1:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
1:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
2:15	0	2	2	0	1	1	0	0	0	0	0	0	0	6
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
3:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
3:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:30	0	6	1	0	1	0	0	0	0	0	0	0	0	8
3:45	0	5	0	0	1	0	0	0	0	0	0	0	0	6
4:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:15	0	11	3	0	0	0	0	0	0	0	0	0	0	14
4:30	0	15	0	0	0	0	0	0	0	0	0	0	0	15
4:45	0	5	2	0	1	1	0	0	0	0	0	0	0	9
5:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
5:15	0	7	7	0	2	0	0	0	0	0	0	0	0	16
5:30	0	28	2	0	1	0	0	0	0	0	0	0	0	31
5:45	0	24	4	0	0	0	0	0	0	0	0	0	0	28
6:00	0	27	11	0	2	0	0	0	0	0	0	0	0	40
6:15	0	39	4	0	3	0	0	0	2	0	0	0	0	48
6:30	0	45	6	0	0	0	0	0	0	0	0	0	0	51
6:45	0	79	9	0	3	0	0	0	0	0	0	0	0	91
7:00	0	125	13	0	1	0	0	0	0	0	0	0	0	139
7:15	0	162	11	0	6	0	0	0	0	0	0	0	0	179
7:30	0	182	9	0	2	1	0	0	0	0	0	0	0	194
7:45	0	128	13	0	3	0	0	0	0	0	0	0	0	144
8:00	0	98	5	0	8	0	0	0	1	0	0	0	0	112
8:15	0	70	8	0	5	0	0	0	0	0	0	0	0	83
8:30	0	67	6	1	0	0	0	0	0	0	0	0	0	74
8:45	0	69	8	0	4	0	0	0	1	0	0	0	0	82
9:00	0	57	7	0	2	0	0	0	0	0	0	0	1	67
9:15	0	53	5	1	2	0	0	0	0	0	0	0	0	61
9:30	0	50	10	0	3	0	0	0	0	0	0	0	0	63
9:45	0	55	4	0	7	0	0	0	0	0	0	0	0	66
10:00	0	51	11	0	2	0	0	0	1	0	0	0	0	65
10:15	0	56	3	0	4	0	2	0	0	0	0	0	0	65
10:30	0	40	7	0	1	1	0	0	0	0	0	0	0	49
10:45	0	48	6	0	0	0	0	0	0	0	0	0	0	54
11:00	0	40	5	0	4	0	1	0	0	0	0	0	0	50
11:15	0	49	10	0	2	1	0	0	0	1	0	0	0	63
11:30	0	48	6	0	2	0	0	0	0	0	0	0	0	56
11:45	1	47	6	0	2	1	0	0	0	0	0	0	0	57
TOTAL	1	1,826	210	2	79	7	3	0	5	1	0	0	1	2,135

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	656

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	46	6	0	4	0	0	0	0	0	0	0	0	56
12:15	0	45	4	0	3	0	0	0	0	0	0	0	0	52
12:30	0	40	5	0	5	0	0	0	0	0	0	0	0	50
12:45	0	55	8	0	4	0	0	0	0	0	0	0	0	67
13:00	0	47	6	0	2	0	0	0	0	0	0	0	0	55
13:15	0	60	6	0	3	0	0	0	0	0	0	0	0	69
13:30	0	70	10	0	4	0	0	0	0	0	0	0	0	84
13:45	0	84	13	0	5	0	0	0	0	0	0	0	0	102
14:00	0	117	11	0	2	0	0	0	0	0	0	0	0	130
14:15	1	106	12	0	8	0	0	0	0	0	0	0	0	127
14:30	1	59	6	0	0	0	0	0	0	0	0	0	0	66
14:45	0	72	8	0	8	0	0	0	0	0	0	0	0	88
15:00	0	62	15	0	2	0	0	1	1	0	0	0	0	81
15:15	0	69	9	0	8	1	0	0	0	0	0	0	0	87
15:30	0	60	11	0	5	0	0	0	0	0	0	0	0	76
15:45	0	82	13	0	5	0	0	1	0	0	0	0	0	101
16:00	0	57	14	0	2	1	1	0	0	0	0	0	0	75
16:15	0	64	11	0	4	0	0	0	0	1	0	1	0	81
16:30	0	70	16	0	1	0	1	0	0	0	0	0	0	88
16:45	0	65	7	0	0	2	0	0	0	0	0	0	0	74
17:00	0	79	18	0	2	0	0	0	0	0	0	0	0	99
17:15	0	69	11	0	6	1	0	0	0	0	0	0	0	87
17:30	0	75	9	1	3	0	0	0	0	0	0	0	1	89
17:45	0	72	7	0	2	0	0	1	0	0	0	0	0	82
18:00	0	60	9	0	1	0	0	1	0	0	0	0	0	71
18:15	0	57	7	0	1	0	0	0	0	0	0	0	0	65
18:30	0	51	10	0	2	0	0	0	0	0	0	0	0	63
18:45	0	56	9	0	1	0	0	0	0	0	0	0	0	66
19:00	0	43	8	0	4	0	0	0	0	0	0	0	0	55
19:15	0	50	6	0	3	0	0	0	0	0	0	0	0	59
19:30	0	34	3	0	1	0	0	0	0	0	0	0	0	38
19:45	0	35	6	0	2	0	0	0	0	0	0	0	0	43
20:00	0	27	0	0	0	0	0	0	0	0	0	0	0	27
20:15	0	21	5	0	0	0	0	0	0	0	0	0	0	26
20:30	0	22	1	0	1	0	0	0	0	0	0	0	0	24
20:45	0	28	1	0	0	1	0	0	0	0	0	0	0	30
21:00	0	23	1	0	0	0	0	0	0	0	0	0	0	24
21:15	0	22	2	0	0	0	0	0	0	0	0	0	0	24
21:30	0	13	3	0	1	0	0	1	0	0	0	0	0	18
21:45	0	18	1	0	1	0	0	0	0	0	0	0	0	20
22:00	0	18	2	0	1	0	0	0	0	0	0	0	0	21
22:15	0	23	0	0	0	0	0	0	0	0	0	0	0	23
22:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10
22:45	0	15	1	0	0	0	0	0	1	0	0	0	0	17
23:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16
23:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9
23:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
23:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
TOTAL	2	2,280	315	1	107	6	2	5	2	1	0	1	1	2,723

PM PEAK HOUR	1:30 PM
PM PEAK VOLUME	443

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	3	4,106	525	3	186	13	5	5	7	2	0	1	2	4,858
% OF TOTAL	0.1%	84.5%	10.8%	0.1%	3.8%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	21	8,525	1,100	5	295	31	7	7	15	2	1	2	2	10,013
% OF TOTAL	0.4%	175.5%	22.6%	0.1%	6.1%	0.6%	0.1%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS2 Second east of River

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
0:15	0	7	0	0	1	1	0	0	0	0	0	0	0	9
0:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
1:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:15	0	2	2	0	0	0	0	0	0	0	1	0	0	5
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:15	0	1	2	0	0	0	0	0	0	0	0	0	0	3
2:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:45	0	4	2	0	0	0	0	0	0	0	0	0	0	6
3:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:15	1	2	1	0	0	0	0	0	0	0	0	0	0	4
3:30	0	8	3	0	0	0	0	0	0	0	0	0	0	11
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
4:15	0	6	2	0	0	1	0	0	0	0	0	0	0	9
4:30	0	7	4	0	1	0	0	0	0	0	0	0	0	12
4:45	0	15	4	0	1	0	0	0	0	0	0	0	0	20
5:00	0	15	3	0	2	0	0	0	0	0	0	0	0	20
5:15	1	24	10	0	1	0	0	0	0	0	0	0	0	36
5:30	0	32	4	0	0	0	0	0	1	0	0	0	0	37
5:45	1	22	6	0	0	0	0	0	0	0	0	0	0	29
6:00	1	39	9	0	1	0	0	0	0	0	0	0	0	50
6:15	0	38	13	0	2	0	0	0	1	0	0	0	0	54
6:30	0	82	13	0	5	0	0	0	0	0	0	0	0	100
6:45	0	57	13	0	1	0	0	0	1	0	0	0	0	72
7:00	0	50	3	1	0	0	0	0	0	0	0	0	0	54
7:15	0	93	6	0	2	1	0	1	0	0	0	0	0	103
7:30	0	118	12	0	2	1	0	0	0	0	0	0	0	133
7:45	0	85	14	0	3	0	0	0	0	0	0	0	0	102
8:00	0	75	16	0	1	0	0	0	1	0	0	0	0	93
8:15	0	60	3	0	0	0	0	0	0	0	0	0	0	63
8:30	0	51	7	0	4	1	0	0	0	0	0	0	0	63
8:45	0	43	13	0	2	0	0	0	0	0	0	0	0	58
9:00	0	38	7	0	5	0	0	0	0	0	0	0	0	50
9:15	0	45	2	0	2	1	0	0	1	0	0	0	0	51
9:30	1	54	5	0	3	0	0	0	0	0	0	0	0	63
9:45	0	46	7	0	4	0	0	0	1	0	0	0	0	58
10:00	0	48	15	0	0	0	0	0	0	0	0	0	0	63
10:15	1	48	4	0	2	1	0	0	0	0	0	0	0	56
10:30	0	47	6	0	0	0	0	0	0	0	0	0	0	53
10:45	1	43	4	0	0	0	1	0	0	0	0	0	0	49
11:00	0	38	5	0	3	1	0	0	0	0	0	0	0	47
11:15	1	46	5	0	4	0	0	0	0	0	0	0	0	56
11:30	0	65	9	0	4	0	0	0	0	0	0	0	0	78
11:45	1	61	9	0	4	1	0	0	1	0	0	0	0	77
TOTAL	9	1,562	248	1	60	9	1	1	7	0	1	0	0	1,899

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	431

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	64	5	0	0	0	0	0	0	0	0	1	0	70
12:15	1	55	8	0	1	0	0	0	0	0	0	0	0	65
12:30	0	62	6	0	3	1	0	0	0	0	0	0	0	72
12:45	0	73	8	0	3	0	0	0	0	0	0	0	0	84
13:00	0	77	14	0	1	0	0	0	0	0	0	0	0	92
13:15	0	60	4	0	1	0	0	0	0	0	0	0	0	65
13:30	0	47	9	0	1	0	0	0	0	0	0	0	0	57
13:45	0	61	7	1	2	0	0	0	0	0	0	0	0	71
14:00	0	116	10	0	2	0	0	0	0	0	0	0	0	128
14:15	0	85	9	0	0	1	0	0	0	0	0	0	0	95
14:30	3	68	12	0	2	0	0	0	0	0	0	0	0	85
14:45	0	90	6	0	0	0	0	0	0	0	0	0	0	96
15:00	0	90	12	0	3	1	0	0	0	0	0	0	0	106
15:15	1	80	11	0	4	0	0	0	0	0	0	0	0	96
15:30	1	87	12	0	1	1	0	0	0	0	0	0	0	102
15:45	0	82	6	0	2	1	0	0	0	0	0	0	0	91
16:00	0	89	9	0	1	1	1	1	0	0	0	0	0	102
16:15	0	68	9	0	2	0	0	0	0	0	0	0	0	79
16:30	0	57	13	0	0	0	0	0	0	0	0	0	0	70
16:45	0	70	8	0	2	0	0	0	0	0	0	0	0	80
17:00	0	86	13	0	2	0	0	0	0	0	0	0	0	101
17:15	1	98	8	0	2	0	0	0	0	0	0	0	0	109
17:30	1	90	10	0	0	0	0	0	0	0	0	0	0	101
17:45	0	80	14	0	2	0	0	0	0	0	0	0	0	96
18:00	1	85	10	0	1	0	0	0	0	0	0	0	0	97
18:15	0	77	12	0	2	1	0	0	0	0	0	0	0	92
18:30	0	75	0	0	0	0	0	0	0	0	0	0	0	75
18:45	0	75	5	0	2	0	0	0	0	0	0	0	0	82
19:00	0	54	16	0	1	0	0	0	0	0	0	0	0	71
19:15	0	48	8	0	1	0	0	0	0	0	0	0	0	57
19:30	0	62	7	0	1	0	0	0	0	0	0	0	0	70
19:45	0	78	9	0	0	0	0	0	0	0	0	0	0	87
20:00	0	49	6	0	1	0	0	0	0	0	0	0	0	56
20:15	0	47	4	0	0	1	0	0	0	0	0	0	0	52
20:30	0	47	7	0	0	0	0	0	0	0	0	0	0	54
20:45	0	54	4	0	1	0	0	0	0	0	0	0	0	59
21:00	0	41	4	0	0	1	0	0	0	0	0	0	0	46
21:15	0	49	3	0	0	0	0	0	0	0	0	0	0	52
21:30	0	26	5	0	0	0	0	0	0	0	0	0	0	31
21:45	0	14	0	0	0	0	0	0	1	0	0	0	0	15
22:00	0	27	0	0	0	0	0	0	0	0	0	0	0	27
22:15	0	28	1	0	0	0	0	0	0	0	0	0	0	29
22:30	0	19	0	0	1	0	0	0	0	0	0	0	0	20
22:45	0	18	0	0	1	0	0	0	0	0	0	0	0	19
23:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
23:15	0	14	0	0	0	0	0	0	0	0	0	0	0	14
23:30	0	12	0	0	0	0	0	0	0	0	0	0	0	12
23:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10
TOTAL	9	2,857	327	1	49	9	1	1	1	0	0	1	0	3,256

PM PEAK HOUR	5:00 PM
PM PEAK VOLUME	407

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	18	4,419	575	2	109	18	2	2	8	0	1	1	0	5,155
% OF TOTAL	0.3%	85.7%	11.2%	0.0%	2.1%	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS3 River north of Lincoln

AM	NORTHBOUND														PM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	19	1	0	1	0	0	0	0	0	0	0	0	21	12:00	1	93	9	1	6	2	0	0	2	0	0	0	0	114
0:15	0	13	0	0	0	0	0	0	0	0	0	0	0	13	12:15	0	103	5	0	3	0	0	0	0	0	0	1	0	112
0:30	0	5	0	0	1	0	0	0	0	0	0	0	0	6	12:30	0	102	10	0	0	2	2	0	0	0	0	0	0	116
0:45	0	5	1	0	1	1	0	0	0	0	0	0	0	8	12:45	0	98	10	0	2	0	0	0	0	0	1	0	0	111
1:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	13:00	0	97	5	0	2	2	2	0	0	0	0	1	0	109
1:15	0	3	0	0	0	0	0	0	1	0	0	0	0	4	13:15	0	107	8	0	7	1	0	0	0	0	0	0	0	123
1:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	13:30	0	96	4	0	4	2	0	0	0	0	0	0	3	109
1:45	1	2	1	0	0	0	0	0	0	0	0	0	0	4	13:45	0	139	6	1	5	3	0	1	0	0	0	0	1	156
2:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7	14:00	0	194	11	0	4	4	0	1	0	0	0	0	0	214
2:15	0	3	1	0	1	0	0	0	0	0	0	0	0	5	14:15	1	135	13	0	6	3	1	0	0	0	0	0	1	160
2:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1	14:30	0	120	6	0	8	0	2	0	3	0	0	0	0	139
2:45	0	5	0	0	0	0	0	0	1	0	0	0	0	6	14:45	0	141	11	0	4	5	2	1	2	0	0	0	1	167
3:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7	15:00	0	138	7	0	2	1	0	0	0	0	0	0	1	149
3:15	0	5	2	0	0	0	0	0	0	0	0	0	0	7	15:15	0	145	6	0	3	6	1	0	0	0	0	0	1	162
3:30	0	6	2	0	0	0	0	0	1	0	0	0	0	9	15:30	0	145	10	0	3	2	2	0	0	0	1	0	0	163
3:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8	15:45	0	134	10	0	2	1	0	0	2	0	0	0	0	149
4:00	0	14	0	0	1	0	0	0	0	0	0	0	0	15	16:00	0	155	14	0	1	2	0	0	0	0	0	1	0	173
4:15	0	4	2	0	1	0	0	1	1	0	0	0	0	9	16:15	1	148	12	0	5	1	1	1	0	0	0	0	0	169
4:30	0	20	0	0	1	0	0	0	0	0	0	0	0	21	16:30	0	176	4	0	6	5	0	0	1	0	0	0	0	192
4:45	0	19	2	0	0	0	0	0	0	0	0	0	0	21	16:45	0	165	12	0	2	2	1	0	0	0	0	0	1	183
5:00	0	25	5	0	2	0	0	0	1	0	0	0	0	33	17:00	0	159	14	1	3	6	0	0	0	0	0	0	2	185
5:15	0	39	5	0	1	1	0	0	0	0	0	0	0	46	17:15	2	195	13	0	1	5	0	0	0	0	2	0	0	218
5:30	1	68	6	0	3	2	0	0	0	0	0	0	0	80	17:30	0	155	7	0	6	3	0	0	1	1	0	1	0	174
5:45	0	71	10	0	4	1	0	0	0	0	0	0	0	86	17:45	0	171	6	0	1	4	0	0	0	0	0	0	0	182
6:00	0	75	11	0	3	2	0	0	0	0	0	0	0	91	18:00	0	149	10	0	2	4	0	0	0	0	0	0	0	165
6:15	1	104	9	0	5	8	0	0	1	1	0	0	0	129	18:15	0	132	9	0	4	4	0	0	0	0	0	0	0	149
6:30	0	147	3	0	2	7	0	0	0	1	0	0	1	161	18:30	0	148	6	0	3	3	0	1	0	0	0	0	0	161
6:45	0	180	13	1	8	1	0	0	2	1	0	0	0	206	18:45	0	155	6	0	0	4	0	0	0	0	1	0	0	166
7:00	0	234	9	1	4	6	2	0	1	0	0	0	1	258	19:00	1	107	10	0	4	3	0	0	0	0	0	0	0	125
7:15	0	253	12	1	3	5	0	0	2	0	1	0	1	278	19:15	0	105	3	0	2	2	0	0	0	0	0	1	0	113
7:30	1	253	7	0	5	4	0	0	3	0	1	0	0	274	19:30	0	108	8	0	2	3	0	0	0	0	0	0	0	121
7:45	0	170	8	0	2	4	1	0	0	0	0	0	0	185	19:45	0	113	6	0	1	3	0	0	0	0	1	1	0	125
8:00	0	136	8	0	3	5	0	1	0	0	0	1	0	154	20:00	0	103	9	0	1	1	0	0	0	0	0	0	0	114
8:15	0	106	8	0	1	1	0	0	1	0	0	0	0	117	20:15	0	106	6	0	1	2	0	0	0	0	0	0	0	115
8:30	0	102	15	1	2	1	0	0	1	0	0	0	0	122	20:30	0	89	6	0	3	1	0	0	0	0	0	0	0	99
8:45	0	95	9	0	8	2	0	0	0	0	0	0	1	115	20:45	0	72	4	0	2	2	0	1	0	0	1	0	0	82
9:00	0	78	7	0	3	2	0	0	1	0	0	0	0	91	21:00	0	92	8	0	2	2	0	0	0	0	0	0	0	104
9:15	0	80	9	0	2	0	0	0	0	1	0	1	0	93	21:15	0	96	6	0	0	1	0	0	0	0	0	0	0	103
9:30	0	71	8	1	7	2	0	0	1	0	0	0	0	90	21:30	1	82	9	0	1	0	0	0	0	0	0	0	0	93
9:45	1	63	11	0	4	3	0	0	1	0	0	0	0	83	21:45	0	75	1	0	0	0	0	0	0	0	0	0	0	76
10:00	0	77	7	0	5	2	1	0	0	0	0	0	0	92	22:00	0	53	4	0	2	0	0	0	0	0	0	0	0	59
10:15	0	61	5	0	5	3	0	0	0	0	0	0	0	74	22:15	0	43	3	0	0	0	0	0	0	0	0	0	0	46
10:30	0	73	9	0	5	1	1	1	0	0	0	0	0	90	22:30	0	36	0	0	1	1	0	0	0	0	0	0	0	38
10:45	0	73	5	1	2	5	0	0	0	1	0	0	0	87	22:45	0	31	1	0	1	0	0	0	0	0	0	0	0	33
11:00	0	91	7	0	2	2	0	0	1	0	0	0	1	104	23:00	1	34	1	0	0	0	0	0	0	0	0	0	0	36
11:15	0	73	9	0	5	3	0	0	1	0	0	0	1	92	23:15	0	24	2	0	0	0	0	0	0	0	0	0	0	26
11:30	0	108	7	0	4	0	0	0	0	0	0	0	0	119	23:30	0	29	1	0	0	0	0	0	0	0	0	0	0	30
11:45	0	109	8	0	3	2	1	0	0	0	0	0	0	123	23:45	0	19	2	0	0	0	0	0	0	0	0	0	0	21
TOTAL	5	3,166	246	6	111	76	6	3	21	5	2	2	6	3,655	TOTAL	8	5,312	334	3	118	98	14	6	11	1	7	6	11	5,929

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	1,016

PM PEAK HOUR	4:30 PM
PM PEAK VOLUME	778

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	13	8,478	580	9	229	174	20	9	32	6	9	8	17	9,584
% OF TOTAL	0.1%	88.5%	6.1%	0.1%	2.4%	1.8%	0.2%	0.1%	0.3%	0.1%	0.1%	0.1%	0.2%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	46	17,665	1,212	17	408	318	69	15	89	14	21	28	37	19,939
% OF TOTAL	0.5%	184.3%	12.6%	0.2%	4.3%	3.3%	0.7%	0.2%	0.9%	0.1%	0.2%	0.3%	0.4%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS3 River north of Lincoln

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
0:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
0:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
0:45	0	9	2	0	0	0	0	0	0	0	0	0	0	11
1:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:30	0	3	0	0	1	0	0	0	0	0	0	0	0	4
1:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
2:30	0	7	1	0	1	0	0	0	0	0	0	0	0	9
2:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12
3:00	1	6	3	0	0	0	0	0	1	0	0	0	0	11
3:15	0	13	0	0	0	0	0	0	1	0	0	0	0	14
3:30	0	13	7	0	0	0	0	0	2	0	0	0	0	22
3:45	0	10	4	0	1	0	0	0	3	0	0	0	0	18
4:00	0	19	3	0	3	0	0	0	3	0	1	0	0	29
4:15	2	31	9	0	3	0	0	0	1	0	0	0	0	46
4:30	0	38	4	0	0	0	0	0	3	0	0	0	0	45
4:45	1	34	9	0	0	0	0	0	6	0	2	0	0	52
5:00	0	41	7	1	0	0	0	0	2	0	0	0	0	51
5:15	0	35	7	0	2	0	0	0	1	0	0	0	0	45
5:30	0	54	6	0	4	1	0	0	0	0	1	0	0	66
5:45	0	58	12	0	3	0	0	0	0	0	1	0	0	74
6:00	1	66	7	0	0	1	0	0	0	0	0	0	0	75
6:15	0	87	5	0	4	0	0	0	0	0	0	0	0	96
6:30	0	107	9	0	3	1	2	0	1	0	0	0	0	123
6:45	1	165	18	0	5	4	0	0	0	0	0	1	1	195
7:00	0	208	16	0	2	2	0	0	1	0	0	4	1	234
7:15	1	249	8	0	5	6	4	0	0	1	0	0	0	274
7:30	1	377	5	0	4	3	3	0	0	0	0	0	1	394
7:45	0	325	4	0	7	2	4	0	3	1	0	0	2	348
8:00	0	220	5	1	6	6	2	0	3	0	0	1	0	244
8:15	1	225	5	0	2	4	0	0	2	0	0	0	1	240
8:30	0	220	10	1	2	2	2	0	0	1	1	0	1	240
8:45	0	190	12	0	1	3	0	0	0	0	0	0	1	207
9:00	1	119	11	0	3	5	1	0	1	0	0	0	2	143
9:15	0	96	13	0	4	2	2	0	1	0	2	1	0	121
9:30	0	110	11	0	1	1	0	0	1	0	0	2	0	126
9:45	0	119	13	0	3	1	1	0	0	0	0	0	0	137
10:00	0	95	7	0	1	2	1	0	1	0	0	0	0	107
10:15	0	90	11	0	4	3	0	1	2	0	0	0	1	112
10:30	1	85	4	0	4	2	1	0	2	0	1	0	0	100
10:45	0	108	10	0	3	6	0	0	1	0	0	0	0	128
11:00	0	75	7	0	7	6	2	0	1	0	0	0	0	98
11:15	0	94	12	0	5	2	0	1	1	0	0	0	1	116
11:30	0	100	11	0	1	0	0	1	0	0	0	0	0	113
11:45	0	89	4	0	4	2	1	0	1	0	0	0	0	101
TOTAL	11	4,045	296	3	99	67	26	3	45	3	9	9	12	4,628

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	1,260

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	105	9	0	2	2	0	0	0	0	0	0	0	118
12:15	0	103	8	0	1	3	0	0	0	0	0	1	0	116
12:30	1	112	9	1	5	3	1	0	0	0	0	0	0	132
12:45	0	93	9	0	1	0	0	0	1	0	0	0	0	104
13:00	1	92	12	0	4	2	1	0	1	0	0	0	0	113
13:15	1	94	7	0	1	4	0	0	1	0	0	0	0	108
13:30	0	85	13	0	3	2	0	0	0	1	0	0	1	105
13:45	2	94	11	0	1	4	0	0	0	0	0	0	0	112
14:00	0	155	12	1	2	4	1	0	1	0	0	0	1	177
14:15	1	255	1	1	1	5	0	0	0	1	0	0	0	265
14:30	1	176	10	1	6	5	2	1	1	0	0	1	0	204
14:45	0	134	9	0	2	2	1	1	1	0	0	0	0	150
15:00	1	150	15	0	3	3	1	0	0	1	0	0	1	175
15:15	2	154	8	0	2	1	2	0	0	0	0	0	1	170
15:30	0	151	11	0	4	4	0	0	0	1	1	1	0	173
15:45	1	186	8	0	3	3	0	0	1	0	0	1	1	204
16:00	1	211	9	0	3	4	2	0	0	0	0	0	0	230
16:15	0	149	11	0	4	5	1	0	1	1	1	1	1	175
16:30	0	196	7	0	4	1	2	0	0	0	0	1	0	211
16:45	0	178	16	0	1	2	1	0	1	0	0	0	0	199
17:00	0	170	13	0	1	1	2	0	1	0	0	0	1	189
17:15	1	164	11	0	1	4	2	1	0	0	0	1	0	185
17:30	3	198	7	0	2	2	1	0	0	0	0	2	1	216
17:45	0	206	13	1	3	1	1	0	0	0	1	1	0	227
18:00	1	151	10	0	2	3	0	0	0	0	0	0	0	167
18:15	1	134	3	0	4	0	0	0	1	0	0	0	0	143
18:30	0	144	10	0	2	3	1	0	0	0	0	1	0	161
18:45	0	136	7	0	2	0	0	0	0	0	0	0	0	145
19:00	2	124	8	0	1	0	1	0	0	0	0	0	0	136
19:15	0	106	12	0	1	1	0	0	0	0	0	0	0	120
19:30	0	71	5	0	1	0	0	0	1	0	0	0	0	78
19:45	1	97	3	0	0	0	0	0	0	0	0	0	0	101
20:00	0	68	8	0	1	1	0	0	0	0	0	0	0	78
20:15	1	50	4	0	0	1	0	0	0	0	0	0	0	56
20:30	0	60	4	0	0	0	0	0	0	0	0	0	0	64
20:45	0	45	4	0	2	0	0	0	0	0	0	0	0	51
21:00	0	53	3	0	2	0	0	0	0	0	0	0	0	58
21:15	0	31	1	0	0	0	0	0	0	0	0	0	0	32
21:30	0	39	2	0	0	0	0	0	0	0	0	0	0	41
21:45	0	37	2	0	1	0	0	0	0	0	0	0	0	40
22:00	0	30	1	0	0	1	0	0	0	0	0	0	0	32
22:15	0	24	4	0	1	0	0	0	0	0	0	0	0	29
22:30	0	30	1	0	0	0	0	0	0	0	0	0	0	31
22:45	0	27	2	0	0	0	0	0	0	0	0	0	0	29
23:00	0	25	0	0	0	0	0	0	0	0	0	0	0	25
23:15	0	19	0	0	0	0	0	0	0	0	0	0	0	19
23:30	0	14	1	0	0	0	0	0	0	0	0	0	0	15
23:45	0	16	2	0	0	0	0	0	0	0	0	0	0	18
TOTAL	22	5,142	336	5	80	77	23	3	12	5	3	11	8	5,727

PM PEAK HOUR	3:45 PM
PM PEAK VOLUME	820

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	33	9,187	632	8	179	144	49	6	57	8	12	20	20	10,355
% OF TOTAL	0.3%	88.7%	6.1%	0.1%	1.7%	1.4%	0.5%	0.1%	0.6%	0.1%	0.1%	0.2%	0.2%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS4 Lincoln between Pomona and Railroad

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
0:15	0	12	2	0	1	0	0	0	1	0	0	0	0	16
0:30	0	5	2	0	0	0	0	0	0	0	0	0	0	7
0:45	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00	0	10	2	1	0	0	0	0	1	0	0	0	0	14
1:15	0	10	1	0	0	0	0	0	1	0	0	0	0	12
1:30	0	7	2	0	2	0	0	0	1	0	0	0	0	12
1:45	0	8	0	1	1	0	0	0	0	0	0	0	0	10
2:00	0	5	1	0	1	0	0	0	1	0	0	0	0	8
2:15	0	4	1	0	3	0	0	0	1	0	0	0	0	9
2:30	0	5	1	0	4	0	0	0	2	0	0	0	0	12
2:45	0	11	2	0	1	0	0	0	1	0	0	0	0	15
3:00	0	15	0	0	1	0	1	0	1	0	0	0	0	18
3:15	0	12	4	0	1	0	0	0	2	0	0	0	0	19
3:30	0	21	3	0	1	0	0	0	1	0	0	0	0	26
3:45	0	29	3	0	2	0	0	0	0	0	0	0	0	34
4:00	0	29	8	0	1	1	0	0	0	0	0	0	0	39
4:15	1	46	10	0	4	0	0	0	3	0	0	0	0	64
4:30	0	69	12	0	6	0	0	0	1	0	0	0	0	88
4:45	1	87	16	0	10	0	0	0	2	0	0	0	0	116
5:00	1	35	6	0	6	0	0	0	2	0	1	0	0	51
5:15	1	50	15	1	13	0	0	0	3	0	0	0	0	83
5:30	0	86	11	0	12	1	0	0	1	0	0	0	0	111
5:45	1	89	21	0	19	0	0	0	3	0	0	0	0	133
6:00	0	53	12	0	13	1	0	0	2	0	0	1	0	82
6:15	0	67	18	1	15	1	0	0	2	0	0	0	0	104
6:30	0	96	13	0	13	1	0	0	1	0	0	0	0	124
6:45	0	124	15	0	14	5	0	0	3	0	0	1	0	162
7:00	0	123	14	0	16	0	1	0	1	1	0	0	0	156
7:15	0	150	17	0	10	3	2	0	1	0	0	1	1	185
7:30	1	175	21	1	17	2	0	0	0	1	0	1	0	219
7:45	1	192	16	0	17	1	0	0	1	0	0	1	0	229
8:00	1	137	18	0	12	4	0	0	1	0	0	0	0	173
8:15	0	107	12	1	17	0	0	0	1	0	0	0	2	140
8:30	3	111	11	1	14	5	0	0	1	0	0	0	0	146
8:45	0	137	15	2	9	0	0	0	2	1	0	0	0	166
9:00	0	88	16	2	6	2	2	0	4	0	0	1	1	122
9:15	1	84	12	2	16	2	1	1	0	0	0	0	0	119
9:30	1	72	13	2	15	2	0	0	0	0	0	0	1	106
9:45	1	93	16	0	9	2	0	1	2	0	0	0	1	125
10:00	0	82	9	1	14	2	0	1	1	0	2	0	0	112
10:15	1	82	15	2	8	2	0	1	2	0	0	0	0	113
10:30	0	55	16	0	15	1	0	1	3	0	0	0	0	91
10:45	1	90	10	2	10	1	0	3	2	0	0	0	1	120
11:00	0	89	19	2	13	3	0	2	3	1	0	0	1	133
11:15	0	68	15	4	19	3	0	1	0	1	0	0	0	111
11:30	0	85	15	2	15	5	0	0	4	0	0	0	1	127
11:45	0	87	13	3	11	5	0	0	4	0	0	0	0	123
TOTAL	16	3,122	480	31	407	55	7	11	69	5	3	6	9	4,221

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	806

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	120	10	1	20	1	0	1	3	0	0	0	1	157
12:15	1	92	16	0	11	3	0	3	2	0	0	0	1	129
12:30	1	100	9	1	11	3	1	2	2	0	0	0	1	131
12:45	0	101	13	2	15	1	0	0	2	0	0	0	0	134
13:00	0	103	11	2	9	1	0	1	2	0	0	1	0	130
13:15	0	100	18	3	6	1	0	0	3	0	0	0	0	131
13:30	1	94	9	0	19	4	1	1	0	0	0	1	0	130
13:45	0	103	14	1	18	3	0	1	1	1	1	2	1	146
14:00	1	122	11	1	15	3	0	1	3	0	1	2	0	160
14:15	2	116	12	1	20	1	0	1	3	0	0	1	1	158
14:30	0	140	16	0	15	2	1	0	2	0	0	0	0	176
14:45	0	129	23	1	20	1	3	1	0	0	0	0	2	180
15:00	0	147	14	2	21	1	0	0	1	0	0	0	1	187
15:15	0	115	13	0	12	2	2	1	1	0	0	1	0	147
15:30	2	122	13	2	10	0	0	0	0	0	0	0	0	149
15:45	1	115	18	1	15	1	1	0	1	0	1	1	0	155
16:00	0	106	23	0	12	4	1	0	2	0	0	0	0	148
16:15	3	111	13	1	10	1	3	1	2	0	0	0	0	145
16:30	0	125	15	1	13	3	2	0	1	0	0	1	0	161
16:45	1	162	10	0	17	3	1	0	0	0	0	0	1	195
17:00	0	150	5	0	15	2	0	1	0	0	0	0	0	173
17:15	2	153	21	0	16	1	1	0	1	0	1	0	0	196
17:30	1	167	13	0	10	4	0	0	0	0	0	1	0	196
17:45	2	148	14	0	14	5	0	1	1	0	1	0	0	186
18:00	0	114	16	0	13	3	0	1	0	1	0	1	1	150
18:15	1	110	15	0	13	4	2	0	0	0	0	0	0	145
18:30	0	113	8	0	9	4	0	0	0	0	0	1	0	135
18:45	1	111	13	1	8	1	0	0	0	0	0	1	0	136
19:00	0	95	8	1	8	3	0	1	0	0	0	0	0	116
19:15	1	101	14	0	5	1	1	1	1	0	0	0	1	126
19:30	1	99	10	0	5	3	0	0	1	0	0	0	0	119
19:45	1	90	13	0	3	2	0	0	0	0	0	0	0	109
20:00	1	83	7	0	9	2	0	0	2	0	0	0	0	104
20:15	0	92	11	0	7	2	0	0	0	0	1	0	1	114
20:30	0	97	10	0	5	0	0	0	0	0	0	0	0	112
20:45	0	85	6	0	5	2	0	0	0	0	0	0	1	99
21:00	0	75	8	0	6	0	0	0	1	1	0	0	0	91
21:15	0	81	10	0	6	3	0	0	1	0	0	0	0	101
21:30	1	100	9	0	6	1	0	0	0	0	0	0	0	117
21:45	0	69	13	0	8	1	0	0	0	0	0	0	0	91
22:00	0	55	4	0	3	1	0	0	0	0	0	0	0	63
22:15	0	34	5	0	2	0	0	0	1	0	0	0	0	42
22:30	0	46	5	0	0	0	0	0	2	0	0	0	0	53
22:45	1	30	1	0	2	1	0	0	1	0	0	0	0	36
23:00	0	37	1	0	1	0	0	0	0	0	0	0	0	39
23:15	0	23	5	0	1	0	0	0	0	0	0	0	0	29
23:30	0	27	1	0	2	0	0	0	1	0	0	0	0	31
23:45	1	20	2	0	2	0	0	0	0	0	0	0	0	25
TOTAL	27	4,728	529	22	473	85	20	19	44	3	6	14	13	5,983

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	760

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	43	7,850	1,009	53	880	140	27	30	113	8	9	20	22	10,204
% OF TOTAL	0.4%	76.9%	9.9%	0.5%	8.6%	1.4%	0.3%	0.3%	1.1%	0.1%	0.1%	0.2%	0.2%	100.0%
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	73	16,149	1,795	80	1,273	264	44	41	174	8	19	28	36	19,984
% OF TOTAL	0.7%	158.3%	17.6%	0.8%	12.5%	2.6%	0.4%	0.4%	1.7%	0.1%	0.2%	0.3%	0.4%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS4 Lincoln between Pomona and Railroad

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	14	1	0	1	0	0	0	0	0	0	0	0	16
0:15	0	19	1	0	0	0	0	0	0	0	0	0	0	20
0:30	0	13	0	0	0	0	0	0	0	0	0	0	0	13
0:45	0	6	3	0	1	0	0	0	1	0	0	0	0	11
1:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
1:15	0	12	1	0	0	0	0	0	0	0	0	0	0	13
1:30	0	11	3	0	1	0	0	0	2	0	0	0	0	17
1:45	0	7	1	0	1	0	0	0	0	0	0	0	0	9
2:00	0	6	0	0	0	0	0	0	1	0	0	0	0	7
2:15	0	9	1	0	1	0	0	0	0	0	0	0	0	11
2:30	0	22	1	0	1	0	0	0	0	0	0	0	0	24
2:45	1	15	1	0	0	0	0	0	1	0	0	0	0	18
3:00	0	14	2	1	2	0	0	0	0	0	0	0	0	19
3:15	0	19	3	0	0	0	0	0	1	0	0	0	0	23
3:30	0	18	8	1	0	0	0	0	0	0	0	0	0	27
3:45	0	21	3	0	0	0	0	0	0	0	0	0	0	24
4:00	0	37	4	0	2	0	1	0	0	0	0	0	0	44
4:15	1	60	5	0	8	0	0	0	0	0	0	0	0	74
4:30	0	70	17	0	9	0	0	0	1	0	0	0	0	97
4:45	0	59	16	0	4	2	0	0	1	0	0	0	0	82
5:00	1	61	7	1	3	0	0	1	1	0	0	0	0	75
5:15	0	59	9	1	9	0	0	0	0	0	0	0	0	78
5:30	1	64	7	0	7	3	0	0	0	0	0	0	0	82
5:45	0	57	12	3	6	4	0	0	0	0	1	0	0	83
6:00	0	85	12	1	7	2	0	0	0	0	0	0	0	107
6:15	0	92	9	0	7	1	0	0	1	0	0	0	0	110
6:30	0	110	6	0	11	1	0	0	2	0	0	0	1	131
6:45	1	106	15	1	12	3	1	1	1	0	0	0	0	141
7:00	1	159	8	0	4	2	0	0	1	0	1	0	1	177
7:15	0	128	11	1	5	5	0	0	0	0	0	0	1	151
7:30	1	143	7	0	6	3	0	0	0	0	0	0	0	160
7:45	0	156	10	0	5	1	0	0	1	0	0	0	1	174
8:00	0	145	8	1	5	3	0	0	1	0	0	0	1	164
8:15	0	108	3	1	5	1	0	0	2	0	0	0	0	120
8:30	1	96	11	0	8	3	0	0	2	0	1	0	0	122
8:45	0	114	17	0	7	5	1	0	2	0	0	0	0	146
9:00	0	75	15	0	5	2	0	0	0	0	0	0	0	97
9:15	0	98	11	0	6	0	1	0	1	0	0	0	0	117
9:30	1	98	8	0	11	2	0	1	0	0	0	0	0	121
9:45	0	76	4	0	7	2	0	1	0	0	0	0	0	90
10:00	0	94	14	0	10	3	0	0	3	0	0	0	0	124
10:15	1	112	18	0	5	1	0	0	3	0	0	0	0	140
10:30	1	84	9	0	12	3	0	0	2	0	0	0	0	111
10:45	0	99	11	0	5	0	0	0	2	0	0	1	0	118
11:00	0	92	20	0	6	6	1	1	2	0	1	0	0	129
11:15	1	108	13	0	14	1	0	0	1	0	0	0	0	138
11:30	0	109	13	0	6	2	0	1	1	0	0	1	0	133
11:45	0	120	8	2	6	3	0	0	2	0	0	1	0	142
TOTAL	12	3,292	367	14	231	64	5	6	39	0	4	3	5	4,042

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	662

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	117	14	1	5	1	1	0	2	0	0	1	1	144
12:15	1	113	12	0	12	1	0	0	3	0	0	0	0	142
12:30	0	138	17	1	4	2	0	0	0	0	0	0	0	162
12:45	1	96	10	0	8	0	0	0	0	0	2	0	0	117
13:00	0	95	12	0	7	4	1	1	0	0	0	0	0	120
13:15	0	115	4	0	3	1	0	0	0	0	0	0	0	123
13:30	0	157	12	1	9	5	1	1	0	0	1	1	0	188
13:45	0	97	20	2	14	0	0	0	0	0	0	0	0	133
14:00	0	118	10	2	3	3	0	0	0	0	1	1	0	138
14:15	0	136	11	0	4	3	0	0	1	0	0	0	1	156
14:30	1	174	12	1	6	1	2	0	1	0	0	0	1	199
14:45	1	143	17	2	11	1	0	0	0	0	0	0	0	175
15:00	0	155	8	0	7	4	0	0	1	0	0	0	1	176
15:15	0	117	13	0	7	0	0	0	0	0	0	0	0	137
15:30	0	174	23	1	2	0	1	0	1	0	0	0	1	203
15:45	3	127	17	1	6	0	0	0	1	0	0	0	2	157
16:00	0	141	14	0	8	3	2	0	0	0	1	0	0	169
16:15	0	164	12	0	7	1	1	0	0	0	0	0	0	185
16:30	0	195	16	0	4	4	0	0	0	0	0	0	0	219
16:45	1	163	17	0	1	5	2	1	0	0	0	0	0	190
17:00	2	189	8	0	2	2	0	0	0	0	0	0	1	204
17:15	1	184	13	0	1	1	0	0	1	0	1	0	1	203
17:30	0	157	13	0	2	4	0	0	0	0	0	1	0	177
17:45	1	151	17	1	3	3	0	1	0	0	0	0	0	177
18:00	0	158	9	0	4	2	0	0	0	0	0	1	0	174
18:15	0	111	13	0	2	0	0	0	1	0	0	0	0	127
18:30	0	109	4	0	0	1	0	0	0	0	0	0	0	114
18:45	0	106	8	0	0	0	0	0	1	0	0	0	0	115
19:00	1	113	7	0	4	0	0	0	1	0	0	0	0	126
19:15	0	95	9	0	0	1	0	0	0	0	0	0	0	105
19:30	1	70	1	0	2	0	0	0	2	0	0	0	0	76
19:45	0	77	2	0	2	0	0	0	1	0	0	0	0	82
20:00	2	83	5	0	1	0	0	0	0	0	0	0	0	91
20:15	0	59	8	0	0	0	0	0	1	0	0	0	0	68
20:30	0	55	3	0	0	1	1	1	0	0	0	0	0	61
20:45	0	54	5	0	2	2	0	0	0	0	0	0	0	63
21:00	0	58	6	0	2	1	0	0	1	0	0	0	0	68
21:15	0	69	5	0	4	2	0	0	0	0	0	0	0	80
21:30	0	47	0	0	1	1	0	0	0	0	0	0	0	49
21:45	1	55	2	0	0	0	0	0	0	0	0	0	0	58
22:00	0	51	2	0	0	0	0	0	1	0	0	0	0	54
22:15	0	45	2	0	0	0	0	0	1	0	0	0	0	48
22:30	0	24	1	0	0	0	0	0	0	0	0	0	0	25
22:45	0	30	1	0	0	0	0	0	1	0	0	0	0	32
23:00	0	43	0	0	1	0	0	0	0	0	0	0	0	44
23:15	0	14	1	0	0	0	0	0	0	0	0	0	0	15
23:30	0	46	1	0	1	0	0	0	0	0	0	0	0	48
23:45	0	19	2	0	0	0	0	0	0	0	0	0	0	21
TOTAL	18	5,007	419	13	162	60	12	5	22	0	6	5	9	5,738

PM PEAK HOUR	4:30 PM
PM PEAK VOLUME	816

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	30	8,299	786	27	393	124	17	11	61	0	10	8	14	9,780
% OF TOTAL	0.3%	84.9%	8.0%	0.3%	4.0%	1.3%	0.2%	0.1%	0.6%	0.0%	0.1%	0.1%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS5 Mountain between First and Hamner

AM	EASTBOUND														PM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	12:00	0	50	8	0	7	1	1	0	0	0	0	0	0	67
0:15	0	0	0	0	1	0	0	0	0	0	0	0	0	1	12:15	0	28	2	1	6	0	0	0	0	0	0	0	0	37
0:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5	12:30	0	40	9	0	5	0	0	0	1	0	0	0	0	55
0:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	12:45	0	32	3	0	3	0	0	0	1	0	0	0	0	39
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:00	0	33	7	0	1	0	0	0	0	0	0	0	0	41
1:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	13:15	0	47	7	0	4	0	0	0	0	0	0	0	0	58
1:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3	13:30	0	37	8	0	3	1	0	0	1	0	0	0	0	50
1:45	0	2	1	1	0	0	0	0	0	0	0	0	0	4	13:45	0	29	3	1	2	0	0	0	1	0	0	0	0	36
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:00	0	40	6	0	2	1	0	0	0	0	0	0	0	49
2:15	0	0	0	1	0	0	0	0	0	0	0	0	0	1	14:15	0	60	5	0	2	1	0	0	0	0	0	0	0	68
2:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14:30	0	57	7	1	3	0	0	0	1	0	0	0	1	70
2:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:45	0	42	11	0	6	0	0	0	0	0	0	0	0	59
3:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3	15:00	1	41	5	0	4	1	0	0	0	0	0	0	0	52
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:15	0	52	7	1	5	0	0	1	1	0	0	0	0	67
3:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5	15:30	0	52	10	0	4	0	0	0	0	0	0	0	0	66
3:45	0	3	3	0	1	1	0	0	0	0	0	0	0	8	15:45	0	51	11	0	4	0	0	0	1	0	0	0	0	67
4:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:00	0	51	8	0	5	0	0	0	0	0	0	0	0	64
4:15	0	4	2	0	0	0	0	1	1	0	0	0	0	8	16:15	0	58	5	0	4	0	3	0	0	0	0	0	0	70
4:30	0	5	0	0	1	0	0	0	0	0	0	0	0	6	16:30	0	50	7	0	5	0	0	0	0	0	0	0	0	62
4:45	0	6	4	0	1	0	0	0	0	0	0	0	0	11	16:45	0	52	6	0	0	0	0	0	2	0	0	0	0	60
5:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10	17:00	0	61	6	0	4	0	1	0	0	0	0	0	0	72
5:15	0	10	0	0	0	0	0	0	0	0	0	0	0	10	17:15	0	65	7	0	7	0	0	0	0	0	0	0	0	79
5:30	0	15	1	0	2	0	0	0	0	0	0	0	0	18	17:30	0	58	11	1	2	0	0	0	0	0	0	0	0	72
5:45	0	14	2	0	0	0	0	0	0	0	0	0	0	16	17:45	0	62	7	0	2	0	0	0	0	0	0	0	0	71
6:00	0	12	0	0	2	0	0	0	1	0	0	0	0	15	18:00	1	68	7	0	3	0	0	0	0	0	0	0	0	79
6:15	0	15	1	0	3	0	0	0	0	0	0	0	0	19	18:15	1	43	8	0	0	0	0	1	1	0	0	0	0	54
6:30	0	17	4	0	2	0	0	0	0	0	0	0	0	23	18:30	0	40	5	0	1	0	0	0	0	0	0	0	0	46
6:45	0	27	4	1	1	0	0	0	0	0	0	0	0	33	18:45	0	40	3	0	0	0	0	0	0	0	0	0	0	43
7:00	0	32	6	0	2	1	0	0	0	0	0	0	0	41	19:00	0	38	1	0	2	1	0	0	0	0	0	0	0	42
7:15	0	47	2	0	3	0	0	0	0	0	0	0	0	52	19:15	0	36	1	0	1	0	0	0	0	0	0	0	0	38
7:30	0	51	5	0	2	0	0	0	0	0	0	0	1	59	19:30	0	12	6	0	2	0	0	0	0	0	0	0	0	20
7:45	1	54	4	0	2	0	0	1	0	0	0	0	0	62	19:45	0	21	2	0	0	0	0	0	0	0	0	0	0	23
8:00	0	33	5	0	4	0	0	0	2	0	0	0	0	44	20:00	0	16	1	0	1	0	0	0	0	0	0	0	0	18
8:15	0	37	5	1	3	0	0	0	1	0	0	0	0	47	20:15	0	11	5	0	0	0	0	0	0	0	0	0	0	16
8:30	0	28	6	0	0	0	0	0	0	0	0	0	0	34	20:30	0	20	2	0	0	0	0	0	0	0	0	0	0	22
8:45	0	27	3	0	5	1	0	0	1	0	0	0	0	37	20:45	0	18	2	0	0	0	0	0	0	0	0	0	0	20
9:00	0	32	2	0	2	1	0	0	0	0	0	0	0	37	21:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19
9:15	0	26	6	0	5	1	0	0	0	0	0	0	0	38	21:15	0	12	3	0	0	0	0	0	0	0	0	0	0	15
9:30	0	21	3	0	1	0	0	0	0	0	0	0	0	25	21:30	0	20	3	0	1	0	0	0	0	0	0	0	0	24
9:45	0	32	7	0	0	0	0	0	0	0	0	0	0	39	21:45	0	17	3	0	2	1	0	0	0	0	0	0	0	23
10:00	0	25	4	1	2	0	0	0	0	0	0	0	0	32	22:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
10:15	2	32	2	0	5	0	0	0	0	0	0	0	0	41	22:15	0	8	1	0	2	0	0	0	0	0	0	0	0	11
10:30	0	22	2	0	1	0	0	0	2	0	0	0	0	27	22:30	0	8	0	1	0	0	0	0	0	0	0	0	0	9
10:45	0	23	8	0	4	0	0	0	0	0	0	0	0	35	22:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
11:00	1	21	4	1	3	0	0	0	1	0	0	0	0	31	23:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
11:15	0	29	8	0	1	0	0	0	0	0	0	0	0	38	23:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
11:30	0	38	5	0	4	1	0	0	0	0	0	0	0	48	23:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8
11:45	0	42	6	0	3	0	0	0	0	0	0	0	0	51	23:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL	4	818	120	6	67	6	0	2	9	0	0	0	1	1,033	TOTAL	3	1,632	223	6	105	7	5	2	10	0	0	0	1	1,994

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	217

PM PEAK HOUR	5:15 PM
PM PEAK VOLUME	301

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	7	2,450	343	12	172	13	5	4	19	0	0	0	2	3,027
% OF TOTAL	0.2%	80.9%	11.3%	0.4%	5.7%	0.4%	0.2%	0.1%	0.6%	0.0%	0.0%	0.0%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	11	6,293	799	25	490	49	67	12	38	2	1	4	4	7,795
% OF TOTAL	0.4%	207.9%	26.4%	0.8%	16.2%	1.6%	2.2%	0.4%	1.3%	0.1%	0.0%	0.1%	0.1%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS5 Mountain between First and Hamner

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
0:15	0	8	0	0	1	0	0	0	0	0	0	0	0	9
0:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:45	0	6	0	1	1	0	0	0	0	0	0	0	0	8
1:00	0	7	0	0	0	0	0	0	1	0	0	0	0	8
1:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00	0	4	0	1	0	0	0	0	0	0	0	0	0	5
2:15	0	1	1	0	1	1	0	0	0	0	0	0	0	4
2:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:45	0	3	1	0	1	0	0	0	0	0	0	0	0	5
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:15	0	1	1	0	1	1	0	0	0	0	0	0	0	4
3:30	0	3	1	0	1	0	0	0	0	0	0	0	0	5
3:45	0	4	1	0	1	0	0	0	0	0	0	0	0	6
4:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
4:15	0	12	2	0	2	0	0	1	0	0	0	0	0	17
4:30	0	33	5	1	2	0	0	0	0	0	0	0	0	41
4:45	0	30	5	0	7	0	0	0	0	0	0	0	0	42
5:00	0	31	7	0	3	1	0	0	0	0	0	0	0	42
5:15	0	41	15	0	5	0	0	0	0	0	0	0	0	61
5:30	0	69	8	0	4	0	0	0	0	0	0	0	0	81
5:45	0	57	10	0	7	1	0	0	1	0	0	0	0	76
6:00	0	56	7	0	4	0	0	0	0	0	0	0	0	67
6:15	1	53	11	0	3	0	0	0	0	0	0	1	0	69
6:30	0	70	7	0	10	2	1	1	0	0	0	0	0	91
6:45	0	95	5	0	11	0	1	0	0	0	0	0	0	112
7:00	0	96	10	0	7	0	0	0	0	0	0	0	0	113
7:15	0	98	8	1	5	1	0	0	1	0	0	0	0	114
7:30	0	98	8	0	8	1	2	1	1	0	0	1	0	120
7:45	0	55	3	0	7	0	1	0	0	0	0	0	0	66
8:00	0	52	7	0	12	1	0	0	0	0	0	0	0	72
8:15	0	55	2	1	8	1	0	0	0	0	0	0	0	67
8:30	0	67	4	0	5	1	1	0	1	0	0	0	0	79
8:45	0	44	12	1	4	0	1	0	1	0	0	0	0	63
9:00	0	42	5	0	5	0	0	1	1	1	0	0	0	55
9:15	0	32	8	0	2	1	0	0	0	0	0	0	0	43
9:30	0	37	5	0	3	0	2	0	0	0	0	0	0	47
9:45	0	39	5	0	4	0	0	0	1	0	0	0	0	49
10:00	0	44	7	1	7	0	1	0	0	0	0	0	0	60
10:15	0	33	7	0	4	0	1	0	1	0	0	0	0	46
10:30	0	37	10	1	1	1	1	0	0	0	0	0	0	51
10:45	0	44	6	0	4	1	0	0	0	0	0	0	0	55
11:00	1	33	4	1	9	0	1	0	0	0	0	0	0	49
11:15	0	33	3	0	9	1	3	0	1	0	0	0	0	50
11:30	0	44	5	0	5	0	0	0	0	0	0	0	0	54
11:45	1	40	9	0	4	0	2	0	1	0	0	0	0	57
TOTAL	3	1,634	217	9	179	15	18	4	11	1	0	2	0	2,093

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	459

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	50	8	0	5	0	1	0	1	0	0	0	1	66
12:15	0	55	12	1	7	1	0	0	0	0	0	0	1	77
12:30	0	54	9	0	4	0	2	0	1	0	0	0	0	70
12:45	0	62	9	0	5	0	2	0	0	0	0	0	0	78
13:00	0	62	7	0	5	1	2	0	0	0	0	0	0	77
13:15	0	59	7	0	3	1	1	0	0	0	0	0	0	71
13:30	0	77	9	0	4	1	0	0	0	0	0	0	0	91
13:45	0	72	6	0	3	1	4	0	0	0	0	0	0	86
14:00	0	53	5	1	3	0	0	1	1	0	0	1	0	65
14:15	0	53	8	0	5	0	3	0	0	0	0	0	0	69
14:30	0	47	7	0	9	0	0	0	0	0	0	0	0	63
14:45	0	67	7	0	3	2	2	0	0	0	0	0	0	81
15:00	0	72	15	0	6	0	0	0	0	0	0	0	0	93
15:15	0	52	7	0	4	0	1	0	0	0	1	0	0	65
15:30	0	77	7	0	5	1	1	1	2	0	0	0	0	94
15:45	0	77	2	0	4	0	3	0	0	0	0	1	0	87
16:00	0	50	4	0	4	0	1	1	0	0	0	0	0	60
16:15	0	51	12	0	7	3	2	0	0	1	0	0	0	76
16:30	0	46	5	0	5	0	2	0	0	0	0	0	0	58
16:45	0	45	7	0	3	0	1	0	0	0	0	0	0	56
17:00	0	54	2	0	9	0	2	0	0	0	0	0	0	67
17:15	0	75	8	0	3	1	0	0	0	0	0	0	0	87
17:30	0	65	6	0	1	1	3	0	0	0	0	0	0	76
17:45	1	53	5	1	3	1	0	0	0	0	0	0	0	64
18:00	0	45	9	0	3	2	2	0	0	0	0	0	0	61
18:15	0	65	5	0	1	1	1	0	0	0	0	0	0	73
18:30	0	64	5	0	5	0	0	0	0	0	0	0	0	74
18:45	0	51	4	0	2	1	0	0	0	0	0	0	0	58
19:00	0	48	3	0	4	0	2	0	0	0	0	0	0	57
19:15	0	48	4	0	1	0	0	0	0	0	0	0	0	53
19:30	0	39	3	0	0	1	1	0	0	0	0	0	0	44
19:45	0	53	4	0	4	0	0	0	0	0	0	0	0	61
20:00	0	47	4	0	0	1	1	0	0	0	0	0	0	53
20:15	0	47	3	0	0	1	0	0	0	0	0	0	0	51
20:30	0	34	2	0	0	0	0	0	0	0	0	0	0	36
20:45	0	23	3	0	0	0	0	1	0	0	0	0	0	27
21:00	0	34	2	0	1	0	1	0	0	0	0	0	0	38
21:15	0	38	5	0	1	0	1	0	1	0	0	0	0	46
21:30	0	23	3	0	3	0	0	0	0	0	0	0	0	29
21:45	0	21	0	0	0	0	0	0	0	0	0	0	0	21
22:00	0	20	1	0	1	0	1	0	1	0	0	0	0	24
22:15	0	14	1	0	0	0	0	0	0	0	0	0	0	15
22:30	0	11	1	0	1	0	0	0	0	0	0	0	0	13
22:45	0	13	3	1	0	0	0	0	0	0	0	0	0	17
23:00	0	19	0	0	0	0	0	0	1	0	0	0	0	20
23:15	0	8	0	0	1	0	0	0	0	0	0	0	0	9
23:30	0	9	0	0	1	0	1	0	0	0	0	0	0	11
23:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7
TOTAL	1	2,209	239	4	139	21	44	4	8	1	1	2	2	2,675

PM PEAK HOUR	3:00 PM
PM PEAK VOLUME	339

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	3,843	456	13	318	36	62	8	19	2	1	4	2	4,768
% OF TOTAL	0.1%	80.6%	9.6%	0.3%	6.7%	0.8%	1.3%	0.2%	0.4%	0.0%	0.0%	0.1%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS6 Hidden Valley between Garland and Yasment

AM	EASTBOUND														PM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	1	29	6	0	1	0	0	0	0	0	0	0	0	37	12:00	1	91	32	0	18	0	0	0	0	0	0	0	0	142
0:15	0	12	6	0	1	0	0	0	0	0	0	0	0	19	12:15	0	85	37	0	7	2	0	0	0	0	0	0	0	131
0:30	1	17	3	0	0	0	0	0	0	0	0	0	0	21	12:30	1	100	21	0	15	1	0	0	0	0	0	0	0	138
0:45	0	11	4	0	1	0	0	0	0	0	0	0	0	16	12:45	1	87	24	0	12	4	1	0	0	0	0	0	0	129
1:00	0	6	4	0	1	0	0	0	0	0	0	0	0	11	13:00	0	91	25	0	12	3	0	1	0	0	0	0	0	132
1:15	0	11	6	0	2	0	0	0	0	0	0	0	0	19	13:15	0	68	35	0	11	0	0	0	0	0	0	0	0	114
1:30	0	7	2	1	3	0	0	0	0	0	0	0	0	13	13:30	0	80	33	0	11	1	0	0	0	0	0	0	0	125
1:45	0	8	3	0	1	0	0	0	0	0	0	0	0	12	13:45	0	100	28	0	10	0	0	0	0	0	0	0	0	138
2:00	0	7	5	0	0	0	0	0	0	0	0	0	0	12	14:00	0	100	34	0	11	2	0	0	0	0	0	0	0	147
2:15	0	2	2	1	0	0	0	0	0	0	0	0	0	5	14:15	0	90	36	0	16	2	0	0	0	0	0	0	0	144
2:30	0	5	1	0	2	0	0	0	0	0	0	0	0	8	14:30	1	100	25	1	19	1	0	0	0	0	0	0	0	147
2:45	0	3	5	0	1	0	0	0	0	0	0	0	0	9	14:45	0	133	36	0	14	1	1	0	0	0	1	0	0	186
3:00	0	2	0	0	2	0	0	0	0	0	0	0	0	4	15:00	0	126	32	0	19	1	0	0	0	0	0	0	0	178
3:15	0	6	3	0	0	0	0	0	0	0	0	0	0	9	15:15	0	130	44	0	19	0	0	0	1	0	0	0	0	194
3:30	0	7	2	0	1	0	0	0	0	0	0	0	0	10	15:30	0	103	47	0	9	6	0	0	0	0	0	0	0	165
3:45	0	2	4	0	1	0	0	0	1	0	0	0	0	8	15:45	0	110	38	0	16	3	0	0	0	0	0	0	0	167
4:00	0	3	1	0	1	0	0	0	0	0	0	0	0	5	16:00	1	137	52	0	14	1	0	0	0	0	0	0	0	205
4:15	0	13	3	0	3	1	0	0	0	0	0	0	0	20	16:15	0	158	40	0	18	2	0	0	0	0	0	2	0	220
4:30	0	5	8	0	3	0	0	0	0	0	0	0	0	16	16:30	0	165	41	0	15	7	0	0	0	0	0	0	0	228
4:45	0	6	3	0	1	0	0	1	1	0	0	0	0	12	16:45	0	176	56	0	14	3	1	1	0	0	0	1	0	252
5:00	0	6	4	0	3	0	0	0	2	0	0	0	0	15	17:00	0	192	42	0	15	2	0	0	0	0	0	0	0	251
5:15	0	7	2	0	3	0	0	0	0	0	0	0	0	12	17:15	0	210	49	0	10	4	0	1	0	0	0	0	0	274
5:30	0	10	4	0	6	1	0	0	0	0	0	0	0	21	17:30	1	199	55	0	10	4	1	0	0	0	0	0	0	270
5:45	1	20	9	1	5	0	0	0	0	0	0	0	0	36	17:45	0	185	44	0	21	1	2	0	0	0	0	1	0	254
6:00	0	11	11	0	5	0	0	0	0	0	0	0	0	27	18:00	1	170	39	0	8	3	0	0	0	0	0	0	0	221
6:15	0	24	16	0	8	1	1	0	0	0	0	0	0	50	18:15	1	180	46	0	14	2	0	0	1	0	0	0	0	244
6:30	0	17	16	1	10	0	0	0	1	0	0	0	0	45	18:30	1	122	57	0	13	1	0	0	0	0	0	0	1	195
6:45	0	35	16	1	8	0	0	1	0	0	0	0	0	61	18:45	3	135	43	0	8	2	0	0	0	0	0	0	0	191
7:00	0	43	21	1	16	2	0	0	0	0	1	0	0	84	19:00	0	123	42	0	9	4	0	0	0	0	0	0	0	178
7:15	1	69	27	0	4	0	0	0	0	0	0	0	0	101	19:15	0	110	26	1	10	5	0	0	0	0	0	0	0	152
7:30	0	76	29	0	7	0	1	1	0	0	0	0	0	114	19:30	0	102	32	0	8	0	0	0	0	0	0	0	0	142
7:45	1	75	32	1	12	2	0	0	0	0	0	0	0	123	19:45	0	116	35	0	13	1	0	0	0	0	0	0	0	165
8:00	0	62	33	0	16	1	0	0	1	0	0	0	0	113	20:00	0	95	17	0	11	1	0	0	1	0	0	0	0	125
8:15	0	75	33	0	15	1	0	0	0	0	0	0	1	125	20:15	0	99	21	0	5	1	0	0	0	0	0	0	0	126
8:30	0	67	18	0	8	0	0	0	0	0	0	0	0	93	20:30	1	91	20	0	11	1	0	0	0	0	0	0	0	124
8:45	0	55	22	0	8	1	0	0	0	0	0	0	0	86	20:45	0	81	20	0	3	0	0	0	0	0	0	0	0	104
9:00	1	52	23	0	8	1	0	0	0	0	0	0	0	85	21:00	1	70	16	0	5	1	0	0	0	0	0	0	0	93
9:15	0	49	24	1	9	3	0	0	0	0	0	0	0	86	21:15	0	75	15	0	7	3	0	0	0	0	0	0	0	100
9:30	0	61	18	0	13	0	0	0	0	0	0	0	0	92	21:30	0	58	18	0	10	2	0	0	0	0	0	0	0	88
9:45	0	56	21	0	10	1	0	0	0	0	0	1	0	89	21:45	0	58	18	1	4	0	0	0	0	0	0	0	0	81
10:00	0	52	29	1	7	0	0	2	1	0	0	0	0	92	22:00	0	46	14	0	6	0	0	0	0	0	0	0	0	66
10:15	0	69	15	0	10	0	0	0	0	0	0	0	0	94	22:15	1	35	23	0	3	1	0	0	0	0	0	0	0	63
10:30	0	50	26	0	10	0	0	0	0	0	0	0	0	86	22:30	1	23	12	0	4	0	0	0	0	0	0	0	0	40
10:45	0	63	26	0	9	0	0	0	0	0	0	0	0	98	22:45	0	21	12	0	3	0	0	0	0	0	0	0	0	36
11:00	0	67	24	0	8	0	0	0	0	0	0	0	0	99	23:00	0	26	15	0	2	0	0	0	0	0	0	0	0	43
11:15	0	65	28	1	12	1	0	0	0	0	0	0	0	107	23:15	0	20	11	0	2	0	0	0	0	0	0	0	0	33
11:30	0	69	20	0	16	0	0	0	0	0	0	0	1	106	23:30	0	14	5	0	2	0	0	0	1	0	0	0	0	22
11:45	0	84	33	0	18	0	0	0	0	0	0	0	0	135	23:45	0	12	6	0	2	0	0	0	0	0	0	0	0	20
TOTAL	6	1,551	651	10	289	16	2	5	7	0	1	1	2	2,541	TOTAL	16	4,898	1,469	3	499	79	6	3	4	0	1	4	1	6,983

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	475

PM PEAK HOUR	5:00 PM
PM PEAK VOLUME	1,049

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	22	6,449	2,120	13	788	95	8	8	11	0	2	5	3	9,524
% OF TOTAL	0.2%	67.7%	22.3%	0.1%	8.3%	1.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	38	12,769	4,212	39	1,737	160	14	14	16	0	7	10	5	19,021
% OF TOTAL	0.4%	134.1%	44.2%	0.4%	18.2%	1.7%	0.1%	0.1%	0.2%	0.0%	0.1%	0.1%	0.1%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS6 Hidden Valley between Garland and Yasment

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	8	3	1	1	0	0	0	0	0	0	0	0	13
0:15	0	7	2	0	2	0	0	0	0	0	0	0	0	11
0:30	0	9	3	0	0	0	0	0	0	0	0	0	0	12
0:45	0	2	2	0	1	0	0	0	0	0	0	0	0	5
1:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
1:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
1:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
1:45	0	3	3	1	1	0	0	0	0	0	0	0	0	8
2:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
2:15	0	5	5	0	1	0	0	0	0	0	0	0	0	11
2:30	0	4	2	0	2	0	0	0	0	0	0	0	0	8
2:45	0	5	1	0	2	0	0	0	0	0	0	0	0	8
3:00	0	6	4	0	2	0	0	0	0	0	0	0	0	12
3:15	0	6	0	1	2	0	0	0	0	0	0	0	0	9
3:30	0	9	1	0	4	0	0	0	0	0	0	0	0	14
3:45	0	16	5	0	0	0	0	0	0	0	0	0	0	21
4:00	0	15	5	0	5	0	0	0	0	0	0	0	0	25
4:15	0	22	6	0	12	0	0	0	0	0	0	0	0	40
4:30	0	27	10	0	11	0	0	0	0	0	0	0	0	48
4:45	0	30	10	0	13	0	0	0	0	0	0	1	0	54
5:00	0	33	12	0	6	0	0	0	0	0	0	0	0	51
5:15	1	41	17	0	8	0	0	1	0	0	0	0	0	68
5:30	0	70	26	0	20	0	0	0	0	0	0	0	0	116
5:45	0	65	22	0	13	1	0	0	0	0	0	0	0	101
6:00	1	83	36	0	14	1	0	0	0	0	1	0	0	136
6:15	0	88	43	2	13	1	0	0	0	0	0	0	0	147
6:30	1	107	55	0	15	1	0	1	0	0	0	0	0	180
6:45	0	136	41	0	15	3	0	0	0	0	0	0	0	195
7:00	0	166	39	0	9	0	1	0	0	0	1	1	1	218
7:15	1	170	58	1	24	3	0	0	0	0	0	0	0	257
7:30	0	154	48	0	18	3	0	0	0	0	0	0	0	223
7:45	1	130	42	0	19	1	0	0	0	0	0	0	0	193
8:00	1	103	43	0	16	0	0	0	0	0	0	0	0	163
8:15	2	111	43	0	18	3	0	0	0	0	0	0	0	177
8:30	0	110	54	0	12	1	0	0	0	0	0	0	0	177
8:45	0	101	42	1	18	1	0	0	0	0	0	0	0	163
9:00	1	75	33	0	12	3	0	1	1	0	0	0	0	126
9:15	0	90	40	0	16	2	0	0	0	0	0	0	0	148
9:30	0	80	35	0	20	0	0	0	0	0	0	0	0	135
9:45	0	72	35	2	10	0	0	0	0	0	0	0	0	119
10:00	0	74	26	2	21	0	0	0	0	0	0	0	0	123
10:15	0	69	31	1	14	1	0	0	0	0	0	0	0	116
10:30	0	82	28	0	10	1	1	0	0	0	0	0	0	122
10:45	0	73	20	0	22	2	0	0	0	0	0	0	0	117
11:00	0	73	21	1	11	1	0	0	1	0	0	0	0	108
11:15	0	63	25	1	11	0	0	0	0	0	0	0	0	100
11:30	0	74	28	0	4	0	0	0	0	0	0	0	0	106
11:45	0	86	27	0	22	1	0	0	0	0	0	0	0	136
TOTAL	9	2,768	1,035	14	472	30	2	3	2	0	2	2	1	4,340

AM PEAK HOUR	6:45 AM
AM PEAK VOLUME	893

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	77	41	0	17	1	0	0	0	0	0	0	0	136
12:15	0	70	19	0	19	1	1	0	0	0	0	0	0	110
12:30	0	87	31	0	11	0	0	0	1	0	0	0	0	130
12:45	0	88	20	0	9	2	0	0	0	0	0	0	0	119
13:00	0	91	26	1	16	1	0	0	1	0	0	0	0	136
13:15	0	84	33	1	13	0	0	0	0	0	0	2	0	133
13:30	2	103	25	0	14	1	0	0	0	0	0	0	0	145
13:45	0	96	23	0	14	3	0	1	0	0	0	0	0	137
14:00	0	106	39	3	10	1	0	0	0	0	0	0	1	160
14:15	1	93	27	0	17	1	0	1	0	0	0	0	0	140
14:30	0	87	27	0	19	1	0	0	0	0	1	0	0	135
14:45	0	87	26	0	10	3	0	0	0	0	0	0	0	126
15:00	1	94	43	0	13	1	0	0	0	0	0	0	0	152
15:15	0	109	37	0	12	2	2	0	0	0	0	0	0	162
15:30	0	102	35	2	14	1	0	0	0	0	0	1	0	155
15:45	1	97	19	1	17	1	0	1	0	0	0	0	0	137
16:00	0	99	33	1	25	1	0	0	0	0	0	0	0	159
16:15	0	108	29	0	12	0	0	0	0	0	0	0	0	149
16:30	0	116	35	0	12	0	0	0	0	0	1	0	0	164
16:45	0	106	27	0	8	0	0	0	0	0	0	0	0	141
17:00	0	115	32	0	16	1	0	0	0	0	0	0	0	164
17:15	0	110	38	0	8	1	1	0	0	0	0	0	0	158
17:30	0	102	25	0	5	2	0	0	0	0	0	0	0	134
17:45	0	95	37	0	20	0	0	0	1	0	0	0	0	153
18:00	0	90	26	0	24	0	0	0	0	0	0	0	0	140
18:15	1	88	28	0	7	2	0	0	0	0	0	0	0	126
18:30	0	79	34	0	16	2	0	0	0	0	0	0	0	131
18:45	0	81	23	0	9	0	0	0	0	0	0	0	0	113
19:00	0	84	19	0	12	1	0	0	0	0	0	0	0	116
19:15	0	67	23	0	4	2	0	0	0	0	0	0	0	96
19:30	0	76	19	1	6	0	0	0	0	0	0	0	0	102
19:45	0	70	14	0	8	1	0	0	0	0	0	0	0	93
20:00	0	49	15	2	2	0	0	0	0	0	0	0	0	68
20:15	0	69	11	0	10	0	0	0	0	0	1	0	0	91
20:30	0	60	14	0	3	0	0	0	0	0	0	0	0	77
20:45	0	60	14	0	8	1	0	0	0	0	0	0	0	83
21:00	0	44	7	0	6	0	0	0	0	0	0	0	0	57
21:15	0	44	19	0	5	1	0	0	0	0	0	0	0	69
21:30	0	48	14	0	8	0	0	0	0	0	0	0	0	70
21:45	0	46	11	0	2	0	0	0	0	0	0	0	0	59
22:00	0	37	8	0	2	0	0	0	0	0	0	0	0	47
22:15	1	32	6	0	4	0	0	0	0	0	0	0	0	43
22:30	0	25	6	0	2	0	0	0	0	0	0	0	0	33
22:45	0	25	3	0	2	0	0	0	0	0	0	0	0	30
23:00	0	16	5	0	1	0	0	0	0	0	0	0	0	22
23:15	0	14	6	0	2	0	0	0	0	0	0	0	0	22
23:30	0	18	3	0	3	0	0	0	0	0	0	0	0	24
23:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10
TOTAL	7	3,552	1,057	12	477	35	4	3	3	0	3	3	1	5,157

PM PEAK HOUR	4:30 PM
PM PEAK VOLUME	627

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	16	6,320	2,092	26	949	65	6	6	5	0	5	5	2	9,497
% OF TOTAL	0.2%	66.5%	22.0%	0.3%	10.0%	0.7%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS7 First between Parkridge and Mountain

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	10	0	0	1	0	0	0	0	0	0	0	0	11
0:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
0:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
0:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
1:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
1:15	0	8	0	0	0	0	0	0	0	0	0	0	0	8
1:30	0	9	1	0	0	0	0	0	0	0	0	0	0	10
1:45	0	2	1	0	1	0	0	0	0	0	0	0	0	4
2:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:15	0	0	2	0	1	0	0	0	0	0	0	0	0	3
2:30	0	1	1	0	1	0	0	0	0	0	0	0	0	3
2:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
3:15	0	3	2	0	0	0	0	0	0	0	0	0	0	5
3:30	0	2	2	0	1	0	0	0	0	0	0	0	0	5
3:45	0	5	0	0	1	0	0	0	0	0	0	0	0	6
4:00	0	8	1	0	2	0	0	0	0	0	0	0	0	11
4:15	0	10	2	0	1	0	0	0	0	0	0	0	0	13
4:30	0	9	2	0	0	0	0	0	0	0	0	0	0	11
4:45	0	6	5	0	3	0	0	0	0	0	0	0	0	14
5:00	0	20	3	0	0	0	0	0	0	0	0	0	0	23
5:15	0	11	4	0	0	0	0	0	0	0	0	0	0	15
5:30	0	36	4	0	3	0	0	0	0	0	0	0	0	43
5:45	0	21	2	0	4	0	0	0	0	0	0	0	0	27
6:00	0	28	4	0	5	1	0	0	0	0	0	0	0	38
6:15	0	26	4	0	6	0	0	0	0	0	0	0	0	36
6:30	0	39	4	0	4	0	0	0	0	0	0	0	0	47
6:45	1	61	2	0	6	0	0	0	0	0	0	0	0	70
7:00	1	116	15	0	7	3	0	0	0	0	0	0	0	142
7:15	0	111	6	0	9	1	0	0	0	0	0	0	0	127
7:30	1	135	9	1	13	0	0	1	0	0	0	0	0	160
7:45	0	107	9	0	12	1	0	1	0	0	0	0	0	130
8:00	0	106	13	0	16	0	0	0	0	0	0	0	0	135
8:15	0	98	10	0	13	0	0	0	0	0	0	0	0	121
8:30	0	90	7	3	12	0	0	0	0	0	0	0	0	112
8:45	0	93	8	0	13	0	0	1	0	0	0	0	0	115
9:00	0	79	10	0	9	0	0	0	0	0	0	0	0	98
9:15	1	82	14	0	11	0	0	0	0	0	0	0	0	108
9:30	0	66	16	0	9	0	0	0	1	0	0	0	0	92
9:45	0	67	10	1	6	0	0	0	0	0	0	0	0	84
10:00	0	57	13	0	10	0	0	0	0	0	0	0	0	80
10:15	0	60	8	0	10	0	0	0	0	0	0	0	0	78
10:30	0	57	6	0	6	0	0	0	0	0	0	0	0	69
10:45	0	74	11	1	11	0	0	1	0	0	0	0	0	98
11:00	0	62	8	1	11	0	0	1	1	0	0	0	0	84
11:15	0	63	13	1	14	0	0	1	0	0	0	0	0	92
11:30	0	83	17	1	15	0	0	0	0	0	0	0	0	116
11:45	0	89	15	0	17	1	0	0	0	0	0	0	0	122
TOTAL	4	2,037	268	9	266	7	0	6	2	0	0	0	0	2,599

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	559

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	115	12	0	22	0	0	1	0	0	0	0	0	150
12:15	0	71	13	1	13	0	0	0	0	0	0	0	0	98
12:30	0	87	14	0	16	2	0	1	0	0	0	0	0	120
12:45	1	85	8	0	12	1	0	0	0	0	0	0	0	107
13:00	0	87	18	0	9	0	0	0	0	0	0	0	0	114
13:15	0	98	16	0	16	0	0	0	0	0	0	0	0	130
13:30	1	88	16	1	19	0	0	2	0	0	0	0	0	127
13:45	0	91	7	0	8	0	0	0	0	0	0	0	0	106
14:00	1	102	18	0	20	1	0	0	0	0	0	0	0	142
14:15	0	115	18	1	18	0	0	0	1	0	0	0	0	153
14:30	0	136	21	1	10	1	0	0	1	0	0	1	0	171
14:45	1	123	16	0	22	0	0	1	0	0	0	0	0	163
15:00	0	111	12	0	18	0	0	1	0	0	0	0	0	142
15:15	0	120	23	1	24	3	0	0	0	0	0	0	0	171
15:30	0	102	8	3	9	2	0	2	1	0	0	0	0	127
15:45	1	120	16	1	12	2	0	0	0	0	0	0	1	153
16:00	2	134	12	0	22	2	2	0	0	0	0	0	0	174
16:15	0	113	9	1	19	1	1	0	0	0	0	0	0	144
16:30	0	128	22	0	25	0	0	1	0	0	0	0	0	176
16:45	0	134	9	0	16	1	1	0	0	0	0	0	0	161
17:00	1	144	15	0	19	0	0	0	0	0	0	0	0	179
17:15	2	138	8	0	15	2	0	0	0	0	0	0	0	165
17:30	0	155	23	0	11	0	0	0	0	0	0	0	0	189
17:45	0	114	15	0	11	0	0	0	0	0	0	0	0	140
18:00	2	107	13	0	13	1	0	0	0	0	0	0	0	136
18:15	2	99	8	0	6	0	0	1	0	0	0	0	0	116
18:30	1	89	10	0	3	0	0	0	0	0	0	0	0	103
18:45	0	96	11	1	4	0	0	0	0	0	0	0	0	112
19:00	0	86	11	0	2	1	0	0	0	0	0	0	0	100
19:15	0	67	11	0	6	1	0	0	0	0	0	0	0	85
19:30	0	48	4	0	7	0	0	0	0	0	0	0	0	59
19:45	0	54	4	0	6	0	0	1	0	0	0	0	0	65
20:00	0	35	1	0	6	0	0	0	0	0	0	0	0	42
20:15	0	42	8	0	3	0	0	0	0	0	0	0	0	53
20:30	1	44	4	0	3	0	0	0	0	0	0	0	0	52
20:45	0	40	5	0	3	0	0	0	0	0	0	0	0	48
21:00	0	43	6	0	3	0	0	0	0	0	0	0	0	52
21:15	0	32	7	0	6	0	0	0	0	0	0	0	0	45
21:30	0	67	5	0	4	0	0	1	0	0	0	0	0	77
21:45	0	53	8	0	6	0	0	0	0	0	0	0	0	67
22:00	0	28	4	0	1	0	0	0	0	0	0	0	0	33
22:15	0	15	3	0	2	0	0	0	0	0	0	0	0	20
22:30	0	25	2	1	2	0	0	0	0	0	0	0	0	30
22:45	0	13	0	0	0	0	0	0	0	0	0	0	0	13
23:00	0	19	0	0	2	0	0	0	0	0	0	0	0	21
23:15	0	8	0	0	1	0	0	0	0	0	0	0	0	9
23:30	0	17	1	0	0	0	0	0	0	0	0	0	0	18
23:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL	16	3,843	475	12	475	21	4	12	3	0	0	1	1	4,863

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	694

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	20	5,880	743	21	741	28	4	18	5	0	0	1	1	7,462
% OF TOTAL	0.3%	78.8%	10.0%	0.3%	9.9%	0.4%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	48	13,387	1,688	46	1,209	40	5	30	18	1	0	1	1	16,474
% OF TOTAL	0.6%	179.4%	22.6%	0.6%	16.2%	0.5%	0.1%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS7 First between Parkridge and Mountain

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	10	1	0	2	0	0	0	0	0	0	0	0	13
0:15	0	12	0	0	1	0	0	0	0	0	0	0	0	13
0:30	0	9	0	0	1	0	0	0	0	0	0	0	0	10
0:45	0	7	0	0	1	1	0	0	0	0	0	0	0	9
1:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
2:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
2:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
2:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00	0	2	1	1	0	0	0	0	0	0	0	0	0	4
3:15	0	4	1	0	0	0	0	0	0	0	0	0	0	5
3:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8
3:45	0	7	2	0	0	0	0	0	0	0	0	0	0	9
4:00	0	18	7	0	1	0	0	0	0	0	0	0	0	26
4:15	0	37	8	0	1	1	0	0	0	0	0	0	0	47
4:30	1	80	12	0	4	0	0	0	0	0	0	0	0	97
4:45	0	83	19	1	9	0	0	0	0	0	0	0	0	112
5:00	0	65	16	0	6	1	0	1	0	0	0	0	0	89
5:15	1	93	24	0	9	0	0	0	0	0	0	0	0	127
5:30	1	146	19	1	8	0	0	1	0	0	0	0	0	176
5:45	0	144	31	1	15	0	0	1	1	0	0	0	0	193
6:00	1	111	24	0	10	0	0	0	1	0	0	0	0	147
6:15	1	141	29	0	14	0	0	0	0	0	0	0	0	185
6:30	0	166	26	1	18	3	0	0	0	0	0	0	0	214
6:45	0	199	20	0	16	0	0	1	0	0	0	0	0	236
7:00	2	142	20	0	10	0	0	1	0	0	0	0	0	175
7:15	1	164	22	0	12	1	0	0	0	0	0	0	0	200
7:30	2	169	17	0	9	0	0	0	0	0	0	0	0	197
7:45	1	146	13	0	6	0	0	0	0	0	0	0	0	166
8:00	0	127	19	1	12	0	0	1	0	0	0	0	0	160
8:15	1	120	17	2	13	0	0	0	0	0	0	0	0	153
8:30	1	115	15	2	9	0	0	0	1	0	0	0	0	143
8:45	0	88	19	1	14	0	0	0	1	0	0	0	0	123
9:00	1	82	11	1	9	0	0	0	2	1	0	0	0	107
9:15	0	70	14	1	1	0	0	0	0	0	0	0	0	86
9:30	0	73	9	0	5	0	0	0	0	0	0	0	0	87
9:45	0	81	8	1	12	0	0	0	1	0	0	0	0	103
10:00	0	74	18	1	9	0	0	0	0	0	0	0	0	102
10:15	1	51	5	1	10	0	0	0	0	0	0	0	0	68
10:30	1	71	10	1	5	0	1	0	0	0	0	0	0	89
10:45	0	75	9	0	7	0	0	0	0	0	0	0	0	91
11:00	1	63	13	0	8	0	0	0	0	0	0	0	0	85
11:15	1	90	10	1	8	0	0	1	1	0	0	0	0	112
11:30	0	85	9	0	4	0	0	0	0	0	0	0	0	98
11:45	1	92	13	0	3	0	0	0	0	0	0	0	0	109
TOTAL	19	3,357	514	18	282	7	1	7	8	1	0	0	0	4,214

AM PEAK HOUR	6:30 AM
AM PEAK VOLUME	825

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	87	10	0	5	0	0	1	0	0	0	0	0	103
12:15	0	109	15	0	6	0	0	0	0	0	0	0	0	130
12:30	0	114	15	0	4	0	0	0	1	0	0	0	0	134
12:45	0	137	12	1	14	0	0	0	0	0	0	0	0	164
13:00	0	129	17	0	12	0	0	0	0	0	0	0	0	158
13:15	0	102	9	0	10	0	0	1	0	0	0	0	0	122
13:30	0	112	17	1	15	0	0	0	0	0	0	0	0	145
13:45	1	110	9	2	11	0	0	1	0	0	0	0	0	134
14:00	1	90	12	2	3	1	0	0	1	0	0	0	0	110
14:15	0	72	17	0	7	0	0	0	0	0	0	0	0	96
14:30	0	103	12	0	9	0	0	0	0	0	0	0	0	124
14:45	0	112	21	0	7	1	0	0	0	0	0	0	0	141
15:00	0	118	18	1	6	0	0	0	2	0	0	0	0	145
15:15	0	89	8	0	6	1	0	0	0	0	0	0	0	104
15:30	0	127	16	0	1	0	0	0	0	0	0	0	0	144
15:45	2	118	13	0	9	0	0	0	0	0	0	0	0	142
16:00	1	95	9	0	3	1	0	0	0	0	0	0	0	109
16:15	1	108	17	0	2	0	0	0	0	0	0	0	0	128
16:30	1	132	13	0	9	0	0	0	0	0	0	0	0	155
16:45	0	114	13	0	5	0	0	0	0	0	0	0	0	132
17:00	0	120	9	0	2	0	0	0	0	0	0	0	0	131
17:15	0	118	16	0	3	0	0	1	0	0	0	0	0	138
17:30	0	126	6	0	3	0	0	0	0	0	0	0	0	135
17:45	1	106	11	0	6	0	0	0	0	0	0	0	0	124
18:00	0	116	14	0	2	1	0	0	0	0	0	0	0	133
18:15	0	116	8	0	3	0	0	0	0	0	0	0	0	127
18:30	0	114	8	0	4	0	0	1	0	0	0	0	0	127
18:45	0	103	13	0	1	0	0	0	0	0	0	0	0	117
19:00	0	87	6	0	4	0	0	0	0	0	0	0	0	97
19:15	0	89	3	0	2	0	0	0	0	0	0	0	0	94
19:30	0	82	3	0	3	0	0	0	0	0	0	0	0	88
19:45	1	94	6	0	1	0	0	0	0	0	0	0	0	102
20:00	0	88	11	0	0	0	0	0	0	0	0	0	0	99
20:15	0	85	3	0	0	0	0	0	0	0	0	0	0	88
20:30	0	73	3	0	1	0	0	0	0	0	0	0	0	77
20:45	0	51	3	0	2	0	0	0	0	0	0	0	0	56
21:00	0	61	5	0	0	0	0	0	0	0	0	0	0	66
21:15	0	56	9	0	0	0	0	0	0	0	0	0	0	65
21:30	0	46	6	0	2	0	0	0	0	0	0	0	0	54
21:45	0	48	4	0	0	0	0	0	0	0	0	0	0	52
22:00	0	36	4	0	0	0	0	0	0	0	0	0	0	40
22:15	0	37	0	0	0	0	0	0	0	0	0	0	0	37
22:30	0	19	2	0	3	0	0	0	0	0	0	0	0	24
22:45	0	22	2	0	0	0	0	0	0	0	0	0	0	24
23:00	0	29	1	0	0	0	0	0	0	0	0	0	0	30
23:15	0	17	1	0	0	0	0	0	1	0	0	0	0	19
23:30	0	17	0	0	0	0	0	0	0	0	0	0	0	17
23:45	0	16	1	0	0	0	0	0	0	0	0	0	0	17
TOTAL	9	4,150	431	7	186	5	0	5	5	0	0	0	0	4,798

PM PEAK HOUR	12:45 PM
PM PEAK VOLUME	589

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	28	7,507	945	25	468	12	1	12	13	1	0	0	0	9,012
% OF TOTAL	0.3%	83.3%	10.5%	0.3%	5.2%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS8 Mountain south of Second

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:15	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	1	2	0	0	0	0	0	0	0	0	0	0	3
3:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2
3:45	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
5:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
5:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
5:30	0	5	2	0	0	0	0	0	0	0	0	0	0	7
5:45	0	3	0	0	2	0	0	0	0	0	0	0	0	5
6:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
6:15	0	2	3	0	0	0	0	0	0	0	0	0	0	5
6:30	0	3	1	0	2	0	0	0	0	0	0	0	0	6
6:45	0	11	2	0	1	0	0	0	0	0	0	0	0	14
7:00	0	17	3	0	2	0	0	0	0	0	0	0	0	22
7:15	0	30	5	1	5	0	0	0	0	0	0	0	0	41
7:30	0	36	6	0	6	0	0	0	0	0	0	0	0	48
7:45	0	30	8	1	5	0	0	0	0	0	0	0	0	44
8:00	0	21	3	0	9	0	0	0	0	0	0	0	0	33
8:15	0	12	2	0	5	0	0	0	0	0	0	0	0	19
8:30	0	11	7	2	3	0	0	0	0	0	0	0	0	23
8:45	1	10	4	1	8	0	0	0	0	0	0	0	0	24
9:00	0	13	2	0	3	0	0	0	0	0	0	0	0	18
9:15	0	18	3	0	5	0	0	0	0	0	0	0	0	26
9:30	0	18	1	0	2	0	0	0	0	0	0	0	0	21
9:45	0	11	1	0	2	0	0	0	0	0	0	0	0	14
10:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
10:15	0	11	3	0	2	0	0	0	0	0	0	0	0	16
10:30	0	10	4	0	1	0	0	0	0	0	0	0	0	15
10:45	0	14	0	0	3	0	0	0	0	0	0	0	0	17
11:00	0	15	4	0	2	0	0	0	0	0	0	0	0	21
11:15	0	7	4	1	3	1	0	0	0	0	0	0	0	16
11:30	0	12	2	0	7	0	0	0	0	0	0	0	0	21
11:45	0	18	2	0	4	0	0	0	0	0	0	0	0	24
TOTAL	2	378	82	6	84	1	0	0	0	0	0	0	0	553

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	166

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	18	2	0	7	0	0	0	0	0	0	0	0	27
12:15	0	15	2	0	3	0	0	1	0	0	0	0	0	21
12:30	0	15	1	0	2	0	0	0	1	0	0	0	0	19
12:45	2	19	5	0	3	0	0	0	0	0	0	0	0	29
13:00	0	27	4	0	2	0	0	0	0	0	0	0	0	33
13:15	0	25	6	0	3	0	0	0	0	0	0	0	0	34
13:30	0	20	3	0	1	0	0	0	0	0	0	0	0	24
13:45	0	31	6	0	4	0	0	0	0	0	0	0	0	41
14:00	0	25	5	0	1	0	0	0	0	0	0	0	0	31
14:15	0	18	8	0	3	0	0	0	1	0	0	0	0	30
14:30	0	24	8	0	3	0	0	0	0	0	0	0	0	35
14:45	0	28	3	0	8	1	0	0	0	0	0	0	0	40
15:00	0	17	3	0	4	0	0	0	0	0	0	0	0	24
15:15	0	23	7	0	7	0	0	0	0	0	0	0	0	37
15:30	0	21	4	3	4	0	0	1	0	0	0	0	0	33
15:45	0	32	5	0	5	0	0	0	1	0	0	0	0	43
16:00	0	20	5	0	2	0	0	0	0	0	0	0	0	27
16:15	0	23	7	1	6	0	0	0	0	0	0	0	0	37
16:30	0	27	4	0	2	0	0	0	0	0	0	0	0	33
16:45	0	20	4	0	2	0	0	0	0	0	0	0	0	26
17:00	0	29	5	0	4	0	0	0	0	0	0	0	0	38
17:15	0	28	3	0	1	0	0	0	0	0	0	0	0	32
17:30	0	29	2	0	1	0	0	0	0	0	0	0	0	32
17:45	0	33	2	0	2	0	0	0	0	0	0	0	0	37
18:00	0	24	4	0	5	0	0	0	0	0	0	0	0	33
18:15	0	25	4	0	0	0	0	0	0	0	0	0	0	29
18:30	0	9	2	0	1	0	0	0	0	0	0	0	0	12
18:45	0	14	3	1	1	0	0	0	0	0	0	0	0	19
19:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
19:15	0	5	0	0	2	0	0	0	0	0	0	0	0	7
19:30	0	8	2	0	1	0	0	0	0	0	0	0	0	11
19:45	0	15	0	0	1	0	0	0	0	0	0	0	0	16
20:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
20:15	0	5	0	0	1	0	0	0	0	0	0	0	0	6
20:30	0	6	0	0	1	0	0	0	0	0	0	0	0	7
20:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
21:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
21:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:30	0	8	2	0	0	0	0	0	0	0	0	0	0	10
21:45	0	6	3	0	2	0	0	0	0	0	0	0	0	11
22:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
22:45	0	4	0	1	0	0	0	0	0	0	0	0	0	5
23:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	3	1	0	1	0	0	0	1	0	0	0	0	6
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	741	130	6	97	1	0	2	5	0	0	0	0	984

PM PEAK HOUR	3:45 PM
PM PEAK VOLUME	140

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	1,119	212	12	181	2	0	2	5	0	0	0	0	1,537
% OF TOTAL	0.3%	72.8%	13.8%	0.8%	11.8%	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	7	2,059	344	26	299	8	0	3	8	0	0	0	0	2,754
% OF TOTAL	0.5%	134.0%	22.4%	1.7%	19.5%	0.5%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS8 Mountain south of Second

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	1	0	0	1	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:30	0	2	1	0	1	0	0	0	0	0	0	0	0	4
4:45	0	2	0	1	1	0	0	0	0	0	0	0	0	4
5:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30	0	2	2	0	1	0	0	0	0	0	0	0	0	5
5:45	0	2	1	1	3	0	0	0	0	0	0	0	0	7
6:00	0	1	0	0	2	0	0	0	0	0	0	0	0	3
6:15	0	5	2	0	1	0	0	0	0	0	0	0	0	8
6:30	0	7	3	1	3	0	0	0	0	0	0	0	0	14
6:45	1	11	0	0	2	0	0	0	0	0	0	0	0	14
7:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
7:15	0	13	3	0	1	0	0	0	0	0	0	0	0	17
7:30	0	19	3	0	2	1	0	0	0	0	0	0	0	25
7:45	0	20	2	0	2	0	0	0	0	0	0	0	0	24
8:00	0	17	0	0	2	0	0	0	0	0	0	0	0	19
8:15	0	19	1	0	1	0	0	0	0	0	0	0	0	21
8:30	0	24	2	0	0	0	0	0	0	0	0	0	0	26
8:45	0	18	0	0	4	1	0	0	0	0	0	0	0	23
9:00	0	20	2	0	0	0	0	0	0	0	0	0	0	22
9:15	0	19	1	1	1	1	0	0	0	0	0	0	0	23
9:30	0	19	2	0	0	0	0	0	0	0	0	0	0	21
9:45	0	19	1	0	3	0	0	0	0	0	0	0	0	23
10:00	0	15	4	0	3	0	0	0	0	0	0	0	0	22
10:15	0	17	1	0	4	1	0	0	0	0	0	0	0	23
10:30	0	18	1	0	1	0	0	0	0	0	0	0	0	20
10:45	0	19	4	0	4	0	0	0	1	0	0	0	0	28
11:00	0	17	2	0	3	0	0	0	0	0	0	0	0	22
11:15	0	18	1	1	1	0	0	0	0	0	0	0	0	21
11:30	0	21	3	0	1	0	0	0	0	0	0	0	0	25
11:45	0	15	3	0	0	0	0	0	0	0	0	0	0	18
TOTAL	1	401	48	5	50	4	0	0	1	0	0	0	0	510

AM PEAK HOUR	10:45 AM
AM PEAK VOLUME	96

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	14	1	1	4	0	0	0	0	0	0	0	0	20
12:15	0	10	1	0	0	0	0	0	0	0	0	0	0	11
12:30	0	13	4	0	1	1	0	0	0	0	0	0	0	19
12:45	0	18	0	1	7	0	0	0	0	0	0	0	0	26
13:00	0	22	2	0	2	0	0	0	0	0	0	0	0	26
13:15	0	10	2	0	5	0	0	0	0	0	0	0	0	17
13:30	1	11	3	1	10	0	0	0	0	0	0	0	0	26
13:45	0	13	1	2	8	0	0	0	0	0	0	0	0	24
14:00	0	18	5	1	2	0	0	0	0	0	0	0	0	26
14:15	0	15	1	1	4	0	0	0	1	0	0	0	0	22
14:30	0	25	7	0	1	0	0	0	0	0	0	0	0	33
14:45	0	14	6	0	1	0	0	0	0	0	0	0	0	21
15:00	0	15	3	0	2	0	0	0	0	0	0	0	0	20
15:15	0	10	2	0	2	0	0	0	0	0	0	0	0	14
15:30	0	32	6	0	2	0	0	0	0	0	0	0	0	40
15:45	0	22	3	0	3	0	0	0	0	0	0	0	0	28
16:00	0	26	3	0	1	0	0	0	0	0	0	0	0	30
16:15	0	25	3	0	1	0	0	0	1	0	0	0	0	30
16:30	0	17	8	0	2	0	0	0	0	0	0	0	0	27
16:45	0	21	3	0	1	0	0	1	0	0	0	0	0	26
17:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
17:15	0	19	2	0	1	1	0	0	0	0	0	0	0	23
17:30	0	22	3	1	1	0	0	0	0	0	0	0	0	27
17:45	0	29	2	0	1	0	0	0	0	0	0	0	0	32
18:00	0	27	1	0	0	0	0	0	0	0	0	0	0	28
18:15	0	18	2	0	0	0	0	0	0	0	0	0	0	20
18:30	0	12	0	0	0	0	0	0	0	0	0	0	0	12
18:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10
19:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
19:15	0	6	0	0	1	0	0	0	0	0	0	0	0	7
19:30	1	1	1	0	1	0	0	0	0	0	0	0	0	4
19:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
20:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
20:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
20:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
20:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:30	0	0	0	1	1	0	0	0	0	0	0	0	0	2
22:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	539	84	9	68	2	0	1	2	0	0	0	0	707

PM PEAK HOUR	3:30 PM
PM PEAK VOLUME	128

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	3	940	132	14	118	6	0	1	3	0	0	0	0	1,217
% OF TOTAL	0.2%	77.2%	10.8%	1.2%	9.7%	0.5%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS9 Second west of Mountain

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	1	5	0	0	0	0	0	0	0	0	0	0	0	6
0:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
0:30	0	1	0	0	1	0	0	0	0	0	0	0	0	2
0:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
1:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
1:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
1:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:45	0	1	0	0	1	0	0	0	0	0	0	0	0	2
2:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:15	0	3	0	0	1	1	0	0	0	0	0	0	0	5
2:30	1	1	1	0	1	0	0	0	0	0	0	0	0	4
2:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
3:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:30	0	10	1	0	2	0	0	0	0	0	0	0	0	13
3:45	0	7	2	0	1	0	0	0	0	0	0	0	0	10
4:00	0	5	1	0	3	0	0	0	0	0	0	0	0	9
4:15	0	12	1	0	3	0	0	0	0	0	0	0	0	16
4:30	0	17	1	0	2	0	0	0	0	0	0	0	0	20
4:45	0	10	4	0	3	1	0	0	0	0	0	0	0	18
5:00	0	8	4	0	2	0	0	0	0	0	0	0	0	14
5:15	0	7	9	0	6	0	0	0	0	0	0	0	0	22
5:30	0	29	7	0	7	0	0	0	0	0	0	0	0	43
5:45	0	29	6	0	1	0	0	0	0	0	0	0	0	36
6:00	1	31	11	0	10	0	0	0	0	0	0	0	0	53
6:15	0	63	8	0	8	0	0	0	1	0	0	0	0	80
6:30	0	51	14	0	1	0	0	0	0	0	0	0	0	66
6:45	0	93	14	0	10	0	0	0	0	0	0	0	0	117
7:00	1	124	10	1	13	0	0	0	0	0	0	0	0	149
7:15	0	108	12	1	7	0	0	0	0	0	0	0	0	128
7:30	0	123	9	0	7	0	0	0	0	0	0	0	0	139
7:45	0	122	12	0	14	0	0	0	0	0	0	0	0	148
8:00	0	113	9	0	14	0	0	0	0	0	0	0	0	136
8:15	0	84	17	1	8	0	0	0	1	0	0	0	0	111
8:30	1	83	8	1	3	0	0	0	0	0	1	0	0	97
8:45	0	78	10	1	8	0	0	0	1	0	0	0	0	98
9:00	0	61	12	0	12	0	0	0	0	0	0	0	0	85
9:15	1	55	9	1	7	0	0	0	0	0	0	0	0	73
9:30	0	58	9	0	8	0	0	1	0	0	0	0	0	76
9:45	0	56	10	0	9	0	0	0	0	0	0	0	0	75
10:00	0	58	6	0	11	0	0	0	1	0	0	0	0	76
10:15	0	53	8	0	5	0	2	0	0	0	0	0	0	68
10:30	0	44	8	0	6	0	0	0	0	0	0	0	0	58
10:45	1	53	10	0	4	0	0	0	0	0	0	0	0	68
11:00	0	49	5	0	10	0	1	0	0	0	0	0	0	65
11:15	0	53	5	0	9	0	0	0	0	1	0	0	0	68
11:30	0	52	9	0	4	0	0	0	0	0	0	0	0	65
11:45	2	51	3	0	8	0	0	0	0	0	0	0	0	64
TOTAL	9	1,886	267	7	232	2	3	1	4	1	1	0	0	2,413

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	564

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	49	9	0	4	1	0	0	0	0	0	0	0	64
12:15	0	42	8	0	7	0	0	1	0	0	0	0	0	58
12:30	0	48	12	0	11	0	0	0	0	0	0	0	0	71
12:45	0	64	13	0	9	0	0	0	0	0	0	0	0	86
13:00	0	53	7	0	6	0	0	0	0	0	0	0	0	66
13:15	1	57	16	0	9	0	0	0	0	0	0	0	0	83
13:30	1	60	7	1	6	0	0	1	0	0	0	0	0	76
13:45	0	76	21	0	6	0	0	0	0	0	0	0	0	103
14:00	1	99	9	0	9	0	0	0	0	0	0	0	0	118
14:15	0	115	14	1	17	1	0	0	1	0	0	0	0	149
14:30	1	72	6	0	5	0	0	0	0	0	0	0	0	84
14:45	0	68	9	1	15	0	0	0	0	0	0	0	0	93
15:00	0	72	13	0	11	0	0	0	1	0	0	0	0	97
15:15	2	78	13	0	18	0	0	0	0	0	0	0	0	111
15:30	0	64	19	2	10	1	0	0	0	0	0	0	0	96
15:45	0	86	17	0	14	0	0	0	0	0	0	0	0	117
16:00	0	73	13	1	8	1	1	0	0	0	0	0	0	97
16:15	0	72	11	0	10	0	0	0	0	0	0	0	0	93
16:30	0	85	19	0	9	0	1	0	0	0	0	0	0	114
16:45	0	95	11	0	9	0	0	0	0	0	0	0	0	115
17:00	2	64	20	0	11	0	0	0	0	0	0	0	0	97
17:15	0	70	13	0	8	0	0	0	1	0	0	0	0	92
17:30	0	82	8	1	7	0	0	1	0	0	0	0	0	99
17:45	2	71	7	1	8	0	0	1	0	0	0	0	0	90
18:00	0	54	8	0	7	0	0	2	0	0	0	0	0	71
18:15	0	53	6	0	5	0	0	0	0	0	0	0	0	64
18:30	0	50	12	0	4	0	0	0	0	0	0	0	0	66
18:45	0	53	10	0	8	0	0	0	0	0	0	0	0	71
19:00	0	52	5	0	5	0	0	0	0	0	0	0	0	62
19:15	0	59	13	0	7	0	0	0	0	0	0	0	0	79
19:30	1	44	6	0	3	0	0	0	0	0	0	0	0	54
19:45	0	45	7	0	3	0	0	0	0	0	0	0	0	55
20:00	0	35	4	0	2	0	0	0	0	0	0	0	0	41
20:15	0	26	9	0	7	0	0	0	0	0	0	0	0	42
20:30	0	31	1	0	2	0	0	0	0	0	0	0	0	34
20:45	0	34	2	0	2	0	0	0	0	0	0	0	0	38
21:00	0	27	7	0	3	0	0	0	0	0	0	0	0	37
21:15	0	19	3	0	0	0	0	0	0	0	0	0	0	22
21:30	0	18	4	0	1	1	0	1	0	0	0	0	0	25
21:45	0	13	1	0	3	0	0	0	0	0	0	0	0	17
22:00	0	13	4	0	1	0	1	0	0	0	0	0	0	19
22:15	0	23	2	0	1	0	0	0	0	0	0	0	0	26
22:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10
22:45	0	11	2	0	1	0	0	0	1	0	0	0	0	15
23:00	0	20	2	0	0	0	0	0	0	0	0	0	0	22
23:15	0	8	0	0	2	0	0	0	0	0	0	0	0	10
23:30	0	10	0	0	1	0	0	0	0	0	0	0	0	11
23:45	0	7	0	0	0	1	0	0	0	0	0	0	0	8
TOTAL	12	2,430	403	8	295	6	3	7	4	0	0	0	0	3,168

PM PEAK HOUR	1:45 PM
PM PEAK VOLUME	454

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: AM+PM	21	4,316	670	15	527	8	6	8	8	1	1	0	0	5,581
% OF TOTAL	0.4%	77.3%	12.0%	0.3%	9.4%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%
TOTAL: ALL	44	8,291	1,292	25	1,087	22	6	16	18	1	2	0	0	10,804
% OF TOTAL	0.8%	148.6%	23.1%	0.4%	19.5%	0.4%	0.1%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS9 Second west of Mountain

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	7	0	0	1	0	0	0	0	0	0	0	0	8
0:15	0	6	1	0	1	1	0	0	0	0	0	0	0	9
0:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5
0:45	0	13	1	0	0	0	0	0	0	0	0	0	0	14
1:00	0	8	0	0	2	0	0	0	0	0	0	0	0	10
1:15	0	3	0	0	0	0	0	0	0	0	1	0	0	4
1:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:45	0	6	0	0	1	0	0	0	0	0	0	0	0	7
2:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:15	0	0	2	0	1	0	0	0	0	0	0	0	0	3
2:30	0	6	2	0	0	0	0	0	0	0	0	0	0	8
2:45	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
3:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
3:30	0	7	0	0	2	0	0	0	0	0	0	0	0	9
3:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6
4:00	0	3	1	0	2	0	0	0	0	0	0	0	0	6
4:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
4:30	0	4	1	0	3	0	0	0	0	0	0	0	0	8
4:45	0	16	4	1	3	0	0	0	0	0	0	0	0	24
5:00	0	9	0	0	1	0	0	0	0	0	0	0	0	10
5:15	0	19	5	0	8	0	0	0	0	0	0	0	0	32
5:30	0	15	6	0	1	0	0	0	1	0	0	0	0	23
5:45	0	14	3	0	5	0	0	0	1	0	0	0	0	23
6:00	2	23	4	1	5	0	0	0	0	0	0	0	0	35
6:15	0	26	7	1	13	0	0	0	1	0	0	0	0	48
6:30	1	66	15	0	9	0	0	0	0	0	0	0	0	91
6:45	0	43	9	0	9	1	0	1	0	0	0	0	0	63
7:00	1	51	7	1	9	0	0	0	0	0	0	0	0	69
7:15	0	86	8	0	10	1	0	0	0	0	0	0	0	105
7:30	0	103	13	0	16	0	0	0	0	0	0	0	0	132
7:45	0	80	7	0	13	0	0	0	0	0	0	0	0	100
8:00	0	65	13	0	8	1	0	0	1	0	0	0	0	88
8:15	0	44	9	0	1	0	0	0	0	0	0	0	0	54
8:30	0	39	10	0	15	0	0	0	0	0	0	0	0	64
8:45	0	39	5	0	9	0	0	0	0	0	0	0	0	53
9:00	0	33	8	0	4	0	0	0	0	0	0	0	0	45
9:15	0	43	5	0	7	0	0	0	1	0	0	0	0	56
9:30	0	51	4	0	9	2	0	0	0	0	0	0	0	66
9:45	0	41	11	1	4	1	0	0	1	0	0	0	0	59
10:00	0	33	8	0	6	0	0	0	0	0	0	0	0	47
10:15	0	38	9	0	9	0	0	0	0	0	0	0	0	56
10:30	0	49	10	0	8	0	0	0	0	0	0	0	0	67
10:45	1	35	5	0	4	0	0	0	0	0	0	0	0	45
11:00	0	47	11	1	9	1	0	0	0	0	0	0	0	69
11:15	1	58	5	0	12	0	0	0	0	0	0	0	0	76
11:30	0	40	6	0	10	0	0	1	0	0	0	0	0	57
11:45	2	58	6	0	11	1	0	0	1	0	0	0	0	79
TOTAL	8	1,349	223	6	244	9	0	2	7	0	1	0	0	1,849

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	425

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	59	7	0	6	0	0	0	1	0	0	0	0	73
12:15	1	54	5	0	10	0	0	0	0	0	0	0	0	70
12:30	0	59	10	0	3	0	0	0	0	0	0	0	0	72
12:45	1	64	9	0	10	0	0	0	0	0	0	0	0	84
13:00	0	73	14	0	11	0	0	0	0	0	0	0	0	98
13:15	0	65	6	0	5	0	0	0	0	0	0	0	0	76
13:30	0	56	16	0	10	0	0	1	0	0	0	0	0	83
13:45	0	84	11	1	6	1	0	0	0	0	0	0	0	103
14:00	1	58	14	0	5	0	0	0	0	0	0	0	0	78
14:15	1	53	14	0	8	0	0	0	0	0	0	0	0	76
14:30	0	64	12	1	9	0	0	1	0	0	0	0	0	87
14:45	0	82	18	0	5	0	0	0	0	0	0	0	0	105
15:00	0	86	9	0	12	1	0	0	0	0	0	0	0	108
15:15	1	71	17	0	16	0	0	0	0	0	0	0	0	105
15:30	1	90	18	0	7	2	0	0	0	0	0	0	0	118
15:45	1	71	16	0	5	0	0	0	1	0	0	0	0	94
16:00	0	85	17	0	7	0	0	0	0	0	0	0	0	109
16:15	2	71	8	0	10	0	0	0	0	0	0	0	0	91
16:30	0	81	15	0	11	0	0	0	0	0	0	0	0	107
16:45	1	67	13	0	7	0	0	0	0	0	0	0	0	88
17:00	0	76	9	0	15	0	0	0	0	0	0	0	0	100
17:15	1	76	4	0	4	0	0	0	0	0	0	0	0	85
17:30	1	81	7	0	7	0	0	0	0	0	0	0	0	96
17:45	0	86	10	1	16	0	0	0	0	0	0	0	0	113
18:00	0	87	9	0	9	0	0	1	0	0	0	0	0	106
18:15	0	80	13	0	11	0	0	0	0	0	0	0	0	104
18:30	0	62	12	0	8	1	0	0	0	0	0	0	0	83
18:45	0	65	9	0	7	0	0	0	0	0	0	0	0	81
19:00	0	58	9	0	10	0	0	1	0	0	0	0	0	78
19:15	0	53	7	0	11	0	0	0	0	0	0	0	0	71
19:30	0	57	6	0	6	0	0	0	0	0	0	0	0	69
19:45	0	59	8	0	13	0	0	0	0	0	0	0	0	80
20:00	1	42	6	0	4	0	0	0	0	0	0	0	0	53
20:15	1	43	2	0	4	0	0	0	0	0	0	0	0	50
20:30	0	37	9	0	5	0	0	0	0	0	0	0	0	51
20:45	0	48	3	0	6	0	0	0	0	0	0	0	0	57
21:00	0	33	6	0	2	0	0	0	0	0	0	0	0	41
21:15	0	35	2	0	3	0	0	1	0	0	0	0	0	41
21:30	1	20	4	0	2	0	0	0	0	0	0	0	0	27
21:45	0	15	3	0	1	0	0	0	1	0	0	0	0	20
22:00	0	23	1	0	1	0	0	1	0	0	0	0	0	26
22:15	0	17	1	0	3	0	0	0	0	0	0	0	0	21
22:30	0	15	3	0	1	0	0	0	0	0	0	0	0	19
22:45	0	15	2	1	1	0	0	0	0	0	0	0	0	19
23:00	0	17	2	0	1	0	0	0	0	0	0	0	0	20
23:15	0	15	0	0	0	0	0	0	0	0	0	0	0	15
23:30	0	10	1	0	1	0	0	0	0	0	0	0	0	12
23:45	0	8	2	0	1	0	0	0	0	0	0	0	0	11
TOTAL	15	2,626	399	4	316	5	0	6	3	0	0	0	0	3,374

PM PEAK HOUR	2:45 PM
PM PEAK VOLUME	436

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	23	3,975	622	10	560	14	0	8	10	0	1	0	0	5,223
% OF TOTAL	0.4%	76.1%	11.9%	0.2%	10.7%	0.3%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS10 Hamner north of Second

AM	NORTHBOUND														PM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	12	0	1	0	0	0	0	0	0	0	0	0	13	12:00	1	212	19	0	11	7	0	1	0	0	0	0	0	251
0:15	0	10	0	0	0	0	0	0	0	0	0	0	0	10	12:15	0	231	17	1	11	3	1	0	0	0	1	1	0	266
0:30	0	8	2	0	0	0	0	1	0	0	0	0	0	11	12:30	0	270	12	0	4	8	1	1	1	0	1	2	0	300
0:45	0	7	0	0	1	0	0	0	0	0	0	0	0	8	12:45	1	220	19	0	15	3	1	0	0	1	0	1	0	261
1:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7	13:00	0	215	18	0	11	2	3	0	0	0	1	0	0	250
1:15	0	3	1	0	1	1	0	0	0	0	0	0	0	6	13:15	1	213	18	2	14	4	0	2	1	0	0	1	1	257
1:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10	13:30	1	308	13	1	6	3	0	1	1	0	0	0	0	334
1:45	0	3	1	0	1	0	0	0	0	0	0	0	0	5	13:45	1	298	18	0	8	10	1	0	0	0	1	0	2	339
2:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	14:00	0	242	10	0	16	3	1	0	0	0	1	2	0	275
2:15	0	5	1	0	1	0	0	0	0	0	0	0	0	7	14:15	0	253	19	0	16	7	1	0	0	0	0	0	0	296
2:30	0	3	1	0	0	1	0	0	0	0	0	0	0	5	14:30	0	223	18	0	12	5	1	1	1	0	0	0	0	261
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14:45	1	239	19	0	12	5	0	1	1	0	1	1	0	280
3:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3	15:00	0	214	11	0	5	7	1	0	1	0	0	2	1	242
3:15	1	7	0	0	1	0	0	0	0	0	0	0	0	9	15:15	0	268	22	1	15	8	0	0	1	0	0	0	0	315
3:30	0	5	0	0	1	0	0	0	0	0	0	0	0	6	15:30	1	267	17	1	12	5	1	0	1	0	0	0	0	305
3:45	0	10	2	0	0	1	0	1	0	0	0	0	1	15	15:45	1	293	19	0	11	3	2	0	1	0	0	2	0	332
4:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10	16:00	2	275	14	0	13	3	1	0	1	2	0	0	0	311
4:15	0	8	2	0	0	0	0	0	1	0	0	0	0	11	16:15	2	223	20	0	9	5	1	1	1	0	1	0	0	263
4:30	0	12	7	0	2	0	0	0	0	0	0	0	0	21	16:30	0	210	17	0	15	4	1	0	0	1	0	0	0	248
4:45	0	17	3	1	6	0	0	0	0	0	0	0	0	27	16:45	1	220	16	1	9	8	1	1	0	0	1	0	0	258
5:00	0	18	5	0	3	0	0	0	0	0	0	0	0	26	17:00	2	239	17	0	8	10	0	0	1	0	1	0	0	278
5:15	0	28	9	1	3	0	0	0	0	0	0	0	0	41	17:15	2	318	17	0	11	4	3	0	0	1	0	0	1	357
5:30	0	48	12	0	10	0	0	0	1	0	0	0	0	71	17:30	0	309	8	1	9	8	0	0	0	0	1	1	1	338
5:45	0	117	12	0	9	2	0	1	0	0	0	0	0	141	17:45	0	333	16	2	12	12	1	0	0	0	0	1	1	378
6:00	1	96	6	0	13	2	0	0	1	0	0	0	0	119	18:00	0	219	20	0	3	6	1	0	1	1	0	1	0	252
6:15	0	109	10	1	5	0	0	0	3	0	0	0	0	128	18:15	1	227	11	0	3	8	0	0	1	0	0	0	0	251
6:30	0	178	12	1	7	5	1	0	0	0	0	1	0	205	18:30	0	163	11	0	4	4	0	1	0	0	0	0	0	183
6:45	5	257	22	0	13	6	0	0	0	0	0	1	0	304	18:45	0	148	10	0	7	5	1	0	0	0	1	0	0	172
7:00	0	317	22	0	10	1	1	0	1	0	0	1	1	354	19:00	0	136	9	1	6	2	0	0	0	0	0	0	0	154
7:15	0	381	30	0	3	2	1	0	0	0	1	0	1	419	19:15	0	119	11	2	5	4	0	0	0	0	0	1	0	142
7:30	0	363	14	1	4	9	3	0	0	0	0	1	0	395	19:30	0	102	6	0	10	1	0	0	0	0	0	0	0	119
7:45	1	359	17	0	15	12	2	0	0	0	0	2	1	409	19:45	0	109	14	0	3	4	0	0	0	0	0	0	0	130
8:00	0	313	18	0	9	5	0	1	0	1	0	1	1	349	20:00	0	105	9	0	1	2	1	0	0	0	0	1	0	119
8:15	0	209	25	1	14	3	1	0	0	0	0	1	0	254	20:15	0	97	8	0	3	3	0	0	0	0	0	0	0	111
8:30	0	226	13	0	10	1	3	0	1	0	0	0	0	254	20:30	0	74	7	0	5	0	0	0	0	0	0	0	0	86
8:45	0	266	16	1	9	2	0	0	0	0	0	0	1	295	20:45	0	79	2	0	4	2	0	0	0	0	0	0	0	87
9:00	2	233	9	0	16	2	0	0	0	0	0	1	0	263	21:00	1	94	11	1	4	3	0	0	2	0	0	0	0	116
9:15	2	274	15	0	14	5	3	2	0	0	1	1	0	317	21:15	0	89	8	0	4	0	0	0	1	0	0	0	0	102
9:30	0	251	10	0	9	1	0	1	0	0	0	1	1	274	21:30	0	106	12	0	3	3	0	0	0	0	0	0	0	124
9:45	0	207	18	1	8	4	0	2	1	0	1	0	0	242	21:45	1	63	11	0	7	1	1	1	1	0	0	0	0	86
10:00	0	188	23	1	17	4	0	2	1	0	1	1	0	238	22:00	0	66	5	0	1	1	0	0	1	0	0	0	0	74
10:15	0	223	23	1	6	5	2	1	0	0	0	0	0	261	22:15	0	47	3	0	2	0	0	0	0	0	0	0	0	52
10:30	0	193	19	0	15	6	0	0	0	0	0	2	2	237	22:30	0	42	7	0	2	0	0	0	0	0	0	0	0	51
10:45	1	242	15	1	10	4	2	0	2	0	0	0	0	277	22:45	0	30	3	0	2	1	0	0	0	0	0	0	0	36
11:00	0	208	17	0	16	7	0	0	0	1	1	0	0	250	23:00	0	36	2	0	3	0	0	1	1	0	0	0	0	43
11:15	0	196	16	0	13	3	1	0	1	0	0	0	0	230	23:15	0	24	6	1	2	0	0	0	0	0	0	0	0	33
11:30	1	178	18	1	13	2	1	1	1	0	0	0	1	217	23:30	0	23	2	0	0	0	0	0	0	0	0	0	0	25
11:45	1	213	19	0	12	4	1	1	0	0	0	0	1	252	23:45	0	19	4	0	2	0	0	0	0	0	0	0	0	25
TOTAL	15	6,033	470	13	300	100	22	14	14	2	5	14	11	7,013	TOTAL	20	8,310	586	15	351	187	26	12	20	6	11	17	7	9,568

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	1,577

PM PEAK HOUR	5:00 PM
PM PEAK VOLUME	1,351

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	35	14,343	1,056	28	651	287	48	26	34	8	16	31	18	16,581
% OF TOTAL	0.2%	86.5%	6.4%	0.2%	3.9%	1.7%	0.3%	0.2%	0.2%	0.0%	0.1%	0.2%	0.1%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
TOTAL: ALL	63	29,274	1,901	70	1,239	585	114	52	84	23	34	74	49	33,562
% OF TOTAL	0.4%	176.6%	11.5%	0.4%	7.5%	3.5%	0.7%	0.3%	0.5%	0.1%	0.2%	0.4%	0.3%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tuesday, September 18, 2018
JOB #: SC1898

LOCATION#
CLASS10 Hamner north of Second

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18
0:15	0	8	2	0	0	0	0	0	0	0	0	0	0	10
0:30	0	13	1	0	0	0	0	0	0	0	0	0	0	14
0:45	0	13	1	0	1	0	0	0	0	0	0	0	0	15
1:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
1:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:30	0	6	2	0	1	0	0	0	0	0	0	0	0	9
1:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00	0	5	1	1	0	0	0	0	0	0	0	0	0	7
2:15	0	5	0	0	0	0	0	0	1	0	0	0	0	6
2:30	0	6	2	0	0	0	0	0	1	0	0	0	0	9
2:45	0	5	0	0	2	0	0	0	0	0	0	0	0	7
3:00	0	3	1	1	0	0	0	0	0	0	0	0	0	5
3:15	0	3	1	0	1	1	0	0	0	0	0	0	0	6
3:30	0	5	2	0	2	0	0	0	0	0	0	0	0	9
3:45	0	5	1	0	3	0	0	0	3	0	0	0	0	12
4:00	0	10	1	0	1	0	0	0	0	0	0	0	0	12
4:15	0	18	1	0	1	0	0	1	1	0	0	0	0	22
4:30	0	23	3	0	2	1	0	0	0	0	0	0	1	30
4:45	0	21	6	0	5	0	0	0	0	0	0	0	0	32
5:00	0	27	1	2	5	1	0	0	0	0	0	0	0	36
5:15	0	26	8	0	5	1	0	0	0	0	0	0	0	40
5:30	0	32	5	1	6	2	0	0	2	0	0	0	0	48
5:45	0	49	3	0	3	4	0	0	0	0	0	0	1	60
6:00	0	34	2	0	10	0	0	0	1	0	0	0	0	47
6:15	0	65	11	4	17	1	0	1	0	0	0	0	0	99
6:30	1	41	5	1	13	3	0	0	1	0	0	0	0	65
6:45	0	78	11	2	21	3	0	0	0	0	0	0	0	115
7:00	0	134	23	2	17	4	0	2	0	0	0	0	0	182
7:15	0	186	12	1	15	8	1	0	0	1	0	0	0	224
7:30	0	235	18	0	18	6	0	2	0	0	0	0	0	279
7:45	0	201	11	0	5	4	0	0	1	0	0	3	0	225
8:00	1	193	15	1	13	5	0	0	3	0	1	1	1	234
8:15	0	166	15	0	9	3	0	1	0	1	1	1	0	197
8:30	0	204	11	0	14	4	0	1	1	0	0	0	0	235
8:45	1	202	15	1	12	7	0	0	2	0	0	0	0	240
9:00	0	204	14	2	13	7	0	1	0	0	0	2	0	243
9:15	1	178	26	0	12	4	1	0	2	0	0	1	0	225
9:30	0	236	7	0	10	5	5	0	3	0	1	2	3	272
9:45	0	163	12	1	17	7	1	0	0	1	1	2	2	207
10:00	3	189	21	2	11	6	1	1	2	0	0	2	2	240
10:15	1	204	12	0	7	4	1	2	2	0	0	0	0	233
10:30	0	178	13	2	13	5	1	1	0	1	0	0	0	214
10:45	2	205	10	0	15	4	2	0	0	0	0	1	1	240
11:00	2	261	18	1	9	4	0	0	0	0	0	1	0	296
11:15	0	269	9	0	9	4	2	1	1	1	0	3	1	300
11:30	0	238	20	2	5	4	3	0	0	0	1	1	1	275
11:45	0	263	19	0	8	8	2	0	1	0	1	1	1	304
TOTAL	12	4,641	376	27	332	120	20	14	28	5	6	21	14	5,616

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	1,175

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	235	8	1	3	7	2	1	3	0	0	0	2	263
12:15	1	256	11	0	9	5	2	1	2	1	1	5	1	295
12:30	1	252	10	0	5	7	1	1	0	0	0	1	1	279
12:45	0	282	10	0	3	8	1	0	1	1	1	0	1	308
13:00	0	229	7	0	3	4	1	0	0	0	0	0	2	246
13:15	0	204	12	1	12	4	1	0	0	0	1	0	1	236
13:30	0	203	8	3	17	5	4	1	0	0	0	1	0	242
13:45	0	227	15	1	17	1	2	0	1	2	0	0	0	266
14:00	0	204	10	1	9	7	1	0	0	0	0	0	0	232
14:15	1	195	16	0	15	7	1	2	1	0	0	1	1	240
14:30	2	249	13	1	7	5	2	0	1	0	1	1	0	282
14:45	0	234	16	1	9	2	1	0	1	0	0	0	0	264
15:00	0	268	17	0	7	5	1	0	1	0	0	1	2	302
15:15	1	296	23	0	6	4	1	0	1	2	1	0	0	335
15:30	0	354	13	0	4	7	0	1	1	0	0	3	2	385
15:45	1	372	9	0	6	3	2	0	0	1	0	0	1	395
16:00	0	419	9	0	2	5	2	0	0	1	0	1	0	439
16:15	0	382	15	0	6	5	1	1	1	0	0	0	0	411
16:30	0	395	13	0	10	3	0	0	0	0	0	0	0	421
16:45	1	363	16	0	5	3	2	1	1	0	0	0	0	392
17:00	0	400	15	0	6	4	2	1	0	0	0	1	0	429
17:15	0	370	12	1	6	8	2	0	0	1	1	1	0	402
17:30	1	398	16	1	3	7	1	0	0	0	0	0	1	428
17:45	0	375	10	0	5	1	2	0	0	0	0	0	0	393
18:00	0	308	10	1	6	4	2	0	1	0	1	2	0	335
18:15	0	264	15	0	7	3	1	1	0	0	1	1	0	293
18:30	0	205	7	0	3	7	1	0	0	1	0	0	2	226
18:45	1	230	9	0	6	7	0	0	0	0	0	1	0	254
19:00	0	181	11	0	6	6	0	0	2	0	0	0	0	206
19:15	1	164	14	1	2	3	0	1	0	0	0	0	0	186
19:30	1	177	8	0	5	3	1	0	1	0	0	0	0	196
19:45	0	178	11	0	7	5	0	0	1	0	1	0	0	203
20:00	1	152	5	1	3	1	1	0	0	0	3	0	0	167
20:15	0	183	11	0	5	4	0	0	0	0	0	1	0	204
20:30	1	205	7	0	6	8	2	0	0	0	0	0	0	229
20:45	0	192	8	0	9	7	1	0	0	0	0	1	0	218
21:00	0	215	7	0	3	1	2	0	0	0	0	0	0	228
21:15	0	108	5	0	1	1	0	0	0	0	0	0	0	115
21:30	1	65	5	0	1	0	0	0	1	0	0	0	0	73
21:45	0	64	7	1	1	1	0	0	0	0	0	0	0	74
22:00	0	50	5	0	3	0	0	0	1	0	0	0	0	59
22:15	0	55	9	0	0	0	0	0	0	0	0	0	0	64
22:30	0	33	4	0	2	0	0	0	0	0	0	0	0	39
22:45	0	32	3	0	3	0	0	0	0	0	0	0	0	38
23:00	0	14	1	0	1	0	0	0	0	0	0	0	0	16
23:15	0	16	0	0	0	0	0	0	0	0	0	0	0	16
23:30	0	11	1	0	1	0	0	0	0	0	0	0	0	13
23:45	0	26	2	0	0	0	0	0	0	0	0	0	0	28
TOTAL	16	####	469	15	256	178	46	12	22	10	12	22	17	11,365

PM PEAK HOUR	3:45 PM
PM PEAK VOLUME	1,666

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	28	####	845	42	588	298	66	26	50	15	18	43	31	16,981
% OF TOTAL	0.2%	87.9%	5.0%	0.2%	3.5%	1.8%	0.4%	0.2%	0.3%	0.1%	0.1%	0.3%	0.2%	100.0%

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

APPENDIX 3.2:

EXISTING (2018) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	229	134	212	43	167	36	186	710	74	1203	484
Future Volume (vph)	229	134	212	43	167	36	186	710	74	1203	484
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	134	212	43	167	36	186	710	91	74	1203	484
Future Volume (veh/h)	229	134	212	43	167	36	186	710	91	74	1203	484
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	246	144	159	46	180	27	200	763	89	80	1294	392
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	332	487	64	231	195	231	1751	204	103	1685	877
Arrive On Green	0.09	0.17	0.17	0.04	0.12	0.12	0.13	0.54	0.54	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3256	380	1810	3610	1572
Grp Volume(v), veh/h	246	144	159	46	180	27	200	423	429	80	1294	392
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1831	1810	1805	1572
Q Serve(g_s), s	7.1	7.0	7.9	2.6	9.5	1.5	11.2	14.6	14.6	4.5	30.7	15.2
Cycle Q Clear(g_c), s	7.1	7.0	7.9	2.6	9.5	1.5	11.2	14.6	14.6	4.5	30.7	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	311	332	487	64	231	195	231	971	985	103	1685	877
V/C Ratio(X)	0.79	0.43	0.33	0.72	0.78	0.14	0.87	0.44	0.44	0.78	0.77	0.45
Avail Cap(c_a), veh/h	354	533	657	149	498	421	253	971	985	205	1685	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	38.0	27.8	49.2	43.9	40.4	44.1	14.4	14.4	47.9	22.8	13.6
Incr Delay (d2), s/veh	8.7	0.9	0.4	5.4	5.6	0.3	22.5	1.4	1.4	4.7	3.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.3	3.0	1.3	4.7	0.6	6.2	5.7	5.8	2.1	12.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	38.8	28.2	54.6	49.5	40.7	66.5	15.8	15.8	52.6	26.2	15.2
LnGrp LOS	D	D	C	D	D	D	E	B	B	D	C	B
Approach Vol, veh/h		549			253			1052			1766	
Approach Delay, s/veh		42.9			49.5			25.4			25.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	61.2	8.3	23.1	17.8	53.9	13.7	17.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.5	16.6	4.6	9.9	13.2	32.7	9.1	11.5
Green Ext Time (p_c), s	0.0	5.4	0.0	1.2	0.0	8.9	0.1	0.8

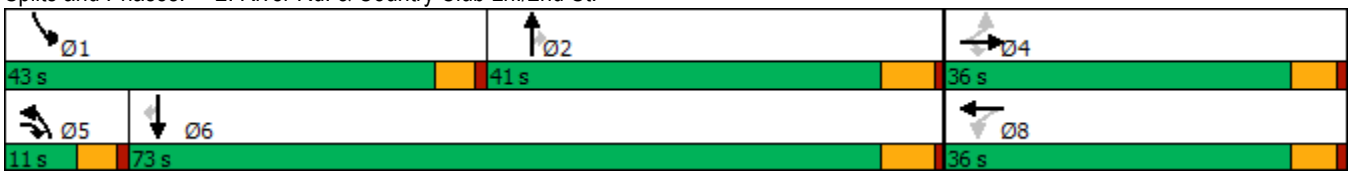
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

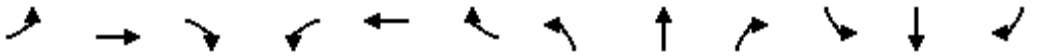
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	34	130	55	115	74	29	668	149	378	1047	23
Future Volume (vph)	34	130	55	115	74	29	668	149	378	1047	23
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	130	55	115	74	250	29	668	149	378	1047	23
Future Volume (veh/h)	34	130	55	115	74	250	29	668	149	378	1047	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	39	148	36	131	84	201	33	759	110	430	1190	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	415	398	251	108	259	52	1392	619	461	2209	963
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.03	0.39	0.39	0.25	0.61	0.61
Sat Flow, veh/h	1110	1900	1610	1219	496	1187	1810	3610	1606	1810	3610	1573
Grp Volume(v), veh/h	39	148	36	131	0	285	33	759	110	430	1190	24
Grp Sat Flow(s),veh/h/ln	1110	1900	1610	1219	0	1683	1810	1805	1606	1810	1805	1573
Q Serve(g_s), s	3.8	7.3	1.9	11.2	0.0	17.5	2.0	18.0	5.0	25.5	21.0	0.7
Cycle Q Clear(g_c), s	21.3	7.3	1.9	18.5	0.0	17.5	2.0	18.0	5.0	25.5	21.0	0.7
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	131	415	398	251	0	367	52	1392	619	461	2209	963
V/C Ratio(X)	0.30	0.36	0.09	0.52	0.00	0.78	0.63	0.55	0.18	0.93	0.54	0.02
Avail Cap(c_a), veh/h	201	534	499	328	0	473	105	1392	619	633	2209	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	36.4	31.8	44.2	0.0	40.4	52.8	26.2	22.2	40.0	12.3	8.4
Incr Delay (d2), s/veh	1.3	0.5	0.1	1.7	0.0	6.0	4.6	1.5	0.6	14.8	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.4	0.7	3.5	0.0	7.7	0.9	7.6	1.9	12.7	7.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	36.9	31.9	45.9	0.0	46.4	57.4	27.8	22.9	54.8	13.3	8.5
LnGrp LOS	D	D	C	D	A	D	E	C	C	D	B	A
Approach Vol, veh/h		223			416			902			1644	
Approach Delay, s/veh		38.7			46.3			28.3			24.1	
Approach LOS		D			D			C			C	

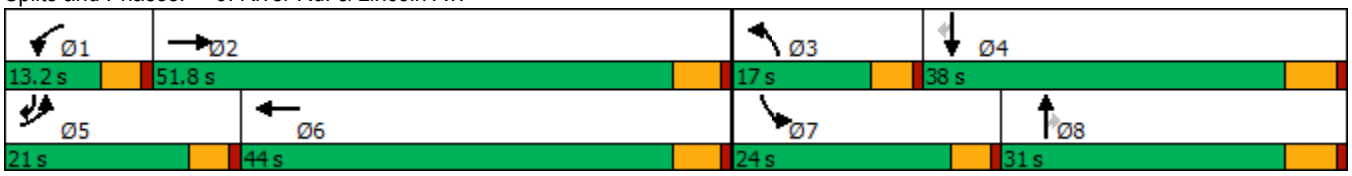
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	48.2		29.1	7.8	73.0		29.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	27.5	20.0		23.3	4.0	23.0		20.5				
Green Ext Time (p_c), s	0.5	4.5		0.6	0.0	10.4		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		29.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	318	390	43	621	121	554	91	201	728	407
Future Volume (vph)	318	390	43	621	121	554	91	201	728	407
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	390	28	43	621	190	121	554	91	201	728	407
Future Volume (veh/h)	318	390	28	43	621	190	121	554	91	201	728	407
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	353	433	19	48	690	187	134	616	59	223	809	322
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	417	1518	66	63	972	263	162	761	320	253	942	605
Arrive On Green	0.12	0.43	0.43	0.03	0.35	0.35	0.09	0.21	0.21	0.14	0.26	0.26
Sat Flow, veh/h	3510	3520	154	1810	2800	759	1810	3610	1517	1810	3610	1584
Grp Volume(v), veh/h	353	222	230	48	445	432	134	616	59	223	809	322
Grp Sat Flow(s),veh/h/ln	1755	1805	1869	1810	1805	1754	1810	1805	1517	1810	1805	1584
Q Serve(g_s), s	11.0	8.8	8.9	2.9	23.7	23.7	8.1	18.1	3.5	13.4	23.7	17.6
Cycle Q Clear(g_c), s	11.0	8.8	8.9	2.9	23.7	23.7	8.1	18.1	3.5	13.4	23.7	17.6
Prop In Lane	1.00		0.08	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	778	806	63	627	609	162	761	320	253	942	605
V/C Ratio(X)	0.85	0.28	0.29	0.76	0.71	0.71	0.83	0.81	0.18	0.88	0.86	0.53
Avail Cap(c_a), veh/h	518	778	806	140	627	609	202	818	344	316	1046	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	20.5	20.5	53.2	31.4	31.4	49.8	41.8	36.0	46.9	39.1	26.8
Incr Delay (d2), s/veh	8.8	0.9	0.9	6.9	6.7	6.9	16.6	5.8	0.3	18.2	6.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.8	3.9	1.4	11.1	10.8	4.3	8.3	1.3	7.1	10.9	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	21.4	21.4	60.1	38.1	38.3	66.4	47.5	36.3	65.1	45.9	27.6
LnGrp LOS	E	C	C	E	D	D	E	D	D	E	D	C
Approach Vol, veh/h		805			925			809			1354	
Approach Delay, s/veh		36.9			39.3			49.8			44.7	
Approach LOS		D			D			D			D	

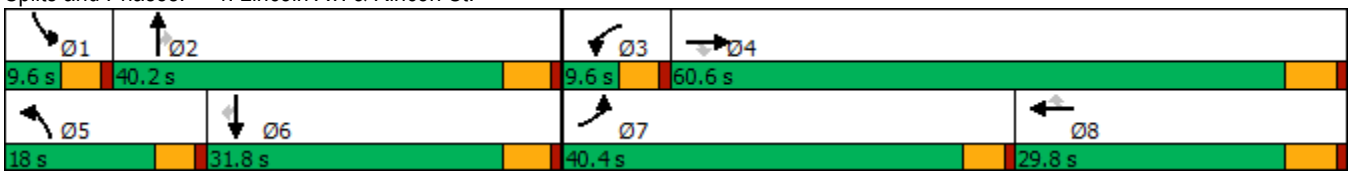
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	53.3	14.6	34.8	17.8	44.0	20.1	29.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	4.9	10.9	10.1	25.7	13.0	25.7	15.4	20.1
Green Ext Time (p_c), s	0.0	2.6	0.0	3.3	0.3	4.3	0.1	1.8

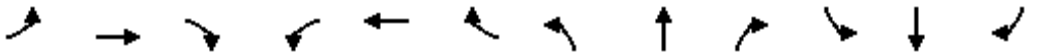
Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	86	69	2	2	131	601	6	8	935	311
Future Volume (vph)	86	69	2	2	131	601	6	8	935	311
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 67.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	0	69	2	0	2	131	601	6	8	935	311
Future Volume (veh/h)	86	0	69	2	0	2	131	601	6	8	935	311
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	0	28	2	0	0	151	691	6	9	1075	300
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	262	222	5	131	111	192	1929	859	21	1588	692
Arrive On Green	0.07	0.00	0.14	0.00	0.00	0.00	0.11	0.53	0.53	0.01	0.44	0.44
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	99	0	28	2	0	0	151	691	6	9	1075	300
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	3.5	0.0	1.0	0.1	0.0	0.0	5.3	7.2	0.1	0.3	15.5	8.6
Cycle Q Clear(g_c), s	3.5	0.0	1.0	0.1	0.0	0.0	5.3	7.2	0.1	0.3	15.5	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	262	222	5	131	111	192	1929	859	21	1588	692
V/C Ratio(X)	0.76	0.00	0.13	0.41	0.00	0.00	0.79	0.36	0.01	0.43	0.68	0.43
Avail Cap(c_a), veh/h	995	1599	1355	139	700	593	372	1929	859	139	1588	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	24.6	32.4	0.0	0.0	28.4	8.7	7.1	32.0	14.6	12.6
Incr Delay (d2), s/veh	3.5	0.0	0.3	18.6	0.0	0.0	2.7	0.5	0.0	5.1	2.3	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.4	0.1	0.0	0.0	2.3	2.3	0.0	0.2	5.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	24.9	51.0	0.0	0.0	31.1	9.3	7.1	37.1	16.9	14.6
LnGrp LOS	C	A	C	D	A	A	C	A	A	D	B	B
Approach Vol, veh/h		127			2			848			1384	
Approach Delay, s/veh		31.3			51.0			13.1			16.5	
Approach LOS		C			D			B			B	

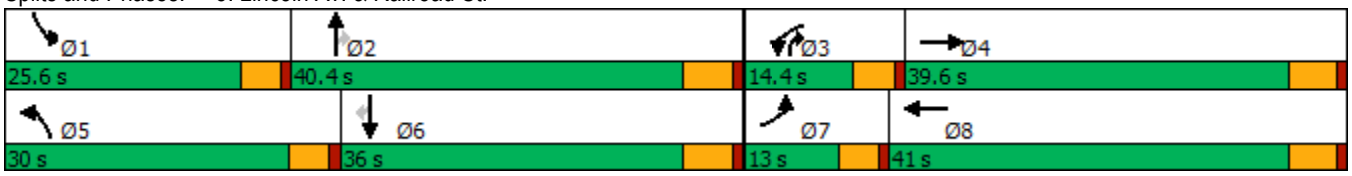
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	40.2	4.8	14.8	11.5	34.0	9.3	10.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.3	9.2	2.1	3.0	7.3	17.5	5.5	0.0
Green Ext Time (p_c), s	0.0	4.7	0.0	0.1	0.1	5.2	0.1	0.0

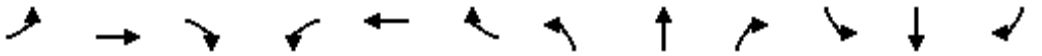
Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	45	92	58	542	220	518	86	163	552	258
Future Volume (vph)	45	92	58	542	220	518	86	163	552	258
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 105.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	92	66	58	542	180	220	518	86	163	552	258
Future Volume (veh/h)	45	92	66	58	542	180	220	518	86	163	552	258
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	105	42	66	616	170	250	589	54	185	627	210
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	70	663	252	86	752	207	286	1311	653	220	1179	525
Arrive On Green	0.04	0.26	0.26	0.05	0.27	0.27	0.16	0.36	0.36	0.12	0.33	0.33
Sat Flow, veh/h	1810	2547	967	1810	2795	770	1810	3610	1589	1810	3610	1607
Grp Volume(v), veh/h	51	73	74	66	397	389	250	589	54	185	627	210
Grp Sat Flow(s),veh/h/ln	1810	1805	1709	1810	1805	1759	1810	1805	1589	1810	1805	1607
Q Serve(g_s), s	2.7	3.0	3.2	3.5	19.9	20.0	13.0	12.0	2.0	9.6	13.6	9.7
Cycle Q Clear(g_c), s	2.7	3.0	3.2	3.5	19.9	20.0	13.0	12.0	2.0	9.6	13.6	9.7
Prop In Lane	1.00		0.57	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	470	445	86	485	473	286	1311	653	220	1179	525
V/C Ratio(X)	0.73	0.15	0.17	0.77	0.82	0.82	0.87	0.45	0.08	0.84	0.53	0.40
Avail Cap(c_a), veh/h	158	641	607	184	667	650	477	1311	653	394	1179	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	27.5	27.6	45.4	33.0	33.0	39.6	23.3	17.3	41.4	26.4	25.1
Incr Delay (d2), s/veh	5.3	0.2	0.2	5.4	5.7	6.0	5.0	1.1	0.2	3.3	1.7	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.3	1.3	1.6	9.0	8.9	6.0	5.0	0.7	4.4	5.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	27.6	27.7	50.8	38.8	39.0	44.6	24.5	17.6	44.7	28.1	27.4
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		198			852			893			1022	
Approach Delay, s/veh		33.7			39.8			29.7			31.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	40.4	9.2	30.5	19.8	36.9	8.3	31.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	11.6	14.0	5.5	5.2	15.0	15.6	4.7	22.0
Green Ext Time (p_c), s	0.2	3.9	0.0	0.7	0.3	4.1	0.0	3.9

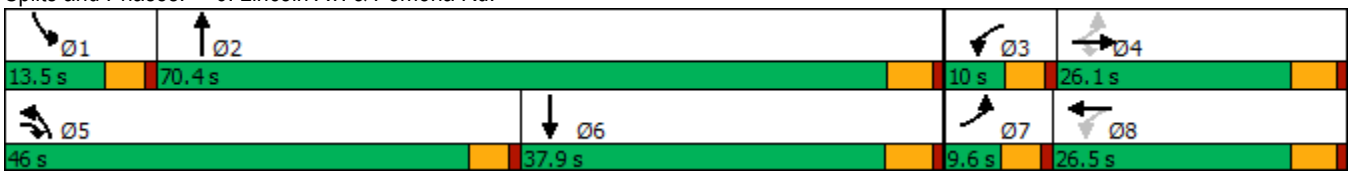
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

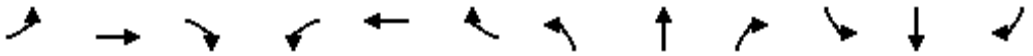
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	8	88	90	21	443	841	48	620
Future Volume (vph)	11	8	88	90	21	443	841	48	620
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 98.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	8	88	90	21	22	443	841	76	48	620	65
Future Volume (veh/h)	11	8	88	90	21	22	443	841	76	48	620	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	9	42	98	23	13	482	914	71	52	674	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	178	609	286	150	85	516	2130	165	68	1254	126
Arrive On Green	0.01	0.09	0.09	0.05	0.13	0.13	0.28	0.63	0.63	0.04	0.38	0.38
Sat Flow, veh/h	1810	1900	1600	1810	1140	644	1810	3394	264	1810	3301	333
Grp Volume(v), veh/h	12	9	42	98	0	36	482	486	499	52	368	374
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1784	1810	1805	1852	1810	1805	1829
Q Serve(g_s), s	0.6	0.4	1.7	5.0	0.0	1.9	27.0	14.3	14.3	3.0	16.5	16.6
Cycle Q Clear(g_c), s	0.6	0.4	1.7	5.0	0.0	1.9	27.0	14.3	14.3	3.0	16.5	16.6
Prop In Lane	1.00		1.00	1.00		0.36	1.00		0.14	1.00		0.18
Lane Grp Cap(c), veh/h	225	178	609	286	0	235	516	1133	1162	68	686	695
V/C Ratio(X)	0.05	0.05	0.07	0.34	0.00	0.15	0.93	0.43	0.43	0.77	0.54	0.54
Avail Cap(c_a), veh/h	287	383	782	286	0	367	720	1133	1162	155	686	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	42.9	20.6	39.0	0.0	40.0	36.3	9.9	9.9	49.6	25.1	25.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.3	13.5	1.2	1.2	6.7	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.6	2.2	0.0	0.8	13.5	5.5	5.6	1.4	7.3	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	43.0	20.7	39.2	0.0	40.3	49.7	11.1	11.0	56.3	28.1	28.1
LnGrp LOS	D	D	C	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		63			134			1467			794	
Approach Delay, s/veh		27.9			39.5			23.8			30.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	70.7	10.0	14.9	34.2	44.9	6.1	18.8
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.0	16.3	7.0	3.7	29.0	18.6	2.6	3.9
Green Ext Time (p_c), s	0.0	7.6	0.0	0.1	0.6	3.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

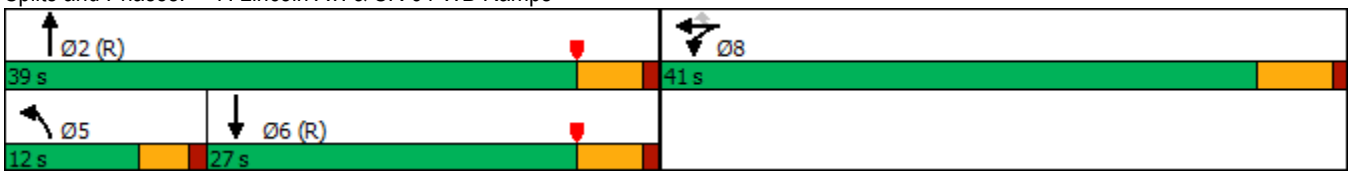
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

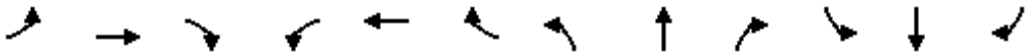
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	367	180	639	234	721	517
Future Volume (vph)	367	180	639	234	721	517
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	12.0	39.0	27.0
Total Split (%)	51.3%	51.3%	51.3%	15.0%	48.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	367	180	639	234	721	0	0	517	278
Future Volume (veh/h)	0	0	0	367	180	639	234	721	0	0	517	278
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				285	324	400	244	751	0	0	539	229
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				520	546	463	326	2099	0	0	1082	458
Arrive On Green				0.29	0.29	0.29	0.09	0.58	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2562	1044
Grp Volume(v), veh/h				285	324	400	244	751	0	0	394	374
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1706
Q Serve(g_s), s				10.7	11.7	18.8	5.4	8.8	0.0	0.0	12.5	12.6
Cycle Q Clear(g_c), s				10.7	11.7	18.8	5.4	8.8	0.0	0.0	12.5	12.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.61
Lane Grp Cap(c), veh/h				520	546	463	326	2099	0	0	792	748
V/C Ratio(X)				0.55	0.59	0.86	0.75	0.36	0.00	0.00	0.50	0.50
Avail Cap(c_a), veh/h				803	843	715	351	2099	0	0	792	748
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.87	0.87	0.00	0.00	0.89	0.89
Uniform Delay (d), s/veh				24.1	24.5	27.0	35.4	8.9	0.0	0.0	16.1	16.1
Incr Delay (d2), s/veh				0.3	0.4	4.4	6.0	0.4	0.0	0.0	2.0	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.4	5.0	7.3	2.5	3.1	0.0	0.0	5.2	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	24.9	31.4	41.4	9.3	0.0	0.0	18.1	18.3
LnGrp LOS				C	C	C	D	A	A	A	B	B
Approach Vol, veh/h					1009			995			768	
Approach Delay, s/veh					27.3			17.1			18.2	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	51.5		11.4	40.1		28.5						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		35.5						
Max Q Clear Time (g_c+I1), s	10.8		7.4	14.6		20.8						
Green Ext Time (p_c), s	3.4		0.0	2.0		2.1						

Intersection Summary		
HCM 6th Ctrl Delay	21.1	
HCM 6th LOS	C	

Notes

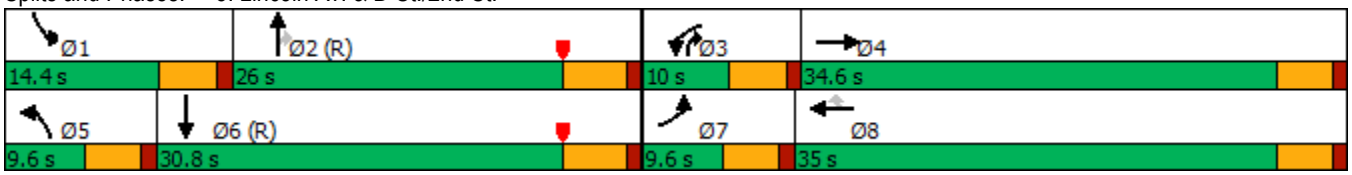
User approved volume balancing among the lanes for turning movement.

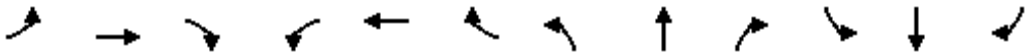
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	74	170	110	56	276	90	606	591	258	492
Future Volume (vph)	74	170	110	56	276	90	606	591	258	492
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	170	64	110	56	276	90	606	591	258	492	83
Future Volume (veh/h)	74	170	64	110	56	276	90	606	591	258	492	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	177	49	115	58	169	94	631	398	269	512	75
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	233	65	193	311	263	106	1661	828	348	1575	230
Arrive On Green	0.05	0.16	0.16	0.05	0.16	0.16	0.06	0.46	0.46	0.10	0.50	0.50
Sat Flow, veh/h	1810	1425	395	3510	1900	1610	1810	3610	1607	3510	3149	459
Grp Volume(v), veh/h	77	0	226	115	58	169	94	631	398	269	292	295
Grp Sat Flow(s),veh/h/ln	1810	0	1820	1755	1900	1610	1810	1805	1607	1755	1805	1803
Q Serve(g_s), s	3.6	0.0	10.1	2.7	2.2	8.3	4.4	9.7	13.6	6.4	8.2	8.3
Cycle Q Clear(g_c), s	3.6	0.0	10.1	2.7	2.2	8.3	4.4	9.7	13.6	6.4	8.2	8.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	99	0	298	193	311	263	106	1661	828	348	903	902
V/C Ratio(X)	0.78	0.00	0.76	0.60	0.19	0.64	0.88	0.38	0.48	0.77	0.32	0.33
Avail Cap(c_a), veh/h	106	0	642	223	680	576	106	1661	828	405	903	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	39.6	0.0	33.9	39.2	30.7	33.2	39.7	15.0	13.3	37.4	12.7	12.7
Incr Delay (d2), s/veh	24.7	0.0	4.0	1.4	0.3	2.5	50.9	0.7	2.0	4.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.7	1.2	1.0	3.4	3.4	3.8	5.1	2.9	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	0.0	37.9	40.7	30.9	35.7	90.7	15.7	15.3	41.9	13.3	13.4
LnGrp LOS	E	A	D	D	C	D	F	B	B	D	B	B
Approach Vol, veh/h		303			342			1123			856	
Approach Delay, s/veh		44.6			36.6			21.8			22.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.2	9.3	18.5	9.6	47.6	9.3	18.5
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	8.4	15.6	4.7	12.1	6.4	10.3	5.6	10.3
Green Ext Time (p_c), s	0.1	2.6	0.0	1.2	0.0	3.1	0.0	0.8

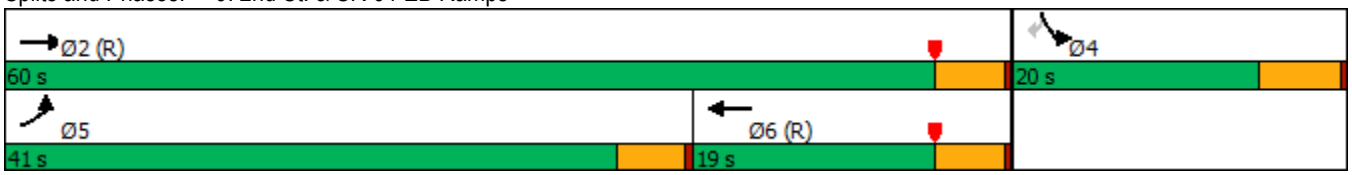
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

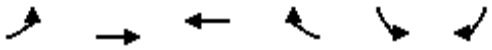
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	935	74	127	93	315
Future Volume (vph)	935	74	127	93	315
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	60.0	19.0	20.0	20.0
Total Split (%)	51.3%	75.0%	23.8%	25.0%	25.0%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	935	74	127	135	93	315
Future Volume (veh/h)	935	74	127	135	93	315
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	974	77	132	81	97	328
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1145	1316	681	393	333	592
Arrive On Green	0.33	0.69	0.31	0.31	0.18	0.18
Sat Flow, veh/h	3510	1900	2300	1271	1810	3220
Grp Volume(v), veh/h	974	77	107	106	97	328
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1671	1810	1610
Q Serve(g_s), s	20.7	1.0	3.5	3.8	3.7	7.4
Cycle Q Clear(g_c), s	20.7	1.0	3.5	3.8	3.7	7.4
Prop In Lane	1.00			0.76	1.00	1.00
Lane Grp Cap(c), veh/h	1145	1316	557	516	333	592
V/C Ratio(X)	0.85	0.06	0.19	0.21	0.29	0.55
Avail Cap(c_a), veh/h	1597	1316	557	516	333	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	3.9	20.3	20.4	28.2	29.7
Incr Delay (d2), s/veh	2.5	0.1	0.8	0.9	2.2	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.3	1.5	1.5	1.7	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	4.0	21.1	21.3	30.4	33.4
LnGrp LOS	C	A	C	C	C	C
Approach Vol, veh/h		1051	213		425	
Approach Delay, s/veh		25.9	21.2		32.7	
Approach LOS		C	C		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		20.0	30.7	29.3
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		55.4		14.7	36.4	14.4
Max Q Clear Time (g_c+I1), s		3.0		9.4	22.7	5.8
Green Ext Time (p_c), s		0.3		0.5	3.4	0.5

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	648	410	45	33	27
Future Vol, veh/h	4	648	410	45	33	27
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	820	519	57	42	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	579	0	-	0	1381	551
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	830	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1005	-	-	-	160	538
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	432	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1002	-	-	-	158	536
Mov Cap-2 Maneuver	-	-	-	-	158	-
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	431	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	28
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1002	-	-	-	231
HCM Lane V/C Ratio	0.005	-	-	-	0.329
HCM Control Delay (s)	8.6	0	-	-	28
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.4

Intersection	
Intersection Delay, s/veh	79.9
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	409	271	10	297	159	14
Future Vol, veh/h	409	271	10	297	159	14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	518	343	13	376	201	18
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	124.7	17.3	14.7
HCM LOS	F	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	92%	0%	3%
Vol Thru, %	0%	60%	97%
Vol Right, %	8%	40%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	173	680	307
LT Vol	159	0	10
Through Vol	0	409	297
RT Vol	14	271	0
Lane Flow Rate	219	861	389
Geometry Grp	1	1	1
Degree of Util (X)	0.4	1.207	0.599
Departure Headway (Hd)	7.072	5.047	5.906
Convergence, Y/N	Yes	Yes	Yes
Cap	512	723	614
Service Time	5.072	3.047	3.906
HCM Lane V/C Ratio	0.428	1.191	0.634
HCM Control Delay	14.7	124.7	17.3
HCM Lane LOS	B	F	C
HCM 95th-tile Q	1.9	29.4	4

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	537	11	3	397	13	11	0	16	28	0	2
Future Vol, veh/h	1	537	11	3	397	13	11	0	16	28	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	590	12	3	436	14	12	0	18	31	0	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	27	15.4	9.5	10
HCM LOS	D	C	A	A

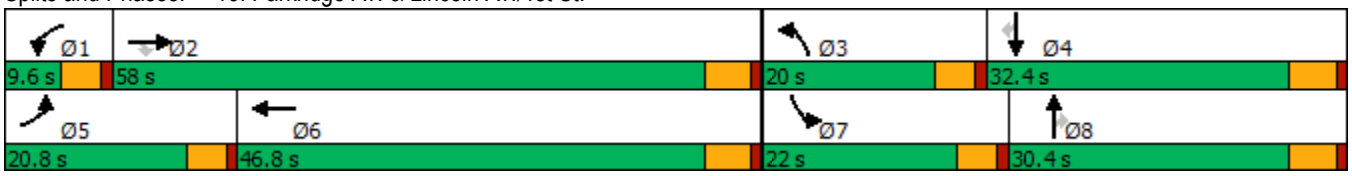
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	41%	0%	0%	1%	93%
Vol Thru, %	0%	100%	0%	96%	0%
Vol Right, %	59%	0%	100%	3%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	538	11	413	30
LT Vol	11	1	0	3	28
Through Vol	0	537	0	397	0
RT Vol	16	0	11	13	2
Lane Flow Rate	30	591	12	454	33
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.051	0.828	0.015	0.613	0.061
Departure Headway (Hd)	6.202	5.039	4.334	4.863	6.614
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	581	715	819	735	545
Service Time	4.205	2.8	2.094	2.927	4.616
HCM Lane V/C Ratio	0.052	0.827	0.015	0.618	0.061
HCM Control Delay	9.5	27.4	7.2	15.4	10
HCM Lane LOS	A	D	A	C	A
HCM 95th-tile Q	0.2	9	0	4.2	0.2

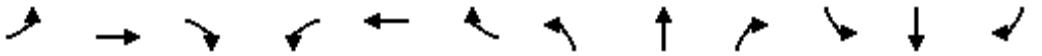
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	115	519	117	15	675	104	110	24	129	98	152
Future Volume (vph)	115	519	117	15	675	104	110	24	129	98	152
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	519	117	15	675	99	104	110	24	129	98	152
Future Volume (veh/h)	115	519	117	15	675	99	104	110	24	129	98	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	597	95	17	776	106	120	126	13	148	113	103
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	718	594	35	976	133	152	537	446	183	570	475
Arrive On Green	0.09	0.38	0.38	0.02	0.31	0.31	0.08	0.28	0.28	0.10	0.30	0.30
Sat Flow, veh/h	1810	1900	1570	1810	3189	435	1810	1900	1576	1810	1900	1584
Grp Volume(v), veh/h	132	597	95	17	439	443	120	126	13	148	113	103
Grp Sat Flow(s),veh/h/ln	1810	1900	1570	1810	1805	1819	1810	1900	1576	1810	1900	1584
Q Serve(g_s), s	6.4	25.6	3.6	0.8	20.1	20.1	5.9	4.6	0.5	7.2	4.0	4.4
Cycle Q Clear(g_c), s	6.4	25.6	3.6	0.8	20.1	20.1	5.9	4.6	0.5	7.2	4.0	4.4
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	718	594	35	552	557	152	537	446	183	570	475
V/C Ratio(X)	0.80	0.83	0.16	0.49	0.80	0.80	0.79	0.23	0.03	0.81	0.20	0.22
Avail Cap(c_a), veh/h	326	1117	923	101	836	843	310	537	446	350	570	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	25.4	18.5	43.7	28.6	28.6	40.5	24.8	23.3	39.6	23.4	23.6
Incr Delay (d2), s/veh	3.4	3.2	0.1	3.9	3.1	3.1	3.5	1.0	0.1	3.3	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	11.5	1.3	0.4	8.7	8.8	2.7	2.1	0.2	3.3	1.8	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	28.6	18.7	47.6	31.8	31.7	43.9	25.8	23.5	42.9	24.2	24.6
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		824			899			259			364	
Approach Delay, s/veh		29.8			32.1			34.1			31.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	39.1	12.1	32.4	12.8	32.6	13.7	30.9
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	2.8	27.6	7.9	6.4	8.4	22.1	9.2	6.6
Green Ext Time (p_c), s	0.0	4.4	0.1	0.5	0.1	5.4	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	41.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	532	30	71	381	16	38	5	131	23	3	11
Future Vol, veh/h	7	532	30	71	381	16	38	5	131	23	3	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	598	34	80	428	18	43	6	147	26	3	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	58.2	33	13.5	11.5
HCM LOS	F	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	1%	15%	62%
Vol Thru, %	3%	93%	81%	8%
Vol Right, %	75%	5%	3%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	569	468	37
LT Vol	38	7	71	23
Through Vol	5	532	381	3
RT Vol	131	30	16	11
Lane Flow Rate	196	639	526	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.362	0.997	0.849	0.089
Departure Headway (Hd)	6.674	5.614	5.809	7.685
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	538	646	626	464
Service Time	4.731	3.632	3.829	5.764
HCM Lane V/C Ratio	0.364	0.989	0.84	0.091
HCM Control Delay	13.5	58.2	33	11.5
HCM Lane LOS	B	F	D	B
HCM 95th-tile Q	1.6	15.3	9.4	0.3

Intersection	
Intersection Delay, s/veh	48.4
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	355	196	1	344	7	369	46	12	6	23	75
Future Vol, veh/h	121	355	196	1	344	7	369	46	12	6	23	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	127	374	206	1	362	7	388	48	13	6	24	79
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	34.3	42.5	83.2	16.2
HCM LOS	D	E	F	C

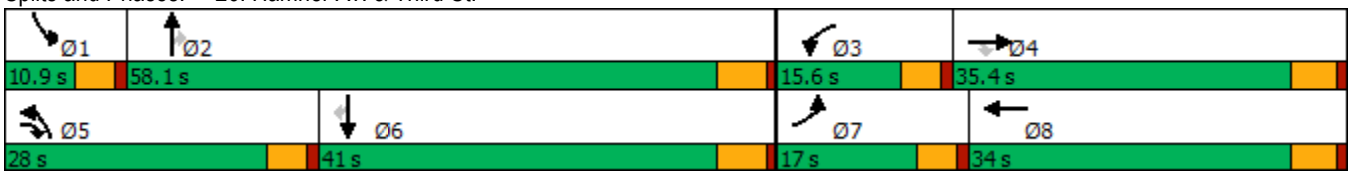
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	89%	0%	41%	0%	0%	6%
Vol Thru, %	11%	0%	59%	48%	98%	22%
Vol Right, %	0%	100%	0%	52%	2%	72%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	415	12	299	374	352	104
LT Vol	369	0	121	0	1	6
Through Vol	46	0	178	178	344	23
RT Vol	0	12	0	196	7	75
Lane Flow Rate	437	13	314	393	371	109
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.043	0.026	0.711	0.828	0.838	0.281
Departure Headway (Hd)	8.592	7.41	8.427	7.837	8.522	9.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	424	484	430	464	430	379
Service Time	6.318	5.135	6.127	5.537	6.522	7.551
HCM Lane V/C Ratio	1.031	0.027	0.73	0.847	0.863	0.288
HCM Control Delay	85.3	10.3	29.3	38.3	42.5	16.2
HCM Lane LOS	F	B	D	E	E	C
HCM 95th-tile Q	14	0.1	5.5	8	8	1.1

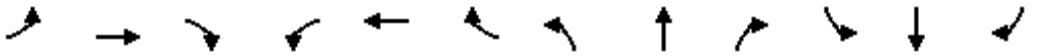
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	137	36	284	72	340	580	966	56	29	582	510
Future Volume (vph)	137	36	284	72	340	580	966	56	29	582	510
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	36	284	72	340	35	580	966	56	29	582	510
Future Volume (veh/h)	137	36	284	72	340	35	580	966	56	29	582	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	38	153	76	358	33	611	1017	37	31	613	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	172	515	743	98	393	36	670	1716	743	50	1126	500
Arrive On Green	0.09	0.27	0.27	0.05	0.23	0.23	0.19	0.48	0.48	0.03	0.31	0.31
Sat Flow, veh/h	1810	1900	1608	1810	1710	158	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	144	38	153	76	0	391	611	1017	37	31	613	422
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	8.9	1.7	6.5	4.7	0.0	23.3	19.5	23.5	1.5	1.9	16.1	28.1
Cycle Q Clear(g_c), s	8.9	1.7	6.5	4.7	0.0	23.3	19.5	23.5	1.5	1.9	16.1	28.1
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	515	743	98	0	429	670	1716	743	50	1126	500
V/C Ratio(X)	0.84	0.07	0.21	0.78	0.00	0.91	0.91	0.59	0.05	0.63	0.54	0.84
Avail Cap(c_a), veh/h	197	515	743	174	0	473	719	1716	743	100	1126	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	31.0	18.3	53.3	0.0	42.8	45.2	21.9	16.1	54.9	32.6	36.7
Incr Delay (d2), s/veh	21.3	0.1	0.1	5.0	0.0	20.6	14.6	1.5	0.1	4.7	1.9	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.8	2.4	2.3	0.0	13.0	9.6	9.8	0.5	0.9	7.1	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	31.0	18.4	58.3	0.0	63.5	59.9	23.4	16.2	59.7	34.5	52.7
LnGrp LOS	E	C	B	E	A	E	E	C	B	E	C	D
Approach Vol, veh/h		335			467			1665			1066	
Approach Delay, s/veh		42.9			62.6			36.6			42.4	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	59.7	10.8	36.0	26.4	41.0	15.4	31.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	3.9	25.5	6.7	8.5	21.5	30.1	10.9	25.3
Green Ext Time (p_c), s	0.0	7.8	0.0	0.6	0.3	2.6	0.0	0.8

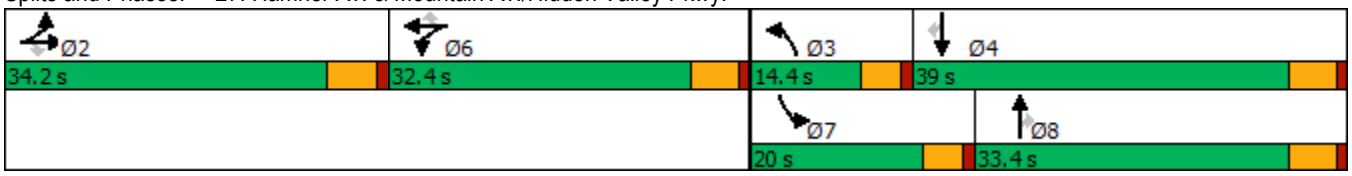
Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	190	37	681	459	299	33	469	235	142	395	9
Future Volume (vph)	12	190	37	681	459	299	33	469	235	142	395	9
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	34.2	34.2	34.2	32.4	32.4	32.4	14.4	33.4	33.4	20.0	39.0	39.0
Total Split (%)	28.5%	28.5%	28.5%	27.0%	27.0%	27.0%	12.0%	27.8%	27.8%	16.7%	32.5%	32.5%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 100.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	190	37	681	459	299	33	469	235	142	395	9
Future Volume (veh/h)	12	190	37	681	459	299	33	469	235	142	395	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	202	34	724	488	279	35	499	129	151	420	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	392	174	1018	535	453	58	1174	516	224	1289	573
Arrive On Green	0.11	0.11	0.11	0.28	0.28	0.28	0.03	0.33	0.33	0.06	0.36	0.36
Sat Flow, veh/h	1810	3610	1606	3619	1900	1608	1810	3610	1586	3510	3610	1603
Grp Volume(v), veh/h	13	202	34	724	488	279	35	499	129	151	420	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1608	1810	1805	1586	1755	1805	1603
Q Serve(g_s), s	0.6	5.0	1.8	16.9	23.4	14.2	1.8	10.2	5.6	4.0	8.0	0.2
Cycle Q Clear(g_c), s	0.6	5.0	1.8	16.9	23.4	14.2	1.8	10.2	5.6	4.0	8.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	392	174	1018	535	453	58	1174	516	224	1289	573
V/C Ratio(X)	0.07	0.52	0.19	0.71	0.91	0.62	0.61	0.43	0.25	0.67	0.33	0.01
Avail Cap(c_a), veh/h	554	1105	491	1038	545	462	188	1174	516	574	1289	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	39.6	38.2	30.4	32.7	29.4	45.0	24.9	23.3	43.1	22.0	19.5
Incr Delay (d2), s/veh	0.1	1.0	0.5	2.2	19.6	2.4	3.8	1.1	1.2	1.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	0.7	7.3	13.1	5.5	0.8	4.3	2.2	1.7	3.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	40.6	38.7	32.6	52.3	31.8	48.8	26.0	24.5	44.4	22.7	19.6
LnGrp LOS	D	D	D	C	D	C	D	C	C	D	C	B
Approach Vol, veh/h		249			1491			663			577	
Approach Delay, s/veh		40.2			38.9			26.9			28.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.6	7.6	39.0		31.9	10.6	36.0				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.8	9.8	33.6		27.0	15.4	28.0				
Max Q Clear Time (g_c+I1), s		7.0	3.8	10.0		25.4	6.0	12.2				
Green Ext Time (p_c), s		1.2	0.0	2.6		1.1	0.2	3.2				

Intersection Summary												
HCM 6th Ctrl Delay			34.3									
HCM 6th LOS			C									

Notes

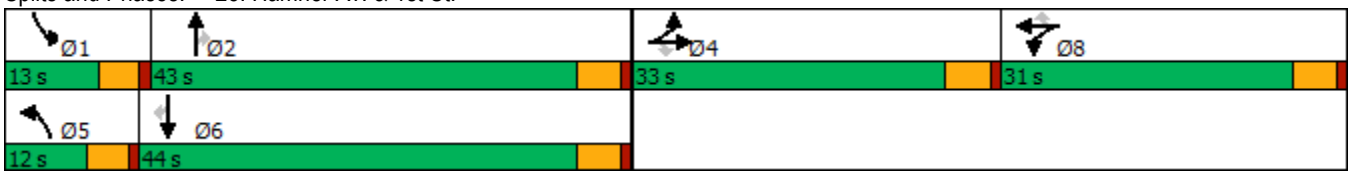
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	312	21	13	15	8	30	712	19	523	308
Future Volume (vph)	312	21	13	15	8	30	712	19	523	308
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	4	4		8		5	2	1	6	
Permitted Phases			4		8					6
Detector Phase	4	4	4	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 84.2
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Hamner Av. & 1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	21	13	9	15	8	30	712	0	19	523	308
Future Volume (veh/h)	312	21	13	9	15	8	30	712	0	19	523	308
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	348	0	5	10	16	0	32	757	0	20	556	238
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	492	0	219	40	64	90	59	1899	847	41	1864	830
Arrive On Green	0.14	0.00	0.14	0.06	0.06	0.00	0.03	0.53	0.00	0.02	0.52	0.52
Sat Flow, veh/h	3619	0	1607	717	1147	1610	1810	3610	1610	1810	3610	1607
Grp Volume(v), veh/h	348	0	5	26	0	0	32	757	0	20	556	238
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1864	0	1610	1810	1805	1610	1810	1805	1607
Q Serve(g_s), s	6.9	0.0	0.2	1.0	0.0	0.0	1.3	9.5	0.0	0.8	6.6	6.3
Cycle Q Clear(g_c), s	6.9	0.0	0.2	1.0	0.0	0.0	1.3	9.5	0.0	0.8	6.6	6.3
Prop In Lane	1.00		1.00	0.38		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	492	0	219	104	0	90	59	1899	847	41	1864	830
V/C Ratio(X)	0.71	0.00	0.02	0.25	0.00	0.00	0.55	0.40	0.00	0.49	0.30	0.29
Avail Cap(c_a), veh/h	1342	0	596	642	0	554	177	1899	847	201	1864	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	28.3	34.2	0.0	0.0	36.0	10.7	0.0	36.5	10.4	10.4
Incr Delay (d2), s/veh	1.9	0.0	0.0	1.2	0.0	0.0	2.9	0.6	0.0	3.3	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.1	0.5	0.0	0.0	0.6	3.3	0.0	0.4	2.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	28.3	35.4	0.0	0.0	38.9	11.4	0.0	39.8	10.8	11.2
LnGrp LOS	C	A	C	D	A	A	D	B	A	D	B	B
Approach Vol, veh/h		353			26			789			814	
Approach Delay, s/veh		33.0			35.4			12.5			11.7	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	44.7		15.3	7.0	44.0		9.2				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	2.8	11.5		8.9	3.3	8.6		3.0				
Green Ext Time (p_c), s	0.0	5.3		1.1	0.0	4.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.1	
HCM 6th LOS		B	

Notes

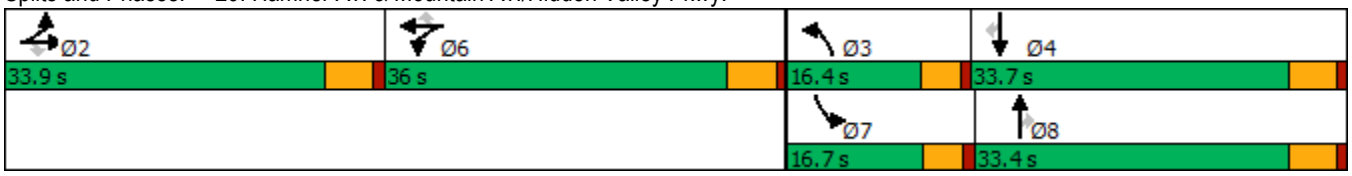
User approved volume balancing among the lanes for turning movement.

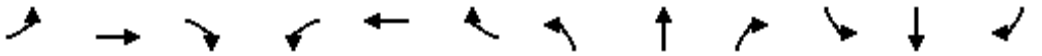
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	190	37	681	459	299	33	469	235	142	395	9
Future Volume (vph)	12	190	37	681	459	299	33	469	235	142	395	9
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	36.0	36.0	36.0	16.4	33.4	33.4	16.7	33.7	33.7
Total Split (%)	28.3%	28.3%	28.3%	30.0%	30.0%	30.0%	13.7%	27.8%	27.8%	13.9%	28.1%	28.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	190	37	681	459	299	33	469	235	142	395	9
Future Volume (veh/h)	12	190	37	681	459	299	33	469	235	142	395	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	202	34	724	488	279	35	499	129	151	420	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	493	984	438	1026	539	456	55	663	291	216	775	343
Arrive On Green	0.27	0.27	0.27	0.28	0.28	0.28	0.03	0.18	0.18	0.06	0.21	0.21
Sat Flow, veh/h	1810	3610	1608	3619	1900	1608	1810	3610	1583	3510	3610	1599
Grp Volume(v), veh/h	13	202	34	724	488	279	35	499	129	151	420	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1608	1810	1805	1583	1755	1805	1599
Q Serve(g_s), s	0.6	4.5	1.6	18.7	25.9	15.7	2.0	13.7	7.6	4.4	10.8	0.3
Cycle Q Clear(g_c), s	0.6	4.5	1.6	18.7	25.9	15.7	2.0	13.7	7.6	4.4	10.8	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	493	984	438	1026	539	456	55	663	291	216	775	343
V/C Ratio(X)	0.03	0.21	0.08	0.71	0.91	0.61	0.63	0.75	0.44	0.70	0.54	0.02
Avail Cap(c_a), veh/h	493	984	438	1059	556	471	204	966	424	406	977	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	29.3	28.3	33.6	36.1	32.5	50.1	40.4	37.9	48.1	36.5	32.4
Incr Delay (d2), s/veh	0.1	0.5	0.3	2.1	18.2	2.2	4.4	2.0	1.1	1.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	0.7	8.2	14.2	6.2	1.0	6.1	2.9	1.9	4.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	29.8	28.6	35.7	54.3	34.7	54.5	42.4	39.0	49.7	37.1	32.4
LnGrp LOS	C	C	C	D	D	C	D	D	D	D	D	C
Approach Vol, veh/h		249			1491			663			577	
Approach Delay, s/veh		29.5			41.6			42.4			40.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	7.8	27.8		35.0	11.0	24.6				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	11.8	28.3		30.6	12.1	28.0				
Max Q Clear Time (g_c+I1), s		6.5	4.0	12.8		27.9	6.4	15.7				
Green Ext Time (p_c), s		1.2	0.0	2.2		1.7	0.1	2.8				

Intersection Summary												
HCM 6th Ctrl Delay			40.5									
HCM 6th LOS			D									

Notes

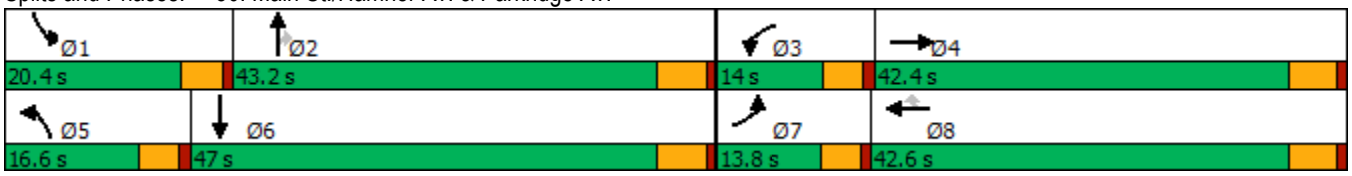
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	113	325	121	336	245	76	431	92	216	618
Future Volume (vph)	113	325	121	336	245	76	431	92	216	618
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	325	38	121	336	245	76	431	92	216	618	212
Future Volume (veh/h)	113	325	38	121	336	245	76	431	92	216	618	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	353	33	132	365	140	83	468	0	235	672	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	834	77	154	480	404	106	1232		258	2205	
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.06	0.34	0.00	0.14	0.43	0.00
Sat Flow, veh/h	1810	3324	308	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	123	190	196	132	365	140	83	468	0	235	672	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1827	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	7.4	9.8	9.9	8.0	19.7	7.9	5.0	10.9	0.0	14.2	9.5	0.0
Cycle Q Clear(g_c), s	7.4	9.8	9.9	8.0	19.7	7.9	5.0	10.9	0.0	14.2	9.5	0.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	150	453	458	154	480	404	106	1232		258	2205	
V/C Ratio(X)	0.82	0.42	0.43	0.86	0.76	0.35	0.78	0.38		0.91	0.30	
Avail Cap(c_a), veh/h	150	603	610	154	638	537	196	1232		258	2205	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	34.8	34.8	50.0	38.3	33.9	51.4	27.6	0.0	46.8	21.0	0.0
Incr Delay (d2), s/veh	27.1	0.6	0.6	34.5	3.8	0.5	4.7	0.9	0.0	32.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.3	4.4	5.0	9.4	3.1	2.4	4.7	0.0	8.6	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	35.4	35.4	84.5	42.1	34.4	56.1	28.5	0.0	79.5	21.4	0.0
LnGrp LOS	E	D	D	F	D	C	E	C		E	C	
Approach Vol, veh/h		509			637			551	A		907	A
Approach Delay, s/veh		45.5			49.2			32.7			36.4	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	43.2	14.0	33.2	11.1	52.5	13.8	33.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	16.2	12.9	10.0	11.9	7.0	11.5	9.4	21.7
Green Ext Time (p_c), s	0.0	3.0	0.0	2.1	0.0	4.7	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	405	256	1040	1	343
Future Volume (vph)	405	256	1040	1	343
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	405	464	256	1040	0	0	0	0	58	1	343
Future Volume (veh/h)	0	405	464	256	1040	0	0	0	0	58	1	343
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	422	415	267	1083	0				60	1	326
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	899	774	295	2521	0				390	7	353
Arrive On Green	0.00	0.50	0.50	0.22	0.93	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	1900	1554	1810	3705	0				1781	30	1610
Grp Volume(v), veh/h	0	422	415	267	1083	0				61	0	326
Grp Sat Flow(s),veh/h/ln	0	1805	1554	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	18.4	21.9	17.3	4.3	0.0				3.3	0.0	23.8
Cycle Q Clear(g_c), s	0.0	18.4	21.9	17.3	4.3	0.0				3.3	0.0	23.8
Prop In Lane	0.00		1.00	1.00		0.00				0.98		1.00
Lane Grp Cap(c), veh/h	0	899	774	295	2521	0				397	0	353
V/C Ratio(X)	0.00	0.47	0.54	0.91	0.43	0.00				0.15	0.00	0.92
Avail Cap(c_a), veh/h	0	899	774	445	2521	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.30	0.30	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.7	20.6	46.1	1.4	0.0				37.9	0.0	45.9
Incr Delay (d2), s/veh	0.0	0.5	0.8	10.2	0.4	0.0				0.1	0.0	19.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	7.9	8.1	1.1	0.0				1.4	0.0	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.3	21.4	56.3	1.9	0.0				37.9	0.0	65.2
LnGrp LOS	A	C	C	E	A	A				D	A	E
Approach Vol, veh/h		837			1350						387	
Approach Delay, s/veh		20.8			12.6						60.9	
Approach LOS		C			B						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.0	64.4		31.6		88.4
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	19.3	23.9		25.8		6.3
Green Ext Time (p_c), s	0.3	3.5		0.5		6.0

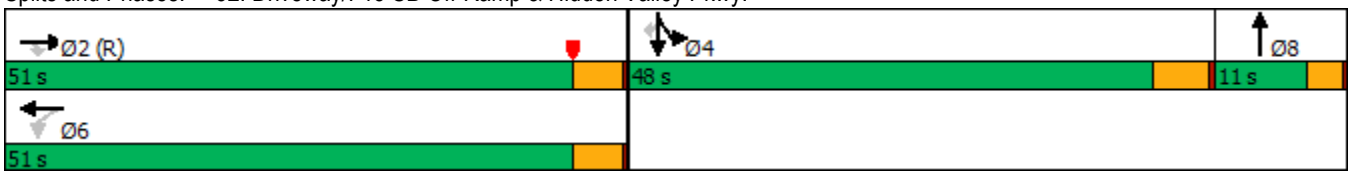
Intersection Summary		
HCM 6th Ctrl Delay		22.6
HCM 6th LOS		C

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	586	22	74	794	0	207	65	648
Future Volume (vph)	586	22	74	794	0	207	65	648
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	51.0	51.0	51.0	51.0	11.0	48.0	48.0	48.0
Total Split (%)	46.4%	46.4%	46.4%	46.4%	10.0%	43.6%	43.6%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 32: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	586	22	74	794	0	0	0	76	207	65	648
Future Volume (veh/h)	0	586	22	74	794	0	0	0	76	207	65	648
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	617	15	78	836	0	0	0	36	168	0	674
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1674	747	351	1674	0	0	0	44	707	0	1259
Arrive On Green	0.00	0.46	0.46	0.93	0.93	0.00	0.00	0.00	0.03	0.39	0.00	0.39
Sat Flow, veh/h	0	3705	1610	807	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	617	15	78	836	0	0	0	36	168	0	674
Grp Sat Flow(s),veh/h/ln	0	1805	1610	807	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	12.2	0.6	3.9	3.4	0.0	0.0	0.0	2.4	6.9	0.0	17.7
Cycle Q Clear(g_c), s	0.0	12.2	0.6	16.0	3.4	0.0	0.0	0.0	2.4	6.9	0.0	17.7
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1674	747	351	1674	0	0	0	44	707	0	1259
V/C Ratio(X)	0.00	0.37	0.02	0.22	0.50	0.00	0.00	0.00	0.83	0.24	0.00	0.54
Avail Cap(c_a), veh/h	0	1674	747	351	1674	0	0	0	110	707	0	1259
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.92	0.98	0.98	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.1	16.0	4.9	2.3	0.0	0.0	0.0	53.3	22.5	0.0	25.8
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.1	0.1	0.0	0.0	0.0	13.4	0.8	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.0	0.2	0.2	0.8	0.0	0.0	0.0	1.2	2.9	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.6	16.0	5.0	2.3	0.0	0.0	0.0	66.7	23.3	0.0	27.4
LnGrp LOS	A	B	B	A	A	A	A	A	E	C	A	C
Approach Vol, veh/h		632			914			36			842	
Approach Delay, s/veh		19.6			2.6			66.7			26.6	
Approach LOS		B			A			E			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.5		48.0		55.5		6.5				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		46.5		43.0		46.5		7.5				
Max Q Clear Time (g_c+I1), s		14.2		19.7		18.0		4.4				
Green Ext Time (p_c), s		2.7		2.4		4.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.3
HCM 6th LOS		B

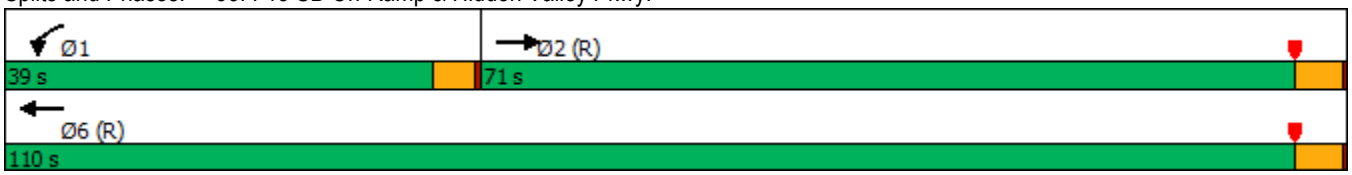
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	569	189	867
Future Volume (vph)	569	189	867
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	71.0	39.0	110.0
Total Split (%)	64.5%	35.5%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 33: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	569	300	189	867	0	0
Future Volume (veh/h)	569	300	189	867	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	618	324	205	942		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1384	725	576	3462		
Arrive On Green	0.80	0.80	0.64	1.00		
Sat Flow, veh/h	2384	1200	1810	3705		
Grp Volume(v), veh/h	487	455	205	942		
Grp Sat Flow(s),veh/h/ln	1805	1684	1810	1805		
Q Serve(g_s), s	9.1	9.1	5.9	0.0		
Cycle Q Clear(g_c), s	9.1	9.1	5.9	0.0		
Prop In Lane		0.71	1.00			
Lane Grp Cap(c), veh/h	1091	1018	576	3462		
V/C Ratio(X)	0.45	0.45	0.36	0.27		
Avail Cap(c_a), veh/h	1091	1018	576	3462		
HCM Platoon Ratio	1.33	1.33	2.00	2.00		
Upstream Filter(I)	0.95	0.95	0.85	0.85		
Uniform Delay (d), s/veh	5.2	5.2	14.7	0.0		
Incr Delay (d2), s/veh	1.3	1.3	1.5	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.8	2.6	2.3	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.4	6.5	16.2	0.2		
LnGrp LOS	A	A	B	A		
Approach Vol, veh/h	942			1147		
Approach Delay, s/veh	6.5			3.0		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	39.0	71.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	35.0	66.5				105.5
Max Q Clear Time (g_c+I1), s	7.9	11.1				2.0
Green Ext Time (p_c), s	0.6	4.1				4.6

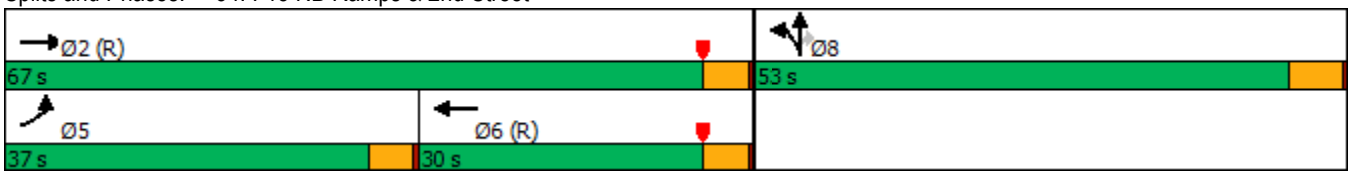
Intersection Summary	
HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	130	333	563	8	574
Future Volume (vph)	130	333	563	8	574
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	67.0	30.0	53.0	53.0
Total Split (%)	30.8%	55.8%	25.0%	44.2%	44.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Ramps & 2nd Street



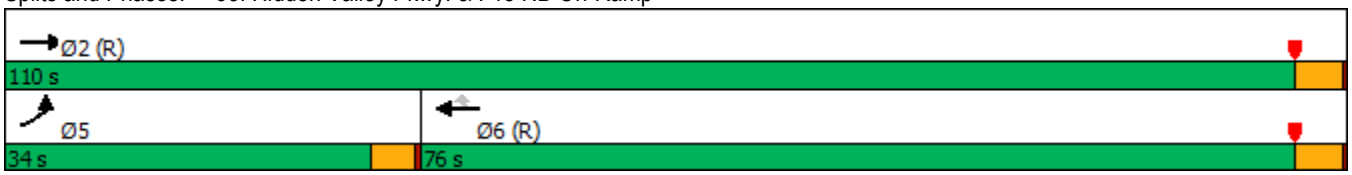
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	333	0	0	563	74	732	8	574	0	0	0
Future Volume (veh/h)	130	333	0	0	563	74	732	8	574	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	140	358	0	0	605	69	787	9	471			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	171	1877	0	0	1263	144	712	8	640			
Arrive On Green	0.03	0.17	0.00	0.00	0.39	0.39	0.40	0.40	0.40			
Sat Flow, veh/h	1810	3705	0	0	3352	371	1790	20	1610			
Grp Volume(v), veh/h	140	358	0	0	335	339	796	0	471			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1822	1810	0	1610			
Q Serve(g_s), s	9.2	10.2	0.0	0.0	16.7	16.8	47.7	0.0	29.9			
Cycle Q Clear(g_c), s	9.2	10.2	0.0	0.0	16.7	16.8	47.7	0.0	29.9			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	171	1877	0	0	700	707	720	0	640			
V/C Ratio(X)	0.82	0.19	0.00	0.00	0.48	0.48	1.11	0.00	0.74			
Avail Cap(c_a), veh/h	490	1877	0	0	700	707	720	0	640			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	57.1	28.1	0.0	0.0	27.6	27.6	36.2	0.0	30.8			
Incr Delay (d2), s/veh	6.0	0.2	0.0	0.0	2.3	2.3	66.5	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.7	4.8	0.0	0.0	7.6	7.7	33.0	0.0	11.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	28.3	0.0	0.0	29.9	30.0	102.6	0.0	35.0			
LnGrp LOS	E	C	A	A	C	C	F	A	C			
Approach Vol, veh/h		498			674			1267				
Approach Delay, s/veh		38.0			30.0			77.5				
Approach LOS		D			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		67.0			15.9	51.1		53.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		62.4			32.5	25.4		47.7				
Max Q Clear Time (g_c+I1), s		12.2			11.2	18.8		49.7				
Green Ext Time (p_c), s		1.6			0.2	1.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			56.3									
HCM 6th LOS			E									

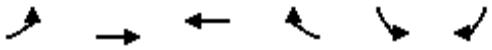
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	167	401	1056	497
Future Volume (vph)	167	401	1056	497
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	34.0	110.0	76.0	76.0
Total Split (%)	30.9%	100.0%	69.1%	69.1%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 35: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	167	401	1056	497	0	0
Future Volume (veh/h)	167	401	1056	497	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	188	451	1187	534		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	494	3462	2346	1024		
Arrive On Green	0.55	1.00	0.65	0.65		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	188	451	1187	534		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	6.6	0.0	18.9	19.7		
Cycle Q Clear(g_c), s	6.6	0.0	18.9	19.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	494	3462	2347	1024		
V/C Ratio(X)	0.38	0.13	0.51	0.52		
Avail Cap(c_a), veh/h	494	3462	2347	1024		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.90	0.90	0.63	0.63		
Uniform Delay (d), s/veh	19.7	0.0	10.0	10.2		
Incr Delay (d2), s/veh	2.0	0.1	0.5	1.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	0.0	6.6	6.3		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.7	0.1	10.5	11.4		
LnGrp LOS	C	A	B	B		
Approach Vol, veh/h		639	1721			
Approach Delay, s/veh		6.4	10.8			
Approach LOS		A	B			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		110.0			34.0	76.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		105.5			30.0	71.5
Max Q Clear Time (g_c+I1), s		2.0			8.6	21.7
Green Ext Time (p_c), s		1.9			0.2	8.0

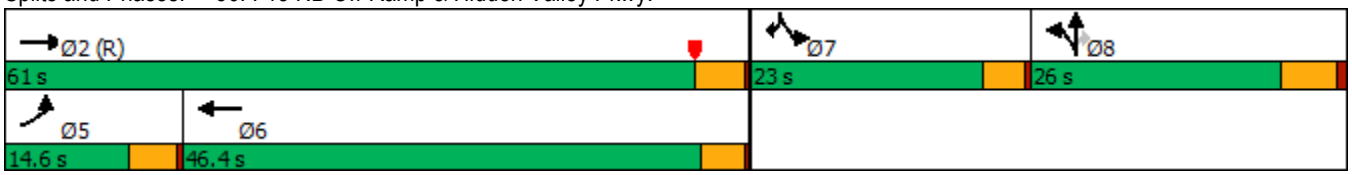
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			

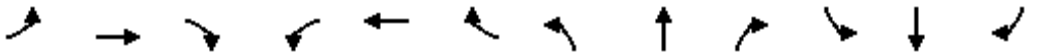
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	69	333	948	442	77	151	34	163
Future Volume (vph)	69	333	948	442	77	151	34	163
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	61.0	46.4	26.0	26.0	26.0	23.0	23.0
Total Split (%)	13.3%	55.5%	42.2%	23.6%	23.6%	23.6%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 36: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	333	0	0	948	30	442	77	151	34	0	163
Future Volume (veh/h)	69	333	0	0	948	30	442	77	151	34	0	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	75	362	0	0	1030	30	480	84	59	37	0	161
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	2609	0	0	2149	63	654	354	300	0	0	0
Arrive On Green	0.03	0.24	0.00	0.00	0.60	0.60	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3677	104	3510	1900	1610		0	
Grp Volume(v), veh/h	75	362	0	0	519	541	480	84	59		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1881	1755	1900	1610			
Q Serve(g_s), s	4.5	8.7	0.0	0.0	17.8	17.8	14.2	4.1	3.4			
Cycle Q Clear(g_c), s	4.5	8.7	0.0	0.0	17.8	17.8	14.2	4.1	3.4			
Prop In Lane	1.00		0.00	0.00		0.06	1.00		1.00			
Lane Grp Cap(c), veh/h	148	2609	0	0	1083	1129	654	354	300			
V/C Ratio(X)	0.51	0.14	0.00	0.00	0.48	0.48	0.73	0.24	0.20			
Avail Cap(c_a), veh/h	166	2609	0	0	1083	1129	654	354	300			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.3	14.9	0.0	0.0	12.3	12.3	42.2	38.1	37.8			
Incr Delay (d2), s/veh	2.0	0.1	0.0	0.0	1.5	1.5	7.2	1.6	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	3.6	0.0	0.0	6.8	7.0	6.6	2.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	15.0	0.0	0.0	13.9	13.8	49.3	39.7	39.3			
LnGrp LOS	D	B	A	A	B	B	D	D	D			
Approach Vol, veh/h		437			1060			623				
Approach Delay, s/veh		21.6			13.8			47.1				
Approach LOS		C			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			13.5	70.5		26.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.5			10.1	* 42		20.5				
Max Q Clear Time (g_c+I1), s		10.7			6.5	19.8		16.2				
Green Ext Time (p_c), s		1.5			0.0	4.0		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

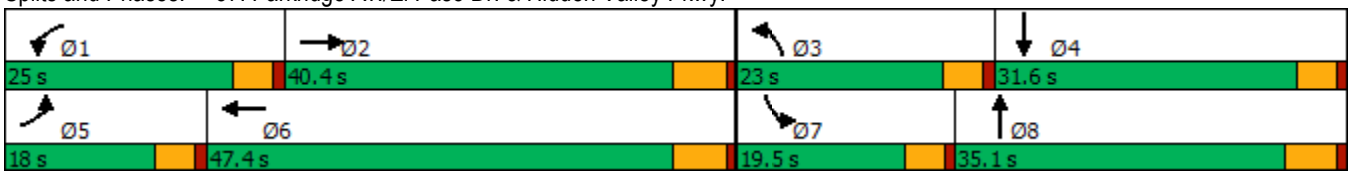
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	100	281	147	705	157	171	93	145
Future Volume (vph)	100	281	147	705	157	171	93	145
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	40.4	25.0	47.4	23.0	35.1	19.5	31.6
Total Split (%)	15.0%	33.7%	20.8%	39.5%	19.2%	29.3%	16.3%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	281	60	147	705	135	157	171	186	93	145	53
Future Volume (veh/h)	100	281	60	147	705	135	157	171	186	93	145	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	119	335	42	175	839	105	187	204	157	111	173	46
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	901	112	209	1008	126	221	629	458	140	773	200
Arrive On Green	0.08	0.28	0.28	0.12	0.31	0.31	0.12	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	1810	3231	402	1810	3228	404	1810	1979	1440	1810	2829	730
Grp Volume(v), veh/h	119	186	191	175	469	475	187	185	176	111	108	111
Grp Sat Flow(s),veh/h/ln	1810	1805	1828	1810	1805	1827	1810	1805	1614	1810	1805	1755
Q Serve(g_s), s	6.4	8.2	8.3	9.4	23.9	23.9	10.0	7.7	8.2	6.0	4.6	4.8
Cycle Q Clear(g_c), s	6.4	8.2	8.3	9.4	23.9	23.9	10.0	7.7	8.2	6.0	4.6	4.8
Prop In Lane	1.00		0.22	1.00		0.22	1.00		0.89	1.00		0.42
Lane Grp Cap(c), veh/h	149	503	510	209	563	570	221	574	513	140	493	479
V/C Ratio(X)	0.80	0.37	0.37	0.84	0.83	0.83	0.85	0.32	0.34	0.79	0.22	0.23
Avail Cap(c_a), veh/h	245	632	640	374	760	769	337	574	513	273	493	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	28.6	28.7	42.8	31.6	31.6	42.5	25.6	25.8	44.8	27.8	27.9
Incr Delay (d2), s/veh	3.7	0.5	0.5	3.4	5.9	5.8	7.4	1.5	1.8	3.8	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.4	3.5	4.2	10.6	10.7	4.7	3.4	3.3	2.8	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	29.1	29.1	46.2	37.5	37.4	49.9	27.1	27.6	48.6	28.8	29.0
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		496			1119			548			330	
Approach Delay, s/veh		33.7			38.8			35.0			35.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	33.4	16.7	32.8	12.7	36.6	12.2	37.2
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	34.6	18.4	* 27	13.4	41.6	14.9	29.3
Max Q Clear Time (g_c+I1), s	11.4	10.3	12.0	6.8	8.4	25.9	8.0	10.2
Green Ext Time (p_c), s	0.1	1.9	0.1	1.2	0.1	5.0	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

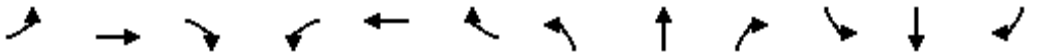
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	340	126	99	27	108	41	222	718	80	909	270
Future Volume (vph)	340	126	99	27	108	41	222	718	80	909	270
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	126	99	27	108	41	222	718	58	80	909	270
Future Volume (veh/h)	340	126	99	27	108	41	222	718	58	80	909	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	127	59	27	109	25	224	725	48	81	918	176
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	327	502	47	184	156	253	1885	125	104	1686	898
Arrive On Green	0.10	0.17	0.17	0.03	0.10	0.10	0.14	0.55	0.55	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3431	227	1810	3610	1575
Grp Volume(v), veh/h	343	127	59	27	109	25	224	381	392	81	918	176
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1853	1810	1805	1575
Q Serve(g_s), s	10.0	6.1	2.7	1.5	5.7	1.5	12.5	12.4	12.4	4.5	18.7	5.6
Cycle Q Clear(g_c), s	10.0	6.1	2.7	1.5	5.7	1.5	12.5	12.4	12.4	4.5	18.7	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	354	327	502	47	184	156	253	991	1018	104	1686	898
V/C Ratio(X)	0.97	0.39	0.12	0.57	0.59	0.16	0.89	0.38	0.38	0.78	0.54	0.20
Avail Cap(c_a), veh/h	354	533	677	149	498	422	253	991	1018	206	1686	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	37.8	25.3	49.6	44.5	42.6	43.5	13.3	13.3	47.9	19.6	10.8
Incr Delay (d2), s/veh	38.9	0.8	0.1	4.0	3.0	0.5	28.1	1.1	1.1	4.6	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.9	1.0	0.7	2.8	0.6	7.4	4.8	5.0	2.1	7.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.0	38.6	25.4	53.6	47.5	43.1	71.6	14.4	14.4	52.5	20.9	11.3
LnGrp LOS	F	D	C	D	D	D	E	B	B	D	C	B
Approach Vol, veh/h		529			161			997			1175	
Approach Delay, s/veh		67.2			47.9			27.2			21.6	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	62.4	7.3	22.8	19.0	53.9	15.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.5	14.4	3.5	8.1	14.5	20.7	12.0	7.7
Green Ext Time (p_c), s	0.0	4.8	0.0	0.8	0.0	7.2	0.0	0.5

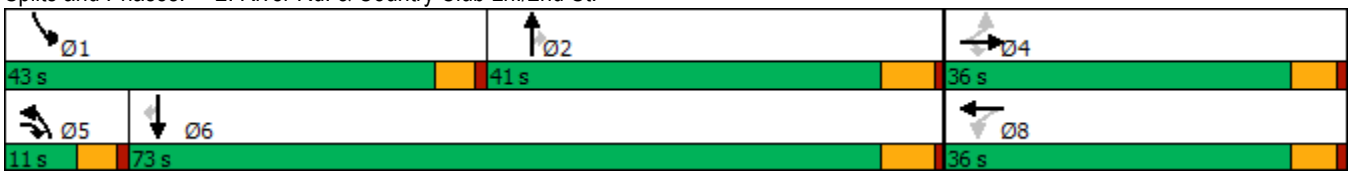
Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	23	58	40	65	81	36	651	75	284	723	35
Future Volume (vph)	23	58	40	65	81	36	651	75	284	723	35
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	58	40	65	81	253	36	651	75	284	723	35
Future Volume (veh/h)	23	58	40	65	81	253	36	651	75	284	723	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	61	17	68	85	177	38	685	47	299	761	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	383	375	302	109	226	57	1701	758	332	2249	983
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.03	0.47	0.47	0.18	0.62	0.62
Sat Flow, veh/h	1128	1900	1608	1340	538	1121	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	24	61	17	68	0	262	38	685	47	299	761	32
Grp Sat Flow(s),veh/h/ln	1128	1900	1608	1340	0	1659	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	2.2	2.9	0.9	4.8	0.0	16.1	2.2	13.4	1.7	17.4	10.9	0.8
Cycle Q Clear(g_c), s	18.4	2.9	0.9	7.6	0.0	16.1	2.2	13.4	1.7	17.4	10.9	0.8
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	383	375	302	0	335	57	1701	758	332	2249	983
V/C Ratio(X)	0.19	0.16	0.05	0.23	0.00	0.78	0.67	0.40	0.06	0.90	0.34	0.03
Avail Cap(c_a), veh/h	221	544	511	415	0	475	107	1701	758	644	2249	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	35.5	32.0	38.6	0.0	40.8	51.7	18.6	15.5	43.1	9.7	7.8
Incr Delay (d2), s/veh	0.7	0.2	0.0	0.4	0.0	5.4	4.9	0.7	0.2	3.6	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.3	0.3	1.6	0.0	7.0	1.1	5.4	0.6	7.8	3.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	35.7	32.1	39.0	0.0	46.3	56.6	19.3	15.7	46.7	10.1	7.9
LnGrp LOS	D	D	C	D	A	D	E	B	B	D	B	A
Approach Vol, veh/h		102			330			770			1092	
Approach Delay, s/veh		38.5			44.8			20.9			20.1	
Approach LOS		D			D			C			C	

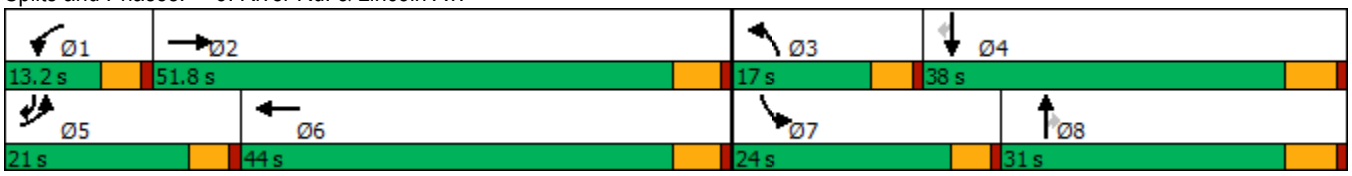
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.4	56.6		26.9	8.0	73.0		26.9				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	19.4	15.4		20.4	4.2	12.9		18.1				
Green Ext Time (p_c), s	0.4	4.3		0.2	0.0	5.7		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	269	617	35	324	59	408	40	138	418	241
Future Volume (vph)	269	617	35	324	59	408	40	138	418	241
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 102.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	617	105	35	324	140	59	408	40	138	418	241
Future Volume (veh/h)	269	617	105	35	324	140	59	408	40	138	418	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	643	82	36	338	101	61	425	23	144	435	152
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	359	1582	201	59	1161	342	79	582	256	177	779	504
Arrive On Green	0.10	0.49	0.49	0.03	0.42	0.42	0.04	0.16	0.16	0.10	0.22	0.22
Sat Flow, veh/h	3510	3215	409	1810	2750	809	1810	3610	1586	1810	3610	1572
Grp Volume(v), veh/h	280	361	364	36	220	219	61	425	23	144	435	152
Grp Sat Flow(s),veh/h/ln	1755	1805	1820	1810	1805	1754	1810	1805	1586	1810	1805	1572
Q Serve(g_s), s	7.3	12.0	12.0	1.9	7.6	7.8	3.1	10.6	1.2	7.4	10.1	6.9
Cycle Q Clear(g_c), s	7.3	12.0	12.0	1.9	7.6	7.8	3.1	10.6	1.2	7.4	10.1	6.9
Prop In Lane	1.00		0.22	1.00		0.46	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	359	888	895	59	762	741	79	582	256	177	779	504
V/C Ratio(X)	0.78	0.41	0.41	0.61	0.29	0.30	0.77	0.73	0.09	0.81	0.56	0.30
Avail Cap(c_a), veh/h	610	888	895	165	762	741	238	964	424	372	1232	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	15.2	15.2	45.1	17.9	18.0	44.6	37.6	33.7	41.7	33.0	24.3
Incr Delay (d2), s/veh	1.4	1.4	1.4	3.8	1.0	1.0	5.8	1.8	0.2	3.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.8	4.9	0.9	3.2	3.2	1.5	4.6	0.4	3.3	4.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	16.6	16.6	48.9	18.9	19.0	50.4	39.4	33.8	45.0	33.6	24.6
LnGrp LOS	D	B	B	D	B	B	D	D	C	D	C	C
Approach Vol, veh/h		1005			475			509			731	
Approach Delay, s/veh		23.9			21.2			40.4			34.0	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	51.8	8.7	26.1	14.2	45.2	13.9	21.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	3.9	14.0	5.1	12.1	9.3	9.8	9.4	12.6
Green Ext Time (p_c), s	0.0	4.6	0.0	3.0	0.3	2.5	0.1	2.1

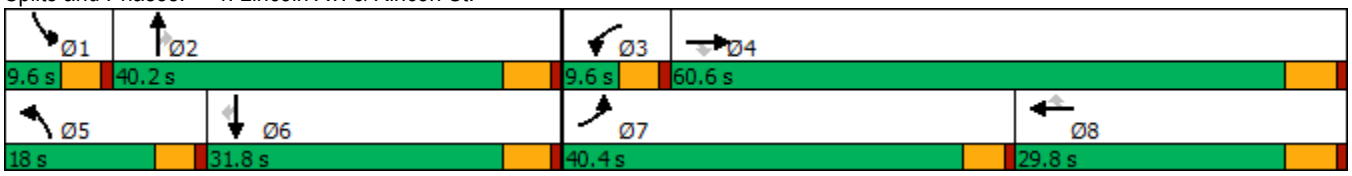
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	342	2	168	7	11	100	728	2	2	524	84
Future Volume (vph)	342	2	168	7	11	100	728	2	2	524	84
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 80.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	2	168	7	0	11	100	728	2	2	524	84
Future Volume (veh/h)	342	2	168	7	0	11	100	728	2	2	524	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	356	2	89	7	0	4	104	758	1	2	546	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	399	610	517	16	208	176	134	1519	677	5	1262	563
Arrive On Green	0.22	0.32	0.32	0.01	0.00	0.11	0.07	0.42	0.42	0.00	0.35	0.35
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	356	2	89	7	0	4	104	758	1	2	546	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	15.8	0.1	3.3	0.3	0.0	0.2	4.7	12.7	0.0	0.1	9.6	2.4
Cycle Q Clear(g_c), s	15.8	0.1	3.3	0.3	0.0	0.2	4.7	12.7	0.0	0.1	9.6	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	610	517	16	208	176	134	1519	677	5	1262	563
V/C Ratio(X)	0.89	0.00	0.17	0.43	0.00	0.02	0.78	0.50	0.00	0.41	0.43	0.12
Avail Cap(c_a), veh/h	783	1259	1067	109	551	467	293	1519	677	109	1262	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	19.1	20.2	40.8	0.0	32.9	37.6	17.6	13.9	41.2	20.6	18.3
Incr Delay (d2), s/veh	2.8	0.0	0.2	6.6	0.0	0.1	3.7	1.2	0.0	18.9	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	1.2	0.2	0.0	0.1	2.1	5.0	0.0	0.1	3.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	19.1	20.3	47.3	0.0	32.9	41.3	18.7	13.9	60.0	21.7	18.7
LnGrp LOS	C	B	C	D	A	C	D	B	B	E	C	B
Approach Vol, veh/h		447			11			863			616	
Approach Delay, s/veh		31.3			42.1			21.4			21.5	
Approach LOS		C			D			C			C	

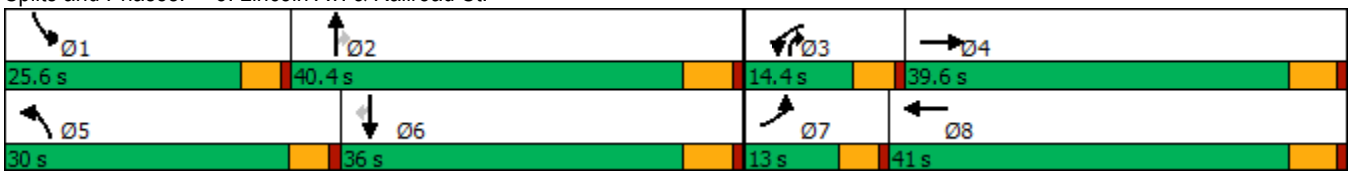
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	40.2	5.3	32.3	10.7	34.3	22.8	14.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.1	14.7	2.3	5.3	6.7	11.6	17.8	2.2
Green Ext Time (p_c), s	0.0	4.9	0.0	0.3	0.1	3.2	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	126	453	87	82	86	599	78	111	558	30
Future Volume (vph)	126	453	87	82	86	599	78	111	558	30
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 100.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	453	182	87	82	104	86	599	78	111	558	30
Future Volume (veh/h)	126	453	182	87	82	104	86	599	78	111	558	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	487	156	94	88	72	92	644	51	119	600	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	626	199	121	410	305	119	1416	737	151	1479	658
Arrive On Green	0.09	0.23	0.23	0.07	0.21	0.21	0.07	0.39	0.39	0.08	0.41	0.41
Sat Flow, veh/h	1810	2683	853	1810	1971	1468	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	135	327	316	94	80	80	92	644	51	119	600	32
Grp Sat Flow(s),veh/h/ln	1810	1805	1731	1810	1805	1633	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	6.5	15.1	15.3	4.6	3.3	3.6	4.5	11.8	1.6	5.8	10.5	1.1
Cycle Q Clear(g_c), s	6.5	15.1	15.3	4.6	3.3	3.6	4.5	11.8	1.6	5.8	10.5	1.1
Prop In Lane	1.00		0.49	1.00		0.90	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	421	404	121	375	340	119	1416	737	151	1479	658
V/C Ratio(X)	0.81	0.77	0.78	0.78	0.21	0.24	0.77	0.45	0.07	0.79	0.41	0.05
Avail Cap(c_a), veh/h	170	692	663	199	720	652	515	1416	737	426	1479	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	32.0	32.1	41.0	29.3	29.4	41.0	20.1	13.5	40.1	18.6	15.9
Incr Delay (d2), s/veh	22.4	3.1	3.4	4.1	0.3	0.4	3.9	1.1	0.2	3.4	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	6.6	6.4	2.1	1.4	1.4	2.0	4.8	0.6	2.6	4.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	35.1	35.4	45.1	29.6	29.8	44.9	21.1	13.7	43.5	19.5	16.0
LnGrp LOS	E	D	D	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		778			254			787			751	
Approach Delay, s/veh		39.9			35.4			23.4			23.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	40.4	10.5	26.2	10.5	42.0	12.8	24.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	7.8	13.8	6.6	17.3	6.5	12.5	8.5	5.6
Green Ext Time (p_c), s	0.1	4.3	0.0	3.5	0.1	3.7	0.0	0.8

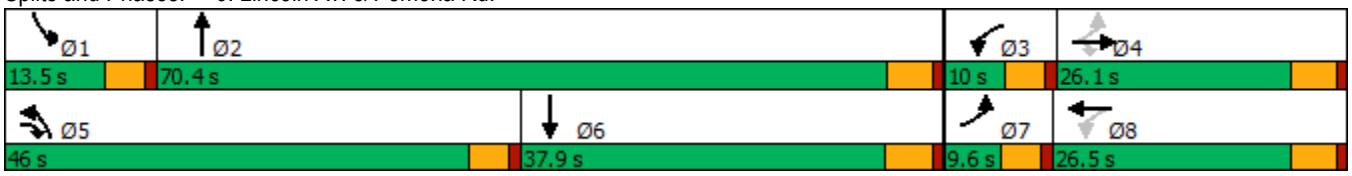
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

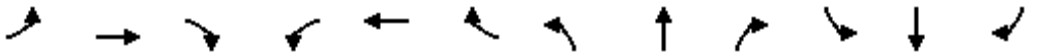
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	68	33	195	130	21	82	711	47	811
Future Volume (vph)	68	33	195	130	21	82	711	47	811
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	33	195	130	21	22	82	711	87	47	811	35
Future Volume (veh/h)	68	33	195	130	21	22	82	711	87	47	811	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	34	146	135	22	18	85	741	77	49	845	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	283	209	271	274	110	90	110	2031	211	65	2092	87
Arrive On Green	0.05	0.11	0.11	0.05	0.11	0.11	0.06	0.62	0.62	0.04	0.59	0.59
Sat Flow, veh/h	1810	1900	1579	1810	967	791	1810	3292	342	1810	3532	146
Grp Volume(v), veh/h	71	34	146	135	0	40	85	406	412	49	432	448
Grp Sat Flow(s),veh/h/ln	1810	1900	1579	1810	0	1758	1810	1805	1829	1810	1805	1873
Q Serve(g_s), s	3.6	1.7	8.9	5.4	0.0	2.2	4.9	11.8	11.8	2.8	13.6	13.6
Cycle Q Clear(g_c), s	3.6	1.7	8.9	5.4	0.0	2.2	4.9	11.8	11.8	2.8	13.6	13.6
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.19	1.00		0.08
Lane Grp Cap(c), veh/h	283	209	271	274	0	201	110	1114	1128	65	1069	1109
V/C Ratio(X)	0.25	0.16	0.54	0.49	0.00	0.20	0.77	0.36	0.37	0.75	0.40	0.40
Avail Cap(c_a), veh/h	283	377	411	274	0	355	708	1114	1128	152	1069	1109
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	42.7	40.1	40.8	0.0	42.5	49.0	10.0	10.0	50.5	11.6	11.6
Incr Delay (d2), s/veh	0.2	0.4	1.7	0.5	0.0	0.5	4.3	0.9	0.9	6.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.8	3.5	3.3	0.0	1.0	2.3	4.6	4.6	1.4	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	43.1	41.8	41.3	0.0	43.0	53.3	10.9	10.9	56.9	12.7	12.7
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	B	B
Approach Vol, veh/h		251			175			903			929	
Approach Delay, s/veh		41.3			41.7			14.9			15.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	70.7	10.0	16.7	11.0	68.1	9.5	17.2
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	4.8	13.8	7.4	10.9	6.9	15.6	5.6	4.2
Green Ext Time (p_c), s	0.0	5.9	0.0	0.4	0.1	4.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

Notes

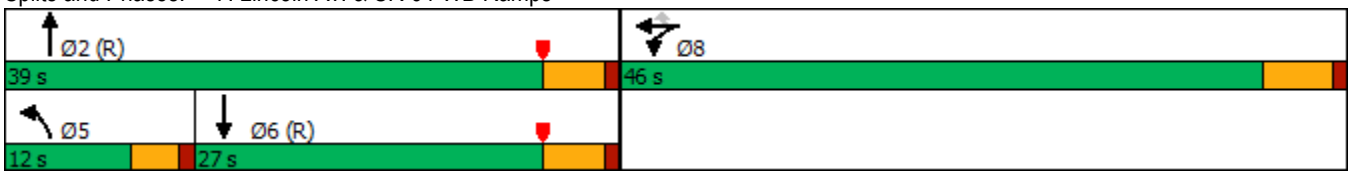
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

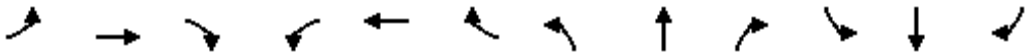
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	607	2	271	224	610	841
Future Volume (vph)	607	2	271	224	610	841
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	46.0	46.0	46.0	12.0	39.0	27.0
Total Split (%)	54.1%	54.1%	54.1%	14.1%	45.9%	31.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	607	2	271	224	610	0	0	841	316
Future Volume (veh/h)	0	0	0	607	2	271	224	610	0	0	841	316
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				620	0	157	229	622	0	0	858	322
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				742	0	330	309	2424	0	0	1377	515
Arrive On Green				0.21	0.00	0.21	0.03	0.22	0.00	0.00	0.54	0.54
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2663	961
Grp Volume(v), veh/h				620	0	157	229	622	0	0	602	578
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1723
Q Serve(g_s), s				14.0	0.0	7.3	5.5	12.1	0.0	0.0	19.8	19.9
Cycle Q Clear(g_c), s				14.0	0.0	7.3	5.5	12.1	0.0	0.0	19.8	19.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				742	0	330	309	2424	0	0	968	924
V/C Ratio(X)				0.84	0.00	0.48	0.74	0.26	0.00	0.00	0.62	0.63
Avail Cap(c_a), veh/h				1724	0	767	330	2424	0	0	968	924
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.89	0.89	0.00	0.00	0.87	0.87
Uniform Delay (d), s/veh				32.4	0.0	29.8	40.3	15.6	0.0	0.0	13.7	13.8
Incr Delay (d2), s/veh				1.0	0.0	0.4	6.1	0.2	0.0	0.0	2.6	2.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	2.8	2.7	5.8	0.0	0.0	7.8	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.4	0.0	30.2	46.4	15.8	0.0	0.0	16.4	16.5
LnGrp LOS				C	A	C	D	B	A	A	B	B
Approach Vol, veh/h					777			851			1180	
Approach Delay, s/veh					32.7			24.0			16.4	
Approach LOS					C			C			B	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	62.1		11.5	50.6		22.9				
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5				
Max Green Setting (Gmax), s	34.0		8.0	22.0		40.5				
Max Q Clear Time (g_c+I1), s	14.1		7.5	21.9		16.0				
Green Ext Time (p_c), s	2.7		0.0	0.1		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

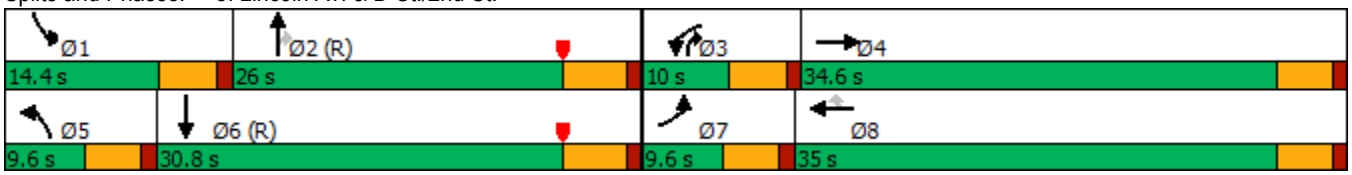
User approved volume balancing among the lanes for turning movement.

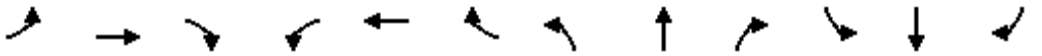
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	63	158	190	53	325	67	447	299	356	940
Future Volume (vph)	63	158	190	53	325	67	447	299	356	940
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	158	36	190	53	325	67	447	299	356	940	127
Future Volume (veh/h)	63	158	36	190	53	325	67	447	299	356	940	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	163	31	196	55	161	69	461	145	367	969	126
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	253	48	223	344	291	89	1569	797	405	1607	209
Arrive On Green	0.05	0.16	0.16	0.06	0.18	0.18	0.05	0.43	0.43	0.04	0.17	0.17
Sat Flow, veh/h	1810	1542	293	3510	1900	1605	1810	3610	1599	3510	3209	417
Grp Volume(v), veh/h	65	0	194	196	55	161	69	461	145	367	545	550
Grp Sat Flow(s),veh/h/ln	1810	0	1835	1755	1900	1605	1810	1805	1599	1755	1805	1821
Q Serve(g_s), s	3.0	0.0	8.4	4.7	2.1	7.8	3.2	7.0	4.3	8.9	23.8	23.8
Cycle Q Clear(g_c), s	3.0	0.0	8.4	4.7	2.1	7.8	3.2	7.0	4.3	8.9	23.8	23.8
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	84	0	301	223	344	291	89	1569	797	405	904	912
V/C Ratio(X)	0.78	0.00	0.64	0.88	0.16	0.55	0.77	0.29	0.18	0.91	0.60	0.60
Avail Cap(c_a), veh/h	106	0	648	223	680	574	106	1569	797	405	904	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	40.1	0.0	33.2	39.5	29.3	31.7	39.9	15.6	11.8	40.4	27.6	27.6
Incr Delay (d2), s/veh	17.9	0.0	2.3	28.4	0.2	1.6	20.4	0.5	0.5	15.9	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	3.9	2.9	1.0	3.1	1.9	2.8	1.6	4.9	11.8	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	35.5	67.9	29.5	33.2	60.4	16.0	12.3	56.3	29.5	29.5
LnGrp LOS	E	A	D	E	C	C	E	B	B	E	C	C
Approach Vol, veh/h		259			412			675			1462	
Approach Delay, s/veh		41.1			49.2			19.8			36.2	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	42.1	10.0	18.5	8.8	47.7	8.5	20.0
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	10.9	9.0	6.7	10.4	5.2	25.8	5.0	9.8
Green Ext Time (p_c), s	0.0	2.7	0.0	1.1	0.0	0.0	0.0	0.8

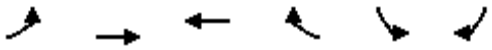
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	689	131	111	257	456
Future Volume (vph)	689	131	111	257	456
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	44.0	63.0	19.0	22.0	22.0
Total Split (%)	51.8%	74.1%	22.4%	25.9%	25.9%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	689	131	111	75	257	456
Future Volume (veh/h)	689	131	111	75	257	456
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	718	136	116	39	296	149
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	845	1305	1052	340	711	316
Arrive On Green	0.40	1.00	0.39	0.39	0.20	0.20
Sat Flow, veh/h	3510	1900	2777	867	3619	1610
Grp Volume(v), veh/h	718	136	77	78	296	149
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1744	1810	1610
Q Serve(g_s), s	15.8	0.0	2.3	2.4	6.1	7.0
Cycle Q Clear(g_c), s	15.8	0.0	2.3	2.4	6.1	7.0
Prop In Lane	1.00			0.50	1.00	1.00
Lane Grp Cap(c), veh/h	845	1305	708	684	711	316
V/C Ratio(X)	0.85	0.10	0.11	0.11	0.42	0.47
Avail Cap(c_a), veh/h	1627	1305	708	684	711	316
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	16.4	16.4	29.9	30.2
Incr Delay (d2), s/veh	2.1	0.1	0.3	0.3	1.8	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	1.0	1.0	2.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	0.1	16.7	16.8	31.7	35.2
LnGrp LOS	C	A	B	B	C	D
Approach Vol, veh/h		854	155		445	
Approach Delay, s/veh		21.9	16.7		32.9	
Approach LOS		C	B		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		22.0	25.1	37.9
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		58.4		16.7	39.4	14.4
Max Q Clear Time (g_c+I1), s		2.0		9.0	17.8	4.4
Green Ext Time (p_c), s		0.5		0.6	2.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	366	408	110	48	21
Future Vol, veh/h	7	366	408	110	48	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	381	425	115	50	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	540	0	-	0	878	483
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	395	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1039	-	-	-	321	588
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	685	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1039	-	-	-	318	588
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1039	-	-	-	370
HCM Lane V/C Ratio	0.007	-	-	-	0.194
HCM Control Delay (s)	8.5	0	-	-	17.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	338	75	5	354	164	3
Future Vol, veh/h	338	75	5	354	164	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	352	78	5	369	171	3
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.1	13.3	11.5
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	98%	0%	1%
Vol Thru, %	0%	82%	99%
Vol Right, %	2%	18%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	167	413	359
LT Vol	164	0	5
Through Vol	0	338	354
RT Vol	3	75	0
Lane Flow Rate	174	430	374
Geometry Grp	1	1	1
Degree of Util (X)	0.29	0.568	0.521
Departure Headway (Hd)	5.996	4.86	5.018
Convergence, Y/N	Yes	Yes	Yes
Cap	602	749	722
Service Time	4.013	2.86	3.018
HCM Lane V/C Ratio	0.289	0.574	0.518
HCM Control Delay	11.5	14.1	13.3
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.2	3.6	3

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	384	6	13	388	21	3	0	9	27	1	2
Future Vol, veh/h	3	384	6	13	388	21	3	0	9	27	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	404	6	14	408	22	3	0	9	28	1	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	13.7	13.4	8.7	9.4
HCM LOS	B	B	A	A

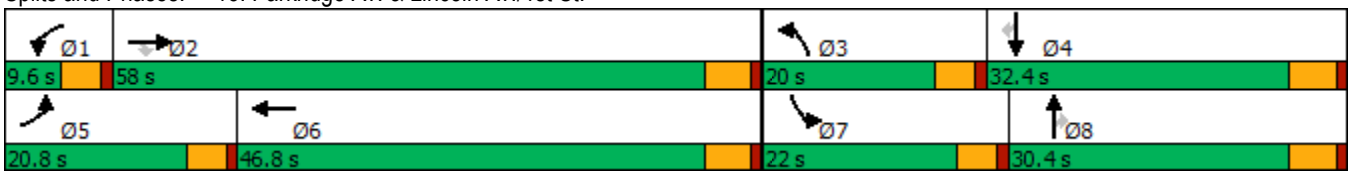
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	25%	1%	0%	3%	90%
Vol Thru, %	0%	99%	0%	92%	3%
Vol Right, %	75%	0%	100%	5%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	387	6	422	30
LT Vol	3	3	0	13	27
Through Vol	0	384	0	388	1
RT Vol	9	0	6	21	2
Lane Flow Rate	13	407	6	444	32
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.019	0.56	0.007	0.564	0.052
Departure Headway (Hd)	5.481	4.947	4.239	4.569	5.98
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	648	729	844	791	596
Service Time	3.555	2.676	1.968	2.596	4.05
HCM Lane V/C Ratio	0.02	0.558	0.007	0.561	0.054
HCM Control Delay	8.7	13.8	7	13.4	9.4
HCM Lane LOS	A	B	A	B	A
HCM 95th-tile Q	0.1	3.5	0	3.6	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	638	111	7	436	79	113	39	43	59	24
Future Volume (vph)	30	638	111	7	436	79	113	39	43	59	24
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 91.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	638	111	7	436	110	79	113	39	43	59	24
Future Volume (veh/h)	30	638	111	7	436	110	79	113	39	43	59	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	701	91	8	479	103	87	124	27	47	65	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	793	671	18	1172	251	112	607	514	69	561	475
Arrive On Green	0.03	0.42	0.42	0.01	0.40	0.40	0.06	0.32	0.32	0.04	0.30	0.30
Sat Flow, veh/h	1810	1900	1608	1810	2959	632	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	33	701	91	8	291	291	87	124	27	47	65	4
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1786	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.6	31.2	3.2	0.4	10.6	10.7	4.3	4.3	1.1	2.3	2.3	0.2
Cycle Q Clear(g_c), s	1.6	31.2	3.2	0.4	10.6	10.7	4.3	4.3	1.1	2.3	2.3	0.2
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	793	671	18	715	708	112	607	514	69	561	475
V/C Ratio(X)	0.59	0.88	0.14	0.44	0.41	0.41	0.77	0.20	0.05	0.68	0.12	0.01
Avail Cap(c_a), veh/h	321	1099	930	99	823	814	305	607	514	344	561	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	24.6	16.5	45.0	19.9	19.9	42.3	22.7	21.6	43.4	23.5	22.8
Incr Delay (d2), s/veh	3.6	6.7	0.1	6.1	0.4	0.4	4.2	0.8	0.2	4.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	14.5	1.1	0.2	4.3	4.3	2.0	2.0	0.4	1.1	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	31.3	16.6	51.1	20.3	20.3	46.5	23.4	21.7	47.8	23.9	22.8
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		825			590			238			116	
Approach Delay, s/veh		30.3			20.7			31.7			33.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	43.3	10.3	32.4	7.4	41.3	8.1	34.6
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	2.4	33.2	6.3	4.3	3.6	12.7	4.3	6.3
Green Ext Time (p_c), s	0.0	5.0	0.1	0.2	0.0	3.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	377	33	78	382	16	30	9	112	16	7	3
Future Vol, veh/h	6	377	33	78	382	16	30	9	112	16	7	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	419	37	87	424	18	33	10	124	18	8	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.2	22.9	11.4	10.4
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	1%	16%	62%
Vol Thru, %	6%	91%	80%	27%
Vol Right, %	74%	8%	3%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	416	476	26
LT Vol	30	6	78	16
Through Vol	9	377	382	7
RT Vol	112	33	16	3
Lane Flow Rate	168	462	529	29
Geometry Grp	1	1	1	1
Degree of Util (X)	0.279	0.669	0.761	0.055
Departure Headway (Hd)	5.978	5.209	5.178	6.861
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	599	693	698	519
Service Time	4.043	3.254	3.221	4.949
HCM Lane V/C Ratio	0.28	0.667	0.758	0.056
HCM Control Delay	11.4	18.2	22.9	10.4
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	1.1	5.1	7.1	0.2

Intersection	
Intersection Delay, s/veh	23.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	385	236	4	261	21	233	30	8	11	48	59
Future Vol, veh/h	100	385	236	4	261	21	233	30	8	11	48	59
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	104	401	246	4	272	22	243	31	8	11	50	61
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	26	21.3	23.1	14.2
HCM LOS	D	C	C	B

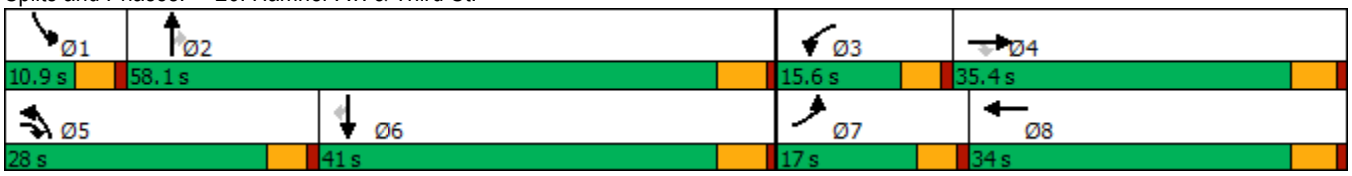
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	89%	0%	34%	0%	1%	9%
Vol Thru, %	11%	0%	66%	45%	91%	41%
Vol Right, %	0%	100%	0%	55%	7%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	8	293	429	286	118
LT Vol	233	0	100	0	4	11
Through Vol	30	0	193	193	261	48
RT Vol	0	8	0	236	21	59
Lane Flow Rate	274	8	305	446	298	123
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.621	0.016	0.595	0.801	0.609	0.275
Departure Headway (Hd)	8.163	6.988	7.03	6.461	7.354	8.059
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	512	512	558	492	445
Service Time	5.915	4.739	4.781	4.211	5.407	6.129
HCM Lane V/C Ratio	0.621	0.016	0.596	0.799	0.606	0.276
HCM Control Delay	23.5	9.9	19.6	30.4	21.3	14.2
HCM Lane LOS	C	A	C	D	C	B
HCM 95th-tile Q	4.1	0	3.8	7.7	4	1.1

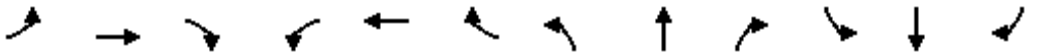
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	75	453	48	113	390	834	60	48	972	204
Future Volume (vph)	151	75	453	48	113	390	834	60	48	972	204
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	75	453	48	113	57	390	834	60	48	972	204
Future Volume (veh/h)	151	75	453	48	113	57	390	834	60	48	972	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	91	334	59	138	52	476	1017	60	59	1185	178
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	215	400	592	77	176	66	554	1853	825	76	1435	639
Arrive On Green	0.12	0.21	0.21	0.04	0.13	0.13	0.16	0.51	0.51	0.04	0.40	0.40
Sat Flow, veh/h	1810	1900	1608	1810	1309	493	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	184	91	334	59	0	190	476	1017	60	59	1185	178
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	10.2	4.1	17.0	3.3	0.0	10.5	13.6	19.6	1.9	3.3	30.2	7.7
Cycle Q Clear(g_c), s	10.2	4.1	17.0	3.3	0.0	10.5	13.6	19.6	1.9	3.3	30.2	7.7
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	400	592	77	0	242	554	1853	825	76	1435	639
V/C Ratio(X)	0.86	0.23	0.56	0.77	0.00	0.79	0.86	0.55	0.07	0.77	0.83	0.28
Avail Cap(c_a), veh/h	219	561	728	194	0	507	800	1853	825	111	1435	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	33.6	25.9	48.7	0.0	43.0	42.1	16.9	12.6	48.7	27.7	20.9
Incr Delay (d2), s/veh	25.5	0.3	0.8	6.0	0.0	5.6	4.7	1.2	0.2	10.1	5.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	1.9	6.4	1.6	0.0	5.0	6.1	7.8	0.7	1.7	13.3	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	33.9	26.7	54.7	0.0	48.6	46.9	18.1	12.8	58.8	33.3	22.0
LnGrp LOS	E	C	C	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		609			249			1553			1422	
Approach Delay, s/veh		40.8			50.1			26.7			32.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	58.1	8.9	26.7	20.8	46.2	16.8	18.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	5.3	21.6	5.3	19.0	15.6	32.2	12.2	12.5
Green Ext Time (p_c), s	0.0	8.2	0.0	1.3	0.6	2.4	0.0	0.9

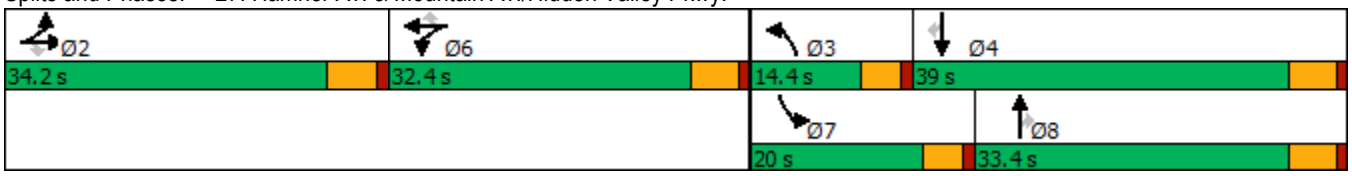
Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	326	50	369	262	276	86	660	481	458	704	23
Future Volume (vph)	27	326	50	369	262	276	86	660	481	458	704	23
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	34.2	34.2	34.2	32.4	32.4	32.4	14.4	33.4	33.4	20.0	39.0	39.0
Total Split (%)	28.5%	28.5%	28.5%	27.0%	27.0%	27.0%	12.0%	27.8%	27.8%	16.7%	32.5%	32.5%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	326	50	369	262	276	86	660	481	458	704	23
Future Volume (veh/h)	27	326	50	369	262	276	86	660	481	458	704	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	340	46	384	273	277	90	688	296	477	733	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	489	217	777	408	344	115	1027	458	540	1353	595
Arrive On Green	0.14	0.14	0.14	0.21	0.21	0.21	0.06	0.28	0.28	0.15	0.37	0.37
Sat Flow, veh/h	1810	3610	1603	3619	1900	1603	1810	3610	1610	3510	3610	1587
Grp Volume(v), veh/h	28	340	46	384	273	277	90	688	296	477	733	16
Grp Sat Flow(s),veh/h/ln	1810	1805	1603	1810	1900	1603	1810	1805	1610	1755	1805	1587
Q Serve(g_s), s	1.3	8.8	2.5	9.2	13.0	16.1	4.8	16.6	15.9	13.1	15.7	0.6
Cycle Q Clear(g_c), s	1.3	8.8	2.5	9.2	13.0	16.1	4.8	16.6	15.9	13.1	15.7	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	489	217	777	408	344	115	1027	458	540	1353	595
V/C Ratio(X)	0.11	0.69	0.21	0.49	0.67	0.81	0.78	0.67	0.65	0.88	0.54	0.03
Avail Cap(c_a), veh/h	530	1057	469	993	521	440	180	1027	458	550	1353	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	40.6	37.8	33.9	35.4	36.7	45.4	31.1	30.8	40.8	24.1	19.4
Incr Delay (d2), s/veh	0.2	1.8	0.5	0.5	2.2	8.3	4.3	3.5	6.9	14.9	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.9	1.0	3.9	6.0	6.9	2.2	7.4	6.8	6.6	6.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	42.4	38.3	34.4	37.7	45.0	49.7	34.6	37.7	55.6	25.7	19.5
LnGrp LOS	D	D	D	C	D	D	D	C	D	E	C	B
Approach Vol, veh/h		414			934			1074			1226	
Approach Delay, s/veh		41.6			38.5			36.7			37.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.7	10.9	42.3		26.5	19.7	33.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.8	9.8	33.6		27.0	15.4	28.0				
Max Q Clear Time (g_c+I1), s		10.8	6.8	17.7		18.1	15.1	18.6				
Green Ext Time (p_c), s		2.1	0.0	4.3		2.7	0.0	3.7				

Intersection Summary												
HCM 6th Ctrl Delay			37.9									
HCM 6th LOS			D									

Notes

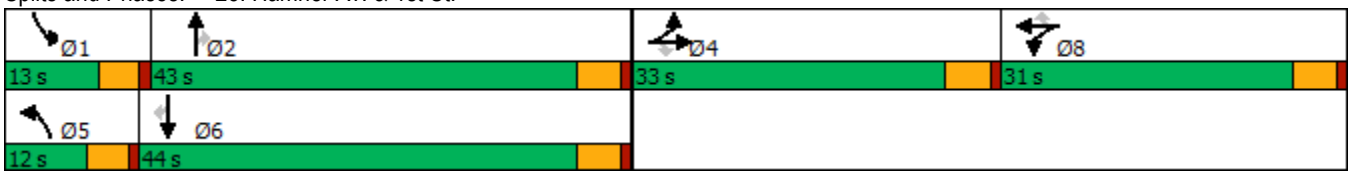
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	352	46	33	30	21	66	715	32	75	948	212
Future Volume (vph)	352	46	33	30	21	66	715	32	75	948	212
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 91.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Hamner Av. & 1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	46	33	50	30	21	66	715	32	75	948	212
Future Volume (veh/h)	352	46	33	50	30	21	66	715	32	75	948	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	405	0	16	53	32	5	69	753	23	79	998	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	540	0	237	122	74	171	89	1644	715	102	1670	726
Arrive On Green	0.15	0.00	0.15	0.11	0.11	0.11	0.05	0.46	0.46	0.06	0.46	0.46
Sat Flow, veh/h	3619	0	1585	1149	694	1606	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	405	0	16	85	0	5	69	753	23	79	998	140
Grp Sat Flow(s),veh/h/ln	1810	0	1585	1843	0	1606	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	9.0	0.0	0.7	3.6	0.0	0.2	3.2	12.1	0.7	3.6	17.3	4.4
Cycle Q Clear(g_c), s	9.0	0.0	0.7	3.6	0.0	0.2	3.2	12.1	0.7	3.6	17.3	4.4
Prop In Lane	1.00		1.00	0.62		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	540	0	237	196	0	171	89	1644	715	102	1670	726
V/C Ratio(X)	0.75	0.00	0.07	0.43	0.00	0.03	0.77	0.46	0.03	0.77	0.60	0.19
Avail Cap(c_a), veh/h	1202	0	526	568	0	495	159	1644	715	180	1670	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	30.8	35.3	0.0	33.8	39.6	15.8	12.7	39.3	16.8	13.4
Incr Delay (d2), s/veh	2.1	0.0	0.1	1.5	0.0	0.1	5.2	0.9	0.1	4.6	1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.3	1.7	0.0	0.1	1.5	4.7	0.2	1.7	6.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	31.0	36.8	0.0	33.8	44.9	16.7	12.8	43.9	18.4	14.0
LnGrp LOS	D	A	C	D	A	C	D	B	B	D	B	B
Approach Vol, veh/h		421			90			845			1217	
Approach Delay, s/veh		36.3			36.6			18.9			19.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	43.4		17.6	8.8	44.0		14.0				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	5.6	14.1		11.0	5.2	19.3		5.6				
Green Ext Time (p_c), s	0.0	5.2		1.4	0.0	7.2		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		22.7
HCM 6th LOS		C

Notes

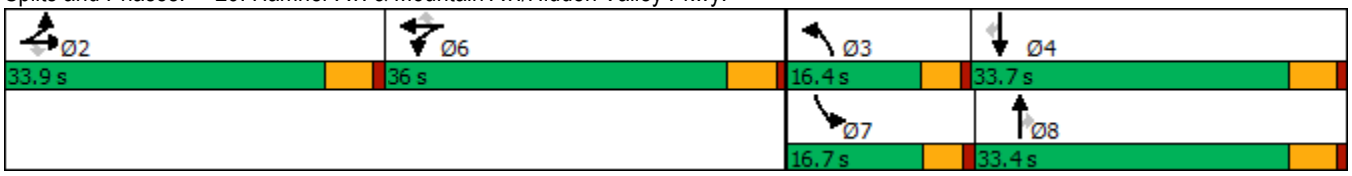
User approved volume balancing among the lanes for turning movement.

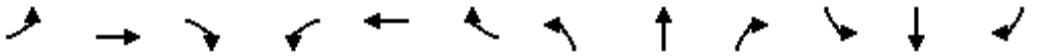
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	326	50	369	262	276	86	660	481	458	704	23
Future Volume (vph)	27	326	50	369	262	276	86	660	481	458	704	23
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	36.0	36.0	36.0	16.4	33.4	33.4	16.7	33.7	33.7
Total Split (%)	28.3%	28.3%	28.3%	30.0%	30.0%	30.0%	13.7%	27.8%	27.8%	13.9%	28.1%	28.1%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	326	50	369	262	276	86	660	481	458	704	23
Future Volume (veh/h)	27	326	50	369	262	276	86	660	481	458	704	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	340	46	384	273	277	90	688	296	477	733	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	472	941	419	767	403	340	114	818	365	388	989	435
Arrive On Green	0.26	0.26	0.26	0.21	0.21	0.21	0.06	0.23	0.23	0.11	0.27	0.27
Sat Flow, veh/h	1810	3610	1606	3619	1900	1603	1810	3610	1610	3510	3610	1586
Grp Volume(v), veh/h	28	340	46	384	273	277	90	688	296	477	733	16
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1603	1810	1805	1610	1755	1805	1586
Q Serve(g_s), s	1.3	8.4	2.4	10.2	14.5	18.0	5.4	19.9	19.1	12.1	20.2	0.8
Cycle Q Clear(g_c), s	1.3	8.4	2.4	10.2	14.5	18.0	5.4	19.9	19.1	12.1	20.2	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	472	941	419	767	403	340	114	818	365	388	989	435
V/C Ratio(X)	0.06	0.36	0.11	0.50	0.68	0.82	0.79	0.84	0.81	1.23	0.74	0.04
Avail Cap(c_a), veh/h	472	941	419	1013	532	449	195	924	412	388	989	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	33.0	30.8	38.0	39.7	41.1	50.5	40.4	40.1	48.6	36.2	29.1
Incr Delay (d2), s/veh	0.2	1.1	0.5	0.5	2.2	8.5	4.5	6.4	10.5	123.4	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	1.0	4.5	6.8	7.7	2.5	9.3	8.4	11.8	9.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	34.1	31.3	38.5	41.9	49.5	55.0	46.8	50.6	172.1	39.2	29.1
LnGrp LOS	C	C	C	D	D	D	D	D	D	F	D	C
Approach Vol, veh/h		414			934			1074			1226	
Approach Delay, s/veh		33.5			42.8			48.5			90.7	
Approach LOS		C			D			D			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	11.5	35.4		28.6	16.7	30.2				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	11.8	28.3		30.6	12.1	28.0				
Max Q Clear Time (g_c+I1), s		10.4	7.4	22.2		20.0	14.1	21.9				
Green Ext Time (p_c), s		2.1	0.0	2.4		3.0	0.0	2.8				

Intersection Summary		
HCM 6th Ctrl Delay	59.5	
HCM 6th LOS	E	

Notes

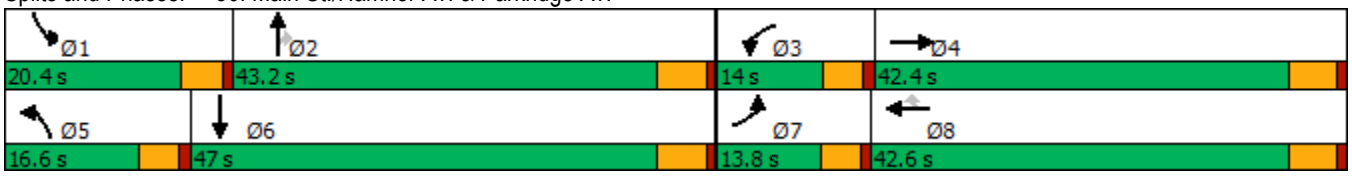
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	184	332	74	169	260	42	754	129	215	755
Future Volume (vph)	184	332	74	169	260	42	754	129	215	755
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 100.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	332	65	74	169	260	42	754	129	215	755	162
Future Volume (veh/h)	184	332	65	74	169	260	42	754	129	215	755	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	349	57	78	178	171	44	794	0	226	795	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	641	104	101	319	269	65	1403		259	2573	
Arrive On Green	0.09	0.21	0.21	0.06	0.17	0.17	0.04	0.39	0.00	0.14	0.50	0.00
Sat Flow, veh/h	1810	3099	501	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	194	202	204	78	178	171	44	794	0	226	795	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1794	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	9.2	9.7	9.9	4.1	8.4	9.7	2.3	16.8	0.0	11.9	8.9	0.0
Cycle Q Clear(g_c), s	9.2	9.7	9.9	4.1	8.4	9.7	2.3	16.8	0.0	11.9	8.9	0.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	171	374	371	101	319	269	65	1403		259	2573	
V/C Ratio(X)	1.13	0.54	0.55	0.78	0.56	0.64	0.68	0.57		0.87	0.31	
Avail Cap(c_a), veh/h	171	687	683	175	727	611	223	1403		294	2573	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.0	34.4	34.5	45.3	37.1	37.7	46.3	23.3	0.0	40.8	14.6	0.0
Incr Delay (d2), s/veh	109.2	1.2	1.3	4.7	1.5	2.5	4.6	1.7	0.0	20.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	4.2	4.3	1.9	3.9	3.9	1.1	7.0	0.0	6.6	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	153.3	35.6	35.8	50.1	38.7	40.2	51.0	25.0	0.0	61.0	14.9	0.0
LnGrp LOS	F	D	D	D	D	D	D	C		E	B	
Approach Vol, veh/h		600			427			838	A		1021	A
Approach Delay, s/veh		73.7			41.4			26.3			25.1	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	43.2	10.0	25.5	8.1	53.7	13.8	21.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	13.9	18.8	6.1	11.9	4.3	10.9	11.2	11.7
Green Ext Time (p_c), s	0.1	5.0	0.0	2.2	0.0	5.8	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	565	170	744	4	238
Future Volume (vph)	565	170	744	4	238
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	565	753	170	744	0	0	0	0	75	4	238
Future Volume (veh/h)	0	565	753	170	744	0	0	0	0	75	4	238
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	582	699	175	767	0				77	4	149
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1187	1058	201	2912	0				191	10	179
Arrive On Green	0.00	0.66	0.66	0.22	1.00	0.00				0.11	0.11	0.11
Sat Flow, veh/h	0	1900	1608	1810	3705	0				1724	90	1610
Grp Volume(v), veh/h	0	582	699	175	767	0				81	0	149
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1805	0				1814	0	1610
Q Serve(g_s), s	0.0	19.5	31.6	11.2	0.0	0.0				5.0	0.0	10.9
Cycle Q Clear(g_c), s	0.0	19.5	31.6	11.2	0.0	0.0				5.0	0.0	10.9
Prop In Lane	0.00		1.00	1.00		0.00				0.95		1.00
Lane Grp Cap(c), veh/h	0	1187	1058	201	2912	0				201	0	179
V/C Ratio(X)	0.00	0.49	0.66	0.87	0.26	0.00				0.40	0.00	0.83
Avail Cap(c_a), veh/h	0	1187	1058	445	2912	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.4	12.4	45.8	0.0	0.0				49.6	0.0	52.3
Incr Delay (d2), s/veh	0.0	0.1	0.3	4.0	0.2	0.0				0.5	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.2	10.4	4.7	0.1	0.0				2.2	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.5	12.7	49.8	0.2	0.0				50.1	0.0	56.1
LnGrp LOS	A	B	B	D	A	A				D	A	E
Approach Vol, veh/h		1281			942						230	
Approach Delay, s/veh		11.7			9.4						54.0	
Approach LOS		B			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.8	83.5		18.6		101.4
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	13.2	33.6		12.9		2.0
Green Ext Time (p_c), s	0.2	4.1		0.4		3.8

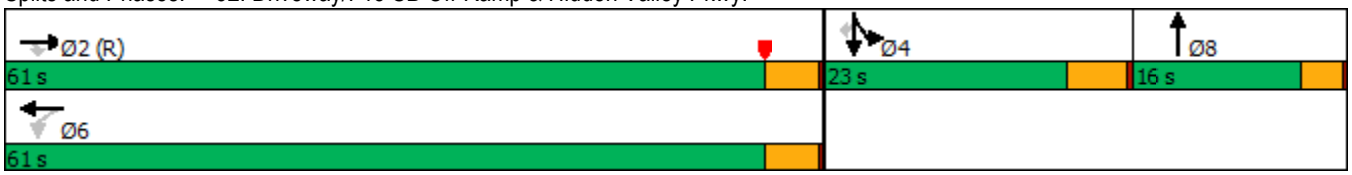
Intersection Summary		
HCM 6th Ctrl Delay		14.8
HCM 6th LOS		B

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	1218	41	102	650	0	385	78	288
Future Volume (vph)	1218	41	102	650	0	385	78	288
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	61.0	61.0	61.0	61.0	16.0	23.0	23.0	23.0
Total Split (%)	61.0%	61.0%	61.0%	61.0%	16.0%	23.0%	23.0%	23.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 32: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1218	41	102	650	0	0	0	221	385	78	288
Future Volume (veh/h)	0	1218	41	102	650	0	0	0	221	385	78	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1282	22	107	684	0	0	0	74	503	0	167
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2282	1017	256	2282	0	0	0	93	651	0	290
Arrive On Green	0.00	0.63	0.63	0.63	0.63	0.00	0.00	0.00	0.06	0.18	0.00	0.18
Sat Flow, veh/h	0	3705	1609	429	3705	0	0	0	1610	3619	0	1610
Grp Volume(v), veh/h	0	1282	22	107	684	0	0	0	74	503	0	167
Grp Sat Flow(s),veh/h/ln	0	1805	1609	429	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	20.3	0.5	19.0	8.6	0.0	0.0	0.0	4.5	13.2	0.0	9.5
Cycle Q Clear(g_c), s	0.0	20.3	0.5	39.2	8.6	0.0	0.0	0.0	4.5	13.2	0.0	9.5
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2282	1017	256	2282	0	0	0	93	651	0	290
V/C Ratio(X)	0.00	0.56	0.02	0.42	0.30	0.00	0.00	0.00	0.79	0.77	0.00	0.58
Avail Cap(c_a), veh/h	0	2282	1017	256	2282	0	0	0	201	651	0	290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.98	0.98	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	6.9	21.7	8.3	0.0	0.0	0.0	46.5	39.0	0.0	37.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.4	0.0	0.0	0.0	0.0	5.7	8.6	0.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.0	0.2	1.8	2.9	0.0	0.0	0.0	2.0	6.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.1	6.9	22.1	8.4	0.0	0.0	0.0	52.2	47.7	0.0	45.6
LnGrp LOS	A	B	A	C	A	A	A	A	D	D	A	D
Approach Vol, veh/h		1304			791			74			670	
Approach Delay, s/veh		11.1			10.2			52.2			47.2	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	67.7	23.0	67.7	9.3
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	56.5	18.0	56.5	12.5
Max Q Clear Time (g_c+I1), s	22.3	15.2	41.2	6.5
Green Ext Time (p_c), s	7.0	0.6	3.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

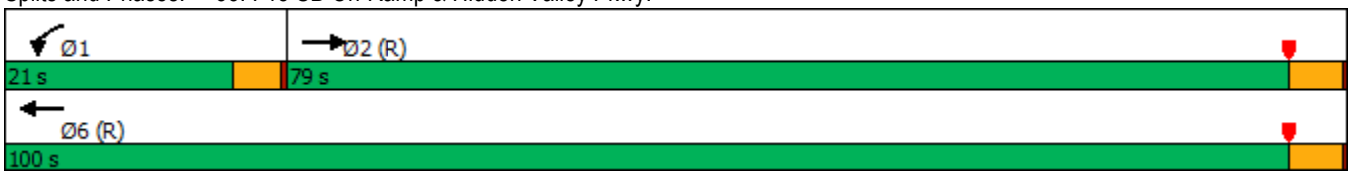
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	1427	147	752
Future Volume (vph)	1427	147	752
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	79.0	21.0	100.0
Total Split (%)	79.0%	21.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1427	396	147	752	0	0
Future Volume (veh/h)	1427	396	147	752	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	1486	396	153	783		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2119	543	308	3448		
Arrive On Green	1.00	1.00	0.34	1.00		
Sat Flow, veh/h	2939	729	1810	3705		
Grp Volume(v), veh/h	921	961	153	783		
Grp Sat Flow(s),veh/h/ln	1805	1768	1810	1805		
Q Serve(g_s), s	0.0	0.0	6.7	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	6.7	0.0		
Prop In Lane		0.41	1.00			
Lane Grp Cap(c), veh/h	1345	1317	308	3448		
V/C Ratio(X)	0.69	0.73	0.50	0.23		
Avail Cap(c_a), veh/h	1345	1317	308	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.69	0.69	0.79	0.79		
Uniform Delay (d), s/veh	0.0	0.0	29.6	0.0		
Incr Delay (d2), s/veh	2.0	2.5	4.5	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	0.9	3.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.0	2.5	34.1	0.1		
LnGrp LOS	A	A	C	A		
Approach Vol, veh/h	1882			936		
Approach Delay, s/veh	2.2			5.7		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	21.0	79.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	17.0	74.5				95.5
Max Q Clear Time (g_c+I1), s	8.7	2.0				2.0
Green Ext Time (p_c), s	0.2	13.8				3.6

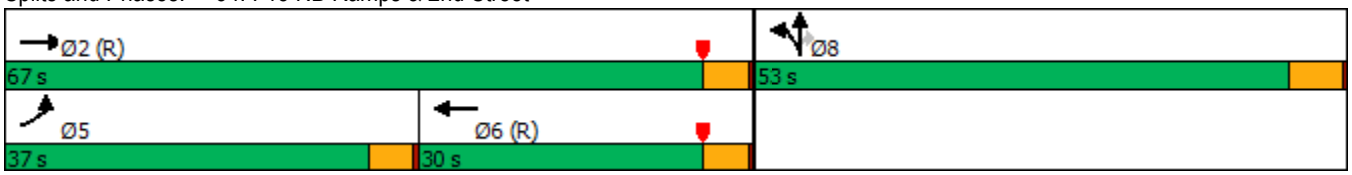
Intersection Summary						
HCM 6th Ctrl Delay			3.4			
HCM 6th LOS			A			

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	365	275	323	6	400
Future Volume (vph)	365	275	323	6	400
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	67.0	30.0	53.0	53.0
Total Split (%)	30.8%	55.8%	25.0%	44.2%	44.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Ramps & 2nd Street



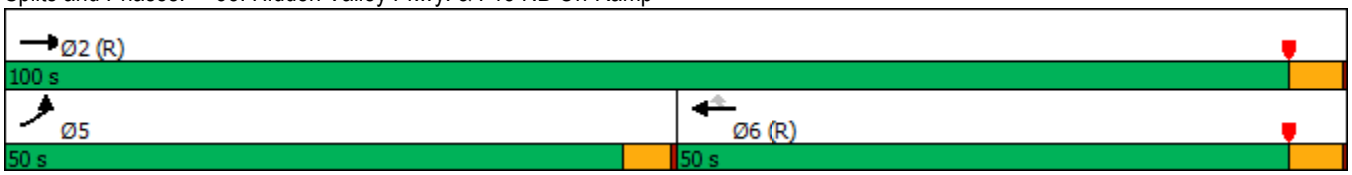
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	275	0	0	323	48	591	6	400	0	0	0
Future Volume (veh/h)	365	275	0	0	323	48	591	6	400	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	392	296	0	0	347	40	635	6	257			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	426	1961	0	0	882	101	671	6	603			
Arrive On Green	0.08	0.18	0.00	0.00	0.27	0.27	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	3357	373	1793	17	1610			
Grp Volume(v), veh/h	392	296	0	0	191	196	641	0	257			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1830	1810	0	1610			
Q Serve(g_s), s	25.8	8.3	0.0	0.0	10.4	10.5	41.2	0.0	14.3			
Cycle Q Clear(g_c), s	25.8	8.3	0.0	0.0	10.4	10.5	41.2	0.0	14.3			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	426	1961	0	0	488	495	677	0	603			
V/C Ratio(X)	0.92	0.15	0.00	0.00	0.39	0.40	0.95	0.00	0.43			
Avail Cap(c_a), veh/h	490	1961	0	0	488	495	720	0	640			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	54.2	25.9	0.0	0.0	35.7	35.8	36.4	0.0	28.0			
Incr Delay (d2), s/veh	16.9	0.1	0.0	0.0	2.3	2.4	20.6	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.6	3.8	0.0	0.0	4.8	5.0	21.0	0.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	26.0	0.0	0.0	38.1	38.1	57.0	0.0	28.3			
LnGrp LOS	E	C	A	A	D	D	E	A	C			
Approach Vol, veh/h		688			387			898				
Approach Delay, s/veh		51.7			38.1			48.8				
Approach LOS		D			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.8			32.7	37.0		50.2				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		62.4			32.5	25.4		47.7				
Max Q Clear Time (g_c+I1), s		10.3			27.8	12.5		43.2				
Green Ext Time (p_c), s		1.3			0.4	1.1		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			47.7									
HCM 6th LOS			D									

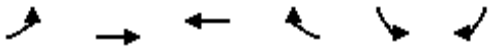
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	439	989	898	359
Future Volume (vph)	439	989	898	359
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	50.0	100.0	50.0	50.0
Total Split (%)	50.0%	100.0%	50.0%	50.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 35: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	439	989	898	359	0	0
Future Volume (veh/h)	439	989	898	359	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	462	1041	945	322		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	832	3448	1643	716		
Arrive On Green	0.92	1.00	0.46	0.46		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	462	1041	945	322		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	4.2	0.0	19.3	14.0		
Cycle Q Clear(g_c), s	4.2	0.0	19.3	14.0		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	832	3448	1643	716		
V/C Ratio(X)	0.56	0.30	0.58	0.45		
Avail Cap(c_a), veh/h	832	3448	1643	716		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.61	0.61	0.79	0.79		
Uniform Delay (d), s/veh	2.3	0.0	20.1	18.7		
Incr Delay (d2), s/veh	1.6	0.1	1.2	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.2	0.1	7.8	5.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.0	0.1	21.3	20.3		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		1503	1267			
Approach Delay, s/veh		1.3	21.0			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			50.0	50.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			46.0	45.5
Max Q Clear Time (g_c+I1), s		2.0			6.2	21.3
Green Ext Time (p_c), s		5.3			0.7	5.0

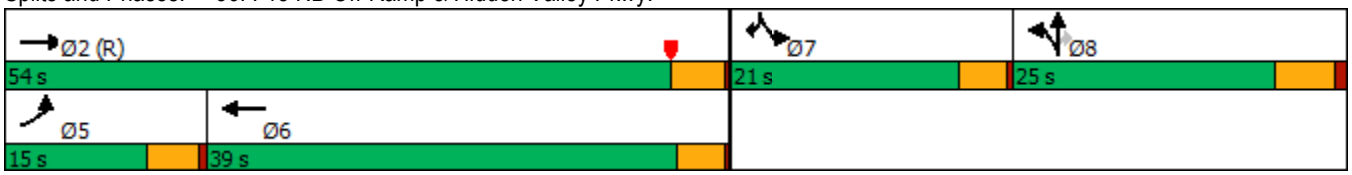
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			

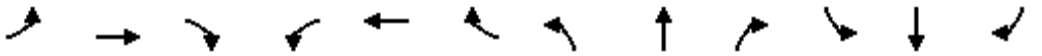
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	83	907	744	377	60	265	61	137
Future Volume (vph)	83	907	744	377	60	265	61	137
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	54.0	39.0	25.0	25.0	25.0	21.0	21.0
Total Split (%)	15.0%	54.0%	39.0%	25.0%	25.0%	25.0%	21.0%	21.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 36: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	907	0	0	744	33	377	60	265	61	0	137
Future Volume (veh/h)	83	907	0	0	744	33	377	60	265	61	0	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	86	945	0	0	775	30	393	62	124	64	0	127
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	2545	0	0	2017	78	685	370	314	0	0	0
Arrive On Green	0.18	1.00	0.00	0.00	0.57	0.57	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3638	137	3510	1900	1610		0	
Grp Volume(v), veh/h	86	945	0	0	395	410	393	62	124		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1875	1755	1900	1610			
Q Serve(g_s), s	4.3	0.0	0.0	0.0	12.1	12.1	10.1	2.7	6.7			
Cycle Q Clear(g_c), s	4.3	0.0	0.0	0.0	12.1	12.1	10.1	2.7	6.7			
Prop In Lane	1.00		0.00	0.00		0.07	1.00		1.00			
Lane Grp Cap(c), veh/h	164	2545	0	0	1027	1067	685	371	314			
V/C Ratio(X)	0.52	0.37	0.00	0.00	0.38	0.38	0.57	0.17	0.39			
Avail Cap(c_a), veh/h	190	2545	0	0	1027	1067	685	371	314			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	39.0	0.0	0.0	0.0	11.9	11.9	36.5	33.5	35.1			
Incr Delay (d2), s/veh	1.9	0.4	0.0	0.0	1.1	1.0	3.5	1.0	3.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.9	0.1	0.0	0.0	4.6	4.7	4.5	1.3	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.4	0.0	0.0	13.0	12.9	40.0	34.5	38.8			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1031			805			579				
Approach Delay, s/veh		3.8			12.9			39.1				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.0			13.6	61.4		25.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		49.5			10.5	* 35		19.5				
Max Q Clear Time (g_c+I1), s		2.0			6.3	14.1		12.1				
Green Ext Time (p_c), s		4.6			0.0	2.7		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

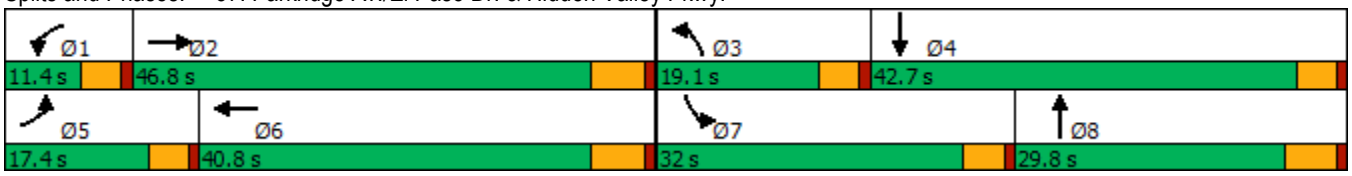
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

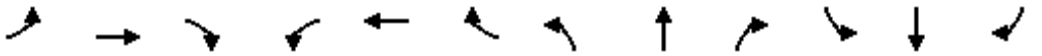
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	84	865	70	507	94	105	94	50
Future Volume (vph)	84	865	70	507	94	105	94	50
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	865	98	70	507	71	94	105	210	94	50	30
Future Volume (veh/h)	84	865	98	70	507	71	94	105	210	94	50	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	983	72	80	576	71	107	119	169	376	57	8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.25	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	1107	81	102	1018	125	133	383	336	404	1152	158
Arrive On Green	0.07	0.32	0.32	0.06	0.31	0.31	0.07	0.21	0.21	0.22	0.36	0.36
Sat Flow, veh/h	1810	3410	250	1810	3235	398	1810	1805	1585	1810	3187	438
Grp Volume(v), veh/h	95	520	535	80	321	326	107	119	169	376	32	33
Grp Sat Flow(s),veh/h/ln	1810	1805	1855	1810	1805	1828	1810	1805	1585	1810	1805	1820
Q Serve(g_s), s	5.9	30.9	31.0	4.9	16.8	16.8	6.6	6.3	10.6	23.1	1.3	1.3
Cycle Q Clear(g_c), s	5.9	30.9	31.0	4.9	16.8	16.8	6.6	6.3	10.6	23.1	1.3	1.3
Prop In Lane	1.00		0.13	1.00		0.22	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	120	586	602	102	568	575	133	383	336	404	652	658
V/C Ratio(X)	0.79	0.89	0.89	0.78	0.56	0.57	0.80	0.31	0.50	0.93	0.05	0.05
Avail Cap(c_a), veh/h	205	654	672	109	568	575	232	383	336	438	652	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	36.3	36.3	52.7	32.3	32.3	51.6	37.6	39.3	43.1	23.5	23.5
Incr Delay (d2), s/veh	4.4	13.1	12.8	26.0	1.3	1.3	4.2	2.1	5.3	24.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	15.0	15.4	2.9	7.2	7.3	3.1	2.9	4.5	13.1	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	49.3	49.1	78.7	33.6	33.6	55.8	39.7	44.6	68.0	23.6	23.6
LnGrp LOS	E	D	D	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		1150			727			395			441	
Approach Delay, s/veh		49.8			38.6			46.2			61.4	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	42.5	12.9	46.7	12.1	41.4	29.8	29.8
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	6.9	33.0	8.6	3.3	7.9	18.8	25.1	12.6
Green Ext Time (p_c), s	0.0	3.8	0.1	0.3	0.0	3.2	0.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 3.3:

EXISTING (2018) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

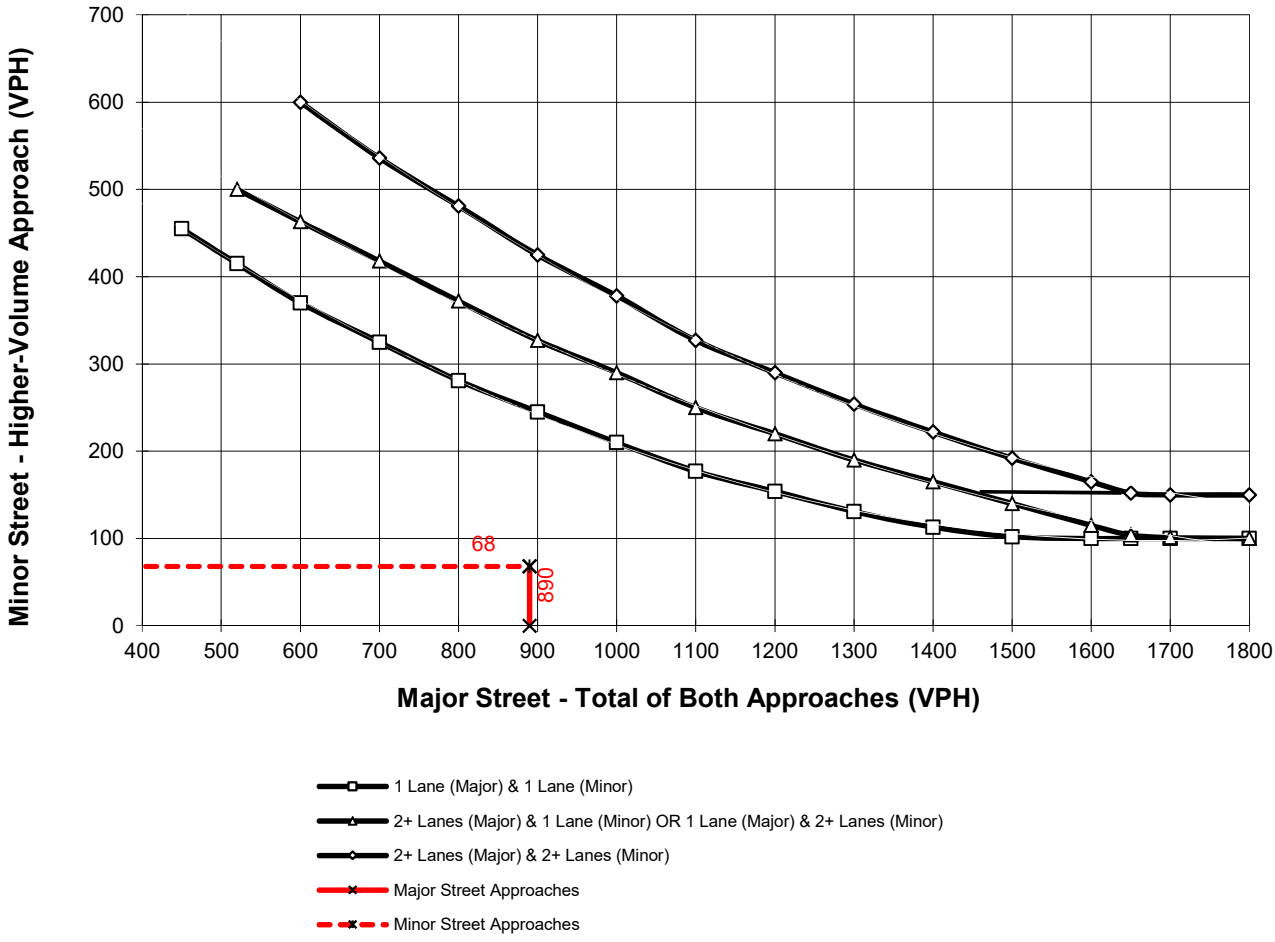
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2018) Conditions - Weekday PM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **890**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **68**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

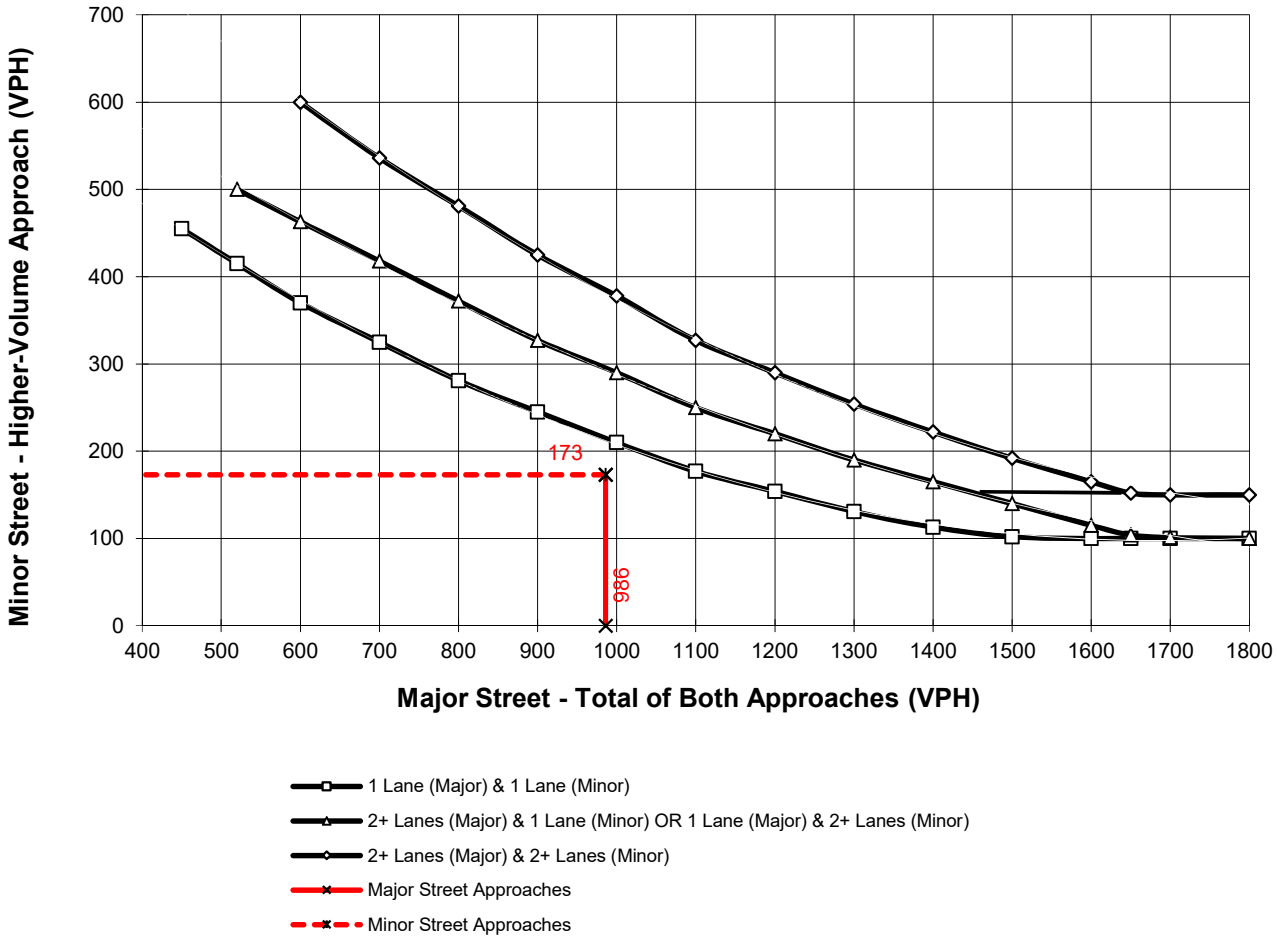
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2018) Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **986**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (East)**
High Volume Approach (VPH) = **173**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

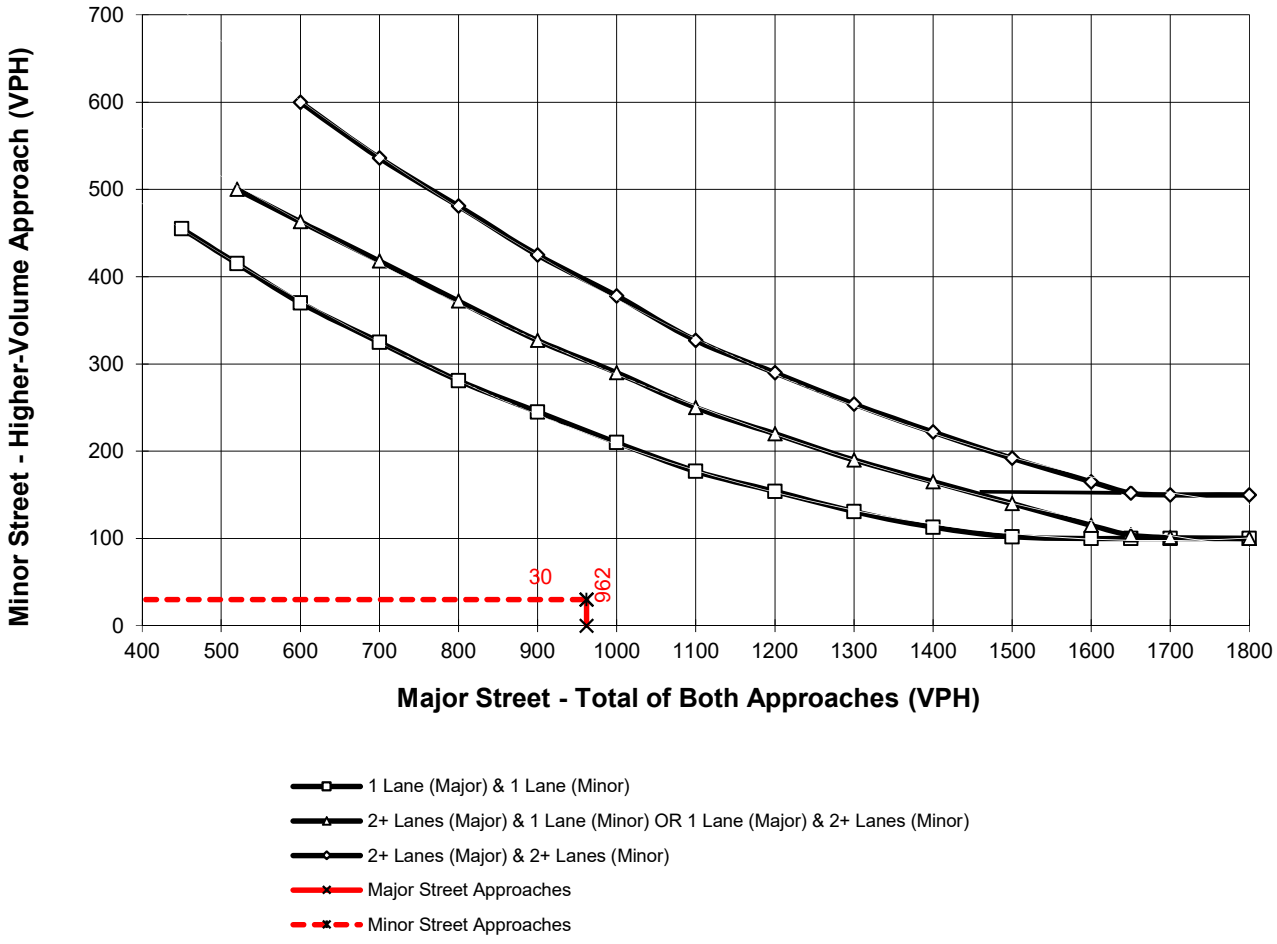
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2018) Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **962**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **30**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

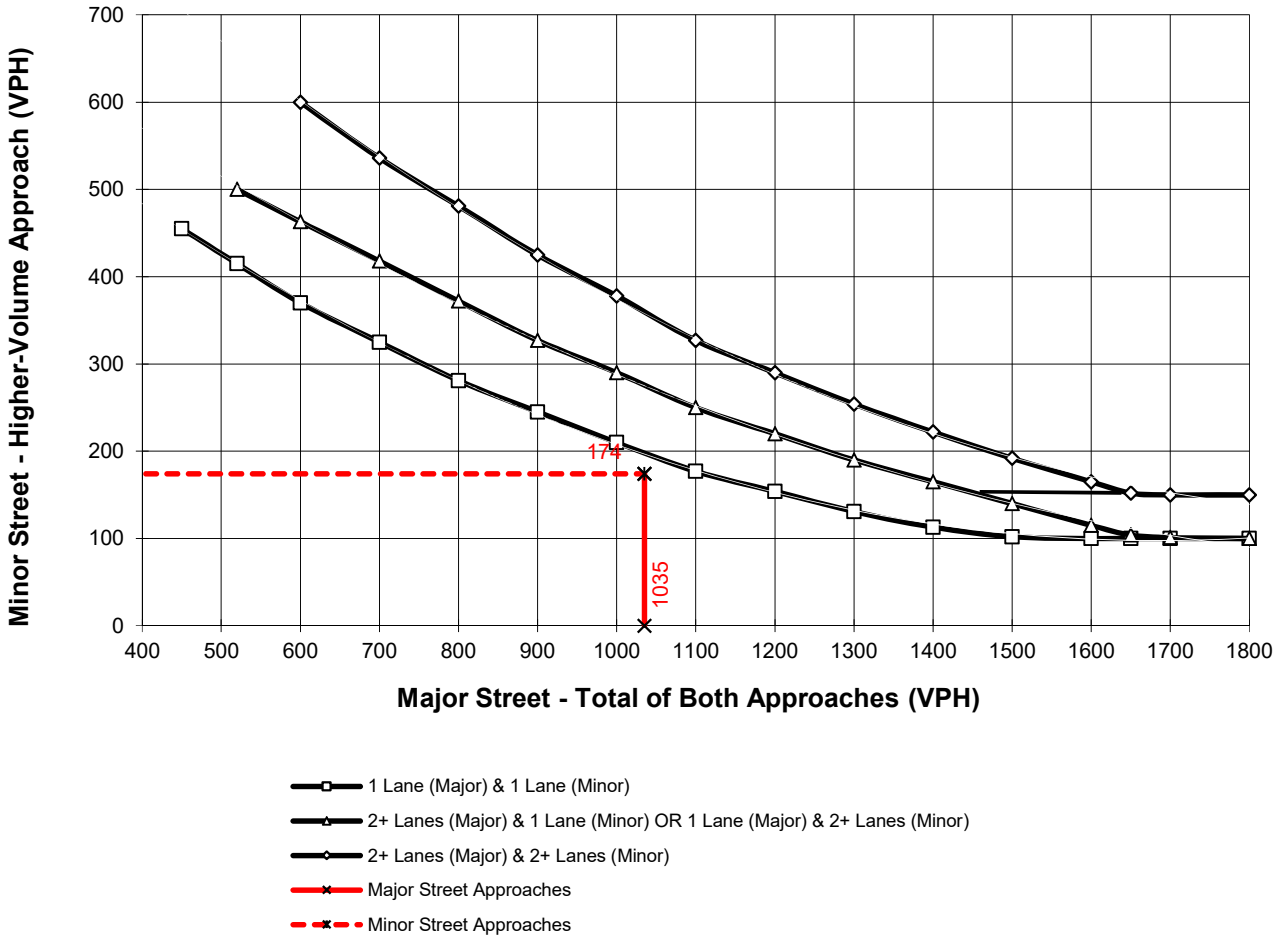
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2018) Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1035**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **174**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

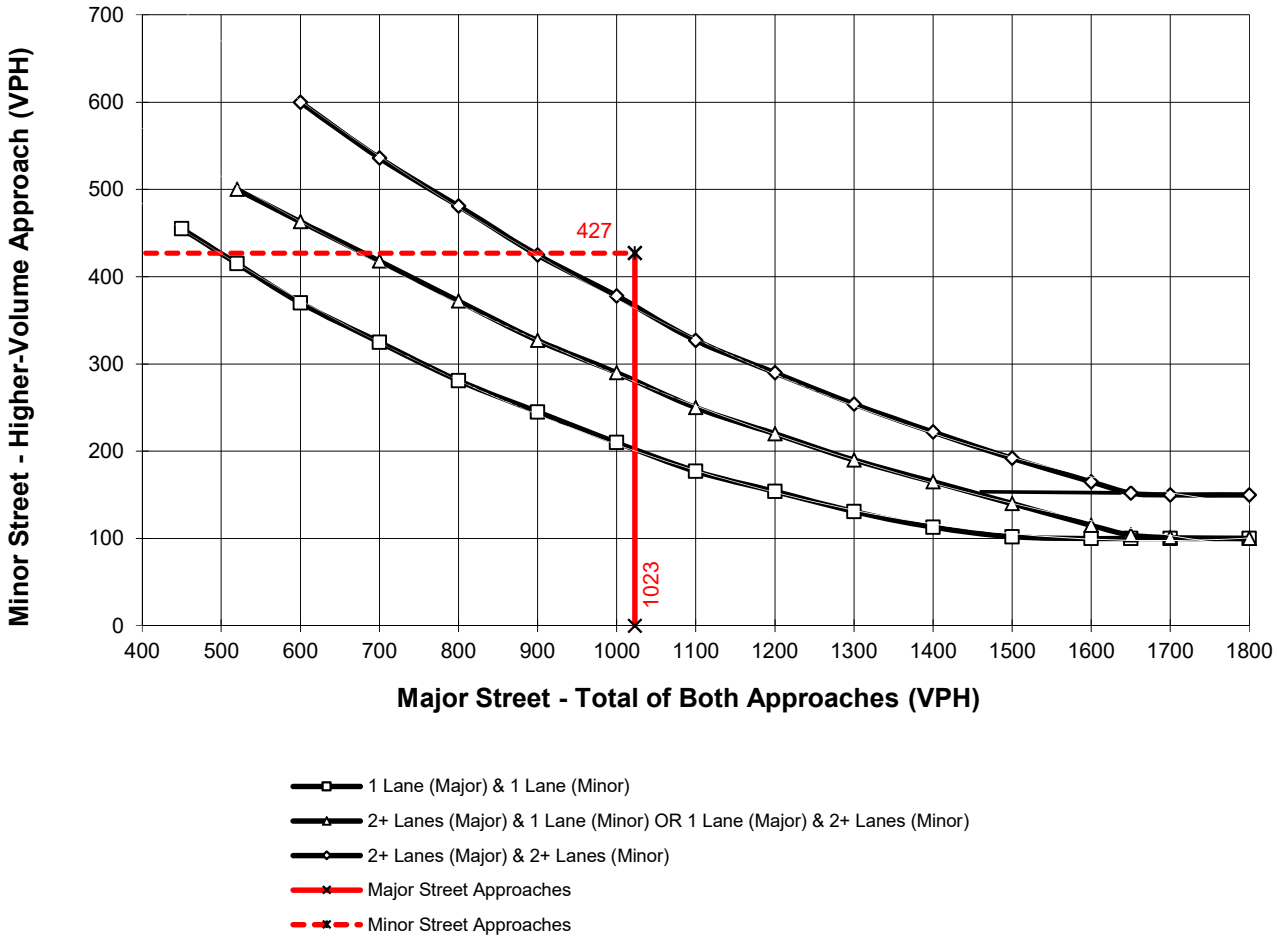
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2018) Conditions - Weekday AM Peak Hour**

Major Street Name = **First St.**
Total of Both Approaches (VPH) = **1023**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **427**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



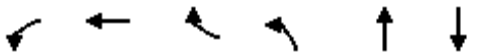
*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

This Page Intentionally Left Blank

APPENDIX 3.4:

EXISTING (2018) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

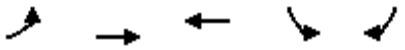
This Page Intentionally Left Blank



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	279	291	666	244	751	829
v/c Ratio	0.40	0.40	0.92	0.70	0.45	0.73
Control Delay	17.8	17.8	37.9	46.7	16.7	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	17.8	37.9	46.7	16.7	26.6
Queue Length 50th (ft)	93	97	249	61	138	174
Queue Length 95th (ft)	154	160	#465	#108	187	#248
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	500		
Base Capacity (vph)	761	787	775	357	1651	1130
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.37	0.86	0.68	0.45	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	974	77	273	261	164
v/c Ratio	0.77	0.06	0.27	0.35	0.41
Control Delay	26.9	4.1	12.9	12.7	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	4.1	12.9	12.7	8.4
Queue Length 50th (ft)	217	10	26	21	0
Queue Length 95th (ft)	252	22	62	52	54
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1315	1019	736	403
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.06	0.27	0.35	0.41

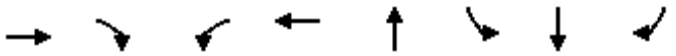
Intersection Summary



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	905	267	1083	61	357
v/c Ratio	0.52	0.81	0.42	0.17	0.87
Control Delay	17.0	35.5	3.6	38.1	52.0
Queue Delay	0.4	0.0	0.4	0.0	0.0
Total Delay	17.4	35.5	4.1	38.1	52.0
Queue Length 50th (ft)	167	198	117	40	189
Queue Length 95th (ft)	297	306	m130	70	278
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1754	443	2598	508	535
Starvation Cap Reductn	354	0	900	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.60	0.64	0.12	0.67

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	617	23	78	836	80	196	390	382
v/c Ratio	0.37	0.03	0.25	0.50	0.20	0.29	0.55	0.52
Control Delay	20.2	0.5	13.2	13.4	1.2	24.6	16.8	13.2
Queue Delay	0.9	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Total Delay	21.1	0.5	13.2	14.4	1.2	24.6	16.8	13.2
Queue Length 50th (ft)	148	0	32	223	0	98	120	84
Queue Length 95th (ft)	193	2	74	291	0	158	227	178
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1677	780	306	1677	427	670	705	733
Starvation Cap Reductn	735	0	0	553	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.03	0.25	0.74	0.19	0.29	0.55	0.52

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	140	358	685	796	617
v/c Ratio	0.66	0.20	0.56	1.06	0.68
Control Delay	46.0	15.3	33.9	85.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	15.3	33.9	85.1	13.5
Queue Length 50th (ft)	101	90	221	~679	128
Queue Length 95th (ft)	132	92	303	#919	267
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1817	1234	750	904
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.20	0.56	1.06	0.68

Intersection Summary

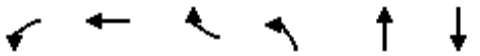
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	75	362	1063	480	84	164	37	177
v/c Ratio	0.46	0.20	0.72	0.74	0.24	0.38	0.12	0.64
Control Delay	67.1	13.1	31.2	49.8	40.2	8.7	39.7	53.7
Queue Delay	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Total Delay	67.1	13.1	31.2	53.0	40.2	8.7	39.7	53.7
Queue Length 50th (ft)	56	58	338	166	51	0	22	117
Queue Length 95th (ft)	106	77	421	223	97	57	53	193
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	165	1854	1482	652	354	434	311	278
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	93	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.20	0.72	0.86	0.24	0.38	0.12	0.64

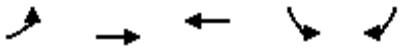
Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	309	312	277	229	622	1180
v/c Ratio	0.70	0.71	0.54	0.56	0.28	0.74
Control Delay	36.5	36.7	15.9	33.2	8.3	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	36.7	15.9	33.2	8.3	24.2
Queue Length 50th (ft)	156	158	61	61	107	250
Queue Length 95th (ft)	212	214	115	95	161	#483
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	500		
Base Capacity (vph)	817	819	841	418	2236	1600
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.38	0.33	0.55	0.28	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	718	136	194	506	237
v/c Ratio	0.74	0.10	0.15	0.60	0.49
Control Delay	30.4	7.0	12.7	19.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	7.0	12.7	19.5	8.2
Queue Length 50th (ft)	205	44	21	65	0
Queue Length 95th (ft)	240	m14	50	114	64
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1623	1305	1253	845	479
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.10	0.15	0.60	0.49

Intersection Summary

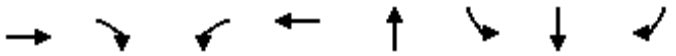
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1358	175	767	81	245
v/c Ratio	0.60	0.73	0.26	0.53	0.72
Control Delay	10.8	48.5	0.2	64.1	21.5
Queue Delay	1.2	0.0	0.2	0.0	0.0
Total Delay	11.9	48.5	0.4	64.1	21.5
Queue Length 50th (ft)	214	88	0	61	16
Queue Length 95th (ft)	372	25	m0	108	96
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	2259	443	3006	509	613
Starvation Cap Reductn	614	0	1222	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.40	0.43	0.16	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1282	43	107	684	233	271	274	245
v/c Ratio	0.62	0.05	0.73	0.33	0.91	0.88	0.90	0.51
Control Delay	16.1	1.7	50.0	9.2	67.7	69.5	72.0	8.9
Queue Delay	12.3	0.0	0.0	0.5	60.0	0.5	1.0	0.0
Total Delay	28.3	1.7	50.0	9.7	127.7	70.0	73.0	8.9
Queue Length 50th (ft)	272	0	19	63	103	178	182	0
Queue Length 95th (ft)	341	10	#151	74	#242	#330	#348	68
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	2062	929	147	2062	267	308	303	477
Starvation Cap Reductn	774	0	0	863	0	0	0	0
Spillback Cap Reductn	0	0	0	0	126	2	3	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.05	0.73	0.57	1.65	0.89	0.91	0.51

Intersection Summary

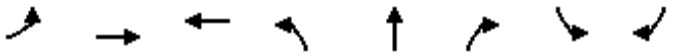
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	392	296	399	641	430
v/c Ratio	0.89	0.15	0.45	0.91	0.50
Control Delay	57.3	16.2	40.9	53.0	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	16.2	40.9	53.0	6.0
Queue Length 50th (ft)	284	65	142	443	24
Queue Length 95th (ft)	377	89	197	#656	97
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1911	882	750	890
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.15	0.45	0.85	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	86	945	809	393	63	276	64	143
v/c Ratio	0.47	0.53	0.59	0.58	0.17	0.54	0.21	0.52
Control Delay	50.9	10.2	27.6	40.4	35.0	11.0	37.8	45.5
Queue Delay	0.0	1.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	50.9	11.2	27.6	40.7	35.0	11.0	37.8	45.5
Queue Length 50th (ft)	50	163	222	118	34	16	36	84
Queue Length 95th (ft)	96	203	290	166	70	90	74	147
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1786	1372	682	370	512	306	274
Starvation Cap Reductn	0	540	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	55	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.76	0.59	0.63	0.17	0.54	0.21	0.52

Intersection Summary

APPENDIX 3.5:

EXISTING (2018) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5625	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1271
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	7249	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1765
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes (N), ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5271	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	2120
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	35.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5579	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1334
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes (N), ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5181	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1549
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes (N), ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5050	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1922
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	6143	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1388
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes (N), ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	6141	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1735
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	6928	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1551
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	7689	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1839
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes (N), ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5179	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1990
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5092	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1174
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4893	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1410
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes (N), ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	4818	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1798
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes (N), ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5386	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1206
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes (N), ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume (V), veh/h	5303	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1484
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2018 University of Florida. All Rights Reserved.

APPENDIX 3.6:

EXISTING (2018) CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB On-Ramp at Lincoln		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5105	520
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.952
Flow Rate (v_i), pc/h	5715	594
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.53	0.28

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	21.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.339
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1326
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	60.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.144	Outer Lanes Freeway Speed (S_O), mi/h	67.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	1737	Ramp Junction Speed (S), mi/h	64.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2331	Average Density (D), pc/mi/ln	15.3
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB Off-Ramp at Lincoln		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	7249	680
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.893	0.926
Flow Rate (v_i), pc/h	8823	798
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.74	0.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	33.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.370
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1765
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	73.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	3528	Ramp Junction Speed (S), mi/h	67.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	20.9
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5271	383
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.901	0.952
Flow Rate (v_i), pc/h	6359	437
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.88	0.21

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	36.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.337
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	2481
Distance to Downstream Ramp (L_{DOWN}), ft	1770	Off-Ramp Influence Area Speed (S_R), mi/h	60.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.581	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3878	Ramp Junction Speed (S), mi/h	64.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	33.0
Level of Service (LOS)	E		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4888	691
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.901	0.952
Flow Rate (v_i), pc/h	5897	789
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.93	0.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	1382.2	Density in Ramp Influence Area (D_R), pc/mi/ln	37.9
Distance to Upstream Ramp (L_{UP}), ft	1770	Speed Index (M_S)	0.580
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	2489
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.578	Outer Lanes Freeway Speed (S_O), mi/h	62.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3408	Ramp Junction Speed (S), mi/h	56.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4197	Average Density (D), pc/mi/ln	39.3
Level of Service (LOS)	E		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5579	849
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.917
Flow Rate (v_i), pc/h	6671	1006
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.56	0.24

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.389
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1468
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.260	Outer Lanes Freeway Speed (S_O), mi/h	75.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2268	Ramp Junction Speed (S), mi/h	68.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	16.5
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4730	451
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	11.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.901
Flow Rate (v_i), pc/h	5656	544
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.26

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.347
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1697
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.150	Outer Lanes Freeway Speed (S_O), mi/h	65.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2262	Ramp Junction Speed (S), mi/h	63.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2806	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc,	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc,	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4857	193
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	0.917
Flow Rate (v_i), pc/h	5488	229
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.60	0.11

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	20.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.316
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1647
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	61.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.189	Outer Lanes Freeway Speed (S_O), mi/h	65.9
Flow in Lanes 1 and 2 (v_{12}), pc/h	2195	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2424	Average Density (D), pc/mi/ln	22.4
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	6143	1286
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	0.971
Flow Rate (v_i), pc/h	6941	1440
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.58	0.34

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	25.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.428
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1447
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	58.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.260	Outer Lanes Freeway Speed (S_O), mi/h	75.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2600	Ramp Junction Speed (S), mi/h	67.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	17.5
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5496	647
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	0.962
Flow Rate (v_i), pc/h	6210	731
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.72	0.35

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	30.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.418
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1863
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	58.3
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	65.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	2484	Ramp Junction Speed (S), mi/h	61.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3215	Average Density (D), pc/mi/ln	28.1
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	6141	645
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	0.943
Flow Rate (v_i), pc/h	6939	743
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.72	0.35

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	33.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.365
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1748
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	73.9
Flow in Lanes 1 and 2 (v_{12}), pc/h	3444	Ramp Junction Speed (S), mi/h	66.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	26.2
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	6458	470
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.971
Flow Rate (v_i), pc/h	7229	526
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.25

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.353
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1706
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	60.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.152	Outer Lanes Freeway Speed (S_O), mi/h	65.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2111	Ramp Junction Speed (S), mi/h	63.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2637	Average Density (D), pc/mi/ln	18.2
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7689	753
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.971
Flow Rate (vi),pc/h	9194	843
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.77	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	34.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1837
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.5
Flow in Lanes 1 and 2 (v12), pc/h	3682	Ramp Junction Speed (S), mi/h	65.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.9
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5179	299
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.943	0.943
Flow Rate (v_i), pc/h	5970	345
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.83	0.16

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	34.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.329
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	2278
Distance to Downstream Ramp (L_{DOWN}), ft	1770	Off-Ramp Influence Area Speed (S_R), mi/h	60.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.595	Outer Lanes Freeway Speed (S_O), mi/h	71.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	3692	Ramp Junction Speed (S), mi/h	64.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	30.8
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4880	212
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.943	0.952
Flow Rate (v_i), pc/h	5625	242
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.81	0.12

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	1206.9	Density in Ramp Influence Area (D_R), pc/mi/ln	32.7
Distance to Upstream Ramp (L_{UP}), ft	1770	Speed Index (M_S)	0.449
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	2374
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.578	Outer Lanes Freeway Speed (S_O), mi/h	63.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3251	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3493	Average Density (D), pc/mi/ln	32.9
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5092	722
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.943	0.962
Flow Rate (v_i), pc/h	5869	816
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.49	0.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	20.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.371
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1291
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.260	Outer Lanes Freeway Speed (S_O), mi/h	75.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	1995	Ramp Junction Speed (S), mi/h	69.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	14.4
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4370	523
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.943	0.952
Flow Rate (v_i), pc/h	5037	597
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.59	0.28

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	23.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.335
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1511
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	60.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.143	Outer Lanes Freeway Speed (S_O), mi/h	66.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2015	Ramp Junction Speed (S), mi/h	63.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2612	Average Density (D), pc/mi/ln	22.1
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc,	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc,	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4425	393
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.935
Flow Rate (v_i), pc/h	4953	457
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.56	0.22

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	20.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.316
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1486
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	61.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.161	Outer Lanes Freeway Speed (S_O), mi/h	66.5
Flow in Lanes 1 and 2 (v_{12}), pc/h	1981	Ramp Junction Speed (S), mi/h	64.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2438	Average Density (D), pc/mi/ln	21.1
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5386	961
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.962
Flow Rate (v_i), pc/h	6029	1086
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.50	0.26

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	21.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.396
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1298
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.260	Outer Lanes Freeway Speed (S_O), mi/h	75.6
Flow in Lanes 1 and 2 (v_{12}), pc/h	2136	Ramp Junction Speed (S), mi/h	68.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	14.9
Level of Service (LOS)	C		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	4624	762
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.952
Flow Rate (v_i), pc/h	5176	870
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.63	0.41

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	28.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.395
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1553
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	66.2
Flow in Lanes 1 and 2 (v_{12}), pc/h	2070	Ramp Junction Speed (S), mi/h	62.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2940	Average Density (D), pc/mi/ln	24.2
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	10/10/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2018)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (L_D), ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i), veh/h	5303	679
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	0.962
Flow Rate (v_i), pc/h	5936	767
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.62	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	29.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.367
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1458
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	75.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3021	Ramp Junction Speed (S), mi/h	66.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.4
Level of Service (LOS)	D		

Copyright © 2018 University of Florida. All Rights Reserved.

APPENDIX 3.7:

EXISTING (2018) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

This Page Intentionally Left Blank

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	409	10	297	159
Future Volume (vph)	409	10	297	159
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	40.9	5.9	42.0	15.8
Actuated g/C Ratio	0.60	0.09	0.61	0.23
v/c Ratio	0.80	0.08	0.32	0.53
Control Delay	16.4	44.6	6.5	33.7
Queue Delay	0.6	0.0	0.0	0.0
Total Delay	17.0	44.6	6.5	33.7
LOS	B	D	A	C
Approach Delay	17.0		7.8	33.7
Approach LOS	B		A	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	409	271	10	297	159	14
Future Volume (veh/h)	409	271	10	297	159	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	518	343	13	376	201	18
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	614	407	29	1284	276	25
Arrive On Green	0.58	0.58	0.02	0.68	0.17	0.17
Sat Flow, veh/h	1056	699	1810	1900	1637	147
Grp Volume(v), veh/h	0	861	13	376	220	0
Grp Sat Flow(s),veh/h/ln	0	1755	1810	1900	1792	0
Q Serve(g_s), s	0.0	23.9	0.4	4.7	6.9	0.0
Cycle Q Clear(g_c), s	0.0	23.9	0.4	4.7	6.9	0.0
Prop In Lane		0.40	1.00		0.91	0.08
Lane Grp Cap(c), veh/h	0	1021	29	1284	303	0
V/C Ratio(X)	0.00	0.84	0.44	0.29	0.73	0.00
Avail Cap(c_a), veh/h	0	2294	159	2798	714	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.2	28.9	3.9	23.3	0.0
Incr Delay (d2), s/veh	0.0	2.0	3.8	0.1	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.0	0.2	1.1	2.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.2	32.7	4.0	26.6	0.0
LnGrp LOS	A	B	C	A	C	A
Approach Vol, veh/h	861			389	220	
Approach Delay, s/veh	12.2			5.0	26.6	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	14.6	5.6	39.1	44.6
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	23.6	5.2	77.4	87.2
Max Q Clear Time (g_c+I1), s	8.9	2.4	25.9	6.7
Green Ext Time (p_c), s	0.5	0.0	8.6	2.5

Intersection Summary	
HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

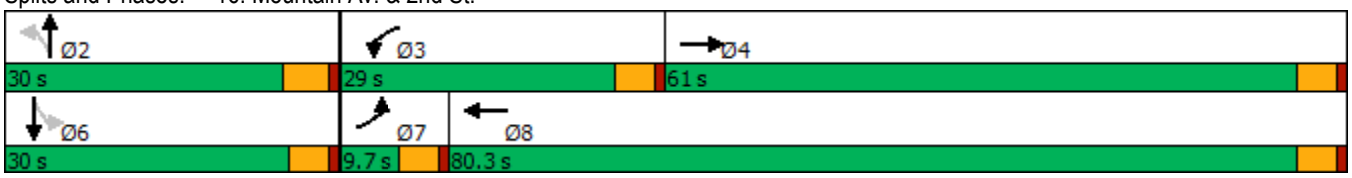
Notes

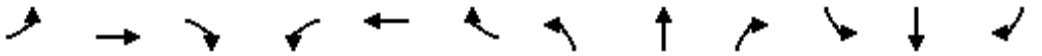
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	7	532	71	381	38	5	23	3
Future Volume (vph)	7	532	71	381	38	5	23	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.7	26.1	8.2	34.7	12.8	12.8		13.5
Actuated g/C Ratio	0.10	0.44	0.14	0.58	0.21	0.21		0.23
v/c Ratio	0.05	0.77	0.32	0.41	0.15	0.33		0.12
Control Delay	35.7	22.1	32.9	8.3	26.4	8.3		20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	35.7	22.1	32.9	8.3	26.4	8.3		20.3
LOS	D	C	C	A	C	A		C
Approach Delay		22.3		12.1		12.3		20.3
Approach LOS		C		B		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 59.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Mountain Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	532	30	71	381	16	38	5	131	23	3	11
Future Volume (veh/h)	7	532	30	71	381	16	38	5	131	23	3	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	598	34	80	428	18	43	6	147	26	3	12
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	763	43	123	880	37	469	13	320	227	42	61
Arrive On Green	0.01	0.43	0.43	0.07	0.49	0.49	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	1779	101	1810	1810	76	1421	64	1556	518	205	299
Grp Volume(v), veh/h	8	0	632	80	0	446	43	0	153	41	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1880	1810	0	1886	1421	0	1620	1023	0	0
Q Serve(g_s), s	0.2	0.0	14.1	2.1	0.0	7.7	0.0	0.0	4.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	14.1	2.1	0.0	7.7	1.0	0.0	4.0	4.1	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.96	0.63		0.29
Lane Grp Cap(c), veh/h	19	0	806	123	0	917	469	0	333	331	0	0
V/C Ratio(X)	0.42	0.00	0.78	0.65	0.00	0.49	0.09	0.00	0.46	0.12	0.00	0.00
Avail Cap(c_a), veh/h	190	0	2175	907	0	2930	901	0	825	764	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.9	0.0	12.0	22.1	0.0	8.4	15.7	0.0	17.0	15.8	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	1.7	2.2	0.0	0.4	0.1	0.0	1.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.8	0.9	0.0	2.4	0.3	0.0	1.3	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	13.7	24.3	0.0	8.8	15.8	0.0	18.0	16.0	0.0	0.0
LnGrp LOS	C	A	B	C	A	A	B	A	B	B	A	A
Approach Vol, veh/h		640			526			196			41	
Approach Delay, s/veh		13.9			11.2			17.5			16.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.2	7.9	25.6	15.2	5.1	28.4
Change Period (Y+Rc), s	5.2	4.6	* 4.7	* 5.2	4.6	* 4.7
Max Green Setting (Gmax), s	24.8	24.4	* 56	* 25	5.1	* 76
Max Q Clear Time (g_c+I1), s	6.0	4.1	16.1	6.1	2.2	9.7
Green Ext Time (p_c), s	0.9	0.1	4.8	0.1	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

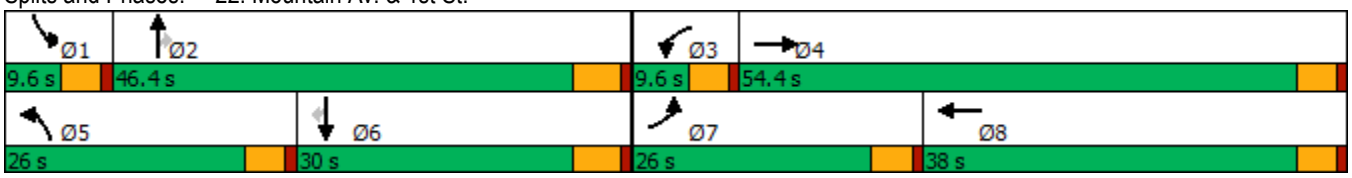
Notes

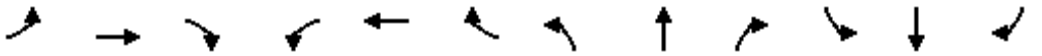
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	121	355	1	344	369	46	12	6	23	75
Future Volume (vph)	121	355	1	344	369	46	12	6	23	75
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	26.0	54.4	9.6	38.0	26.0	46.4	46.4	9.6	30.0	30.0
Total Split (%)	21.7%	45.3%	8.0%	31.7%	21.7%	38.7%	38.7%	8.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.8	35.8	5.1	21.8	21.9	37.3	37.3	5.1	12.1	12.1
Actuated g/C Ratio	0.13	0.42	0.06	0.25	0.25	0.43	0.43	0.06	0.14	0.14
v/c Ratio	0.56	0.39	0.01	0.77	0.85	0.06	0.02	0.06	0.09	0.21
Control Delay	47.7	15.3	47.0	42.0	51.6	19.2	0.0	47.0	36.2	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.3	47.0	42.0	51.6	19.2	0.0	47.0	36.2	1.2
LOS	D	B	D	D	D	B	A	D	D	A
Approach Delay		21.1		42.0		46.7			11.4	
Approach LOS		C		D		D			B	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 86.2		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.85		
Intersection Signal Delay: 32.2	Intersection LOS: C	
Intersection Capacity Utilization 64.4%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	355	196	1	344	7	369	46	12	6	23	75
Future Volume (veh/h)	121	355	196	1	344	7	369	46	12	6	23	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	127	374	206	1	362	7	388	48	13	6	24	79
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	749	406	3	450	9	436	721	611	14	278	236
Arrive On Green	0.09	0.33	0.33	0.00	0.24	0.24	0.24	0.38	0.38	0.01	0.15	0.15
Sat Flow, veh/h	1810	2259	1225	1810	1857	36	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	127	298	282	1	0	369	388	48	13	6	24	79
Grp Sat Flow(s),veh/h/ln	1810	1805	1679	1810	0	1893	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	4.7	9.0	9.2	0.0	0.0	12.5	14.2	1.1	0.3	0.2	0.7	3.0
Cycle Q Clear(g_c), s	4.7	9.0	9.2	0.0	0.0	12.5	14.2	1.1	0.3	0.2	0.7	3.0
Prop In Lane	1.00		0.73	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	599	557	3	0	459	436	721	611	14	278	236
V/C Ratio(X)	0.77	0.50	0.51	0.38	0.00	0.80	0.89	0.07	0.02	0.42	0.09	0.34
Avail Cap(c_a), veh/h	567	1313	1222	132	0	923	567	1146	971	132	690	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	18.3	18.3	34.1	0.0	24.4	25.0	13.5	13.3	33.7	25.2	26.2
Incr Delay (d2), s/veh	2.9	0.6	0.7	29.9	0.0	3.4	11.4	0.0	0.0	7.2	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.5	3.4	0.0	0.0	5.6	6.8	0.4	0.1	0.1	0.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	18.9	19.1	63.9	0.0	27.7	36.4	13.5	13.3	40.9	25.3	27.0
LnGrp LOS	C	B	B	E	A	C	D	B	B	D	C	C
Approach Vol, veh/h		707			370			449			109	
Approach Delay, s/veh		21.5			27.8			33.3			27.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	31.1	4.7	27.4	21.1	15.2	10.8	21.2
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	41.2	5.0	* 50	21.4	24.8	21.4	* 33
Max Q Clear Time (g_c+I1), s	2.2	3.1	2.0	11.2	16.2	5.0	6.7	14.5
Green Ext Time (p_c), s	0.0	0.2	0.0	3.9	0.3	0.3	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

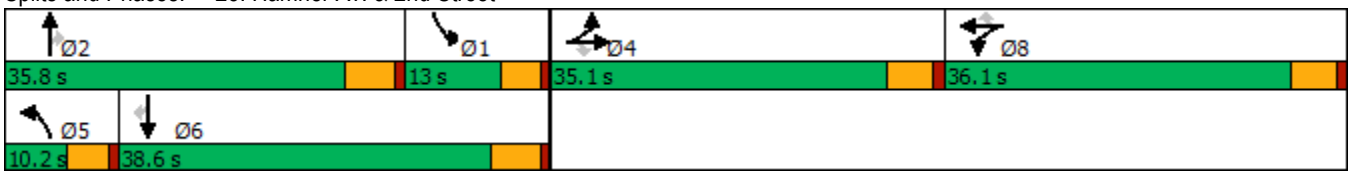
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	404	29	358	317	666	54	779	150	239	599	146
Future Volume (vph)	186	404	29	358	317	666	54	779	150	239	599	146
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	10.2	35.8	35.8	13.0	38.6	38.6
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.5%	29.8%	29.8%	10.8%	32.2%	32.2%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	20.8	20.8	20.8	31.2	31.2	31.2	5.5	28.8	28.8	8.6	34.1	34.1
Actuated g/C Ratio	0.19	0.19	0.19	0.28	0.28	0.28	0.05	0.26	0.26	0.08	0.31	0.31
v/c Ratio	0.57	0.68	0.07	0.49	0.50	1.03	0.63	0.87	0.30	0.91	0.56	0.26
Control Delay	47.8	46.9	0.3	38.7	36.0	63.7	83.2	49.9	6.9	87.9	35.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	46.9	0.3	38.7	36.0	63.7	83.2	49.9	6.9	87.9	35.3	6.3
LOS	D	D	A	D	D	E	F	D	A	F	D	A
Approach Delay		45.0			50.2			45.2			43.8	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.7	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 46.5	Intersection LOS: D
Intersection Capacity Utilization 92.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	404	29	358	317	666	54	779	150	239	599	146
Future Volume (veh/h)	186	404	29	358	317	666	54	779	150	239	599	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	196	425	20	396	307	372	57	820	84	252	631	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	315	660	275	970	509	425	74	962	425	310	1162	517
Arrive On Green	0.17	0.17	0.17	0.27	0.27	0.27	0.04	0.27	0.27	0.09	0.32	0.32
Sat Flow, veh/h	1810	3800	1580	3619	1900	1588	1810	3610	1596	3510	3610	1606
Grp Volume(v), veh/h	196	425	20	396	307	372	57	820	84	252	631	112
Grp Sat Flow(s),veh/h/ln	1810	1900	1580	1810	1900	1588	1810	1805	1596	1755	1805	1606
Q Serve(g_s), s	10.4	10.7	1.1	9.3	14.6	23.1	3.2	22.2	4.2	7.3	14.8	5.2
Cycle Q Clear(g_c), s	10.4	10.7	1.1	9.3	14.6	23.1	3.2	22.2	4.2	7.3	14.8	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	660	275	970	509	425	74	962	425	310	1162	517
V/C Ratio(X)	0.62	0.64	0.07	0.41	0.60	0.87	0.77	0.85	0.20	0.81	0.54	0.22
Avail Cap(c_a), veh/h	526	1105	459	1087	571	477	98	1064	470	310	1162	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	39.6	35.7	31.0	33.0	36.1	49.0	35.9	29.3	46.2	28.8	25.5
Incr Delay (d2), s/veh	2.0	1.1	0.1	0.3	1.5	15.2	16.4	6.3	0.2	20.4	1.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.0	0.4	4.0	6.8	10.5	1.8	10.2	1.6	4.0	6.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	40.7	35.8	31.3	34.4	51.3	65.4	42.2	29.5	66.6	30.6	26.5
LnGrp LOS	D	D	D	C	C	D	E	D	C	E	C	C
Approach Vol, veh/h		641			1075			961			995	
Approach Delay, s/veh		40.8			39.1			42.5			39.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.5	32.9		23.0	8.8	38.6		32.7				
Change Period (Y+Rc), s	5.4	* 5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	* 30		30.0	5.6	33.2		31.0				
Max Q Clear Time (g_c+I1), s	9.3	24.2		12.7	5.2	16.8		25.1				
Green Ext Time (p_c), s	0.0	2.8		3.1	0.0	4.0		2.5				

Intersection Summary		
HCM 6th Ctrl Delay		40.3
HCM 6th LOS		D

Notes

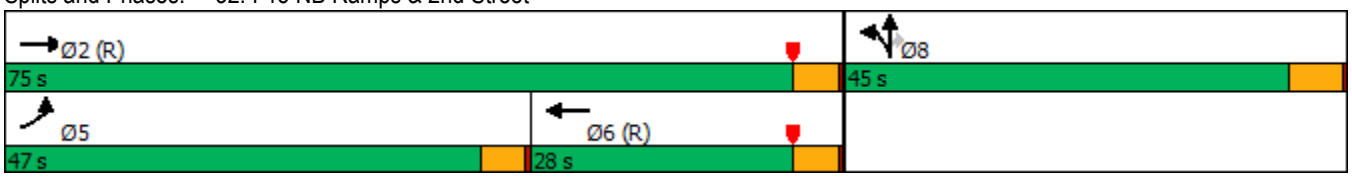
User approved volume balancing among the lanes for turning movement.

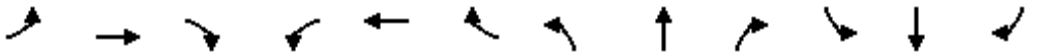
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	130	333	563	732	8	574
Future Volume (vph)	130	333	563	732	8	574
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	47.0	75.0	28.0	45.0	45.0	45.0
Total Split (%)	39.2%	62.5%	23.3%	37.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	14.3	75.5	56.7	34.6	34.6	34.6
Actuated g/C Ratio	0.12	0.63	0.47	0.29	0.29	0.29
v/c Ratio	0.65	0.16	0.41	0.81	0.80	0.78
Control Delay	46.8	7.6	23.0	52.6	51.4	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	7.6	23.0	52.6	51.4	16.2
LOS	D	A	C	D	D	B
Approach Delay		18.7	23.0		36.4	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	333	0	0	563	74	732	8	574	0	0	0
Future Volume (veh/h)	130	333	0	0	563	74	732	8	574	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	140	358	0	0	605	69	793	0	471			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	172	2182	0	0	1537	175	1133	0	504			
Arrive On Green	0.03	0.20	0.00	0.00	0.47	0.47	0.31	0.00	0.31			
Sat Flow, veh/h	1810	3705	0	0	3352	371	3619	0	1610			
Grp Volume(v), veh/h	140	358	0	0	335	339	793	0	471			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1823	1810	0	1610			
Q Serve(g_s), s	9.2	9.8	0.0	0.0	14.4	14.5	23.1	0.0	34.1			
Cycle Q Clear(g_c), s	9.2	9.8	0.0	0.0	14.4	14.5	23.1	0.0	34.1			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	172	2182	0	0	852	860	1133	0	504			
V/C Ratio(X)	0.82	0.16	0.00	0.00	0.39	0.39	0.70	0.00	0.93			
Avail Cap(c_a), veh/h	641	2182	0	0	852	860	1197	0	533			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	57.1	23.0	0.0	0.0	20.5	20.6	36.2	0.0	40.0			
Incr Delay (d2), s/veh	5.9	0.1	0.0	0.0	1.4	1.4	1.6	0.0	22.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.7	4.6	0.0	0.0	6.3	6.4	10.1	0.0	16.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	23.1	0.0	0.0	21.9	21.9	37.8	0.0	62.9			
LnGrp LOS	E	C	A	A	C	C	D	A	E			
Approach Vol, veh/h		498			674			1264				
Approach Delay, s/veh		34.3			21.9			47.2				
Approach LOS		C			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.1			15.9	61.2		42.9				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		70.4			42.5	23.4		39.7				
Max Q Clear Time (g_c+I1), s		11.8			11.2	16.5		36.1				
Green Ext Time (p_c), s		1.6			0.3	1.6		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	338	5	354	164
Future Volume (vph)	338	5	354	164
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	15.1	5.4	16.3	11.6
Actuated g/C Ratio	0.40	0.14	0.43	0.31
v/c Ratio	0.57	0.02	0.45	0.31
Control Delay	12.6	20.4	9.0	14.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.6	20.4	9.0	14.2
LOS	B	C	A	B
Approach Delay	12.6		9.2	14.2
Approach LOS	B		A	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 37.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 39.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	338	75	5	354	164	3
Future Volume (veh/h)	338	75	5	354	164	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	352	78	5	369	171	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	509	113	12	898	485	9
Arrive On Green	0.34	0.34	0.01	0.47	0.27	0.27
Sat Flow, veh/h	1499	332	1810	1900	1765	31
Grp Volume(v), veh/h	0	430	5	369	175	0
Grp Sat Flow(s),veh/h/ln	0	1832	1810	1900	1806	0
Q Serve(g_s), s	0.0	7.4	0.1	4.6	2.8	0.0
Cycle Q Clear(g_c), s	0.0	7.4	0.1	4.6	2.8	0.0
Prop In Lane		0.18	1.00		0.98	0.02
Lane Grp Cap(c), veh/h	0	622	12	898	496	0
V/C Ratio(X)	0.00	0.69	0.41	0.41	0.35	0.00
Avail Cap(c_a), veh/h	0	3895	259	4552	1171	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.4	18.0	6.3	10.6	0.0
Incr Delay (d2), s/veh	0.0	1.4	7.9	0.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	0.1	1.1	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.8	25.9	6.6	11.0	0.0
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	430			374	175	
Approach Delay, s/veh	11.8			6.8	11.0	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.6	4.8	16.9		21.8
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		4.8	2.1	9.4		6.6
Green Ext Time (p_c), s		0.4	0.0	3.0		2.4

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

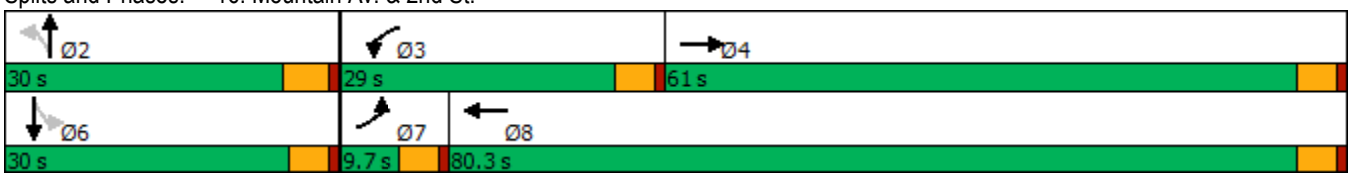
Notes

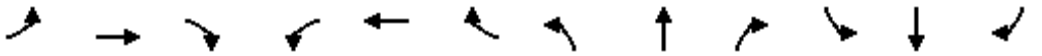
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	377	78	382	30	9	16	7
Future Volume (vph)	6	377	78	382	30	9	16	7
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.5	18.4	7.7	26.6	12.6	12.6		13.2
Actuated g/C Ratio	0.11	0.36	0.15	0.52	0.25	0.25		0.26
v/c Ratio	0.04	0.68	0.32	0.45	0.10	0.27		0.07
Control Delay	29.3	20.7	27.4	10.1	20.0	7.2		18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	29.3	20.7	27.4	10.1	20.0	7.2		18.0
LOS	C	C	C	B	B	A		B
Approach Delay		20.8		12.9		9.8		18.0
Approach LOS		C		B		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 52.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 16: Mountain Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	377	33	78	382	16	30	9	112	16	7	3
Future Volume (veh/h)	6	377	33	78	382	16	30	9	112	16	7	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	419	37	87	424	18	33	10	124	18	8	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	579	51	138	729	31	541	29	362	293	117	31
Arrive On Green	0.01	0.34	0.34	0.08	0.40	0.40	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	1721	152	1810	1809	77	1426	122	1507	638	487	130
Grp Volume(v), veh/h	7	0	456	87	0	442	33	0	134	29	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1873	1810	0	1886	1426	0	1629	1255	0	0
Q Serve(g_s), s	0.2	0.0	8.9	1.9	0.0	7.6	0.0	0.0	2.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	8.9	1.9	0.0	7.6	0.6	0.0	2.8	2.9	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.04	1.00		0.93	0.62		0.10
Lane Grp Cap(c), veh/h	17	0	630	138	0	760	541	0	391	441	0	0
V/C Ratio(X)	0.41	0.00	0.72	0.63	0.00	0.58	0.06	0.00	0.34	0.07	0.00	0.00
Avail Cap(c_a), veh/h	221	0	2529	1059	0	3420	1047	0	969	972	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.5	0.0	12.1	18.7	0.0	9.7	12.3	0.0	13.1	12.3	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.0	1.6	1.8	0.0	0.7	0.0	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.0	0.8	0.0	2.3	0.2	0.0	0.9	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	13.7	20.5	0.0	10.4	12.3	0.0	13.6	12.3	0.0	0.0
LnGrp LOS	C	A	B	C	A	B	B	A	B	B	A	A
Approach Vol, veh/h		463			529			167			29	
Approach Delay, s/veh		13.9			12.1			13.4			12.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.2	7.8	18.7		15.2	5.0	21.5				
Change Period (Y+Rc), s		5.2	4.6	* 4.7		* 5.2	4.6	* 4.7				
Max Green Setting (Gmax), s		24.8	24.4	* 56		* 25	5.1	* 76				
Max Q Clear Time (g_c+I1), s		4.8	3.9	10.9		4.9	2.2	9.6				
Green Ext Time (p_c), s		0.7	0.1	3.1		0.1	0.0	3.0				

Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									

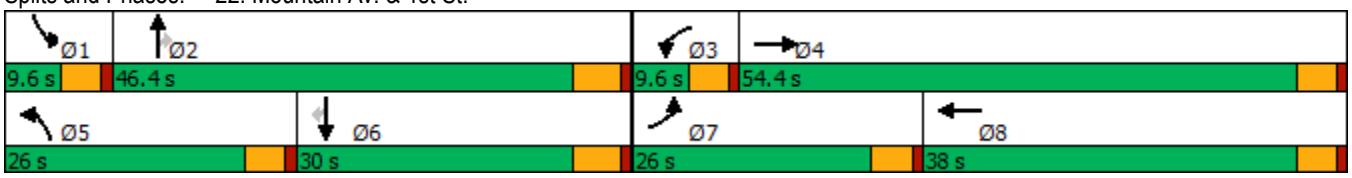
Notes

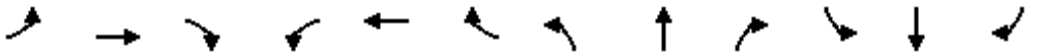
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	100	385	4	261	233	30	8	11	48	59
Future Volume (vph)	100	385	4	261	233	30	8	11	48	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	26.0	54.4	9.6	38.0	26.0	46.4	46.4	9.6	30.0	30.0
Total Split (%)	21.7%	45.3%	8.0%	31.7%	21.7%	38.7%	38.7%	8.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	9.3	27.4	5.4	17.7	15.2	31.3	31.3	5.4	12.5	12.5
Actuated g/C Ratio	0.13	0.38	0.07	0.25	0.21	0.43	0.43	0.07	0.17	0.17
v/c Ratio	0.45	0.47	0.03	0.64	0.64	0.04	0.01	0.08	0.15	0.14
Control Delay	40.4	14.9	42.0	33.5	37.9	16.9	0.0	42.4	31.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	14.9	42.0	33.5	37.9	16.9	0.0	42.4	31.8	0.7
LOS	D	B	D	C	D	B	A	D	C	A
Approach Delay		18.4		33.7		34.5			17.2	
Approach LOS		B		C		C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 72.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	385	236	4	261	21	233	30	8	11	48	59
Future Volume (veh/h)	100	385	236	4	261	21	233	30	8	11	48	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	104	401	246	4	272	22	243	31	8	11	50	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	617	374	10	374	30	302	644	546	25	354	300
Arrive On Green	0.08	0.29	0.29	0.01	0.22	0.22	0.17	0.34	0.34	0.01	0.19	0.19
Sat Flow, veh/h	1810	2160	1310	1810	1734	140	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	104	334	313	4	0	294	243	31	8	11	50	61
Grp Sat Flow(s),veh/h/ln	1810	1805	1664	1810	0	1875	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	3.0	8.7	8.9	0.1	0.0	7.8	6.9	0.6	0.2	0.3	1.2	1.7
Cycle Q Clear(g_c), s	3.0	8.7	8.9	0.1	0.0	7.8	6.9	0.6	0.2	0.3	1.2	1.7
Prop In Lane	1.00		0.79	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	516	475	10	0	404	302	644	546	25	354	300
V/C Ratio(X)	0.76	0.65	0.66	0.41	0.00	0.73	0.81	0.05	0.01	0.43	0.14	0.20
Avail Cap(c_a), veh/h	721	1671	1541	169	0	1163	721	1458	1236	169	878	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	16.8	16.9	26.6	0.0	19.6	21.5	11.9	11.8	26.2	18.2	18.5
Incr Delay (d2), s/veh	3.3	1.4	1.6	9.9	0.0	2.5	1.9	0.0	0.0	4.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.3	3.1	0.1	0.0	3.3	2.7	0.2	0.1	0.2	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	18.2	18.4	36.5	0.0	22.1	23.5	11.9	11.8	30.5	18.4	18.8
LnGrp LOS	C	B	B	D	A	C	C	B	B	C	B	B
Approach Vol, veh/h		751			298			282			122	
Approach Delay, s/veh		19.6			22.3			21.9			19.7	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	23.4	4.9	20.0	13.6	15.2	8.6	16.3
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	41.2	5.0	* 50	21.4	24.8	21.4	* 33
Max Q Clear Time (g_c+I1), s	2.3	2.6	2.1	10.9	8.9	3.7	5.0	9.8
Green Ext Time (p_c), s	0.0	0.1	0.0	4.5	0.3	0.3	0.1	1.7

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

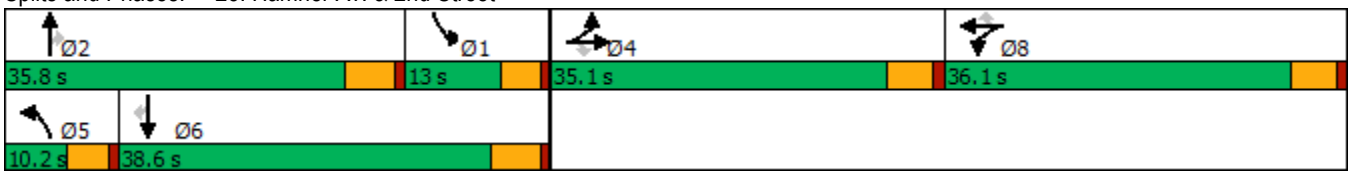
Notes

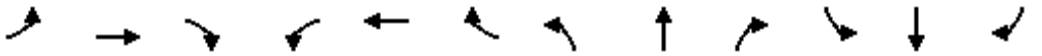
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	426	57	217	271	434	72	690	365	472	974	185
Future Volume (vph)	224	426	57	217	271	434	72	690	365	472	974	185
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	10.2	35.8	35.8	13.0	38.6	38.6
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.5%	29.8%	29.8%	10.8%	32.2%	32.2%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	20.2	20.2	20.2	19.9	19.9	19.9	5.7	25.6	25.6	13.8	33.8	33.8
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.06	0.26	0.26	0.14	0.34	0.34
v/c Ratio	0.62	0.66	0.13	0.49	0.49	0.80	0.72	0.76	0.54	1.00	0.82	0.29
Control Delay	46.1	42.1	0.6	41.4	38.3	24.2	86.4	41.5	6.8	87.4	39.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	42.1	0.6	41.4	38.3	24.2	86.4	41.5	6.8	87.4	39.2	8.2
LOS	D	D	A	D	D	C	F	D	A	F	D	A
Approach Delay		39.9			32.2			33.1			49.6	
Approach LOS		D			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.2	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	426	57	217	271	434	72	690	365	472	974	185
Future Volume (veh/h)	224	426	57	217	271	434	72	690	365	472	974	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	446	25	166	354	235	73	704	243	482	994	149
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	692	290	353	742	314	94	905	402	518	1280	563
Arrive On Green	0.18	0.18	0.18	0.20	0.20	0.20	0.05	0.25	0.25	0.15	0.35	0.35
Sat Flow, veh/h	1810	3800	1594	1810	3800	1608	1810	3610	1604	3510	3610	1589
Grp Volume(v), veh/h	221	446	25	166	354	235	73	704	243	482	994	149
Grp Sat Flow(s),veh/h/ln	1810	1900	1594	1810	1900	1608	1810	1805	1604	1755	1805	1589
Q Serve(g_s), s	10.7	10.2	1.2	7.6	7.7	12.9	3.7	17.0	12.5	12.7	23.0	6.3
Cycle Q Clear(g_c), s	10.7	10.2	1.2	7.6	7.7	12.9	3.7	17.0	12.5	12.7	23.0	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	692	290	353	742	314	94	905	402	518	1280	563
V/C Ratio(X)	0.67	0.64	0.09	0.47	0.48	0.75	0.78	0.78	0.60	0.93	0.78	0.26
Avail Cap(c_a), veh/h	580	1218	511	599	1258	532	108	1172	521	518	1280	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	35.5	31.8	33.4	33.4	35.5	43.8	32.6	31.0	39.4	26.9	21.5
Incr Delay (d2), s/veh	2.4	1.0	0.1	1.0	0.5	3.6	21.8	2.5	1.5	25.7	4.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.7	0.5	3.4	3.5	5.2	2.2	7.4	4.8	7.1	10.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	36.5	31.9	34.3	33.9	39.1	65.6	35.2	32.4	65.2	31.6	22.7
LnGrp LOS	D	D	C	C	C	D	E	D	C	E	C	C
Approach Vol, veh/h		692			755			1020			1625	
Approach Delay, s/veh		36.8			35.6			36.7			40.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.2	28.9		22.2	9.5	38.6		23.4				
Change Period (Y+Rc), s	5.4	* 5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	* 30		30.0	5.6	33.2		31.0				
Max Q Clear Time (g_c+I1), s	14.7	19.0		12.7	5.7	25.0		14.9				
Green Ext Time (p_c), s	0.0	4.1		3.3	0.0	4.3		3.2				

Intersection Summary		
HCM 6th Ctrl Delay		38.1
HCM 6th LOS		D

Notes

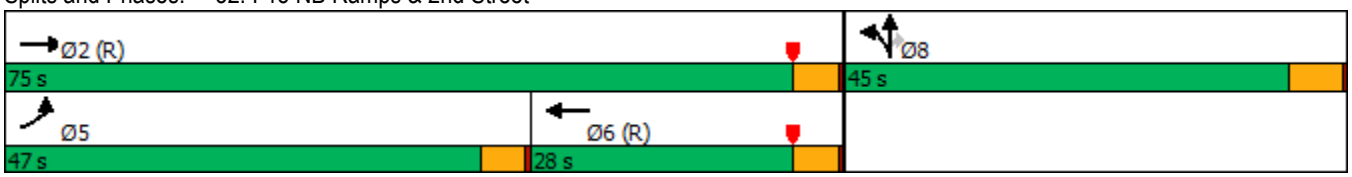
User approved volume balancing among the lanes for turning movement.

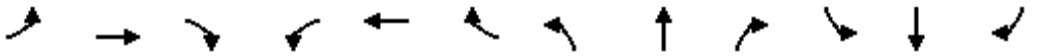
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	365	275	323	591	6	400
Future Volume (vph)	365	275	323	591	6	400
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	47.0	75.0	28.0	45.0	45.0	45.0
Total Split (%)	39.2%	62.5%	23.3%	37.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	31.2	80.3	44.6	29.8	29.8	29.8
Actuated g/C Ratio	0.26	0.67	0.37	0.25	0.25	0.25
v/c Ratio	0.84	0.12	0.30	0.74	0.76	0.59
Control Delay	46.0	8.5	29.9	51.8	52.7	6.6
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	8.5	29.9	51.8	52.7	6.6
LOS	D	A	C	D	D	A
Approach Delay		30.0	29.9		33.9	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 67.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	275	0	0	323	48	591	6	400	0	0	0
Future Volume (veh/h)	365	275	0	0	323	48	591	6	400	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	392	296	0	0	347	40	639	0	257			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	431	2569	0	0	1423	163	745	0	331			
Arrive On Green	0.08	0.23	0.00	0.00	0.44	0.44	0.21	0.00	0.21			
Sat Flow, veh/h	1810	3705	0	0	3358	373	3619	0	1610			
Grp Volume(v), veh/h	392	296	0	0	191	196	639	0	257			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1831	1810	0	1610			
Q Serve(g_s), s	25.8	7.7	0.0	0.0	8.0	8.1	20.4	0.0	18.1			
Cycle Q Clear(g_c), s	25.8	7.7	0.0	0.0	8.0	8.1	20.4	0.0	18.1			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	431	2569	0	0	787	799	745	0	331			
V/C Ratio(X)	0.91	0.12	0.00	0.00	0.24	0.25	0.86	0.00	0.78			
Avail Cap(c_a), veh/h	641	2569	0	0	787	799	1197	0	533			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	54.0	16.2	0.0	0.0	21.3	21.4	46.0	0.0	45.0			
Incr Delay (d2), s/veh	9.2	0.1	0.0	0.0	0.7	0.7	3.0	0.0	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	13.6	3.3	0.0	0.0	3.5	3.6	9.2	0.0	7.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	16.3	0.0	0.0	22.1	22.1	49.0	0.0	48.0			
LnGrp LOS	E	B	A	A	C	C	D	A	D			
Approach Vol, veh/h		688			387			896				
Approach Delay, s/veh		43.0			22.1			48.7				
Approach LOS		D			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.0			33.1	57.0		30.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		70.4			42.5	23.4		39.7				
Max Q Clear Time (g_c+I1), s		9.7			27.8	10.1		22.4				
Green Ext Time (p_c), s		1.3			0.8	1.2		2.3				

Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 4.1:

POST PROCESS WORKSHEETS

This Page Intentionally Left Blank

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: River Rd. & Corydon St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	186	209	24	13%	222	278	57	26%
	Through	710	811	102	14%	718	1,387	669	93%
	Right	91	117	27	29%	58	93	36	62%
	NB Total	986	1,137	152	15%	997	1,758	761	76%
SOUTH BOUND	Left	74	94	20	27%	80	118	38	48%
	Through	1,203	1,836	634	53%	909	1,250	342	38%
	Right	484	535	52	11%	270	309	39	14%
	SB Total	1,760	2,465	705	40%	1,259	1,677	419	33%
EAST BOUND	Left	229	210	-19	-8%	340	509	170	50%
	Through	134	139	5	4%	126	158	33	26%
	Right	212	266	54	25%	99	116	17	17%
	EB Total	575	615	41	7%	564	783	219	39%
WEST BOUND	Left	43	79	37	86%	27	34	7	26%
	Through	167	225	58	35%	108	112	4	4%
	Right	36	49	13	36%	41	65	25	60%
	WB Total	246	353	108	44%	176	211	36	20%
TOTAL ENTERING VOLUME		3,566	4,570	1004.5	28%	2,995	4,429	1434	48%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	2,465	1,677			
North Leg	Outbound	1,070	1,961			
North Leg	**TOTAL**	**3,535**	**3,638**	**10%**	**11%**	**33,886**
South Leg	Inbound	1,137	1,758			
South Leg	Outbound	2,181	1,400			
South Leg	**TOTAL**	**3,318**	**3,158**	**10%**	**9%**	**34,130**
East Leg	Inbound	353	211			
East Leg	Outbound	350	369			
East Leg	**TOTAL**	**703**	**580**	**5%**	**5%**	**12,809**
West Leg	Inbound	615	783			
West Leg	Outbound	969	699			
West Leg	**TOTAL**	**1,584**	**1,482**	**9%**	**9%**	**17,238**
OVERALL TOTAL		***9,140***	***8,858***	***9%***	***9%***	***98,063***

U:\UcJobs_10600-11000_10800\10899\Post Process\[01 River_Corydon.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: River Rd. & Second St./Country Club Ln.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	29	25	-4	-14%	36	29	-7	-19%
	Through	668	773	106	16%	651	1,147	497	76%
	Right	149	112	-37	-25%	75	48	-27	-36%
	NB Total	846	910	65	8%	761	1,224	463	61%
SOUTH BOUND	Left	378	586	208	55%	284	379	96	34%
	Through	1,047	1,529	482	46%	723	933	211	29%
	Right	23	42	19	83%	35	59	24	69%
	SB Total	1,448	2,157	709	49%	1,041	1,371	330	32%
EAST BOUND	Left	34	49	15	44%	23	48	25	109%
	Through	130	122	-8	-6%	58	43	-15	-25%
	Right	55	48	-7	-12%	40	29	-11	-27%
	EB Total	219	219	1	0%	120	120	0	0%
WEST BOUND	Left	115	83	-32	-28%	65	38	-27	-41%
	Through	74	66	-8	-10%	81	62	-19	-23%
	Right	250	295	46	18%	253	426	174	69%
	WB Total	438	444	6	1%	398	526	128	32%
TOTAL ENTERING VOLUME		2,950	3,730	780	26%	2,320	3,241	921	40%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	2,157	1,371			
North Leg	Outbound	1,117	1,621			
North Leg	**TOTAL**	**3,274**	**2,992**	**10%**	**9%**	**34,130**
South Leg	Inbound	910	1,224			
South Leg	Outbound	1,660	1,000			
South Leg	**TOTAL**	**2,570**	**2,224**	**10%**	**8%**	**26,225**
East Leg	Inbound	444	526			
East Leg	Outbound	820	470			
East Leg	**TOTAL**	**1,264**	**996**	**7%**	**6%**	**17,595**
West Leg	Inbound	219	120			
West Leg	Outbound	133	150			
West Leg	**TOTAL**	**352**	**270**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***7,460***	***6,482***	**10%**	***8%***	***77,950***

U:\UcJobs_10600-11000_10800\10899\Post Process\[02 River_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: River Rd. & Lincoln Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	121	143	23	19%	59	85	27	45%
	Through	554	542	-12	-2%	408	484	77	19%
	Right	91	83	-8	-9%	40	37	-3	-8%
	NB Total	766	768	3	0%	506	606	100	20%
SOUTH BOUND	Left	201	173	-28	-14%	138	113	-25	-18%
	Through	728	955	227	31%	418	401	-17	-4%
	Right	407	455	48	12%	241	307	66	27%
	SB Total	1,336	1,583	247	18%	797	821	25	3%
EAST BOUND	Left	318	382	64	20%	269	360	92	34%
	Through	390	439	50	13%	617	650	33	5%
	Right	28	47	20	71%	105	130	25	24%
	EB Total	735	868	133	18%	991	1,140	150	15%
WEST BOUND	Left	43	51	9	20%	35	29	-6	-17%
	Through	621	639	19	3%	324	358	34	10%
	Right	190	160	-30	-16%	140	127	-13	-9%
	WB Total	853	850	-3	0%	499	514	15	3%
TOTAL ENTERING VOLUME		3,689	4,069	380	10%	2,792	3,081	289	10%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,583	821			
North Leg	Outbound	1,084	971			
North Leg	**TOTAL**	**2,667**	**1,792**	**14%**	**9%**	**19,103**
South Leg	Inbound	768	606			
South Leg	Outbound	1,053	560			
South Leg	**TOTAL**	**1,821**	**1,166**	**10%**	**6%**	**19,023**
East Leg	Inbound	850	514			
East Leg	Outbound	695	800			
East Leg	**TOTAL**	**1,545**	**1,314**	**52%**	**44%**	**2,980**
West Leg	Inbound	868	1,140			
West Leg	Outbound	1,237	750			
West Leg	**TOTAL**	**2,105**	**1,890**	**36%**	**32%**	**5,883**
OVERALL TOTAL		***8,138***	***6,162***	**17%**	***13%***	***46,989***

U:\UcJobs_10600-11000_10800\10899\Post Process\[03 River_Lincoln.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Lincoln Av. & Rincon St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	131	132	1	1%	100	105	6	6%
	Through	601	607	7	1%	728	770	43	6%
	Right	6	4	-2	-33%	2	4	2	100%
	NB Total	738	743	6	1%	829	879	50	6%
SOUTH BOUND	Left	8	6	-2	-25%	2	3	2	100%
	Through	935	942	7	1%	524	531	8	1%
	Right	311	308	-3	-1%	84	77	-7	-8%
	SB Total	1,254	1,256	2	0%	609	611	3	0%
EAST BOUND	Left	86	83	-3	-3%	342	329	-13	-4%
	Through	0	0	0	#DIV/0!	2	4	2	100%
	Right	69	68	-1	-1%	168	177	10	6%
	EB Total	155	151	-4	-2%	511	510	-1	0%
WEST BOUND	Left	2	0	-2	-100%	7	8	1	14%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	2	0	-2	-100%	11	12	2	14%
	WB Total	4	0	-4	-100%	18	20	3	14%
TOTAL ENTERING VOLUME		2,150	2,150	0	0%	1,966	2,020	54	3%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,256	611			
North Leg	Outbound	690	1,111			
North Leg	**TOTAL**	**1,946**	**1,722**	**71%**	**62%**	**2,757**
South Leg	Inbound	743	879			
South Leg	Outbound	1,010	716			
South Leg	**TOTAL**	**1,753**	**1,595**	**173%**	**157%**	**1,014**
East Leg	Inbound	0	20			
East Leg	Outbound	10	11			
East Leg	**TOTAL**	**10**	**31**	**1%**	**3%**	**962**
West Leg	Inbound	151	510			
West Leg	Outbound	440	182			
West Leg	**TOTAL**	**591**	**692**	**52%**	**60%**	**1,144**
OVERALL TOTAL		***4,300***	***4,040***	**73%**	***69%***	***5,877***

U:\UcJobs_10600-11000_10800\10899\Post Process\[04 Lincoln_Rincon.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Lincoln Av. & Railroad St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	220	259	39	18%	86	112	27	31%
	Through	518	544	26	5%	599	680	82	14%
	Right	86	126	40	47%	78	135	57	73%
	NB Total	824	929	105	13%	762	927	165	22%
SOUTH BOUND	Left	163	181	18	11%	111	108	-3	-3%
	Through	552	560	8	1%	558	582	24	4%
	Right	258	229	-29	-11%	30	22	-8	-27%
	SB Total	973	970	-3	0%	699	712	13	2%
EAST BOUND	Left	45	46	1	2%	126	105	-21	-17%
	Through	92	130	39	42%	453	577	125	28%
	Right	66	85	20	30%	182	249	68	37%
	EB Total	202	261	59	29%	760	931	171	23%
WEST BOUND	Left	58	67	9	16%	87	129	43	49%
	Through	542	550	8	1%	82	86	4	5%
	Right	180	163	-17	-9%	104	95	-9	-9%
	WB Total	780	780	1	0%	273	310	38	14%
TOTAL ENTERING VOLUME		2,779	2,940	161.5	6%	2,494	2,880	387	16%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	970	712			
North Leg	Outbound	753	880			
North Leg	**TOTAL**	**1,723**	**1,592**	**170%**	**157%**	**1,014**
South Leg	Inbound	929	927			
South Leg	Outbound	712	960			
South Leg	**TOTAL**	**1,641**	**1,887**	**34%**	**39%**	**4,885**
East Leg	Inbound	780	310			
East Leg	Outbound	437	820			
East Leg	**TOTAL**	**1,217**	**1,130**	**10%**	**9%**	**12,782**
West Leg	Inbound	261	931			
West Leg	Outbound	1,038	220			
West Leg	**TOTAL**	**1,299**	**1,151**	**10%**	**9%**	**12,670**
OVERALL TOTAL		***5,880***	***5,760***	**19%**	***18%***	***31,351***

U:\UcJobs_10600-11000_10800\10899\Post Process\[05 Lincoln_Railroad.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Parkridge Av. & Second St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	159	139	-20	-12%	164	245	82	50%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	14	31	17	121%	3	25	22	733%
	NB Total	173	170	-3	-1%	167	270	104	62%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	409	529	120	29%	338	435	97	29%
	Right	271	354	83	31%	75	75	0	0%
	EB Total	680	883	203	30%	413	510	97	23%
WEST BOUND	Left	10	26	17	174%	5	25	20	400%
	Through	297	321	25	8%	354	415	61	17%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	306	347	41	13%	359	440	81	23%
TOTAL ENTERING VOLUME		1,159	1,400	241.5	21%	939	1,220	282	30%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	170	270			
South Leg	Outbound	380	100			
South Leg	**TOTAL**	**550**	**370**	**6%**	**4%**	**9,222**
East Leg	Inbound	347	440			
East Leg	Outbound	560	460			
East Leg	**TOTAL**	**907**	**900**	**6%**	**6%**	**15,257**
West Leg	Inbound	883	510			
West Leg	Outbound	460	660			
West Leg	**TOTAL**	**1,343**	**1,170**	**8%**	**7%**	**17,595**
OVERALL TOTAL		***2,800***	***2,440***	***7%***	***6%***	***42,074***

U:\UcJobs_10600-11000_10800\10899\Post Process\[11 Parkridge_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Parkridge Av. & First St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	104	107	3	3%	79	99	21	26%
	Through	110	123	14	12%	113	227	115	102%
	Right	24	29	5	21%	39	73	35	90%
	NB Total	238	259	22	9%	230	399	170	74%
SOUTH BOUND	Left	129	163	35	27%	43	63	20	47%
	Through	98	153	56	57%	59	83	24	41%
	Right	152	164	12	8%	24	23	-1	-4%
	SB Total	378	480	102	27%	126	169	43	34%
EAST BOUND	Left	115	104	-11	-9%	30	35	5	17%
	Through	519	507	-12	-2%	638	695	57	9%
	Right	117	141	25	21%	111	117	6	5%
	EB Total	750	752	3	0%	779	847	68	9%
WEST BOUND	Left	15	21	7	45%	7	10	3	43%
	Through	675	671	-4	-1%	436	418	-18	-4%
	Right	99	107	8	8%	110	168	58	53%
	WB Total	788	799	11	1%	553	596	43	8%
TOTAL ENTERING VOLUME		2,153	2,290	137	6%	1,688	2,011	324	19%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	480	169			
North Leg	Outbound	334	430			
North Leg	**TOTAL**	**814**	**599**	**9%**	**6%**	**9,542**
South Leg	Inbound	259	399			
South Leg	Outbound	315	210			
South Leg	**TOTAL**	**574**	**609**	**5%**	**6%**	**10,918**
East Leg	Inbound	799	596			
East Leg	Outbound	699	831			
East Leg	**TOTAL**	**1,498**	**1,427**	**104%**	**99%**	**1,441**
West Leg	Inbound	752	847			
West Leg	Outbound	942	540			
West Leg	**TOTAL**	**1,694**	**1,387**	**167%**	**137%**	**1,012**
OVERALL TOTAL		***4,580***	***4,022***	**20%**	***18%***	***22,913***

U:\UcJobs_10600-11000_10800\10899\Post Process\[13 Parkridge_First.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Mountain Av. & Second St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	38	47	9	24%	30	39	9	30%
	Through	5	7	2	40%	9	11	2	22%
	Right	131	116	-15	-11%	112	99	-13	-11%
	NB Total	174	170	-4	-2%	151	149	-2	-1%
SOUTH BOUND	Left	23	28	5	22%	16	17	1	6%
	Through	3	3	0	0%	7	8	1	14%
	Right	11	18	8	71%	3	5	2	67%
	SB Total	37	49	13	34%	26	30	4	15%
EAST BOUND	Left	7	11	5	69%	6	12	6	100%
	Through	532	611	80	15%	377	534	157	42%
	Right	30	32	2	7%	33	50	17	52%
	EB Total	568	654	86	15%	416	596	180	43%
WEST BOUND	Left	71	65	-6	-8%	78	62	-16	-20%
	Through	381	519	139	36%	382	426	45	12%
	Right	16	23	8	48%	16	17	1	6%
	WB Total	467	607	141	30%	475	505	30	6%
TOTAL ENTERING VOLUME		1,245	1,480	235.5	19%	1,068	1,280	213	20%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	49	30			
North Leg	Outbound	41	40			
North Leg	**TOTAL**	**90**	**70**	**2%**	**1%**	**4,903**
South Leg	Inbound	170	149			
South Leg	Outbound	100	120			
South Leg	**TOTAL**	**270**	**269**	**415%**	**414%**	**65**
East Leg	Inbound	607	505			
East Leg	Outbound	755	650			
East Leg	**TOTAL**	**1,362**	**1,155**	**11%**	**9%**	**12,597**
West Leg	Inbound	654	596			
West Leg	Outbound	584	470			
West Leg	**TOTAL**	**1,238**	**1,066**	**9%**	**8%**	**13,640**
OVERALL TOTAL		***2,960***	***2,560***	**9%**	***8%***	***31,205***

U:\UcJobs_10600-11000_10800\10899\Post Process\[17 Mountain_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Mountain Av. & First St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	369	374	5	1%	233	239	6	3%
	Through	46	44	-2	-3%	30	38	8	27%
	Right	12	12	0	0%	8	11	3	38%
	NB Total	427	430	4	1%	271	288	17	6%
SOUTH BOUND	Left	6	6	0	0%	11	16	5	45%
	Through	23	21	-2	-7%	48	70	23	47%
	Right	75	73	-2	-3%	59	64	5	8%
	SB Total	104	100	-4	-3%	118	150	33	28%
EAST BOUND	Left	121	120	-1	-1%	100	107	8	8%
	Through	355	372	18	5%	385	449	65	17%
	Right	196	198	3	1%	236	279	44	18%
	EB Total	671	690	19	3%	720	835	116	16%
WEST BOUND	Left	1	1	0	0%	4	6	2	50%
	Through	344	352	8	2%	261	274	13	5%
	Right	7	7	0	0%	21	27	6	29%
	WB Total	352	360	8	2%	286	307	21	7%
TOTAL ENTERING VOLUME		1,553	1,580	27	2%	1,394	1,580	186	13%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	100	150			
North Leg	Outbound	171	172			
North Leg	**TOTAL**	**271**	**322**	**8%**	**10%**	**3,255**
South Leg	Inbound	430	288			
South Leg	Outbound	220	355			
South Leg	**TOTAL**	**650**	**643**	**23%**	**23%**	**2,801**
East Leg	Inbound	360	307			
East Leg	Outbound	390	476			
East Leg	**TOTAL**	**750**	**783**	**95%**	**99%**	**787**
West Leg	Inbound	690	835			
West Leg	Outbound	799	577			
West Leg	**TOTAL**	**1,489**	**1,412**	**103%**	**98%**	**1,441**
OVERALL TOTAL		***3,160***	***3,160***	**38%**	***38%***	***8,284***

U:\UcJobs_10600-11000_10800\10899\Post Process\[23 Mountain_First.xls]Output (3)

Project: Palomino Business Park
Scenario: Horizon Year (2040)

Job #: 10899
Analyst: CP
Date: ########

LOCATION: Hamner Av. & Third St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	528	527	52700%	1	333	332	33200%
	Through	2	157	155	7750%	2	342	340	17000%
	Right	1	9	8	800%	1	45	44	4400%
	NB Total	4	694	690	17250%	4	720	716	17900%
SOUTH BOUND	Left	1	5	4	400%	1	22	21	2100%
	Through	2	235	233	11650%	2	436	434	21700%
	Right	1	293	292	29200%	1	162	161	16100%
	SB Total	4	533	529	13225%	4	620	616	15400%
EAST BOUND	Left	1	67	66	6600%	1	181	180	18000%
	Through	2	36	34	1700%	2	214	212	10600%
	Right	1	179	178	17800%	1	475	474	47400%
	EB Total	4	282	278	6950%	4	870	866	21650%
WEST BOUND	Left	1	16	15	1500%	1	23	22	2200%
	Through	2	179	177	8850%	2	78	76	3800%
	Right	1	6	5	500%	1	9	8	800%
	WB Total	4	201	197	4925%	4	110	106	2650%
TOTAL ENTERING VOLUME		16	1,710	1694	10588%	16	2,320	2304	14400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	533	620			
North Leg	Outbound	230	532			
North Leg	**TOTAL**	**763**	**1,152**	**7%**	**11%**	**10,475**
South Leg	Inbound	694	720			
South Leg	Outbound	430	934			
South Leg	**TOTAL**	**1,124**	**1,654**	**7%**	**11%**	**15,020**
East Leg	Inbound	201	110			
East Leg	Outbound	50	281			
East Leg	**TOTAL**	**251**	**391**	**8%**	**12%**	**3,240**
West Leg	Inbound	282	870			
West Leg	Outbound	1,000	573			
West Leg	**TOTAL**	**1,282**	**1,443**	**7%**	**8%**	**17,111**
OVERALL TOTAL		***3,420***	***4,640***	**7%**	***10%***	***45,846***

U:\UcJobs_10600-11000_10800\10899\Post Process\[26 Hamner_Third.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Hamner Av. & Second St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	54	80	26	48%	72	108	37	51%
	Through	779	831	53	7%	690	910	220	32%
	Right	150	225	75	50%	365	573	208	57%
	NB Total	983	1,136	154	16%	1,127	1,591	465	41%
SOUTH BOUND	Left	239	260	21	9%	472	456	-16	-3%
	Through	599	807	208	35%	974	1,003	29	3%
	Right	146	156	11	7%	185	171	-14	-8%
	SB Total	984	1,223	240	24%	1,631	1,630	-1	0%
EAST BOUND	Left	186	172	-14	-7%	224	240	17	7%
	Through	404	525	122	30%	426	543	117	27%
	Right	29	46	18	61%	57	77	21	36%
	EB Total	618	743	126	20%	706	860	154	22%
WEST BOUND	Left	358	587	229	64%	217	248	32	15%
	Through	317	414	97	31%	271	279	9	3%
	Right	666	627	-39	-6%	434	392	-42	-10%
	WB Total	1,341	1,628	288	21%	921	919	-2	0%
TOTAL ENTERING VOLUME		3,924	4,730	806	21%	4,385	5,000	616	14%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,223	1,630			
North Leg	Outbound	1,630	1,542			
North Leg	**TOTAL**	**2,853**	**3,172**	**19%**	**21%**	**15,020**
South Leg	Inbound	1,136	1,591			
South Leg	Outbound	1,440	1,328			
South Leg	**TOTAL**	**2,576**	**2,919**	**17%**	**19%**	**15,204**
East Leg	Inbound	1,628	919			
East Leg	Outbound	1,010	1,572			
East Leg	**TOTAL**	**2,638**	**2,491**	**10%**	**10%**	**25,719**
West Leg	Inbound	743	860			
West Leg	Outbound	650	558			
West Leg	**TOTAL**	**1,393**	**1,418**	**11%**	**11%**	**12,597**
OVERALL TOTAL		***9,460***	***10,000***	**14%**	***15%***	***68,540***

U:\UcJobs_10600-11000_10800\10899\Post Process\[27 Hamner_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Hamner Av. & First St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	30	25	-5	-17%	66	79	13	20%
	Through	712	770	58	8%	715	1,056	342	48%
	Right	0	0	0	#DIV/0!	32	35	3	9%
	NB Total	742	795	53	7%	813	1,170	358	44%
SOUTH BOUND	Left	19	21	2	11%	75	72	-3	-3%
	Through	523	911	388	74%	948	990	43	4%
	Right	308	324	17	5%	212	223	11	5%
	SB Total	850	1,256	407	48%	1,234	1,285	51	4%
EAST BOUND	Left	312	332	20	6%	352	430	79	22%
	Through	21	19	-2	-10%	46	42	-4	-9%
	Right	13	18	5	38%	33	33	0	0%
	EB Total	346	369	23	7%	431	505	75	17%
WEST BOUND	Left	9	11	2	22%	50	47	-3	-6%
	Through	15	11	-4	-27%	30	28	-2	-5%
	Right	8	8	0	0%	21	25	4	19%
	WB Total	32	30	-2	-6%	101	100	-1	0%
TOTAL ENTERING VOLUME		1,970	2,450	480.5	24%	2,578	3,060	483	19%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,256	1,285			
North Leg	Outbound	1,110	1,511			
North Leg	**TOTAL**	**2,366**	**2,796**	**18%**	**22%**	**12,966**
South Leg	Inbound	795	1,170			
South Leg	Outbound	940	1,070			
South Leg	**TOTAL**	**1,735**	**2,240**	**14%**	**18%**	**12,324**
East Leg	Inbound	30	100			
East Leg	Outbound	40	149			
East Leg	**TOTAL**	**70**	**249**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	369	505			
West Leg	Outbound	360	330			
West Leg	**TOTAL**	**729**	**835**	**93%**	**106%**	**787**
OVERALL TOTAL		***4,900***	***6,120***	**19%**	***23%***	***26,077***

U:\UcJobs_10600-11000_10800\10899\Post Process\[28 Hamner_First.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Hamner Av. & Mountain Av./Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	33	48	15	45%	86	111	25	29%
	Through	469	575	107	23%	660	959	300	45%
	Right	235	277	43	18%	481	670	189	39%
	NB Total	736	900	164	22%	1,227	1,740	514	42%
SOUTH BOUND	Left	142	196	55	39%	458	409	-49	-11%
	Through	395	720	326	83%	704	792	89	13%
	Right	9	14	6	65%	23	19	-4	-17%
	SB Total	545	930	386	71%	1,184	1,220	36	3%
EAST BOUND	Left	12	12	1	4%	27	33	7	25%
	Through	190	197	7	4%	326	384	59	18%
	Right	37	50	14	37%	50	73	24	47%
	EB Total	238	259	21	9%	402	490	89	22%
WEST BOUND	Left	681	730	49	7%	369	518	150	41%
	Through	459	458	-1	0%	262	271	9	3%
	Right	299	253	-46	-15%	276	321	46	17%
	WB Total	1,439	1,441	2	0%	906	1,110	204	23%
TOTAL ENTERING VOLUME		2,958	3,530	572.5	19%	3,718	4,560	842	23%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	930	1,220			
North Leg	Outbound	840	1,313			
North Leg	**TOTAL**	**1,770**	**2,533**	**14%**	**21%**	**12,324**
South Leg	Inbound	900	1,740			
South Leg	Outbound	1,500	1,383			
South Leg	**TOTAL**	**2,400**	**3,123**	**6%**	**8%**	**41,542**
East Leg	Inbound	1,441	1,110			
East Leg	Outbound	670	1,463			
East Leg	**TOTAL**	**2,111**	**2,573**	**5%**	**7%**	**38,666**
West Leg	Inbound	259	490			
West Leg	Outbound	520	401			
West Leg	**TOTAL**	**779**	**891**	**10%**	**12%**	**7,545**
OVERALL TOTAL		***7,060***	***9,120***	***7%***	***9%***	***100,077***

U:\UcJobs_10600-11000_10800\10899\Post Process\[29 Hamner_Hidden Valley.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: Parkridge Av. & First St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	76	118	43	56%	42	101	59	140%
	Through	431	738	307	71%	754	1,220	466	62%
	Right	92	65	-27	-29%	129	92	-37	-29%
	NB Total	598	921	323	54%	925	1,413	488	53%
SOUTH BOUND	Left	216	290	74	34%	215	233	19	9%
	Through	618	1,026	409	66%	755	1,138	383	51%
	Right	212	621	410	194%	162	596	434	268%
	SB Total	1,045	1,937	892	85%	1,132	1,967	836	74%
EAST BOUND	Left	113	488	376	334%	184	589	405	220%
	Through	325	589	264	81%	332	466	135	41%
	Right	38	84	47	124%	65	126	62	95%
	EB Total	475	1,161	686	144%	580	1,181	601	104%
WEST BOUND	Left	121	84	-37	-30%	74	86	13	17%
	Through	336	415	79	24%	169	483	315	187%
	Right	245	331	87	35%	260	501	241	93%
	WB Total	701	830	129	18%	502	1,070	568	113%
TOTAL ENTERING VOLUME		2,819	4,849	2030	72%	3,139	5,631	2493	79%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,937	1,967			
North Leg	Outbound	1,557	2,310			
North Leg	**TOTAL**	**3,494**	**4,277**	**8%**	**10%**	**41,542**
South Leg	Inbound	921	1,413			
South Leg	Outbound	1,194	1,350			
South Leg	**TOTAL**	**2,115**	**2,763**	**10%**	**13%**	**22,090**
East Leg	Inbound	830	1,070			
East Leg	Outbound	944	791			
East Leg	**TOTAL**	**1,774**	**1,861**	**9%**	**9%**	**19,609**
West Leg	Inbound	1,161	1,181			
West Leg	Outbound	1,154	1,180			
West Leg	**TOTAL**	**2,315**	**2,361**	**9%**	**9%**	**25,951**
OVERALL TOTAL		***9,698***	***11,262***	**9%**	***10%***	***109,192***

U:\UcJobs_10600-11000_10800\10899\Post Process\[30 Main_Parkridge.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 SB Ramps & Second St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	56	59	3	5%	70	79	9	13%
	Through	1	1	0	0%	3	3	0	0%
	Right	326	378	52	16%	226	222	-4	-2%
	SB Total	383	438	55	14%	299	304	5	2%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	384	511	127	33%	544	581	37	7%
	Right	440	546	106	24%	732	721	-11	-2%
	EB Total	824	1,057	233	28%	1,276	1,302	26	2%
WEST BOUND	Left	250	233	-17	-7%	165	175	10	6%
	Through	1,021	1,122	101	10%	715	718	3	0%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	1,271	1,355	84	7%	880	893	13	1%
TOTAL ENTERING VOLUME		2,478	2,850	372	15%	2,455	2,499	44	2%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	438	304			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**438**	**304**	**8%**	**6%**	**5,166**
South Leg	Inbound	0	0			
South Leg	Outbound	780	899			
South Leg	**TOTAL**	**780**	**899**	**10%**	**12%**	**7,447**
East Leg	Inbound	1,355	893			
East Leg	Outbound	570	660			
East Leg	**TOTAL**	**1,925**	**1,553**	**25%**	**20%**	**7,588**
West Leg	Inbound	1,057	1,302			
West Leg	Outbound	1,500	940			
West Leg	**TOTAL**	**2,557**	**2,242**	**16%**	**14%**	**16,374**
OVERALL TOTAL		***5,700***	***4,998***	**16%**	***14%***	***36,575***

U:\UcJobs_10600-11000_10800\10899\Post Process\[31 I-15 SB Ramps_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 SB Off-Ramp & Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	76	80	5	6%	221	219	-2	-1%
	NB Total	76	80	5	6%	221	219	-2	-1%
SOUTH BOUND	Left	207	223	16	8%	385	248	-137	-36%
	Through	65	66	2	2%	78	77	-1	-1%
	Right	648	671	24	4%	288	439	152	53%
	SB Total	919	960	41	4%	750	764	15	2%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	586	686	100	17%	1,218	1,383	165	14%
	Right	22	24	2	9%	41	71	31	75%
	EB Total	608	710	102	17%	1,259	1,454	196	16%
WEST BOUND	Left	74	73	-1	-1%	102	72	-30	-29%
	Through	794	797	4	0%	650	701	51	8%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	867	870	3	0%	752	773	21	3%
TOTAL ENTERING VOLUME		2,470	2,620	150.5	6%	2,981	3,210	230	8%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	960	764			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**960**	**764**	**10%**	**8%**	**9,649**
South Leg	Inbound	80	219			
South Leg	Outbound	163	220			
South Leg	**TOTAL**	**243**	**439**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	870	773			
East Leg	Outbound	989	1,850			
East Leg	**TOTAL**	**1,859**	**2,623**	**6%**	**8%**	**32,761**
West Leg	Inbound	710	1,454			
West Leg	Outbound	1,468	1,140			
West Leg	**TOTAL**	**2,178**	**2,594**	**6%**	**7%**	**38,666**
OVERALL TOTAL		***5,240***	***6,420***	**6%**	***8%***	***81,076***

U:\UcJobs_10600-11000_10800\10899\Post Process\[32 Hamner_I-15 SB Off-Ramp.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 SB On-Ramp & Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	539	690	151	28%	1,378	1,380	2	0%
	Right	270	250	-20	-7%	381	470	89	23%
	EB Total	809	940	131	16%	1,759	1,850	91	5%
WEST BOUND	Left	181	220	39	22%	142	220	78	55%
	Through	844	840	-4	0%	734	730	-4	-1%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	1,025	1,060	35	3%	876	950	74	8%
TOTAL ENTERING VOLUME		1,834	2,000	166	9%	2,635	2,800	165	6%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	0	0			
South Leg	Outbound	470	690			
South Leg	**TOTAL**	**470**	**690**	**6%**	**9%**	**7,487**
East Leg	Inbound	1,060	950			
East Leg	Outbound	690	1,380			
East Leg	**TOTAL**	**1,750**	**2,330**	**6%**	**8%**	**29,609**
West Leg	Inbound	940	1,850			
West Leg	Outbound	840	730			
West Leg	**TOTAL**	**1,780**	**2,580**	**5%**	**8%**	**32,761**
OVERALL TOTAL		***4,000***	***5,600***	***6%***	***8%***	***69,857***

U:\UcJobs_10600-11000_10800\10899\Post Process\[33 I-15 SB On-Ramp_Hidden Valley.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 NB Ramps & Second St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	717	769	52	7%	568	590	22	4%
	Through	7	8	1	14%	5	5	0	0%
	Right	562	513	-49	-9%	388	365	-23	-6%
	NB Total	1,286	1,290	4	0%	961	960	-1	0%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	115	169	54	47%	342	591	249	73%
	Through	325	400	75	23%	272	458	186	68%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	440	569	129	29%	614	1,049	435	71%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	554	566	12	2%	312	396	84	27%
	Right	71	74	3	4%	46	54	8	17%
	WB Total	625	640	15	2%	358	450	92	26%
TOTAL ENTERING VOLUME		2,351	2,499	148	6%	1,933	2,459	526	27%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	251	650			
North Leg	**TOTAL**	**251**	**650**	**5%**	**13%**	**5,166**
South Leg	Inbound	1,290	960			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**1,290**	**960**	**17%**	**13%**	**7,447**
East Leg	Inbound	640	450			
East Leg	Outbound	913	823			
East Leg	**TOTAL**	**1,553**	**1,273**	**20%**	**17%**	**7,588**
West Leg	Inbound	569	1,049			
West Leg	Outbound	1,335	986			
West Leg	**TOTAL**	**1,904**	**2,035**	**12%**	**12%**	**16,374**
OVERALL TOTAL		***4,998***	***4,918***	**14%**	***13%***	***36,575***

U:\UcJobs_10600-11000_10800\10899\Post Process\[34 I-15 NB Ramps_Second.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 NB On-Ramp & Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	1	0	-1	-100%
	Through	3	0	-3	-100%	0	0	0	#DIV/0!
	Right	1	0	-1	-100%	1	0	-1	-100%
	NB Total	4	0	-4	-100%	2	0	-2	-100%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	152	246	94	62%	409	503	94	23%
	Through	386	440	54	14%	969	970	1	0%
	Right	1	0	-1	-100%	0	0	0	#DIV/0!
	EB Total	539	686	147	27%	1,378	1,473	95	7%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,025	1,050	25	2%	875	930	55	6%
	Right	492	474	-18	-4%	353	407	54	15%
	WB Total	1,517	1,524	7	0%	1,228	1,337	109	9%
TOTAL ENTERING VOLUME		2,060	2,210	150	7%	2,608	2,810	202	8%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	720	910			
North Leg	**TOTAL**	**720**	**910**	**4%**	**5%**	**18,536**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	1,524	1,337			
East Leg	Outbound	440	970			
East Leg	**TOTAL**	**1,964**	**2,307**	**10%**	**12%**	**18,909**
West Leg	Inbound	686	1,473			
West Leg	Outbound	1,050	930			
West Leg	**TOTAL**	**1,736**	**2,403**	**6%**	**8%**	**29,609**
OVERALL TOTAL		***4,420***	***5,620***	***7%***	***8%***	***67,054***

U:\UcJobs_10600-11000_10800\10899\Post Process\[35 I-15 NB On-Ramp_Hidden Valley.xls]Output (3)

Project:	Palomino Business Park	Job #:	10899
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	10/17/18

LOCATION: I-15 NB Off-Ramp & Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	442	410	-32	-7%	377	319	-58	-15%
	Through	77	81	4	5%	60	64	5	8%
	Right	151	209	59	39%	265	316	51	19%
	NB Total	669	700	31	5%	702	699	-3	0%
SOUTH BOUND	Left	34	49	15	44%	61	77	17	27%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	163	157	-6	-4%	137	123	-14	-10%
	SB Total	197	206	9	5%	197	200	3	2%
EAST BOUND	Left	69	63	-6	-9%	83	76	-7	-8%
	Through	333	402	69	21%	907	919	12	1%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	402	465	63	16%	990	995	6	1%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	948	983	35	4%	744	923	180	24%
	Right	30	35	5	17%	33	52	19	58%
	WB Total	978	1,018	40	4%	777	975	199	26%
TOTAL ENTERING VOLUME		2,246	2,389	143	6%	2,665	2,869	205	8%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	206	200			
North Leg	Outbound	179	192			
North Leg	**TOTAL**	**385**	**392**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	700	699			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**700**	**699**	**11%**	**11%**	**6,170**
East Leg	Inbound	1,018	975			
East Leg	Outbound	660	1,312			
East Leg	**TOTAL**	**1,678**	**2,287**	**10%**	**13%**	**17,175**
West Leg	Inbound	465	995			
West Leg	Outbound	1,550	1,365			
West Leg	**TOTAL**	**2,015**	**2,360**	**11%**	**12%**	**18,909**
OVERALL TOTAL		***4,778***	***5,738***	**11%**	***14%***	***42,254***

U:\UcJobs_10600-11000_10800\10899\Post Process\[36 I-15 NB Off-Ramp_Hidden Valley.xls]Output (3)

Project: Palomino Business Park
Scenario: Horizon Year (2040)

Job #: 10899
Analyst: CP
Date: ########

LOCATION: El Paso Dr. & Hidden Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	36	35	3500%	1	46	45	4500%
	Through	2	150	148	7400%	2	287	285	14250%
	Right	1	205	204	20400%	1	549	548	54800%
	NB Total	4	391	387	9675%	4	882	878	21950%
SOUTH BOUND	Left	1	281	280	28000%	1	609	608	60800%
	Through	2	231	229	11450%	2	261	259	12950%
	Right	1	49	48	4800%	1	51	50	5000%
	SB Total	4	561	557	13925%	4	921	917	22925%
EAST BOUND	Left	1	21	20	2000%	1	22	21	2100%
	Through	2	257	255	12750%	2	372	370	18500%
	Right	1	24	23	2300%	1	18	17	1700%
	EB Total	4	302	298	7450%	4	412	408	10200%
WEST BOUND	Left	1	317	316	31600%	1	281	280	28000%
	Through	2	608	606	30300%	2	493	491	24550%
	Right	1	281	280	28000%	1	342	341	34100%
	WB Total	4	1,206	1,202	30050%	4	1,116	1,112	27800%
TOTAL ENTERING VOLUME		16	2,460	2444	15275%	16	3,331	3315	20719%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	561	921			
North Leg	Outbound	452	651			
North Leg	**TOTAL**	**1,013**	**1,572**	**8%**	**12%**	**13,179**
South Leg	Inbound	391	882			
South Leg	Outbound	572	560			
South Leg	**TOTAL**	**963**	**1,442**	**7%**	**11%**	**13,108**
East Leg	Inbound	1,206	1,116			
East Leg	Outbound	743	1,530			
East Leg	**TOTAL**	**1,949**	**2,646**	**8%**	**11%**	**23,944**
West Leg	Inbound	302	412			
West Leg	Outbound	693	590			
West Leg	**TOTAL**	**995**	**1,002**	**10%**	**10%**	**10,313**
OVERALL TOTAL		***4,920***	***6,662***	**8%**	***11%***	***60,544***

U:\UcJobs_10600-11000_10800\10899\Post Process\[37 El Paso_Hidden Valley - Semi.xls]Output (3)

This Page Intentionally Left Blank

APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

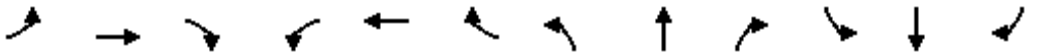
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	229	134	222	53	167	36	189	713	74	1213	484
Future Volume (vph)	229	134	222	53	167	36	189	713	74	1213	484
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.2
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	134	222	53	167	36	189	713	94	74	1213	484
Future Volume (veh/h)	229	134	222	53	167	36	189	713	94	74	1213	484
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	246	144	170	57	180	27	203	767	92	80	1304	392
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	322	481	74	231	195	234	1747	209	103	1682	875
Arrive On Green	0.09	0.17	0.17	0.04	0.12	0.12	0.13	0.54	0.54	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3245	389	1810	3610	1572
Grp Volume(v), veh/h	246	144	170	57	180	27	203	426	433	80	1304	392
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1830	1810	1805	1572
Q Serve(g_s), s	7.1	7.0	8.5	3.2	9.5	1.6	11.4	14.8	14.8	4.5	31.2	15.3
Cycle Q Clear(g_c), s	7.1	7.0	8.5	3.2	9.5	1.6	11.4	14.8	14.8	4.5	31.2	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	311	322	481	74	231	195	234	972	985	103	1682	875
V/C Ratio(X)	0.79	0.45	0.35	0.77	0.78	0.14	0.87	0.44	0.44	0.78	0.78	0.45
Avail Cap(c_a), veh/h	354	532	659	149	497	420	252	972	985	205	1682	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	38.5	28.4	49.0	44.0	40.5	44.1	14.4	14.4	48.0	23.1	13.7
Incr Delay (d2), s/veh	8.8	1.0	0.4	6.2	5.6	0.3	23.2	1.4	1.4	4.7	3.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.3	3.3	1.6	4.8	0.6	6.4	5.8	5.9	2.1	12.8	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	39.5	28.8	55.3	49.6	40.8	67.3	15.9	15.8	52.7	26.6	15.3
LnGrp LOS	D	D	C	E	D	D	E	B	B	D	C	B
Approach Vol, veh/h		560			264			1062			1776	
Approach Delay, s/veh		43.0			50.0			25.7			25.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	61.4	8.8	22.6	18.0	53.9	13.8	17.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.5	16.8	5.2	10.5	13.4	33.2	9.1	11.5
Green Ext Time (p_c), s	0.0	5.5	0.0	1.2	0.0	8.8	0.1	0.8

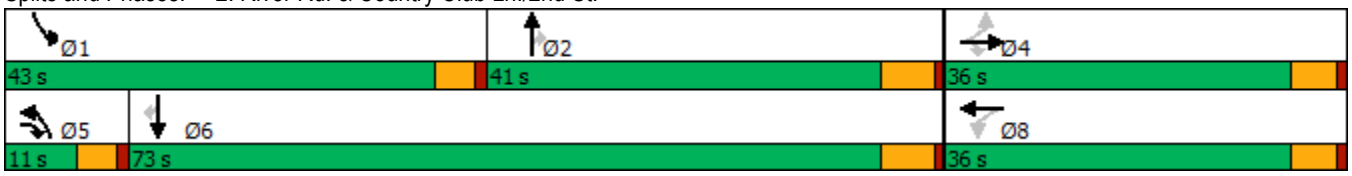
Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

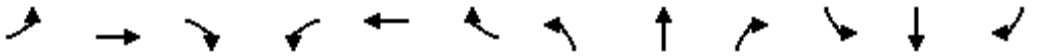
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	34	140	55	115	77	29	668	149	407	1047	23
Future Volume (vph)	34	140	55	115	77	29	668	149	407	1047	23
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	140	55	115	77	259	29	668	149	407	1047	23
Future Volume (veh/h)	34	140	55	115	77	259	29	668	149	407	1047	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	39	159	36	131	88	211	33	759	110	462	1190	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	429	410	252	112	268	52	1308	582	492	2187	953
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.36	0.36	0.27	0.61	0.61
Sat Flow, veh/h	1096	1900	1610	1207	495	1187	1810	3610	1606	1810	3610	1573
Grp Volume(v), veh/h	39	159	36	131	0	299	33	759	110	462	1190	24
Grp Sat Flow(s),veh/h/ln	1096	1900	1610	1207	0	1683	1810	1805	1606	1810	1805	1573
Q Serve(g_s), s	3.9	7.8	1.9	11.4	0.0	18.6	2.0	18.8	5.2	27.7	21.5	0.7
Cycle Q Clear(g_c), s	22.4	7.8	1.9	19.3	0.0	18.6	2.0	18.8	5.2	27.7	21.5	0.7
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	429	410	252	0	380	52	1308	582	492	2187	953
V/C Ratio(X)	0.30	0.37	0.09	0.52	0.00	0.79	0.63	0.58	0.19	0.94	0.54	0.03
Avail Cap(c_a), veh/h	187	529	495	316	0	469	104	1308	582	626	2187	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	36.3	31.5	44.4	0.0	40.4	53.3	28.6	24.2	39.5	12.9	8.8
Incr Delay (d2), s/veh	1.3	0.5	0.1	1.7	0.0	7.0	4.7	1.9	0.7	17.6	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.7	0.7	3.5	0.0	8.3	1.0	8.1	2.0	14.1	7.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	36.8	31.6	46.1	0.0	47.5	58.0	30.4	24.9	57.1	13.8	8.8
LnGrp LOS	D	D	C	D	A	D	E	C	C	E	B	A
Approach Vol, veh/h		234			430			902			1676	
Approach Delay, s/veh		38.6			47.1			30.8			25.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	34.8	46.0		30.2	7.8	73.0		30.2				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	29.7	20.8		24.4	4.0	23.5		21.3				
Green Ext Time (p_c), s	0.5	4.4		0.5	0.0	10.4		1.6				

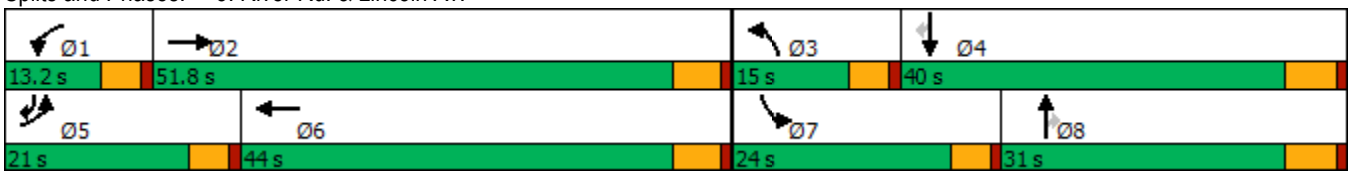
Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			C									

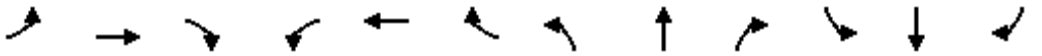
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	318	463	48	644	121	554	106	201	728	407
Future Volume (vph)	318	463	48	644	121	554	106	201	728	407
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	15.0	31.0	31.0	24.0	40.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	12.5%	25.8%	25.8%	20.0%	33.3%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	463	28	48	644	190	121	554	106	201	728	407
Future Volume (veh/h)	318	463	28	48	644	190	121	554	106	201	728	407
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	353	514	19	53	716	187	134	616	76	223	809	322
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	416	1509	56	69	974	254	162	776	327	253	958	611
Arrive On Green	0.12	0.43	0.43	0.04	0.34	0.34	0.09	0.21	0.21	0.14	0.27	0.27
Sat Flow, veh/h	3510	3548	131	1810	2825	738	1810	3610	1519	1810	3610	1585
Grp Volume(v), veh/h	353	261	272	53	457	446	134	616	76	223	809	322
Grp Sat Flow(s),veh/h/ln	1755	1805	1874	1810	1805	1758	1810	1805	1519	1810	1805	1585
Q Serve(g_s), s	11.0	10.9	10.9	3.3	24.9	24.9	8.2	18.1	4.6	13.5	23.8	17.6
Cycle Q Clear(g_c), s	11.0	10.9	10.9	3.3	24.9	24.9	8.2	18.1	4.6	13.5	23.8	17.6
Prop In Lane	1.00		0.07	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	768	797	69	622	606	162	776	327	253	958	611
V/C Ratio(X)	0.85	0.34	0.34	0.77	0.74	0.74	0.83	0.79	0.23	0.88	0.84	0.53
Avail Cap(c_a), veh/h	514	768	797	139	622	606	168	812	342	313	1102	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	21.6	21.6	53.4	32.2	32.2	50.2	41.6	36.3	47.3	39.0	26.7
Incr Delay (d2), s/veh	9.0	1.2	1.2	6.7	7.6	7.8	25.5	5.2	0.4	18.6	5.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	4.7	4.9	1.6	11.7	11.5	4.7	8.3	1.7	7.2	10.8	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	22.8	22.8	60.1	39.8	40.0	75.6	46.9	36.7	65.9	44.5	27.4
LnGrp LOS	E	C	C	E	D	D	E	D	D	E	D	C
Approach Vol, veh/h		886			956			826			1354	
Approach Delay, s/veh		36.6			41.0			50.6			43.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	53.0	14.6	35.5	17.9	44.0	20.2	29.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	10.4	34.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	5.3	12.9	10.2	25.8	13.0	26.9	15.5	20.1
Green Ext Time (p_c), s	0.0	3.1	0.0	4.0	0.2	4.3	0.1	1.8

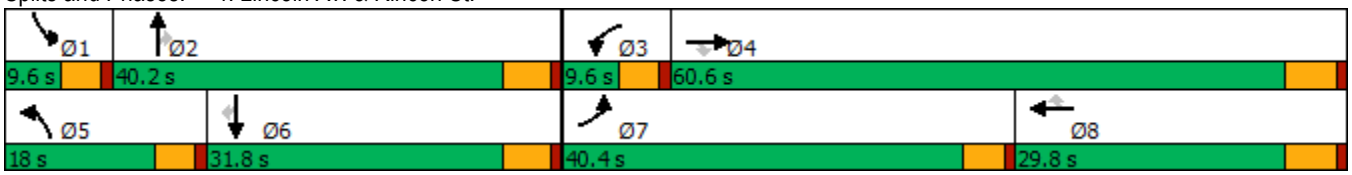
Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	86	69	2	2	131	674	6	8	958	311
Future Volume (vph)	86	69	2	2	131	674	6	8	958	311
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 67.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	0	69	2	0	2	131	674	6	8	958	311
Future Volume (veh/h)	86	0	69	2	0	2	131	674	6	8	958	311
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	0	28	2	0	0	151	775	6	9	1101	300
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	262	222	5	131	111	192	1929	859	21	1588	692
Arrive On Green	0.07	0.00	0.14	0.00	0.00	0.00	0.11	0.53	0.53	0.01	0.44	0.44
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	99	0	28	2	0	0	151	775	6	9	1101	300
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	3.5	0.0	1.0	0.1	0.0	0.0	5.3	8.3	0.1	0.3	16.0	8.6
Cycle Q Clear(g_c), s	3.5	0.0	1.0	0.1	0.0	0.0	5.3	8.3	0.1	0.3	16.0	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	262	222	5	131	111	192	1929	859	21	1588	692
V/C Ratio(X)	0.76	0.00	0.13	0.41	0.00	0.00	0.79	0.40	0.01	0.43	0.69	0.43
Avail Cap(c_a), veh/h	995	1599	1355	139	700	593	372	1929	859	139	1588	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	24.6	32.4	0.0	0.0	28.4	9.0	7.1	32.0	14.7	12.6
Incr Delay (d2), s/veh	3.5	0.0	0.3	18.6	0.0	0.0	2.7	0.6	0.0	5.1	2.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.4	0.1	0.0	0.0	2.3	2.7	0.0	0.2	5.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	24.9	51.0	0.0	0.0	31.1	9.6	7.1	37.1	17.2	14.6
LnGrp LOS	C	A	C	D	A	A	C	A	A	D	B	B
Approach Vol, veh/h		127			2			932			1410	
Approach Delay, s/veh		31.3			51.0			13.1			16.8	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	40.2	4.8	14.8	11.5	34.0	9.3	10.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.3	10.3	2.1	3.0	7.3	18.0	5.5	0.0
Green Ext Time (p_c), s	0.0	5.3	0.0	0.1	0.1	5.0	0.1	0.0

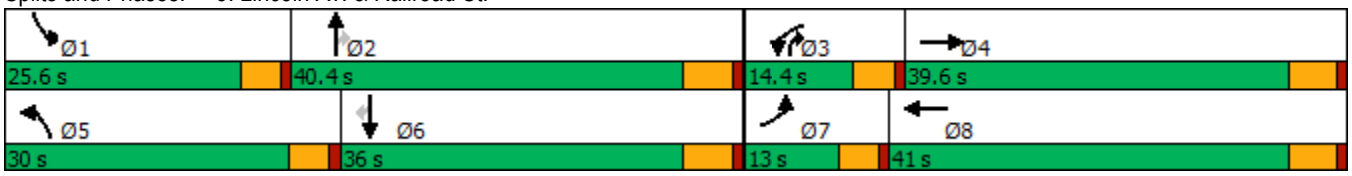
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

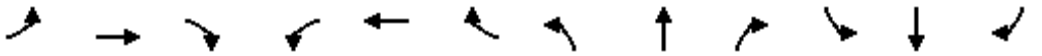
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	60	92	58	542	220	576	86	163	570	263
Future Volume (vph)	60	92	58	542	220	576	86	163	570	263
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	92	66	58	542	180	220	576	86	163	570	263
Future Volume (veh/h)	60	92	66	58	542	180	220	576	86	163	570	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	105	42	66	616	170	250	655	54	185	648	216
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	686	260	86	748	206	286	1292	644	220	1160	516
Arrive On Green	0.05	0.27	0.27	0.05	0.27	0.27	0.16	0.36	0.36	0.12	0.32	0.32
Sat Flow, veh/h	1810	2547	967	1810	2795	770	1810	3610	1589	1810	3610	1607
Grp Volume(v), veh/h	68	73	74	66	397	389	250	655	54	185	648	216
Grp Sat Flow(s),veh/h/ln	1810	1805	1709	1810	1805	1759	1810	1805	1589	1810	1805	1607
Q Serve(g_s), s	3.6	3.0	3.2	3.5	20.2	20.3	13.2	13.9	2.0	9.8	14.5	10.3
Cycle Q Clear(g_c), s	3.6	3.0	3.2	3.5	20.2	20.3	13.2	13.9	2.0	9.8	14.5	10.3
Prop In Lane	1.00		0.57	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	486	460	86	483	471	286	1292	644	220	1160	516
V/C Ratio(X)	0.77	0.15	0.16	0.77	0.82	0.82	0.88	0.51	0.08	0.84	0.56	0.42
Avail Cap(c_a), veh/h	155	631	597	181	657	640	470	1292	644	388	1160	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	27.2	27.3	46.1	33.6	33.7	40.3	24.6	17.9	42.1	27.5	26.0
Incr Delay (d2), s/veh	5.3	0.1	0.2	5.4	6.1	6.4	5.6	1.4	0.3	3.4	1.9	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.3	1.3	1.7	9.3	9.1	6.1	5.9	0.8	4.4	6.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	27.4	27.5	51.5	39.7	40.0	45.9	26.1	18.2	45.4	29.4	28.5
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		215			852			959			1049	
Approach Delay, s/veh		35.0			40.8			30.8			32.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	40.4	9.2	31.7	20.0	36.8	9.4	31.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	11.8	15.9	5.5	5.2	15.2	16.5	5.6	22.3
Green Ext Time (p_c), s	0.2	4.2	0.0	0.7	0.2	4.2	0.0	3.9

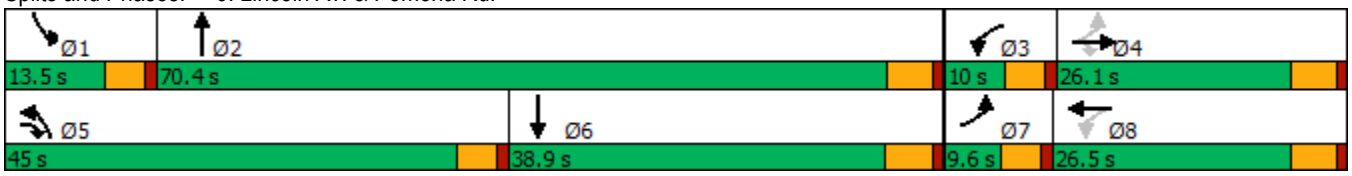
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

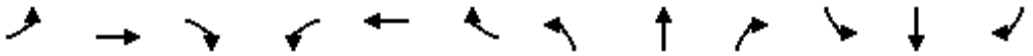
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	8	88	90	21	443	899	48	638
Future Volume (vph)	11	8	88	90	21	443	899	48	638
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	45.0	10.0	26.5	45.0	70.4	13.5	38.9
Total Split (%)	8.0%	21.8%	37.5%	8.3%	22.1%	37.5%	58.7%	11.3%	32.4%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 98.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	8	88	90	21	22	443	899	76	48	638	65
Future Volume (veh/h)	11	8	88	90	21	22	443	899	76	48	638	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	9	42	98	23	13	482	977	71	52	693	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	178	609	286	150	85	515	2141	156	68	1259	123
Arrive On Green	0.01	0.09	0.09	0.05	0.13	0.13	0.28	0.63	0.63	0.04	0.38	0.38
Sat Flow, veh/h	1810	1900	1600	1810	1140	644	1810	3412	248	1810	3311	325
Grp Volume(v), veh/h	12	9	42	98	0	36	482	517	531	52	377	384
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1784	1810	1805	1855	1810	1805	1831
Q Serve(g_s), s	0.6	0.4	1.7	5.0	0.0	1.9	27.0	15.5	15.5	3.0	17.1	17.1
Cycle Q Clear(g_c), s	0.6	0.4	1.7	5.0	0.0	1.9	27.0	15.5	15.5	3.0	17.1	17.1
Prop In Lane	1.00		1.00	1.00		0.36	1.00		0.13	1.00		0.18
Lane Grp Cap(c), veh/h	225	178	609	286	0	235	515	1133	1164	68	686	696
V/C Ratio(X)	0.05	0.05	0.07	0.34	0.00	0.15	0.94	0.46	0.46	0.77	0.55	0.55
Avail Cap(c_a), veh/h	287	383	782	286	0	367	703	1133	1164	155	686	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	42.9	20.6	39.0	0.0	40.0	36.3	10.1	10.1	49.6	25.3	25.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.3	14.3	1.3	1.3	6.7	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.6	2.2	0.0	0.8	13.6	6.0	6.1	1.4	7.6	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	43.0	20.7	39.2	0.0	40.3	50.6	11.4	11.4	56.3	28.4	28.4
LnGrp LOS	D	D	C	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		63			134			1530			813	
Approach Delay, s/veh		27.9			39.5			23.7			30.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	70.7	10.0	14.9	34.2	45.0	6.1	18.8
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	40.4	33.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.0	17.5	7.0	3.7	29.0	19.1	2.6	3.9
Green Ext Time (p_c), s	0.0	8.4	0.0	0.1	0.6	3.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

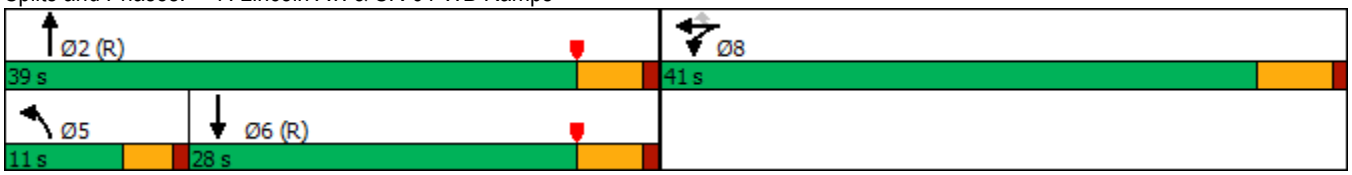
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

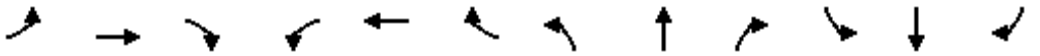
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	367	180	639	234	779	520
Future Volume (vph)	367	180	639	234	779	520
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	11.0	39.0	28.0
Total Split (%)	51.3%	51.3%	51.3%	13.8%	48.8%	35.0%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	367	180	639	234	779	0	0	520	293
Future Volume (veh/h)	0	0	0	367	180	639	234	779	0	0	520	293
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				285	324	400	244	811	0	0	542	244
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				520	546	463	307	2099	0	0	1073	482
Arrive On Green				0.29	0.29	0.29	0.09	0.58	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2513	1085
Grp Volume(v), veh/h				285	324	400	244	811	0	0	404	382
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1699
Q Serve(g_s), s				10.7	11.7	18.8	5.5	9.7	0.0	0.0	12.8	12.9
Cycle Q Clear(g_c), s				10.7	11.7	18.8	5.5	9.7	0.0	0.0	12.8	12.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				520	546	463	307	2099	0	0	801	754
V/C Ratio(X)				0.55	0.59	0.86	0.79	0.39	0.00	0.00	0.50	0.51
Avail Cap(c_a), veh/h				803	843	715	307	2099	0	0	801	754
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.84	0.84	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh				24.1	24.5	27.0	35.8	9.0	0.0	0.0	15.9	16.0
Incr Delay (d2), s/veh				0.3	0.4	4.4	10.6	0.5	0.0	0.0	2.0	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.4	5.0	7.3	2.7	3.4	0.0	0.0	5.3	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	24.9	31.4	46.4	9.5	0.0	0.0	17.9	18.1
LnGrp LOS				C	C	C	D	A	A	A	B	B
Approach Vol, veh/h					1009			1055			786	
Approach Delay, s/veh					27.3			18.0			18.0	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	51.5		11.0	40.5		28.5				
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5				
Max Green Setting (Gmax), s	34.0		7.0	23.0		35.5				
Max Q Clear Time (g_c+I1), s	11.7		7.5	14.9		20.8				
Green Ext Time (p_c), s	3.7		0.0	2.2		2.1				

Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

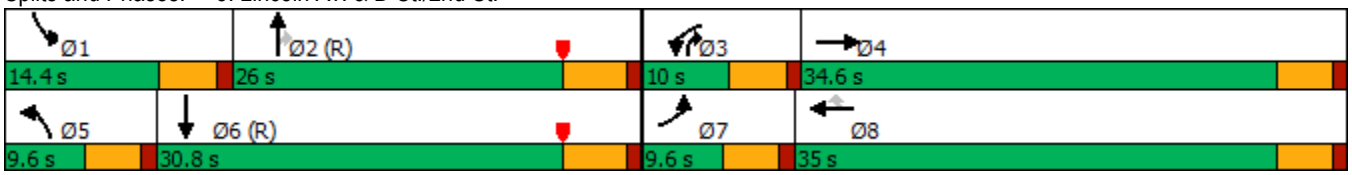
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	74	170	110	56	325	90	616	591	258	495
Future Volume (vph)	74	170	110	56	325	90	616	591	258	495
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	170	64	110	56	325	90	616	591	258	495	83
Future Volume (veh/h)	74	170	64	110	56	325	90	616	591	258	495	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	177	49	115	58	220	94	642	398	269	516	75
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	246	68	193	328	278	106	1629	813	348	1549	224
Arrive On Green	0.05	0.17	0.17	0.05	0.17	0.17	0.06	0.45	0.45	0.10	0.49	0.49
Sat Flow, veh/h	1810	1426	395	3510	1900	1610	1810	3610	1607	3510	3153	456
Grp Volume(v), veh/h	77	0	226	115	58	220	94	642	398	269	294	297
Grp Sat Flow(s),veh/h/ln	1810	0	1820	1755	1900	1610	1810	1805	1607	1755	1805	1804
Q Serve(g_s), s	3.6	0.0	10.0	2.7	2.2	11.1	4.4	10.1	13.8	6.4	8.4	8.5
Cycle Q Clear(g_c), s	3.6	0.0	10.0	2.7	2.2	11.1	4.4	10.1	13.8	6.4	8.4	8.5
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	99	0	314	193	328	278	106	1629	813	348	887	886
V/C Ratio(X)	0.78	0.00	0.72	0.60	0.18	0.79	0.88	0.39	0.49	0.77	0.33	0.33
Avail Cap(c_a), veh/h	106	0	642	223	680	576	106	1629	813	405	887	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	39.6	0.0	33.2	39.2	30.0	33.7	39.7	15.6	13.8	37.4	13.1	13.2
Incr Delay (d2), s/veh	24.7	0.0	3.1	1.4	0.2	4.8	50.9	0.7	2.1	4.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.6	1.2	1.0	4.7	3.4	4.0	5.2	2.9	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	0.0	36.3	40.7	30.3	38.5	90.7	16.3	15.9	41.9	13.8	13.9
LnGrp LOS	E	A	D	D	C	D	F	B	B	D	B	B
Approach Vol, veh/h		303			393			1134			860	
Approach Delay, s/veh		43.5			37.9			22.3			22.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	43.4	9.3	19.3	9.6	46.9	9.3	19.3
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	8.4	15.8	4.7	12.0	6.4	10.5	5.6	13.1
Green Ext Time (p_c), s	0.1	2.5	0.0	1.2	0.0	3.1	0.0	1.0

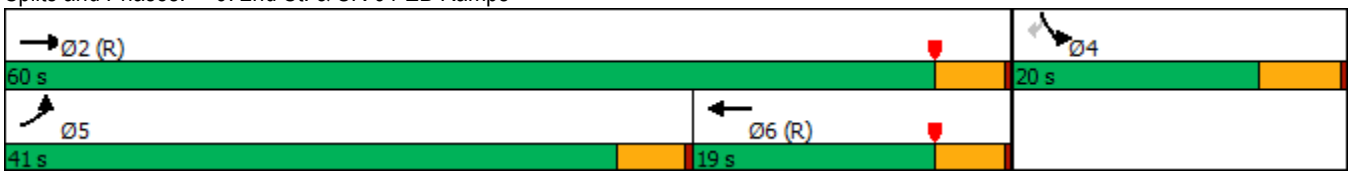
Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

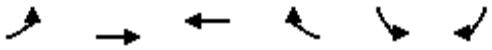
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	935	74	127	93	364
Future Volume (vph)	935	74	127	93	364
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	60.0	19.0	20.0	20.0
Total Split (%)	51.3%	75.0%	23.8%	25.0%	25.0%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	935	74	127	135	93	364
Future Volume (veh/h)	935	74	127	135	93	364
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	974	77	132	81	97	379
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1145	1316	681	393	333	592
Arrive On Green	0.33	0.69	0.31	0.31	0.18	0.18
Sat Flow, veh/h	3510	1900	2300	1271	1810	3220
Grp Volume(v), veh/h	974	77	107	106	97	379
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1671	1810	1610
Q Serve(g_s), s	20.7	1.0	3.5	3.8	3.7	8.7
Cycle Q Clear(g_c), s	20.7	1.0	3.5	3.8	3.7	8.7
Prop In Lane	1.00			0.76	1.00	1.00
Lane Grp Cap(c), veh/h	1145	1316	557	516	333	592
V/C Ratio(X)	0.85	0.06	0.19	0.21	0.29	0.64
Avail Cap(c_a), veh/h	1597	1316	557	516	333	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	3.9	20.3	20.4	28.2	30.2
Incr Delay (d2), s/veh	2.5	0.1	0.8	0.9	2.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.3	1.5	1.5	1.7	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	4.0	21.1	21.3	30.4	35.5
LnGrp LOS	C	A	C	C	C	D
Approach Vol, veh/h		1051	213		476	
Approach Delay, s/veh		25.9	21.2		34.4	
Approach LOS		C	C		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		20.0	30.7	29.3
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		55.4		14.7	36.4	14.4
Max Q Clear Time (g_c+I1), s		3.0		10.7	22.7	5.8
Green Ext Time (p_c), s		0.3		0.5	3.4	0.5

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	687	422	50	48	27
Future Vol, veh/h	4	687	422	50	48	27
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	870	534	63	61	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	600	0	-	0	1449	569
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	880	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	987	-	-	-	146	525
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	409	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	984	-	-	-	144	524
Mov Cap-2 Maneuver	-	-	-	-	144	-
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	408	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	39.8
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	984	-	-	-	195
HCM Lane V/C Ratio	0.005	-	-	-	0.487
HCM Control Delay (s)	8.7	0	-	-	39.8
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	112.6
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	462	271	15	314	159	29
Future Vol, veh/h	462	271	15	314	159	29
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	585	343	19	397	201	37
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	179.1	19.9	15.8
HCM LOS	F	C	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	85%	0%	5%
Vol Thru, %	0%	63%	95%
Vol Right, %	15%	37%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	188	733	329
LT Vol	159	0	15
Through Vol	0	462	314
RT Vol	29	271	0
Lane Flow Rate	238	928	416
Geometry Grp	1	1	1
Degree of Util (X)	0.435	1.339	0.652
Departure Headway (Hd)	7.271	5.196	6.13
Convergence, Y/N	Yes	Yes	Yes
Cap	500	705	596
Service Time	5.271	3.196	4.13
HCM Lane V/C Ratio	0.476	1.316	0.698
HCM Control Delay	15.8	179.1	19.9
HCM Lane LOS	C	F	C
HCM 95th-tile Q	2.2	38.4	4.7

Intersection	
Intersection Delay, s/veh	31.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	605	11	8	418	13	11	0	31	28	0	2
Future Vol, veh/h	1	605	11	8	418	13	11	0	31	28	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	665	12	9	459	14	12	0	34	31	0	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	44.3	18	9.9	10.4
HCM LOS	E	C	A	B

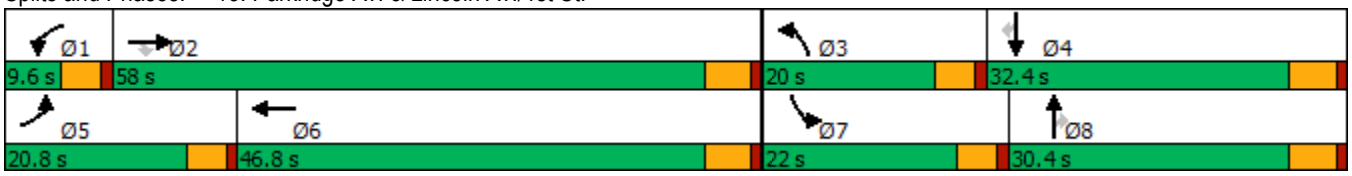
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	26%	0%	0%	2%	93%
Vol Thru, %	0%	100%	0%	95%	0%
Vol Right, %	74%	0%	100%	3%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	606	11	439	30
LT Vol	11	1	0	8	28
Through Vol	0	605	0	418	0
RT Vol	31	0	11	13	2
Lane Flow Rate	46	666	12	482	33
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.082	0.949	0.015	0.673	0.064
Departure Headway (Hd)	6.363	5.132	4.425	5.023	6.953
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	566	699	798	709	518
Service Time	4.367	2.92	2.213	3.117	4.958
HCM Lane V/C Ratio	0.081	0.953	0.015	0.68	0.064
HCM Control Delay	9.9	45	7.3	18	10.4
HCM Lane LOS	A	E	A	C	B
HCM 95th-tile Q	0.3	13.6	0	5.2	0.2

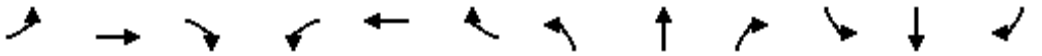
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	115	606	117	20	702	104	110	39	129	98	152
Future Volume (vph)	115	606	117	20	702	104	110	39	129	98	152
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	606	117	20	702	99	104	110	39	129	98	152
Future Volume (veh/h)	115	606	117	20	702	99	104	110	39	129	98	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	697	95	23	807	106	120	126	30	148	113	103
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	781	646	43	1105	145	150	497	412	181	529	441
Arrive On Green	0.09	0.41	0.41	0.02	0.34	0.34	0.08	0.26	0.26	0.10	0.28	0.28
Sat Flow, veh/h	1810	1900	1571	1810	3206	421	1810	1900	1576	1810	1900	1582
Grp Volume(v), veh/h	132	697	95	23	454	459	120	126	30	148	113	103
Grp Sat Flow(s),veh/h/ln	1810	1900	1571	1810	1805	1822	1810	1900	1576	1810	1900	1582
Q Serve(g_s), s	6.9	33.1	3.7	1.2	21.4	21.4	6.3	5.1	1.4	7.8	4.4	4.9
Cycle Q Clear(g_c), s	6.9	33.1	3.7	1.2	21.4	21.4	6.3	5.1	1.4	7.8	4.4	4.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	781	646	43	622	628	150	497	412	181	529	441
V/C Ratio(X)	0.81	0.89	0.15	0.53	0.73	0.73	0.80	0.25	0.07	0.82	0.21	0.23
Avail Cap(c_a), veh/h	302	1037	857	93	777	784	288	497	412	325	529	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	26.5	17.9	46.8	27.8	27.8	43.6	28.3	26.9	42.7	26.8	27.0
Incr Delay (d2), s/veh	3.5	8.0	0.1	3.8	2.7	2.7	3.7	1.2	0.3	3.4	0.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	15.7	1.3	0.6	9.3	9.4	2.9	2.4	0.5	3.5	2.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	34.5	18.0	50.5	30.5	30.5	47.3	29.5	27.3	46.2	27.7	28.2
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		924			936			276			364	
Approach Delay, s/veh		34.5			31.0			37.0			35.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	45.0	12.7	32.4	13.4	38.5	14.3	30.8
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	3.2	35.1	8.3	6.9	8.9	23.4	9.8	7.1
Green Ext Time (p_c), s	0.0	4.8	0.1	0.5	0.1	5.5	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	773	803	54	0	17
Future Vol, veh/h	0	773	803	54	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	840	873	59	0	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	466
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	549
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	549
HCM Lane V/C Ratio	-	-	-	0.034
HCM Control Delay (s)	-	-	-	11.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	773	788	97	0	70
Future Vol, veh/h	0	773	788	97	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	840	857	105	0	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	481
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	537
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	537
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

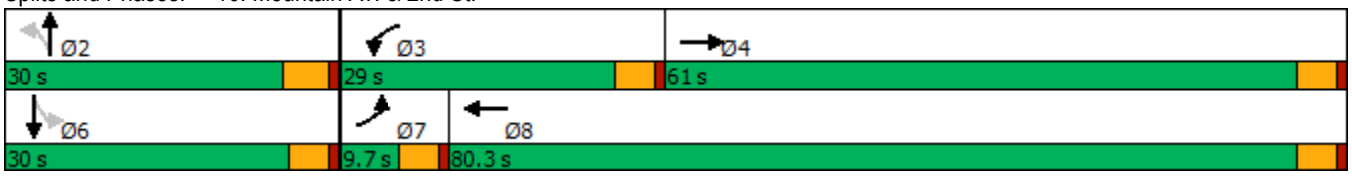
Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	537
HCM Lane V/C Ratio	-	-	-	0.142
HCM Control Delay (s)	-	-	-	12.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	7	556	274	381	64	5	23	3
Future Volume (vph)	7	556	274	381	64	5	23	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 88.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	556	88	274	381	16	64	5	181	23	3	11
Future Volume (veh/h)	7	556	88	274	381	16	64	5	181	23	3	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	625	99	308	428	18	72	6	203	26	3	12
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	18	721	114	353	1151	48	309	8	259	111	23	24
Arrive On Green	0.01	0.45	0.45	0.20	0.64	0.64	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	1597	253	1810	1810	76	1421	46	1571	207	140	143
Grp Volume(v), veh/h	8	0	724	308	0	446	72	0	209	41	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1850	1810	0	1886	1421	0	1617	489	0	0
Q Serve(g_s), s	0.3	0.0	27.1	12.7	0.0	8.6	0.0	0.0	9.5	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	27.1	12.7	0.0	8.6	3.8	0.0	9.5	10.3	0.0	0.0
Prop In Lane	1.00		0.14	1.00		0.04	1.00		0.97	0.63		0.29
Lane Grp Cap(c), veh/h	18	0	835	353	0	1200	309	0	266	157	0	0
V/C Ratio(X)	0.43	0.00	0.87	0.87	0.00	0.37	0.23	0.00	0.79	0.26	0.00	0.00
Avail Cap(c_a), veh/h	120	0	1358	576	0	1860	534	0	523	378	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.7	0.0	19.0	29.9	0.0	6.6	28.4	0.0	30.7	29.5	0.0	0.0
Incr Delay (d2), s/veh	5.8	0.0	3.6	4.6	0.0	0.2	0.4	0.0	5.1	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	11.0	5.7	0.0	2.8	1.1	0.0	3.8	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	0.0	22.5	34.6	0.0	6.8	28.7	0.0	35.8	30.4	0.0	0.0
LnGrp LOS	D	A	C	C	A	A	C	A	D	C	A	A
Approach Vol, veh/h		732			754			281			41	
Approach Delay, s/veh		22.8			18.2			34.0			30.4	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.8	19.6	39.3		17.8	5.4	53.5				
Change Period (Y+Rc), s		5.2	4.6	* 4.7		* 5.2	4.6	* 4.7				
Max Green Setting (Gmax), s		24.8	24.4	* 56		* 25	5.1	* 76				
Max Q Clear Time (g_c+I1), s		11.5	14.7	29.1		12.3	2.3	10.6				
Green Ext Time (p_c), s		1.1	0.3	5.5		0.1	0.0	3.0				

Intersection Summary		
HCM 6th Ctrl Delay		22.8
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	17	0	8	4	0	8	39	225	13	27	288	51
Future Vol, veh/h	17	0	8	4	0	8	39	225	13	27	288	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	0	9	4	0	9	42	245	14	29	313	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	606	742	184	551	762	130	368	0	0	259	0	0
Stage 1	399	399	-	336	336	-	-	-	-	-	-	-
Stage 2	207	343	-	215	426	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	385	346	833	422	337	902	1202	-	-	1317	-	-
Stage 1	604	606	-	657	645	-	-	-	-	-	-	-
Stage 2	781	641	-	773	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	362	322	833	396	314	902	1202	-	-	1317	-	-
Mov Cap-2 Maneuver	362	322	-	396	314	-	-	-	-	-	-	-
Stage 1	579	589	-	630	619	-	-	-	-	-	-	-
Stage 2	742	615	-	744	573	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	10.8	1.2	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1202	-	-	442	633	1317	-	-
HCM Lane V/C Ratio	0.035	-	-	0.061	0.021	0.022	-	-
HCM Control Delay (s)	8.1	0.1	-	13.7	10.8	7.8	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	5	261	23	28	231
Future Vol, veh/h	9	5	261	23	28	231
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	5	284	25	30	251

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	483	155	0	0	309	0
Stage 1	297	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	518	869	-	-	1263	-
Stage 1	734	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	503	869	-	-	1263	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	869	1263	-
HCM Lane V/C Ratio	-	-	0.006	0.024	-
HCM Control Delay (s)	-	-	9.2	7.9	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	0	6	0	64	299	23	208
Future Volume (vph)	9	0	6	0	64	299	23	208
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.4	9.6	27.4
Total Split (s)	40.0	40.0	40.0	40.0	20.0	60.0	20.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	16.7%	50.0%	16.7%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	5.4	4.6	5.4
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 35.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	13	6	0	8	64	299	28	23	208	17
Future Volume (veh/h)	9	0	13	6	0	8	64	299	28	23	208	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	0	14	7	0	9	70	325	30	25	226	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	8	86	228	11	83	134	1272	117	57	1145	91
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.07	0.38	0.38	0.03	0.34	0.34
Sat Flow, veh/h	559	88	906	564	116	874	1810	3343	307	1810	3389	268
Grp Volume(v), veh/h	24	0	0	16	0	0	70	175	180	25	120	124
Grp Sat Flow(s),veh/h/ln	1552	0	0	1553	0	0	1810	1805	1845	1810	1805	1852
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.0	2.0	0.4	1.4	1.4
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.3	0.0	0.0	1.1	2.0	2.0	0.4	1.4	1.4
Prop In Lane	0.42		0.58	0.44		0.56	1.00		0.17	1.00		0.14
Lane Grp Cap(c), veh/h	319	0	0	322	0	0	134	687	702	57	610	626
V/C Ratio(X)	0.08	0.00	0.00	0.05	0.00	0.00	0.52	0.25	0.26	0.44	0.20	0.20
Avail Cap(c_a), veh/h	2004	0	0	1999	0	0	942	3331	3404	942	3331	3417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	0.0	12.2	0.0	0.0	13.2	6.3	6.3	14.1	6.9	7.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	1.2	0.2	0.2	2.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.4	0.4	0.4	0.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	0.0	0.0	12.3	0.0	0.0	14.4	6.5	6.5	16.1	7.1	7.1
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		24			16			425			269	
Approach Delay, s/veh		12.4			12.3			7.8			7.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	16.7		7.4	6.8	15.4		7.4				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	2.4	4.0		2.4	3.1	3.4		2.3				
Green Ext Time (p_c), s	0.0	2.1		0.1	0.0	1.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.1	
HCM 6th LOS		A	

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	11	6	0	8	57	374	28	24	187	17
Future Vol, veh/h	9	0	11	6	0	8	57	374	28	24	187	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	0	12	7	0	9	62	407	30	26	203	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	592	825	111	700	819	219	221	0	0	437	0	0
Stage 1	264	264	-	546	546	-	-	-	-	-	-	-
Stage 2	328	561	-	154	273	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	394	310	927	330	312	791	1360	-	-	1134	-	-
Stage 1	724	694	-	495	521	-	-	-	-	-	-	-
Stage 2	664	513	-	839	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	364	284	927	305	286	791	1360	-	-	1134	-	-
Mov Cap-2 Maneuver	364	284	-	305	286	-	-	-	-	-	-	-
Stage 1	681	676	-	465	490	-	-	-	-	-	-	-
Stage 2	617	482	-	807	670	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.9	1.1	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1360	-	-	547	470	1134	-	-
HCM Lane V/C Ratio	0.046	-	-	0.04	0.032	0.023	-	-
HCM Control Delay (s)	7.8	0.2	-	11.9	12.9	8.2	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	63	0	459	119	86
Future Vol, veh/h	0	63	0	459	119	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	68	0	499	129	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	111	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	927	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	927	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

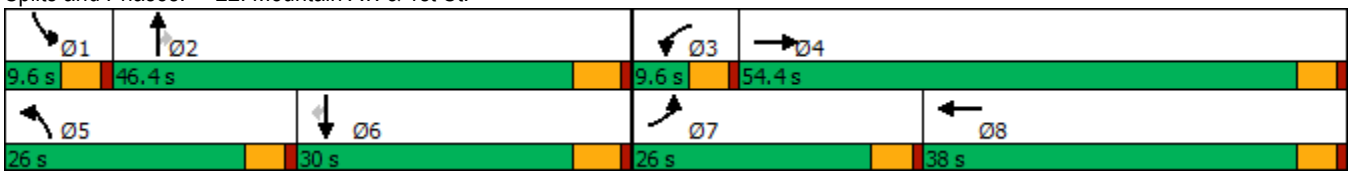
Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	927	-	-
HCM Lane V/C Ratio	-	0.074	-	-
HCM Control Delay (s)	-	9.2	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	223	355	1	344	461	203	12	12	92	78
Future Volume (vph)	223	355	1	344	461	203	12	12	92	78
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	26.0	54.4	9.6	38.0	26.0	46.4	46.4	9.6	30.0	30.0
Total Split (%)	21.7%	45.3%	8.0%	31.7%	21.7%	38.7%	38.7%	8.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 95.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	355	196	1	344	34	461	203	12	12	92	78
Future Volume (veh/h)	223	355	196	1	344	34	461	203	12	12	92	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	235	374	206	1	362	36	485	214	13	13	97	82
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	906	492	2	425	42	458	676	573	28	225	191
Arrive On Green	0.15	0.40	0.40	0.00	0.25	0.25	0.25	0.36	0.36	0.02	0.12	0.12
Sat Flow, veh/h	1810	2259	1225	1810	1698	169	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	235	298	282	1	0	398	485	214	13	13	97	82
Grp Sat Flow(s),veh/h/ln	1810	1805	1679	1810	0	1867	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	10.7	10.0	10.2	0.0	0.0	17.2	21.4	6.9	0.4	0.6	4.0	4.0
Cycle Q Clear(g_c), s	10.7	10.0	10.2	0.0	0.0	17.2	21.4	6.9	0.4	0.6	4.0	4.0
Prop In Lane	1.00		0.73	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	724	674	2	0	467	458	676	573	28	225	191
V/C Ratio(X)	0.85	0.41	0.42	0.40	0.00	0.85	1.06	0.32	0.02	0.46	0.43	0.43
Avail Cap(c_a), veh/h	458	1061	988	107	0	736	458	926	785	107	558	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	18.1	18.2	42.2	0.0	30.2	31.6	19.8	17.7	41.3	34.6	34.6
Incr Delay (d2), s/veh	3.7	0.4	0.4	34.7	0.0	5.7	58.4	0.3	0.0	4.3	1.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.0	3.8	0.0	0.0	8.1	16.1	2.9	0.2	0.3	1.9	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	18.5	18.6	76.9	0.0	35.9	90.0	20.0	17.7	45.6	35.9	36.1
LnGrp LOS	D	B	B	E	A	D	F	C	B	D	D	D
Approach Vol, veh/h		815			399			712			192	
Approach Delay, s/veh		24.4			36.0			67.6			36.7	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	35.3	4.7	38.6	26.0	15.2	17.5	25.9
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	41.2	5.0	* 50	21.4	24.8	21.4	* 33
Max Q Clear Time (g_c+I1), s	2.6	8.9	2.0	12.2	23.4	6.0	12.7	19.2
Green Ext Time (p_c), s	0.0	1.2	0.0	3.9	0.0	0.6	0.2	2.0

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	735	24	0	670	0	8
Future Vol, veh/h	735	24	0	670	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	799	26	0	728	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	812
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	382
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	382
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

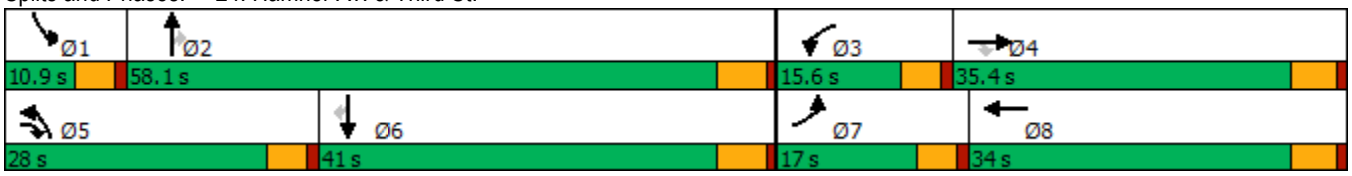
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	382	-	-	-
HCM Lane V/C Ratio	0.023	-	-	-
HCM Control Delay (s)	14.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

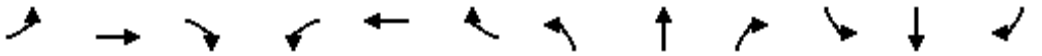
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	137	36	294	82	340	583	969	59	29	592	510
Future Volume (vph)	137	36	294	82	340	583	969	59	29	592	510
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	36	294	82	340	35	583	969	59	29	592	510
Future Volume (veh/h)	137	36	294	82	340	35	583	969	59	29	592	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	38	163	86	358	33	614	1020	40	31	623	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	172	502	734	109	393	36	673	1717	743	50	1124	499
Arrive On Green	0.09	0.26	0.26	0.06	0.23	0.23	0.19	0.48	0.48	0.03	0.31	0.31
Sat Flow, veh/h	1810	1900	1608	1810	1710	158	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	144	38	163	86	0	391	614	1020	40	31	623	422
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	8.9	1.7	7.0	5.4	0.0	23.3	19.6	23.6	1.6	1.9	16.4	28.1
Cycle Q Clear(g_c), s	8.9	1.7	7.0	5.4	0.0	23.3	19.6	23.6	1.6	1.9	16.4	28.1
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	502	734	109	0	429	673	1717	743	50	1124	499
V/C Ratio(X)	0.84	0.08	0.22	0.79	0.00	0.91	0.91	0.59	0.05	0.63	0.55	0.85
Avail Cap(c_a), veh/h	196	504	735	174	0	472	719	1717	743	100	1124	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	31.6	18.8	53.0	0.0	42.9	45.3	21.9	16.1	55.0	32.8	36.8
Incr Delay (d2), s/veh	21.4	0.1	0.2	4.7	0.0	20.7	14.9	1.5	0.1	4.7	2.0	16.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.8	2.6	2.6	0.0	13.0	9.7	9.8	0.6	0.9	7.3	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	31.6	19.0	57.6	0.0	63.6	60.1	23.4	16.3	59.7	34.7	52.9
LnGrp LOS	E	C	B	E	A	E	E	C	B	E	C	D
Approach Vol, veh/h		345			477			1674			1076	
Approach Delay, s/veh		42.6			62.5			36.7			42.6	
Approach LOS		D			E			D			D	

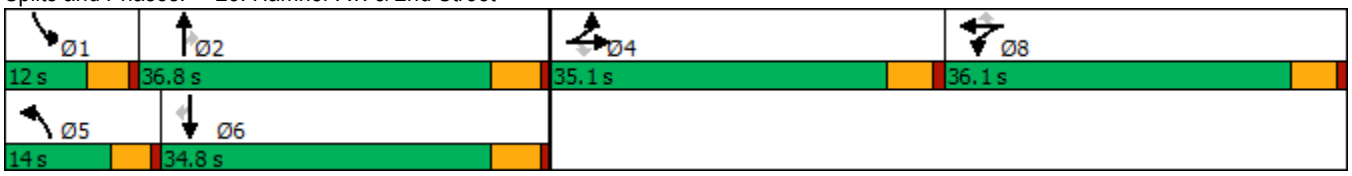
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	59.8	11.5	35.3	26.5	41.0	15.5	31.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	3.9	25.6	7.4	9.0	21.6	30.1	10.9	25.3
Green Ext Time (p_c), s	0.0	7.9	0.0	0.7	0.3	2.6	0.0	0.8

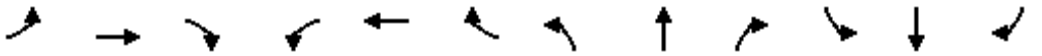
Intersection Summary	
HCM 6th Ctrl Delay	42.5
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	450	31	358	481	666	63	779	150	239	599	175
Future Volume (vph)	195	450	31	358	481	666	63	779	150	239	599	175
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	14.0	36.8	36.8	12.0	34.8	34.8
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	11.7%	30.7%	30.7%	10.0%	29.0%	29.0%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 118.9
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	450	31	358	481	666	63	779	150	239	599	175
Future Volume (veh/h)	195	450	31	358	481	666	63	779	150	239	599	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	205	474	22	294	622	372	66	820	84	252	631	142
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	462	971	406	465	976	408	85	913	403	114	970	431
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.05	0.25	0.25	0.06	0.27	0.27
Sat Flow, veh/h	1810	3800	1589	1810	3800	1588	1810	3610	1595	1810	3610	1605
Grp Volume(v), veh/h	205	474	22	294	622	372	66	820	84	252	631	142
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1588	1810	1805	1595	1810	1805	1605
Q Serve(g_s), s	11.2	12.5	1.2	16.9	17.1	26.7	4.2	25.8	4.9	7.4	18.2	8.3
Cycle Q Clear(g_c), s	11.2	12.5	1.2	16.9	17.1	26.7	4.2	25.8	4.9	7.4	18.2	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	971	406	465	976	408	85	913	403	114	970	431
V/C Ratio(X)	0.44	0.49	0.05	0.63	0.64	0.91	0.78	0.90	0.21	2.21	0.65	0.33
Avail Cap(c_a), veh/h	462	971	406	478	1003	419	145	965	426	114	970	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	37.2	33.0	38.7	38.8	42.4	55.3	42.4	34.6	55.0	38.1	34.4
Incr Delay (d2), s/veh	3.1	1.8	0.3	2.6	1.3	23.7	5.5	10.8	0.3	572.0	1.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.0	0.5	7.8	8.0	12.9	2.0	12.5	1.9	21.4	8.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	38.9	33.3	41.3	40.1	66.1	60.9	53.2	34.9	627.1	39.6	34.9
LnGrp LOS	D	D	C	D	D	E	E	D	C	F	D	C
Approach Vol, veh/h		701			1288			970			1025	
Approach Delay, s/veh		39.0			47.9			52.2			183.4	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	35.1		35.1	10.1	37.0		35.3				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	7.4	31.4		30.0	9.4	29.4		31.0				
Max Q Clear Time (g_c+I1), s	9.4	27.8		14.5	6.2	20.2		28.7				
Green Ext Time (p_c), s	0.0	1.8		3.3	0.0	3.0		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		82.2	
HCM 6th LOS		F	

Notes

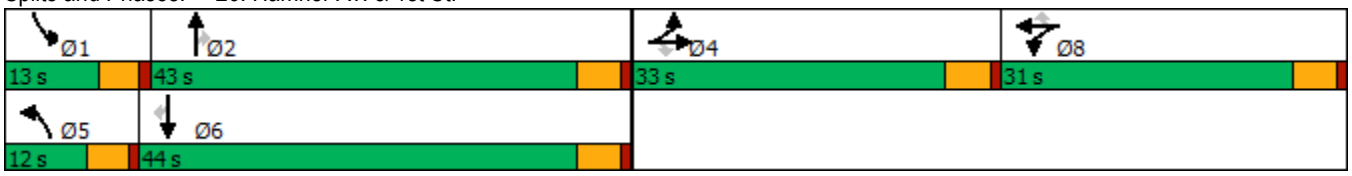
User approved volume balancing among the lanes for turning movement.

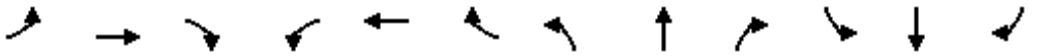
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	312	21	19	15	8	57	721	19	525	308
Future Volume (vph)	312	21	19	15	8	57	721	19	525	308
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	4	4		8		5	2	1	6	
Permitted Phases			4		8					6
Detector Phase	4	4	4	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 86.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	21	19	9	15	8	57	721	0	19	525	308
Future Volume (veh/h)	312	21	19	9	15	8	57	721	0	19	525	308
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	348	0	11	10	16	0	61	767	0	20	559	238
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	491	0	218	40	64	89	86	1919	856	41	1830	815
Arrive On Green	0.14	0.00	0.14	0.06	0.06	0.00	0.05	0.53	0.00	0.02	0.51	0.51
Sat Flow, veh/h	3619	0	1607	717	1147	1610	1810	3610	1610	1810	3610	1607
Grp Volume(v), veh/h	348	0	11	26	0	0	61	767	0	20	559	238
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1864	0	1610	1810	1805	1610	1810	1805	1607
Q Serve(g_s), s	7.1	0.0	0.5	1.0	0.0	0.0	2.6	9.7	0.0	0.8	6.9	6.6
Cycle Q Clear(g_c), s	7.1	0.0	0.5	1.0	0.0	0.0	2.6	9.7	0.0	0.8	6.9	6.6
Prop In Lane	1.00		1.00	0.38		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	491	0	218	103	0	89	86	1919	856	41	1830	815
V/C Ratio(X)	0.71	0.00	0.05	0.25	0.00	0.00	0.71	0.40	0.00	0.49	0.31	0.29
Avail Cap(c_a), veh/h	1317	0	585	630	0	544	174	1919	856	198	1830	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	28.9	34.8	0.0	0.0	36.1	10.7	0.0	37.2	11.1	11.0
Incr Delay (d2), s/veh	1.9	0.0	0.1	1.3	0.0	0.0	4.0	0.6	0.0	3.3	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.2	0.5	0.0	0.0	1.2	3.4	0.0	0.4	2.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	29.0	36.1	0.0	0.0	40.2	11.3	0.0	40.5	11.5	11.9
LnGrp LOS	C	A	C	D	A	A	D	B	A	D	B	B
Approach Vol, veh/h		359			26			828			817	
Approach Delay, s/veh		33.6			36.1			13.5			12.3	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	45.9		15.4	8.2	44.0		9.3				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	2.8	11.7		9.1	4.6	8.9		3.0				
Green Ext Time (p_c), s	0.0	5.3		1.2	0.0	4.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.8	
HCM 6th LOS		B	

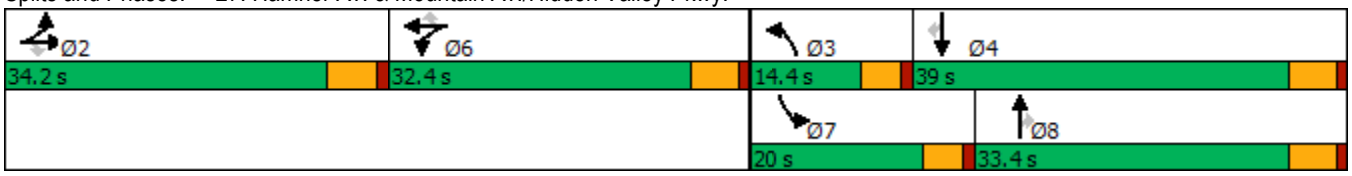
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	250	46	681	679	326	62	478	235	148	397	9
Future Volume (vph)	12	250	46	681	679	326	62	478	235	148	397	9
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	34.2	34.2	34.2	32.4	32.4	32.4	14.4	33.4	33.4	20.0	39.0	39.0
Total Split (%)	28.5%	28.5%	28.5%	27.0%	27.0%	27.0%	12.0%	27.8%	27.8%	16.7%	32.5%	32.5%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103.6
Natural Cycle: 110
Control Type: Semi Act-Uncoord

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	250	46	681	679	326	62	478	235	148	397	9
Future Volume (veh/h)	12	250	46	681	679	326	62	478	235	148	397	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	266	44	809	603	308	66	509	129	157	422	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	400	178	1011	531	449	86	1190	523	229	1255	557
Arrive On Green	0.11	0.11	0.11	0.28	0.28	0.28	0.05	0.33	0.33	0.07	0.35	0.35
Sat Flow, veh/h	1810	3610	1606	3619	1900	1608	1810	3610	1587	3510	3610	1603
Grp Volume(v), veh/h	13	266	44	809	603	308	66	509	129	157	422	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1608	1810	1805	1587	1755	1805	1603
Q Serve(g_s), s	0.6	6.8	2.4	20.1	27.0	16.5	3.5	10.6	5.7	4.2	8.3	0.2
Cycle Q Clear(g_c), s	0.6	6.8	2.4	20.1	27.0	16.5	3.5	10.6	5.7	4.2	8.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	400	178	1011	531	449	86	1190	523	229	1255	557
V/C Ratio(X)	0.06	0.67	0.25	0.80	1.14	0.69	0.77	0.43	0.25	0.69	0.34	0.01
Avail Cap(c_a), veh/h	539	1075	478	1011	531	449	183	1190	523	559	1255	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	41.3	39.3	32.3	34.8	31.1	45.5	25.3	23.6	44.2	23.3	20.7
Incr Delay (d2), s/veh	0.1	1.9	0.7	4.7	82.4	4.3	5.4	1.1	1.1	1.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.1	1.0	9.0	23.9	6.6	1.7	4.5	2.2	1.8	3.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	43.2	40.0	37.0	117.2	35.4	51.0	26.4	24.8	45.6	24.0	20.7
LnGrp LOS	D	D	D	D	F	D	D	C	C	D	C	C
Approach Vol, veh/h		323			1720			704			585	
Approach Delay, s/veh		42.6			64.8			28.4			29.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.1	9.2	39.0		32.4	10.9	37.3				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.8	9.8	33.6		27.0	15.4	28.0				
Max Q Clear Time (g_c+I1), s		8.8	5.5	10.3		29.0	6.2	12.6				
Green Ext Time (p_c), s		1.6	0.0	2.6		0.0	0.2	3.2				

Intersection Summary												
HCM 6th Ctrl Delay			48.8									
HCM 6th LOS			D									

Notes

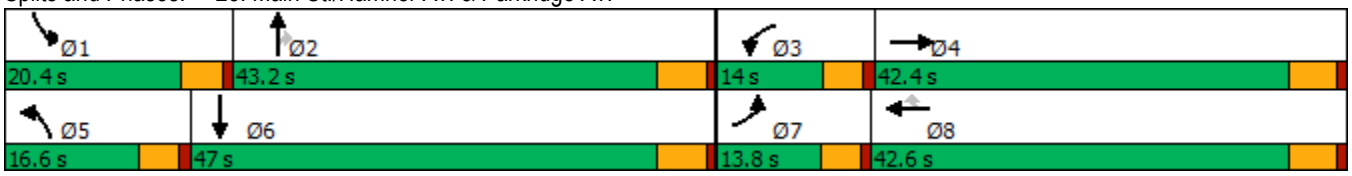
User approved volume balancing among the lanes for turning movement.

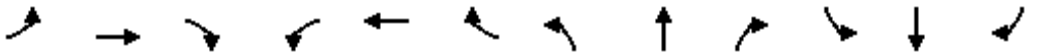
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	113	325	121	336	260	76	454	92	221	624
Future Volume (vph)	113	325	121	336	260	76	454	92	221	624
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	325	38	121	336	260	76	454	92	221	624	212
Future Volume (veh/h)	113	325	38	121	336	260	76	454	92	221	624	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	353	33	132	365	157	83	493	0	240	678	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	834	77	153	480	404	106	1231		258	2205	
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.06	0.34	0.00	0.14	0.43	0.00
Sat Flow, veh/h	1810	3324	308	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	123	190	196	132	365	157	83	493	0	240	678	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1827	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	7.4	9.8	9.9	8.0	19.7	9.0	5.0	11.5	0.0	14.5	9.6	0.0
Cycle Q Clear(g_c), s	7.4	9.8	9.9	8.0	19.7	9.0	5.0	11.5	0.0	14.5	9.6	0.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	150	453	459	153	480	404	106	1231		258	2205	
V/C Ratio(X)	0.82	0.42	0.43	0.86	0.76	0.39	0.78	0.40		0.93	0.31	
Avail Cap(c_a), veh/h	150	603	610	153	638	537	196	1231		258	2205	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	34.7	34.8	50.1	38.3	34.3	51.5	27.9	0.0	47.0	21.1	0.0
Incr Delay (d2), s/veh	27.1	0.6	0.6	34.5	3.8	0.6	4.7	1.0	0.0	37.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.3	4.4	5.0	9.4	3.5	2.4	5.0	0.0	9.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	35.4	35.4	84.6	42.1	34.9	56.1	28.8	0.0	84.1	21.4	0.0
LnGrp LOS	E	D	D	F	D	C	E	C		F	C	
Approach Vol, veh/h		509			654			576	A		918	A
Approach Delay, s/veh		45.5			48.9			32.8			37.8	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	43.2	14.0	33.2	11.1	52.5	13.8	33.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	16.5	13.5	10.0	11.9	7.0	11.6	9.4	21.7
Green Ext Time (p_c), s	0.0	3.1	0.0	2.1	0.0	4.8	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

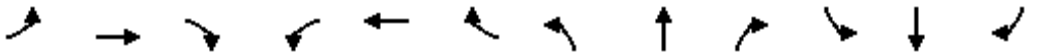
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	441	256	1088	1	459
Future Volume (vph)	441	256	1088	1	459
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	441	474	256	1088	0	0	0	0	58	1	459
Future Volume (veh/h)	0	441	474	256	1088	0	0	0	0	58	1	459
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	459	426	267	1133	0				60	1	447
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	786	675	296	2298	0				500	8	452
Arrive On Green	0.00	0.44	0.44	0.16	0.64	0.00				0.28	0.28	0.28
Sat Flow, veh/h	0	1900	1551	1810	3705	0				1781	30	1610
Grp Volume(v), veh/h	0	459	426	267	1133	0				61	0	447
Grp Sat Flow(s),veh/h/ln	0	1805	1551	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	23.1	25.7	17.4	19.9	0.0				3.0	0.0	33.2
Cycle Q Clear(g_c), s	0.0	23.1	25.7	17.4	19.9	0.0				3.0	0.0	33.2
Prop In Lane	0.00		1.00	1.00		0.00				0.98		1.00
Lane Grp Cap(c), veh/h	0	786	675	296	2298	0				509	0	452
V/C Ratio(X)	0.00	0.58	0.63	0.90	0.49	0.00				0.12	0.00	0.99
Avail Cap(c_a), veh/h	0	786	675	445	2298	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.11	0.11	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.6	26.4	49.2	11.5	0.0				32.1	0.0	43.0
Incr Delay (d2), s/veh	0.0	0.4	0.5	9.6	0.6	0.0				0.0	0.0	39.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	9.3	8.6	7.6	0.0				1.3	0.0	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.0	26.9	58.9	12.2	0.0				32.2	0.0	82.1
LnGrp LOS	A	C	C	E	B	A				C	A	F
Approach Vol, veh/h		885			1400						508	
Approach Delay, s/veh		26.4			21.1						76.1	
Approach LOS		C			C						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.1	56.9		39.0		81.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	19.4	27.7		35.2		21.9
Green Ext Time (p_c), s	0.3	3.5		0.0		6.4

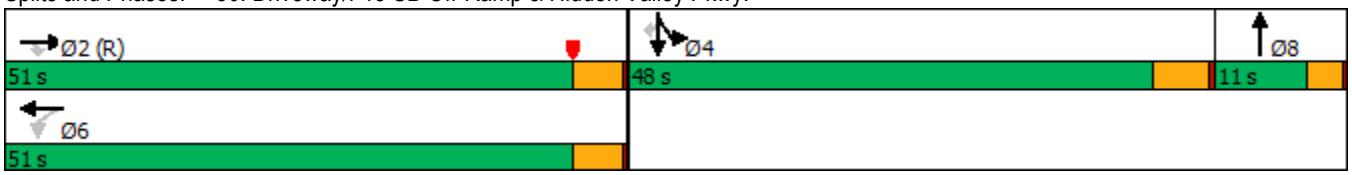
Intersection Summary		
HCM 6th Ctrl Delay		32.8
HCM 6th LOS		C

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	652	22	74	936	0	207	65	753
Future Volume (vph)	652	22	74	936	0	207	65	753
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	51.0	51.0	51.0	51.0	11.0	48.0	48.0	48.0
Total Split (%)	46.4%	46.4%	46.4%	46.4%	10.0%	43.6%	43.6%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	652	22	74	936	0	0	0	76	207	65	753
Future Volume (veh/h)	0	652	22	74	936	0	0	0	76	207	65	753
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	686	15	78	985	0	0	0	36	168	0	785
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1674	747	321	1674	0	0	0	44	707	0	1259
Arrive On Green	0.00	0.46	0.46	0.93	0.93	0.00	0.00	0.00	0.03	0.39	0.00	0.39
Sat Flow, veh/h	0	3705	1610	757	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	686	15	78	985	0	0	0	36	168	0	785
Grp Sat Flow(s),veh/h/ln	0	1805	1610	757	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	13.8	0.6	4.6	4.8	0.0	0.0	0.0	2.4	6.9	0.0	21.6
Cycle Q Clear(g_c), s	0.0	13.8	0.6	18.5	4.8	0.0	0.0	0.0	2.4	6.9	0.0	21.6
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1674	747	321	1674	0	0	0	44	707	0	1259
V/C Ratio(X)	0.00	0.41	0.02	0.24	0.59	0.00	0.00	0.00	0.83	0.24	0.00	0.62
Avail Cap(c_a), veh/h	0	1674	747	321	1674	0	0	0	110	707	0	1259
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.96	0.96	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.5	16.0	5.6	2.3	0.0	0.0	0.0	53.3	22.5	0.0	27.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.1	0.4	0.0	0.0	0.0	13.4	0.8	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.2	0.3	1.0	0.0	0.0	0.0	1.2	2.9	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.2	16.0	5.8	2.7	0.0	0.0	0.0	66.7	23.3	0.0	29.3
LnGrp LOS	A	C	B	A	A	A	A	A	E	C	A	C
Approach Vol, veh/h		701			1063			36			953	
Approach Delay, s/veh		20.1			2.9			66.7			28.3	
Approach LOS		C			A			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	55.5	48.0	55.5	6.5
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	46.5	43.0	46.5	7.5
Max Q Clear Time (g_c+I1), s	15.8	23.6	20.5	4.4
Green Ext Time (p_c), s	3.0	2.8	5.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

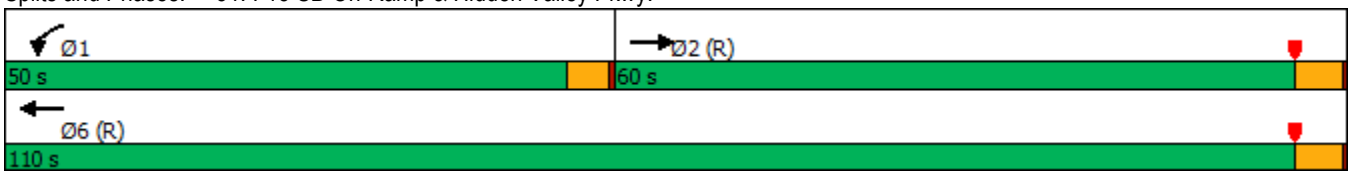
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	609	189	1009
Future Volume (vph)	609	189	1009
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	60.0	50.0	110.0
Total Split (%)	54.5%	45.5%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	609	326	189	1009	0	0
Future Volume (veh/h)	609	326	189	1009	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	662	352	205	1097		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1149	611	757	3462		
Arrive On Green	0.67	0.67	0.84	1.00		
Sat Flow, veh/h	2372	1210	1810	3705		
Grp Volume(v), veh/h	525	489	205	1097		
Grp Sat Flow(s),veh/h/ln	1805	1682	1810	1805		
Q Serve(g_s), s	17.2	17.2	2.6	0.0		
Cycle Q Clear(g_c), s	17.2	17.2	2.6	0.0		
Prop In Lane		0.72	1.00			
Lane Grp Cap(c), veh/h	911	849	757	3462		
V/C Ratio(X)	0.58	0.58	0.27	0.32		
Avail Cap(c_a), veh/h	911	849	757	3462		
HCM Platoon Ratio	1.33	1.33	2.00	2.00		
Upstream Filter(I)	0.93	0.93	0.79	0.79		
Uniform Delay (d), s/veh	11.8	11.8	5.5	0.0		
Incr Delay (d2), s/veh	2.5	2.6	0.7	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.7	5.4	1.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.3	14.4	6.1	0.2		
LnGrp LOS	B	B	A	A		
Approach Vol, veh/h	1014			1302		
Approach Delay, s/veh	14.3			1.1		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	50.0	60.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	46.0	55.5				105.5
Max Q Clear Time (g_c+I1), s	4.6	19.2				2.0
Green Ext Time (p_c), s	0.6	4.5				5.7

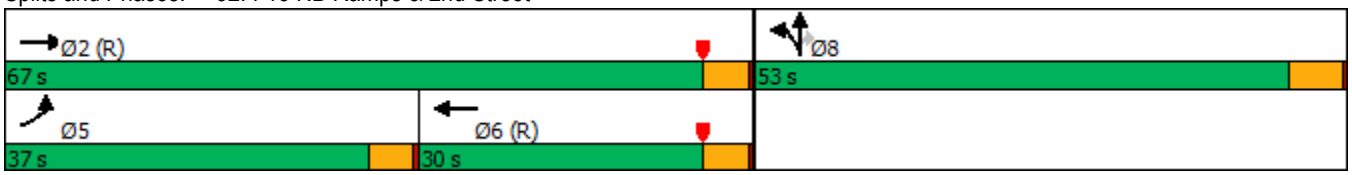
Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

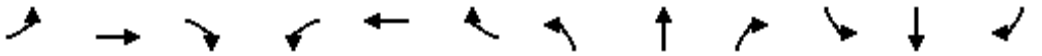
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	162	338	578	8	574
Future Volume (vph)	162	338	578	8	574
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	67.0	30.0	53.0	53.0
Total Split (%)	30.8%	55.8%	25.0%	44.2%	44.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	338	0	0	578	74	766	8	574	0	0	0
Future Volume (veh/h)	162	338	0	0	578	74	766	8	574	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	174	363	0	0	622	69	824	9	471			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	207	1877	0	0	1203	133	712	8	640			
Arrive On Green	0.04	0.17	0.00	0.00	0.37	0.37	0.40	0.40	0.40			
Sat Flow, veh/h	1810	3705	0	0	3362	362	1791	20	1610			
Grp Volume(v), veh/h	174	363	0	0	343	348	833	0	471			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1824	1810	0	1610			
Q Serve(g_s), s	11.5	10.3	0.0	0.0	17.8	17.9	47.7	0.0	29.9			
Cycle Q Clear(g_c), s	11.5	10.3	0.0	0.0	17.8	17.9	47.7	0.0	29.9			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	207	1877	0	0	664	671	720	0	640			
V/C Ratio(X)	0.84	0.19	0.00	0.00	0.52	0.52	1.16	0.00	0.74			
Avail Cap(c_a), veh/h	490	1877	0	0	664	671	720	0	640			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.6	28.1	0.0	0.0	29.6	29.6	36.2	0.0	30.8			
Incr Delay (d2), s/veh	5.1	0.2	0.0	0.0	2.9	2.8	86.0	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.9	4.9	0.0	0.0	8.1	8.3	36.9	0.0	11.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	28.3	0.0	0.0	32.4	32.5	122.2	0.0	35.0			
LnGrp LOS	E	C	A	A	C	C	F	A	C			
Approach Vol, veh/h		537			691			1304				
Approach Delay, s/veh		39.2			32.4			90.7				
Approach LOS		D			C			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		67.0			18.2	48.8		53.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		62.4			32.5	25.4		47.7				
Max Q Clear Time (g_c+I1), s		12.3			13.5	19.9		49.7				
Green Ext Time (p_c), s		1.6			0.3	1.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			63.9									
HCM 6th LOS			E									

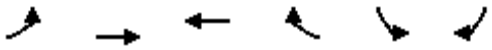
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	192	416	1198	497
Future Volume (vph)	192	416	1198	497
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	34.0	110.0	76.0	76.0
Total Split (%)	30.9%	100.0%	69.1%	69.1%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	192	416	1198	497	0	0
Future Volume (veh/h)	192	416	1198	497	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	216	467	1346	534		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	494	3462	2346	1024		
Arrive On Green	0.55	1.00	0.65	0.65		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	216	467	1346	534		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	7.8	0.0	22.9	19.7		
Cycle Q Clear(g_c), s	7.8	0.0	22.9	19.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	494	3462	2347	1024		
V/C Ratio(X)	0.44	0.13	0.57	0.52		
Avail Cap(c_a), veh/h	494	3462	2347	1024		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.80	0.80	0.52	0.52		
Uniform Delay (d), s/veh	20.0	0.0	10.7	10.2		
Incr Delay (d2), s/veh	2.3	0.1	0.5	1.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.1	0.0	8.1	6.2		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.2	0.1	11.3	11.2		
LnGrp LOS	C	A	B	B		
Approach Vol, veh/h		683	1880			
Approach Delay, s/veh		7.1	11.3			
Approach LOS		A	B			

Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	110.0			34.0	76.0
Change Period (Y+Rc), s	4.5			4.0	4.5
Max Green Setting (Gmax), s	105.5			30.0	71.5
Max Q Clear Time (g_c+I1), s	2.0			9.8	24.9
Green Ext Time (p_c), s	2.0			0.3	9.6

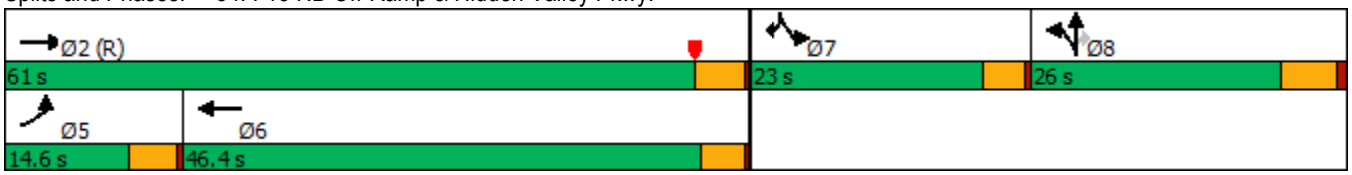
Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

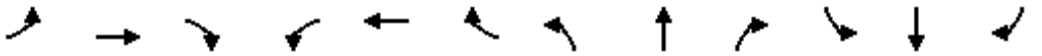
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	69	348	997	535	77	151	34	163
Future Volume (vph)	69	348	997	535	77	151	34	163
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	61.0	46.4	26.0	26.0	26.0	23.0	23.0
Total Split (%)	13.3%	55.5%	42.2%	23.6%	23.6%	23.6%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	348	0	0	997	30	535	77	151	34	0	163
Future Volume (veh/h)	69	348	0	0	997	30	535	77	151	34	0	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	75	378	0	0	1084	30	582	84	59	37	0	161
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	2609	0	0	2153	60	654	354	300	0	0	0
Arrive On Green	0.03	0.24	0.00	0.00	0.60	0.60	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3683	99	3510	1900	1610		0	
Grp Volume(v), veh/h	75	378	0	0	545	569	582	84	59		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1882	1755	1900	1610			
Q Serve(g_s), s	4.5	9.1	0.0	0.0	19.0	19.0	17.8	4.1	3.4			
Cycle Q Clear(g_c), s	4.5	9.1	0.0	0.0	19.0	19.0	17.8	4.1	3.4			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		1.00			
Lane Grp Cap(c), veh/h	148	2609	0	0	1083	1129	654	354	300			
V/C Ratio(X)	0.51	0.14	0.00	0.00	0.50	0.50	0.89	0.24	0.20			
Avail Cap(c_a), veh/h	166	2609	0	0	1083	1129	654	354	300			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.3	15.1	0.0	0.0	12.6	12.6	43.6	38.1	37.8			
Incr Delay (d2), s/veh	2.0	0.1	0.0	0.0	1.7	1.6	16.6	1.6	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	3.8	0.0	0.0	7.3	7.6	8.9	2.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	15.2	0.0	0.0	14.3	14.2	60.3	39.7	39.3			
LnGrp LOS	D	B	A	A	B	B	E	D	D			
Approach Vol, veh/h		453			1114			725				
Approach Delay, s/veh		21.5			14.2			56.2				
Approach LOS		C			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			13.5	70.5		26.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.5			10.1	* 42		20.5				
Max Q Clear Time (g_c+I1), s		11.1			6.5	21.0		19.8				
Green Ext Time (p_c), s		1.6			0.0	4.2		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Notes

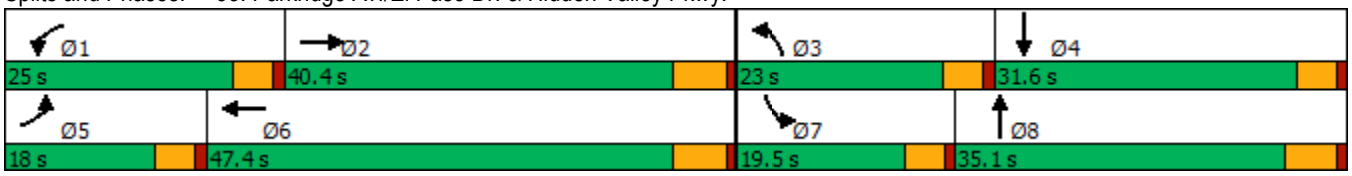
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

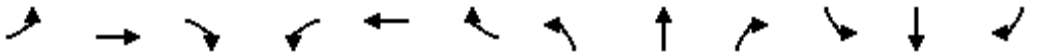
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	103	286	147	720	172	171	93	145
Future Volume (vph)	103	286	147	720	172	171	93	145
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	40.4	25.0	47.4	23.0	35.1	19.5	31.6
Total Split (%)	15.0%	33.7%	20.8%	39.5%	19.2%	29.3%	16.3%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	286	65	147	720	135	172	171	186	93	145	63
Future Volume (veh/h)	103	286	65	147	720	135	172	171	186	93	145	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	340	48	175	857	105	205	204	157	111	173	58
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	903	126	208	1018	125	238	632	460	140	708	229
Arrive On Green	0.08	0.28	0.28	0.11	0.31	0.31	0.13	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	1810	3180	445	1810	3237	397	1810	1979	1440	1810	2670	863
Grp Volume(v), veh/h	123	192	196	175	478	484	205	185	176	111	115	116
Grp Sat Flow(s),veh/h/ln	1810	1805	1820	1810	1805	1829	1810	1805	1614	1810	1805	1728
Q Serve(g_s), s	6.8	8.7	8.8	9.6	25.1	25.1	11.3	7.9	8.5	6.1	5.1	5.4
Cycle Q Clear(g_c), s	6.8	8.7	8.8	9.6	25.1	25.1	11.3	7.9	8.5	6.1	5.1	5.4
Prop In Lane	1.00		0.24	1.00		0.22	1.00		0.89	1.00		0.50
Lane Grp Cap(c), veh/h	152	512	517	208	568	575	238	577	516	140	479	458
V/C Ratio(X)	0.81	0.37	0.38	0.84	0.84	0.84	0.86	0.32	0.34	0.80	0.24	0.25
Avail Cap(c_a), veh/h	238	614	619	363	738	748	327	577	516	265	479	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	29.2	29.2	44.1	32.5	32.5	43.3	26.2	26.4	46.2	29.3	29.4
Incr Delay (d2), s/veh	5.1	0.5	0.5	3.5	6.9	6.8	12.3	1.5	1.8	3.9	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.6	3.7	4.4	11.4	11.5	5.7	3.5	3.4	2.9	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	29.6	29.7	47.6	39.4	39.3	55.6	27.7	28.2	50.0	30.5	30.8
LnGrp LOS	D	C	C	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		511			1137			566			342	
Approach Delay, s/veh		34.8			40.6			38.0			36.9	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	34.7	18.0	32.8	13.2	37.8	12.4	38.3
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	34.6	18.4	* 27	13.4	41.6	14.9	29.3
Max Q Clear Time (g_c+I1), s	11.6	10.8	13.3	7.4	8.8	27.1	8.1	10.5
Green Ext Time (p_c), s	0.1	2.0	0.1	1.3	0.1	4.9	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	340	126	103	31	108	41	232	728	80	913	270
Future Volume (vph)	340	126	103	31	108	41	232	728	80	913	270
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	126	103	31	108	41	232	728	68	80	913	270
Future Volume (veh/h)	340	126	103	31	108	41	232	728	68	80	913	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	127	63	31	109	25	234	735	58	81	922	176
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	322	498	52	184	156	253	1858	147	104	1686	898
Arrive On Green	0.10	0.17	0.17	0.03	0.10	0.10	0.14	0.55	0.55	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3383	267	1810	3610	1575
Grp Volume(v), veh/h	343	127	63	31	109	25	234	392	401	81	922	176
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1845	1810	1805	1575
Q Serve(g_s), s	10.0	6.1	2.9	1.7	5.7	1.5	13.2	12.9	12.9	4.5	18.8	5.6
Cycle Q Clear(g_c), s	10.0	6.1	2.9	1.7	5.7	1.5	13.2	12.9	12.9	4.5	18.8	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	354	322	498	52	184	156	253	991	1013	104	1686	898
V/C Ratio(X)	0.97	0.39	0.13	0.60	0.59	0.16	0.92	0.40	0.40	0.78	0.55	0.20
Avail Cap(c_a), veh/h	354	533	677	149	498	422	253	991	1013	206	1686	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	38.1	25.6	49.4	44.5	42.6	43.8	13.4	13.4	47.9	19.6	10.8
Incr Delay (d2), s/veh	38.9	0.8	0.1	4.1	3.0	0.5	36.4	1.2	1.2	4.6	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.9	1.1	0.8	2.8	0.6	8.2	5.0	5.1	2.1	7.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.0	38.8	25.7	53.6	47.5	43.1	80.2	14.5	14.5	52.5	20.9	11.3
LnGrp LOS	F	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		533			165			1027			1179	
Approach Delay, s/veh		67.0			48.0			29.5			21.7	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	62.4	7.5	22.6	19.0	53.9	15.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.5	14.9	3.7	8.1	15.2	20.8	12.0	7.7
Green Ext Time (p_c), s	0.0	5.0	0.0	0.8	0.0	7.3	0.0	0.5

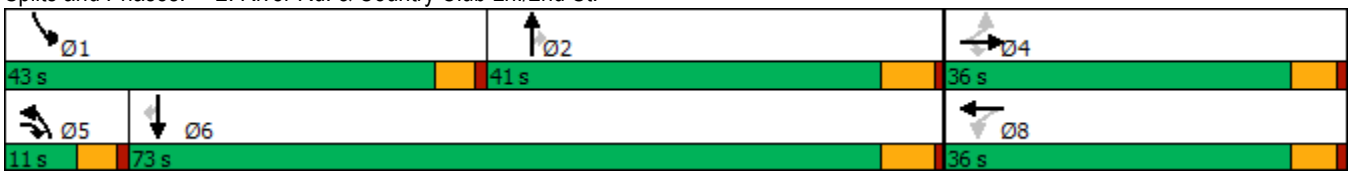
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

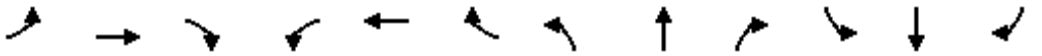
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	23	62	40	65	91	36	651	75	296	723	35
Future Volume (vph)	23	62	40	65	91	36	651	75	296	723	35
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	62	40	65	91	282	36	651	75	296	723	35
Future Volume (veh/h)	23	62	40	65	91	282	36	651	75	296	723	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	65	17	68	96	208	38	685	47	312	761	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	422	407	325	116	252	56	1617	721	344	2191	957
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.03	0.45	0.45	0.19	0.61	0.61
Sat Flow, veh/h	1086	1900	1608	1336	524	1135	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	24	65	17	68	0	304	38	685	47	312	761	32
Grp Sat Flow(s),veh/h/ln	1086	1900	1608	1336	0	1658	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	2.4	3.1	0.9	4.8	0.0	19.3	2.3	14.3	1.8	18.7	11.6	0.9
Cycle Q Clear(g_c), s	21.7	3.1	0.9	7.8	0.0	19.3	2.3	14.3	1.8	18.7	11.6	0.9
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	422	407	325	0	368	56	1617	721	344	2191	957
V/C Ratio(X)	0.21	0.15	0.04	0.21	0.00	0.83	0.67	0.42	0.07	0.91	0.35	0.03
Avail Cap(c_a), veh/h	179	530	499	401	0	463	105	1617	721	628	2191	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	34.7	31.2	37.9	0.0	41.0	53.1	20.8	17.4	43.9	10.8	8.7
Incr Delay (d2), s/veh	0.9	0.2	0.0	0.3	0.0	9.6	5.1	0.8	0.2	3.7	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.3	1.6	0.0	8.7	1.1	5.9	0.7	8.4	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	34.9	31.3	38.2	0.0	50.6	58.2	21.6	17.6	47.6	11.3	8.8
LnGrp LOS	D	C	C	D	A	D	E	C	B	D	B	A
Approach Vol, veh/h		106			372			770			1105	
Approach Delay, s/veh		38.2			48.3			23.2			21.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.7	55.4		29.7	8.0	73.0		29.7				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	20.7	16.3		23.7	4.3	13.6		21.3				
Green Ext Time (p_c), s	0.4	4.2		0.2	0.0	5.7		1.4				

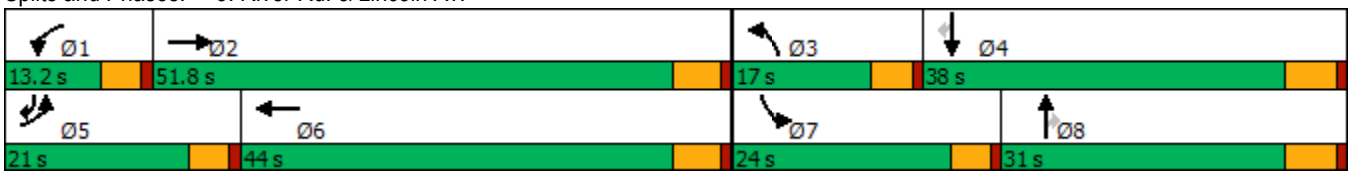
Intersection Summary			
HCM 6th Ctrl Delay		27.0	
HCM 6th LOS		C	

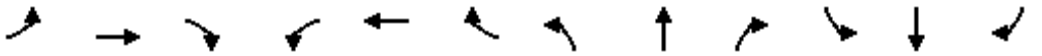
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	269	648	50	397	59	408	46	138	418	241
Future Volume (vph)	269	648	50	397	59	408	46	138	418	241
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 104.2
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	648	105	50	397	140	59	408	46	138	418	241
Future Volume (veh/h)	269	648	105	50	397	140	59	408	46	138	418	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	675	82	52	414	101	61	425	29	144	435	152
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	358	1577	191	71	1224	296	79	581	255	177	777	502
Arrive On Green	0.10	0.49	0.49	0.04	0.42	0.42	0.04	0.16	0.16	0.10	0.22	0.22
Sat Flow, veh/h	3510	3236	393	1810	2883	697	1810	3610	1586	1810	3610	1572
Grp Volume(v), veh/h	280	376	381	52	258	257	61	425	29	144	435	152
Grp Sat Flow(s),veh/h/ln	1755	1805	1823	1810	1805	1775	1810	1805	1586	1810	1805	1572
Q Serve(g_s), s	7.4	12.8	12.9	2.7	9.1	9.3	3.2	10.7	1.5	7.4	10.2	7.0
Cycle Q Clear(g_c), s	7.4	12.8	12.9	2.7	9.1	9.3	3.2	10.7	1.5	7.4	10.2	7.0
Prop In Lane	1.00		0.22	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	880	889	71	767	754	79	581	255	177	777	502
V/C Ratio(X)	0.78	0.43	0.43	0.73	0.34	0.34	0.77	0.73	0.11	0.81	0.56	0.30
Avail Cap(c_a), veh/h	605	880	889	163	767	754	236	956	420	369	1221	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	15.8	15.8	45.2	18.4	18.4	45.0	38.0	34.1	42.1	33.3	24.6
Incr Delay (d2), s/veh	1.4	1.5	1.5	5.3	1.2	1.2	5.8	1.8	0.2	3.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.2	5.3	1.3	3.8	3.8	1.5	4.6	0.6	3.3	4.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	17.3	17.3	50.6	19.6	19.6	50.8	39.8	34.3	45.5	34.0	24.9
LnGrp LOS	D	B	B	D	B	B	D	D	C	D	C	C
Approach Vol, veh/h		1037			567			515			731	
Approach Delay, s/veh		24.3			22.4			40.8			34.3	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	51.8	8.8	26.3	14.3	45.8	13.9	21.1
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	4.7	14.9	5.2	12.2	9.4	11.3	9.4	12.7
Green Ext Time (p_c), s	0.0	4.8	0.0	3.0	0.3	3.0	0.1	2.1

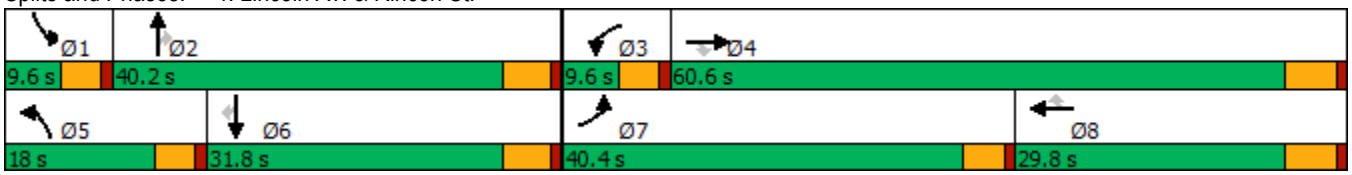
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

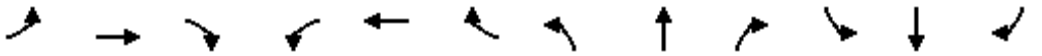
Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	342	2	168	7	11	100	759	2	2	597	84
Future Volume (vph)	342	2	168	7	11	100	759	2	2	597	84
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 80.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	2	168	7	0	11	100	759	2	2	597	84
Future Volume (veh/h)	342	2	168	7	0	11	100	759	2	2	597	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	356	2	89	7	0	4	104	791	1	2	622	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	399	610	517	16	208	176	134	1519	677	5	1262	563
Arrive On Green	0.22	0.32	0.32	0.01	0.00	0.11	0.07	0.42	0.42	0.00	0.35	0.35
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	356	2	89	7	0	4	104	791	1	2	622	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	15.8	0.1	3.3	0.3	0.0	0.2	4.7	13.4	0.0	0.1	11.2	2.4
Cycle Q Clear(g_c), s	15.8	0.1	3.3	0.3	0.0	0.2	4.7	13.4	0.0	0.1	11.2	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	610	517	16	208	176	134	1519	677	5	1262	563
V/C Ratio(X)	0.89	0.00	0.17	0.43	0.00	0.02	0.78	0.52	0.00	0.41	0.49	0.12
Avail Cap(c_a), veh/h	783	1259	1067	109	551	467	293	1519	677	109	1262	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	19.1	20.2	40.8	0.0	32.9	37.6	17.8	13.9	41.2	21.1	18.3
Incr Delay (d2), s/veh	2.8	0.0	0.2	6.6	0.0	0.1	3.7	1.3	0.0	18.9	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	1.2	0.2	0.0	0.1	2.1	5.3	0.0	0.1	4.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	19.1	20.3	47.3	0.0	32.9	41.3	19.0	13.9	60.0	22.5	18.7
LnGrp LOS	C	B	C	D	A	C	D	B	B	E	C	B
Approach Vol, veh/h		447			11			896			692	
Approach Delay, s/veh		31.3			42.1			21.6			22.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	40.2	5.3	32.3	10.7	34.3	22.8	14.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.1	15.4	2.3	5.3	6.7	13.2	17.8	2.2
Green Ext Time (p_c), s	0.0	5.0	0.0	0.3	0.1	3.4	0.4	0.0

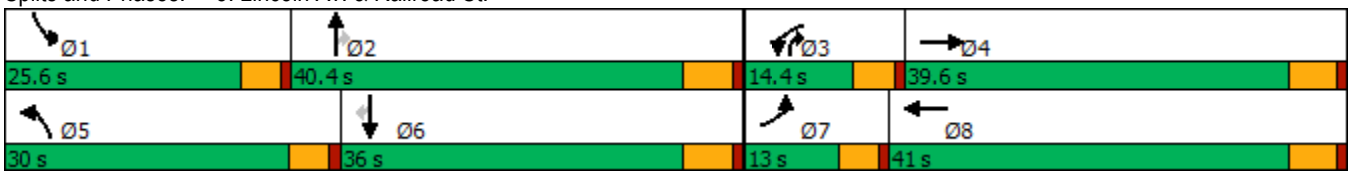
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	132	453	87	82	86	624	78	111	616	45
Future Volume (vph)	132	453	87	82	86	624	78	111	616	45
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 100.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	453	182	87	82	104	86	624	78	111	616	45
Future Volume (veh/h)	132	453	182	87	82	104	86	624	78	111	616	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	142	487	156	94	88	72	92	671	51	119	662	48
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	626	199	121	406	302	119	1416	737	151	1479	658
Arrive On Green	0.09	0.23	0.23	0.07	0.21	0.21	0.07	0.39	0.39	0.08	0.41	0.41
Sat Flow, veh/h	1810	2683	853	1810	1971	1468	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	142	327	316	94	80	80	92	671	51	119	662	48
Grp Sat Flow(s),veh/h/ln	1810	1805	1731	1810	1805	1633	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	6.9	15.1	15.3	4.6	3.3	3.7	4.5	12.4	1.6	5.8	11.8	1.6
Cycle Q Clear(g_c), s	6.9	15.1	15.3	4.6	3.3	3.7	4.5	12.4	1.6	5.8	11.8	1.6
Prop In Lane	1.00		0.49	1.00		0.90	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	421	404	121	372	336	119	1416	737	151	1479	658
V/C Ratio(X)	0.83	0.77	0.78	0.78	0.21	0.24	0.77	0.47	0.07	0.79	0.45	0.07
Avail Cap(c_a), veh/h	170	692	663	199	720	652	515	1416	737	426	1479	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	32.0	32.1	41.0	29.4	29.6	41.0	20.2	13.5	40.1	19.0	16.0
Incr Delay (d2), s/veh	27.0	3.1	3.4	4.1	0.3	0.4	3.9	1.1	0.2	3.4	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.6	6.4	2.1	1.4	1.4	2.0	5.1	0.6	2.6	4.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	35.1	35.4	45.1	29.7	29.9	44.9	21.4	13.7	43.5	20.0	16.2
LnGrp LOS	E	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		785			254			814			829	
Approach Delay, s/veh		41.0			35.5			23.6			23.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	40.4	10.5	26.2	10.5	42.0	13.0	23.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	7.8	14.4	6.6	17.3	6.5	13.8	8.9	5.7
Green Ext Time (p_c), s	0.1	4.4	0.0	3.5	0.1	4.0	0.0	0.8

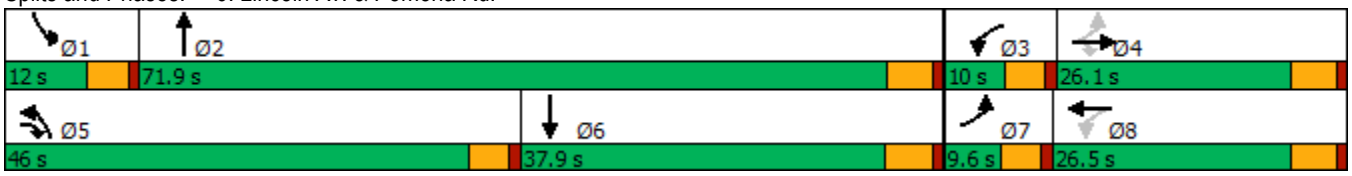
Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

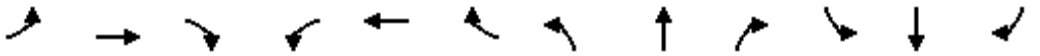
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	68	33	195	130	21	82	736	47	869
Future Volume (vph)	68	33	195	130	21	82	736	47	869
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	71.9	12.0	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	59.9%	10.0%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	33	195	130	21	22	82	736	87	47	869	35
Future Volume (veh/h)	68	33	195	130	21	22	82	736	87	47	869	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	34	146	135	22	18	85	767	77	49	905	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	208	271	272	109	90	110	2053	206	65	2113	82
Arrive On Green	0.05	0.11	0.11	0.05	0.11	0.11	0.06	0.62	0.62	0.04	0.60	0.60
Sat Flow, veh/h	1810	1900	1579	1810	967	791	1810	3305	332	1810	3543	137
Grp Volume(v), veh/h	71	34	146	135	0	40	85	419	425	49	461	479
Grp Sat Flow(s),veh/h/ln	1810	1900	1579	1810	0	1758	1810	1805	1831	1810	1805	1875
Q Serve(g_s), s	3.7	1.7	9.1	5.4	0.0	2.2	5.0	12.3	12.3	2.9	14.9	14.9
Cycle Q Clear(g_c), s	3.7	1.7	9.1	5.4	0.0	2.2	5.0	12.3	12.3	2.9	14.9	14.9
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.18	1.00		0.07
Lane Grp Cap(c), veh/h	280	208	271	272	0	199	110	1121	1138	65	1076	1118
V/C Ratio(X)	0.25	0.16	0.54	0.50	0.00	0.20	0.77	0.37	0.37	0.76	0.43	0.43
Avail Cap(c_a), veh/h	280	371	406	272	0	350	697	1121	1138	125	1076	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	43.4	40.8	41.6	0.0	43.3	49.8	10.0	10.0	51.4	11.8	11.8
Incr Delay (d2), s/veh	0.2	0.4	1.7	0.5	0.0	0.5	4.3	1.0	0.9	6.6	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.8	3.6	3.3	0.0	1.0	2.4	4.8	4.8	1.4	5.8	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	43.8	42.5	42.1	0.0	43.7	54.1	11.0	11.0	58.0	13.0	13.0
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	B	B
Approach Vol, veh/h		251			175			929			989	
Approach Delay, s/veh		42.0			42.5			14.9			15.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	72.2	10.0	16.9	11.1	69.5	9.6	17.3
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	7.4	* 67	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	4.9	14.3	7.4	11.1	7.0	16.9	5.7	4.2
Green Ext Time (p_c), s	0.0	6.2	0.0	0.4	0.1	5.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	C

Notes

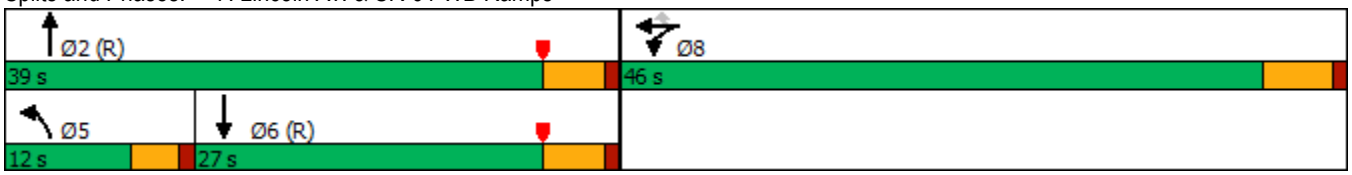
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

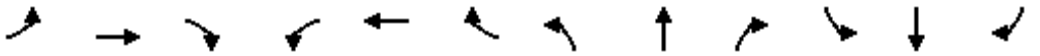
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	607	2	271	224	635	851
Future Volume (vph)	607	2	271	224	635	851
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	46.0	46.0	46.0	12.0	39.0	27.0
Total Split (%)	54.1%	54.1%	54.1%	14.1%	45.9%	31.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	607	2	271	224	635	0	0	851	365
Future Volume (veh/h)	0	0	0	607	2	271	224	635	0	0	851	365
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				620	0	157	229	648	0	0	868	372
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				742	0	330	309	2424	0	0	1320	563
Arrive On Green				0.21	0.00	0.21	0.03	0.22	0.00	0.00	0.54	0.54
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2557	1049
Grp Volume(v), veh/h				620	0	157	229	648	0	0	635	605
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1707
Q Serve(g_s), s				14.0	0.0	7.3	5.5	12.6	0.0	0.0	21.4	21.6
Cycle Q Clear(g_c), s				14.0	0.0	7.3	5.5	12.6	0.0	0.0	21.4	21.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.61
Lane Grp Cap(c), veh/h				742	0	330	309	2424	0	0	968	915
V/C Ratio(X)				0.84	0.00	0.48	0.74	0.27	0.00	0.00	0.66	0.66
Avail Cap(c_a), veh/h				1724	0	767	330	2424	0	0	968	915
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.87	0.87	0.00	0.00	0.86	0.86
Uniform Delay (d), s/veh				32.4	0.0	29.8	40.3	15.8	0.0	0.0	14.1	14.2
Incr Delay (d2), s/veh				1.0	0.0	0.4	6.0	0.2	0.0	0.0	3.0	3.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	2.8	2.7	6.1	0.0	0.0	8.5	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.4	0.0	30.2	46.3	16.0	0.0	0.0	17.1	17.4
LnGrp LOS				C	A	C	D	B	A	A	B	B
Approach Vol, veh/h					777			877			1240	
Approach Delay, s/veh					32.7			23.9			17.2	
Approach LOS					C			C			B	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	62.1		11.5	50.6		22.9				
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5				
Max Green Setting (Gmax), s	34.0		8.0	22.0		40.5				
Max Q Clear Time (g_c+I1), s	14.6		7.5	23.6		16.0				
Green Ext Time (p_c), s	2.8		0.0	0.0		1.5				

Intersection Summary		
HCM 6th Ctrl Delay	23.4	
HCM 6th LOS	C	

Notes

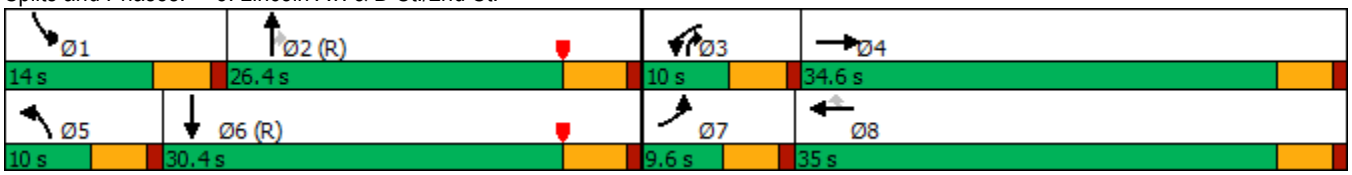
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	63	158	190	53	346	67	451	299	356	950
Future Volume (vph)	63	158	190	53	346	67	451	299	356	950
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	10.0	26.4	10.0	14.0	30.4
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.8%	31.1%	11.8%	16.5%	35.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	158	36	190	53	346	67	451	299	356	950	127
Future Volume (veh/h)	63	158	36	190	53	346	67	451	299	356	950	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	163	31	196	55	183	69	465	145	367	979	126
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	253	48	223	344	291	89	1586	805	388	1609	207
Arrive On Green	0.05	0.16	0.16	0.06	0.18	0.18	0.05	0.44	0.44	0.04	0.17	0.17
Sat Flow, veh/h	1810	1542	293	3510	1900	1605	1810	3610	1599	3510	3213	413
Grp Volume(v), veh/h	65	0	194	196	55	183	69	465	145	367	550	555
Grp Sat Flow(s),veh/h/ln	1810	0	1835	1755	1900	1605	1810	1805	1599	1755	1805	1822
Q Serve(g_s), s	3.0	0.0	8.4	4.7	2.1	9.0	3.2	7.0	4.2	8.9	24.0	24.0
Cycle Q Clear(g_c), s	3.0	0.0	8.4	4.7	2.1	9.0	3.2	7.0	4.2	8.9	24.0	24.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	84	0	301	223	344	291	89	1586	805	388	904	912
V/C Ratio(X)	0.78	0.00	0.64	0.88	0.16	0.63	0.77	0.29	0.18	0.95	0.61	0.61
Avail Cap(c_a), veh/h	106	0	648	223	680	574	115	1586	805	388	904	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	0.56	0.56	0.56
Uniform Delay (d), s/veh	40.1	0.0	33.2	39.5	29.3	32.2	39.9	15.3	11.5	40.7	27.7	27.7
Incr Delay (d2), s/veh	17.9	0.0	2.3	28.2	0.2	2.1	15.9	0.5	0.5	21.5	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	3.9	2.9	1.0	3.6	1.8	2.8	1.6	5.2	11.9	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	35.5	67.7	29.5	34.3	55.8	15.8	12.0	62.2	29.5	29.4
LnGrp LOS	E	A	D	E	C	C	E	B	B	E	C	C
Approach Vol, veh/h		259			434			679			1472	
Approach Delay, s/veh		41.1			48.7			19.1			37.6	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	42.5	10.0	18.5	8.8	47.7	8.5	20.0
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.4	21.3	5.4	30.0	5.4	25.3	5.0	30.4
Max Q Clear Time (g_c+I1), s	10.9	9.0	6.7	10.4	5.2	26.0	5.0	11.0
Green Ext Time (p_c), s	0.0	2.8	0.0	1.1	0.0	0.0	0.0	0.8

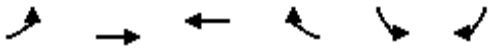
Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	689	131	111	257	477
Future Volume (vph)	689	131	111	257	477
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	44.0	63.0	19.0	22.0	22.0
Total Split (%)	51.8%	74.1%	22.4%	25.9%	25.9%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	689	131	111	75	257	477
Future Volume (veh/h)	689	131	111	75	257	477
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	718	136	116	39	310	156
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	845	1305	1052	340	711	316
Arrive On Green	0.40	1.00	0.39	0.39	0.20	0.20
Sat Flow, veh/h	3510	1900	2777	867	3619	1610
Grp Volume(v), veh/h	718	136	77	78	310	156
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1744	1810	1610
Q Serve(g_s), s	15.8	0.0	2.3	2.4	6.4	7.3
Cycle Q Clear(g_c), s	15.8	0.0	2.3	2.4	6.4	7.3
Prop In Lane	1.00			0.50	1.00	1.00
Lane Grp Cap(c), veh/h	845	1305	708	684	711	316
V/C Ratio(X)	0.85	0.10	0.11	0.11	0.44	0.49
Avail Cap(c_a), veh/h	1627	1305	708	684	711	316
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	16.4	16.4	30.0	30.4
Incr Delay (d2), s/veh	2.1	0.1	0.3	0.3	1.9	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	1.0	1.0	2.9	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	0.1	16.7	16.8	32.0	35.8
LnGrp LOS	C	A	B	B	C	D
Approach Vol, veh/h		854	155		466	
Approach Delay, s/veh		21.9	16.7		33.2	
Approach LOS		C	B		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		22.0	25.1	37.9
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		58.4		16.7	39.4	14.4
Max Q Clear Time (g_c+I1), s		2.0		9.3	17.8	4.4
Green Ext Time (p_c), s		0.5		0.6	2.7	0.3

Intersection Summary		
HCM 6th Ctrl Delay		25.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	383	447	125	54	21
Future Vol, veh/h	7	383	447	125	54	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	399	466	130	56	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	596	0	-	0	944	531
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	413	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	990	-	-	-	293	552
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	990	-	-	-	290	552
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	672	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	990	-	-	-	334
HCM Lane V/C Ratio	0.007	-	-	-	0.234
HCM Control Delay (s)	8.7	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	361	75	20	407	164	9
Future Vol, veh/h	361	75	20	407	164	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	376	78	21	424	171	9
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.1	16.4	12
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	95%	0%	5%
Vol Thru, %	0%	83%	95%
Vol Right, %	5%	17%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	173	436	427
LT Vol	164	0	20
Through Vol	0	361	407
RT Vol	9	75	0
Lane Flow Rate	180	454	445
Geometry Grp	1	1	1
Degree of Util (X)	0.311	0.629	0.63
Departure Headway (Hd)	6.21	4.987	5.099
Convergence, Y/N	Yes	Yes	Yes
Cap	578	722	707
Service Time	4.25	3.017	3.13
HCM Lane V/C Ratio	0.311	0.629	0.629
HCM Control Delay	12	16.1	16.4
HCM Lane LOS	B	C	C
HCM 95th-tile Q	1.3	4.5	4.5

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	413	6	28	456	21	3	0	15	27	1	2
Future Vol, veh/h	3	413	6	28	456	21	3	0	15	27	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	435	6	29	480	22	3	0	16	28	1	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

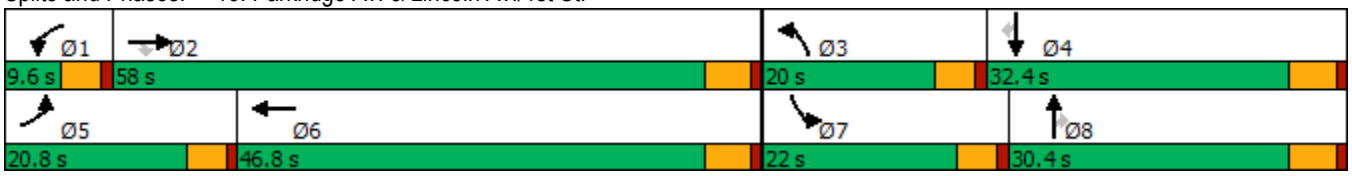
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	15.4	17.2	8.9	9.7
HCM LOS	C	C	A	A

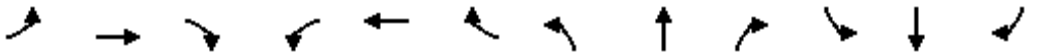
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	17%	1%	0%	6%	90%
Vol Thru, %	0%	99%	0%	90%	3%
Vol Right, %	83%	0%	100%	4%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	416	6	505	30
LT Vol	3	3	0	28	27
Through Vol	0	413	0	456	1
RT Vol	15	0	6	21	2
Lane Flow Rate	19	438	6	532	32
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.03	0.613	0.008	0.685	0.055
Departure Headway (Hd)	5.77	5.036	4.328	4.641	6.247
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	624	714	823	776	568
Service Time	3.77	2.782	2.073	2.682	4.344
HCM Lane V/C Ratio	0.03	0.613	0.007	0.686	0.056
HCM Control Delay	8.9	15.5	7.1	17.2	9.7
HCM Lane LOS	A	C	A	C	A
HCM 95th-tile Q	0.1	4.2	0	5.5	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	675	111	22	523	79	113	45	43	59	24
Future Volume (vph)	30	675	111	22	523	79	113	45	43	59	24
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 99.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	675	111	22	523	110	79	113	45	43	59	24
Future Volume (veh/h)	30	675	111	22	523	110	79	113	45	43	59	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	742	91	24	575	103	87	124	33	47	65	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	824	697	44	1309	234	112	575	487	67	527	447
Arrive On Green	0.03	0.43	0.43	0.02	0.43	0.43	0.06	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	1810	1900	1608	1810	3060	547	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	33	742	91	24	339	339	87	124	33	47	65	4
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1802	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.8	35.3	3.3	1.3	12.9	12.9	4.6	4.7	1.4	2.5	2.5	0.2
Cycle Q Clear(g_c), s	1.8	35.3	3.3	1.3	12.9	12.9	4.6	4.7	1.4	2.5	2.5	0.2
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	55	824	697	44	772	771	112	575	487	67	527	447
V/C Ratio(X)	0.60	0.90	0.13	0.54	0.44	0.44	0.78	0.22	0.07	0.70	0.12	0.01
Avail Cap(c_a), veh/h	301	1033	874	93	774	772	286	575	487	324	527	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	25.6	16.5	46.9	19.6	19.6	45.0	25.3	24.2	46.3	26.3	25.5
Incr Delay (d2), s/veh	3.9	9.2	0.1	3.8	0.4	0.4	4.3	0.9	0.3	4.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	17.0	1.2	0.6	5.2	5.3	2.1	2.2	0.6	1.2	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	34.8	16.6	50.7	20.0	20.0	49.3	26.2	24.4	51.2	26.8	25.5
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		866			702			244			116	
Approach Delay, s/veh		33.5			21.1			34.2			36.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	47.3	10.6	32.4	7.6	46.7	8.2	34.8
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	3.3	37.3	6.6	4.5	3.8	14.9	4.5	6.7
Green Ext Time (p_c), s	0.0	4.9	0.1	0.2	0.0	4.3	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	763	601	23	0	53
Future Vol, veh/h	0	763	601	23	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	829	653	25	0	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	339
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	663
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	663
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	663
HCM Lane V/C Ratio	-	-	-	0.087
HCM Control Delay (s)	-	-	-	10.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	763	553	57	0	79
Future Vol, veh/h	0	763	553	57	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	829	601	62	0	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	332
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	670
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	670
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

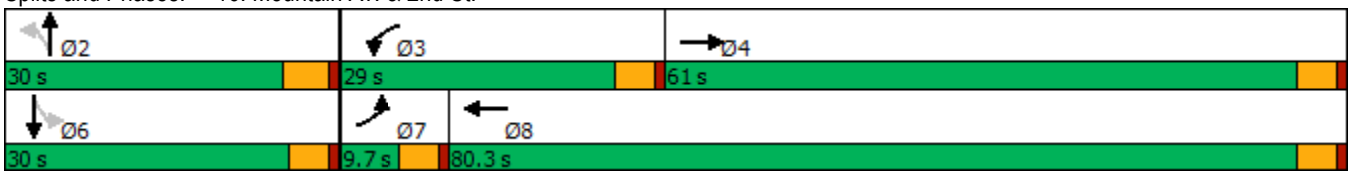
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	670
HCM Lane V/C Ratio	-	-	-	0.128
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

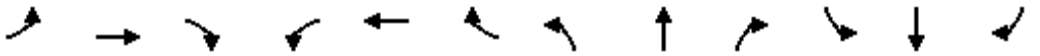
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	387	154	382	112	9	16	7
Future Volume (vph)	6	387	154	382	112	9	16	7
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 63.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	387	58	154	382	16	112	9	290	16	7	3
Future Volume (veh/h)	6	387	58	154	382	16	112	9	290	16	7	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	430	64	171	424	18	124	10	322	18	8	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	552	82	221	822	35	479	13	414	167	64	14
Arrive On Green	0.01	0.34	0.34	0.12	0.45	0.45	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	1616	241	1810	1809	77	1426	49	1569	219	243	53
Grp Volume(v), veh/h	7	0	494	171	0	442	124	0	332	29	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1857	1810	0	1886	1426	0	1618	515	0	0
Q Serve(g_s), s	0.2	0.0	12.7	4.9	0.0	8.9	0.0	0.0	10.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	12.7	4.9	0.0	8.9	4.3	0.0	10.1	10.3	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.04	1.00		0.97	0.62		0.10
Lane Grp Cap(c), veh/h	17	0	634	221	0	857	479	0	427	246	0	0
V/C Ratio(X)	0.42	0.00	0.78	0.77	0.00	0.52	0.26	0.00	0.78	0.12	0.00	0.00
Avail Cap(c_a), veh/h	173	0	1965	830	0	2680	767	0	754	515	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	15.7	22.6	0.0	10.3	16.0	0.0	18.1	15.4	0.0	0.0
Incr Delay (d2), s/veh	6.1	0.0	2.1	2.2	0.0	0.5	0.3	0.0	3.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.8	2.0	0.0	3.0	1.1	0.0	3.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	17.9	24.8	0.0	10.8	16.3	0.0	21.2	15.6	0.0	0.0
LnGrp LOS	C	A	B	C	A	B	B	A	C	B	A	A
Approach Vol, veh/h		501			613			456			29	
Approach Delay, s/veh		18.1			14.7			19.9			15.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.2	11.1	22.9		19.2	5.1	28.9				
Change Period (Y+Rc), s		5.2	4.6	* 4.7		* 5.2	4.6	* 4.7				
Max Green Setting (Gmax), s		24.8	24.4	* 56		* 25	5.1	* 76				
Max Q Clear Time (g_c+I1), s		12.1	6.9	14.7		12.3	2.2	10.9				
Green Ext Time (p_c), s		1.9	0.2	3.5		0.1	0.0	3.0				

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	0	34	13	0	26	13	330	5	10	189	21
Future Vol, veh/h	56	0	34	13	0	26	13	330	5	10	189	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	61	0	37	14	0	28	14	359	5	11	205	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	447	631	114	515	640	182	228	0	0	364	0	0
Stage 1	239	239	-	390	390	-	-	-	-	-	-	-
Stage 2	208	392	-	125	250	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	500	401	923	447	396	836	1352	-	-	1206	-	-
Stage 1	749	711	-	611	611	-	-	-	-	-	-	-
Stage 2	780	610	-	872	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	475	392	923	422	387	836	1352	-	-	1206	-	-
Mov Cap-2 Maneuver	475	392	-	422	387	-	-	-	-	-	-	-
Stage 1	739	704	-	603	603	-	-	-	-	-	-	-
Stage 2	744	602	-	829	697	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	11.1	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	582	630	1206	-	-
HCM Lane V/C Ratio	0.01	-	-	0.168	0.067	0.009	-	-
HCM Control Delay (s)	7.7	0	-	12.4	11.1	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	19	288	9	11	209
Future Vol, veh/h	33	19	288	9	11	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	21	313	10	12	227

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	456	162	0	0	323	0
Stage 1	318	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	538	861	-	-	1248	-
Stage 1	716	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	532	861	-	-	1248	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	861	1248	-
HCM Lane V/C Ratio	-	-	0.024	0.01	-
HCM Control Delay (s)	-	-	9.3	7.9	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	0	24	0	23	248	9	260
Future Volume (vph)	31	0	24	0	23	248	9	260
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.4	9.6	27.4
Total Split (s)	40.0	40.0	40.0	40.0	20.0	60.0	20.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	16.7%	50.0%	16.7%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	5.4	4.6	5.4
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 36.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	49	24	0	28	23	248	11	9	260	6
Future Volume (veh/h)	31	0	49	24	0	28	23	248	11	9	260	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	0	53	26	0	30	25	270	12	10	283	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	53	215	270	51	185	56	1132	50	24	1094	27
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.03	0.32	0.32	0.01	0.30	0.30
Sat Flow, veh/h	382	239	968	496	228	835	1810	3521	156	1810	3600	89
Grp Volume(v), veh/h	87	0	0	56	0	0	25	138	144	10	142	148
Grp Sat Flow(s),veh/h/ln	1590	0	0	1559	0	0	1810	1805	1872	1810	1805	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	1.9	0.2	2.0	2.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.9	0.0	0.0	0.4	1.8	1.9	0.2	2.0	2.0
Prop In Lane	0.39		0.61	0.46		0.54	1.00		0.08	1.00		0.05
Lane Grp Cap(c), veh/h	504	0	0	506	0	0	56	580	602	24	548	572
V/C Ratio(X)	0.17	0.00	0.00	0.11	0.00	0.00	0.45	0.24	0.24	0.42	0.26	0.26
Avail Cap(c_a), veh/h	1804	0	0	1778	0	0	847	2994	3105	847	2994	3125
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	10.3	0.0	0.0	15.7	8.2	8.2	16.1	8.7	8.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	2.0	0.2	0.2	4.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	0.2	0.5	0.5	0.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	0.0	0.0	10.4	0.0	0.0	17.7	8.4	8.4	20.3	8.9	8.9
LnGrp LOS	B	A	A	B	A	A	B	A	A	C	A	A
Approach Vol, veh/h		87			56			307			300	
Approach Delay, s/veh		10.7			10.4			9.2			9.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	16.0		11.9	5.6	15.4		11.9				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	2.2	3.9		3.4	2.4	4.0		2.9				
Green Ext Time (p_c), s	0.0	1.6		0.5	0.0	1.6		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	0	42	23	0	28	21	222	11	9	318	6
Future Vol, veh/h	31	0	42	23	0	28	21	222	11	9	318	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	0	46	25	0	30	23	241	12	10	346	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	537	669	177	486	666	127	353	0	0	253	0	0
Stage 1	370	370	-	293	293	-	-	-	-	-	-	-
Stage 2	167	299	-	193	373	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	431	381	842	469	383	906	1217	-	-	1324	-	-
Stage 1	628	624	-	696	674	-	-	-	-	-	-	-
Stage 2	824	670	-	796	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	407	369	842	433	371	906	1217	-	-	1324	-	-
Mov Cap-2 Maneuver	407	369	-	433	371	-	-	-	-	-	-	-
Stage 1	614	618	-	681	659	-	-	-	-	-	-	-
Stage 2	779	655	-	746	616	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	11.5	0.8	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1217	-	-	579	607	1324	-	-
HCM Lane V/C Ratio	0.019	-	-	0.137	0.091	0.007	-	-
HCM Control Delay (s)	8	0.1	-	12.2	11.5	7.7	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	69	0	254	334	49
Future Vol, veh/h	0	69	0	254	334	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	75	0	276	363	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	208	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	804	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	804	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

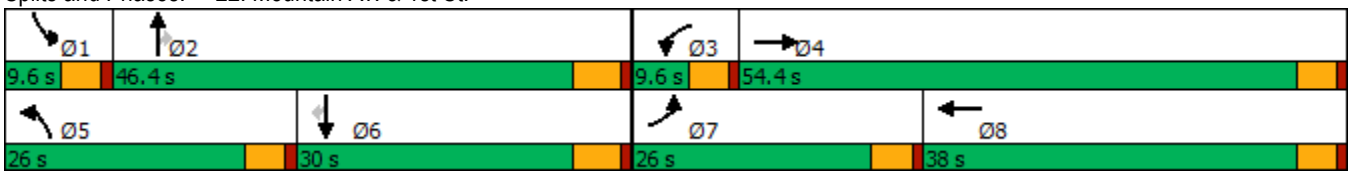
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	804	-	-
HCM Lane V/C Ratio	-	0.093	-	-
HCM Control Delay (s)	-	9.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

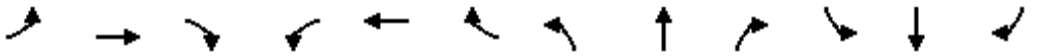
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	143	385	4	261	272	82	8	38	297	69
Future Volume (vph)	143	385	4	261	272	82	8	38	297	69
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	26.0	54.4	9.6	38.0	26.0	46.4	46.4	9.6	30.0	30.0
Total Split (%)	21.7%	45.3%	8.0%	31.7%	21.7%	38.7%	38.7%	8.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	385	236	4	261	28	272	82	8	38	297	69
Future Volume (veh/h)	143	385	236	4	261	28	272	82	8	38	297	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	401	246	4	272	29	283	85	8	40	309	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	666	404	10	351	37	335	672	569	72	395	335
Arrive On Green	0.11	0.31	0.31	0.01	0.21	0.21	0.19	0.35	0.35	0.04	0.21	0.21
Sat Flow, veh/h	1810	2160	1310	1810	1688	180	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	149	334	313	4	0	301	283	85	8	40	309	72
Grp Sat Flow(s),veh/h/ln	1810	1805	1664	1810	0	1868	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.2	10.2	10.4	0.1	0.0	9.9	9.8	2.0	0.2	1.4	10.0	2.4
Cycle Q Clear(g_c), s	5.2	10.2	10.4	0.1	0.0	9.9	9.8	2.0	0.2	1.4	10.0	2.4
Prop In Lane	1.00		0.79	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	557	514	10	0	389	335	672	569	72	395	335
V/C Ratio(X)	0.78	0.60	0.61	0.41	0.00	0.77	0.85	0.13	0.01	0.56	0.78	0.21
Avail Cap(c_a), veh/h	594	1377	1269	139	0	954	594	1201	1018	139	723	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	19.1	19.2	32.3	0.0	24.4	25.7	14.3	13.7	30.7	24.4	21.4
Incr Delay (d2), s/veh	2.6	1.0	1.2	10.1	0.0	3.3	2.3	0.1	0.0	2.5	3.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.0	3.8	0.1	0.0	4.4	4.0	0.8	0.1	0.6	4.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	20.2	20.4	42.4	0.0	27.7	27.9	14.3	13.7	33.3	27.8	21.7
LnGrp LOS	C	C	C	D	A	C	C	B	B	C	C	C
Approach Vol, veh/h		796			305			376			421	
Approach Delay, s/veh		22.3			27.9			24.6			27.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	28.2	4.9	24.8	16.7	18.8	11.5	18.3
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	41.2	5.0	* 50	21.4	24.8	21.4	* 33
Max Q Clear Time (g_c+I1), s	3.4	4.0	2.1	12.4	11.8	12.0	7.2	11.9
Green Ext Time (p_c), s	0.0	0.4	0.0	4.4	0.3	1.5	0.2	1.7

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	683	10	0	551	0	24
Future Vol, veh/h	683	10	0	551	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	742	11	0	599	0	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	748
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	416
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

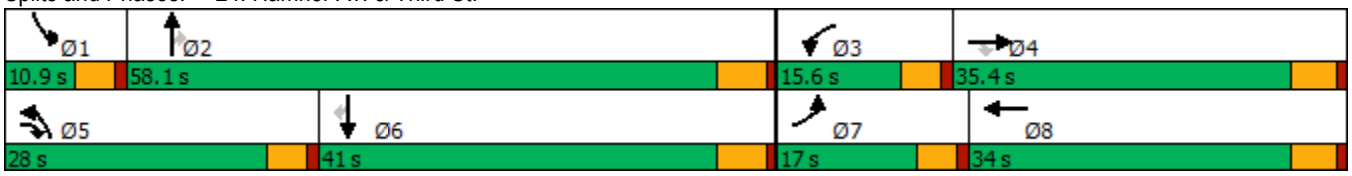
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	416	-	-	-
HCM Lane V/C Ratio	0.063	-	-	-
HCM Control Delay (s)	14.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

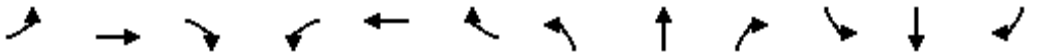
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	75	457	52	113	399	843	69	48	976	204
Future Volume (vph)	151	75	457	52	113	399	843	69	48	976	204
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	75	457	52	113	57	399	843	69	48	976	204
Future Volume (veh/h)	151	75	457	52	113	57	399	843	69	48	976	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	91	339	63	138	52	487	1028	71	59	1190	178
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	215	394	593	82	176	66	565	1853	825	76	1424	634
Arrive On Green	0.12	0.21	0.21	0.05	0.13	0.13	0.16	0.51	0.51	0.04	0.39	0.39
Sat Flow, veh/h	1810	1900	1608	1810	1309	493	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	184	91	339	63	0	190	487	1028	71	59	1190	178
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	10.2	4.1	17.3	3.5	0.0	10.5	13.9	19.9	2.3	3.3	30.6	7.7
Cycle Q Clear(g_c), s	10.2	4.1	17.3	3.5	0.0	10.5	13.9	19.9	2.3	3.3	30.6	7.7
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	394	593	82	0	242	565	1853	825	76	1424	634
V/C Ratio(X)	0.86	0.23	0.57	0.77	0.00	0.79	0.86	0.55	0.09	0.77	0.84	0.28
Avail Cap(c_a), veh/h	219	561	733	194	0	507	800	1853	825	111	1424	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	33.9	25.9	48.5	0.0	43.0	42.0	17.0	12.7	48.7	28.1	21.2
Incr Delay (d2), s/veh	25.5	0.3	0.9	5.6	0.0	5.6	5.2	1.2	0.2	10.1	5.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	1.9	6.5	1.7	0.0	5.0	6.2	7.9	0.8	1.7	13.5	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	34.2	26.8	54.1	0.0	48.6	47.1	18.2	12.9	58.8	34.0	22.3
LnGrp LOS	E	C	C	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		614			253			1586			1427	
Approach Delay, s/veh		40.8			50.0			26.9			33.6	
Approach LOS		D			D			C			C	

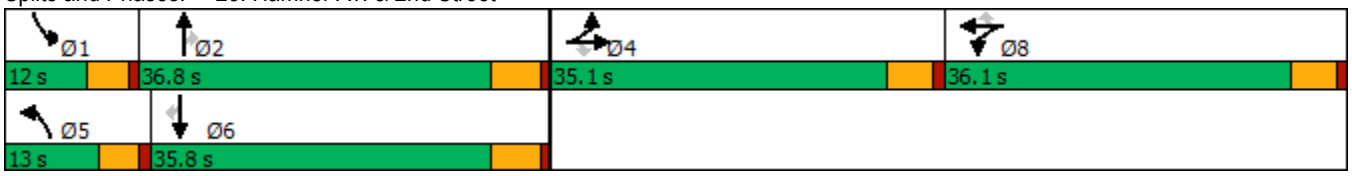
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	58.1	9.2	26.4	21.1	45.9	16.8	18.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	5.3	21.9	5.5	19.3	15.9	32.6	12.2	12.5
Green Ext Time (p_c), s	0.0	8.4	0.0	1.3	0.6	2.2	0.0	0.9

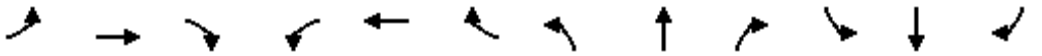
Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	587	66	217	333	434	75	690	365	472	974	197
Future Volume (vph)	252	587	66	217	333	434	75	690	365	472	974	197
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	13.0	36.8	36.8	12.0	35.8	35.8
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	10.8%	30.7%	30.7%	10.0%	29.8%	29.8%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.9
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	587	66	217	333	434	75	690	365	472	974	197
Future Volume (veh/h)	252	587	66	217	333	434	75	690	365	472	974	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	257	599	34	187	388	235	77	704	243	482	994	161
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	509	1068	450	344	723	306	99	975	434	125	1028	452
Arrive On Green	0.28	0.28	0.28	0.19	0.19	0.19	0.05	0.27	0.27	0.07	0.28	0.28
Sat Flow, veh/h	1810	3800	1600	1810	3800	1608	1810	3610	1605	1810	3610	1588
Grp Volume(v), veh/h	257	599	34	187	388	235	77	704	243	482	994	161
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1608	1810	1805	1605	1810	1805	1588
Q Serve(g_s), s	12.7	14.4	1.7	10.0	9.8	14.8	4.5	18.9	13.9	7.4	29.0	8.6
Cycle Q Clear(g_c), s	12.7	14.4	1.7	10.0	9.8	14.8	4.5	18.9	13.9	7.4	29.0	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	1068	450	344	723	306	99	975	434	125	1028	452
V/C Ratio(X)	0.51	0.56	0.08	0.54	0.54	0.77	0.78	0.72	0.56	3.84	0.97	0.36
Avail Cap(c_a), veh/h	509	1068	450	526	1104	467	142	1062	472	125	1028	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	32.7	28.2	39.0	39.0	41.0	49.8	35.3	33.5	49.7	37.7	30.4
Incr Delay (d2), s/veh	3.6	2.1	0.3	1.3	0.6	4.2	9.1	2.2	1.3	1297.9	20.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	6.8	0.7	4.5	4.6	6.1	2.2	8.3	5.4	48.5	15.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	34.9	28.5	40.4	39.6	45.2	58.9	37.5	34.8	1347.6	58.1	30.8
LnGrp LOS	D	C	C	D	D	D	E	D	C	F	E	C
Approach Vol, veh/h		890			810			1024			1637	
Approach Delay, s/veh		34.9			41.4			38.5			435.1	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	34.2		35.1	10.4	35.8		25.4				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	7.4	31.4		30.0	8.4	30.4		31.0				
Max Q Clear Time (g_c+I1), s	9.4	20.9		16.4	6.5	31.0		16.8				
Green Ext Time (p_c), s	0.0	3.9		4.1	0.0	0.0		3.3				

Intersection Summary		
HCM 6th Ctrl Delay		187.2
HCM 6th LOS		F

Notes

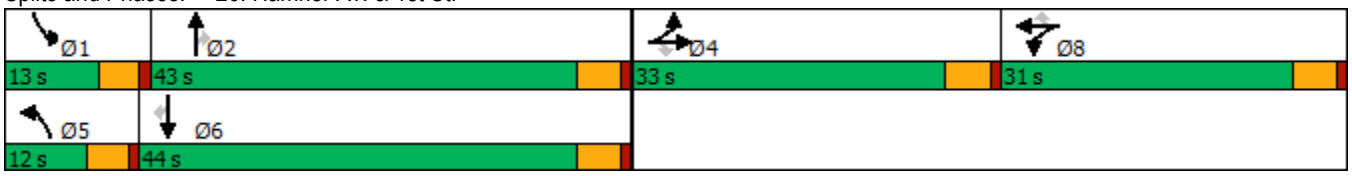
User approved volume balancing among the lanes for turning movement.

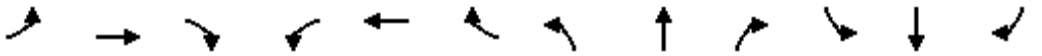
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	352	46	60	30	21	73	717	32	75	957	212
Future Volume (vph)	352	46	60	30	21	73	717	32	75	957	212
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 91.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	46	60	50	30	21	73	717	32	75	957	212
Future Volume (veh/h)	352	46	60	50	30	21	73	717	32	75	957	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	405	0	44	53	32	5	77	755	23	79	1007	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	542	0	238	122	74	170	100	1651	718	102	1656	720
Arrive On Green	0.15	0.00	0.15	0.11	0.11	0.11	0.06	0.46	0.46	0.06	0.46	0.46
Sat Flow, veh/h	3619	0	1585	1149	694	1606	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	405	0	44	85	0	5	77	755	23	79	1007	140
Grp Sat Flow(s),veh/h/ln	1810	0	1585	1843	0	1606	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	9.1	0.0	2.1	3.7	0.0	0.2	3.6	12.2	0.7	3.7	17.8	4.5
Cycle Q Clear(g_c), s	9.1	0.0	2.1	3.7	0.0	0.2	3.6	12.2	0.7	3.7	17.8	4.5
Prop In Lane	1.00		1.00	0.62		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	542	0	238	195	0	170	100	1651	718	102	1656	720
V/C Ratio(X)	0.75	0.00	0.19	0.44	0.00	0.03	0.77	0.46	0.03	0.77	0.61	0.19
Avail Cap(c_a), veh/h	1192	0	522	563	0	491	157	1651	718	179	1656	720
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	31.6	35.6	0.0	34.1	39.7	15.8	12.7	39.6	17.3	13.7
Incr Delay (d2), s/veh	2.1	0.0	0.4	1.5	0.0	0.1	4.7	0.9	0.1	4.6	1.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.8	1.7	0.0	0.1	1.7	4.7	0.2	1.7	7.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	0.0	32.0	37.1	0.0	34.2	44.4	16.8	12.8	44.2	19.0	14.3
LnGrp LOS	D	A	C	D	A	C	D	B	B	D	B	B
Approach Vol, veh/h		449			90			855			1226	
Approach Delay, s/veh		36.2			37.0			19.1			20.0	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	43.9		17.7	9.3	44.0		14.0				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	5.7	14.2		11.1	5.6	19.8		5.7				
Green Ext Time (p_c), s	0.0	5.2		1.4	0.0	7.2		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		23.1	
HCM 6th LOS		C	

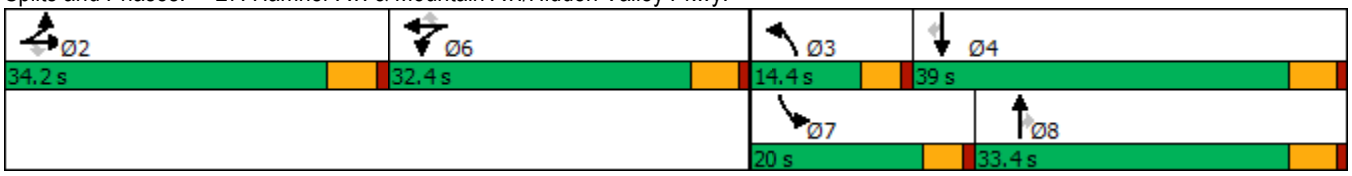
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	546	79	369	341	283	98	662	481	485	713	23
Future Volume (vph)	27	546	79	369	341	283	98	662	481	485	713	23
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	34.2	34.2	34.2	32.4	32.4	32.4	14.4	33.4	33.4	20.0	39.0	39.0
Total Split (%)	28.5%	28.5%	28.5%	27.0%	27.0%	27.0%	12.0%	27.8%	27.8%	16.7%	32.5%	32.5%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 110.6
Natural Cycle: 120
Control Type: Semi Act-Uncoord

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	546	79	369	341	283	98	662	481	485	713	23
Future Volume (veh/h)	27	546	79	369	341	283	98	662	481	485	713	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	569	76	412	315	284	102	690	296	505	743	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	356	711	316	769	404	341	128	930	415	497	1186	522
Arrive On Green	0.20	0.20	0.20	0.21	0.21	0.21	0.07	0.26	0.26	0.14	0.33	0.33
Sat Flow, veh/h	1810	3610	1605	3619	1900	1603	1810	3610	1610	3510	3610	1587
Grp Volume(v), veh/h	28	569	76	412	315	284	102	690	296	505	743	16
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1900	1603	1810	1805	1610	1755	1805	1587
Q Serve(g_s), s	1.4	16.3	4.3	11.0	17.0	18.4	6.0	19.1	18.2	15.4	18.9	0.7
Cycle Q Clear(g_c), s	1.4	16.3	4.3	11.0	17.0	18.4	6.0	19.1	18.2	15.4	18.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	356	711	316	769	404	341	128	930	415	497	1186	522
V/C Ratio(X)	0.08	0.80	0.24	0.54	0.78	0.83	0.80	0.74	0.71	1.02	0.63	0.03
Avail Cap(c_a), veh/h	479	957	425	899	472	398	163	930	415	497	1186	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	41.6	36.8	38.0	40.4	41.0	49.7	37.0	36.7	46.6	30.8	24.7
Incr Delay (d2), s/veh	0.1	3.6	0.4	0.6	7.1	12.5	14.8	5.3	10.0	44.2	2.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.4	1.7	4.8	8.5	8.2	3.2	8.8	8.1	9.6	8.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	45.2	37.2	38.6	47.5	53.5	64.6	42.3	46.7	90.9	33.3	24.9
LnGrp LOS	D	D	D	D	D	D	E	D	D	F	C	C
Approach Vol, veh/h		673			1011			1088			1264	
Approach Delay, s/veh		43.9			45.5			45.6			56.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.8	12.3	41.1		28.5	20.0	33.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.8	9.8	33.6		27.0	15.4	28.0				
Max Q Clear Time (g_c+I1), s		18.3	8.0	20.9		20.4	17.4	21.1				
Green Ext Time (p_c), s		2.9	0.0	3.9		2.5	0.0	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			48.6									
HCM 6th LOS			D									

Notes

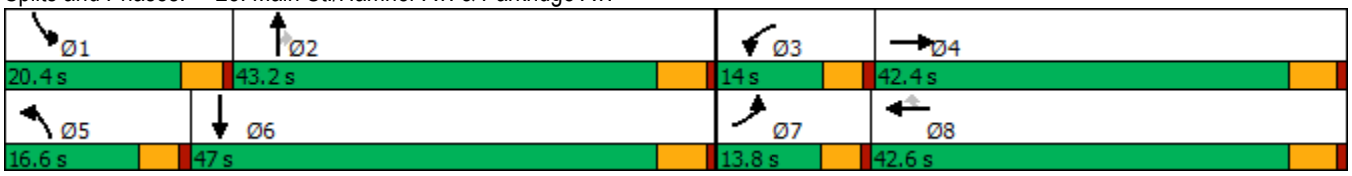
User approved volume balancing among the lanes for turning movement.

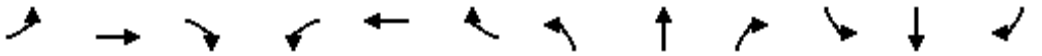
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	184	332	74	169	266	42	763	129	230	778
Future Volume (vph)	184	332	74	169	266	42	763	129	230	778
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101
Natural Cycle: 125
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	332	65	74	169	266	42	763	129	230	778	162
Future Volume (veh/h)	184	332	65	74	169	266	42	763	129	230	778	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	349	57	78	178	177	44	803	0	242	819	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	169	644	104	101	324	272	64	1381		274	2586	
Arrive On Green	0.09	0.21	0.21	0.06	0.17	0.17	0.04	0.38	0.00	0.15	0.50	0.00
Sat Flow, veh/h	1810	3099	501	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	194	202	204	78	178	177	44	803	0	242	819	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1794	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	9.2	9.8	10.1	4.2	8.5	10.2	2.4	17.4	0.0	12.9	9.3	0.0
Cycle Q Clear(g_c), s	9.2	9.8	10.1	4.2	8.5	10.2	2.4	17.4	0.0	12.9	9.3	0.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	169	375	373	101	324	272	64	1381		274	2586	
V/C Ratio(X)	1.15	0.54	0.55	0.78	0.55	0.65	0.69	0.58		0.88	0.32	
Avail Cap(c_a), veh/h	169	676	672	172	715	602	220	1381		289	2586	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.8	34.9	35.0	46.0	37.5	38.2	47.1	24.2	0.0	41.1	14.7	0.0
Incr Delay (d2), s/veh	115.8	1.2	1.3	4.7	1.5	2.6	4.7	1.8	0.0	23.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	4.3	4.4	2.0	3.9	4.1	1.1	7.4	0.0	7.4	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	160.6	36.1	36.2	50.8	39.0	40.8	51.8	26.0	0.0	64.9	15.1	0.0
LnGrp LOS	F	D	D	D	D	D	D	C		E	B	
Approach Vol, veh/h		600			433			847	A		1061	A
Approach Delay, s/veh		76.4			41.9			27.3			26.4	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	43.2	10.1	25.9	8.1	54.7	13.8	22.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	14.9	19.4	6.2	12.1	4.4	11.3	11.2	12.2
Green Ext Time (p_c), s	0.0	5.0	0.0	2.2	0.0	6.0	0.0	1.5

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

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	693	170	763	4	281
Future Volume (vph)	693	170	763	4	281
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	693	786	170	763	0	0	0	0	75	4	281
Future Volume (veh/h)	0	693	786	170	763	0	0	0	0	75	4	281
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	714	733	175	787	0				77	4	194
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1137	1013	201	2811	0				239	12	223
Arrive On Green	0.00	0.63	0.63	0.22	1.00	0.00				0.14	0.14	0.14
Sat Flow, veh/h	0	1900	1608	1810	3705	0				1724	90	1610
Grp Volume(v), veh/h	0	714	733	175	787	0				81	0	194
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1805	0				1814	0	1610
Q Serve(g_s), s	0.0	29.1	37.2	11.2	0.0	0.0				4.8	0.0	14.2
Cycle Q Clear(g_c), s	0.0	29.1	37.2	11.2	0.0	0.0				4.8	0.0	14.2
Prop In Lane	0.00		1.00	1.00		0.00				0.95		1.00
Lane Grp Cap(c), veh/h	0	1137	1013	201	2811	0				252	0	223
V/C Ratio(X)	0.00	0.63	0.72	0.87	0.28	0.00				0.32	0.00	0.87
Avail Cap(c_a), veh/h	0	1137	1013	445	2811	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.6	15.1	45.8	0.0	0.0				46.6	0.0	50.6
Incr Delay (d2), s/veh	0.0	0.2	0.4	3.8	0.2	0.0				0.3	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.0	12.6	4.6	0.1	0.0				2.1	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.8	15.5	49.6	0.2	0.0				46.9	0.0	54.6
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		1447			962						275	
Approach Delay, s/veh		14.7			9.2						52.3	
Approach LOS		B			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.8	80.2		22.0		98.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	13.2	39.2		16.2		2.0
Green Ext Time (p_c), s	0.2	2.1		0.5		3.9

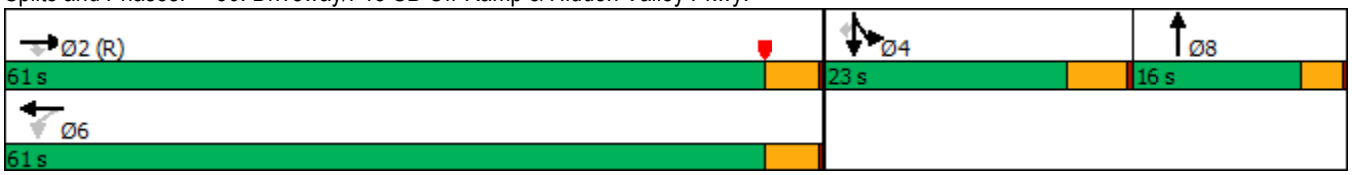
Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	1464	41	102	705	0	385	78	320
Future Volume (vph)	1464	41	102	705	0	385	78	320
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	61.0	61.0	61.0	61.0	16.0	23.0	23.0	23.0
Total Split (%)	61.0%	61.0%	61.0%	61.0%	16.0%	23.0%	23.0%	23.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1464	41	102	705	0	0	0	221	385	78	320
Future Volume (veh/h)	0	1464	41	102	705	0	0	0	221	385	78	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1541	22	107	742	0	0	0	74	270	321	190
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2282	1017	192	2282	0	0	0	93	326	342	290
Arrive On Green	0.00	0.63	0.63	0.84	0.84	0.00	0.00	0.00	0.06	0.18	0.18	0.18
Sat Flow, veh/h	0	3705	1609	335	3705	0	0	0	1610	1810	1900	1610
Grp Volume(v), veh/h	0	1541	22	107	742	0	0	0	74	270	321	190
Grp Sat Flow(s),veh/h/ln	0	1805	1609	335	1805	0	0	0	1610	1810	1900	1610
Q Serve(g_s), s	0.0	27.4	0.5	29.1	4.5	0.0	0.0	0.0	4.5	14.4	16.7	11.0
Cycle Q Clear(g_c), s	0.0	27.4	0.5	56.5	4.5	0.0	0.0	0.0	4.5	14.4	16.7	11.0
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2282	1017	192	2282	0	0	0	93	326	342	290
V/C Ratio(X)	0.00	0.68	0.02	0.56	0.33	0.00	0.00	0.00	0.79	0.83	0.94	0.66
Avail Cap(c_a), veh/h	0	2282	1017	192	2282	0	0	0	201	326	342	290
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.48	0.48	0.98	0.98	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	11.8	6.9	19.9	3.3	0.0	0.0	0.0	46.5	39.5	40.5	38.1
Incr Delay (d2), s/veh	0.0	0.8	0.0	2.1	0.0	0.0	0.0	0.0	5.7	21.0	35.3	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	0.2	2.0	1.2	0.0	0.0	0.0	2.0	8.0	10.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.6	6.9	22.1	3.3	0.0	0.0	0.0	52.2	60.5	75.8	49.2
LnGrp LOS	A	B	A	C	A	A	A	A	D	E	E	D
Approach Vol, veh/h		1563			849			74			781	
Approach Delay, s/veh		12.5			5.7			52.2			64.0	
Approach LOS		B			A			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	67.7	23.0	67.7	9.3
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	56.5	18.0	56.5	12.5
Max Q Clear Time (g_c+I1), s	29.4	18.7	58.5	6.5
Green Ext Time (p_c), s	8.9	0.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

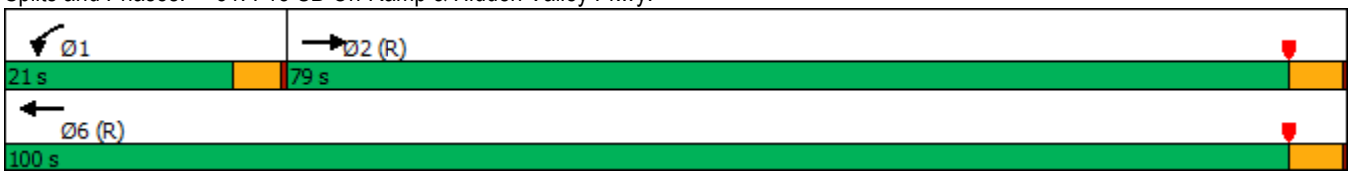
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	1580	147	807
Future Volume (vph)	1580	147	807
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	79.0	21.0	100.0
Total Split (%)	79.0%	21.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1580	489	147	807	0	0
Future Volume (veh/h)	1580	489	147	807	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	1646	493	153	841		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2065	588	308	3448		
Arrive On Green	1.00	1.00	0.34	1.00		
Sat Flow, veh/h	2867	790	1810	3705		
Grp Volume(v), veh/h	1042	1097	153	841		
Grp Sat Flow(s),veh/h/ln	1805	1757	1810	1805		
Q Serve(g_s), s	0.0	0.0	6.7	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	6.7	0.0		
Prop In Lane		0.45	1.00			
Lane Grp Cap(c), veh/h	1345	1309	308	3448		
V/C Ratio(X)	0.77	0.84	0.50	0.24		
Avail Cap(c_a), veh/h	1345	1309	308	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.54	0.54	0.76	0.76		
Uniform Delay (d), s/veh	0.0	0.0	29.6	0.0		
Incr Delay (d2), s/veh	2.4	3.7	4.3	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.9	1.3	2.9	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.4	3.7	33.9	0.1		
LnGrp LOS	A	A	C	A		
Approach Vol, veh/h	2139			994		
Approach Delay, s/veh	3.1			5.3		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	21.0	79.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	17.0	74.5				95.5
Max Q Clear Time (g_c+I1), s	8.7	2.0				2.0
Green Ext Time (p_c), s	0.2	19.7				4.0

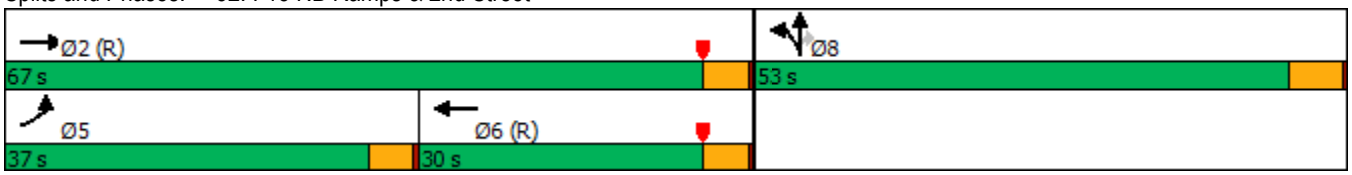
Intersection Summary						
HCM 6th Ctrl Delay			3.8			
HCM 6th LOS			A			

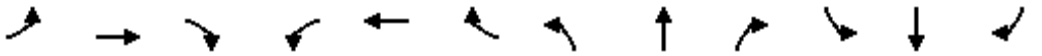
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	479	289	329	6	400
Future Volume (vph)	479	289	329	6	400
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	67.0	30.0	53.0	53.0
Total Split (%)	30.8%	55.8%	25.0%	44.2%	44.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





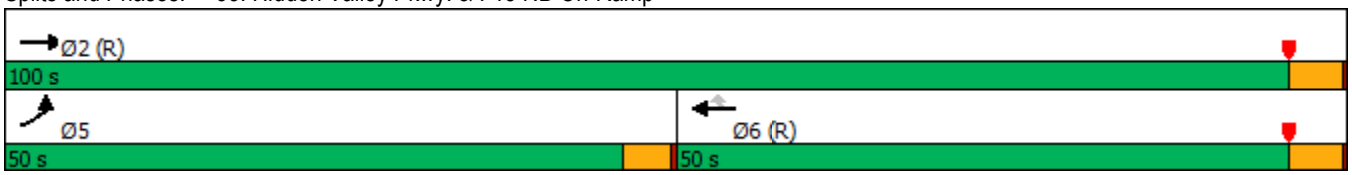
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	289	0	0	329	48	604	6	400	0	0	0
Future Volume (veh/h)	479	289	0	0	329	48	604	6	400	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	515	311	0	0	354	40	649	6	257			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	490	1940	0	0	749	84	682	6	612			
Arrive On Green	0.09	0.18	0.00	0.00	0.23	0.23	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	3364	367	1794	17	1610			
Grp Volume(v), veh/h	515	311	0	0	194	200	655	0	257			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1831	1810	0	1610			
Q Serve(g_s), s	32.5	8.8	0.0	0.0	11.2	11.3	42.2	0.0	14.1			
Cycle Q Clear(g_c), s	32.5	8.8	0.0	0.0	11.2	11.3	42.2	0.0	14.1			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	490	1940	0	0	413	419	688	0	612			
V/C Ratio(X)	1.05	0.16	0.00	0.00	0.47	0.48	0.95	0.00	0.42			
Avail Cap(c_a), veh/h	490	1940	0	0	413	419	720	0	640			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.66	0.66	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	54.6	26.4	0.0	0.0	40.0	40.0	36.1	0.0	27.4			
Incr Delay (d2), s/veh	47.2	0.1	0.0	0.0	3.8	3.8	21.8	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	22.2	4.1	0.0	0.0	5.4	5.5	21.7	0.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.8	26.6	0.0	0.0	43.8	43.9	57.9	0.0	27.8			
LnGrp LOS	F	C	A	A	D	D	E	A	C			
Approach Vol, veh/h		826			394			912				
Approach Delay, s/veh		73.5			43.8			49.4				
Approach LOS		E			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.1			37.0	32.1		50.9				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		62.4			32.5	25.4		47.7				
Max Q Clear Time (g_c+I1), s		10.8			34.5	13.3		44.2				
Green Ext Time (p_c), s		1.3			0.0	1.1		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			57.7									
HCM 6th LOS			E									

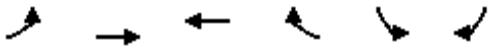
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	544	1038	953	359
Future Volume (vph)	544	1038	953	359
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	50.0	100.0	50.0	50.0
Total Split (%)	50.0%	100.0%	50.0%	50.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	544	1038	953	359	0	0
Future Volume (veh/h)	544	1038	953	359	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	573	1093	1003	322		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	832	3448	1643	716		
Arrive On Green	0.92	1.00	0.46	0.46		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	573	1093	1003	322		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	6.9	0.0	21.0	14.0		
Cycle Q Clear(g_c), s	6.9	0.0	21.0	14.0		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	832	3448	1643	716		
V/C Ratio(X)	0.69	0.32	0.61	0.45		
Avail Cap(c_a), veh/h	832	3448	1643	716		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.46	0.46	0.76	0.76		
Uniform Delay (d), s/veh	2.4	0.0	20.6	18.7		
Incr Delay (d2), s/veh	2.2	0.1	1.3	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	0.1	8.5	5.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.6	0.1	21.9	20.2		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		1666	1325			
Approach Delay, s/veh		1.7	21.5			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			50.0	50.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			46.0	45.5
Max Q Clear Time (g_c+I1), s		2.0			8.9	23.0
Green Ext Time (p_c), s		5.7			0.8	5.3

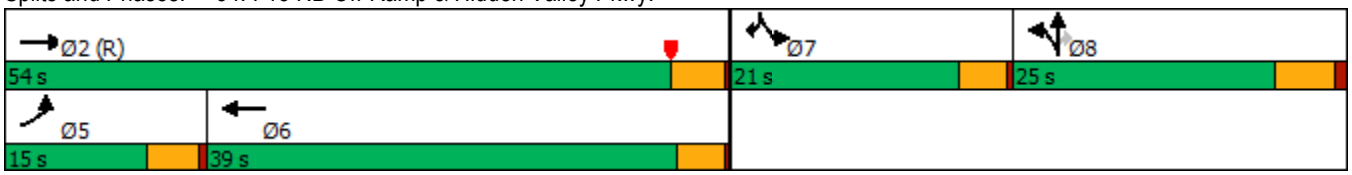
Intersection Summary		
HCM 6th Ctrl Delay	10.4	
HCM 6th LOS	B	

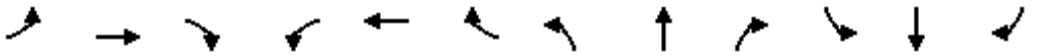
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	83	956	765	411	60	265	61	137
Future Volume (vph)	83	956	765	411	60	265	61	137
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	54.0	39.0	25.0	25.0	25.0	21.0	21.0
Total Split (%)	15.0%	54.0%	39.0%	25.0%	25.0%	25.0%	21.0%	21.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	956	0	0	765	33	411	60	265	61	0	137
Future Volume (veh/h)	83	956	0	0	765	33	411	60	265	61	0	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	86	996	0	0	797	30	428	62	124	64	0	127
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	2545	0	0	2019	76	685	370	314	0	0	0
Arrive On Green	0.18	1.00	0.00	0.00	0.57	0.57	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3642	134	3510	1900	1610		0	
Grp Volume(v), veh/h	86	996	0	0	405	422	428	62	124		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1876	1755	1900	1610			
Q Serve(g_s), s	4.3	0.0	0.0	0.0	12.5	12.5	11.2	2.7	6.7			
Cycle Q Clear(g_c), s	4.3	0.0	0.0	0.0	12.5	12.5	11.2	2.7	6.7			
Prop In Lane	1.00		0.00	0.00		0.07	1.00		1.00			
Lane Grp Cap(c), veh/h	164	2545	0	0	1027	1068	685	371	314			
V/C Ratio(X)	0.52	0.39	0.00	0.00	0.39	0.39	0.63	0.17	0.39			
Avail Cap(c_a), veh/h	190	2545	0	0	1027	1068	685	371	314			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	39.0	0.0	0.0	0.0	12.0	12.0	36.9	33.5	35.1			
Incr Delay (d2), s/veh	1.8	0.4	0.0	0.0	1.1	1.1	4.3	1.0	3.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.9	0.2	0.0	0.0	4.7	4.9	5.0	1.3	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.4	0.0	0.0	13.1	13.1	41.2	34.5	38.8			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1082			827			614				
Approach Delay, s/veh		3.6			13.1			40.0				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.0			13.6	61.4		25.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		49.5			10.5	* 35		19.5				
Max Q Clear Time (g_c+I1), s		2.0			6.3	14.5		13.2				
Green Ext Time (p_c), s		5.0			0.0	2.8		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

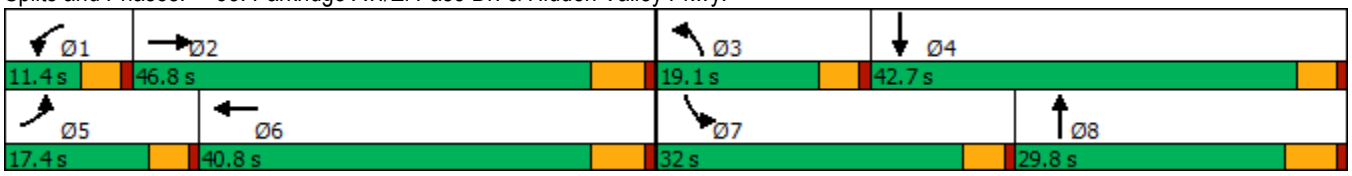
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	94	880	70	513	100	105	94	50
Future Volume (vph)	94	880	70	513	100	105	94	50
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	880	113	70	513	71	100	105	210	94	50	34
Future Volume (veh/h)	94	880	113	70	513	71	100	105	210	94	50	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	107	1000	89	80	583	71	114	119	169	376	57	13
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.25	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	1109	99	102	1016	123	141	377	331	403	1040	229
Arrive On Green	0.07	0.33	0.33	0.06	0.31	0.31	0.08	0.21	0.21	0.22	0.35	0.35
Sat Flow, veh/h	1810	3353	298	1810	3240	394	1810	1805	1585	1810	2939	648
Grp Volume(v), veh/h	107	538	551	80	324	330	114	119	169	376	34	36
Grp Sat Flow(s),veh/h/ln	1810	1805	1846	1810	1805	1828	1810	1805	1585	1810	1805	1782
Q Serve(g_s), s	6.7	32.6	32.7	5.0	17.3	17.3	7.1	6.4	10.8	23.4	1.4	1.5
Cycle Q Clear(g_c), s	6.7	32.6	32.7	5.0	17.3	17.3	7.1	6.4	10.8	23.4	1.4	1.5
Prop In Lane	1.00		0.16	1.00		0.22	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	133	597	610	102	566	573	141	377	331	403	639	631
V/C Ratio(X)	0.80	0.90	0.90	0.79	0.57	0.58	0.81	0.32	0.51	0.93	0.05	0.06
Avail Cap(c_a), veh/h	202	645	660	107	566	573	229	377	331	432	639	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	36.6	36.6	53.5	33.0	33.0	52.1	38.4	40.2	43.8	24.4	24.4
Incr Delay (d2), s/veh	7.0	15.3	15.0	26.9	1.4	1.4	4.2	2.2	5.5	25.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	16.2	16.5	3.0	7.5	7.6	3.3	3.0	4.6	13.4	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	51.9	51.7	80.4	34.4	34.4	56.3	40.6	45.7	69.4	24.6	24.6
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	C	C
Approach Vol, veh/h		1196			734			402			446	
Approach Delay, s/veh		52.5			39.4			47.2			62.4	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	43.8	13.5	46.4	13.0	41.8	30.2	29.8
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	7.0	34.7	9.1	3.5	8.7	19.3	25.4	12.8
Green Ext Time (p_c), s	0.0	3.3	0.1	0.4	0.0	3.2	0.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.2:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

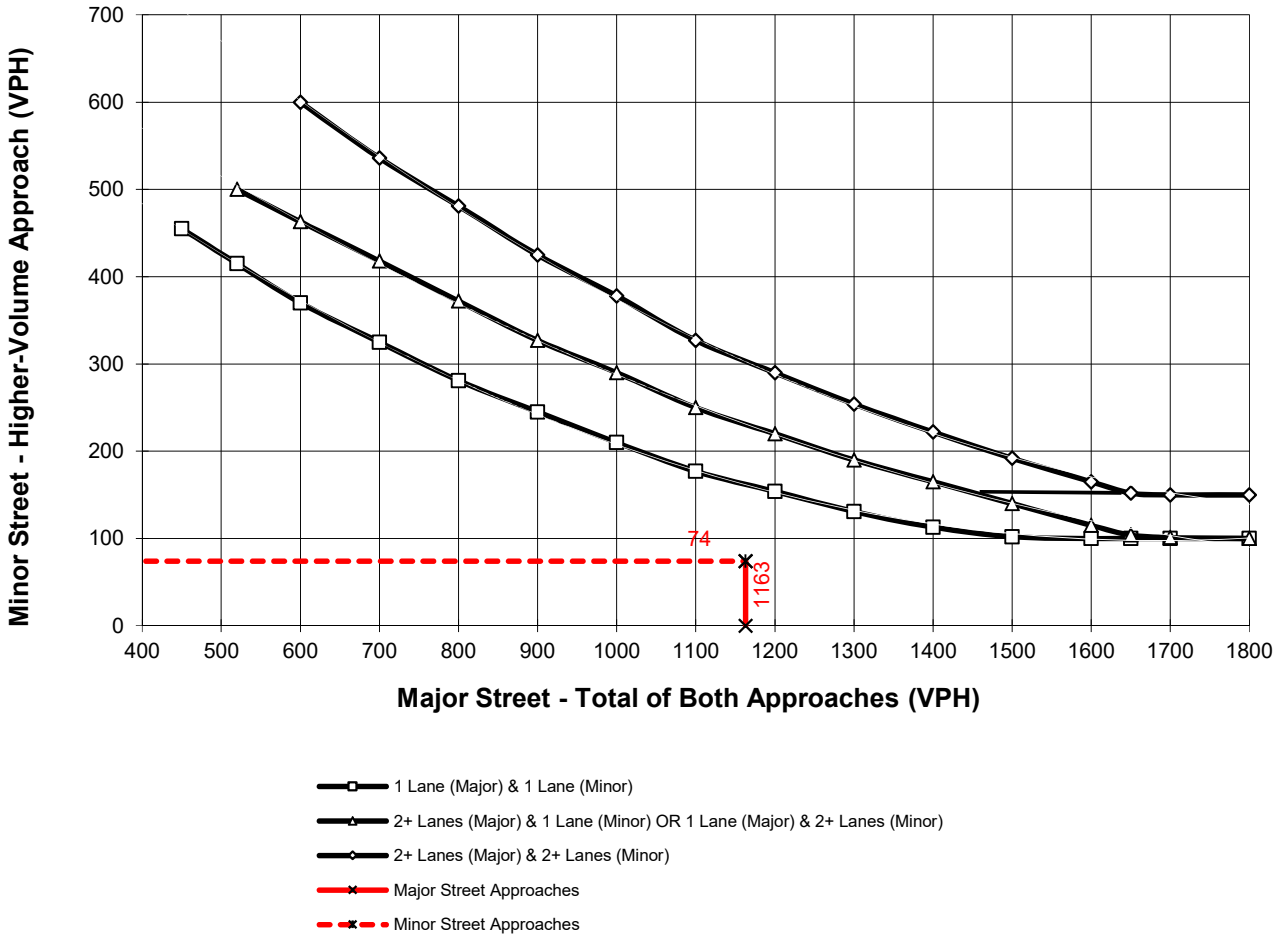
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1163**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **74**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

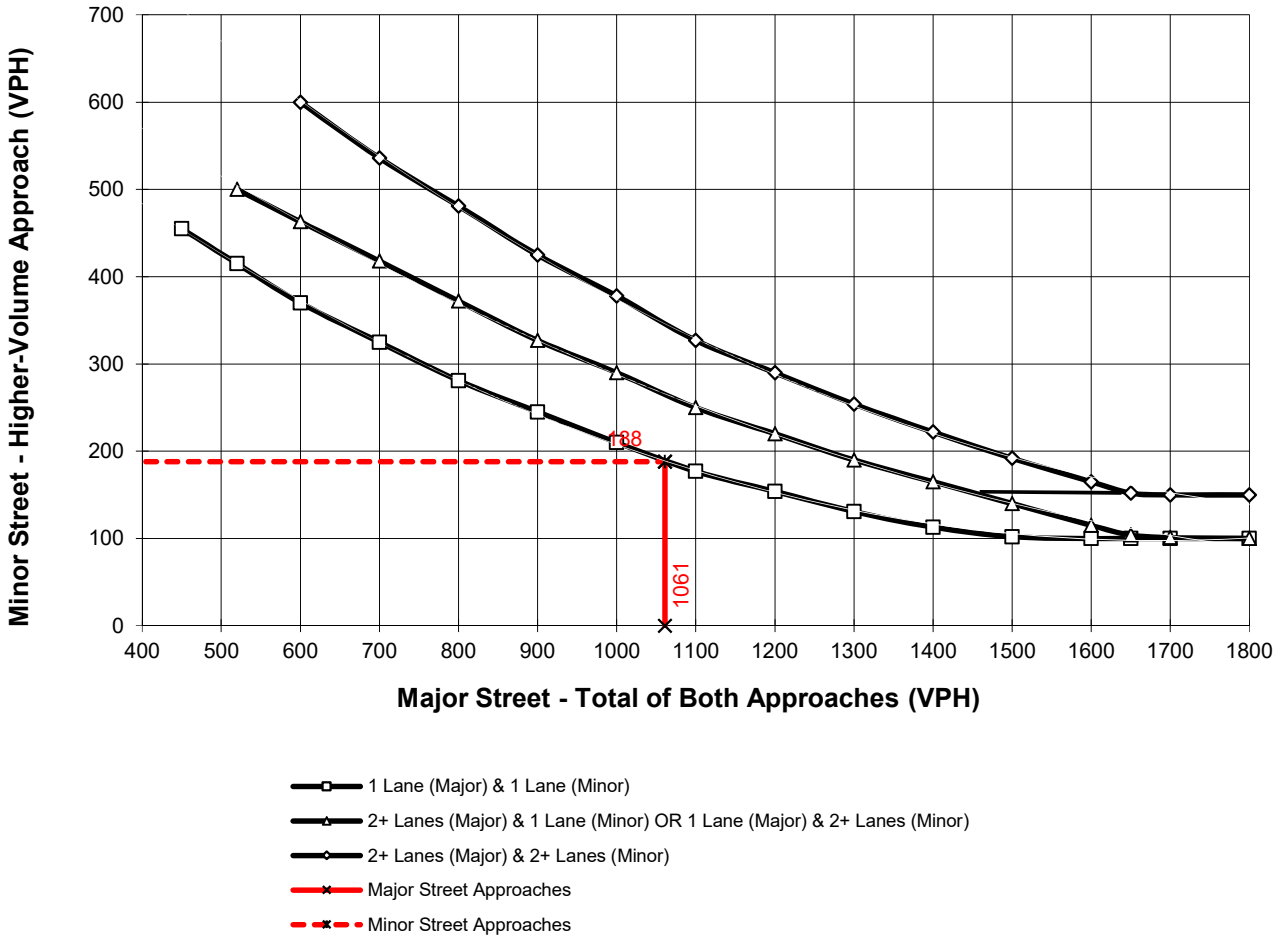
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1061**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (East)**
High Volume Approach (VPH) = **188**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

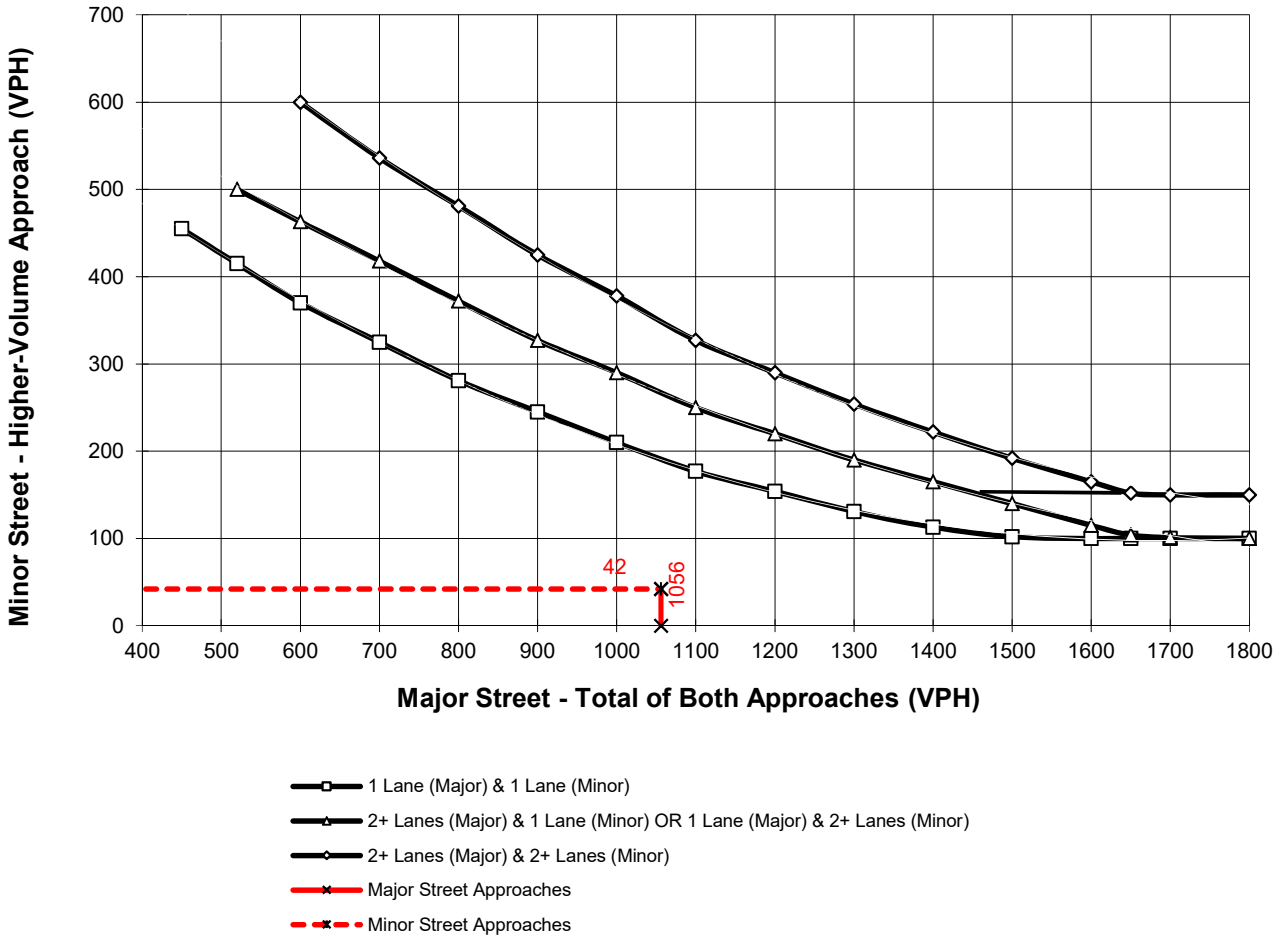
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1056**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **42**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC LC	DATE 05/28/19
				CHK BA	DATE 12/04/17

Jurisdiction: **City of Norco**
Major Street: **First Street** — Critical Approach Speed (Major) 40 mph
Minor Street: **Driveway 1** — Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **17,203** vpd — Minor Street Future ADT = **359** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach		Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street	Minor Street	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied / Not Satisfied (XX)						
	1 **17,203**	1 **359**	8,000 *	5,600	2,400	1,680
	2 +	1	9,600	6,720	2,400	1,680
	2 +	2 +	9,600	6,720	3,200	2,240
	1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied / Not Satisfied (XX)						
	1 **17,203**	1 **359**	12,000 *	8,400	1,200	850
	2 +	1	14,400	10,080	1,200	850
	2 +	2 +	14,400	10,080	1,600	1,120
	1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied / Not Satisfied (XX)						
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 15%	**B** 30%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___ TRAFFIC CONDITIONS **E+P**

CALC LC DATE 05/28/19

Jurisdiction: **City of Norco** CHK BA DATE 12/04/17

Major Street: **First Street** Critical Approach Speed (Major) 40 mph

Minor Street: **Driveway 2** Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **17,204** vpd Minor Street Future ADT = **819** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ……

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **17,204** / *1* **819**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **17,204** / *1* **819**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 34% **B** 68%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

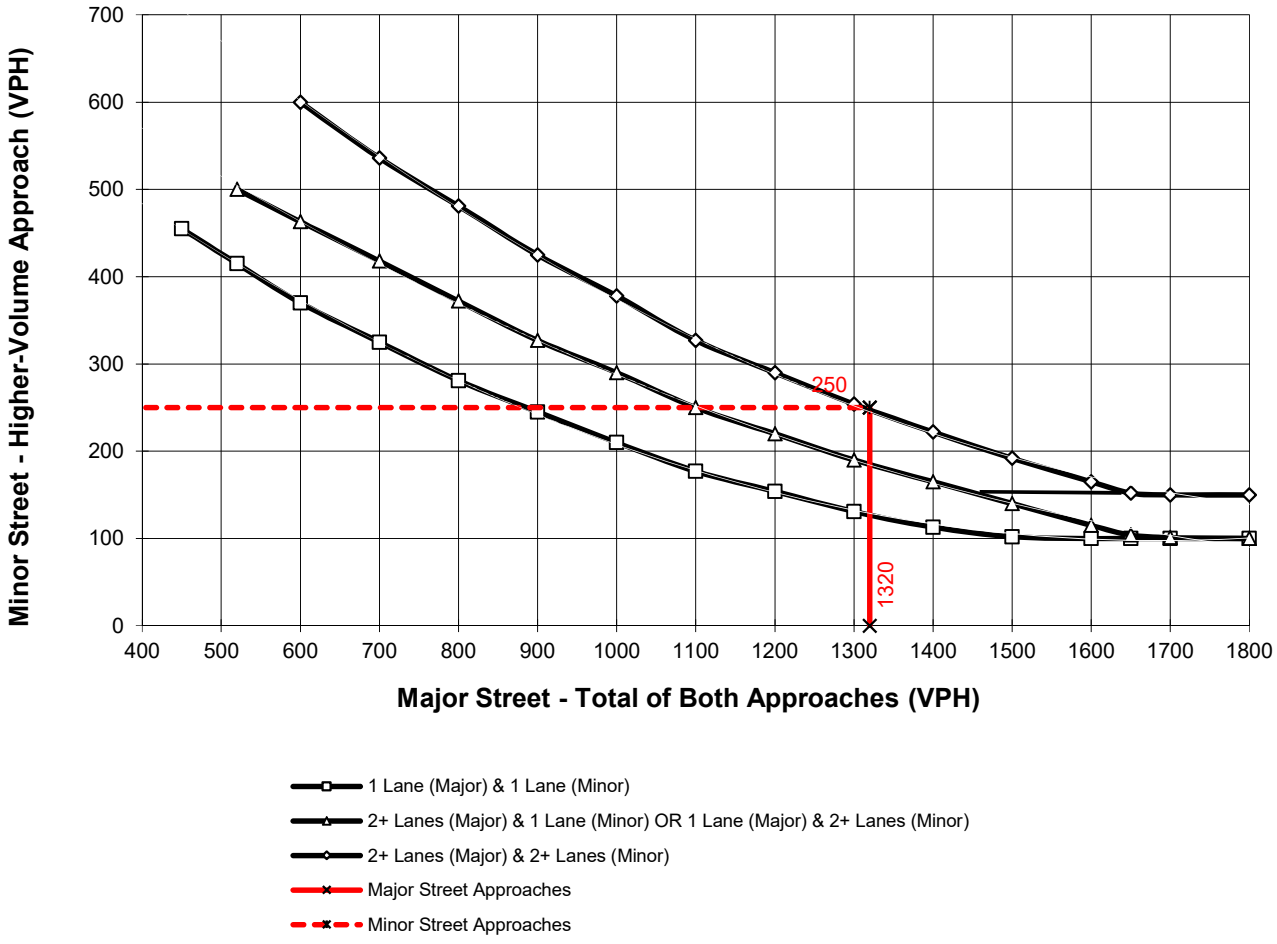
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1320**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **250**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___ TRAFFIC CONDITIONS **E+P**

CALC LC DATE 05/28/19

Jurisdiction: **City of Norco** CHK BA DATE 12/04/17

Major Street: **Mountain Avenue** Critical Approach Speed (Major) 40 mph

Minor Street: **Driveway 3** Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,565** vpd Minor Street Future ADT = **588** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,565** / *1* **588**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,565** / *1* **588**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 24% B: 49%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC	LC	DATE 05/28/19
Jurisdiction:	City of Norco			CHK	BA	DATE 12/04/17
Major Street:	Mountain Avenue			Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 4			Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,328** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,328**	*1* **479**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,328**	*1* **479**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 20% **B** 40%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC LC	DATE	05/28/19
Jurisdiction: **City of Norco**				CHK BA	DATE	12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 5**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,503** vpd Minor Street Future ADT = **522** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **6,503**	*1* **522**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **6,503**	*1* **522**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 22% **B** 43%

Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___ TRAFFIC CONDITIONS **E+P**

CALC LC DATE 05/28/19

Jurisdiction: **City of Norco** CHK BA DATE 12/04/17

Major Street: **Mountain Avenue** Critical Approach Speed (Major) 40 mph

Minor Street: **Driveway 6** Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,873** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,873** / *1* **479**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,873** / *1* **479**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 20% B: 40%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___ TRAFFIC CONDITIONS **E+P**

CALC LC DATE 05/28/19

Jurisdiction: **City of Norco** CHK BA DATE 12/04/17

Major Street: **Mountain Avenue** Critical Approach Speed (Major) 40 mph

Minor Street: **Driveway 7** Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,036** vpd Minor Street Future ADT = **723** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **7,036** / *1* **723**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **7,036** / *1* **723**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 30% B: 59%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___

TRAFFIC CONDITIONS **E+P**

CALC LC DATE 05/28/19

Jurisdiction: **City of Norco** CHK BA DATE 12/04/17

Major Street: **Second Street** Critical Approach Speed (Major) 40 mph

Minor Street: **Driveway 8** Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **14,844** vpd Minor Street Future ADT = **163** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **14,844** / *1* **163**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **14,844** / *1* **163**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 7% B: 14%				

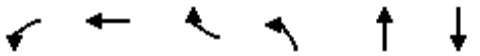
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 5.3:

E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

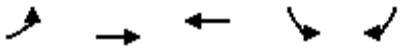
This Page Intentionally Left Blank



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	279	291	666	244	811	847
v/c Ratio	0.39	0.39	0.92	0.74	0.50	0.74
Control Delay	17.6	17.6	39.3	51.2	17.4	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	17.6	39.3	51.2	17.4	26.0
Queue Length 50th (ft)	93	97	258	62	153	172
Queue Length 95th (ft)	154	160	#476	#120	206	242
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	761	787	764	328	1634	1141
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.37	0.87	0.74	0.50	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	974	77	273	287	189
v/c Ratio	0.77	0.06	0.27	0.38	0.45
Control Delay	26.9	4.1	12.9	12.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	4.1	12.9	12.0	8.4
Queue Length 50th (ft)	217	10	26	21	0
Queue Length 95th (ft)	252	22	62	54	58
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1315	1019	755	424
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.06	0.27	0.38	0.45

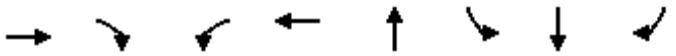
Intersection Summary



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	953	267	1133	61	478
v/c Ratio	0.61	0.81	0.48	0.13	0.95
Control Delay	22.1	38.3	5.5	33.4	64.6
Queue Delay	0.5	0.0	0.8	0.0	0.0
Total Delay	22.6	38.3	6.3	33.4	64.6
Queue Length 50th (ft)	224	217	137	35	292
Queue Length 95th (ft)	330	306	m117	70	#496
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1550	443	2358	508	526
Starvation Cap Reductn	226	0	823	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.72	0.60	0.74	0.12	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	686	23	78	985	80	196	447	436
v/c Ratio	0.41	0.03	0.29	0.59	0.21	0.29	0.63	0.61
Control Delay	20.8	0.5	13.3	14.2	1.3	24.6	19.3	18.5
Queue Delay	1.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0
Total Delay	22.0	0.5	13.3	15.6	1.3	24.6	19.4	18.5
Queue Length 50th (ft)	168	0	29	275	0	98	156	140
Queue Length 95th (ft)	217	2	66	347	0	158	279	254
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1677	780	273	1677	413	670	710	716
Starvation Cap Reductn	717	0	0	467	0	0	0	0
Spillback Cap Reductn	148	0	0	0	13	0	7	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.03	0.29	0.81	0.20	0.29	0.64	0.61

Intersection Summary

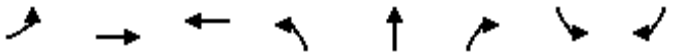


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	174	363	702	833	617
v/c Ratio	0.70	0.19	0.57	1.16	0.70
Control Delay	40.9	11.4	34.6	120.5	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	11.4	34.6	120.5	14.3
Queue Length 50th (ft)	125	91	228	~763	130
Queue Length 95th (ft)	139	77	315	#1006	273
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1877	1228	719	886
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.19	0.57	1.16	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

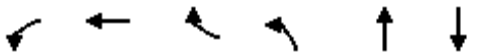
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	75	378	1117	582	84	164	37	177
v/c Ratio	0.46	0.20	0.75	0.89	0.24	0.38	0.12	0.64
Control Delay	62.0	15.0	32.4	61.2	40.2	8.7	39.7	53.7
Queue Delay	0.0	0.0	0.0	47.4	0.0	0.0	0.0	0.0
Total Delay	62.0	15.0	32.4	108.6	40.2	8.7	39.7	53.7
Queue Length 50th (ft)	56	58	363	208	51	0	22	117
Queue Length 95th (ft)	106	98	451	#305	97	57	53	193
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	165	1854	1484	652	354	434	311	278
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	122	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.20	0.75	1.10	0.24	0.38	0.12	0.64

Intersection Summary

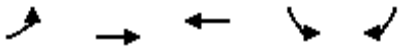
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	309	312	277	229	648	1240
v/c Ratio	0.70	0.71	0.55	0.56	0.29	0.78
Control Delay	36.5	36.7	17.4	33.5	8.3	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	36.7	17.4	33.5	8.3	25.2
Queue Length 50th (ft)	156	158	66	62	111	268
Queue Length 95th (ft)	212	214	120	97	165	#516
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	817	819	834	418	2236	1600
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.38	0.33	0.55	0.29	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	718	136	194	517	248
v/c Ratio	0.74	0.10	0.15	0.61	0.51
Control Delay	30.4	7.0	12.7	19.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	7.0	12.7	19.2	8.2
Queue Length 50th (ft)	205	44	21	65	0
Queue Length 95th (ft)	242	m14	50	115	65
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1623	1305	1253	854	488
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.10	0.15	0.61	0.51

Intersection Summary

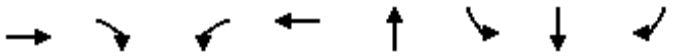
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1524	175	787	81	290
v/c Ratio	0.69	0.73	0.27	0.44	0.81
Control Delay	14.7	47.5	0.1	56.1	32.6
Queue Delay	2.5	0.0	0.2	0.0	0.0
Total Delay	17.3	47.5	0.3	56.1	32.6
Queue Length 50th (ft)	293	68	0	61	57
Queue Length 95th (ft)	544	7	m0	102	147
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	2208	443	2944	509	607
Starvation Cap Reductn	536	0	1207	0	0
Spillback Cap Reductn	68	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.40	0.45	0.16	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1541	43	107	742	233	283	285	256
v/c Ratio	0.75	0.05	1.29	0.36	0.91	0.92	0.93	0.53
Control Delay	19.1	1.7	223.0	9.1	67.7	76.0	76.8	9.0
Queue Delay	48.2	0.0	0.0	0.5	62.6	2.5	3.5	0.0
Total Delay	67.3	1.7	223.0	9.6	130.3	78.5	80.3	9.0
Queue Length 50th (ft)	368	0	~85	68	103	188	187	0
Queue Length 95th (ft)	458	10	#196	76	#242	#350	#364	71
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	2062	929	83	2062	267	308	305	486
Starvation Cap Reductn	681	0	0	818	0	0	0	0
Spillback Cap Reductn	0	0	0	0	143	6	7	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.05	1.29	0.60	1.88	0.94	0.96	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

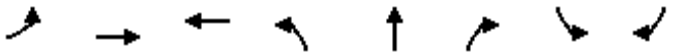


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	515	311	406	655	430
v/c Ratio	1.06	0.16	0.51	0.94	0.51
Control Delay	85.7	14.4	42.5	58.6	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	14.4	42.5	58.6	7.2
Queue Length 50th (ft)	~404	69	143	472	34
Queue Length 95th (ft)	#571	70	196	#704	114
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1925	803	719	858
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.06	0.16	0.51	0.91	0.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	86	996	831	428	63	276	64	143
v/c Ratio	0.47	0.56	0.61	0.63	0.17	0.55	0.21	0.52
Control Delay	52.9	9.5	28.0	41.6	35.0	11.8	37.8	45.5
Queue Delay	0.0	1.1	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	52.9	10.6	28.0	42.2	35.0	11.8	37.8	45.5
Queue Length 50th (ft)	50	155	230	130	34	20	36	84
Queue Length 95th (ft)	98	186	298	181	70	95	74	147
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1786	1372	682	370	506	306	274
Starvation Cap Reductn	0	508	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	60	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.78	0.61	0.69	0.17	0.55	0.21	0.52

Intersection Summary

APPENDIX 5.4:

E+P CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5640	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1275
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7298	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1777
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5368	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2159
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	59.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	36.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5611	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1354
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5207	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1556
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5081	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1934
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.81
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6176	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1396
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6224	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1758
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6977	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1562
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7710	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1844
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5220	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2006
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5127	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1182
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4976	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1434
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4915	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1851
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5421	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1225
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5339	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1494
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 5.5:

E+P CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5105	535
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	5715	604
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.53	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	22.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.339
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1303
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.5
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.142	Outer Lanes Freeway Speed (SO), mi/h	67.1
Flow in Lanes 1 and 2 (v12), pc/h	1737	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2341	Average Density (D), pc/mi/ln	19.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7298	729
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.935
Flow Rate (vi),pc/h	8883	847
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.74	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	33.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1765
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.8
Flow in Lanes 1 and 2 (v12), pc/h	3576	Ramp Junction Speed (S), mi/h	65.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.0
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5368	456
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.926
Flow Rate (vi),pc/h	6476	535
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.90	0.25

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.346
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2537
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.573	Outer Lanes Freeway Speed (SO), mi/h	70.8
Flow in Lanes 1 and 2 (v12), pc/h	3939	Ramp Junction Speed (S), mi/h	64.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	33.7
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4912	699
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.952
Flow Rate (vi),pc/h	5979	798
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.94	0.38

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1401.7	Density in Ramp Influence Area (DR), pc/mi/ln	38.4
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.596
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2523
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	53.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	62.1
Flow in Lanes 1 and 2 (v12), pc/h	3456	Ramp Junction Speed (S), mi/h	56.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	4254	Average Density (D), pc/mi/ln	40.1
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5611	873
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.885
Flow Rate (vi),pc/h	6769	1072
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.56	0.26

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	22.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.394
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1726
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.0
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.0
Flow in Lanes 1 and 2 (v12), pc/h	2301	Ramp Junction Speed (S), mi/h	67.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4738	469
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	11.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.901
Flow Rate (vi),pc/h	5666	566
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	24.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.349
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.147	Outer Lanes Freeway Speed (SO), mi/h	65.7
Flow in Lanes 1 and 2 (v12), pc/h	2266	Ramp Junction Speed (S), mi/h	63.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2832	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4865	216
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.909
Flow Rate (vi),pc/h	5555	258
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.61	0.12

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.318
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1667
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	61.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.186	Outer Lanes Freeway Speed (SO), mi/h	65.8
Flow in Lanes 1 and 2 (v12), pc/h	2222	Ramp Junction Speed (S), mi/h	63.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	2480	Average Density (D), pc/mi/ln	22.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6176	1311
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.971
Flow Rate (vi),pc/h	6978	1468
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.58	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.430
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1652
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.0
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	2628	Ramp Junction Speed (S), mi/h	66.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	21.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5521	655
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.952
Flow Rate (vi),pc/h	6238	748
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.73	0.36

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.5
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.421
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1872
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	65.1
Flow in Lanes 1 and 2 (v12), pc/h	2495	Ramp Junction Speed (S), mi/h	61.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3243	Average Density (D), pc/mi/ln	28.3
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6224	703
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.926
Flow Rate (vi),pc/h	7032	825
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.73	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	33.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.372
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1751
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.9
Flow in Lanes 1 and 2 (v12), pc/h	3531	Ramp Junction Speed (S), mi/h	66.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	26.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6458	519
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.980
Flow Rate (vi),pc/h	7229	576
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	24.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.356
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1583
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.146	Outer Lanes Freeway Speed (SO), mi/h	66.1
Flow in Lanes 1 and 2 (v12), pc/h	2111	Ramp Junction Speed (S), mi/h	63.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	2687	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7710	774
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.971
Flow Rate (vi),pc/h	9219	866
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.77	0.41

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	34.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.376
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1836
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.5
Flow in Lanes 1 and 2 (v12), pc/h	3704	Ramp Junction Speed (S), mi/h	65.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5220	330
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.943
Flow Rate (vi),pc/h	6017	380
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.84	0.18

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	34.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.332
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2300
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.592	Outer Lanes Freeway Speed (SO), mi/h	71.7
Flow in Lanes 1 and 2 (v12), pc/h	3717	Ramp Junction Speed (S), mi/h	64.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	31.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4890	237
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.943
Flow Rate (vi),pc/h	5636	273
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.82	0.13

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1215.9	Density in Ramp Influence Area (DR), pc/mi/ln	33.0
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.454
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2378
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	63.0
Flow in Lanes 1 and 2 (v12), pc/h	3258	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3531	Average Density (D), pc/mi/ln	33.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5127	732
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	5910	836
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.49	0.20

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	20.2
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.373
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1507
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.8
Flow in Lanes 1 and 2 (v12), pc/h	2009	Ramp Junction Speed (S), mi/h	67.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	17.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4395	581
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.935
Flow Rate (vi),pc/h	5066	675
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.60	0.32

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.340
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1520
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.5
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.133	Outer Lanes Freeway Speed (SO), mi/h	66.3
Flow in Lanes 1 and 2 (v12), pc/h	2026	Ramp Junction Speed (S), mi/h	63.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2701	Average Density (D), pc/mi/ln	22.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4449	466
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.917
Flow Rate (vi),pc/h	4980	552
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.58	0.26

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.321
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1494
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	61.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.149	Outer Lanes Freeway Speed (SO), mi/h	66.4
Flow in Lanes 1 and 2 (v12), pc/h	1992	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2544	Average Density (D), pc/mi/ln	21.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5421	972
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.952
Flow Rate (vi),pc/h	6125	1110
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.51	0.26

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.398
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1516
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.8
Flow in Lanes 1 and 2 (v12), pc/h	2175	Ramp Junction Speed (S), mi/h	67.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.2
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4635	786
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.917
Flow Rate (vi),pc/h	5189	932
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.64	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	28.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.400
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1557
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.8
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	66.2
Flow in Lanes 1 and 2 (v12), pc/h	2076	Ramp Junction Speed (S), mi/h	62.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	3008	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5339	704
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	5977	804
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.62	0.38

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.370
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1459
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	75.0
Flow in Lanes 1 and 2 (v12), pc/h	3059	Ramp Junction Speed (S), mi/h	66.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	22.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 5.6:

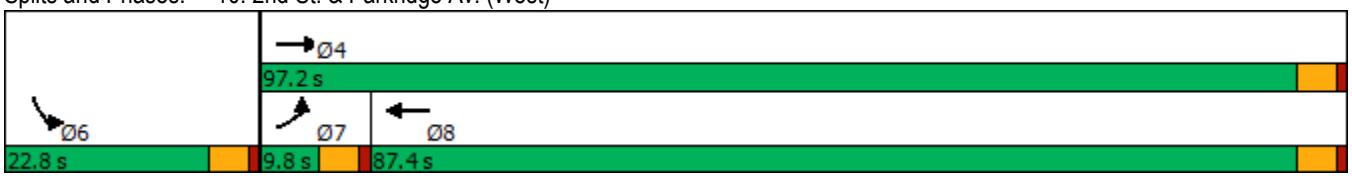
E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

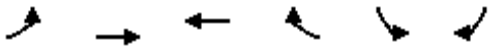
This Page Intentionally Left Blank

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	4	687	422	48
Future Volume (vph)	4	687	422	48
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.3	28.9	27.6	11.5
Actuated g/C Ratio	0.11	0.58	0.55	0.23
v/c Ratio	0.03	0.80	0.58	0.23
Control Delay	27.2	14.5	10.8	17.4
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	27.2	14.5	11.0	17.4
LOS	C	B	B	B
Approach Delay		14.6	11.0	17.4
Approach LOS		B	B	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 50.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	687	422	50	48	27
Future Volume (veh/h)	4	687	422	50	48	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	870	534	63	61	34
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	12	1100	787	93	240	134
Arrive On Green	0.01	0.58	0.47	0.47	0.22	0.22
Sat Flow, veh/h	1810	1900	1667	197	1102	614
Grp Volume(v), veh/h	5	870	0	597	96	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1864	1734	0
Q Serve(g_s), s	0.1	16.3	0.0	11.4	2.1	0.0
Cycle Q Clear(g_c), s	0.1	16.3	0.0	11.4	2.1	0.0
Prop In Lane	1.00			0.11	0.64	0.35
Lane Grp Cap(c), veh/h	12	1100	0	880	378	0
V/C Ratio(X)	0.41	0.79	0.00	0.68	0.25	0.00
Avail Cap(c_a), veh/h	205	3832	0	3361	688	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.7	7.5	0.0	9.4	14.8	0.0
Incr Delay (d2), s/veh	8.0	1.3	0.0	0.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.1	0.0	3.4	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.7	8.8	0.0	10.3	15.2	0.0
LnGrp LOS	C	A	A	B	B	A
Approach Vol, veh/h		875	597		96	
Approach Delay, s/veh		8.9	10.3		15.2	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	31.3	14.6	4.9	26.4
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	18.3	4.1	2.1	13.4
Green Ext Time (p_c), s	8.3	0.2	0.0	4.5

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

Notes

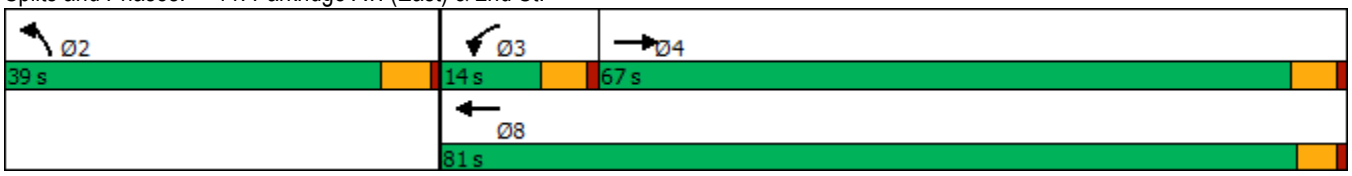
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	462	15	314	159
Future Volume (vph)	462	15	314	159
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.2	10.2	14.6	23.4
Total Split (s)	67.0	14.0	81.0	39.0
Total Split (%)	55.8%	11.7%	67.5%	32.5%
Yellow Time (s)	4.2	4.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	5.2	4.6	5.4
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	55.0	5.9	59.6	17.5
Actuated g/C Ratio	0.63	0.07	0.68	0.20
v/c Ratio	0.82	0.16	0.31	0.66
Control Delay	21.9	48.7	6.7	42.4
Queue Delay	19.3	0.0	0.0	0.0
Total Delay	41.2	48.7	6.7	42.4
LOS	D	D	A	D
Approach Delay	41.2		8.6	42.4
Approach LOS	D		A	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 87.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	462	271	15	314	159	29
Future Volume (veh/h)	462	271	15	314	159	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	585	343	19	397	201	37
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	661	388	40	1307	248	46
Arrive On Green	0.59	0.59	0.02	0.69	0.17	0.17
Sat Flow, veh/h	1112	652	1810	1900	1493	275
Grp Volume(v), veh/h	0	928	19	397	239	0
Grp Sat Flow(s),veh/h/ln	0	1765	1810	1900	1776	0
Q Serve(g_s), s	0.0	32.7	0.8	6.0	9.4	0.0
Cycle Q Clear(g_c), s	0.0	32.7	0.8	6.0	9.4	0.0
Prop In Lane		0.37	1.00		0.84	0.15
Lane Grp Cap(c), veh/h	0	1049	40	1307	295	0
V/C Ratio(X)	0.00	0.88	0.48	0.30	0.81	0.00
Avail Cap(c_a), veh/h	0	1501	219	1997	821	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	12.6	35.1	4.5	29.2	0.0
Incr Delay (d2), s/veh	0.0	4.8	3.3	0.1	5.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.4	0.4	1.6	4.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	17.4	38.4	4.6	34.5	0.0
LnGrp LOS	A	B	D	A	C	A
Approach Vol, veh/h	928			416	239	
Approach Delay, s/veh	17.4			6.1	34.5	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	17.5	6.8	48.4	55.2
Change Period (Y+Rc), s	5.4	5.2	5.2	* 5.2
Max Green Setting (Gmax), s	33.6	8.8	61.8	* 76
Max Q Clear Time (g_c+I1), s	11.4	2.8	34.7	8.0
Green Ext Time (p_c), s	0.6	0.0	8.5	2.6

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

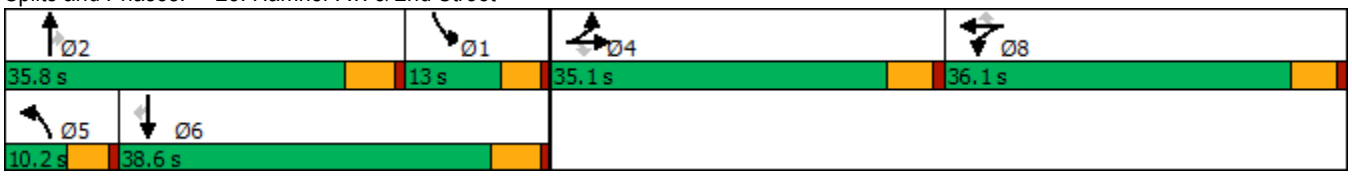
User approved volume balancing among the lanes for turning movement.

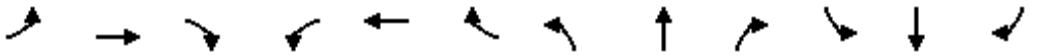
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	450	31	358	481	666	63	779	150	239	599	175
Future Volume (vph)	195	450	31	358	481	666	63	779	150	239	599	175
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	10.2	35.8	35.8	13.0	38.6	38.6
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.5%	29.8%	29.8%	10.8%	32.2%	32.2%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	22.5	22.5	22.5	31.1	31.1	31.1	5.6	29.1	29.1	9.8	33.3	33.3
Actuated g/C Ratio	0.20	0.20	0.20	0.28	0.28	0.28	0.05	0.26	0.26	0.09	0.30	0.30
v/c Ratio	0.56	0.72	0.07	0.63	0.63	1.05	0.74	0.88	0.30	0.83	0.59	0.31
Control Delay	47.3	48.3	0.3	44.2	40.0	72.7	96.9	52.5	7.0	74.6	37.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	48.3	0.3	44.2	40.0	72.7	96.9	52.5	7.0	74.6	37.3	6.2
LOS	D	D	A	D	D	E	F	D	A	E	D	A
Approach Delay		45.8			55.2			48.4			40.8	
Approach LOS		D			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.7	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 48.6	Intersection LOS: D
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	450	31	358	481	666	63	779	150	239	599	175
Future Volume (veh/h)	195	450	31	358	481	666	63	779	150	239	599	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	205	474	22	294	622	372	66	820	84	252	631	142
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	333	698	291	487	1023	427	85	947	418	309	1122	499
Arrive On Green	0.18	0.18	0.18	0.27	0.27	0.27	0.05	0.26	0.26	0.09	0.31	0.31
Sat Flow, veh/h	1810	3800	1581	1810	3800	1588	1810	3610	1595	3510	3610	1606
Grp Volume(v), veh/h	205	474	22	294	622	372	66	820	84	252	631	142
Grp Sat Flow(s),veh/h/ln	1810	1900	1581	1810	1900	1588	1810	1805	1595	1755	1805	1606
Q Serve(g_s), s	11.1	12.4	1.2	15.1	15.3	23.9	3.9	23.2	4.4	7.5	15.6	7.1
Cycle Q Clear(g_c), s	11.1	12.4	1.2	15.1	15.3	23.9	3.9	23.2	4.4	7.5	15.6	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	698	291	487	1023	427	85	947	418	309	1122	499
V/C Ratio(X)	0.62	0.68	0.08	0.60	0.61	0.87	0.77	0.87	0.20	0.81	0.56	0.28
Avail Cap(c_a), veh/h	508	1067	444	525	1103	461	95	1027	454	309	1122	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	40.7	36.1	34.1	34.1	37.2	50.3	37.6	30.7	47.8	30.7	27.8
Incr Delay (d2), s/veh	1.9	1.2	0.1	1.7	0.9	15.6	25.6	7.5	0.2	20.5	2.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	5.8	0.5	6.8	7.0	10.9	2.3	10.8	1.7	4.1	6.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	41.8	36.2	35.8	35.0	52.8	75.9	45.1	30.9	68.3	32.8	29.3
LnGrp LOS	D	D	D	D	C	D	E	D	C	E	C	C
Approach Vol, veh/h		701			1288			970			1025	
Approach Delay, s/veh		41.7			40.3			46.0			41.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	33.4		24.7	9.6	38.6		33.9				
Change Period (Y+Rc), s	5.4	* 5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	* 30		30.0	5.6	33.2		31.0				
Max Q Clear Time (g_c+I1), s	9.5	25.2		14.4	5.9	17.6		25.9				
Green Ext Time (p_c), s	0.0	2.5		3.3	0.0	4.0		2.8				

Intersection Summary		
HCM 6th Ctrl Delay		42.1
HCM 6th LOS		D

Notes

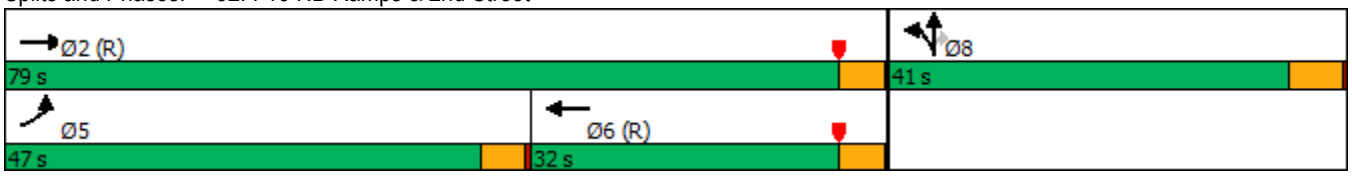
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	162	338	578	766	8	574
Future Volume (vph)	162	338	578	766	8	574
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	47.0	79.0	32.0	41.0	41.0	41.0
Total Split (%)	39.2%	65.8%	26.7%	34.2%	34.2%	34.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	16.6	76.5	55.4	33.6	33.6	33.6
Actuated g/C Ratio	0.14	0.64	0.46	0.28	0.28	0.28
v/c Ratio	0.70	0.16	0.43	0.88	0.86	0.77
Control Delay	43.7	4.4	23.6	61.0	59.0	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	4.4	23.6	61.0	59.0	15.7
LOS	D	A	C	E	E	B
Approach Delay		17.1	23.6		41.2	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	338	0	0	578	74	766	8	574	0	0	0
Future Volume (veh/h)	162	338	0	0	578	74	766	8	574	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	174	363	0	0	622	69	830	0	471			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	208	2238	0	0	1529	169	1077	0	479			
Arrive On Green	0.04	0.20	0.00	0.00	0.47	0.47	0.30	0.00	0.30			
Sat Flow, veh/h	1810	3705	0	0	3363	362	3619	0	1610			
Grp Volume(v), veh/h	174	363	0	0	343	348	830	0	471			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1825	1810	0	1610			
Q Serve(g_s), s	11.5	9.9	0.0	0.0	15.0	15.0	25.1	0.0	34.9			
Cycle Q Clear(g_c), s	11.5	9.9	0.0	0.0	15.0	15.0	25.1	0.0	34.9			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	208	2238	0	0	844	854	1077	0	479			
V/C Ratio(X)	0.84	0.16	0.00	0.00	0.41	0.41	0.77	0.00	0.98			
Avail Cap(c_a), veh/h	641	2238	0	0	844	854	1077	0	479			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.6	22.1	0.0	0.0	21.0	21.0	38.4	0.0	41.9			
Incr Delay (d2), s/veh	5.1	0.1	0.0	0.0	1.5	1.4	3.4	0.0	36.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.9	4.6	0.0	0.0	6.5	6.6	11.2	0.0	18.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	22.2	0.0	0.0	22.4	22.4	41.8	0.0	78.5			
LnGrp LOS	E	C	A	A	C	C	D	A	E			
Approach Vol, veh/h		537			691			1301				
Approach Delay, s/veh		35.0			22.4			55.1				
Approach LOS		C			C			E				

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.0			18.3	60.7		41.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		74.4			42.5	27.4		35.7				
Max Q Clear Time (g_c+I1), s		11.9			13.5	17.0		36.9				
Green Ext Time (p_c), s		1.6			0.3	2.1		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			41.9									
HCM 6th LOS			D									

Notes

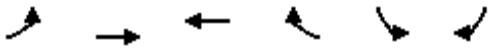
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	7	383	447	54
Future Volume (vph)	7	383	447	54
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.5	20.0	18.8	11.7
Actuated g/C Ratio	0.13	0.48	0.45	0.28
v/c Ratio	0.03	0.44	0.71	0.15
Control Delay	23.3	8.3	14.7	13.8
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	23.3	8.3	14.7	13.8
LOS	C	A	B	B
Approach Delay		8.5	14.7	13.8
Approach LOS		A	B	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 41.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.3	Intersection LOS: B
Intersection Capacity Utilization 47.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	383	447	125	54	21
Future Volume (veh/h)	7	383	447	125	54	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	399	466	130	56	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	17	1043	614	171	290	114
Arrive On Green	0.01	0.55	0.43	0.43	0.23	0.23
Sat Flow, veh/h	1810	1900	1422	397	1241	487
Grp Volume(v), veh/h	7	399	0	596	79	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1819	1750	0
Q Serve(g_s), s	0.2	5.1	0.0	11.8	1.5	0.0
Cycle Q Clear(g_c), s	0.2	5.1	0.0	11.8	1.5	0.0
Prop In Lane	1.00			0.22	0.71	0.28
Lane Grp Cap(c), veh/h	17	1043	0	785	409	0
V/C Ratio(X)	0.41	0.38	0.00	0.76	0.19	0.00
Avail Cap(c_a), veh/h	220	4110	0	3517	745	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.1	5.5	0.0	10.3	13.1	0.0
Incr Delay (d2), s/veh	5.9	0.2	0.0	1.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	0.0	3.5	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.0	5.7	0.0	11.8	13.4	0.0
LnGrp LOS	C	A	A	B	B	A
Approach Vol, veh/h		406	596		79	
Approach Delay, s/veh		6.1	11.8		13.4	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			28.2		14.6	5.0	23.2
Change Period (Y+Rc), s			* 4.7		4.6	4.6	* 4.7
Max Green Setting (Gmax), s			* 93		18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s			7.1		3.5	2.2	13.8
Green Ext Time (p_c), s			2.6		0.1	0.0	4.6

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

Notes

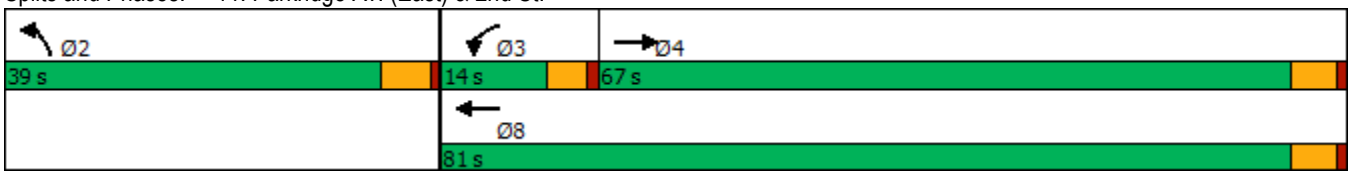
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	361	20	407	164
Future Volume (vph)	361	20	407	164
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.2	9.6	15.2	23.4
Total Split (s)	67.0	14.0	81.0	39.0
Total Split (%)	55.8%	11.7%	67.5%	32.5%
Yellow Time (s)	4.2	3.6	4.2	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	4.6	5.2	5.4
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	17.1	5.8	18.5	12.3
Actuated g/C Ratio	0.40	0.14	0.44	0.29
v/c Ratio	0.60	0.09	0.51	0.34
Control Delay	14.0	23.1	10.3	16.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.1	23.1	10.3	16.9
LOS	B	C	B	B
Approach Delay	14.1		10.9	16.9
Approach LOS	B		B	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 42.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 42.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	361	75	20	407	164	9
Future Volume (veh/h)	361	75	20	407	164	9
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	376	78	21	424	171	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	524	109	47	922	425	22
Arrive On Green	0.34	0.34	0.03	0.49	0.25	0.25
Sat Flow, veh/h	1520	315	1810	1900	1700	89
Grp Volume(v), veh/h	0	454	21	424	181	0
Grp Sat Flow(s),veh/h/ln	0	1835	1810	1900	1799	0
Q Serve(g_s), s	0.0	8.6	0.5	5.9	3.4	0.0
Cycle Q Clear(g_c), s	0.0	8.6	0.5	5.9	3.4	0.0
Prop In Lane		0.17	1.00		0.94	0.05
Lane Grp Cap(c), veh/h	0	632	47	922	449	0
V/C Ratio(X)	0.00	0.72	0.45	0.46	0.40	0.00
Avail Cap(c_a), veh/h	0	2833	425	3598	1510	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.4	19.2	6.8	12.5	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.4	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.2	1.5	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	13.0	21.7	7.2	13.1	0.0
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	454			445	181	
Approach Delay, s/veh	13.0			7.9	13.1	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		15.4	5.6	19.0		24.6
Change Period (Y+Rc), s		5.4	4.6	5.2		5.2
Max Green Setting (Gmax), s		33.6	9.4	61.8		75.8
Max Q Clear Time (g_c+I1), s		5.4	2.5	10.6		7.9
Green Ext Time (p_c), s		0.5	0.0	3.2		2.8

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

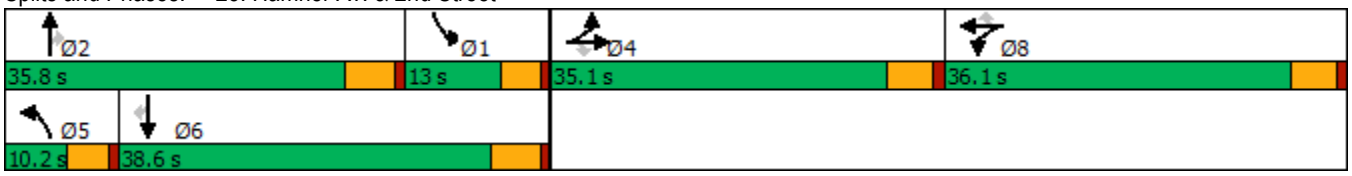
Notes

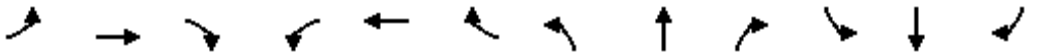
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	590	66	217	333	434	74	690	365	472	974	197
Future Volume (vph)	253	590	66	217	333	434	74	690	365	472	974	197
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	10.2	35.8	35.8	13.0	38.6	38.6
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.5%	29.8%	29.8%	10.8%	32.2%	32.2%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	25.3	25.3	25.3	22.2	22.2	22.2	5.7	26.7	26.7	12.5	33.6	33.6
Actuated g/C Ratio	0.24	0.24	0.24	0.21	0.21	0.21	0.05	0.25	0.25	0.12	0.31	0.31
v/c Ratio	0.60	0.77	0.14	0.53	0.53	0.81	0.80	0.78	0.55	1.18	0.88	0.32
Control Delay	44.6	46.0	0.6	44.1	40.7	27.4	103.6	45.2	7.0	146.2	46.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	46.0	0.6	44.1	40.7	27.4	103.6	45.2	7.0	146.2	46.8	8.7
LOS	D	D	A	D	D	C	F	D	A	F	D	A
Approach Delay		42.4			35.4			36.7			70.8	
Approach LOS		D			D			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.2	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 49.6	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	590	66	217	333	434	74	690	365	472	974	197
Future Volume (veh/h)	253	590	66	217	333	434	74	690	365	472	974	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	602	34	187	388	235	76	704	243	482	994	161
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	391	820	345	351	738	312	98	884	393	471	1203	529
Arrive On Green	0.22	0.22	0.22	0.19	0.19	0.19	0.05	0.24	0.24	0.13	0.33	0.33
Sat Flow, veh/h	1810	3800	1597	1810	3800	1608	1810	3610	1604	3510	3610	1588
Grp Volume(v), veh/h	258	602	34	187	388	235	76	704	243	482	994	161
Grp Sat Flow(s),veh/h/ln	1810	1900	1597	1810	1900	1608	1810	1805	1604	1755	1805	1588
Q Serve(g_s), s	13.0	14.7	1.7	9.3	9.1	13.7	4.1	18.2	13.4	13.4	25.2	7.5
Cycle Q Clear(g_c), s	13.0	14.7	1.7	9.3	9.1	13.7	4.1	18.2	13.4	13.4	25.2	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	820	345	351	738	312	98	884	393	471	1203	529
V/C Ratio(X)	0.66	0.73	0.10	0.53	0.53	0.75	0.78	0.80	0.62	1.02	0.83	0.30
Avail Cap(c_a), veh/h	545	1144	481	563	1182	500	102	1101	489	471	1203	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	36.4	31.3	36.1	36.0	37.9	46.5	35.3	33.5	43.1	30.6	24.6
Incr Delay (d2), s/veh	1.9	1.5	0.1	1.3	0.6	3.7	27.1	3.3	1.6	47.4	6.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	6.8	0.7	4.1	4.2	5.6	2.5	8.1	5.2	8.7	11.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	37.9	31.4	37.3	36.6	41.6	73.6	38.6	35.1	90.5	37.1	26.1
LnGrp LOS	D	D	C	D	D	D	E	D	D	F	D	C
Approach Vol, veh/h		894			810			1023			1637	
Approach Delay, s/veh		37.6			38.2			40.4			51.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.8	29.8		26.6	10.0	38.6		24.4				
Change Period (Y+Rc), s	5.4	* 5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	* 30		30.0	5.6	33.2		31.0				
Max Q Clear Time (g_c+I1), s	15.4	20.2		16.7	6.1	27.2		15.7				
Green Ext Time (p_c), s	0.0	3.9		4.1	0.0	3.4		3.4				

Intersection Summary		
HCM 6th Ctrl Delay	43.7	
HCM 6th LOS	D	

Notes

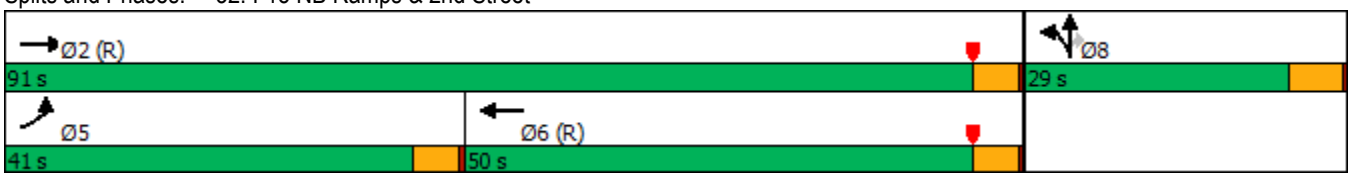
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	481	290	329	604	6	400
Future Volume (vph)	481	290	329	604	6	400
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	41.0	91.0	50.0	29.0	29.0	29.0
Total Split (%)	34.2%	75.8%	41.7%	24.2%	24.2%	24.2%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	35.7	86.4	46.2	23.7	23.7	23.7
Actuated g/C Ratio	0.30	0.72	0.38	0.20	0.20	0.20
v/c Ratio	0.96	0.12	0.30	0.96	0.98	0.65
Control Delay	57.6	4.5	25.6	87.7	91.6	9.0
Queue Delay	4.2	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	4.5	25.6	87.7	91.6	9.0
LOS	E	A	C	F	F	A
Approach Delay		40.2	25.6		57.7	
Approach LOS		D	C		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 45.8	Intersection LOS: D
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	481	290	0	0	329	48	604	6	400	0	0	0
Future Volume (veh/h)	481	290	0	0	329	48	604	6	400	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	517	312	0	0	354	40	653	0	257			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	545	2607	0	0	1254	141	706	0	314			
Arrive On Green	0.10	0.24	0.00	0.00	0.38	0.38	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3705	0	0	3365	367	3619	0	1610			
Grp Volume(v), veh/h	517	312	0	0	194	200	653	0	257			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1832	1810	0	1610			
Q Serve(g_s), s	34.1	8.1	0.0	0.0	8.9	9.1	21.3	0.0	18.3			
Cycle Q Clear(g_c), s	34.1	8.1	0.0	0.0	8.9	9.1	21.3	0.0	18.3			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	545	2607	0	0	692	703	706	0	314			
V/C Ratio(X)	0.95	0.12	0.00	0.00	0.28	0.28	0.92	0.00	0.82			
Avail Cap(c_a), veh/h	550	2607	0	0	692	703	715	0	318			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.66	0.66	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.1	15.8	0.0	0.0	25.6	25.6	47.4	0.0	46.2			
Incr Delay (d2), s/veh	19.5	0.1	0.0	0.0	1.0	1.0	17.6	0.0	14.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	19.5	3.5	0.0	0.0	4.0	4.1	11.0	0.0	8.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.6	15.8	0.0	0.0	26.6	26.6	65.0	0.0	61.0			
LnGrp LOS	E	B	A	A	C	C	E	A	E			
Approach Vol, veh/h		829			394			910				
Approach Delay, s/veh		51.2			26.6			63.8				
Approach LOS		D			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		91.3			40.7	50.6		28.7				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		86.4			36.5	45.4		23.7				
Max Q Clear Time (g_c+I1), s		10.1			36.1	11.1		23.3				
Green Ext Time (p_c), s		1.4			0.1	1.4		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

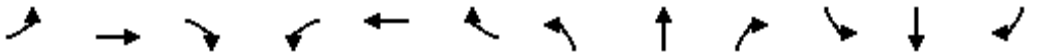
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	235	56	181	39	208	809	80	1346	523
Future Volume (vph)	247	145	235	56	181	39	208	809	80	1346	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	235	56	181	39	208	809	108	80	1346	523
Future Volume (veh/h)	247	145	235	56	181	39	208	809	108	80	1346	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	184	60	195	30	224	870	107	86	1447	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	341	507	78	245	207	245	1707	210	110	1635	862
Arrive On Green	0.09	0.18	0.18	0.04	0.13	0.13	0.14	0.53	0.53	0.06	0.45	0.45
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3235	398	1810	3610	1571
Grp Volume(v), veh/h	266	156	184	60	195	30	224	485	492	86	1447	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1828	1810	1805	1571
Q Serve(g_s), s	7.9	7.8	9.4	3.5	10.6	1.8	13.0	18.5	18.5	5.0	38.9	18.4
Cycle Q Clear(g_c), s	7.9	7.8	9.4	3.5	10.6	1.8	13.0	18.5	18.5	5.0	38.9	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	328	341	507	78	245	207	245	952	965	110	1635	862
V/C Ratio(X)	0.81	0.46	0.36	0.77	0.80	0.14	0.91	0.51	0.51	0.78	0.89	0.50
Avail Cap(c_a), veh/h	344	517	656	145	483	408	245	952	965	199	1635	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	39.0	28.1	50.3	44.9	41.1	45.3	16.2	16.2	49.2	26.5	15.1
Incr Delay (d2), s/veh	12.1	1.0	0.4	5.9	5.8	0.3	34.4	1.9	1.9	4.5	7.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.7	3.6	1.7	5.3	0.7	8.0	7.4	7.5	2.3	16.9	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	39.9	28.6	56.3	50.7	41.4	79.7	18.2	18.1	53.7	33.9	17.2
LnGrp LOS	E	D	C	E	D	D	E	B	B	D	C	B
Approach Vol, veh/h		606			285			1201			1967	
Approach Delay, s/veh		45.0			50.9			29.6			31.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	61.8	9.2	24.2	19.0	53.9	14.5	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	20.5	5.5	11.4	15.0	40.9	9.9	12.6
Green Ext Time (p_c), s	0.0	6.4	0.0	1.3	0.0	5.5	0.0	0.9

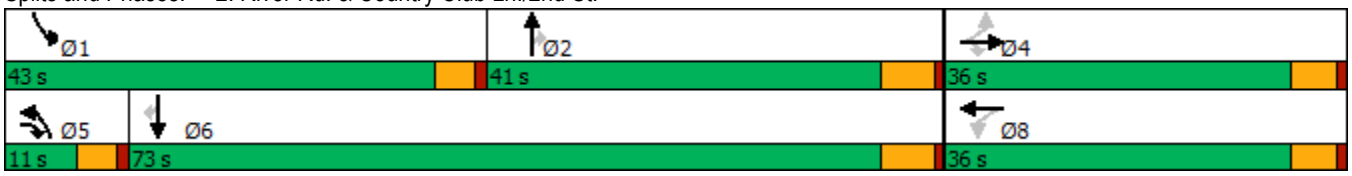
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

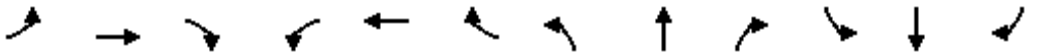
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	141	65	124	80	37	783	161	409	1194	25
Future Volume (vph)	37	141	65	124	80	37	783	161	409	1194	25
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	141	65	124	80	270	37	783	161	409	1194	25
Future Volume (veh/h)	37	141	65	124	80	270	37	783	161	409	1194	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	160	48	141	91	224	42	890	124	465	1357	26
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	449	433	262	115	282	59	1276	567	495	2145	935
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.35	0.35	0.27	0.59	0.59
Sat Flow, veh/h	1080	1900	1610	1192	486	1196	1810	3610	1606	1810	3610	1573
Grp Volume(v), veh/h	42	160	48	141	0	315	42	890	124	465	1357	26
Grp Sat Flow(s),veh/h/ln	1080	1900	1610	1192	0	1681	1810	1805	1606	1810	1805	1573
Q Serve(g_s), s	4.3	7.9	2.5	12.6	0.0	19.9	2.6	23.9	6.1	28.4	27.6	0.8
Cycle Q Clear(g_c), s	24.2	7.9	2.5	20.6	0.0	19.9	2.6	23.9	6.1	28.4	27.6	0.8
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	449	433	262	0	397	59	1276	567	495	2145	935
V/C Ratio(X)	0.33	0.36	0.11	0.54	0.00	0.79	0.72	0.70	0.22	0.94	0.63	0.03
Avail Cap(c_a), veh/h	169	519	492	306	0	459	102	1276	567	615	2145	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	36.0	31.2	44.6	0.0	40.6	54.2	31.4	25.6	40.2	14.9	9.5
Incr Delay (d2), s/veh	1.5	0.5	0.1	1.7	0.0	8.1	5.9	3.2	0.9	18.7	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.7	1.0	3.8	0.0	9.0	1.3	10.5	2.4	14.6	10.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	36.5	31.3	46.3	0.0	48.7	60.1	34.6	26.5	58.8	16.3	9.5
LnGrp LOS	D	D	C	D	A	D	E	C	C	E	B	A
Approach Vol, veh/h		250			456			1056			1848	
Approach Delay, s/veh		38.3			48.0			34.6			26.9	
Approach LOS		D			D			C			C	

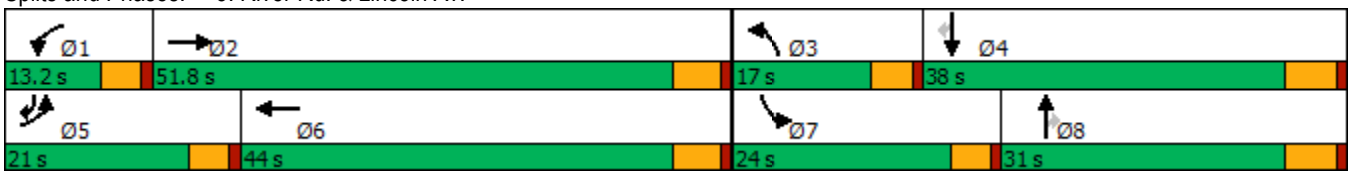
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	35.5	45.8		31.8	8.3	73.0		31.8				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	30.4	25.9		26.2	4.6	29.6		22.6				
Green Ext Time (p_c), s	0.5	4.1		0.5	0.0	12.3		1.6				

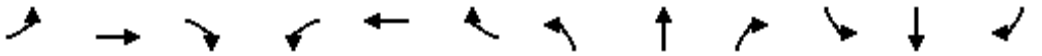
Intersection Summary												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	361	483	46	693	130	606	99	234	800	457
Future Volume (vph)	361	483	46	693	130	606	99	234	800	457
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	483	31	46	693	235	130	606	99	234	800	457
Future Volume (veh/h)	361	483	31	46	693	235	130	606	99	234	800	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	401	537	22	51	770	237	144	673	68	260	889	378
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	458	1497	61	66	895	275	171	745	313	287	976	638
Arrive On Green	0.13	0.42	0.42	0.04	0.33	0.33	0.09	0.21	0.21	0.16	0.27	0.27
Sat Flow, veh/h	3510	3531	144	1810	2710	834	1810	3610	1516	1810	3610	1585
Grp Volume(v), veh/h	401	274	285	51	513	494	144	673	68	260	889	378
Grp Sat Flow(s),veh/h/ln	1755	1805	1871	1810	1805	1739	1810	1805	1516	1810	1805	1585
Q Serve(g_s), s	13.1	12.1	12.1	3.3	31.1	31.1	9.2	21.3	4.4	16.5	27.9	21.9
Cycle Q Clear(g_c), s	13.1	12.1	12.1	3.3	31.1	31.1	9.2	21.3	4.4	16.5	27.9	21.9
Prop In Lane	1.00		0.08	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	458	765	793	66	596	574	171	745	313	287	976	638
V/C Ratio(X)	0.88	0.36	0.36	0.77	0.86	0.86	0.84	0.90	0.22	0.91	0.91	0.59
Avail Cap(c_a), veh/h	492	765	793	133	596	574	192	778	327	300	994	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	22.9	22.9	55.8	36.6	36.6	52.1	45.3	38.5	48.3	41.3	27.6
Incr Delay (d2), s/veh	14.5	1.3	1.3	6.9	15.0	15.5	22.7	13.6	0.3	27.6	12.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	5.2	5.4	1.6	15.7	15.2	5.1	10.6	1.6	9.4	13.5	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	24.2	24.1	62.8	51.7	52.2	74.8	58.8	38.9	75.9	53.4	29.0
LnGrp LOS	E	C	C	E	D	D	E	E	D	E	D	C
Approach Vol, veh/h		960			1058			885			1527	
Approach Delay, s/veh		41.0			52.4			59.9			51.2	
Approach LOS		D			D			E			D	

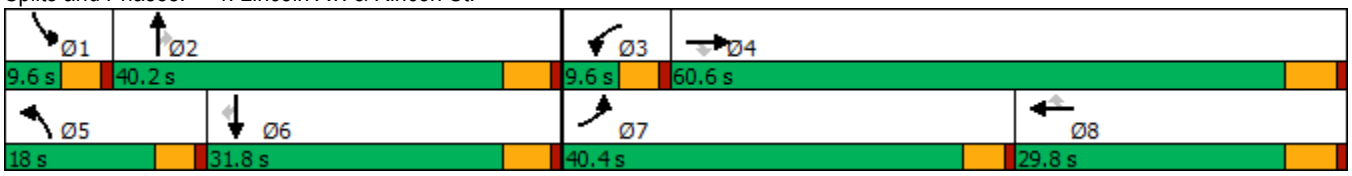
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	55.0	15.7	37.4	19.8	44.0	23.1	29.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	5.3	14.1	11.2	29.9	15.1	33.1	18.5	23.3
Green Ext Time (p_c), s	0.0	3.3	0.0	1.5	0.1	2.8	0.0	0.9

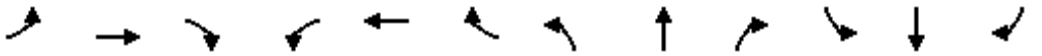
Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	100	94	2	2	203	711	6	9	1066	344
Future Volume (vph)	100	94	2	2	203	711	6	9	1066	344
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 69.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	94	2	0	2	203	711	6	9	1066	344
Future Volume (veh/h)	100	0	94	2	0	2	203	711	6	9	1066	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	0	57	2	0	0	233	817	6	10	1225	338
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	272	231	5	120	102	279	1936	862	23	1425	621
Arrive On Green	0.08	0.00	0.14	0.00	0.00	0.00	0.15	0.54	0.54	0.01	0.39	0.39
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	115	0	57	2	0	0	233	817	6	10	1225	338
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	4.2	0.0	2.1	0.1	0.0	0.0	8.4	9.1	0.1	0.4	20.8	11.1
Cycle Q Clear(g_c), s	4.2	0.0	2.1	0.1	0.0	0.0	8.4	9.1	0.1	0.4	20.8	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	272	231	5	120	102	279	1936	862	23	1425	621
V/C Ratio(X)	0.77	0.00	0.25	0.41	0.00	0.00	0.83	0.42	0.01	0.44	0.86	0.54
Avail Cap(c_a), veh/h	968	1556	1319	135	682	578	362	1936	862	135	1425	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	25.4	33.3	0.0	0.0	27.5	9.3	7.2	32.8	18.6	15.6
Incr Delay (d2), s/veh	3.1	0.0	0.6	18.7	0.0	0.0	9.8	0.7	0.0	4.8	7.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.8	0.1	0.0	0.0	4.1	3.0	0.0	0.2	8.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	26.0	52.0	0.0	0.0	37.3	10.0	7.2	37.6	25.5	19.0
LnGrp LOS	C	A	C	D	A	A	D	A	A	D	C	B
Approach Vol, veh/h		172			2			1056			1573	
Approach Delay, s/veh		30.7			52.0			16.0			24.2	
Approach LOS		C			D			B			C	

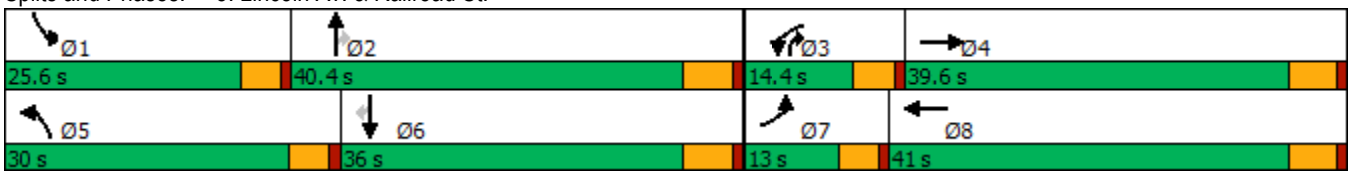
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	41.3	4.8	15.4	14.9	31.8	10.2	10.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.4	11.1	2.1	4.1	10.4	22.8	6.2	0.0
Green Ext Time (p_c), s	0.0	5.6	0.0	0.2	0.1	2.7	0.1	0.0

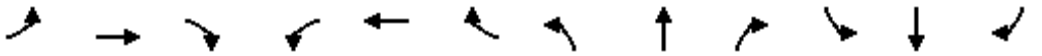
Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	57	99	67	587	238	668	95	179	657	290
Future Volume (vph)	57	99	67	587	238	668	95	179	657	290
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	99	71	67	587	200	238	668	95	179	657	290
Future Volume (veh/h)	57	99	71	67	587	200	238	668	95	179	657	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	112	48	76	667	192	270	759	64	203	747	247
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	689	280	98	786	226	304	1238	632	236	1103	491
Arrive On Green	0.05	0.28	0.28	0.05	0.28	0.28	0.17	0.34	0.34	0.13	0.31	0.31
Sat Flow, veh/h	1810	2493	1012	1810	2765	795	1810	3610	1588	1810	3610	1607
Grp Volume(v), veh/h	65	79	81	76	435	424	270	759	64	203	747	247
Grp Sat Flow(s),veh/h/ln	1810	1805	1700	1810	1805	1755	1810	1805	1588	1810	1805	1607
Q Serve(g_s), s	3.6	3.4	3.7	4.2	23.2	23.3	14.9	17.9	2.6	11.2	18.5	12.9
Cycle Q Clear(g_c), s	3.6	3.4	3.7	4.2	23.2	23.3	14.9	17.9	2.6	11.2	18.5	12.9
Prop In Lane	1.00		0.60	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	499	470	98	513	499	304	1238	632	236	1103	491
V/C Ratio(X)	0.77	0.16	0.17	0.78	0.85	0.85	0.89	0.61	0.10	0.86	0.68	0.50
Avail Cap(c_a), veh/h	149	605	569	174	629	612	450	1238	632	372	1103	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	27.9	28.1	47.7	34.5	34.5	41.5	27.9	19.3	43.5	31.0	29.1
Incr Delay (d2), s/veh	5.5	0.1	0.2	4.9	9.0	9.3	10.3	2.3	0.3	6.8	3.3	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.4	1.5	2.0	11.0	10.8	7.3	7.7	1.0	5.3	8.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	28.1	28.2	52.5	43.5	43.8	51.9	30.2	19.7	50.3	34.4	32.7
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		225			935			1093			1197	
Approach Delay, s/veh		35.5			44.3			34.9			36.8	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	40.4	10.1	33.6	21.7	36.6	9.3	34.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	13.2	19.9	6.2	5.7	16.9	20.5	5.6	25.3
Green Ext Time (p_c), s	0.2	4.5	0.0	0.8	0.3	4.1	0.0	3.8

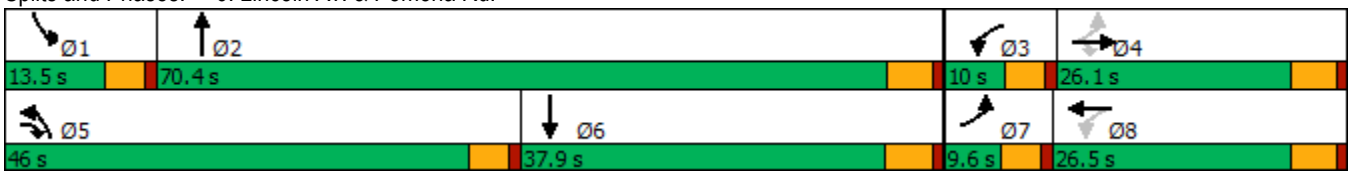
Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

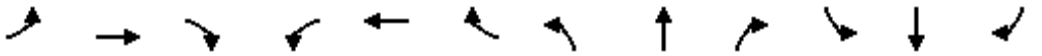
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	9	95	97	22	480	1014	53	731
Future Volume (vph)	11	9	95	97	22	480	1014	53	731
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	9	95	97	22	28	480	1014	82	53	731	70
Future Volume (veh/h)	11	9	95	97	22	28	480	1014	82	53	731	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	10	49	105	24	19	522	1102	77	58	795	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	181	646	285	130	103	555	2134	149	75	1195	110
Arrive On Green	0.01	0.10	0.10	0.05	0.13	0.13	0.31	0.62	0.62	0.04	0.36	0.36
Sat Flow, veh/h	1810	1900	1600	1810	982	778	1810	3423	239	1810	3334	306
Grp Volume(v), veh/h	12	10	49	105	0	43	522	581	598	58	430	438
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1760	1810	1805	1857	1810	1805	1835
Q Serve(g_s), s	0.6	0.5	2.0	5.4	0.0	2.3	29.4	18.7	18.7	3.3	21.0	21.0
Cycle Q Clear(g_c), s	0.6	0.5	2.0	5.4	0.0	2.3	29.4	18.7	18.7	3.3	21.0	21.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.13	1.00		0.17
Lane Grp Cap(c), veh/h	226	181	646	285	0	234	555	1126	1158	75	647	658
V/C Ratio(X)	0.05	0.06	0.08	0.37	0.00	0.18	0.94	0.52	0.52	0.77	0.66	0.67
Avail Cap(c_a), veh/h	287	381	814	285	0	360	715	1126	1158	154	647	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	43.1	19.3	39.3	0.0	40.4	35.4	10.9	10.9	49.7	28.3	28.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.4	16.2	1.7	1.6	6.1	5.3	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.7	2.4	0.0	1.0	15.0	7.3	7.5	1.6	9.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	43.2	19.4	39.6	0.0	40.7	51.6	12.6	12.6	55.8	33.6	33.5
LnGrp LOS	D	D	B	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		71			148			1701			926	
Approach Delay, s/veh		26.5			39.9			24.6			35.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	70.7	10.0	15.1	36.7	43.0	6.1	19.0
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.3	20.7	7.4	4.0	31.4	23.0	2.6	4.3
Green Ext Time (p_c), s	0.0	10.0	0.0	0.1	0.7	3.5	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

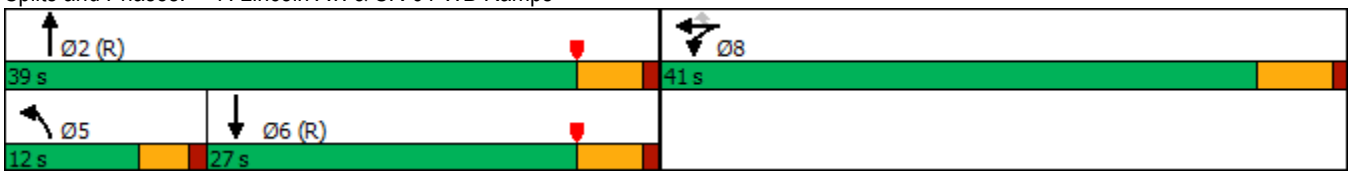
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

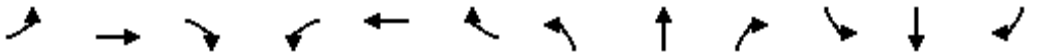
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	397	194	735	253	840	593
Future Volume (vph)	397	194	735	253	840	593
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	12.0	39.0	27.0
Total Split (%)	51.3%	51.3%	51.3%	15.0%	48.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	397	194	735	253	840	0	0	593	328
Future Volume (veh/h)	0	0	0	397	194	735	253	840	0	0	593	328
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				308	350	500	264	875	0	0	618	281
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				628	659	559	345	1884	0	0	899	409
Arrive On Green				0.35	0.35	0.35	0.10	0.52	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2502	1094
Grp Volume(v), veh/h				308	350	500	264	875	0	0	463	436
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1696
Q Serve(g_s), s				10.7	11.8	23.5	5.9	12.2	0.0	0.0	17.3	17.3
Cycle Q Clear(g_c), s				10.7	11.8	23.5	5.9	12.2	0.0	0.0	17.3	17.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.65
Lane Grp Cap(c), veh/h				628	659	559	345	1884	0	0	674	634
V/C Ratio(X)				0.49	0.53	0.90	0.77	0.46	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h				803	843	715	351	1884	0	0	674	634
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.79	0.79	0.00	0.00	0.79	0.79
Uniform Delay (d), s/veh				20.6	20.9	24.7	35.2	12.1	0.0	0.0	21.1	21.1
Incr Delay (d2), s/veh				0.2	0.2	10.1	6.9	0.7	0.0	0.0	4.5	4.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	4.9	9.8	2.7	4.5	0.0	0.0	7.6	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.8	21.2	34.9	42.1	12.7	0.0	0.0	25.6	25.9
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1158			1139			899	
Approach Delay, s/veh					27.0			19.5			25.7	
Approach LOS					C			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	46.7		11.9	34.9		33.3						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		35.5						
Max Q Clear Time (g_c+I1), s	14.2		7.9	19.3		25.5						
Green Ext Time (p_c), s	4.0		0.0	1.1		2.2						

Intersection Summary		
HCM 6th Ctrl Delay		24.0
HCM 6th LOS		C

Notes

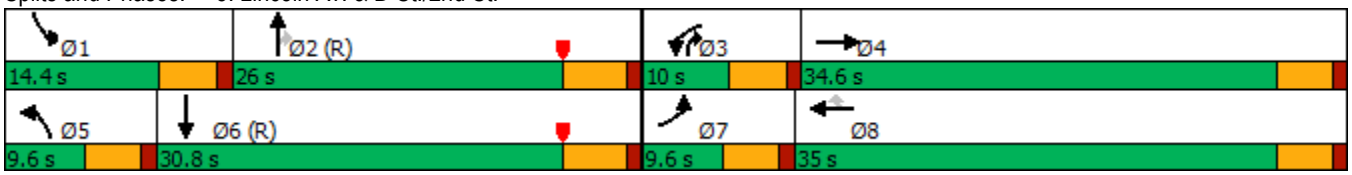
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	80	184	119	61	348	97	665	639	305	539
Future Volume (vph)	80	184	119	61	348	97	665	639	305	539
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	184	69	119	61	348	97	665	639	305	539	90
Future Volume (veh/h)	80	184	69	119	61	348	97	665	639	305	539	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	192	54	124	64	243	101	693	448	318	561	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	270	76	195	355	301	106	1516	764	394	1488	219
Arrive On Green	0.06	0.19	0.19	0.06	0.19	0.19	0.06	0.42	0.42	0.11	0.47	0.47
Sat Flow, veh/h	1810	1420	399	3510	1900	1610	1810	3610	1606	3510	3143	464
Grp Volume(v), veh/h	83	0	246	124	64	243	101	693	448	318	321	323
Grp Sat Flow(s),veh/h/ln	1810	0	1820	1755	1900	1610	1810	1805	1606	1755	1805	1802
Q Serve(g_s), s	3.8	0.0	10.8	2.9	2.4	12.3	4.7	11.7	17.2	7.5	9.7	9.8
Cycle Q Clear(g_c), s	3.8	0.0	10.8	2.9	2.4	12.3	4.7	11.7	17.2	7.5	9.7	9.8
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	345	195	355	301	106	1516	764	394	854	853
V/C Ratio(X)	0.78	0.00	0.71	0.63	0.18	0.81	0.95	0.46	0.59	0.81	0.38	0.38
Avail Cap(c_a), veh/h	106	0	642	223	680	576	106	1516	764	405	854	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	39.5	0.0	32.3	39.3	29.1	33.1	39.9	17.7	16.2	36.8	14.3	14.4
Incr Delay (d2), s/veh	27.8	0.0	2.7	2.7	0.2	4.8	70.2	1.0	3.3	5.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	4.9	1.3	1.1	5.1	4.1	4.8	6.7	3.4	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	0.0	35.0	42.0	29.3	37.9	110.1	18.7	19.5	42.2	15.0	15.0
LnGrp LOS	E	A	C	D	C	D	F	B	B	D	B	B
Approach Vol, veh/h		329			431			1242			962	
Approach Delay, s/veh		43.1			37.8			26.4			24.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	40.8	9.3	20.7	9.6	45.3	9.6	20.5
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	9.5	19.2	4.9	12.8	6.7	11.8	5.8	14.3
Green Ext Time (p_c), s	0.0	1.0	0.0	1.3	0.0	3.3	0.0	1.1

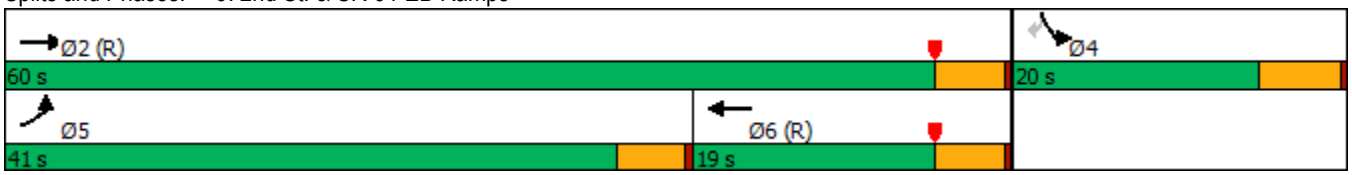
Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

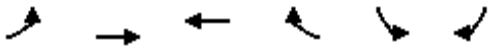
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	1038	80	137	100	390
Future Volume (vph)	1038	80	137	100	390
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	60.0	19.0	20.0	20.0
Total Split (%)	51.3%	75.0%	23.8%	25.0%	25.0%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1038	80	137	146	100	390
Future Volume (veh/h)	1038	80	137	146	100	390
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1081	83	143	92	104	406
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1250	1316	603	365	333	592
Arrive On Green	0.36	0.69	0.28	0.28	0.18	0.18
Sat Flow, veh/h	3510	1900	2257	1308	1810	3220
Grp Volume(v), veh/h	1081	83	118	117	104	406
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1665	1810	1610
Q Serve(g_s), s	22.9	1.1	4.0	4.4	4.0	9.4
Cycle Q Clear(g_c), s	22.9	1.1	4.0	4.4	4.0	9.4
Prop In Lane	1.00			0.79	1.00	1.00
Lane Grp Cap(c), veh/h	1250	1316	504	464	333	592
V/C Ratio(X)	0.86	0.06	0.23	0.25	0.31	0.69
Avail Cap(c_a), veh/h	1597	1316	504	464	333	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	4.0	22.2	22.4	28.3	30.5
Incr Delay (d2), s/veh	2.9	0.1	1.1	1.3	2.4	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.3	1.8	1.8	1.9	8.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.8	4.0	23.3	23.7	30.7	36.9
LnGrp LOS	C	A	C	C	C	D
Approach Vol, veh/h		1164	235		510	
Approach Delay, s/veh		25.2	23.5		35.6	
Approach LOS		C	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		20.0	33.1	26.9
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		55.4		14.7	36.4	14.4
Max Q Clear Time (g_c+I1), s		3.1		11.4	24.9	6.4
Green Ext Time (p_c), s		0.3		0.4	3.6	0.5

Intersection Summary		
HCM 6th Ctrl Delay		27.8
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	838	607	51	37	29
Future Vol, veh/h	4	838	607	51	37	29
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	1061	768	65	47	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	836	0	-	0	1875	804
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	1071	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	807	-	-	-	80	386
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	332	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	805	-	-	-	78	385
Mov Cap-2 Maneuver	-	-	-	-	78	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	331	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	85.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	805	-	-	-	120
HCM Lane V/C Ratio	0.006	-	-	-	0.696
HCM Control Delay (s)	9.5	0	-	-	85.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	3.8

Intersection	
Intersection Delay, s/veh	230.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	539	336	11	435	223	15
Future Vol, veh/h	539	336	11	435	223	15
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	682	425	14	551	282	19
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	378	52.2	22.5
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	94%	0%	2%
Vol Thru, %	0%	62%	98%
Vol Right, %	6%	38%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	238	875	446
LT Vol	223	0	11
Through Vol	0	539	435
RT Vol	15	336	0
Lane Flow Rate	301	1108	565
Geometry Grp	1	1	1
Degree of Util (X)	0.592	1.792	0.938
Departure Headway (Hd)	8.238	5.826	7.017
Convergence, Y/N	Yes	Yes	Yes
Cap	443	631	519
Service Time	6.238	3.85	5.017
HCM Lane V/C Ratio	0.679	1.756	1.089
HCM Control Delay	22.5	378	52.2
HCM Lane LOS	C	F	F
HCM 95th-tile Q	3.7	67.1	11.6

Intersection	
Intersection Delay, s/veh	55
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	674	16	3	540	14	17	0	17	30	0	2
Future Vol, veh/h	1	674	16	3	540	14	17	0	17	30	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	741	18	3	593	15	19	0	19	33	0	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	78	31.6	10.6	10.9
HCM LOS	F	D	B	B

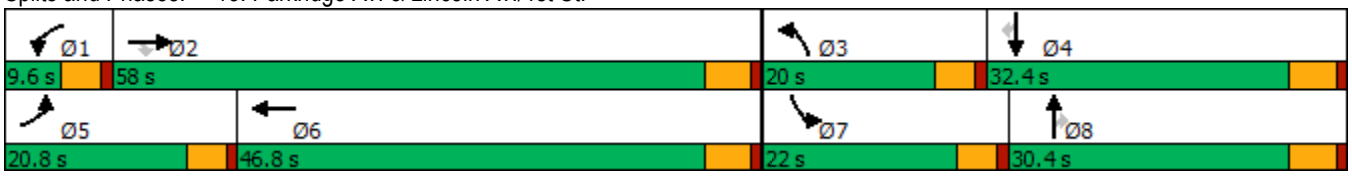
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	50%	0%	0%	1%	94%
Vol Thru, %	0%	100%	0%	97%	0%
Vol Right, %	50%	0%	100%	3%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	675	16	557	32
LT Vol	17	1	0	3	30
Through Vol	0	674	0	540	0
RT Vol	17	0	16	14	2
Lane Flow Rate	37	742	18	612	35
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.071	1.079	0.022	0.86	0.07
Departure Headway (Hd)	7.027	5.238	4.531	5.218	7.391
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	513	690	779	698	488
Service Time	5.027	3.028	2.32	3.218	5.391
HCM Lane V/C Ratio	0.072	1.075	0.023	0.877	0.072
HCM Control Delay	10.6	79.7	7.4	31.6	10.9
HCM Lane LOS	B	F	A	D	B
HCM 95th-tile Q	0.2	20.2	0.1	10.1	0.2

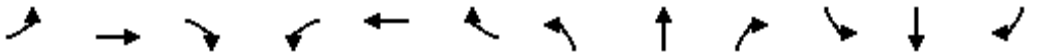
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	618	144	16	748	145	127	26	176	112	166
Future Volume (vph)	126	618	144	16	748	145	127	26	176	112	166
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	618	144	16	748	151	145	127	26	176	112	166
Future Volume (veh/h)	126	618	144	16	748	151	145	127	26	176	112	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	145	710	127	18	860	166	167	146	15	202	129	119
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	787	651	35	1015	196	199	464	385	234	501	417
Arrive On Green	0.10	0.41	0.41	0.02	0.34	0.34	0.11	0.24	0.24	0.13	0.26	0.26
Sat Flow, veh/h	1810	1900	1571	1810	3015	582	1810	1900	1576	1810	1900	1581
Grp Volume(v), veh/h	145	710	127	18	515	511	167	146	15	202	129	119
Grp Sat Flow(s),veh/h/ln	1810	1900	1571	1810	1805	1792	1810	1900	1576	1810	1900	1581
Q Serve(g_s), s	8.1	35.8	5.3	1.0	27.1	27.1	9.3	6.4	0.7	11.2	5.5	6.1
Cycle Q Clear(g_c), s	8.1	35.8	5.3	1.0	27.1	27.1	9.3	6.4	0.7	11.2	5.5	6.1
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	787	651	35	608	603	199	464	385	234	501	417
V/C Ratio(X)	0.82	0.90	0.20	0.51	0.85	0.85	0.84	0.31	0.04	0.86	0.26	0.29
Avail Cap(c_a), veh/h	286	981	811	88	735	730	272	464	385	307	501	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	28.0	19.1	49.7	31.5	31.5	44.7	31.7	29.5	43.7	29.8	30.0
Incr Delay (d2), s/veh	4.2	9.7	0.1	4.1	7.8	7.9	11.8	1.8	0.2	14.4	1.2	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	17.5	1.9	0.5	12.7	12.6	4.7	3.1	0.3	5.8	2.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	37.8	19.2	53.9	39.4	39.4	56.5	33.5	29.7	58.0	31.0	31.7
LnGrp LOS	D	D	B	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h		982			1044			328			450	
Approach Delay, s/veh		37.1			39.6			45.0			43.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	47.5	15.8	32.4	14.6	39.6	17.9	30.4
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	3.0	37.8	11.3	8.1	10.1	29.1	13.2	8.4
Green Ext Time (p_c), s	0.0	4.7	0.1	0.5	0.1	5.3	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	115.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	658	32	76	511	17	41	5	141	25	4	22
Future Vol, veh/h	16	658	32	76	511	17	41	5	141	25	4	22
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	739	36	85	574	19	46	6	158	28	4	25
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	165.6	97.3	15.7	13
HCM LOS	F	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	2%	13%	49%
Vol Thru, %	3%	93%	85%	8%
Vol Right, %	75%	5%	3%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	706	604	51
LT Vol	41	16	76	25
Through Vol	5	658	511	4
RT Vol	141	32	17	22
Lane Flow Rate	210	793	679	57
Geometry Grp	1	1	1	1
Degree of Util (X)	0.403	1.297	1.115	0.125
Departure Headway (Hd)	7.613	6.116	6.35	8.778
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	477	603	577	411
Service Time	5.613	4.116	4.35	6.778
HCM Lane V/C Ratio	0.44	1.315	1.177	0.139
HCM Control Delay	15.7	165.6	97.3	13
HCM Lane LOS	C	F	F	B
HCM 95th-tile Q	1.9	31.1	20	0.4

Intersection	
Intersection Delay, s/veh	95.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	402	287	1	378	8	456	49	13	6	25	81
Future Vol, veh/h	131	402	287	1	378	8	456	49	13	6	25	81
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	138	423	302	1	398	8	480	52	14	6	26	85
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	76.8	63.6	166.3	18.4
HCM LOS	F	F	F	C

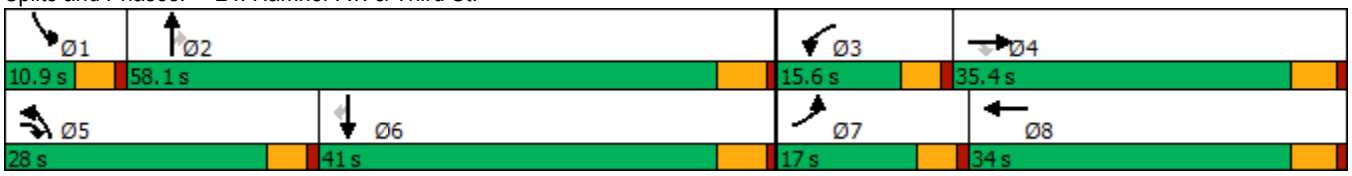
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	90%	0%	39%	0%	0%	5%
Vol Thru, %	10%	0%	61%	41%	98%	22%
Vol Right, %	0%	100%	0%	59%	2%	72%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	13	332	488	387	112
LT Vol	456	0	131	0	1	6
Through Vol	49	0	201	201	378	25
RT Vol	0	13	0	287	8	81
Lane Flow Rate	532	14	349	514	407	118
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.28	0.029	0.813	1.094	0.943	0.312
Departure Headway (Hd)	8.982	7.788	9.23	8.595	9.305	10.631
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	462	395	426	391	341
Service Time	6.682	5.488	6.93	6.295	7.305	8.631
HCM Lane V/C Ratio	1.301	0.03	0.884	1.207	1.041	0.346
HCM Control Delay	170.3	10.7	41.6	100.8	63.6	18.4
HCM Lane LOS	F	B	E	F	F	C
HCM 95th-tile Q	22.6	0.1	7.3	15.8	10.4	1.3

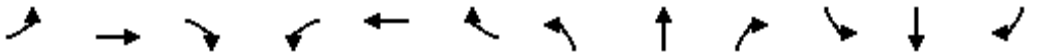
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	148	39	307	77	368	627	1137	61	31	684	552
Future Volume (vph)	148	39	307	77	368	627	1137	61	31	684	552
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	39	307	77	368	38	627	1137	61	31	684	552
Future Volume (veh/h)	148	39	307	77	368	38	627	1137	61	31	684	552
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	41	177	81	387	36	660	1197	42	33	720	466
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	540	772	103	410	38	688	1683	728	50	1076	478
Arrive On Green	0.10	0.28	0.28	0.06	0.24	0.24	0.20	0.47	0.47	0.03	0.30	0.30
Sat Flow, veh/h	1810	1900	1608	1810	1709	159	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	156	41	177	81	0	423	660	1197	42	33	720	466
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	10.1	1.9	7.7	5.3	0.0	26.6	22.2	31.6	1.8	2.2	20.9	34.4
Cycle Q Clear(g_c), s	10.1	1.9	7.7	5.3	0.0	26.6	22.2	31.6	1.8	2.2	20.9	34.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	540	772	103	0	448	688	1683	728	50	1076	478
V/C Ratio(X)	0.85	0.08	0.23	0.79	0.00	0.94	0.96	0.71	0.06	0.65	0.67	0.98
Avail Cap(c_a), veh/h	188	540	772	167	0	452	688	1683	728	95	1076	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	31.3	18.1	55.6	0.0	44.6	47.5	25.5	17.5	57.5	36.8	41.5
Incr Delay (d2), s/veh	27.7	0.1	0.1	4.9	0.0	28.5	24.5	2.6	0.2	5.3	3.3	35.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.9	2.8	2.5	0.0	15.6	11.8	13.5	0.7	1.0	9.5	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	31.3	18.3	60.5	0.0	73.1	72.0	28.0	17.6	62.7	40.1	77.1
LnGrp LOS	F	C	B	E	A	E	E	C	B	E	D	E
Approach Vol, veh/h		374			504			1899			1219	
Approach Delay, s/veh		45.7			71.0			43.1			54.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	61.1	11.4	39.0	28.0	41.0	16.7	33.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	4.2	33.6	7.3	9.7	24.2	36.4	12.1	28.6
Green Ext Time (p_c), s	0.0	8.3	0.0	0.7	0.0	0.0	0.0	0.1

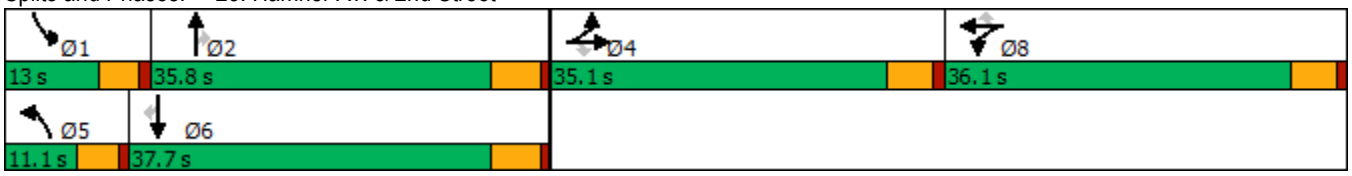
Intersection Summary	
HCM 6th Ctrl Delay	50.5
HCM 6th LOS	D

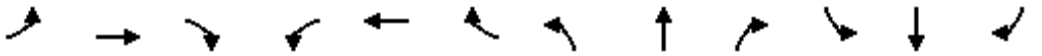
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	493	40	389	409	732	69	904	164	263	676	179
Future Volume (vph)	220	493	40	389	409	732	69	904	164	263	676	179
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	11.1	35.8	35.8	13.0	37.7	37.7
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	9.3%	29.8%	29.8%	10.8%	31.4%	31.4%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	493	40	389	409	732	69	904	164	263	676	179
Future Volume (veh/h)	220	493	40	389	409	732	69	904	164	263	676	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	519	31	280	612	442	73	952	99	277	712	146
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	452	950	397	467	982	410	93	915	404	127	981	436
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.05	0.25	0.25	0.07	0.27	0.27
Sat Flow, veh/h	1810	3800	1589	1810	3800	1588	1810	3610	1595	1810	3610	1605
Grp Volume(v), veh/h	232	519	31	280	612	442	73	952	99	277	712	146
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1588	1810	1805	1595	1810	1805	1605
Q Serve(g_s), s	13.2	14.2	1.8	16.3	17.1	31.0	4.8	30.4	5.9	8.4	21.5	8.7
Cycle Q Clear(g_c), s	13.2	14.2	1.8	16.3	17.1	31.0	4.8	30.4	5.9	8.4	21.5	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	950	397	467	982	410	93	915	404	127	981	436
V/C Ratio(X)	0.51	0.55	0.08	0.60	0.62	1.08	0.78	1.04	0.25	2.19	0.73	0.33
Avail Cap(c_a), veh/h	452	950	397	467	982	410	98	915	404	127	981	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	39.1	34.4	39.0	39.3	44.5	56.2	44.8	35.7	55.8	39.6	35.0
Incr Delay (d2), s/veh	4.1	2.3	0.4	2.1	1.2	66.8	28.5	41.0	0.3	559.1	2.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.9	0.7	7.4	8.0	19.6	2.9	18.4	2.3	23.4	9.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	41.3	34.8	41.2	40.6	111.3	84.7	85.8	36.0	614.9	42.3	35.5
LnGrp LOS	D	D	C	D	D	F	F	F	D	F	D	D
Approach Vol, veh/h		782			1334			1124			1135	
Approach Delay, s/veh		41.5			64.1			81.3			181.2	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	10.8	38.0		36.1				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	6.5	32.3		31.0				
Max Q Clear Time (g_c+I1), s	10.4	32.4		16.2	6.8	23.5		33.0				
Green Ext Time (p_c), s	0.0	0.0		3.5	0.0	3.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		94.9	
HCM 6th LOS		F	

Notes

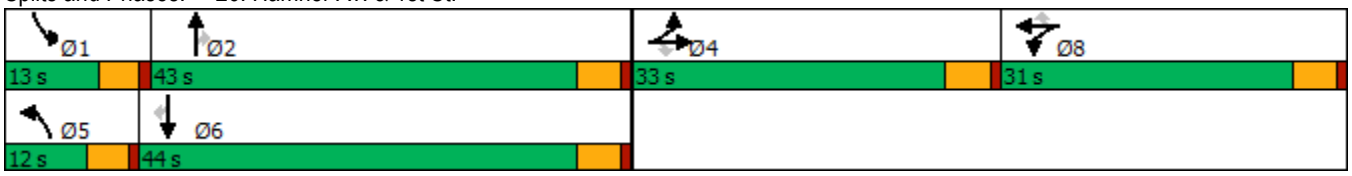
User approved volume balancing among the lanes for turning movement.

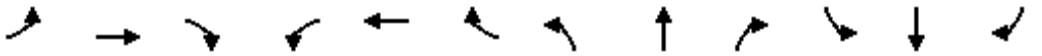
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	353	24	16	16	9	33	841	2	21	603	338
Future Volume (vph)	353	24	16	16	9	33	841	2	21	603	338
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 84.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	24	16	11	16	9	33	841	2	21	603	338
Future Volume (veh/h)	353	24	16	11	16	9	33	841	2	21	603	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	0	8	12	17	1	35	895	2	22	641	270
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	540	0	240	47	67	97	62	1850	806	44	1815	808
Arrive On Green	0.15	0.00	0.15	0.06	0.06	0.06	0.03	0.51	0.51	0.02	0.50	0.50
Sat Flow, veh/h	3619	0	1607	770	1091	1588	1810	3610	1572	1810	3610	1607
Grp Volume(v), veh/h	395	0	8	29	0	1	35	895	2	22	641	270
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1861	0	1588	1810	1805	1572	1810	1805	1607
Q Serve(g_s), s	8.1	0.0	0.3	1.2	0.0	0.0	1.5	12.5	0.0	0.9	8.3	7.8
Cycle Q Clear(g_c), s	8.1	0.0	0.3	1.2	0.0	0.0	1.5	12.5	0.0	0.9	8.3	7.8
Prop In Lane	1.00		1.00	0.41		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	540	0	240	114	0	97	62	1850	806	44	1815	808
V/C Ratio(X)	0.73	0.00	0.03	0.25	0.00	0.01	0.57	0.48	0.00	0.50	0.35	0.33
Avail Cap(c_a), veh/h	1306	0	580	624	0	532	173	1850	806	196	1815	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	28.2	34.7	0.0	34.2	36.9	12.3	9.2	37.4	11.7	11.5
Incr Delay (d2), s/veh	1.9	0.0	0.1	1.2	0.0	0.0	3.0	0.9	0.0	3.2	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.1	0.5	0.0	0.0	0.7	4.5	0.0	0.4	3.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	28.3	35.9	0.0	34.2	39.9	13.2	9.2	40.6	12.2	12.6
LnGrp LOS	C	A	C	D	A	C	D	B	A	D	B	B
Approach Vol, veh/h		403			30			932			933	
Approach Delay, s/veh		33.3			35.8			14.2			13.0	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	44.8		16.6	7.2	44.0		9.8				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	2.9	14.5		10.1	3.5	10.3		3.2				
Green Ext Time (p_c), s	0.0	6.3		1.3	0.0	5.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		17.3	
HCM 6th LOS		B	

Notes

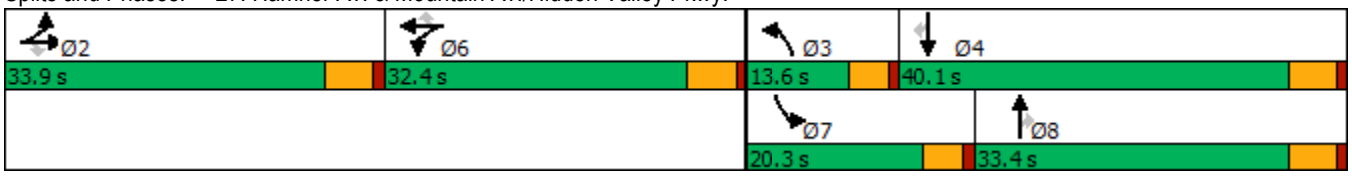
User approved volume balancing among the lanes for turning movement.

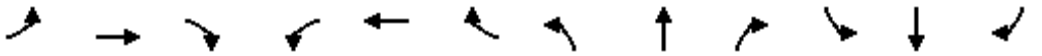
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	275	46	775	551	348	39	560	277	165	457	9
Future Volume (vph)	12	275	46	775	551	348	39	560	277	165	457	9
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.8
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	275	46	775	551	348	39	560	277	165	457	9
Future Volume (veh/h)	12	275	46	775	551	348	39	560	277	165	457	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	293	44	824	586	331	41	596	174	176	486	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	488	974	434	925	486	411	60	753	330	244	883	392
Arrive On Green	0.27	0.27	0.27	0.26	0.26	0.26	0.03	0.21	0.21	0.07	0.24	0.24
Sat Flow, veh/h	1810	3610	1608	3619	1900	1608	1810	3610	1584	3510	3610	1600
Grp Volume(v), veh/h	13	293	44	824	586	331	41	596	174	176	486	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1608	1810	1805	1584	1755	1805	1600
Q Serve(g_s), s	0.6	6.8	2.2	23.2	27.0	20.4	2.4	16.5	10.3	5.2	12.4	0.3
Cycle Q Clear(g_c), s	0.6	6.8	2.2	23.2	27.0	20.4	2.4	16.5	10.3	5.2	12.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	488	974	434	925	486	411	60	753	330	244	883	392
V/C Ratio(X)	0.03	0.30	0.10	0.89	1.21	0.81	0.68	0.79	0.53	0.72	0.55	0.02
Avail Cap(c_a), veh/h	488	974	434	925	486	411	154	957	420	522	1186	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	30.7	29.0	37.9	39.3	36.9	50.5	39.6	37.2	48.2	34.8	30.2
Incr Delay (d2), s/veh	0.1	0.8	0.5	10.8	111.2	11.2	5.0	3.6	1.3	1.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.0	0.9	11.3	27.1	9.0	1.1	7.5	4.0	2.3	5.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	31.5	29.4	48.7	150.5	48.0	55.6	43.2	38.5	49.7	35.4	30.3
LnGrp LOS	C	C	C	D	F	D	E	D	D	D	D	C
Approach Vol, veh/h		350			1741			811			668	
Approach Delay, s/veh		31.1			82.9			42.8			39.1	
Approach LOS		C			F			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	8.1	31.3		32.4	11.9	27.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		8.8	4.4	14.4		29.0	7.2	18.5				
Green Ext Time (p_c), s		1.8	0.0	2.9		0.0	0.2	3.0				

Intersection Summary												
HCM 6th Ctrl Delay			60.5									
HCM 6th LOS			E									

Notes

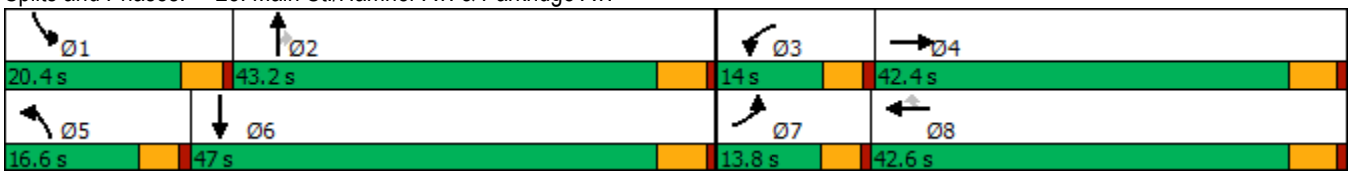
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	122	352	130	364	265	82	546	99	234	741
Future Volume (vph)	122	352	130	364	265	82	546	99	234	741
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	352	41	130	364	265	82	546	99	234	741	229
Future Volume (veh/h)	122	352	41	130	364	265	82	546	99	234	741	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	383	37	141	396	162	89	593	0	254	805	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	861	83	152	497	418	113	1217		255	2155	
Arrive On Green	0.08	0.26	0.26	0.08	0.26	0.26	0.06	0.34	0.00	0.14	0.42	0.00
Sat Flow, veh/h	1810	3313	318	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	133	207	213	141	396	162	89	593	0	254	805	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1825	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	8.2	10.8	10.9	8.7	21.8	9.3	5.4	14.6	0.0	15.7	12.0	0.0
Cycle Q Clear(g_c), s	8.2	10.8	10.9	8.7	21.8	9.3	5.4	14.6	0.0	15.7	12.0	0.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	148	469	474	152	497	418	113	1217		255	2155	
V/C Ratio(X)	0.90	0.44	0.45	0.93	0.80	0.39	0.79	0.49		1.00	0.37	
Avail Cap(c_a), veh/h	148	596	602	152	630	530	194	1217		255	2155	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.0	34.7	34.8	51.0	38.6	34.0	51.8	29.5	0.0	48.1	22.7	0.0
Incr Delay (d2), s/veh	43.7	0.7	0.7	51.8	5.6	0.6	4.5	1.4	0.0	55.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	4.7	4.8	6.0	10.6	3.6	2.6	6.4	0.0	10.8	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.7	35.4	35.4	102.8	44.2	34.6	56.4	30.9	0.0	103.4	23.2	0.0
LnGrp LOS	F	D	D	F	D	C	E	C		F	C	
Approach Vol, veh/h		553			699			682	A		1059	A
Approach Delay, s/veh		49.7			53.8			34.2			42.4	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	43.2	14.0	34.5	11.6	52.0	13.8	34.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	17.7	16.6	10.7	12.9	7.4	14.0	10.2	23.8
Green Ext Time (p_c), s	0.0	3.7	0.0	2.3	0.0	5.7	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	475	277	1177	1	398
Future Volume (vph)	475	277	1177	1	398
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	475	527	277	1177	0	0	0	0	63	1	398
Future Volume (veh/h)	0	475	527	277	1177	0	0	0	0	63	1	398
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	495	481	289	1226	0				66	1	384
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	814	699	318	2397	0				452	7	408
Arrive On Green	0.00	0.45	0.45	0.18	0.66	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	1900	1552	1810	3705	0				1784	27	1610
Grp Volume(v), veh/h	0	495	481	289	1226	0				67	0	384
Grp Sat Flow(s),veh/h/ln	0	1805	1552	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	24.9	29.6	18.8	20.7	0.0				3.4	0.0	28.1
Cycle Q Clear(g_c), s	0.0	24.9	29.6	18.8	20.7	0.0				3.4	0.0	28.1
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	814	699	318	2397	0				459	0	408
V/C Ratio(X)	0.00	0.61	0.69	0.91	0.51	0.00				0.15	0.00	0.94
Avail Cap(c_a), veh/h	0	814	699	445	2397	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.71	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.9	26.2	48.5	10.3	0.0				34.7	0.0	43.9
Incr Delay (d2), s/veh	0.0	0.3	0.5	11.2	0.6	0.0				0.1	0.0	25.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.5	10.7	9.4	7.7	0.0				1.5	0.0	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.3	26.7	59.7	10.8	0.0				34.8	0.0	69.6
LnGrp LOS	A	C	C	E	B	A				C	A	E
Approach Vol, veh/h		976			1515						451	
Approach Delay, s/veh		26.0			20.1						64.4	
Approach LOS		C			C						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.6	58.7		35.7		84.3
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	20.8	31.6		30.1		22.7
Green Ext Time (p_c), s	0.3	3.4		0.4		7.2

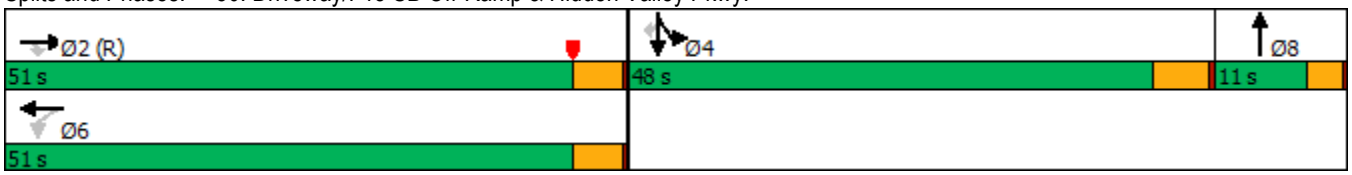
Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	738	24	80	946	0	224	70	730
Future Volume (vph)	738	24	80	946	0	224	70	730
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	51.0	51.0	51.0	51.0	11.0	48.0	48.0	48.0
Total Split (%)	46.4%	46.4%	46.4%	46.4%	10.0%	43.6%	43.6%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	738	24	80	946	0	0	0	82	224	70	730
Future Volume (veh/h)	0	738	24	80	946	0	0	0	82	224	70	730
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	777	17	84	996	0	0	0	42	182	0	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1657	739	281	1657	0	0	0	52	707	0	1259
Arrive On Green	0.00	0.46	0.46	0.92	0.92	0.00	0.00	0.00	0.03	0.39	0.00	0.39
Sat Flow, veh/h	0	3705	1610	694	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	777	17	84	996	0	0	0	42	182	0	768
Grp Sat Flow(s),veh/h/ln	0	1805	1610	694	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	16.3	0.6	6.7	5.6	0.0	0.0	0.0	2.9	7.5	0.0	21.0
Cycle Q Clear(g_c), s	0.0	16.3	0.6	23.0	5.6	0.0	0.0	0.0	2.9	7.5	0.0	21.0
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1657	739	281	1657	0	0	0	52	707	0	1259
V/C Ratio(X)	0.00	0.47	0.02	0.30	0.60	0.00	0.00	0.00	0.82	0.26	0.00	0.61
Avail Cap(c_a), veh/h	0	1657	739	281	1657	0	0	0	110	707	0	1259
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.90	0.90	0.96	0.96	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.5	16.3	7.5	2.7	0.0	0.0	0.0	52.9	22.7	0.0	26.8
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.2	0.4	0.0	0.0	0.0	10.9	0.9	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	0.2	0.6	1.1	0.0	0.0	0.0	1.3	3.2	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.4	16.3	7.7	3.1	0.0	0.0	0.0	63.8	23.6	0.0	29.0
LnGrp LOS	A	C	B	A	A	A	A	A	E	C	A	C
Approach Vol, veh/h		794			1080			42			950	
Approach Delay, s/veh		21.3			3.4			63.8			28.0	
Approach LOS		C			A			E			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		48.0		55.0		7.0				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		46.5		43.0		46.5		7.5				
Max Q Clear Time (g_c+I1), s		18.3		23.0		25.0		4.9				
Green Ext Time (p_c), s		3.5		2.8		5.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		17.4
HCM 6th LOS		B

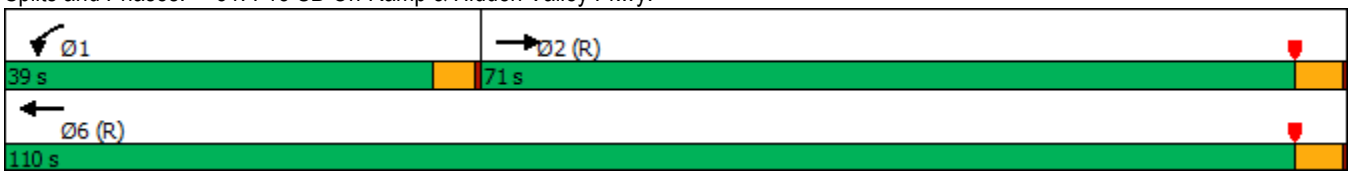
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	685	204	1025
Future Volume (vph)	685	204	1025
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	71.0	39.0	110.0
Total Split (%)	64.5%	35.5%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	685	359	204	1025	0	0
Future Volume (veh/h)	685	359	204	1025	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	745	388	222	1114		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1389	721	576	3462		
Arrive On Green	0.80	0.80	0.64	1.00		
Sat Flow, veh/h	2392	1193	1810	3705		
Grp Volume(v), veh/h	585	548	222	1114		
Grp Sat Flow(s),veh/h/ln	1805	1685	1810	1805		
Q Serve(g_s), s	12.3	12.3	6.5	0.0		
Cycle Q Clear(g_c), s	12.3	12.3	6.5	0.0		
Prop In Lane		0.71	1.00			
Lane Grp Cap(c), veh/h	1091	1019	576	3462		
V/C Ratio(X)	0.54	0.54	0.39	0.32		
Avail Cap(c_a), veh/h	1091	1019	576	3462		
HCM Platoon Ratio	1.33	1.33	2.00	2.00		
Upstream Filter(I)	0.90	0.90	0.78	0.78		
Uniform Delay (d), s/veh	5.5	5.5	14.8	0.0		
Incr Delay (d2), s/veh	1.7	1.8	1.5	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.5	3.3	2.5	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.2	7.3	16.3	0.2		
LnGrp LOS	A	A	B	A		
Approach Vol, veh/h	1133			1336		
Approach Delay, s/veh	7.2			2.9		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	39.0	71.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	35.0	66.5				105.5
Max Q Clear Time (g_c+I1), s	8.5	14.3				2.0
Green Ext Time (p_c), s	0.6	5.3				5.9

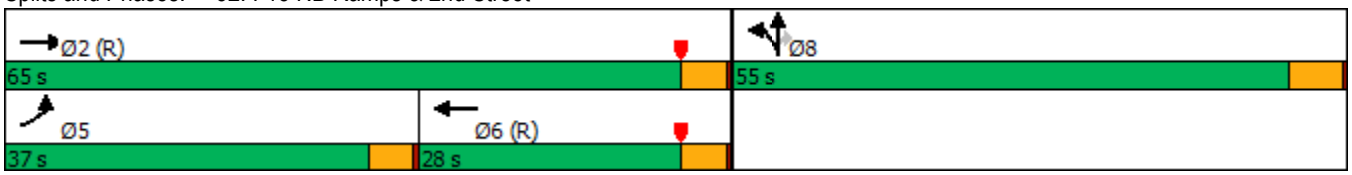
Intersection Summary						
HCM 6th Ctrl Delay			4.9			
HCM 6th LOS			A			

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	164	374	628	9	621
Future Volume (vph)	164	374	628	9	621
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	65.0	28.0	55.0	55.0
Total Split (%)	30.8%	54.2%	23.3%	45.8%	45.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	374	0	0	628	80	825	9	621	0	0	0
Future Volume (veh/h)	164	374	0	0	628	80	825	9	621	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	176	402	0	0	675	75	887	10	522			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	1817	0	0	1144	127	741	8	667			
Arrive On Green	0.04	0.17	0.00	0.00	0.35	0.35	0.41	0.41	0.41			
Sat Flow, veh/h	1810	3705	0	0	3361	363	1790	20	1610			
Grp Volume(v), veh/h	176	402	0	0	373	377	897	0	522			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1824	1810	0	1610			
Q Serve(g_s), s	11.6	11.6	0.0	0.0	20.3	20.3	49.7	0.0	33.7			
Cycle Q Clear(g_c), s	11.6	11.6	0.0	0.0	20.3	20.3	49.7	0.0	33.7			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	209	1817	0	0	632	639	750	0	667			
V/C Ratio(X)	0.84	0.22	0.00	0.00	0.59	0.59	1.20	0.00	0.78			
Avail Cap(c_a), veh/h	490	1817	0	0	632	639	750	0	667			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.6	29.7	0.0	0.0	31.9	31.9	35.2	0.0	30.5			
Incr Delay (d2), s/veh	4.8	0.2	0.0	0.0	4.0	4.0	101.1	0.0	5.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.9	5.6	0.0	0.0	9.4	9.5	41.5	0.0	13.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	29.9	0.0	0.0	35.9	35.9	136.2	0.0	36.3			
LnGrp LOS	E	C	A	A	D	D	F	A	D			
Approach Vol, veh/h		578			750			1419				
Approach Delay, s/veh		39.5			35.9			99.5				
Approach LOS		D			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			18.4	46.6		55.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		60.4			32.5	23.4		49.7				
Max Q Clear Time (g_c+I1), s		13.6			13.6	22.3		51.7				
Green Ext Time (p_c), s		1.8			0.3	0.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			69.5									
HCM 6th LOS			E									

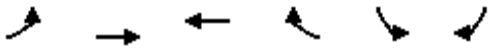
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	210	474	1230	538
Future Volume (vph)	210	474	1230	538
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	34.0	110.0	76.0	76.0
Total Split (%)	30.9%	100.0%	69.1%	69.1%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	210	474	1230	538	0	0
Future Volume (veh/h)	210	474	1230	538	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	236	533	1382	580		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	494	3462	2346	1024		
Arrive On Green	0.55	1.00	0.65	0.65		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	236	533	1382	580		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	8.8	0.0	23.9	22.4		
Cycle Q Clear(g_c), s	8.8	0.0	23.9	22.4		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	494	3462	2347	1024		
V/C Ratio(X)	0.48	0.15	0.59	0.57		
Avail Cap(c_a), veh/h	494	3462	2347	1024		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.83	0.83	0.48	0.48		
Uniform Delay (d), s/veh	20.2	0.0	10.9	10.7		
Incr Delay (d2), s/veh	2.7	0.1	0.5	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.4	0.0	8.4	7.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.9	0.1	11.4	11.8		
LnGrp LOS	C	A	B	B		
Approach Vol, veh/h		769	1962			
Approach Delay, s/veh		7.1	11.5			
Approach LOS		A	B			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		110.0			34.0	76.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		105.5			30.0	71.5
Max Q Clear Time (g_c+I1), s		2.0			10.8	25.9
Green Ext Time (p_c), s		2.3			0.3	10.2

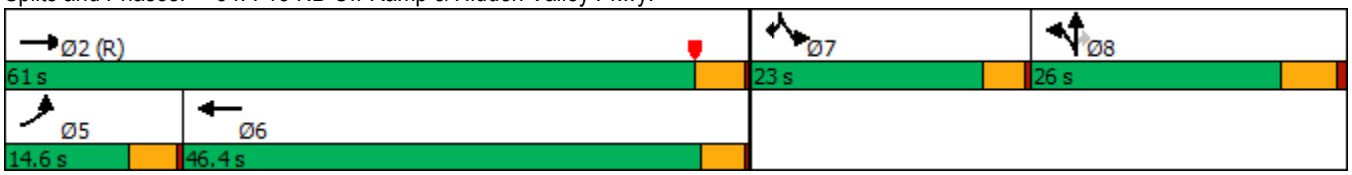
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			

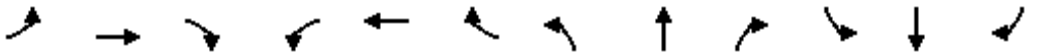
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	75	400	1079	513	83	163	37	176
Future Volume (vph)	75	400	1079	513	83	163	37	176
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	61.0	46.4	26.0	26.0	26.0	23.0	23.0
Total Split (%)	13.3%	55.5%	42.2%	23.6%	23.6%	23.6%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	400	0	0	1079	32	513	83	163	37	0	176
Future Volume (veh/h)	75	400	0	0	1079	32	513	83	163	37	0	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	82	435	0	0	1173	32	558	90	72	40	0	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	2609	0	0	2148	59	654	354	300	0	0	0
Arrive On Green	0.03	0.24	0.00	0.00	0.60	0.60	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3684	98	3510	1900	1610		0	
Grp Volume(v), veh/h	82	435	0	0	590	615	558	90	72		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1882	1755	1900	1610			
Q Serve(g_s), s	4.9	10.5	0.0	0.0	21.4	21.5	16.9	4.5	4.2			
Cycle Q Clear(g_c), s	4.9	10.5	0.0	0.0	21.4	21.5	16.9	4.5	4.2			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		1.00			
Lane Grp Cap(c), veh/h	151	2609	0	0	1080	1126	654	354	300			
V/C Ratio(X)	0.54	0.17	0.00	0.00	0.55	0.55	0.85	0.25	0.24			
Avail Cap(c_a), veh/h	166	2609	0	0	1080	1126	654	354	300			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.4	15.6	0.0	0.0	13.2	13.2	43.3	38.2	38.1			
Incr Delay (d2), s/veh	2.2	0.1	0.0	0.0	2.0	1.9	13.3	1.7	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	4.6	0.0	0.0	8.2	8.6	8.3	2.2	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	15.8	0.0	0.0	15.2	15.1	56.6	39.9	40.0			
LnGrp LOS	D	B	A	A	B	B	E	D	D			
Approach Vol, veh/h		517			1205			720				
Approach Delay, s/veh		21.8			15.1			52.8				
Approach LOS		C			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			13.7	70.3		26.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.5			10.1	* 42		20.5				
Max Q Clear Time (g_c+I1), s		12.5			6.9	23.5		18.9				
Green Ext Time (p_c), s		1.8			0.0	4.5		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

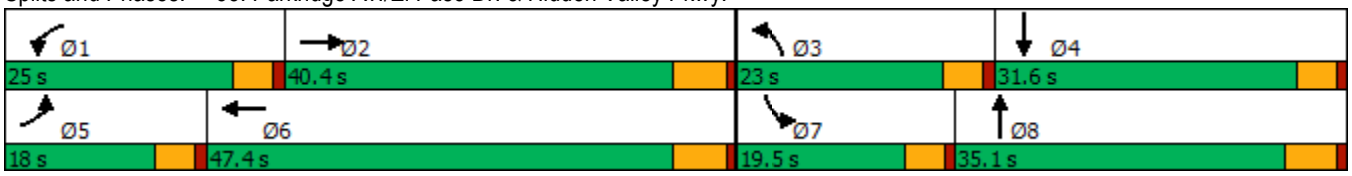
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

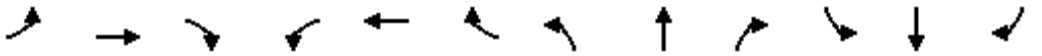
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	328	159	798	179	185	101	157
Future Volume (vph)	116	328	159	798	179	185	101	157
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	40.4	25.0	47.4	23.0	35.1	19.5	31.6
Total Split (%)	15.0%	33.7%	20.8%	39.5%	19.2%	29.3%	16.3%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	328	73	159	798	146	179	185	201	101	157	66
Future Volume (veh/h)	116	328	73	159	798	146	179	185	201	101	157	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	390	58	189	950	118	213	220	175	120	187	62
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	1275	188	224	1402	174	248	334	252	151	316	101
Arrive On Green	0.09	0.40	0.40	0.12	0.43	0.43	0.14	0.17	0.17	0.08	0.12	0.12
Sat Flow, veh/h	1810	3155	466	1810	3231	401	1810	1942	1466	1810	2673	856
Grp Volume(v), veh/h	138	222	226	189	531	537	213	204	191	120	124	125
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1828	1810	1805	1604	1810	1805	1724
Q Serve(g_s), s	7.2	8.0	8.1	9.8	22.6	22.6	11.0	10.1	10.8	6.2	6.2	6.6
Cycle Q Clear(g_c), s	7.2	8.0	8.1	9.8	22.6	22.6	11.0	10.1	10.8	6.2	6.2	6.6
Prop In Lane	1.00		0.26	1.00		0.22	1.00		0.91	1.00		0.50
Lane Grp Cap(c), veh/h	170	729	734	224	783	793	248	310	276	151	213	204
V/C Ratio(X)	0.81	0.30	0.31	0.84	0.68	0.68	0.86	0.66	0.69	0.80	0.58	0.61
Avail Cap(c_a), veh/h	253	729	734	385	783	793	347	552	490	281	508	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	19.4	19.4	41.1	21.7	21.7	40.5	37.0	37.3	43.1	40.0	40.2
Incr Delay (d2), s/veh	7.0	1.1	1.1	3.3	4.7	4.6	10.9	2.4	3.1	3.6	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.3	3.4	4.4	9.7	9.8	5.4	4.4	4.3	2.9	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	20.5	20.5	44.4	26.4	26.4	51.4	39.4	40.4	46.8	42.5	43.1
LnGrp LOS	D	C	C	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h		586			1257			608			369	
Approach Delay, s/veh		27.4			29.1			43.9			44.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	44.5	17.7	17.1	13.6	47.4	12.6	22.3
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	34.6	18.4	* 27	13.4	41.6	14.9	29.3
Max Q Clear Time (g_c+I1), s	11.8	10.1	13.0	8.6	9.2	24.6	8.2	12.8
Green Ext Time (p_c), s	0.2	2.4	0.1	1.4	0.1	6.0	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

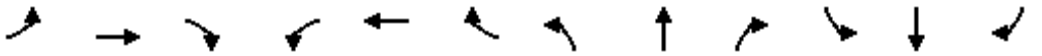
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	117	44	117	44	250	843	87	1044	292
Future Volume (vph)	367	136	117	44	117	44	250	843	87	1044	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	117	44	117	44	250	843	76	87	1044	292
Future Volume (veh/h)	367	136	117	44	117	44	250	843	76	87	1044	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	77	44	118	28	253	852	66	88	1055	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	310	488	63	184	156	253	1845	143	113	1686	898
Arrive On Green	0.10	0.16	0.16	0.03	0.10	0.10	0.14	0.54	0.54	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3389	262	1810	3610	1575
Grp Volume(v), veh/h	371	137	77	44	118	28	253	454	464	88	1055	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1846	1810	1805	1575
Q Serve(g_s), s	10.4	6.7	3.6	2.5	6.2	1.6	14.4	15.8	15.8	4.9	22.7	6.4
Cycle Q Clear(g_c), s	10.4	6.7	3.6	2.5	6.2	1.6	14.4	15.8	15.8	4.9	22.7	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	354	310	488	63	184	156	253	983	1005	113	1686	898
V/C Ratio(X)	1.05	0.44	0.16	0.70	0.64	0.18	1.00	0.46	0.46	0.78	0.63	0.22
Avail Cap(c_a), veh/h	354	533	677	149	498	422	253	983	1005	206	1686	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	38.9	26.3	49.2	44.8	42.7	44.3	14.3	14.3	47.6	20.7	11.0
Incr Delay (d2), s/veh	60.5	1.0	0.1	5.2	3.7	0.5	56.6	1.6	1.5	4.4	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	3.2	1.4	1.2	3.0	0.7	10.2	6.2	6.3	2.3	9.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.8	39.8	26.4	54.3	48.4	43.3	100.9	15.8	15.8	52.0	22.4	11.6
LnGrp LOS	F	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		585			190			1171			1341	
Approach Delay, s/veh		80.6			49.0			34.2			22.8	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	61.9	8.2	21.9	19.0	53.9	15.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	17.8	4.5	8.7	16.4	24.7	12.4	8.2
Green Ext Time (p_c), s	0.0	6.0	0.0	0.9	0.0	8.2	0.0	0.6

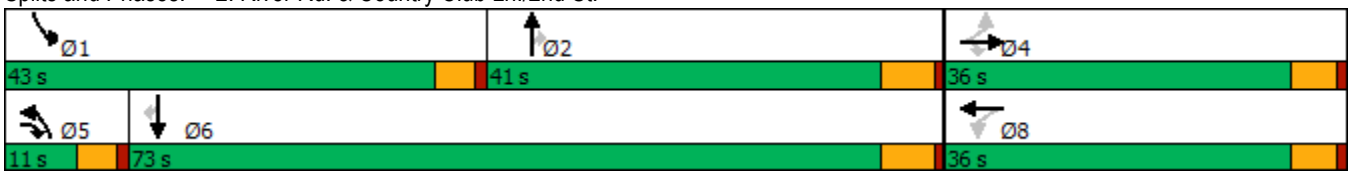
Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

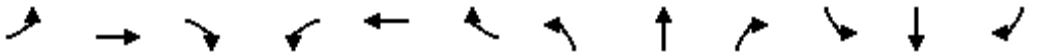
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	62	52	70	88	48	794	81	307	871	38
Future Volume (vph)	25	62	52	70	88	48	794	81	307	871	38
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.1
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	62	52	70	88	273	48	794	81	307	871	38
Future Volume (veh/h)	25	62	52	70	88	273	48	794	81	307	871	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	65	30	74	93	198	51	836	53	323	917	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	412	407	314	115	245	66	1614	720	355	2191	957
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.45	0.45	0.20	0.61	0.61
Sat Flow, veh/h	1099	1900	1608	1320	530	1129	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	26	65	30	74	0	291	51	836	53	323	917	35
Grp Sat Flow(s),veh/h/ln	1099	1900	1608	1320	0	1659	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	2.5	3.1	1.6	5.3	0.0	18.4	3.1	18.5	2.1	19.3	14.8	1.0
Cycle Q Clear(g_c), s	21.0	3.1	1.6	8.4	0.0	18.4	3.1	18.5	2.1	19.3	14.8	1.0
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	412	407	314	0	359	66	1614	720	355	2191	957
V/C Ratio(X)	0.22	0.16	0.07	0.24	0.00	0.81	0.77	0.52	0.07	0.91	0.42	0.04
Avail Cap(c_a), veh/h	189	530	507	397	0	463	105	1614	720	628	2191	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	35.2	31.5	38.6	0.0	41.2	52.9	22.0	17.5	43.5	11.5	8.8
Incr Delay (d2), s/veh	0.9	0.2	0.1	0.4	0.0	8.1	7.0	1.2	0.2	4.9	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.6	1.7	0.0	8.2	1.5	7.6	0.8	8.8	5.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	35.4	31.5	39.0	0.0	49.3	59.9	23.2	17.7	48.4	12.1	8.8
LnGrp LOS	D	D	C	D	A	D	E	C	B	D	B	A
Approach Vol, veh/h		121			365			940			1275	
Approach Delay, s/veh		38.0			47.2			24.9			21.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.3	55.3		29.1	8.6	73.0		29.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	21.3	20.5		23.0	5.1	16.8		20.4				
Green Ext Time (p_c), s	0.4	4.8		0.2	0.0	7.2		1.4				

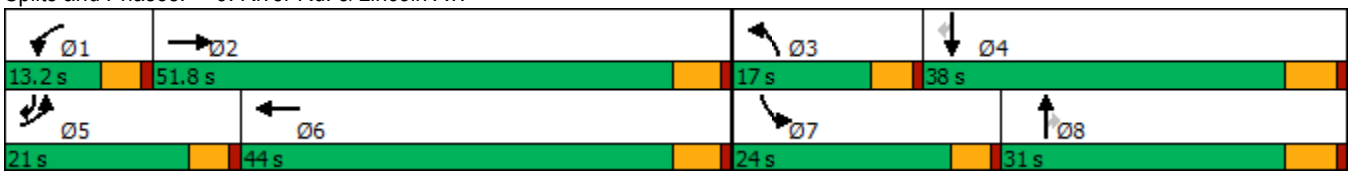
Intersection Summary			
HCM 6th Ctrl Delay		26.7	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	314	710	38	418	64	455	43	196	459	282
Future Volume (vph)	314	710	38	418	64	455	43	196	459	282
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	710	114	38	418	190	64	455	43	196	459	282
Future Volume (veh/h)	314	710	114	38	418	190	64	455	43	196	459	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	327	740	92	40	435	153	67	474	26	204	478	195
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	400	1494	186	60	1005	350	87	614	270	237	914	582
Arrive On Green	0.11	0.46	0.46	0.03	0.38	0.38	0.05	0.17	0.17	0.13	0.25	0.25
Sat Flow, veh/h	3510	3226	401	1810	2625	915	1810	3610	1586	1810	3610	1575
Grp Volume(v), veh/h	327	414	418	40	298	290	67	474	26	204	478	195
Grp Sat Flow(s),veh/h/ln	1755	1805	1822	1810	1805	1735	1810	1805	1586	1810	1805	1575
Q Serve(g_s), s	9.2	16.1	16.1	2.2	12.3	12.5	3.7	12.7	1.4	11.1	11.5	9.0
Cycle Q Clear(g_c), s	9.2	16.1	16.1	2.2	12.3	12.5	3.7	12.7	1.4	11.1	11.5	9.0
Prop In Lane	1.00		0.22	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	836	844	60	691	664	87	614	270	237	914	582
V/C Ratio(X)	0.82	0.50	0.50	0.66	0.43	0.44	0.77	0.77	0.10	0.86	0.52	0.33
Avail Cap(c_a), veh/h	571	836	844	154	691	664	222	902	396	348	1152	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	18.9	18.9	48.2	23.0	23.1	47.5	40.0	35.3	42.9	32.4	23.1
Incr Delay (d2), s/veh	4.1	2.1	2.1	4.5	2.0	2.1	5.3	2.5	0.2	9.6	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.8	6.8	1.0	5.4	5.3	1.7	5.6	0.5	5.4	4.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	21.0	20.9	52.7	25.0	25.2	52.8	42.5	35.5	52.5	32.9	23.4
LnGrp LOS	D	C	C	D	C	C	D	D	D	D	C	C
Approach Vol, veh/h		1159			628			567			877	
Approach Delay, s/veh		28.5			26.8			43.4			35.3	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	52.1	9.4	31.3	16.1	44.0	17.8	23.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	4.2	18.1	5.7	13.5	11.2	14.5	13.1	14.7
Green Ext Time (p_c), s	0.0	5.4	0.0	3.4	0.3	3.5	0.1	2.1

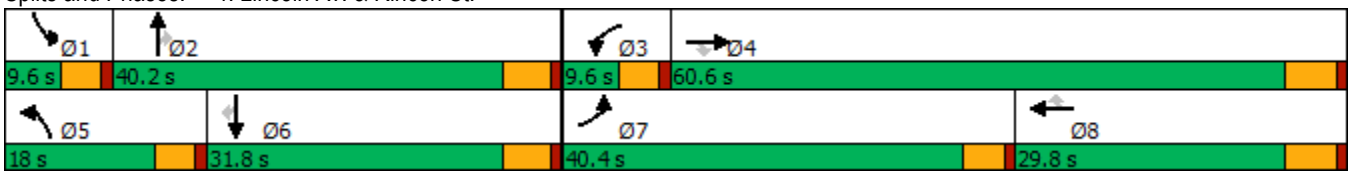
Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	381	2	245	8	11	133	859	2	2	645	99
Future Volume (vph)	381	2	245	8	11	133	859	2	2	645	99
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 83.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	2	245	8	0	11	133	859	2	2	645	99
Future Volume (veh/h)	381	2	245	8	0	11	133	859	2	2	645	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	2	169	8	0	4	139	895	1	2	672	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	438	658	558	18	218	185	173	1458	650	5	1122	501
Arrive On Green	0.24	0.35	0.35	0.01	0.00	0.11	0.10	0.40	0.40	0.00	0.31	0.31
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	397	2	169	8	0	4	139	895	1	2	672	83
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	18.4	0.1	6.6	0.4	0.0	0.2	6.5	16.9	0.0	0.1	13.6	3.2
Cycle Q Clear(g_c), s	18.4	0.1	6.6	0.4	0.0	0.2	6.5	16.9	0.0	0.1	13.6	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	438	658	558	18	218	185	173	1458	650	5	1122	501
V/C Ratio(X)	0.91	0.00	0.30	0.44	0.00	0.02	0.80	0.61	0.00	0.41	0.60	0.17
Avail Cap(c_a), veh/h	752	1208	1024	105	529	449	281	1458	650	105	1122	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	18.4	20.6	42.4	0.0	33.9	38.2	20.4	15.3	42.9	25.1	21.6
Incr Delay (d2), s/veh	4.7	0.0	0.3	6.0	0.0	0.0	3.3	1.9	0.0	18.9	2.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	2.3	0.2	0.0	0.1	2.9	6.9	0.0	0.1	5.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	18.4	20.9	48.4	0.0	33.9	41.4	22.3	15.3	61.8	27.5	22.3
LnGrp LOS	D	B	C	D	A	C	D	C	B	E	C	C
Approach Vol, veh/h		568			12			1035			757	
Approach Delay, s/veh		31.7			43.6			24.9			27.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	40.2	5.5	35.7	12.8	32.2	25.4	15.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.1	18.9	2.4	8.6	8.5	15.6	20.4	2.2
Green Ext Time (p_c), s	0.0	5.3	0.0	0.6	0.1	3.4	0.5	0.0

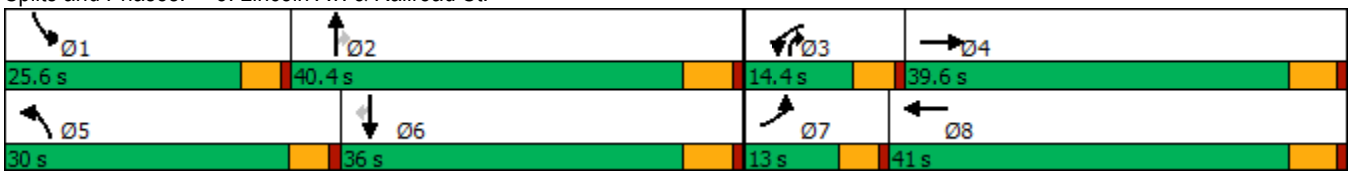
Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

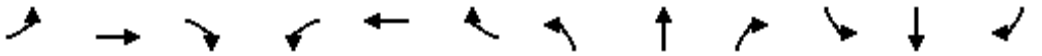
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	149	490	97	89	93	727	88	127	727	44
Future Volume (vph)	149	490	97	89	93	727	88	127	727	44
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	490	196	97	89	118	93	727	88	127	727	44
Future Volume (veh/h)	149	490	196	97	89	118	93	727	88	127	727	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	527	171	104	96	87	100	782	62	137	782	47
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	162	658	212	132	432	355	129	1348	717	170	1431	636
Arrive On Green	0.09	0.25	0.25	0.07	0.23	0.23	0.07	0.37	0.37	0.09	0.40	0.40
Sat Flow, veh/h	1810	2672	863	1810	1880	1545	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	160	355	343	104	92	91	100	782	62	137	782	47
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1620	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	8.3	17.3	17.5	5.3	3.9	4.3	5.1	16.2	2.1	7.0	15.6	1.7
Cycle Q Clear(g_c), s	8.3	17.3	17.5	5.3	3.9	4.3	5.1	16.2	2.1	7.0	15.6	1.7
Prop In Lane	1.00		0.50	1.00		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	444	426	132	414	372	129	1348	717	170	1431	636
V/C Ratio(X)	0.99	0.80	0.80	0.79	0.22	0.25	0.78	0.58	0.09	0.80	0.55	0.07
Avail Cap(c_a), veh/h	162	659	631	189	685	615	490	1348	717	405	1431	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	33.2	33.2	42.7	29.3	29.5	42.8	23.5	14.9	41.6	21.8	17.6
Incr Delay (d2), s/veh	66.4	4.3	4.7	8.0	0.3	0.3	3.8	1.8	0.2	3.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.7	7.5	2.6	1.6	1.6	2.3	6.8	0.8	3.2	6.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.0	37.4	37.9	50.8	29.6	29.8	46.6	25.3	15.2	45.0	23.3	17.8
LnGrp LOS	F	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		858			287			944			966	
Approach Delay, s/veh		51.0			37.3			26.9			26.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	40.4	11.4	28.5	11.3	42.6	13.0	26.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	9.0	18.2	7.3	19.5	7.1	17.6	10.3	6.3
Green Ext Time (p_c), s	0.1	4.9	0.0	3.6	0.1	4.3	0.0	1.0

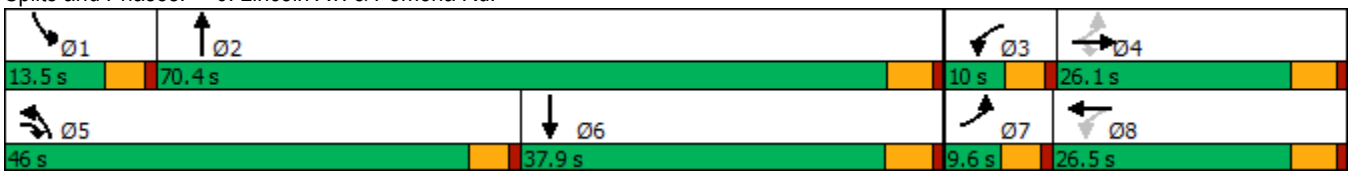
Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	74	36	211	140	22	89	849	56	997
Future Volume (vph)	74	36	211	140	22	89	849	56	997
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	36	211	140	22	27	89	849	94	56	997	37
Future Volume (veh/h)	74	36	211	140	22	27	89	849	94	56	997	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	38	163	146	23	23	93	884	84	58	1039	38
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	226	294	278	107	107	119	2016	192	75	2067	76
Arrive On Green	0.05	0.12	0.12	0.05	0.12	0.12	0.07	0.61	0.61	0.04	0.58	0.58
Sat Flow, veh/h	1810	1900	1580	1810	872	872	1810	3324	316	1810	3551	130
Grp Volume(v), veh/h	77	38	163	146	0	46	93	480	488	58	528	549
Grp Sat Flow(s),veh/h/ln	1810	1900	1580	1810	0	1743	1810	1805	1835	1810	1805	1876
Q Serve(g_s), s	4.0	1.9	10.1	5.4	0.0	2.6	5.4	15.3	15.3	3.4	18.6	18.6
Cycle Q Clear(g_c), s	4.0	1.9	10.1	5.4	0.0	2.6	5.4	15.3	15.3	3.4	18.6	18.6
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	287	226	294	278	0	214	119	1095	1113	75	1051	1092
V/C Ratio(X)	0.27	0.17	0.55	0.52	0.00	0.22	0.78	0.44	0.44	0.77	0.50	0.50
Avail Cap(c_a), veh/h	287	371	414	278	0	346	696	1095	1113	150	1051	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	42.7	39.9	41.2	0.0	42.6	49.5	11.4	11.4	51.1	13.3	13.3
Incr Delay (d2), s/veh	0.2	0.3	1.6	0.9	0.0	0.5	4.1	1.3	1.3	6.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.9	4.0	3.6	0.0	1.1	2.6	6.1	6.1	1.6	7.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	43.0	41.5	42.1	0.0	43.1	53.6	12.6	12.6	57.2	15.0	14.9
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	B	B
Approach Vol, veh/h		278			192			1061			1135	
Approach Delay, s/veh		41.1			42.3			16.2			17.1	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	70.7	10.0	17.9	11.7	68.1	9.6	18.3
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.4	17.3	7.4	12.1	7.4	20.6	6.0	4.6
Green Ext Time (p_c), s	0.0	7.4	0.0	0.4	0.1	5.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

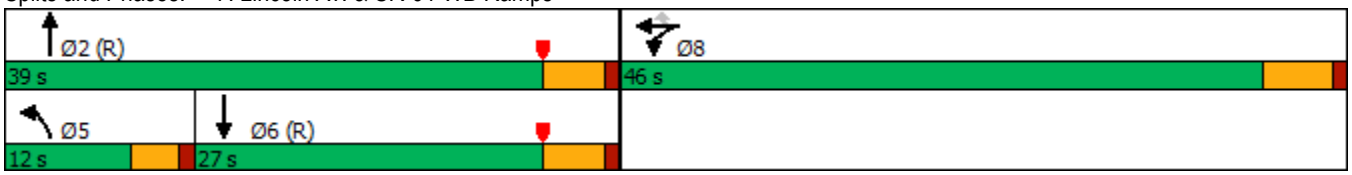
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

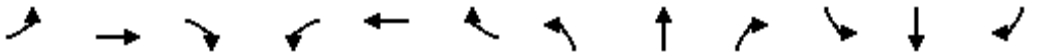
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	656	2	326	242	705	974
Future Volume (vph)	656	2	326	242	705	974
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	46.0	46.0	46.0	12.0	39.0	27.0
Total Split (%)	54.1%	54.1%	54.1%	14.1%	45.9%	31.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	656	2	326	242	705	0	0	974	398
Future Volume (veh/h)	0	0	0	656	2	326	242	705	0	0	974	398
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				670	0	213	247	719	0	0	994	406
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				798	0	355	327	2368	0	0	1294	521
Arrive On Green				0.22	0.00	0.22	0.03	0.22	0.00	0.00	0.52	0.52
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2603	1011
Grp Volume(v), veh/h				670	0	213	247	719	0	0	711	689
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1714
Q Serve(g_s), s				15.1	0.0	10.1	5.9	14.2	0.0	0.0	26.8	27.6
Cycle Q Clear(g_c), s				15.1	0.0	10.1	5.9	14.2	0.0	0.0	26.8	27.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.59
Lane Grp Cap(c), veh/h				798	0	355	327	2368	0	0	931	884
V/C Ratio(X)				0.84	0.00	0.60	0.76	0.30	0.00	0.00	0.76	0.78
Avail Cap(c_a), veh/h				1724	0	767	330	2368	0	0	931	884
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.81	0.81
Uniform Delay (d), s/veh				31.7	0.0	29.8	40.2	17.0	0.0	0.0	16.4	16.6
Incr Delay (d2), s/veh				0.9	0.0	0.6	6.9	0.3	0.0	0.0	4.8	5.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	3.8	2.9	6.8	0.0	0.0	11.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.6	0.0	30.4	47.1	17.3	0.0	0.0	21.3	22.2
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					883			966			1400	
Approach Delay, s/veh					32.1			24.9			21.7	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	60.8		11.9	48.8		24.2						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		40.5						
Max Q Clear Time (g_c+I1), s	16.2		7.9	29.6		17.1						
Green Ext Time (p_c), s	3.1		0.0	0.0		1.7						

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

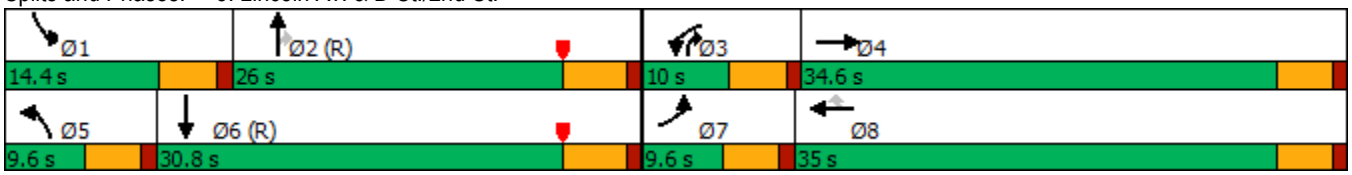
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	68	171	205	57	388	72	492	323	436	1030
Future Volume (vph)	68	171	205	57	388	72	492	323	436	1030
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	171	39	205	57	388	72	492	323	436	1030	137
Future Volume (veh/h)	68	171	39	205	57	388	72	492	323	436	1030	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	176	34	211	59	226	74	507	170	449	1062	136
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	275	53	223	366	309	96	1516	774	405	1551	198
Arrive On Green	0.05	0.18	0.18	0.06	0.19	0.19	0.05	0.42	0.42	0.04	0.16	0.16
Sat Flow, veh/h	1810	1538	297	3510	1900	1605	1810	3610	1599	3510	3216	411
Grp Volume(v), veh/h	70	0	210	211	59	226	74	507	170	449	596	602
Grp Sat Flow(s),veh/h/ln	1810	0	1835	1755	1900	1605	1810	1805	1599	1755	1805	1822
Q Serve(g_s), s	3.2	0.0	9.0	5.1	2.2	11.2	3.4	8.1	5.2	9.8	26.5	26.5
Cycle Q Clear(g_c), s	3.2	0.0	9.0	5.1	2.2	11.2	3.4	8.1	5.2	9.8	26.5	26.5
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	90	0	328	223	366	309	96	1516	774	405	871	879
V/C Ratio(X)	0.77	0.00	0.64	0.95	0.16	0.73	0.77	0.33	0.22	1.11	0.68	0.69
Avail Cap(c_a), veh/h	106	0	648	223	680	574	106	1516	774	405	871	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	0.35	0.35	0.35
Uniform Delay (d), s/veh	39.9	0.0	32.4	39.7	28.6	32.3	39.8	16.6	12.7	40.9	29.6	29.6
Incr Delay (d2), s/veh	21.0	0.0	2.1	42.9	0.2	3.1	23.2	0.6	0.7	61.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	4.2	3.5	1.0	4.6	2.1	3.3	1.9	7.9	13.0	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	0.0	34.4	82.5	28.8	35.4	62.9	17.2	13.3	102.7	31.2	31.2
LnGrp LOS	E	A	C	F	C	D	E	B	B	F	C	C
Approach Vol, veh/h		280			496			751			1647	
Approach Delay, s/veh		41.1			54.6			20.9			50.7	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	40.8	10.0	19.8	9.1	46.1	8.8	21.0
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	11.8	10.1	7.1	11.0	5.4	28.5	5.2	13.2
Green Ext Time (p_c), s	0.0	2.9	0.0	1.1	0.0	0.0	0.0	1.0

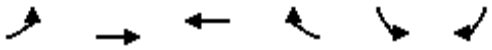
Intersection Summary	
HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	797	142	120	278	530
Future Volume (vph)	797	142	120	278	530
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	44.0	63.0	19.0	22.0	22.0
Total Split (%)	51.8%	74.1%	22.4%	25.9%	25.9%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	797	142	120	81	278	530
Future Volume (veh/h)	797	142	120	81	278	530
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	830	148	125	45	359	182
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	958	1305	948	327	711	316
Arrive On Green	0.46	1.00	0.36	0.36	0.20	0.20
Sat Flow, veh/h	3510	1900	2727	909	3619	1610
Grp Volume(v), veh/h	830	148	84	86	359	182
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1736	1810	1610
Q Serve(g_s), s	18.1	0.0	2.7	2.8	7.5	8.7
Cycle Q Clear(g_c), s	18.1	0.0	2.7	2.8	7.5	8.7
Prop In Lane	1.00			0.52	1.00	1.00
Lane Grp Cap(c), veh/h	958	1305	650	625	711	316
V/C Ratio(X)	0.87	0.11	0.13	0.14	0.50	0.58
Avail Cap(c_a), veh/h	1627	1305	650	625	711	316
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	18.3	18.3	30.5	30.9
Incr Delay (d2), s/veh	2.2	0.1	0.4	0.5	2.6	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.1	1.1	1.2	3.4	8.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.0	0.1	18.7	18.8	33.0	38.4
LnGrp LOS	C	A	B	B	C	D
Approach Vol, veh/h		978	170		541	
Approach Delay, s/veh		20.3	18.7		34.8	
Approach LOS		C	B		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		22.0	27.8	35.2
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		58.4		16.7	39.4	14.4
Max Q Clear Time (g_c+I1), s		2.0		10.7	20.1	4.8
Green Ext Time (p_c), s		0.5		0.6	3.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	604	645	122	54	22
Future Vol, veh/h	8	604	645	122	54	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	629	672	127	56	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	799	0	-	0	1381	736
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	833	-	-	-	160	422
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	833	-	-	-	158	422
Mov Cap-2 Maneuver	-	-	-	-	158	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	36
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	833	-	-	-	193
HCM Lane V/C Ratio	0.01	-	-	-	0.41
HCM Control Delay (s)	9.4	0	-	-	36
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	1.8

Intersection	
Intersection Delay, s/veh	54.2
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	512	147	5	525	241	4
Future Vol, veh/h	512	147	5	525	241	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	533	153	5	547	251	4
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	79.7	39.5	17.3
HCM LOS	F	E	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	98%	0%	1%
Vol Thru, %	0%	78%	99%
Vol Right, %	2%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	245	659	530
LT Vol	241	0	5
Through Vol	0	512	525
RT Vol	4	147	0
Lane Flow Rate	255	686	552
Geometry Grp	1	1	1
Degree of Util (X)	0.498	1.072	0.892
Departure Headway (Hd)	7.275	5.62	6.004
Convergence, Y/N	Yes	Yes	Yes
Cap	498	645	607
Service Time	5.275	3.678	4.004
HCM Lane V/C Ratio	0.512	1.064	0.909
HCM Control Delay	17.3	79.7	39.5
HCM Lane LOS	C	F	E
HCM 95th-tile Q	2.7	19.1	10.7

Intersection	
Intersection Delay, s/veh	27.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	556	12	14	557	23	9	0	9	29	1	2
Future Vol, veh/h	3	556	12	14	557	23	9	0	9	29	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	585	13	15	586	24	9	0	9	31	1	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	28.7	28.1	9.9	10.4
HCM LOS	D	D	A	B

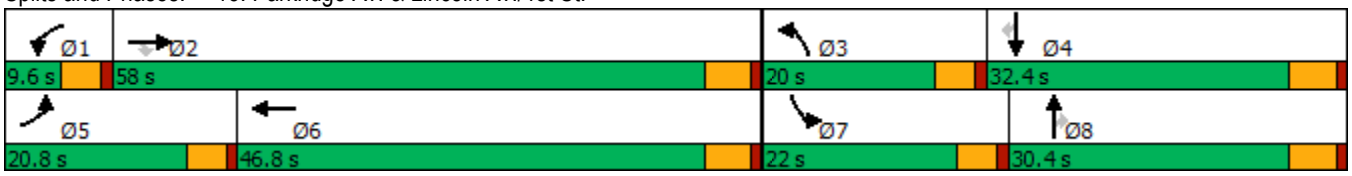
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	50%	1%	0%	2%	91%
Vol Thru, %	0%	99%	0%	94%	3%
Vol Right, %	50%	0%	100%	4%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	559	12	594	32
LT Vol	9	3	0	14	29
Through Vol	0	556	0	557	1
RT Vol	9	0	12	23	2
Lane Flow Rate	19	588	13	625	34
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.035	0.841	0.016	0.841	0.065
Departure Headway (Hd)	6.64	5.143	4.435	4.843	6.928
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	542	700	799	744	520
Service Time	4.645	2.913	2.204	2.909	4.93
HCM Lane V/C Ratio	0.035	0.84	0.016	0.84	0.065
HCM Control Delay	9.9	29.2	7.3	28.1	10.4
HCM Lane LOS	A	D	A	D	B
HCM 95th-tile Q	0.1	9.4	0	9.6	0.2

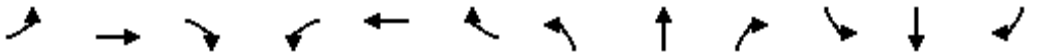
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	33	728	170	8	534	125	132	42	103	75	28
Future Volume (vph)	33	728	170	8	534	125	132	42	103	75	28
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	728	170	8	534	174	125	132	42	103	75	28
Future Volume (veh/h)	33	728	170	8	534	174	125	132	42	103	75	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	800	156	9	587	173	137	145	30	113	82	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	863	730	20	1194	351	167	513	435	141	486	412
Arrive On Green	0.03	0.45	0.45	0.01	0.43	0.43	0.09	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	1810	1900	1608	1810	2751	809	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	36	800	156	9	385	375	137	145	30	113	82	9
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1754	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.1	41.9	6.2	0.5	16.2	16.2	7.8	6.4	1.5	6.5	3.5	0.4
Cycle Q Clear(g_c), s	2.1	41.9	6.2	0.5	16.2	16.2	7.8	6.4	1.5	6.5	3.5	0.4
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	863	730	20	784	762	167	513	435	141	486	412
V/C Ratio(X)	0.64	0.93	0.21	0.45	0.49	0.49	0.82	0.28	0.07	0.80	0.17	0.02
Avail Cap(c_a), veh/h	278	953	806	86	784	762	264	513	435	298	486	412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	27.2	17.4	51.9	21.5	21.5	47.0	30.4	28.6	47.8	30.5	29.4
Incr Delay (d2), s/veh	4.5	13.9	0.1	5.9	0.5	0.5	5.3	1.4	0.3	3.9	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	21.1	2.2	0.3	6.7	6.5	3.7	3.0	0.6	3.0	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	41.1	17.6	57.7	21.9	22.0	52.3	31.8	29.0	51.7	31.3	29.5
LnGrp LOS	E	D	B	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		992			769			312			204	
Approach Delay, s/veh		37.9			22.4			40.5			42.5	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	53.0	14.3	32.4	7.9	50.9	12.8	33.9
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	2.5	43.9	9.8	5.5	4.1	18.2	8.5	8.4
Green Ext Time (p_c), s	0.0	4.0	0.1	0.2	0.0	4.9	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	74.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	534	36	84	536	17	32	11	121	17	8	17
Future Vol, veh/h	20	534	36	84	536	17	32	11	121	17	8	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	593	40	93	596	19	36	12	134	19	9	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	69.9	98.3	14	12.1
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	3%	13%	40%
Vol Thru, %	7%	91%	84%	19%
Vol Right, %	74%	6%	3%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	590	637	42
LT Vol	32	20	84	17
Through Vol	11	534	536	8
RT Vol	121	36	17	17
Lane Flow Rate	182	656	708	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.347	1.035	1.125	0.1
Departure Headway (Hd)	7.201	5.915	5.861	8.164
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	503	616	623	441
Service Time	5.201	3.915	3.861	6.164
HCM Lane V/C Ratio	0.362	1.065	1.136	0.107
HCM Control Delay	14	69.9	98.3	12.1
HCM Lane LOS	B	F	F	B
HCM 95th-tile Q	1.5	16.8	21.6	0.3

Intersection	
Intersection Delay, s/veh	70.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	428	335	4	303	23	348	33	9	12	51	64
Future Vol, veh/h	108	428	335	4	303	23	348	33	9	12	51	64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	113	446	349	4	316	24	363	34	9	13	53	67
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	95	37	61.3	17.4
HCM LOS	F	E	F	C

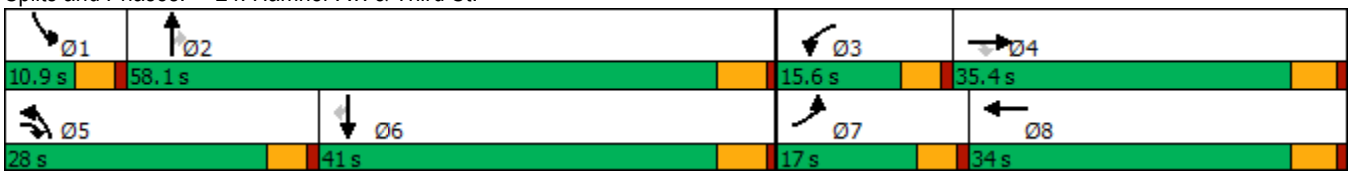
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	91%	0%	34%	0%	1%	9%
Vol Thru, %	9%	0%	66%	39%	92%	40%
Vol Right, %	0%	100%	0%	61%	7%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	381	9	322	549	330	127
LT Vol	348	0	108	0	4	12
Through Vol	33	0	214	214	303	51
RT Vol	0	9	0	335	23	64
Lane Flow Rate	397	9	335	572	344	132
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.947	0.019	0.758	1.195	0.79	0.338
Departure Headway (Hd)	8.912	7.714	8.138	7.523	8.579	9.594
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	467	443	480	426	377
Service Time	6.612	5.414	5.904	5.289	6.579	7.594
HCM Lane V/C Ratio	0.971	0.019	0.756	1.192	0.808	0.35
HCM Control Delay	62.5	10.6	32.4	131.7	37	17.4
HCM Lane LOS	F	B	D	F	E	C
HCM 95th-tile Q	10.7	0.1	6.4	21.5	6.9	1.5

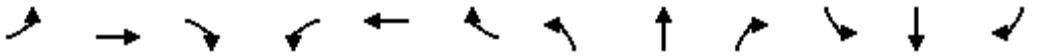
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	163	81	490	51	122	422	980	65	51	1153	220
Future Volume (vph)	163	81	490	51	122	422	980	65	51	1153	220
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.5
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	81	490	51	122	61	422	980	65	51	1153	220
Future Volume (veh/h)	163	81	490	51	122	61	422	980	65	51	1153	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	199	99	380	62	149	56	515	1195	66	62	1406	197
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	422	627	80	194	73	590	1811	806	80	1365	608
Arrive On Green	0.12	0.22	0.22	0.04	0.15	0.15	0.17	0.50	0.50	0.04	0.38	0.38
Sat Flow, veh/h	1810	1900	1608	1810	1310	492	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	199	99	380	62	0	205	515	1195	66	62	1406	197
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	11.4	4.5	19.8	3.6	0.0	11.5	15.0	25.9	2.2	3.6	39.7	9.1
Cycle Q Clear(g_c), s	11.4	4.5	19.8	3.6	0.0	11.5	15.0	25.9	2.2	3.6	39.7	9.1
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	422	627	80	0	267	590	1811	806	80	1365	608
V/C Ratio(X)	0.93	0.23	0.61	0.77	0.00	0.77	0.87	0.66	0.08	0.77	1.03	0.32
Avail Cap(c_a), veh/h	214	548	734	190	0	496	782	1811	806	109	1365	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	33.5	25.6	49.6	0.0	43.0	42.6	19.5	13.6	49.7	32.7	23.2
Incr Delay (d2), s/veh	42.2	0.3	1.1	5.7	0.0	4.6	7.0	1.9	0.2	14.2	32.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	2.1	7.5	1.7	0.0	5.4	6.9	10.5	0.8	1.9	22.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.1	33.8	26.7	55.4	0.0	47.6	49.5	21.4	13.8	63.9	65.1	24.6
LnGrp LOS	F	C	C	E	A	D	D	C	B	E	F	C
Approach Vol, veh/h		678			267			1776			1665	
Approach Delay, s/veh		45.7			49.4			29.3			60.3	
Approach LOS		D			D			C			E	

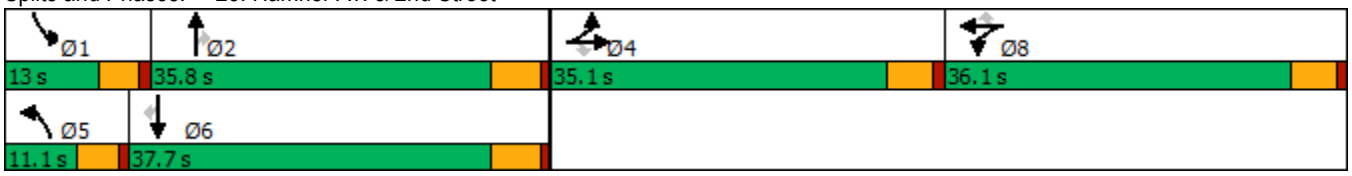
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	58.1	9.3	28.4	22.2	45.1	17.0	20.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	5.6	27.9	5.6	21.8	17.0	41.7	13.4	13.5
Green Ext Time (p_c), s	0.0	9.5	0.0	1.3	0.6	0.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	545	75	237	375	475	91	792	398	523	1117	227
Future Volume (vph)	270	545	75	237	375	475	91	792	398	523	1117	227
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	11.1	35.8	35.8	13.0	37.7	37.7
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	9.3%	29.8%	29.8%	10.8%	31.4%	31.4%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 115.9
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	545	75	237	375	475	91	792	398	523	1117	227
Future Volume (veh/h)	270	545	75	237	375	475	91	792	398	523	1117	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	556	44	208	430	277	93	808	277	534	1140	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	481	1010	425	383	805	341	104	972	432	135	1033	454
Arrive On Green	0.27	0.27	0.27	0.21	0.21	0.21	0.06	0.27	0.27	0.07	0.29	0.29
Sat Flow, veh/h	1810	3800	1599	1810	3800	1608	1810	3610	1605	1810	3610	1588
Grp Volume(v), veh/h	276	556	44	208	430	277	93	808	277	534	1140	192
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1608	1810	1805	1605	1810	1805	1588
Q Serve(g_s), s	14.9	14.2	2.3	11.6	11.4	18.5	5.8	23.8	17.2	8.4	32.3	11.1
Cycle Q Clear(g_c), s	14.9	14.2	2.3	11.6	11.4	18.5	5.8	23.8	17.2	8.4	32.3	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	481	1010	425	383	805	341	104	972	432	135	1033	454
V/C Ratio(X)	0.57	0.55	0.10	0.54	0.53	0.81	0.89	0.83	0.64	3.97	1.10	0.42
Avail Cap(c_a), veh/h	481	1010	425	497	1043	441	104	972	432	135	1033	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	35.7	31.3	39.6	39.5	42.4	52.9	38.8	36.4	52.3	40.3	32.7
Incr Delay (d2), s/veh	4.9	2.2	0.5	1.2	0.6	8.7	54.3	6.2	3.2	1352.8	61.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	6.8	1.0	5.2	5.3	8.0	4.1	11.0	6.9	54.3	22.5	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	37.8	31.8	40.8	40.1	51.1	107.2	45.1	39.6	1405.1	101.3	33.4
LnGrp LOS	D	D	C	D	D	D	F	D	D	F	F	C
Approach Vol, veh/h		876			915			1178			1866	
Approach Delay, s/veh		38.5			43.6			48.7			467.4	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	11.1	37.7		29.0				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	6.5	32.3		31.0				
Max Q Clear Time (g_c+I1), s	10.4	25.8		16.9	7.8	34.3		20.5				
Green Ext Time (p_c), s	0.0	2.5		3.8	0.0	0.0		3.3				

Intersection Summary			
HCM 6th Ctrl Delay		207.5	
HCM 6th LOS		F	

Notes

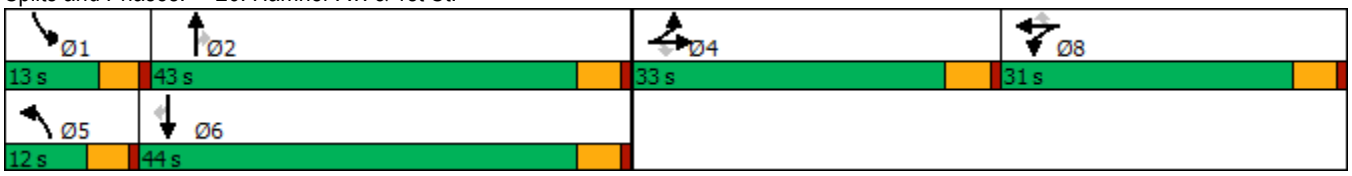
User approved volume balancing among the lanes for turning movement.

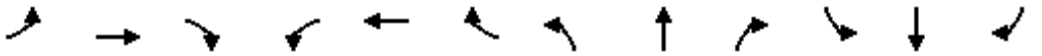
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	389	51	37	33	23	73	832	38	81	1102	245
Future Volume (vph)	389	51	37	33	23	73	832	38	81	1102	245
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 93.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	389	51	37	57	33	23	73	832	38	81	1102	245
Future Volume (veh/h)	389	51	37	57	33	23	73	832	38	81	1102	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	448	0	20	60	35	7	77	876	29	85	1160	175
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	582	0	255	125	73	173	100	1605	698	110	1625	706
Arrive On Green	0.16	0.00	0.16	0.11	0.11	0.11	0.05	0.44	0.44	0.06	0.45	0.45
Sat Flow, veh/h	3619	0	1586	1163	679	1606	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	448	0	20	95	0	7	77	876	29	85	1160	175
Grp Sat Flow(s),veh/h/ln	1810	0	1586	1842	0	1606	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	10.3	0.0	0.9	4.2	0.0	0.3	3.6	15.4	0.9	4.0	22.6	6.0
Cycle Q Clear(g_c), s	10.3	0.0	0.9	4.2	0.0	0.3	3.6	15.4	0.9	4.0	22.6	6.0
Prop In Lane	1.00		1.00	0.63		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	582	0	255	199	0	173	100	1605	698	110	1625	706
V/C Ratio(X)	0.77	0.00	0.08	0.48	0.00	0.04	0.77	0.55	0.04	0.78	0.71	0.25
Avail Cap(c_a), veh/h	1169	0	512	553	0	482	155	1605	698	175	1625	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	30.9	36.4	0.0	34.6	40.4	17.7	13.6	40.1	19.3	14.7
Incr Delay (d2), s/veh	2.2	0.0	0.1	1.8	0.0	0.1	4.7	1.3	0.1	4.4	2.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.4	1.9	0.0	0.1	1.7	6.1	0.3	1.9	9.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	0.0	31.0	38.1	0.0	34.7	45.2	19.0	13.7	44.5	22.0	15.6
LnGrp LOS	D	A	C	D	A	C	D	B	B	D	C	B
Approach Vol, veh/h		468			102			982			1420	
Approach Delay, s/veh		36.7			37.9			20.9			22.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	43.5		18.9	9.4	44.0		14.3				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	6.0	17.4		12.3	5.6	24.6		6.2				
Green Ext Time (p_c), s	0.0	5.9		1.5	0.0	7.3		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		24.8	
HCM 6th LOS		C	

Notes

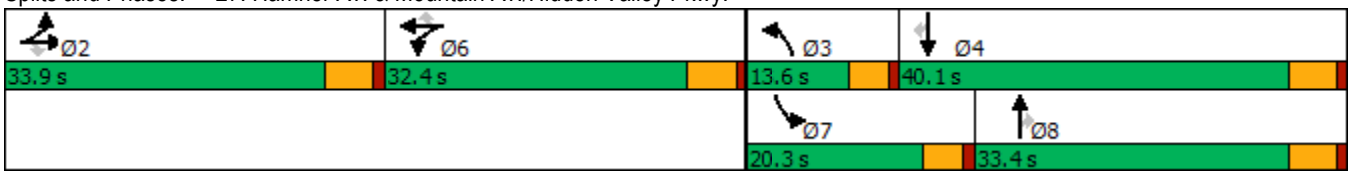
User approved volume balancing among the lanes for turning movement.

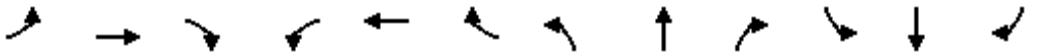
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	428	60	429	373	316	100	764	571	519	822	25
Future Volume (vph)	29	428	60	429	373	316	100	764	571	519	822	25
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	428	60	429	373	316	100	764	571	519	822	25
Future Volume (veh/h)	29	428	60	429	373	316	100	764	571	519	822	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	446	56	466	363	318	104	796	390	541	856	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	433	864	384	794	417	352	129	849	378	463	1068	469
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.07	0.24	0.24	0.13	0.30	0.30
Sat Flow, veh/h	1810	3610	1606	3619	1900	1604	1810	3610	1610	3510	3610	1586
Grp Volume(v), veh/h	30	446	56	466	363	318	104	796	390	541	856	18
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1604	1810	1805	1610	1755	1805	1586
Q Serve(g_s), s	1.5	12.8	3.3	13.7	22.0	23.0	6.7	25.8	28.0	15.7	26.1	1.0
Cycle Q Clear(g_c), s	1.5	12.8	3.3	13.7	22.0	23.0	6.7	25.8	28.0	15.7	26.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	433	864	384	794	417	352	129	849	378	463	1068	469
V/C Ratio(X)	0.07	0.52	0.15	0.59	0.87	0.90	0.81	0.94	1.03	1.17	0.80	0.04
Avail Cap(c_a), veh/h	433	864	384	820	431	363	137	849	378	463	1068	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	39.3	35.7	41.7	44.9	45.3	54.5	44.7	45.6	51.7	38.7	29.9
Incr Delay (d2), s/veh	0.3	2.2	0.8	1.0	17.0	24.7	25.5	17.7	54.3	97.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.8	1.3	6.1	12.1	11.3	3.9	13.3	16.6	13.0	11.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	41.5	36.5	42.7	61.9	70.0	80.0	62.4	99.9	149.0	43.2	29.9
LnGrp LOS	D	D	D	D	E	E	F	E	F	F	D	C
Approach Vol, veh/h		532			1147			1290			1415	
Approach Delay, s/veh		40.7			56.3			75.2			83.5	
Approach LOS		D			E			E			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	13.1	40.6		31.5	20.3	33.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		14.8	8.7	28.1		25.0	17.7	30.0				
Green Ext Time (p_c), s		2.5	0.0	3.0		1.1	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			68.7									
HCM 6th LOS			E									

Notes

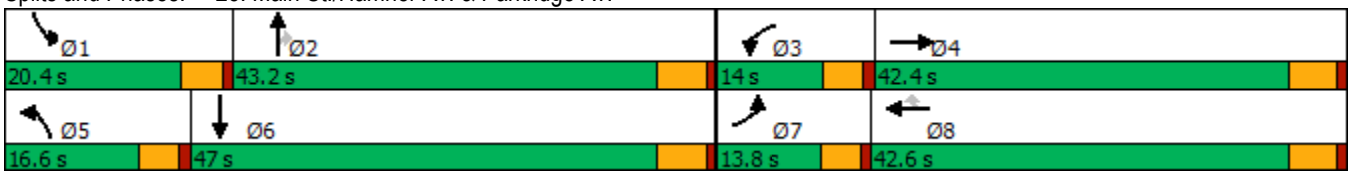
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	199	359	80	182	281	45	922	140	232	913
Future Volume (vph)	199	359	80	182	281	45	922	140	232	913
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.8
Natural Cycle: 125
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	359	70	80	182	281	45	922	140	232	913	175
Future Volume (veh/h)	199	359	70	80	182	281	45	922	140	232	913	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	378	63	84	192	193	47	971	0	244	961	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	652	108	108	340	286	66	1363		275	2559	
Arrive On Green	0.09	0.21	0.21	0.06	0.18	0.18	0.04	0.38	0.00	0.15	0.49	0.00
Sat Flow, veh/h	1810	3088	510	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	209	219	222	84	192	193	47	971	0	244	961	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1793	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	9.2	10.9	11.1	4.6	9.2	11.3	2.6	22.9	0.0	13.2	11.5	0.0
Cycle Q Clear(g_c), s	9.2	10.9	11.1	4.6	9.2	11.3	2.6	22.9	0.0	13.2	11.5	0.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	166	381	378	108	340	286	66	1363		275	2559	
V/C Ratio(X)	1.26	0.58	0.59	0.78	0.57	0.68	0.71	0.71		0.89	0.38	
Avail Cap(c_a), veh/h	166	667	662	170	706	594	217	1363		286	2559	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.5	35.5	35.6	46.4	37.6	38.4	47.7	26.5	0.0	41.6	15.8	0.0
Incr Delay (d2), s/veh	155.2	1.4	1.4	4.5	1.5	2.8	5.2	3.2	0.0	25.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	4.8	4.9	2.1	4.3	4.5	1.2	9.9	0.0	7.6	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	200.6	36.9	37.0	51.0	39.0	41.2	53.0	29.7	0.0	66.6	16.2	0.0
LnGrp LOS	F	D	D	D	D	D	D	C		E	B	
Approach Vol, veh/h		650			469			1018	A		1205	A
Approach Delay, s/veh		89.6			42.1			30.8			26.4	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	43.2	10.6	26.5	8.2	54.8	13.8	23.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	15.2	24.9	6.6	13.1	4.6	13.5	11.2	13.3
Green Ext Time (p_c), s	0.0	5.2	0.0	2.4	0.0	7.1	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

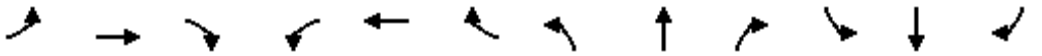
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	670	184	861	4	291
Future Volume (vph)	670	184	861	4	291
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	670	856	184	861	0	0	0	0	81	4	291
Future Volume (veh/h)	0	670	856	184	861	0	0	0	0	81	4	291
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	691	805	190	888	0				84	4	204
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1111	989	216	2788	0				251	12	234
Arrive On Green	0.00	0.62	0.62	0.24	1.00	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	1900	1608	1810	3705	0				1731	82	1610
Grp Volume(v), veh/h	0	691	805	190	888	0				88	0	204
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1805	0				1813	0	1610
Q Serve(g_s), s	0.0	28.6	46.3	12.1	0.0	0.0				5.2	0.0	14.9
Cycle Q Clear(g_c), s	0.0	28.6	46.3	12.1	0.0	0.0				5.2	0.0	14.9
Prop In Lane	0.00		1.00	1.00		0.00				0.95		1.00
Lane Grp Cap(c), veh/h	0	1111	989	216	2788	0				263	0	234
V/C Ratio(X)	0.00	0.62	0.81	0.88	0.32	0.00				0.33	0.00	0.87
Avail Cap(c_a), veh/h	0	1111	989	445	2788	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.73	0.73	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.4	17.8	44.8	0.0	0.0				46.1	0.0	50.2
Incr Delay (d2), s/veh	0.0	0.2	0.7	3.3	0.2	0.0				0.3	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.0	15.9	4.9	0.1	0.0				2.3	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.6	18.5	48.2	0.2	0.0				46.4	0.0	54.2
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		1496			1078						292	
Approach Delay, s/veh		16.7			8.7						51.8	
Approach LOS		B			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.8	78.5		22.7		97.3
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	14.1	48.3		16.9		2.0
Green Ext Time (p_c), s	0.2	0.0		0.5		4.6

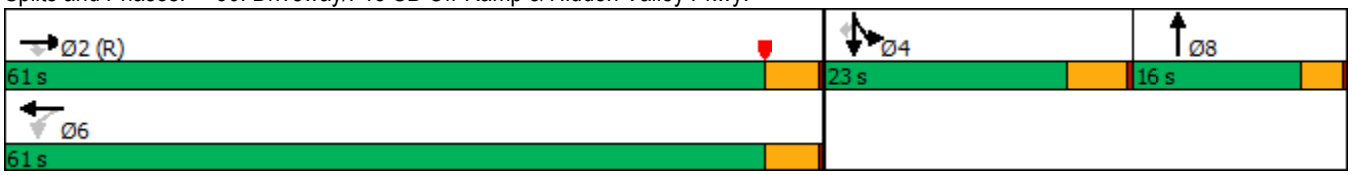
Intersection Summary			
HCM 6th Ctrl Delay		17.3	
HCM 6th LOS		B	

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	1468	44	110	803	0	416	84	349
Future Volume (vph)	1468	44	110	803	0	416	84	349
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	61.0	61.0	61.0	61.0	16.0	23.0	23.0	23.0
Total Split (%)	61.0%	61.0%	61.0%	61.0%	16.0%	23.0%	23.0%	23.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1468	44	110	803	0	0	0	239	416	84	349
Future Volume (veh/h)	0	1468	44	110	803	0	0	0	239	416	84	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1545	25	116	845	0	0	0	93	294	347	212
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2231	994	182	2231	0	0	0	116	326	342	290
Arrive On Green	0.00	0.62	0.62	0.82	0.82	0.00	0.00	0.00	0.07	0.18	0.18	0.18
Sat Flow, veh/h	0	3705	1609	332	3705	0	0	0	1610	1810	1900	1610
Grp Volume(v), veh/h	0	1545	25	116	845	0	0	0	93	294	347	212
Grp Sat Flow(s),veh/h/ln	0	1805	1609	332	1805	0	0	0	1610	1810	1900	1610
Q Serve(g_s), s	0.0	28.6	0.6	33.2	6.1	0.0	0.0	0.0	5.7	15.9	18.0	12.4
Cycle Q Clear(g_c), s	0.0	28.6	0.6	61.8	6.1	0.0	0.0	0.0	5.7	15.9	18.0	12.4
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2231	994	182	2231	0	0	0	116	326	342	290
V/C Ratio(X)	0.00	0.69	0.03	0.64	0.38	0.00	0.00	0.00	0.80	0.90	1.01	0.73
Avail Cap(c_a), veh/h	0	2231	994	182	2231	0	0	0	201	326	342	290
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.43	0.43	0.97	0.97	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.8	7.4	24.0	3.9	0.0	0.0	0.0	45.7	40.1	41.0	38.7
Incr Delay (d2), s/veh	0.0	0.8	0.0	5.4	0.0	0.0	0.0	0.0	4.8	30.3	52.4	15.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.1	0.2	2.7	1.6	0.0	0.0	0.0	2.4	9.5	13.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.5	7.4	29.4	4.0	0.0	0.0	0.0	50.4	70.4	93.4	53.8
LnGrp LOS	A	B	A	C	A	A	A	A	D	E	F	D
Approach Vol, veh/h		1570			961			93			853	
Approach Delay, s/veh		13.4			7.0			50.4			75.6	
Approach LOS		B			A			D			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		66.3		23.0		66.3		10.7				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		56.5		18.0		56.5		12.5				
Max Q Clear Time (g_c+I1), s		30.6		20.0		63.8		7.7				
Green Ext Time (p_c), s		8.8		0.0		0.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		27.9
HCM 6th LOS		C

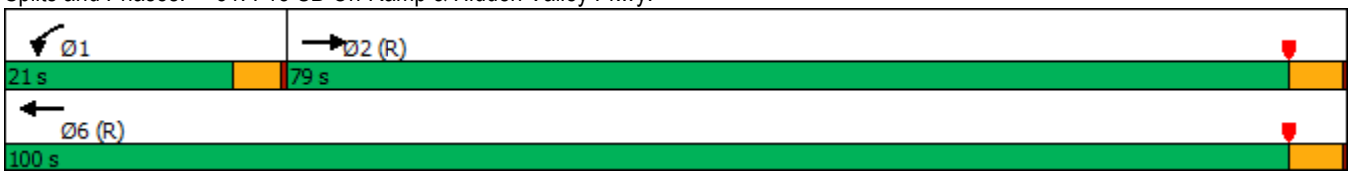
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	1650	159	913
Future Volume (vph)	1650	159	913
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	79.0	21.0	100.0
Total Split (%)	79.0%	21.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1650	474	159	913	0	0
Future Volume (veh/h)	1650	474	159	913	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	1719	478	166	951		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2101	558	308	3448		
Arrive On Green	1.00	1.00	0.34	1.00		
Sat Flow, veh/h	2916	748	1810	3705		
Grp Volume(v), veh/h	1070	1127	166	951		
Grp Sat Flow(s),veh/h/ln	1805	1764	1810	1805		
Q Serve(g_s), s	0.0	0.0	7.4	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	7.4	0.0		
Prop In Lane		0.42	1.00			
Lane Grp Cap(c), veh/h	1345	1314	308	3448		
V/C Ratio(X)	0.80	0.86	0.54	0.28		
Avail Cap(c_a), veh/h	1345	1314	308	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.51	0.51	0.67	0.67		
Uniform Delay (d), s/veh	0.0	0.0	29.8	0.0		
Incr Delay (d2), s/veh	2.6	4.0	4.5	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.0	1.4	3.2	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.6	4.0	34.3	0.1		
LnGrp LOS	A	A	C	A		
Approach Vol, veh/h	2197			1117		
Approach Delay, s/veh	3.3			5.2		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	21.0	79.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	17.0	74.5				95.5
Max Q Clear Time (g_c+I1), s	9.4	2.0				2.0
Green Ext Time (p_c), s	0.2	21.3				4.7

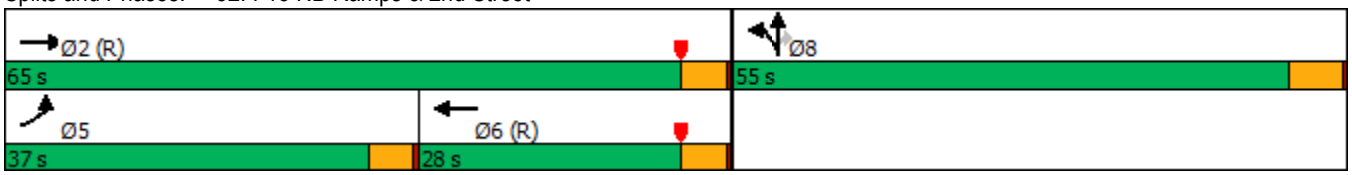
Intersection Summary			
HCM 6th Ctrl Delay		3.9	
HCM 6th LOS		A	

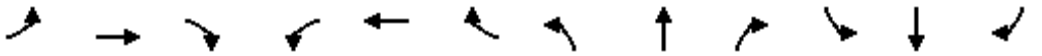
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	430	320	369	6	432
Future Volume (vph)	430	320	369	6	432
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	65.0	28.0	55.0	55.0
Total Split (%)	30.8%	54.2%	23.3%	45.8%	45.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





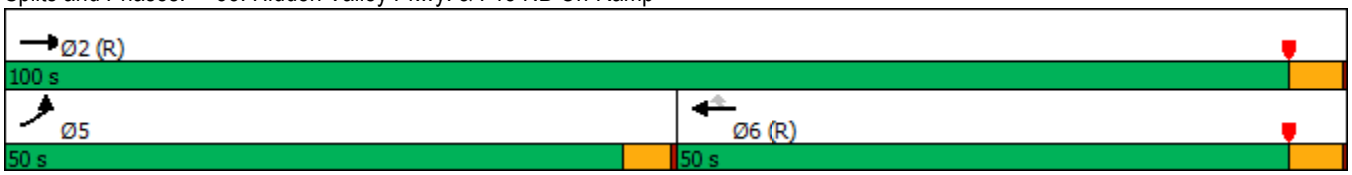
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	320	0	0	369	52	676	6	432	0	0	0
Future Volume (veh/h)	430	320	0	0	369	52	676	6	432	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	462	344	0	0	397	44	727	6	292			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	490	1817	0	0	639	70	744	6	667			
Arrive On Green	0.09	0.17	0.00	0.00	0.20	0.20	0.41	0.41	0.41			
Sat Flow, veh/h	1810	3705	0	0	3371	361	1795	15	1610			
Grp Volume(v), veh/h	462	344	0	0	218	223	733	0	292			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1832	1810	0	1610			
Q Serve(g_s), s	30.5	9.8	0.0	0.0	13.2	13.4	47.8	0.0	15.6			
Cycle Q Clear(g_c), s	30.5	9.8	0.0	0.0	13.2	13.4	47.8	0.0	15.6			
Prop In Lane	1.00		0.00	0.00		0.20	0.99		1.00			
Lane Grp Cap(c), veh/h	490	1817	0	0	352	358	750	0	667			
V/C Ratio(X)	0.94	0.19	0.00	0.00	0.62	0.62	0.98	0.00	0.44			
Avail Cap(c_a), veh/h	490	1817	0	0	352	358	750	0	667			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.7	29.0	0.0	0.0	44.2	44.3	34.6	0.0	25.2			
Incr Delay (d2), s/veh	18.8	0.1	0.0	0.0	7.9	8.0	27.3	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.4	4.7	0.0	0.0	6.6	6.8	25.3	0.0	5.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	29.1	0.0	0.0	52.1	52.2	61.9	0.0	25.5			
LnGrp LOS	E	C	A	A	D	D	E	A	C			
Approach Vol, veh/h		806			441			1025				
Approach Delay, s/veh		54.0			52.2			51.5				
Approach LOS		D			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			37.0	28.0		55.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		60.4			32.5	23.4		49.7				
Max Q Clear Time (g_c+I1), s		11.8			32.5	15.4		49.8				
Green Ext Time (p_c), s		1.5			0.0	1.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			52.5									
HCM 6th LOS			D									

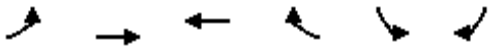
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	514	1136	1071	389
Future Volume (vph)	514	1136	1071	389
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	50.0	100.0	50.0	50.0
Total Split (%)	50.0%	100.0%	50.0%	50.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	514	1136	1071	389	0	0
Future Volume (veh/h)	514	1136	1071	389	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	541	1196	1127	353		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	832	3448	1643	716		
Arrive On Green	0.92	1.00	0.46	0.46		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	541	1196	1127	353		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	5.9	0.0	24.7	15.8		
Cycle Q Clear(g_c), s	5.9	0.0	24.7	15.8		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	832	3448	1643	716		
V/C Ratio(X)	0.65	0.35	0.69	0.49		
Avail Cap(c_a), veh/h	832	3448	1643	716		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.42	0.42	0.69	0.69		
Uniform Delay (d), s/veh	2.4	0.0	21.6	19.1		
Incr Delay (d2), s/veh	1.7	0.1	1.6	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.4	0.1	10.0	5.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.1	0.1	23.2	20.8		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		1737	1480			
Approach Delay, s/veh		1.3	22.7			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			50.0	50.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			46.0	45.5
Max Q Clear Time (g_c+I1), s		2.0			7.9	26.7
Green Ext Time (p_c), s		6.5			0.8	5.8

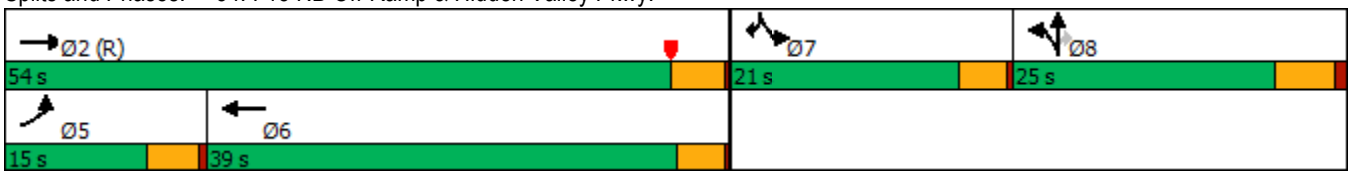
Intersection Summary		
HCM 6th Ctrl Delay	11.1	
HCM 6th LOS	B	

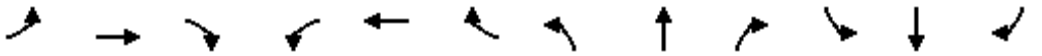
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	89	1048	859	453	64	287	65	148
Future Volume (vph)	89	1048	859	453	64	287	65	148
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	54.0	39.0	25.0	25.0	25.0	21.0	21.0
Total Split (%)	15.0%	54.0%	39.0%	25.0%	25.0%	25.0%	21.0%	21.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	1048	0	0	859	36	453	64	287	65	0	148
Future Volume (veh/h)	89	1048	0	0	859	36	453	64	287	65	0	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	93	1092	0	0	895	34	472	67	147	68	0	138
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	2545	0	0	2012	76	685	370	314	0	0	0
Arrive On Green	0.18	1.00	0.00	0.00	0.57	0.57	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3641	135	3510	1900	1610		0	
Grp Volume(v), veh/h	93	1092	0	0	456	473	472	67	147		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1875	1755	1900	1610			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	14.6	14.6	12.5	2.9	8.1			
Cycle Q Clear(g_c), s	4.7	0.0	0.0	0.0	14.6	14.6	12.5	2.9	8.1			
Prop In Lane	1.00		0.00	0.00		0.07	1.00		1.00			
Lane Grp Cap(c), veh/h	167	2545	0	0	1024	1064	685	371	314			
V/C Ratio(X)	0.56	0.43	0.00	0.00	0.44	0.44	0.69	0.18	0.47			
Avail Cap(c_a), veh/h	190	2545	0	0	1024	1064	685	371	314			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	38.9	0.0	0.0	0.0	12.5	12.5	37.4	33.6	35.7			
Incr Delay (d2), s/veh	2.0	0.5	0.0	0.0	1.4	1.3	5.6	1.1	4.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	0.2	0.0	0.0	5.5	5.8	5.7	1.4	3.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	0.5	0.0	0.0	13.9	13.9	43.0	34.7	40.6			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1185			929			686				
Approach Delay, s/veh		3.7			13.9			41.7				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.0			13.7	61.3		25.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		49.5			10.5	* 35		19.5				
Max Q Clear Time (g_c+I1), s		2.0			6.7	16.6		14.5				
Green Ext Time (p_c), s		5.7			0.0	3.2		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

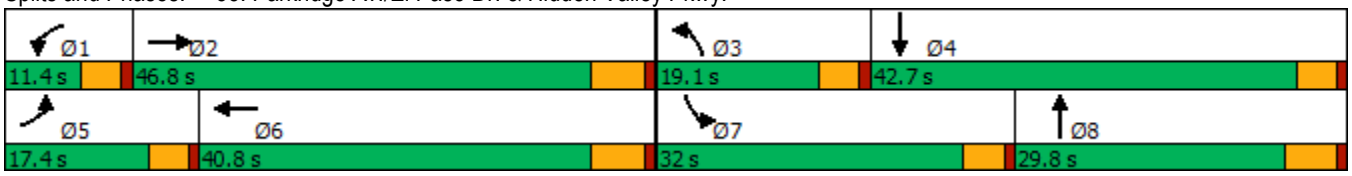
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

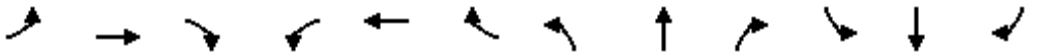
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	102	978	76	580	112	114	102	54
Future Volume (vph)	102	978	76	580	112	114	102	54
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	978	118	76	580	77	112	114	227	102	54	43
Future Volume (veh/h)	102	978	118	76	580	77	112	114	227	102	54	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1111	95	86	659	78	127	130	188	408	61	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.25	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	1234	105	109	1131	134	155	266	233	434	785	281
Arrive On Green	0.08	0.37	0.37	0.06	0.35	0.35	0.09	0.15	0.15	0.24	0.30	0.30
Sat Flow, veh/h	1810	3366	288	1810	3251	384	1810	1805	1582	1810	2604	931
Grp Volume(v), veh/h	116	595	611	86	366	371	127	130	188	408	41	43
Grp Sat Flow(s),veh/h/ln	1810	1805	1848	1810	1805	1830	1810	1805	1582	1810	1805	1730
Q Serve(g_s), s	7.1	34.9	34.9	5.2	18.5	18.6	7.7	7.4	12.9	24.8	1.8	2.0
Cycle Q Clear(g_c), s	7.1	34.9	34.9	5.2	18.5	18.6	7.7	7.4	12.9	24.8	1.8	2.0
Prop In Lane	1.00		0.16	1.00		0.21	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	143	662	678	109	628	636	155	266	233	434	544	521
V/C Ratio(X)	0.81	0.90	0.90	0.79	0.58	0.58	0.82	0.49	0.81	0.94	0.08	0.08
Avail Cap(c_a), veh/h	207	662	678	110	628	636	235	387	339	443	615	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	33.5	33.5	51.8	29.8	29.8	50.3	43.8	46.1	41.7	27.9	28.0
Incr Delay (d2), s/veh	9.2	17.6	17.4	28.3	3.9	3.9	7.5	1.4	8.8	27.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	17.5	18.0	3.2	8.3	8.5	3.7	3.3	5.5	14.4	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	51.0	50.9	80.2	33.7	33.7	57.8	45.2	54.9	69.3	28.0	28.0
LnGrp LOS	E	D	D	F	C	C	E	D	D	E	C	C
Approach Vol, veh/h		1322			823			445			492	
Approach Delay, s/veh		51.8			38.6			52.9			62.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	46.8	14.2	39.5	13.4	44.7	31.4	22.3
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	7.2	36.9	9.7	4.0	9.1	20.6	26.8	14.9
Green Ext Time (p_c), s	0.0	2.5	0.1	0.5	0.0	3.6	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

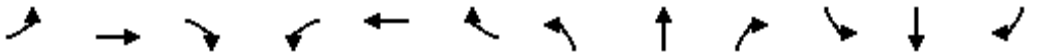
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	245	66	181	39	211	812	80	1356	523
Future Volume (vph)	247	145	245	66	181	39	211	812	80	1356	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	245	66	181	39	211	812	111	80	1356	523
Future Volume (veh/h)	247	145	245	66	181	39	211	812	111	80	1356	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	194	71	195	30	227	873	110	86	1458	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	326	495	92	245	207	245	1702	214	110	1635	862
Arrive On Green	0.09	0.17	0.17	0.05	0.13	0.13	0.14	0.53	0.53	0.06	0.45	0.45
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3225	406	1810	3610	1571
Grp Volume(v), veh/h	266	156	194	71	195	30	227	489	494	86	1458	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1826	1810	1805	1571
Q Serve(g_s), s	7.9	7.9	10.1	4.1	10.6	1.8	13.2	18.6	18.6	5.0	39.4	18.4
Cycle Q Clear(g_c), s	7.9	7.9	10.1	4.1	10.6	1.8	13.2	18.6	18.6	5.0	39.4	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	328	326	495	92	245	207	245	952	964	110	1635	862
V/C Ratio(X)	0.81	0.48	0.39	0.78	0.80	0.14	0.93	0.51	0.51	0.78	0.89	0.50
Avail Cap(c_a), veh/h	344	517	656	145	483	408	245	952	964	199	1635	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	39.7	29.0	49.8	44.9	41.1	45.4	16.2	16.2	49.2	26.7	15.1
Incr Delay (d2), s/veh	12.1	1.1	0.5	5.2	5.8	0.3	37.2	2.0	2.0	4.5	7.8	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.7	3.9	2.0	5.3	0.7	8.2	7.5	7.5	2.3	17.2	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	40.8	29.5	55.0	50.7	41.4	82.6	18.2	18.2	53.7	34.5	17.2
LnGrp LOS	E	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		616			296			1210			1978	
Approach Delay, s/veh		45.2			50.8			30.3			31.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	61.8	10.0	23.3	19.0	53.9	14.5	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	20.6	6.1	12.1	15.2	41.4	9.9	12.6
Green Ext Time (p_c), s	0.0	6.5	0.0	1.3	0.0	5.2	0.0	0.9

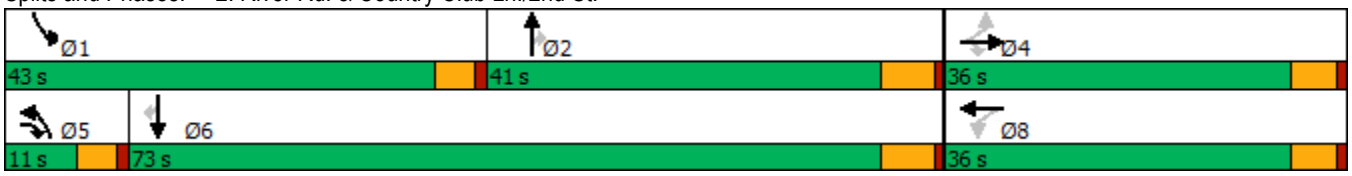
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

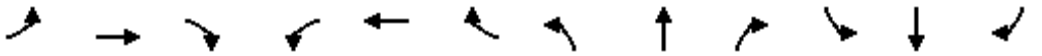
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	151	65	124	83	37	783	161	438	1194	25
Future Volume (vph)	37	151	65	124	83	37	783	161	438	1194	25
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	151	65	124	83	279	37	783	161	438	1194	25
Future Volume (veh/h)	37	151	65	124	83	279	37	783	161	438	1194	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	172	48	141	94	234	42	890	124	498	1357	26
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	462	443	261	117	291	58	1193	530	526	2126	926
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.33	0.33	0.29	0.59	0.59
Sat Flow, veh/h	1068	1900	1610	1179	482	1199	1810	3610	1605	1810	3610	1573
Grp Volume(v), veh/h	42	172	48	141	0	328	42	890	124	498	1357	26
Grp Sat Flow(s),veh/h/ln	1068	1900	1610	1179	0	1681	1810	1805	1605	1810	1805	1573
Q Serve(g_s), s	4.4	8.6	2.5	12.9	0.0	20.9	2.6	25.0	6.4	30.7	28.3	0.8
Cycle Q Clear(g_c), s	25.3	8.6	2.5	21.5	0.0	20.9	2.6	25.0	6.4	30.7	28.3	0.8
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	462	443	261	0	409	58	1193	530	526	2126	926
V/C Ratio(X)	0.33	0.37	0.11	0.54	0.00	0.80	0.72	0.75	0.23	0.95	0.64	0.03
Avail Cap(c_a), veh/h	156	514	488	294	0	455	101	1193	530	609	2126	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	35.9	30.9	44.9	0.0	40.6	54.7	34.0	27.7	39.6	15.5	9.8
Incr Delay (d2), s/veh	1.5	0.5	0.1	1.7	0.0	9.1	6.1	4.3	1.0	21.3	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.0	1.0	3.9	0.0	9.5	1.3	11.1	2.5	16.1	10.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	36.4	31.0	46.6	0.0	49.8	60.8	38.2	28.8	60.9	16.9	9.9
LnGrp LOS	D	D	C	D	A	D	E	D	C	E	B	A
Approach Vol, veh/h		262			469			1056			1881	
Approach Delay, s/veh		38.3			48.8			38.0			28.5	
Approach LOS		D			D			D			C	

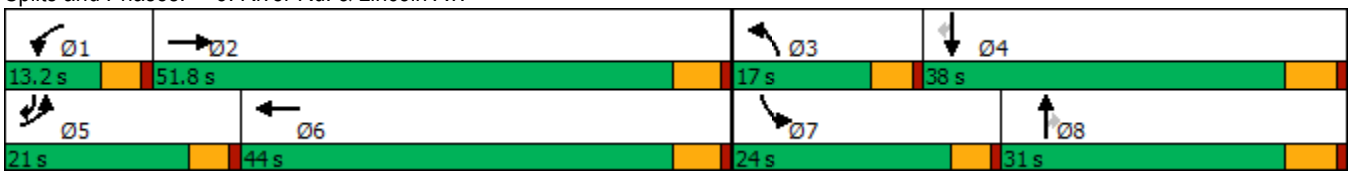
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.8	43.5		32.8	8.3	73.0		32.8				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	32.7	27.0		27.3	4.6	30.3		23.5				
Green Ext Time (p_c), s	0.4	3.7		0.4	0.0	12.3		1.5				

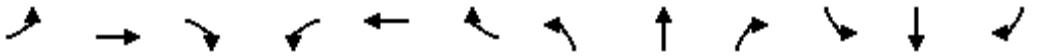
Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	361	556	51	716	130	606	114	234	800	457
Future Volume (vph)	361	556	51	716	130	606	114	234	800	457
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	556	31	51	716	235	130	606	114	234	800	457
Future Volume (veh/h)	361	556	31	51	716	235	130	606	114	234	800	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	401	618	22	57	796	237	144	673	85	260	889	378
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	458	1491	53	74	903	269	171	745	313	287	976	638
Arrive On Green	0.13	0.42	0.42	0.04	0.33	0.33	0.09	0.21	0.21	0.16	0.27	0.27
Sat Flow, veh/h	3510	3553	126	1810	2734	814	1810	3610	1516	1810	3610	1585
Grp Volume(v), veh/h	401	314	326	57	525	508	144	673	85	260	889	378
Grp Sat Flow(s),veh/h/ln	1755	1805	1874	1810	1805	1743	1810	1805	1516	1810	1805	1585
Q Serve(g_s), s	13.1	14.3	14.3	3.6	32.2	32.2	9.2	21.3	5.5	16.5	27.9	21.9
Cycle Q Clear(g_c), s	13.1	14.3	14.3	3.6	32.2	32.2	9.2	21.3	5.5	16.5	27.9	21.9
Prop In Lane	1.00		0.07	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	458	758	787	74	596	575	171	745	313	287	976	638
V/C Ratio(X)	0.88	0.41	0.41	0.77	0.88	0.88	0.84	0.90	0.27	0.91	0.91	0.59
Avail Cap(c_a), veh/h	492	758	787	133	596	575	192	778	327	300	994	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	23.8	23.8	55.5	37.0	37.0	52.1	45.3	39.0	48.3	41.3	27.6
Incr Delay (d2), s/veh	14.5	1.7	1.6	6.3	17.1	17.6	22.7	13.5	0.5	27.6	12.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	6.2	6.5	1.8	16.5	16.0	5.1	10.6	2.0	9.4	13.5	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	25.5	25.4	61.8	54.1	54.6	74.8	58.8	39.5	75.9	53.4	29.0
LnGrp LOS	E	C	C	E	D	D	E	E	D	E	D	C
Approach Vol, veh/h		1041			1090			902			1527	
Approach Delay, s/veh		40.5			54.7			59.5			51.2	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	54.5	15.7	37.4	19.8	44.0	23.1	29.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	5.6	16.3	11.2	29.9	15.1	34.2	18.5	23.3
Green Ext Time (p_c), s	0.0	3.9	0.0	1.5	0.1	2.4	0.0	0.9

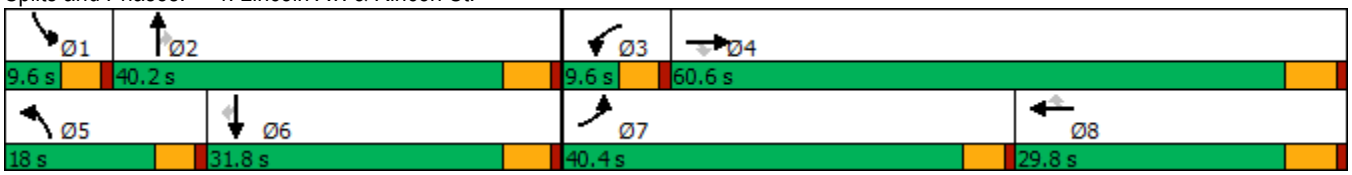
Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	100	94	2	2	203	784	6	9	1089	344
Future Volume (vph)	100	94	2	2	203	784	6	9	1089	344
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 69.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	0	94	2	0	2	203	784	6	9	1089	344
Future Volume (veh/h)	100	0	94	2	0	2	203	784	6	9	1089	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	0	57	2	0	0	233	901	6	10	1252	338
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	272	231	5	120	102	279	1936	862	23	1425	621
Arrive On Green	0.08	0.00	0.14	0.00	0.00	0.00	0.15	0.54	0.54	0.01	0.39	0.39
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	115	0	57	2	0	0	233	901	6	10	1252	338
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	4.2	0.0	2.1	0.1	0.0	0.0	8.4	10.3	0.1	0.4	21.5	11.1
Cycle Q Clear(g_c), s	4.2	0.0	2.1	0.1	0.0	0.0	8.4	10.3	0.1	0.4	21.5	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	272	231	5	120	102	279	1936	862	23	1425	621
V/C Ratio(X)	0.77	0.00	0.25	0.41	0.00	0.00	0.83	0.47	0.01	0.44	0.88	0.54
Avail Cap(c_a), veh/h	968	1556	1319	135	682	578	362	1936	862	135	1425	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	25.4	33.3	0.0	0.0	27.5	9.6	7.2	32.8	18.8	15.6
Incr Delay (d2), s/veh	3.1	0.0	0.6	18.7	0.0	0.0	9.8	0.8	0.0	4.8	8.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.8	0.1	0.0	0.0	4.1	3.4	0.0	0.2	9.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	26.0	52.0	0.0	0.0	37.3	10.4	7.2	37.6	26.8	19.0
LnGrp LOS	C	A	C	D	A	A	D	B	A	D	C	B
Approach Vol, veh/h		172			2			1140			1600	
Approach Delay, s/veh		30.7			52.0			15.9			25.2	
Approach LOS		C			D			B			C	

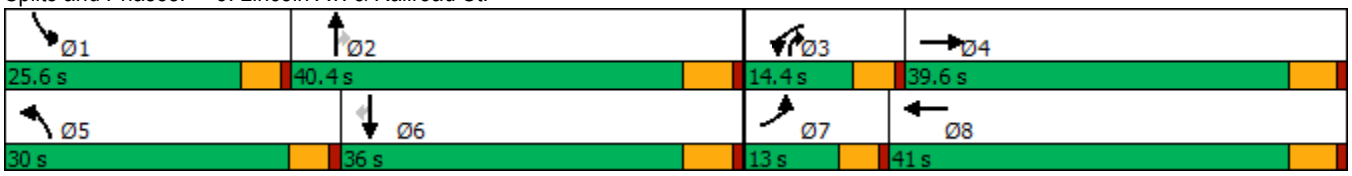
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	41.3	4.8	15.4	14.9	31.8	10.2	10.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.4	12.3	2.1	4.1	10.4	23.5	6.2	0.0
Green Ext Time (p_c), s	0.0	6.2	0.0	0.2	0.1	2.2	0.1	0.0

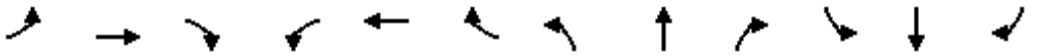
Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	72	99	67	587	238	726	95	179	675	295
Future Volume (vph)	72	99	67	587	238	726	95	179	675	295
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	99	71	67	587	200	238	726	95	179	675	295
Future Volume (veh/h)	72	99	71	67	587	200	238	726	95	179	675	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	112	48	76	667	192	270	825	64	203	767	252
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	715	290	98	781	225	303	1215	622	236	1081	481
Arrive On Green	0.06	0.29	0.29	0.05	0.28	0.28	0.17	0.34	0.34	0.13	0.30	0.30
Sat Flow, veh/h	1810	2493	1012	1810	2765	795	1810	3610	1588	1810	3610	1607
Grp Volume(v), veh/h	82	79	81	76	435	424	270	825	64	203	767	252
Grp Sat Flow(s),veh/h/ln	1810	1805	1700	1810	1805	1755	1810	1805	1588	1810	1805	1607
Q Serve(g_s), s	4.6	3.4	3.7	4.3	23.7	23.7	15.2	20.4	2.7	11.4	19.7	13.5
Cycle Q Clear(g_c), s	4.6	3.4	3.7	4.3	23.7	23.7	15.2	20.4	2.7	11.4	19.7	13.5
Prop In Lane	1.00		0.60	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	517	487	98	510	496	303	1215	622	236	1081	481
V/C Ratio(X)	0.78	0.15	0.17	0.78	0.85	0.85	0.89	0.68	0.10	0.86	0.71	0.52
Avail Cap(c_a), veh/h	146	594	559	171	618	601	442	1215	622	365	1081	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	27.7	27.8	48.5	35.3	35.3	42.3	29.7	20.1	44.3	32.4	30.3
Incr Delay (d2), s/veh	10.6	0.1	0.2	4.9	9.6	9.9	11.2	3.1	0.3	7.7	4.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.5	1.5	2.0	11.3	11.1	7.5	9.0	1.0	5.5	8.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	27.8	27.9	53.4	44.9	45.2	53.5	32.7	20.4	52.0	36.4	34.3
LnGrp LOS	E	C	C	D	D	D	D	C	C	D	D	C
Approach Vol, veh/h		242			935			1159			1222	
Approach Delay, s/veh		38.4			45.7			36.9			38.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	40.4	10.2	35.2	22.0	36.5	10.6	34.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	13.4	22.4	6.3	5.7	17.2	21.7	6.6	25.7
Green Ext Time (p_c), s	0.2	4.5	0.0	0.8	0.2	3.9	0.0	3.6

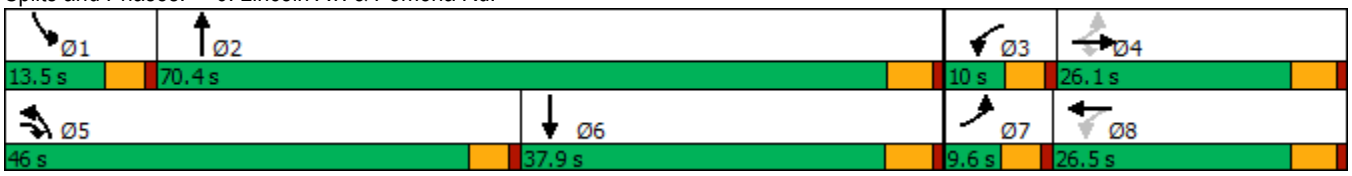
Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

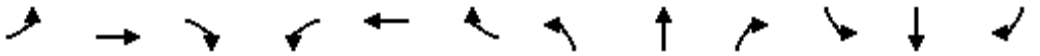
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	9	95	97	22	480	1072	53	749
Future Volume (vph)	11	9	95	97	22	480	1072	53	749
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	9	95	97	22	28	480	1072	82	53	749	70
Future Volume (veh/h)	11	9	95	97	22	28	480	1072	82	53	749	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	10	49	105	24	19	522	1165	77	58	814	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	181	646	285	130	103	555	2143	142	75	1198	107
Arrive On Green	0.01	0.10	0.10	0.05	0.13	0.13	0.31	0.62	0.62	0.04	0.36	0.36
Sat Flow, veh/h	1810	1900	1600	1810	982	778	1810	3437	227	1810	3341	300
Grp Volume(v), veh/h	12	10	49	105	0	43	522	611	631	58	440	447
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1760	1810	1805	1859	1810	1805	1836
Q Serve(g_s), s	0.6	0.5	2.0	5.4	0.0	2.3	29.4	20.2	20.2	3.3	21.6	21.6
Cycle Q Clear(g_c), s	0.6	0.5	2.0	5.4	0.0	2.3	29.4	20.2	20.2	3.3	21.6	21.6
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.12	1.00		0.16
Lane Grp Cap(c), veh/h	226	181	646	285	0	234	555	1126	1159	75	647	658
V/C Ratio(X)	0.05	0.06	0.08	0.37	0.00	0.18	0.94	0.54	0.54	0.77	0.68	0.68
Avail Cap(c_a), veh/h	287	381	814	285	0	360	715	1126	1159	154	647	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	43.1	19.3	39.3	0.0	40.4	35.4	11.2	11.2	49.7	28.5	28.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.4	16.2	1.9	1.8	6.1	5.7	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.7	2.4	0.0	1.0	15.0	7.8	8.1	1.6	9.9	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	43.2	19.4	39.6	0.0	40.7	51.6	13.1	13.1	55.8	34.1	34.1
LnGrp LOS	D	D	B	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		71			148			1764			945	
Approach Delay, s/veh		26.5			39.9			24.5			35.4	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	70.7	10.0	15.1	36.7	43.0	6.1	19.0
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.3	22.2	7.4	4.0	31.4	23.6	2.6	4.3
Green Ext Time (p_c), s	0.0	10.8	0.0	0.1	0.7	3.5	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

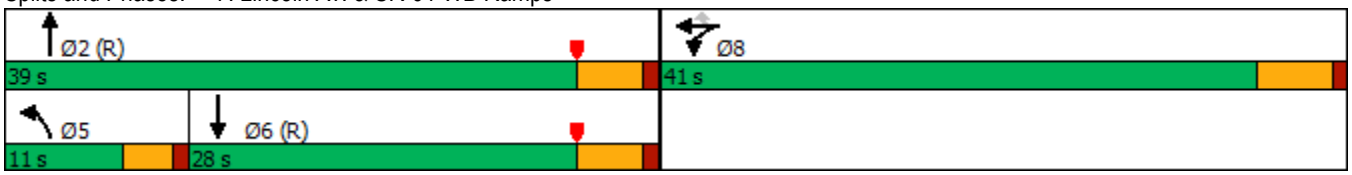
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

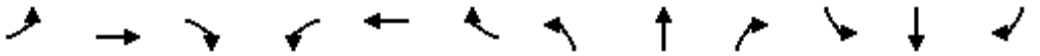
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	397	194	735	253	898	596
Future Volume (vph)	397	194	735	253	898	596
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	11.0	39.0	28.0
Total Split (%)	51.3%	51.3%	51.3%	13.8%	48.8%	35.0%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	397	194	735	253	898	0	0	596	343
Future Volume (veh/h)	0	0	0	397	194	735	253	898	0	0	596	343
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				308	350	500	264	935	0	0	621	296
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				628	659	559	307	1884	0	0	910	433
Arrive On Green				0.35	0.35	0.35	0.09	0.52	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2462	1128
Grp Volume(v), veh/h				308	350	500	264	935	0	0	474	443
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1690
Q Serve(g_s), s				10.7	11.8	23.5	5.9	13.4	0.0	0.0	17.5	17.5
Cycle Q Clear(g_c), s				10.7	11.8	23.5	5.9	13.4	0.0	0.0	17.5	17.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				628	659	559	307	1884	0	0	694	649
V/C Ratio(X)				0.49	0.53	0.90	0.86	0.50	0.00	0.00	0.68	0.68
Avail Cap(c_a), veh/h				803	843	715	307	1884	0	0	694	649
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.75	0.75	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh				20.6	20.9	24.7	36.0	12.3	0.0	0.0	20.6	20.6
Incr Delay (d2), s/veh				0.2	0.2	10.1	15.9	0.7	0.0	0.0	4.2	4.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	4.9	9.8	3.1	4.9	0.0	0.0	7.6	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.8	21.2	34.9	51.9	13.0	0.0	0.0	24.8	25.1
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1158			1199			917	
Approach Delay, s/veh					27.0			21.6			24.9	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	46.7		11.0	35.7		33.3						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		7.0	23.0		35.5						
Max Q Clear Time (g_c+I1), s	15.4		7.9	19.5		25.5						
Green Ext Time (p_c), s	4.2		0.0	1.4		2.2						

Intersection Summary		
HCM 6th Ctrl Delay	24.4	
HCM 6th LOS	C	

Notes

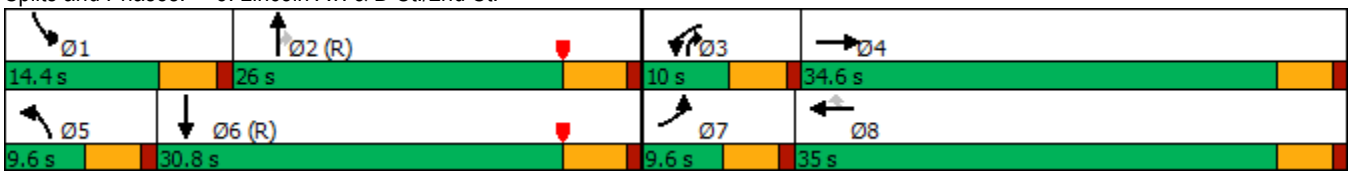
User approved volume balancing among the lanes for turning movement.

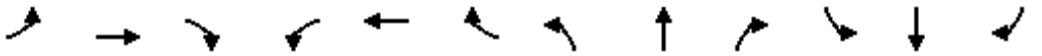
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	80	184	119	61	397	97	675	639	305	542
Future Volume (vph)	80	184	119	61	397	97	675	639	305	542
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.0	10.0	14.4	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	30.6%	11.8%	16.9%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	184	69	119	61	397	97	675	639	305	542	90
Future Volume (veh/h)	80	184	69	119	61	397	97	675	639	305	542	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	192	54	124	64	295	101	703	448	318	565	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	314	88	195	414	351	106	1404	714	394	1391	204
Arrive On Green	0.06	0.22	0.22	0.06	0.22	0.22	0.06	0.39	0.39	0.11	0.44	0.44
Sat Flow, veh/h	1810	1420	399	3510	1900	1610	1810	3610	1606	3510	3147	461
Grp Volume(v), veh/h	83	0	246	124	64	295	101	703	448	318	323	325
Grp Sat Flow(s),veh/h/ln	1810	0	1820	1755	1900	1610	1810	1805	1606	1755	1805	1802
Q Serve(g_s), s	3.8	0.0	10.3	2.9	2.3	14.9	4.7	12.6	18.3	7.5	10.3	10.4
Cycle Q Clear(g_c), s	3.8	0.0	10.3	2.9	2.3	14.9	4.7	12.6	18.3	7.5	10.3	10.4
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	402	195	414	351	106	1404	714	394	798	797
V/C Ratio(X)	0.78	0.00	0.61	0.63	0.15	0.84	0.95	0.50	0.63	0.81	0.41	0.41
Avail Cap(c_a), veh/h	106	0	642	223	680	576	106	1404	714	405	798	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.52	0.52	0.52
Uniform Delay (d), s/veh	39.5	0.0	29.8	39.3	26.9	31.8	39.9	19.7	18.2	36.8	16.1	16.1
Incr Delay (d2), s/veh	27.8	0.0	1.5	2.7	0.2	5.5	70.2	1.3	4.1	5.7	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	4.6	1.3	1.1	6.2	4.1	5.2	7.3	3.4	4.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	0.0	31.3	41.9	27.1	37.3	110.1	21.0	22.3	42.5	16.9	16.9
LnGrp LOS	E	A	C	D	C	D	F	C	C	D	B	B
Approach Vol, veh/h		329			483			1252			966	
Approach Delay, s/veh		40.4			37.1			28.7			25.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	38.2	9.3	23.4	9.6	42.7	9.6	23.1
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.8	20.9	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	9.5	20.3	4.9	12.3	6.7	12.4	5.8	16.9
Green Ext Time (p_c), s	0.0	0.4	0.0	1.4	0.0	3.2	0.0	1.2

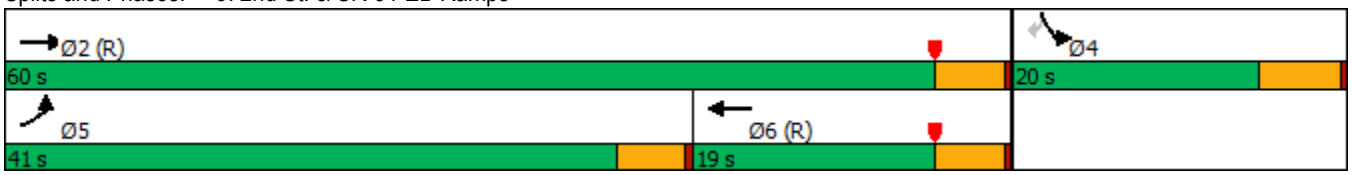
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

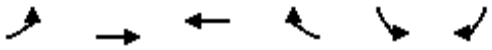
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	1038	80	137	100	439
Future Volume (vph)	1038	80	137	100	439
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	60.0	19.0	20.0	20.0
Total Split (%)	51.3%	75.0%	23.8%	25.0%	25.0%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1038	80	137	146	100	439
Future Volume (veh/h)	1038	80	137	146	100	439
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1081	83	143	92	104	457
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1250	1316	603	365	333	592
Arrive On Green	0.36	0.69	0.28	0.28	0.18	0.18
Sat Flow, veh/h	3510	1900	2257	1308	1810	3220
Grp Volume(v), veh/h	1081	83	118	117	104	457
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1665	1810	1610
Q Serve(g_s), s	22.9	1.1	4.0	4.4	4.0	10.8
Cycle Q Clear(g_c), s	22.9	1.1	4.0	4.4	4.0	10.8
Prop In Lane	1.00			0.79	1.00	1.00
Lane Grp Cap(c), veh/h	1250	1316	504	464	333	592
V/C Ratio(X)	0.86	0.06	0.23	0.25	0.31	0.77
Avail Cap(c_a), veh/h	1597	1316	504	464	333	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	4.0	22.2	22.4	28.3	31.1
Incr Delay (d2), s/veh	2.9	0.1	1.1	1.3	2.4	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.3	1.8	1.8	1.9	10.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.9	4.0	23.3	23.7	30.7	40.5
LnGrp LOS	C	A	C	C	C	D
Approach Vol, veh/h		1164	235		561	
Approach Delay, s/veh		25.2	23.5		38.7	
Approach LOS		C	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		20.0	33.1	26.9
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		55.4		14.7	36.4	14.4
Max Q Clear Time (g_c+I1), s		3.1		12.8	24.9	6.4
Green Ext Time (p_c), s		0.3		0.3	3.6	0.5

Intersection Summary		
HCM 6th Ctrl Delay		28.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	877	619	56	52	29
Future Vol, veh/h	4	877	619	56	52	29
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	1110	784	71	66	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	858	0	-	0	1943	823
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	791	-	-	-	72	377
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	315	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	789	-	-	-	70	376
Mov Cap-2 Maneuver	-	-	-	-	70	-
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	314	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	179.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	789	-	-	-	99
HCM Lane V/C Ratio	0.006	-	-	-	1.036
HCM Control Delay (s)	9.6	0	-	-	179.8
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	6.4

Intersection	
Intersection Delay, s/veh	277.8
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	592	336	16	452	223	30
Future Vol, veh/h	592	336	16	452	223	30
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	749	425	20	572	282	38
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	450.8	71.3	24.9
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	88%	0%	3%
Vol Thru, %	0%	64%	97%
Vol Right, %	12%	36%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	253	928	468
LT Vol	223	0	16
Through Vol	0	592	452
RT Vol	30	336	0
Lane Flow Rate	320	1175	592
Geometry Grp	1	1	1
Degree of Util (X)	0.632	1.955	1.014
Departure Headway (Hd)	8.453	5.99	7.308
Convergence, Y/N	Yes	Yes	Yes
Cap	429	611	504
Service Time	6.453	4.042	5.308
HCM Lane V/C Ratio	0.746	1.923	1.175
HCM Control Delay	24.9	450.8	71.3
HCM Lane LOS	C	F	F
HCM 95th-tile Q	4.2	76.8	14.1

Intersection	
Intersection Delay, s/veh	84
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	742	16	8	561	14	17	0	32	30	0	2
Future Vol, veh/h	1	742	16	8	561	14	17	0	32	30	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	815	18	9	616	15	19	0	35	33	0	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	125.8	39.7	11	11.3
HCM LOS	F	E	B	B

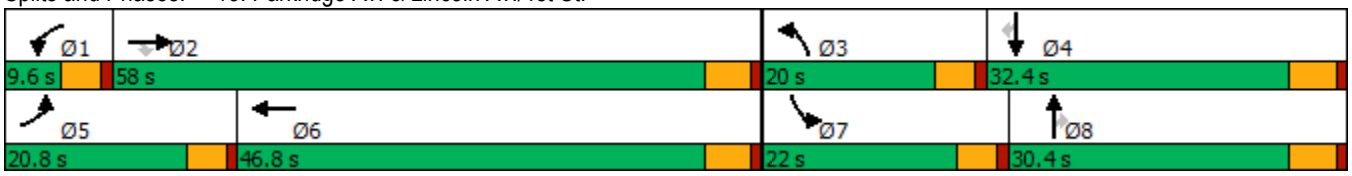
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	35%	0%	0%	1%	94%
Vol Thru, %	0%	100%	0%	96%	0%
Vol Right, %	65%	0%	100%	2%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	743	16	583	32
LT Vol	17	1	0	8	30
Through Vol	0	742	0	561	0
RT Vol	32	0	16	14	2
Lane Flow Rate	54	816	18	641	35
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.101	1.212	0.023	0.912	0.071
Departure Headway (Hd)	7.159	5.344	4.636	5.415	7.734
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	503	678	761	673	466
Service Time	5.159	3.142	2.433	3.415	5.734
HCM Lane V/C Ratio	0.107	1.204	0.024	0.952	0.075
HCM Control Delay	11	128.3	7.5	39.7	11.3
HCM Lane LOS	B	F	A	E	B
HCM 95th-tile Q	0.3	28.2	0.1	11.9	0.2

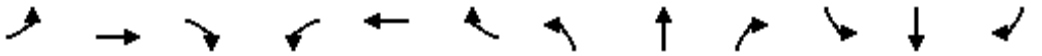
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	705	144	21	775	145	127	41	176	112	166
Future Volume (vph)	126	705	144	21	775	145	127	41	176	112	166
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.1
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	705	144	21	775	151	145	127	41	176	112	166
Future Volume (veh/h)	126	705	144	21	775	151	145	127	41	176	112	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	145	810	127	24	891	166	167	146	32	202	129	119
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	855	707	42	1145	213	196	424	351	231	461	383
Arrive On Green	0.10	0.45	0.45	0.02	0.38	0.38	0.11	0.22	0.22	0.13	0.24	0.24
Sat Flow, veh/h	1810	1900	1571	1810	3035	565	1810	1900	1575	1810	1900	1578
Grp Volume(v), veh/h	145	810	127	24	530	527	167	146	32	202	129	119
Grp Sat Flow(s),veh/h/ln	1810	1900	1571	1810	1805	1796	1810	1900	1575	1810	1900	1578
Q Serve(g_s), s	8.8	45.8	5.4	1.5	29.0	29.0	10.2	7.3	1.8	12.3	6.2	6.9
Cycle Q Clear(g_c), s	8.8	45.8	5.4	1.5	29.0	29.0	10.2	7.3	1.8	12.3	6.2	6.9
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	855	707	42	681	677	196	424	351	231	461	383
V/C Ratio(X)	0.83	0.95	0.18	0.56	0.78	0.78	0.85	0.34	0.09	0.87	0.28	0.31
Avail Cap(c_a), veh/h	261	896	741	81	681	677	249	424	351	281	461	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	29.6	18.5	54.2	30.8	30.8	49.1	36.7	34.5	48.0	34.5	34.8
Incr Delay (d2), s/veh	8.4	18.2	0.1	4.3	5.7	5.8	16.6	2.2	0.5	19.3	1.5	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	24.1	1.9	0.7	13.3	13.3	5.4	3.6	0.7	6.6	3.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	47.8	18.6	58.5	36.5	36.5	65.7	38.9	35.1	67.3	36.0	36.9
LnGrp LOS	E	D	B	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		1082			1081			345			450	
Approach Delay, s/veh		45.7			37.0			51.5			50.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	55.5	16.8	32.6	15.4	47.4	18.9	30.4
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	3.5	47.8	12.2	8.9	10.8	31.0	14.3	9.3
Green Ext Time (p_c), s	0.0	2.6	0.1	0.5	0.1	4.9	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	922	930	54	0	17
Future Vol, veh/h	0	922	930	54	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1002	1011	59	0	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	535
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	495
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	495
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	495
HCM Lane V/C Ratio	-	-	-	0.037
HCM Control Delay (s)	-	-	-	12.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	922	915	97	0	70
Future Vol, veh/h	0	922	915	97	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1002	995	105	0	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	550
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	484
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	484
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

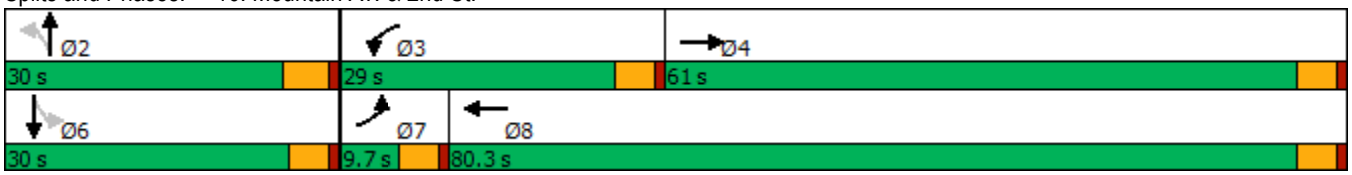
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	484
HCM Lane V/C Ratio	-	-	-	0.157
HCM Control Delay (s)	-	-	-	13.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	682	279	511	67	5	25	4
Future Volume (vph)	16	682	279	511	67	5	25	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	682	90	279	511	17	67	5	191	25	4	22
Future Volume (veh/h)	16	682	90	279	511	17	67	5	191	25	4	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	766	101	313	574	19	75	6	215	28	4	25
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	35	820	108	346	1227	41	245	7	264	77	23	37
Arrive On Green	0.02	0.50	0.50	0.19	0.67	0.67	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	1641	216	1810	1829	61	1403	44	1573	144	138	220
Grp Volume(v), veh/h	18	0	867	313	0	593	75	0	221	57	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1858	1810	0	1889	1403	0	1617	502	0	0
Q Serve(g_s), s	1.0	0.0	44.8	17.3	0.0	15.4	0.0	0.0	13.5	1.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	44.8	17.3	0.0	15.4	7.0	0.0	13.5	15.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.03	1.00		0.97	0.49		0.44
Lane Grp Cap(c), veh/h	35	0	928	346	0	1267	245	0	271	137	0	0
V/C Ratio(X)	0.51	0.00	0.93	0.91	0.00	0.47	0.31	0.00	0.82	0.42	0.00	0.00
Avail Cap(c_a), veh/h	90	0	1023	432	0	1397	350	0	392	247	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.6	0.0	24.0	40.5	0.0	8.1	38.3	0.0	41.0	40.1	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.0	14.2	17.5	0.0	0.3	0.7	0.0	8.4	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	21.7	9.2	0.0	5.5	1.7	0.0	5.8	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	38.2	57.9	0.0	8.3	39.0	0.0	49.4	42.1	0.0	0.0
LnGrp LOS	D	A	D	E	A	A	D	A	D	D	A	A
Approach Vol, veh/h		885			906			296			57	
Approach Delay, s/veh		38.5			25.5			46.8			42.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	22.3	24.1	55.8	22.3	6.6	73.3
Change Period (Y+Rc), s	5.2	4.6	* 4.7	* 5.2	4.6	* 4.7
Max Green Setting (Gmax), s	24.8	24.4	* 56	* 25	5.1	* 76
Max Q Clear Time (g_c+I1), s	15.5	19.3	46.8	17.0	3.0	17.4
Green Ext Time (p_c), s	1.0	0.2	4.3	0.1	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	17	0	8	4	0	8	39	239	13	27	297	51
Future Vol, veh/h	17	0	8	4	0	8	39	239	13	27	297	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	0	9	4	0	9	42	260	14	29	323	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	623	767	189	571	787	137	378	0	0	274	0	0
Stage 1	409	409	-	351	351	-	-	-	-	-	-	-
Stage 2	214	358	-	220	436	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	375	335	827	408	326	893	1192	-	-	1301	-	-
Stage 1	596	600	-	644	636	-	-	-	-	-	-	-
Stage 2	774	631	-	768	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	352	312	827	382	304	893	1192	-	-	1301	-	-
Mov Cap-2 Maneuver	352	312	-	382	304	-	-	-	-	-	-	-
Stage 1	571	583	-	617	609	-	-	-	-	-	-	-
Stage 2	734	604	-	739	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	11	1.2	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	431	618	1301	-	-
HCM Lane V/C Ratio	0.036	-	-	0.063	0.021	0.023	-	-
HCM Control Delay (s)	8.1	0.1	-	13.9	11	7.8	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	12	0	8	9	0	5	32	275	23	28	240	41
Future Vol, veh/h	12	0	8	9	0	5	32	275	23	28	240	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	9	10	0	5	35	299	25	30	261	45

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	564	738	153	573	748	162	306	0	0	324	0	0
Stage 1	344	344	-	382	382	-	-	-	-	-	-	-
Stage 2	220	394	-	191	366	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	413	348	872	407	343	861	1266	-	-	1247	-	-
Stage 1	650	640	-	618	616	-	-	-	-	-	-	-
Stage 2	768	609	-	798	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	391	326	872	384	322	861	1266	-	-	1247	-	-
Mov Cap-2 Maneuver	391	326	-	384	322	-	-	-	-	-	-	-
Stage 1	628	621	-	597	595	-	-	-	-	-	-	-
Stage 2	737	588	-	767	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	12.8	0.9	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1266	-	-	502	479	1247	-	-
HCM Lane V/C Ratio	0.027	-	-	0.043	0.032	0.024	-	-
HCM Control Delay (s)	7.9	0.1	-	12.5	12.8	8	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	0	6	0	64	313	23	217
Future Volume (vph)	9	0	6	0	64	313	23	217
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.4	9.6	27.4
Total Split (s)	40.0	40.0	40.0	40.0	20.0	60.0	20.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	16.7%	50.0%	16.7%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	5.4	4.6	5.4
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 35.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	13	6	0	8	64	313	28	23	217	17
Future Volume (veh/h)	9	0	13	6	0	8	64	313	28	23	217	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	0	14	7	0	9	70	340	30	25	236	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	8	86	228	11	83	134	1278	112	57	1149	87
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.07	0.38	0.38	0.03	0.34	0.34
Sat Flow, veh/h	559	88	906	564	116	874	1810	3357	295	1810	3401	258
Grp Volume(v), veh/h	24	0	0	16	0	0	70	182	188	25	124	130
Grp Sat Flow(s),veh/h/ln	1552	0	0	1553	0	0	1810	1805	1847	1810	1805	1854
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.1	2.1	0.4	1.5	1.5
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.3	0.0	0.0	1.1	2.1	2.1	0.4	1.5	1.5
Prop In Lane	0.42		0.58	0.44		0.56	1.00		0.16	1.00		0.14
Lane Grp Cap(c), veh/h	319	0	0	322	0	0	134	687	703	57	610	626
V/C Ratio(X)	0.08	0.00	0.00	0.05	0.00	0.00	0.52	0.26	0.27	0.44	0.20	0.21
Avail Cap(c_a), veh/h	2004	0	0	1999	0	0	942	3331	3408	942	3331	3420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	0.0	12.2	0.0	0.0	13.2	6.3	6.3	14.1	7.0	7.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	1.2	0.2	0.2	2.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.4	0.4	0.4	0.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	0.0	0.0	12.3	0.0	0.0	14.4	6.5	6.5	16.1	7.1	7.1
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		24			16			440			279	
Approach Delay, s/veh		12.4			12.3			7.8			7.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	16.7		7.4	6.8	15.4		7.4				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	2.4	4.1		2.4	3.1	3.5		2.3				
Green Ext Time (p_c), s	0.0	2.1		0.1	0.0	1.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.1	
HCM 6th LOS		A	

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	11	6	0	8	57	388	28	24	196	17
Future Vol, veh/h	9	0	11	6	0	8	57	388	28	24	196	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	0	12	7	0	9	62	422	30	26	213	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	609	850	116	720	844	226	231	0	0	452	0	0
Stage 1	274	274	-	561	561	-	-	-	-	-	-	-
Stage 2	335	576	-	159	283	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	383	300	921	319	302	783	1349	-	-	1119	-	-
Stage 1	714	687	-	485	513	-	-	-	-	-	-	-
Stage 2	658	505	-	833	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	354	274	921	294	276	783	1349	-	-	1119	-	-
Mov Cap-2 Maneuver	354	274	-	294	276	-	-	-	-	-	-	-
Stage 1	670	668	-	455	481	-	-	-	-	-	-	-
Stage 2	610	474	-	800	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	13.1	1.1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1349	-	-	535	457	1119	-	-
HCM Lane V/C Ratio	0.046	-	-	0.041	0.033	0.023	-	-
HCM Control Delay (s)	7.8	0.2	-	12	13.1	8.3	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	63	0	473	128	86
Future Vol, veh/h	0	63	0	473	128	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	68	0	514	139	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	116	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	921	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	921	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

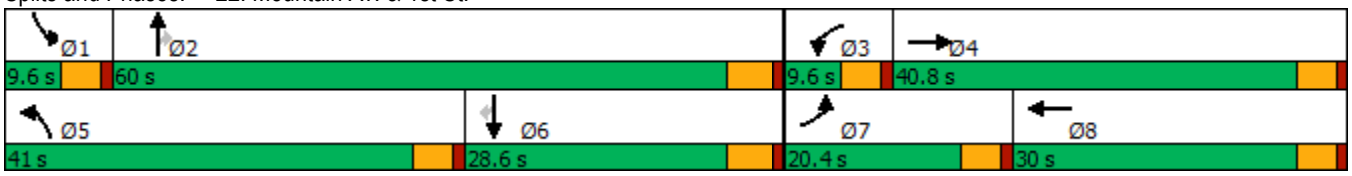
Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	921	-	-
HCM Lane V/C Ratio	-	0.074	-	-
HCM Control Delay (s)	-	9.2	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	233	402	1	378	548	206	13	12	94	84
Future Volume (vph)	233	402	1	378	548	206	13	12	94	84
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	20.4	40.8	9.6	30.0	41.0	60.0	60.0	9.6	28.6	28.6
Total Split (%)	17.0%	34.0%	8.0%	25.0%	34.2%	50.0%	50.0%	8.0%	23.8%	23.8%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	402	287	1	378	35	548	206	13	12	94	84
Future Volume (veh/h)	233	402	287	1	378	35	548	206	13	12	94	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	423	302	1	398	37	577	217	14	13	99	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	804	570	2	423	39	605	756	641	27	150	127
Arrive On Green	0.15	0.40	0.40	0.00	0.25	0.25	0.33	0.40	0.40	0.02	0.08	0.08
Sat Flow, veh/h	1810	2018	1430	1810	1710	159	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	245	378	347	1	0	435	577	217	14	13	99	88
Grp Sat Flow(s),veh/h/ln	1810	1805	1643	1810	0	1869	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	13.6	16.3	16.5	0.1	0.0	23.3	31.8	7.9	0.5	0.7	5.2	5.4
Cycle Q Clear(g_c), s	13.6	16.3	16.5	0.1	0.0	23.3	31.8	7.9	0.5	0.7	5.2	5.4
Prop In Lane	1.00		0.87	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	719	655	2	0	463	605	756	641	27	150	127
V/C Ratio(X)	0.89	0.53	0.53	0.40	0.00	0.94	0.95	0.29	0.02	0.48	0.66	0.69
Avail Cap(c_a), veh/h	280	719	655	89	0	463	645	1019	863	89	435	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	23.4	23.4	51.0	0.0	37.7	33.2	20.9	18.7	49.9	45.7	45.9
Incr Delay (d2), s/veh	26.4	0.7	0.8	34.9	0.0	27.4	23.3	0.2	0.0	4.7	4.9	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	6.8	6.3	0.0	0.0	13.9	17.1	3.4	0.2	0.4	2.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.9	24.1	24.3	85.9	0.0	65.1	56.6	21.1	18.7	54.6	50.6	52.5
LnGrp LOS	E	C	C	F	A	E	E	C	B	D	D	D
Approach Vol, veh/h		970			436			808			200	
Approach Delay, s/veh		35.5			65.2			46.4			51.7	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	45.9	4.7	45.4	38.8	13.3	20.2	30.0
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	54.8	5.0	* 36	36.4	23.4	15.8	* 25
Max Q Clear Time (g_c+I1), s	2.7	9.9	2.1	18.5	33.8	7.4	15.6	25.3
Green Ext Time (p_c), s	0.0	1.3	0.0	4.3	0.3	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	874	24	0	807	0	8
Future Vol, veh/h	874	24	0	807	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	950	26	0	877	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	963
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	313
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.8
HCM LOS			C

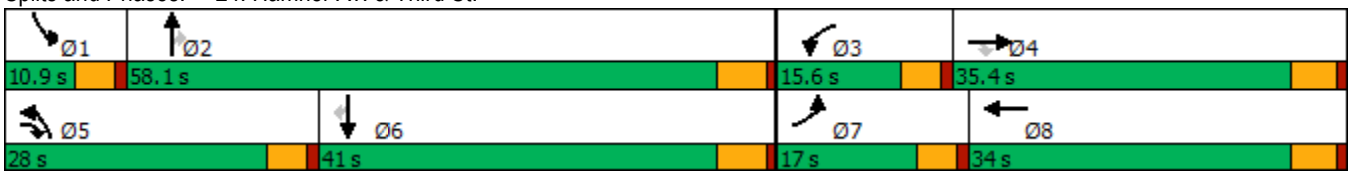
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	313	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-
HCM Control Delay (s)	16.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

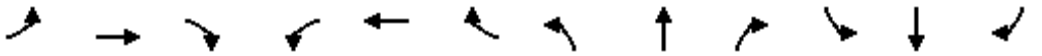
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	148	39	317	87	368	630	1140	64	31	694	552
Future Volume (vph)	148	39	317	87	368	630	1140	64	31	694	552
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	17.0	35.4	28.0	15.6	34.0	28.0	58.1	58.1	10.9	41.0	41.0
Total Split (%)	14.2%	29.5%	23.3%	13.0%	28.3%	23.3%	48.4%	48.4%	9.1%	34.2%	34.2%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	39	317	87	368	38	630	1140	64	31	694	552
Future Volume (veh/h)	148	39	317	87	368	38	630	1140	64	31	694	552
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	41	188	92	387	36	663	1200	45	33	731	466
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	527	761	116	410	38	688	1683	728	50	1076	478
Arrive On Green	0.10	0.28	0.28	0.06	0.24	0.24	0.20	0.47	0.47	0.03	0.30	0.30
Sat Flow, veh/h	1810	1900	1608	1810	1709	159	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	156	41	188	92	0	423	663	1200	45	33	731	466
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	10.1	1.9	8.3	6.0	0.0	26.6	22.4	31.7	1.9	2.2	21.3	34.4
Cycle Q Clear(g_c), s	10.1	1.9	8.3	6.0	0.0	26.6	22.4	31.7	1.9	2.2	21.3	34.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	527	761	116	0	448	688	1683	728	50	1076	478
V/C Ratio(X)	0.85	0.08	0.25	0.80	0.00	0.94	0.96	0.71	0.06	0.65	0.68	0.98
Avail Cap(c_a), veh/h	188	527	761	167	0	452	688	1683	728	95	1076	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	31.9	18.8	55.1	0.0	44.6	47.6	25.5	17.5	57.5	36.9	41.5
Incr Delay (d2), s/veh	27.7	0.1	0.2	9.6	0.0	28.5	25.4	2.6	0.2	5.3	3.5	35.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.9	3.1	3.0	0.0	15.6	12.0	13.5	0.7	1.0	9.7	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	32.0	18.9	64.8	0.0	73.1	73.0	28.1	17.7	62.7	40.4	77.1
LnGrp LOS	F	C	B	E	A	E	E	C	B	E	D	E
Approach Vol, veh/h		385			515			1908			1230	
Approach Delay, s/veh		45.3			71.6			43.5			54.9	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	61.1	12.2	38.2	28.0	41.0	16.7	33.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	6.3	52.7	11.0	30.3	23.4	35.6	12.4	28.9
Max Q Clear Time (g_c+I1), s	4.2	33.7	8.0	10.3	24.4	36.4	12.1	28.6
Green Ext Time (p_c), s	0.0	8.3	0.0	0.7	0.0	0.0	0.0	0.1

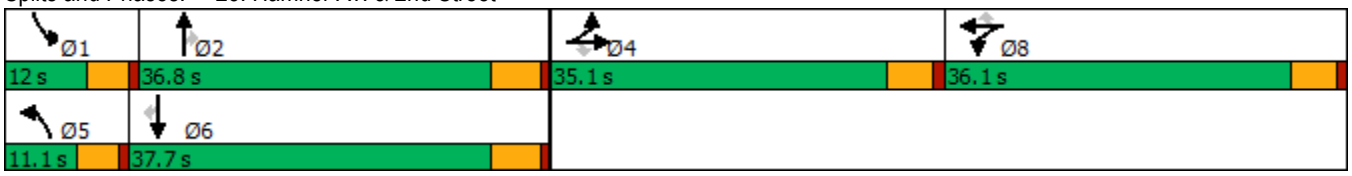
Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

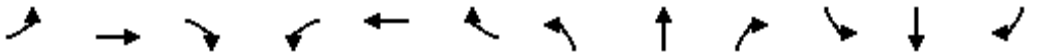
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	229	539	42	389	573	732	78	904	164	263	676	208
Future Volume (vph)	229	539	42	389	573	732	78	904	164	263	676	208
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	11.1	36.8	36.8	12.0	37.7	37.7
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	9.3%	30.7%	30.7%	10.0%	31.4%	31.4%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	539	42	389	573	732	78	904	164	263	676	208
Future Volume (veh/h)	229	539	42	389	573	732	78	904	164	263	676	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	241	567	33	337	703	442	82	952	99	277	712	177
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	452	950	397	467	982	410	98	945	417	112	972	432
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.05	0.26	0.26	0.06	0.27	0.27
Sat Flow, veh/h	1810	3800	1589	1810	3800	1588	1810	3610	1595	1810	3610	1605
Grp Volume(v), veh/h	241	567	33	337	703	442	82	952	99	277	712	177
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1588	1810	1805	1595	1810	1805	1605
Q Serve(g_s), s	13.8	15.8	1.9	20.4	20.2	31.0	5.4	31.4	5.9	7.4	21.5	10.9
Cycle Q Clear(g_c), s	13.8	15.8	1.9	20.4	20.2	31.0	5.4	31.4	5.9	7.4	21.5	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	950	397	467	982	410	98	945	417	112	972	432
V/C Ratio(X)	0.53	0.60	0.08	0.72	0.72	1.08	0.84	1.01	0.24	2.48	0.73	0.41
Avail Cap(c_a), veh/h	452	950	397	467	982	410	98	945	417	112	972	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	39.7	34.5	40.6	40.5	44.5	56.2	44.3	34.9	56.3	39.9	36.0
Incr Delay (d2), s/veh	4.4	2.8	0.4	5.4	2.5	66.8	41.9	31.2	0.3	693.1	2.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.7	0.8	9.6	9.7	19.6	3.6	17.7	2.3	24.8	9.7	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	42.4	34.9	45.9	43.0	111.3	98.1	75.5	35.2	749.4	42.8	36.6
LnGrp LOS	D	D	C	D	D	F	F	F	D	F	D	D
Approach Vol, veh/h		841			1482			1133			1166	
Approach Delay, s/veh		42.4			64.0			73.6			209.7	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.8		35.1	11.1	37.7		36.1				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	7.4	31.4		30.0	6.5	32.3		31.0				
Max Q Clear Time (g_c+I1), s	9.4	33.4		17.8	7.4	23.5		33.0				
Green Ext Time (p_c), s	0.0	0.0		3.6	0.0	3.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		99.2	
HCM 6th LOS		F	

Notes

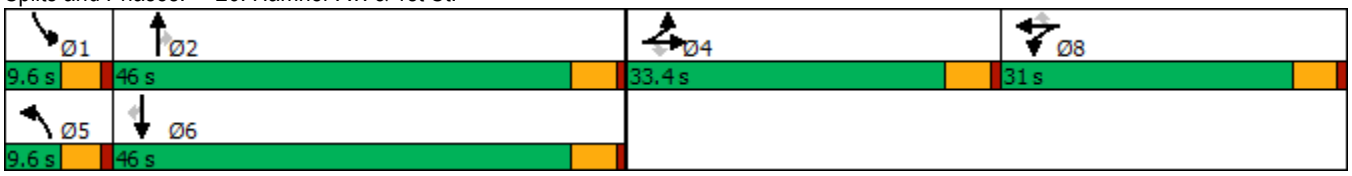
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	353	24	22	16	9	60	850	2	21	605	338
Future Volume (vph)	353	24	22	16	9	60	850	2	21	605	338
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.4	33.4	33.4	31.0	31.0	9.6	46.0	46.0	9.6	46.0	46.0
Total Split (%)	27.8%	27.8%	27.8%	25.8%	25.8%	8.0%	38.3%	38.3%	8.0%	38.3%	38.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-0.6	-1.0	-1.0	-0.6	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 87.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	24	22	11	16	9	60	850	2	21	605	338
Future Volume (veh/h)	353	24	22	11	16	9	60	850	2	21	605	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	0	14	12	17	1	64	904	2	22	644	270
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	574	0	255	56	80	116	98	1949	849	57	1867	831
Arrive On Green	0.16	0.00	0.16	0.07	0.07	0.07	0.05	0.54	0.54	0.03	0.52	0.52
Sat Flow, veh/h	3619	0	1607	770	1091	1588	1810	3610	1572	1810	3610	1607
Grp Volume(v), veh/h	395	0	14	29	0	1	64	904	2	22	644	270
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1861	0	1588	1810	1805	1572	1810	1805	1607
Q Serve(g_s), s	8.4	0.0	0.6	1.2	0.0	0.0	2.8	12.5	0.0	1.0	8.5	7.9
Cycle Q Clear(g_c), s	8.4	0.0	0.6	1.2	0.0	0.0	2.8	12.5	0.0	1.0	8.5	7.9
Prop In Lane	1.00		1.00	0.41		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	0	255	136	0	116	98	1949	849	57	1867	831
V/C Ratio(X)	0.69	0.00	0.05	0.21	0.00	0.01	0.65	0.46	0.00	0.39	0.35	0.32
Avail Cap(c_a), veh/h	1310	0	582	619	0	528	125	1949	849	125	1867	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	0.0	29.0	35.5	0.0	34.9	37.6	11.5	8.6	38.6	11.5	11.4
Incr Delay (d2), s/veh	1.5	0.0	0.1	0.8	0.0	0.0	3.5	0.8	0.0	1.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.2	0.6	0.0	0.0	1.3	4.4	0.0	0.4	3.1	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	29.1	36.2	0.0	35.0	41.1	12.3	8.6	40.2	12.0	12.4
LnGrp LOS	C	A	C	D	A	C	D	B	A	D	B	B
Approach Vol, veh/h		409			30			970			936	
Approach Delay, s/veh		33.6			36.2			14.2			12.8	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	47.9		16.9	8.4	46.0		9.9				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	5.0	41.0		28.4	5.0	41.0		26.0				
Max Q Clear Time (g_c+I1), s	3.0	14.5		10.4	4.8	10.5		3.2				
Green Ext Time (p_c), s	0.0	6.6		1.3	0.0	5.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		17.3	
HCM 6th LOS		B	

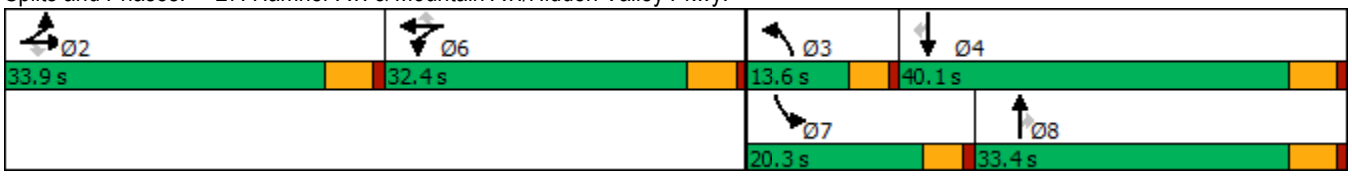
Notes

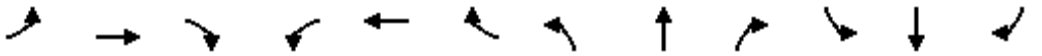
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	335	55	775	771	375	68	569	277	171	459	9
Future Volume (vph)	12	335	55	775	771	375	68	569	277	171	459	9
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-0.6	-1.4	-1.4	-0.6	-1.4	-1.4
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 111.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	335	55	775	771	375	68	569	277	171	459	9
Future Volume (veh/h)	12	335	55	775	771	375	68	569	277	171	459	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	356	54	920	686	360	72	605	174	182	488	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	511	1019	454	971	510	431	103	801	352	269	872	387
Arrive On Green	0.28	0.28	0.28	0.27	0.27	0.27	0.06	0.22	0.22	0.08	0.24	0.24
Sat Flow, veh/h	1810	3610	1608	3619	1900	1608	1810	3610	1584	3510	3610	1600
Grp Volume(v), veh/h	13	356	54	920	686	360	72	605	174	182	488	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1608	1810	1805	1584	1755	1805	1600
Q Serve(g_s), s	0.5	8.3	2.6	26.4	28.4	22.4	4.1	16.6	10.2	5.3	12.6	0.3
Cycle Q Clear(g_c), s	0.5	8.3	2.6	26.4	28.4	22.4	4.1	16.6	10.2	5.3	12.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	511	1019	454	971	510	431	103	801	352	269	872	387
V/C Ratio(X)	0.03	0.35	0.12	0.95	1.35	0.83	0.70	0.76	0.49	0.68	0.56	0.02
Avail Cap(c_a), veh/h	511	1019	454	971	510	431	164	1002	440	540	1231	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	30.3	28.2	38.0	38.8	36.5	49.1	38.5	36.0	47.6	35.2	30.6
Incr Delay (d2), s/veh	0.1	0.9	0.5	17.7	168.6	13.2	3.2	2.6	1.1	1.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	1.1	13.6	36.5	10.0	1.9	7.4	3.9	2.3	5.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	31.2	28.8	55.7	207.3	49.8	52.3	41.1	37.1	48.8	35.8	30.6
LnGrp LOS	C	C	C	E	F	D	D	D	D	D	D	C
Approach Vol, veh/h		423			1966			851			676	
Approach Delay, s/veh		30.8			107.5			41.2			39.2	
Approach LOS		C			F			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	10.0	29.6		32.4	12.1	27.5				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		10.3	6.1	14.6		30.4	7.3	18.6				
Green Ext Time (p_c), s		2.2	0.0	2.9		0.0	0.2	3.1				

Intersection Summary		
HCM 6th Ctrl Delay		73.0
HCM 6th LOS		E

Notes

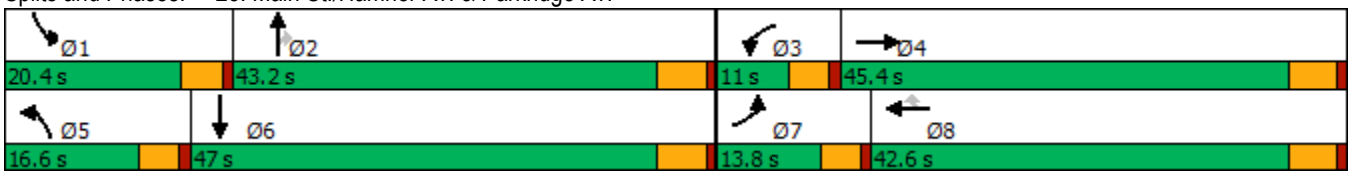
User approved volume balancing among the lanes for turning movement.

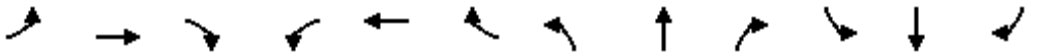
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	122	352	130	364	280	82	569	99	239	747
Future Volume (vph)	122	352	130	364	280	82	569	99	239	747
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	45.4	11.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	37.8%	9.2%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.4	-0.6	-1.4	-1.4	-0.6	-1.4	-1.4	-0.6	-1.4
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	352	41	130	364	280	82	569	99	239	747	229
Future Volume (veh/h)	122	352	41	130	364	280	82	569	99	239	747	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	383	37	141	396	178	89	618	0	260	812	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	988	95	113	519	437	122	1264		265	2225	
Arrive On Green	0.09	0.30	0.29	0.06	0.27	0.27	0.07	0.35	0.00	0.15	0.43	0.00
Sat Flow, veh/h	1810	3314	318	1810	1900	1600	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	133	207	213	141	396	178	89	618	0	260	812	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1827	1810	1900	1600	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	8.1	10.2	10.4	7.0	21.4	10.2	5.4	15.0	0.0	16.0	11.9	0.0
Cycle Q Clear(g_c), s	8.1	10.2	10.4	7.0	21.4	10.2	5.4	15.0	0.0	16.0	11.9	0.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	158	538	544	113	519	437	122	1264		265	2225	
V/C Ratio(X)	0.84	0.39	0.39	1.25	0.76	0.41	0.73	0.49		0.98	0.36	
Avail Cap(c_a), veh/h	158	667	675	113	655	551	204	1264		265	2225	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.3	31.2	31.3	52.5	37.4	33.3	51.2	28.5	0.0	47.6	21.6	0.0
Incr Delay (d2), s/veh	29.7	0.5	0.5	165.0	4.1	0.6	3.1	1.4	0.0	49.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	4.4	4.5	8.3	10.2	3.9	2.5	6.5	0.0	10.7	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.1	31.6	31.8	217.5	41.5	33.9	54.3	29.9	0.0	97.3	22.1	0.0
LnGrp LOS	F	C	C	F	D	C	D	C		F	C	
Approach Vol, veh/h		553			715			707	A		1072	A
Approach Delay, s/veh		43.3			74.3			33.0			40.3	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	43.2	11.0	37.4	11.6	52.0	13.8	34.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	6.4	40.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	18.0	17.0	9.0	12.4	7.4	13.9	10.1	23.4
Green Ext Time (p_c), s	0.0	3.9	0.0	2.4	0.0	5.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	47.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

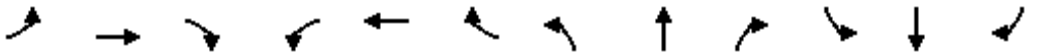
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	511	277	1225	1	514
Future Volume (vph)	511	277	1225	1	514
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	511	537	277	1225	0	0	0	0	63	1	514
Future Volume (veh/h)	0	511	537	277	1225	0	0	0	0	63	1	514
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	532	491	289	1276	0				66	1	504
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	763	655	320	2298	0				501	8	452
Arrive On Green	0.00	0.42	0.42	0.12	0.43	0.00				0.28	0.28	0.28
Sat Flow, veh/h	0	1900	1550	1810	3705	0				1784	27	1610
Grp Volume(v), veh/h	0	532	491	289	1276	0				67	0	504
Grp Sat Flow(s),veh/h/ln	0	1805	1550	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	29.0	32.1	18.9	31.9	0.0				3.3	0.0	33.7
Cycle Q Clear(g_c), s	0.0	29.0	32.1	18.9	31.9	0.0				3.3	0.0	33.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	763	655	320	2298	0				509	0	452
V/C Ratio(X)	0.00	0.70	0.75	0.90	0.56	0.00				0.13	0.00	1.11
Avail Cap(c_a), veh/h	0	763	655	445	2298	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.64	0.64	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.4	29.3	51.9	21.6	0.0				32.2	0.0	43.1
Incr Delay (d2), s/veh	0.0	0.5	0.7	9.8	0.6	0.0				0.0	0.0	77.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	11.7	9.7	14.4	0.0				1.4	0.0	22.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.9	30.0	61.7	22.3	0.0				32.3	0.0	120.5
LnGrp LOS	A	C	C	E	C	A				C	A	F
Approach Vol, veh/h		1023			1565						571	
Approach Delay, s/veh		29.4			29.5						110.2	
Approach LOS		C			C						F	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.7	55.3		39.0		81.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	20.9	34.1		35.7		33.9
Green Ext Time (p_c), s	0.3	3.1		0.0		7.6

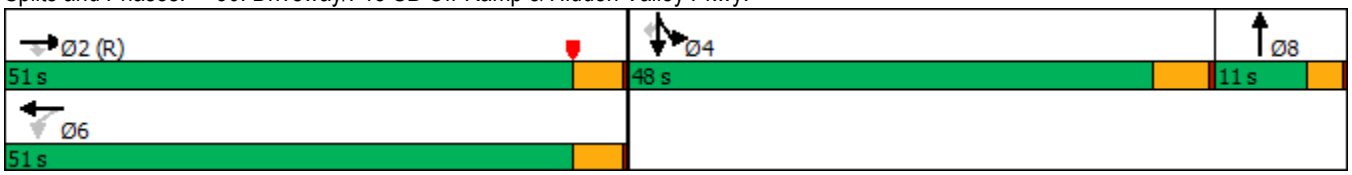
Intersection Summary		
HCM 6th Ctrl Delay		44.1
HCM 6th LOS		D

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	804	24	80	1088	0	224	70	835
Future Volume (vph)	804	24	80	1088	0	224	70	835
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	51.0	51.0	51.0	51.0	11.0	48.0	48.0	48.0
Total Split (%)	46.4%	46.4%	46.4%	46.4%	10.0%	43.6%	43.6%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	-0.5	-0.5	-0.5	-0.5	0.5	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	804	24	80	1088	0	0	0	82	224	70	835
Future Volume (veh/h)	0	804	24	80	1088	0	0	0	82	224	70	835
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	846	17	84	1145	0	0	0	42	182	0	879
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1673	746	260	1673	0	0	0	44	724	0	1288
Arrive On Green	0.00	0.46	0.46	0.93	0.93	0.00	0.00	0.00	0.03	0.40	0.00	0.40
Sat Flow, veh/h	0	3705	1610	651	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	846	17	84	1145	0	0	0	42	182	0	879
Grp Sat Flow(s),veh/h/ln	0	1805	1610	651	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	18.1	0.6	7.7	7.0	0.0	0.0	0.0	2.9	7.4	0.0	24.8
Cycle Q Clear(g_c), s	0.0	18.1	0.6	25.8	7.0	0.0	0.0	0.0	2.9	7.4	0.0	24.8
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1673	746	260	1673	0	0	0	44	724	0	1288
V/C Ratio(X)	0.00	0.51	0.02	0.32	0.68	0.00	0.00	0.00	0.95	0.25	0.00	0.68
Avail Cap(c_a), veh/h	0	1673	746	260	1673	0	0	0	102	724	0	1288
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.94	0.94	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.7	16.0	8.0	2.4	0.0	0.0	0.0	53.2	22.0	0.0	27.2
Incr Delay (d2), s/veh	0.0	1.0	0.1	0.2	0.9	0.0	0.0	0.0	27.2	0.8	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	0.2	0.6	1.3	0.0	0.0	0.0	1.5	3.2	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.7	16.1	8.2	3.3	0.0	0.0	0.0	80.4	22.8	0.0	30.2
LnGrp LOS	A	C	B	A	A	A	A	A	F	C	A	C
Approach Vol, veh/h		863			1229			42			1061	
Approach Delay, s/veh		21.6			3.7			80.4			28.9	
Approach LOS		C			A			F			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		48.0		55.0		7.0				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		46.5		43.0		46.5		7.5				
Max Q Clear Time (g_c+I1), s		20.1		26.8		27.8		4.9				
Green Ext Time (p_c), s		3.9		3.1		5.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		17.9
HCM 6th LOS		B

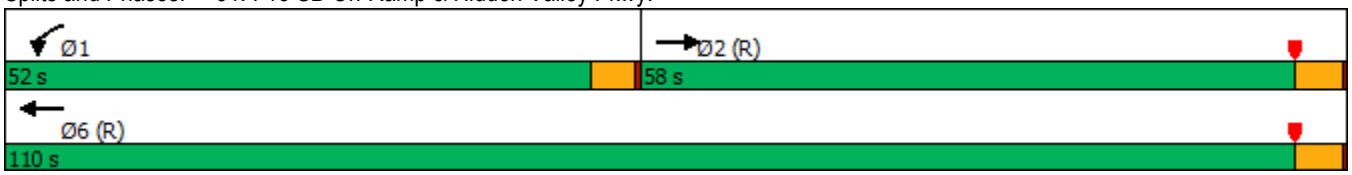
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	725	204	1167
Future Volume (vph)	725	204	1167
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	58.0	52.0	110.0
Total Split (%)	52.7%	47.3%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	-0.5	0.0	-0.5
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	725	385	204	1167	0	0
Future Volume (veh/h)	725	385	204	1167	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	788	416	222	1268		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1123	590	790	3479		
Arrive On Green	0.65	0.65	0.87	1.00		
Sat Flow, veh/h	2382	1201	1810	3705		
Grp Volume(v), veh/h	621	583	222	1268		
Grp Sat Flow(s),veh/h/ln	1805	1684	1810	1805		
Q Serve(g_s), s	24.2	24.7	2.3	0.0		
Cycle Q Clear(g_c), s	24.2	24.7	2.3	0.0		
Prop In Lane		0.71	1.00			
Lane Grp Cap(c), veh/h	886	827	790	3479		
V/C Ratio(X)	0.70	0.71	0.28	0.36		
Avail Cap(c_a), veh/h	886	827	790	3479		
HCM Platoon Ratio	1.33	1.33	2.00	2.00		
Upstream Filter(I)	0.89	0.89	0.71	0.71		
Uniform Delay (d), s/veh	13.9	14.2	4.1	0.0		
Incr Delay (d2), s/veh	4.1	4.5	0.6	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.0	7.8	0.9	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	18.7	4.7	0.2		
LnGrp LOS	B	B	A	A		
Approach Vol, veh/h	1204			1490		
Approach Delay, s/veh	18.3			0.9		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	52.0	58.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	48.0	53.5				105.5
Max Q Clear Time (g_c+I1), s	4.3	26.7				2.0
Green Ext Time (p_c), s	0.6	5.5				7.2

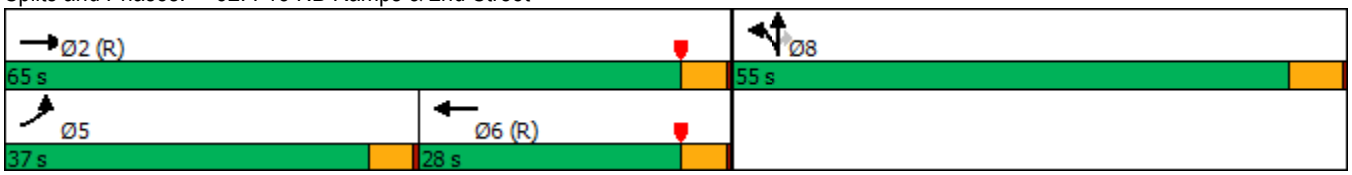
Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

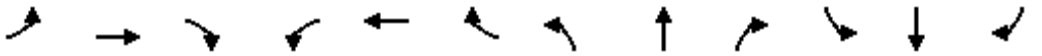
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	196	379	643	9	621
Future Volume (vph)	196	379	643	9	621
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	65.0	28.0	55.0	55.0
Total Split (%)	30.8%	54.2%	23.3%	45.8%	45.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	379	0	0	643	80	859	9	621	0	0	0
Future Volume (veh/h)	196	379	0	0	643	80	859	9	621	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	211	408	0	0	691	75	924	10	522			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	245	1817	0	0	1082	117	742	8	667			
Arrive On Green	0.04	0.17	0.00	0.00	0.33	0.33	0.41	0.41	0.41			
Sat Flow, veh/h	1810	3705	0	0	3370	355	1791	19	1610			
Grp Volume(v), veh/h	211	408	0	0	381	385	934	0	522			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1825	1810	0	1610			
Q Serve(g_s), s	13.9	11.7	0.0	0.0	21.5	21.5	49.7	0.0	33.7			
Cycle Q Clear(g_c), s	13.9	11.7	0.0	0.0	21.5	21.5	49.7	0.0	33.7			
Prop In Lane	1.00		0.00	0.00		0.19	0.99		1.00			
Lane Grp Cap(c), veh/h	245	1817	0	0	596	603	750	0	667			
V/C Ratio(X)	0.86	0.22	0.00	0.00	0.64	0.64	1.25	0.00	0.78			
Avail Cap(c_a), veh/h	490	1817	0	0	596	603	750	0	667			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.2	29.7	0.0	0.0	34.1	34.1	35.2	0.0	30.5			
Incr Delay (d2), s/veh	4.0	0.2	0.0	0.0	5.2	5.1	121.6	0.0	5.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.0	5.7	0.0	0.0	10.1	10.2	45.7	0.0	13.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	29.9	0.0	0.0	39.3	39.2	156.7	0.0	36.3			
LnGrp LOS	E	C	A	A	D	D	F	A	D			
Approach Vol, veh/h		619			766			1456				
Approach Delay, s/veh		40.2			39.2			113.6				
Approach LOS		D			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			20.8	44.2		55.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		60.4			32.5	23.4		49.7				
Max Q Clear Time (g_c+I1), s		13.7			15.9	23.5		51.7				
Green Ext Time (p_c), s		1.8			0.4	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			77.6									
HCM 6th LOS			E									

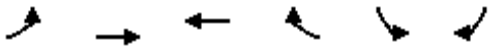
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	235	489	1372	538
Future Volume (vph)	235	489	1372	538
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	34.0	110.0	76.0	76.0
Total Split (%)	30.9%	100.0%	69.1%	69.1%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	-0.5	-0.5	-0.5
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	235	489	1372	538	0	0
Future Volume (veh/h)	235	489	1372	538	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	264	549	1542	580		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	494	3479	2363	1032		
Arrive On Green	0.55	1.00	0.65	0.65		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	264	549	1542	580		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	10.3	0.0	28.3	22.1		
Cycle Q Clear(g_c), s	10.3	0.0	28.3	22.1		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	494	3479	2363	1032		
V/C Ratio(X)	0.53	0.16	0.65	0.56		
Avail Cap(c_a), veh/h	494	3479	2363	1032		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.66	0.66	0.39	0.39		
Uniform Delay (d), s/veh	20.5	0.0	11.5	10.4		
Incr Delay (d2), s/veh	2.7	0.1	0.6	0.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.8	0.0	9.9	6.9		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	0.1	12.0	11.3		
LnGrp LOS	C	A	B	B		
Approach Vol, veh/h		813	2122			
Approach Delay, s/veh		7.6	11.8			
Approach LOS		A	B			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		110.0			34.0	76.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		105.5			30.0	71.5
Max Q Clear Time (g_c+I1), s		2.0			12.3	30.3
Green Ext Time (p_c), s		2.4			0.3	11.9

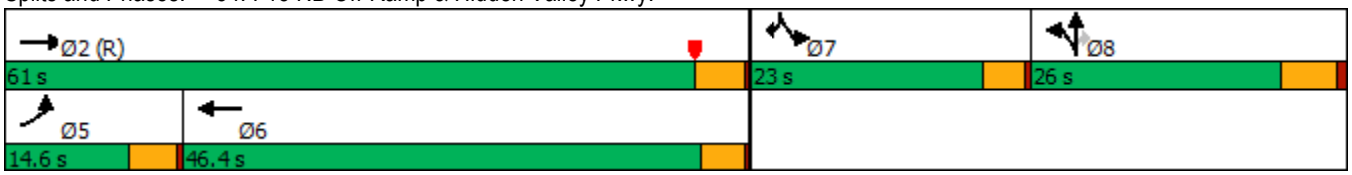
Intersection Summary						
HCM 6th Ctrl Delay			10.6			
HCM 6th LOS			B			

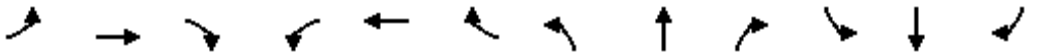
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	75	415	1128	606	83	163	37	176
Future Volume (vph)	75	415	1128	606	83	163	37	176
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	61.0	46.4	26.0	26.0	26.0	23.0	23.0
Total Split (%)	13.3%	55.5%	42.2%	23.6%	23.6%	23.6%	20.9%	20.9%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	-0.5	-0.5	0.0	-1.5	-1.5	-1.5	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	415	0	0	1128	32	606	83	163	37	0	176
Future Volume (veh/h)	75	415	0	0	1128	32	606	83	163	37	0	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	82	451	0	0	1226	32	659	90	72	40	0	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	2625	0	0	2151	56	702	380	322	0	0	0
Arrive On Green	0.03	0.24	0.00	0.00	0.60	0.60	0.20	0.20	0.20	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3689	94	3510	1900	1610		0	
Grp Volume(v), veh/h	82	451	0	0	615	643	659	90	72		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1883	1755	1900	1610			
Q Serve(g_s), s	4.9	10.9	0.0	0.0	22.9	22.9	20.3	4.4	4.1			
Cycle Q Clear(g_c), s	4.9	10.9	0.0	0.0	22.9	22.9	20.3	4.4	4.1			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		1.00			
Lane Grp Cap(c), veh/h	159	2625	0	0	1080	1127	702	380	322			
V/C Ratio(X)	0.51	0.17	0.00	0.00	0.57	0.57	0.94	0.24	0.22			
Avail Cap(c_a), veh/h	174	2625	0	0	1080	1127	702	380	322			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.1	15.5	0.0	0.0	13.5	13.5	43.3	37.0	36.8			
Incr Delay (d2), s/veh	1.9	0.1	0.0	0.0	2.2	2.1	21.9	1.5	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	4.9	0.0	0.0	8.8	9.2	10.6	2.1	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	15.7	0.0	0.0	15.6	15.6	65.2	38.4	38.4			
LnGrp LOS	D	B	A	A	B	B	E	D	D			
Approach Vol, veh/h		533			1258			821				
Approach Delay, s/veh		21.4			15.6			59.9				
Approach LOS		C			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.0			13.7	70.3		26.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.5			10.1	* 42		20.5				
Max Q Clear Time (g_c+I1), s		12.9			6.9	24.9		22.3				
Green Ext Time (p_c), s		1.9			0.0	4.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

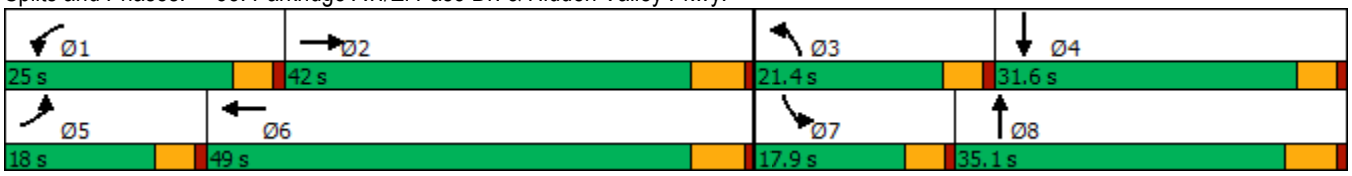
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	119	333	159	813	194	185	101	157
Future Volume (vph)	119	333	159	813	194	185	101	157
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	42.0	25.0	49.0	21.4	35.1	17.9	31.6
Total Split (%)	15.0%	35.0%	20.8%	40.8%	17.8%	29.3%	14.9%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-0.6	-1.8	-0.6	-1.8	-0.6	-0.6
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	333	78	159	813	146	194	185	201	101	157	76
Future Volume (veh/h)	119	333	78	159	813	146	194	185	201	101	157	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	142	396	64	189	968	118	231	220	175	120	187	73
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	1317	211	233	1458	178	273	389	294	160	321	120
Arrive On Green	0.10	0.42	0.40	0.13	0.45	0.43	0.15	0.20	0.18	0.09	0.13	0.12
Sat Flow, veh/h	1810	3115	500	1810	3239	395	1810	1943	1466	1810	2551	957
Grp Volume(v), veh/h	142	228	232	189	539	547	231	204	191	120	130	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1810	1810	1805	1829	1810	1805	1604	1810	1805	1703
Q Serve(g_s), s	7.7	8.3	8.5	10.2	23.4	23.5	12.4	10.2	10.9	6.5	6.8	7.2
Cycle Q Clear(g_c), s	7.7	8.3	8.5	10.2	23.4	23.5	12.4	10.2	10.9	6.5	6.8	7.2
Prop In Lane	1.00		0.28	1.00		0.22	1.00		0.91	1.00		0.56
Lane Grp Cap(c), veh/h	183	763	765	233	812	823	273	362	321	160	227	214
V/C Ratio(X)	0.78	0.30	0.30	0.81	0.66	0.66	0.85	0.56	0.60	0.75	0.57	0.61
Avail Cap(c_a), veh/h	253	763	765	380	812	823	315	561	499	252	498	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	19.1	19.3	42.4	21.6	21.7	41.3	36.0	37.1	44.5	41.2	41.5
Incr Delay (d2), s/veh	6.1	1.0	1.0	2.6	4.3	4.2	15.2	1.4	1.8	2.7	2.3	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.5	3.6	4.5	10.0	10.2	6.5	4.4	4.3	3.0	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	20.1	20.3	45.0	25.8	25.9	56.5	37.4	38.8	47.2	43.4	44.3
LnGrp LOS	D	C	C	D	C	C	E	D	D	D	D	D
Approach Vol, veh/h		602			1275			626			380	
Approach Delay, s/veh		27.2			28.7			44.9			44.9	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	46.3	19.1	17.8	14.1	49.0	12.8	24.0
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	36.2	16.8	* 27	13.4	43.2	13.3	29.3
Max Q Clear Time (g_c+I1), s	12.2	10.5	14.4	9.2	9.7	25.5	8.5	12.9
Green Ext Time (p_c), s	0.1	2.5	0.1	1.4	0.1	6.2	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

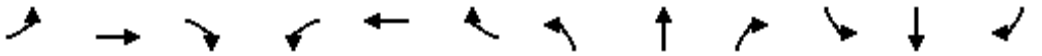
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	121	48	117	44	260	853	87	1048	292
Future Volume (vph)	367	136	121	48	117	44	260	853	87	1048	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	15.0	34.0	19.0	13.1	32.1	32.1	19.0	56.6	16.3	53.9	15.0
Total Split (%)	12.5%	28.3%	15.8%	10.9%	26.8%	26.8%	15.8%	47.2%	13.6%	44.9%	12.5%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	121	48	117	44	260	853	86	87	1048	292
Future Volume (veh/h)	367	136	121	48	117	44	260	853	86	87	1048	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	81	48	118	28	263	862	76	88	1059	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	307	486	66	184	156	253	1824	161	113	1686	898
Arrive On Green	0.10	0.16	0.16	0.04	0.10	0.10	0.14	0.54	0.54	0.06	0.47	0.47
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3349	295	1810	3610	1575
Grp Volume(v), veh/h	371	137	81	48	118	28	263	465	473	88	1059	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1839	1810	1805	1575
Q Serve(g_s), s	10.4	6.7	3.8	2.7	6.2	1.6	14.4	16.3	16.3	4.9	22.8	6.4
Cycle Q Clear(g_c), s	10.4	6.7	3.8	2.7	6.2	1.6	14.4	16.3	16.3	4.9	22.8	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	354	307	486	66	184	156	253	983	1002	113	1686	898
V/C Ratio(X)	1.05	0.45	0.17	0.73	0.64	0.18	1.04	0.47	0.47	0.78	0.63	0.22
Avail Cap(c_a), veh/h	354	533	677	149	498	422	253	983	1002	206	1686	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	39.0	26.4	49.1	44.8	42.7	44.3	14.4	14.4	47.6	20.7	11.0
Incr Delay (d2), s/veh	60.5	1.0	0.2	5.7	3.7	0.5	67.3	1.6	1.6	4.4	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	3.2	1.5	1.3	3.0	0.7	10.9	6.4	6.5	2.3	9.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.8	40.0	26.6	54.9	48.4	43.3	111.6	16.0	16.0	52.0	22.5	11.6
LnGrp LOS	F	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		589			194			1201			1345	
Approach Delay, s/veh		80.3			49.3			36.9			22.8	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	61.9	8.3	21.8	19.0	53.9	15.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	11.7	50.8	8.5	28.9	14.4	48.1	10.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	18.3	4.7	8.7	16.4	24.8	12.4	8.2
Green Ext Time (p_c), s	0.0	6.1	0.0	0.9	0.0	8.2	0.0	0.6

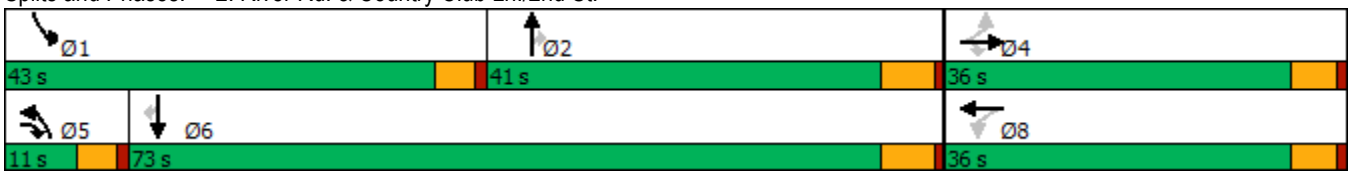
Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

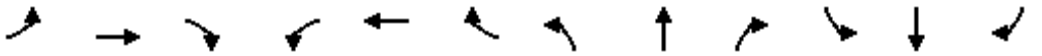
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	66	52	70	98	48	794	81	319	871	38
Future Volume (vph)	25	66	52	70	98	48	794	81	319	871	38
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	36.0	36.0	11.0	36.0	36.0	11.0	41.0	41.0	43.0	73.0	73.0
Total Split (%)	30.0%	30.0%	9.2%	30.0%	30.0%	9.2%	34.2%	34.2%	35.8%	60.8%	60.8%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	66	52	70	98	302	48	794	81	319	871	38
Future Volume (veh/h)	25	66	52	70	98	302	48	794	81	319	871	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	69	30	74	103	229	51	836	53	336	917	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	449	439	336	121	270	66	1533	684	367	2133	932
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.42	0.42	0.20	0.59	0.59
Sat Flow, veh/h	1060	1900	1608	1315	514	1143	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	26	69	30	74	0	332	51	836	53	336	917	35
Grp Sat Flow(s),veh/h/ln	1060	1900	1608	1315	0	1658	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	2.7	3.3	1.6	5.4	0.0	21.7	3.2	19.7	2.2	20.7	15.8	1.1
Cycle Q Clear(g_c), s	24.5	3.3	1.6	8.6	0.0	21.7	3.2	19.7	2.2	20.7	15.8	1.1
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	449	439	336	0	392	66	1533	684	367	2133	932
V/C Ratio(X)	0.23	0.15	0.07	0.22	0.00	0.85	0.77	0.55	0.08	0.92	0.43	0.04
Avail Cap(c_a), veh/h	149	516	496	383	0	450	102	1533	684	611	2133	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	34.4	30.6	37.8	0.0	41.5	54.3	24.5	19.5	44.4	12.7	9.7
Incr Delay (d2), s/veh	1.1	0.2	0.1	0.3	0.0	12.7	7.1	1.4	0.2	7.6	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.5	0.6	1.8	0.0	10.1	1.5	8.2	0.8	9.7	5.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	34.6	30.7	38.2	0.0	54.2	61.4	25.9	19.7	51.9	13.4	9.8
LnGrp LOS	D	C	C	D	A	D	E	C	B	D	B	A
Approach Vol, veh/h		125			406			940			1288	
Approach Delay, s/veh		37.7			51.2			27.5			23.3	
Approach LOS		D			D			C			C	

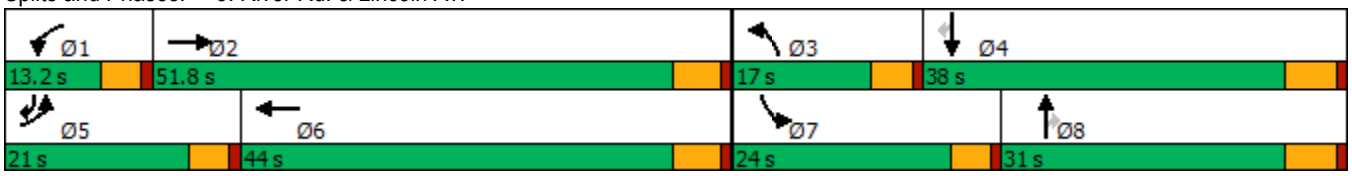
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.7	54.1		32.0	8.7	73.0		32.0				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	38.4	35.2		30.9	6.4	67.2		30.9				
Max Q Clear Time (g_c+I1), s	22.7	21.7		26.5	5.2	17.8		23.7				
Green Ext Time (p_c), s	0.4	4.6		0.2	0.0	7.2		1.3				

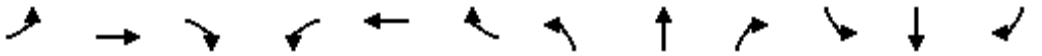
Intersection Summary			
HCM 6th Ctrl Delay		29.5	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	314	741	53	491	64	455	49	196	459	282
Future Volume (vph)	314	741	53	491	64	455	49	196	459	282
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	21.0	51.8	13.2	44.0	17.0	31.0	31.0	24.0	38.0	21.0
Total Split (%)	17.5%	43.2%	11.0%	36.7%	14.2%	25.8%	25.8%	20.0%	31.7%	17.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	741	114	53	491	190	64	455	49	196	459	282
Future Volume (veh/h)	314	741	114	53	491	190	64	455	49	196	459	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	327	772	92	55	511	153	67	474	32	204	478	195
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	399	1486	177	71	1052	313	87	614	270	237	914	582
Arrive On Green	0.11	0.46	0.46	0.04	0.38	0.38	0.05	0.17	0.17	0.13	0.25	0.25
Sat Flow, veh/h	3510	3243	386	1810	2741	817	1810	3610	1586	1810	3610	1574
Grp Volume(v), veh/h	327	430	434	55	336	328	67	474	32	204	478	195
Grp Sat Flow(s),veh/h/ln	1755	1805	1824	1810	1805	1753	1810	1805	1586	1810	1805	1574
Q Serve(g_s), s	9.2	17.1	17.2	3.0	14.3	14.4	3.7	12.7	1.7	11.2	11.5	9.1
Cycle Q Clear(g_c), s	9.2	17.1	17.2	3.0	14.3	14.4	3.7	12.7	1.7	11.2	11.5	9.1
Prop In Lane	1.00		0.21	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	827	836	71	693	673	87	614	270	237	914	582
V/C Ratio(X)	0.82	0.52	0.52	0.77	0.48	0.49	0.77	0.77	0.12	0.86	0.52	0.34
Avail Cap(c_a), veh/h	568	827	836	154	693	673	222	898	395	347	1148	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	19.5	19.5	48.2	23.6	23.7	47.7	40.2	35.6	43.1	32.6	23.2
Incr Delay (d2), s/veh	4.2	2.3	2.3	6.5	2.4	2.5	5.3	2.5	0.2	9.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	7.2	7.3	1.5	6.2	6.1	1.7	5.6	0.7	5.4	4.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	21.8	21.8	54.7	26.0	26.2	53.0	42.7	35.8	52.9	33.0	23.5
LnGrp LOS	D	C	C	D	C	C	D	D	D	D	C	C
Approach Vol, veh/h		1191			719			573			877	
Approach Delay, s/veh		29.0			28.3			43.5			35.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	51.8	9.5	31.4	16.1	44.3	17.9	23.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	8.6	46.4	12.4	32.2	16.4	38.6	19.4	25.2
Max Q Clear Time (g_c+I1), s	5.0	19.2	5.7	13.5	11.2	16.4	13.2	14.7
Green Ext Time (p_c), s	0.0	5.6	0.0	3.3	0.3	3.9	0.1	2.1

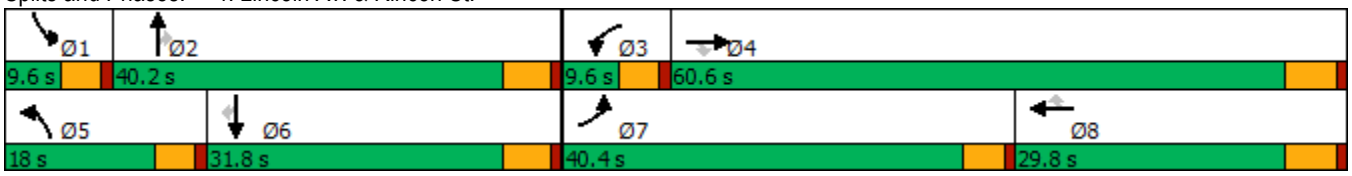
Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

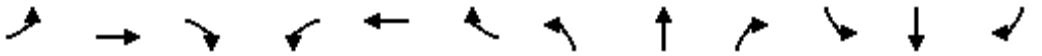
Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	381	2	245	8	11	133	890	2	2	718	99
Future Volume (vph)	381	2	245	8	11	133	890	2	2	718	99
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	40.4	60.6	60.6	9.6	29.8	18.0	40.2	40.2	9.6	31.8	31.8
Total Split (%)	33.7%	50.5%	50.5%	8.0%	24.8%	15.0%	33.5%	33.5%	8.0%	26.5%	26.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 83.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	2	245	8	0	11	133	890	2	2	718	99
Future Volume (veh/h)	381	2	245	8	0	11	133	890	2	2	718	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	2	169	8	0	4	139	927	1	2	748	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	438	658	558	18	218	185	173	1458	650	5	1122	501
Arrive On Green	0.24	0.35	0.35	0.01	0.00	0.11	0.10	0.40	0.40	0.00	0.31	0.31
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	397	2	169	8	0	4	139	927	1	2	748	83
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	18.4	0.1	6.6	0.4	0.0	0.2	6.5	17.7	0.0	0.1	15.5	3.2
Cycle Q Clear(g_c), s	18.4	0.1	6.6	0.4	0.0	0.2	6.5	17.7	0.0	0.1	15.5	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	438	658	558	18	218	185	173	1458	650	5	1122	501
V/C Ratio(X)	0.91	0.00	0.30	0.44	0.00	0.02	0.80	0.64	0.00	0.41	0.67	0.17
Avail Cap(c_a), veh/h	752	1208	1024	105	529	449	281	1458	650	105	1122	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	18.4	20.6	42.4	0.0	33.9	38.2	20.6	15.3	42.9	25.8	21.6
Incr Delay (d2), s/veh	4.7	0.0	0.3	6.0	0.0	0.0	3.3	2.1	0.0	18.9	3.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	2.3	0.2	0.0	0.1	2.9	7.2	0.0	0.1	6.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	18.4	20.9	48.4	0.0	33.9	41.4	22.7	15.3	61.8	28.9	22.3
LnGrp LOS	D	B	C	D	A	C	D	C	B	E	C	C
Approach Vol, veh/h		568			12			1067			833	
Approach Delay, s/veh		31.7			43.6			25.2			28.4	
Approach LOS		C			D			C			C	

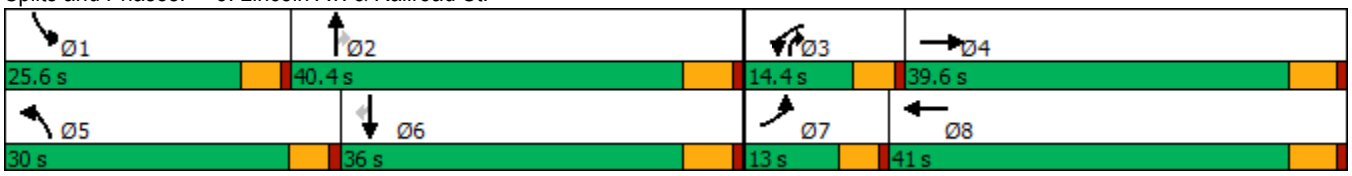
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	40.2	5.5	35.7	12.8	32.2	25.4	15.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	34.8	5.0	54.8	13.4	26.4	35.8	24.0
Max Q Clear Time (g_c+I1), s	2.1	19.7	2.4	8.6	8.5	17.5	20.4	2.2
Green Ext Time (p_c), s	0.0	5.4	0.0	0.6	0.1	3.3	0.5	0.0

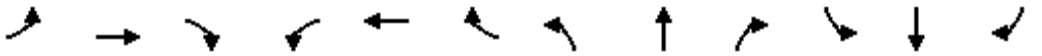
Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	155	490	97	89	93	752	88	127	785	59
Future Volume (vph)	155	490	97	89	93	752	88	127	785	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	13.0	39.6	14.4	41.0	30.0	40.4	14.4	25.6	36.0	36.0
Total Split (%)	10.8%	33.0%	12.0%	34.2%	25.0%	33.7%	12.0%	21.3%	30.0%	30.0%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	490	196	97	89	118	93	752	88	127	785	59
Future Volume (veh/h)	155	490	196	97	89	118	93	752	88	127	785	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	527	171	104	96	87	100	809	62	137	844	63
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	162	658	212	132	432	355	129	1348	717	170	1431	636
Arrive On Green	0.09	0.25	0.25	0.07	0.23	0.23	0.07	0.37	0.37	0.09	0.40	0.40
Sat Flow, veh/h	1810	2672	863	1810	1880	1545	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	167	355	343	104	92	91	100	809	62	137	844	63
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1620	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	8.4	17.3	17.5	5.3	3.9	4.3	5.1	17.0	2.1	7.0	17.3	2.3
Cycle Q Clear(g_c), s	8.4	17.3	17.5	5.3	3.9	4.3	5.1	17.0	2.1	7.0	17.3	2.3
Prop In Lane	1.00		0.50	1.00		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	444	426	132	414	372	129	1348	717	170	1431	636
V/C Ratio(X)	1.03	0.80	0.80	0.79	0.22	0.25	0.78	0.60	0.09	0.80	0.59	0.10
Avail Cap(c_a), veh/h	162	659	631	189	685	615	490	1348	717	405	1431	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	33.2	33.2	42.7	29.3	29.5	42.8	23.7	14.9	41.6	22.3	17.8
Incr Delay (d2), s/veh	78.8	4.3	4.7	8.0	0.3	0.3	3.8	2.0	0.2	3.4	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	7.7	7.5	2.6	1.6	1.6	2.3	7.1	0.8	3.2	7.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.4	37.4	37.9	50.8	29.6	29.8	46.6	25.7	15.2	45.0	24.1	18.1
LnGrp LOS	F	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		865			287			971			1044	
Approach Delay, s/veh		53.8			37.3			27.2			26.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	40.4	11.4	28.5	11.3	42.6	13.0	26.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	21.0	35.0	9.8	34.2	25.4	30.6	8.4	35.6
Max Q Clear Time (g_c+I1), s	9.0	19.0	7.3	19.5	7.1	19.3	10.4	6.3
Green Ext Time (p_c), s	0.1	5.0	0.0	3.6	0.1	4.3	0.0	1.0

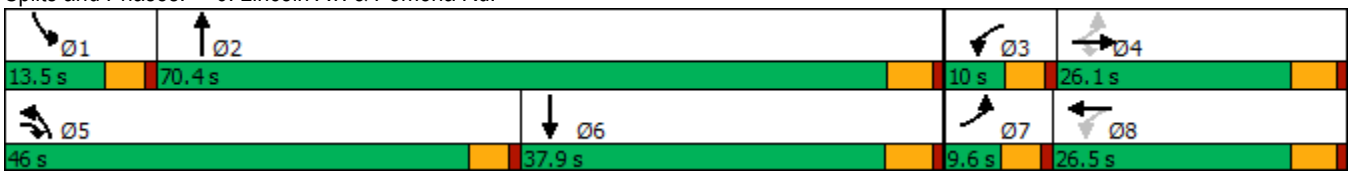
Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

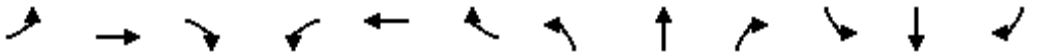
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	74	36	211	140	22	89	874	56	1055
Future Volume (vph)	74	36	211	140	22	89	874	56	1055
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	46.0	10.0	26.5	46.0	70.4	13.5	37.9
Total Split (%)	8.0%	21.8%	38.3%	8.3%	22.1%	38.3%	58.7%	11.3%	31.6%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	36	211	140	22	27	89	874	94	56	1055	37
Future Volume (veh/h)	74	36	211	140	22	27	89	874	94	56	1055	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	38	163	146	23	23	93	910	84	58	1099	38
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	226	294	278	107	107	119	2022	187	75	2072	72
Arrive On Green	0.05	0.12	0.12	0.05	0.12	0.12	0.07	0.61	0.61	0.04	0.58	0.58
Sat Flow, veh/h	1810	1900	1580	1810	872	872	1810	3333	308	1810	3559	123
Grp Volume(v), veh/h	77	38	163	146	0	46	93	493	501	58	557	580
Grp Sat Flow(s),veh/h/ln	1810	1900	1580	1810	0	1743	1810	1805	1836	1810	1805	1877
Q Serve(g_s), s	4.0	1.9	10.1	5.4	0.0	2.6	5.4	15.9	15.9	3.4	20.1	20.1
Cycle Q Clear(g_c), s	4.0	1.9	10.1	5.4	0.0	2.6	5.4	15.9	15.9	3.4	20.1	20.1
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	287	226	294	278	0	214	119	1095	1114	75	1051	1093
V/C Ratio(X)	0.27	0.17	0.55	0.52	0.00	0.22	0.78	0.45	0.45	0.77	0.53	0.53
Avail Cap(c_a), veh/h	287	371	414	278	0	346	696	1095	1114	150	1051	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	42.7	39.9	41.2	0.0	42.6	49.5	11.5	11.5	51.1	13.6	13.6
Incr Delay (d2), s/veh	0.2	0.3	1.6	0.9	0.0	0.5	4.1	1.3	1.3	6.1	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.9	4.0	3.6	0.0	1.1	2.6	6.3	6.4	1.6	7.9	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	43.0	41.5	42.1	0.0	43.1	53.6	12.8	12.8	57.2	15.5	15.4
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	B	B
Approach Vol, veh/h		278			192			1087			1195	
Approach Delay, s/veh		41.1			42.3			16.3			17.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	70.7	10.0	17.9	11.7	68.1	9.6	18.3
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	8.9	* 65	5.4	21.0	41.4	32.5	5.0	21.4
Max Q Clear Time (g_c+I1), s	5.4	17.9	7.4	12.1	7.4	22.1	6.0	4.6
Green Ext Time (p_c), s	0.0	7.7	0.0	0.4	0.1	5.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

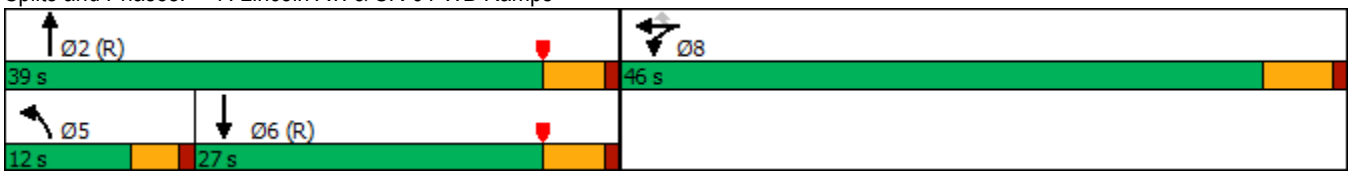
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

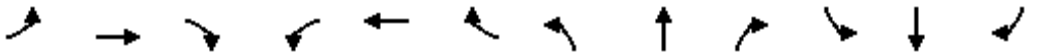
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	656	2	326	242	730	984
Future Volume (vph)	656	2	326	242	730	984
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	46.0	46.0	46.0	12.0	39.0	27.0
Total Split (%)	54.1%	54.1%	54.1%	14.1%	45.9%	31.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	656	2	326	242	730	0	0	984	447
Future Volume (veh/h)	0	0	0	656	2	326	242	730	0	0	984	447
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				670	0	213	247	745	0	0	1004	456
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				798	0	355	327	2368	0	0	1251	557
Arrive On Green				0.22	0.00	0.22	0.03	0.22	0.00	0.00	0.52	0.52
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2521	1080
Grp Volume(v), veh/h				670	0	213	247	745	0	0	742	718
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1701
Q Serve(g_s), s				15.1	0.0	10.1	5.9	14.7	0.0	0.0	28.7	30.1
Cycle Q Clear(g_c), s				15.1	0.0	10.1	5.9	14.7	0.0	0.0	28.7	30.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				798	0	355	327	2368	0	0	931	878
V/C Ratio(X)				0.84	0.00	0.60	0.76	0.31	0.00	0.00	0.80	0.82
Avail Cap(c_a), veh/h				1724	0	767	330	2368	0	0	931	878
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.79	0.79
Uniform Delay (d), s/veh				31.7	0.0	29.8	40.2	17.2	0.0	0.0	16.9	17.2
Incr Delay (d2), s/veh				0.9	0.0	0.6	6.7	0.3	0.0	0.0	5.6	6.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	3.8	2.9	7.1	0.0	0.0	11.9	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.6	0.0	30.4	46.9	17.5	0.0	0.0	22.6	24.0
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					883			992			1460	
Approach Delay, s/veh					32.1			24.8			23.3	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	60.8		11.9	48.8		24.2						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		40.5						
Max Q Clear Time (g_c+I1), s	16.7		7.9	32.1		17.1						
Green Ext Time (p_c), s	3.2		0.0	0.0		1.7						

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

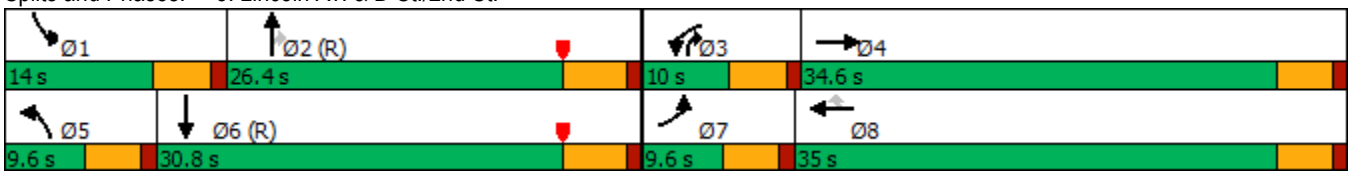
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	68	171	205	57	409	72	496	323	436	1040
Future Volume (vph)	68	171	205	57	409	72	496	323	436	1040
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	26.4	10.0	14.0	30.8
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	31.1%	11.8%	16.5%	36.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	171	39	205	57	409	72	496	323	436	1040	137
Future Volume (veh/h)	68	171	39	205	57	409	72	496	323	436	1040	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	176	34	211	59	248	74	511	170	449	1072	136
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	293	57	223	388	328	96	1490	762	388	1515	192
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.05	0.41	0.41	0.04	0.16	0.16
Sat Flow, veh/h	1810	1538	297	3510	1900	1605	1810	3610	1598	3510	3220	408
Grp Volume(v), veh/h	70	0	210	211	59	248	74	511	170	449	600	608
Grp Sat Flow(s),veh/h/ln	1810	0	1835	1755	1900	1605	1810	1805	1598	1755	1805	1822
Q Serve(g_s), s	3.2	0.0	8.9	5.1	2.2	12.4	3.4	8.2	5.3	9.4	26.8	26.9
Cycle Q Clear(g_c), s	3.2	0.0	8.9	5.1	2.2	12.4	3.4	8.2	5.3	9.4	26.8	26.9
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	90	0	350	223	388	328	96	1490	762	388	849	858
V/C Ratio(X)	0.77	0.00	0.60	0.95	0.15	0.76	0.77	0.34	0.22	1.16	0.71	0.71
Avail Cap(c_a), veh/h	106	0	648	223	680	574	106	1490	762	388	849	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.29	0.29	0.29
Uniform Delay (d), s/veh	39.9	0.0	31.4	39.7	27.8	31.8	39.8	17.1	13.0	40.9	30.3	30.4
Incr Delay (d2), s/veh	21.0	0.0	1.6	42.6	0.2	3.3	23.2	0.6	0.7	79.3	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	4.1	3.5	1.0	5.0	2.1	3.3	2.0	8.5	13.1	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	0.0	33.1	82.3	27.9	35.1	62.9	17.7	13.7	120.2	31.8	31.8
LnGrp LOS	E	A	C	F	C	D	E	B	B	F	C	C
Approach Vol, veh/h		280			518			755			1657	
Approach Delay, s/veh		40.0			53.5			21.2			55.8	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	40.2	10.0	20.8	9.1	45.1	8.8	22.0
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	9.4	21.3	5.4	30.0	5.0	25.7	5.0	30.4
Max Q Clear Time (g_c+I1), s	11.4	10.2	7.1	10.9	5.4	28.9	5.2	14.4
Green Ext Time (p_c), s	0.0	2.9	0.0	1.2	0.0	0.0	0.0	1.1

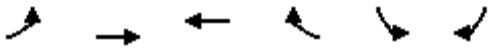
Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	797	142	120	278	551
Future Volume (vph)	797	142	120	278	551
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	44.0	63.0	19.0	22.0	22.0
Total Split (%)	51.8%	74.1%	22.4%	25.9%	25.9%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	797	142	120	81	278	551
Future Volume (veh/h)	797	142	120	81	278	551
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	830	148	125	45	373	189
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	958	1305	948	327	711	316
Arrive On Green	0.46	1.00	0.36	0.36	0.20	0.20
Sat Flow, veh/h	3510	1900	2727	909	3619	1610
Grp Volume(v), veh/h	830	148	84	86	373	189
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1736	1810	1610
Q Serve(g_s), s	18.1	0.0	2.7	2.8	7.8	9.1
Cycle Q Clear(g_c), s	18.1	0.0	2.7	2.8	7.8	9.1
Prop In Lane	1.00			0.52	1.00	1.00
Lane Grp Cap(c), veh/h	958	1305	650	625	711	316
V/C Ratio(X)	0.87	0.11	0.13	0.14	0.52	0.60
Avail Cap(c_a), veh/h	1627	1305	650	625	711	316
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	18.3	18.3	30.6	31.1
Incr Delay (d2), s/veh	2.2	0.1	0.4	0.5	2.8	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.1	1.1	1.2	3.6	8.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.0	0.1	18.7	18.8	33.4	39.2
LnGrp LOS	C	A	B	B	C	D
Approach Vol, veh/h		978	170		562	
Approach Delay, s/veh		20.4	18.7		35.3	
Approach LOS		C	B		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		22.0	27.8	35.2
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		58.4		16.7	39.4	14.4
Max Q Clear Time (g_c+I1), s		2.0		11.1	20.1	4.8
Green Ext Time (p_c), s		0.5		0.6	3.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	621	684	137	60	22
Future Vol, veh/h	8	621	684	137	60	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	647	713	143	63	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	856	0	-	0	1448	785
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	663	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	793	-	-	-	146	396
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	793	-	-	-	144	396
Mov Cap-2 Maneuver	-	-	-	-	144	-
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	44.2
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	793	-	-	-	174
HCM Lane V/C Ratio	0.011	-	-	-	0.491
HCM Control Delay (s)	9.6	0	-	-	44.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	76.4
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	535	147	20	578	241	10
Future Vol, veh/h	535	147	20	578	241	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	557	153	21	602	251	10
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	106.5	66.4	18.4
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	96%	0%	3%
Vol Thru, %	0%	78%	97%
Vol Right, %	4%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	251	682	598
LT Vol	241	0	20
Through Vol	0	535	578
RT Vol	10	147	0
Lane Flow Rate	261	710	623
Geometry Grp	1	1	1
Degree of Util (X)	0.52	1.148	1.018
Departure Headway (Hd)	7.505	5.818	6.143
Convergence, Y/N	Yes	Yes	Yes
Cap	484	625	598
Service Time	5.505	3.867	4.143
HCM Lane V/C Ratio	0.539	1.136	1.042
HCM Control Delay	18.4	106.5	66.4
HCM Lane LOS	C	F	F
HCM 95th-tile Q	2.9	22.9	15.6

Intersection	
Intersection Delay, s/veh	42.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	585	12	29	625	23	9	0	15	29	1	2
Future Vol, veh/h	3	585	12	29	625	23	9	0	15	29	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	616	13	31	658	24	9	0	16	31	1	2
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	36.9	49.4	10.2	10.8
HCM LOS	E	E	B	B

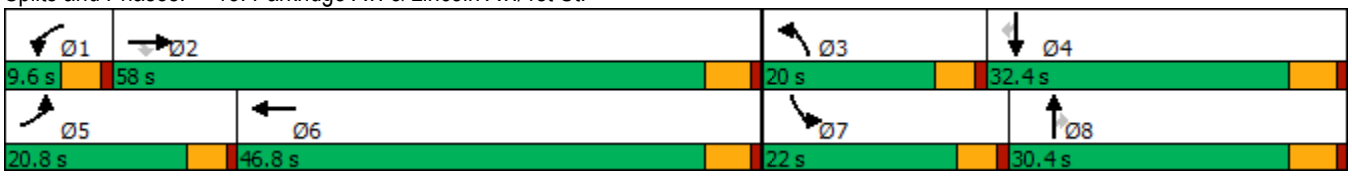
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	38%	1%	0%	4%	91%
Vol Thru, %	0%	99%	0%	92%	3%
Vol Right, %	62%	0%	100%	3%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	588	12	677	32
LT Vol	9	3	0	29	29
Through Vol	0	585	0	625	1
RT Vol	15	0	12	23	2
Lane Flow Rate	25	619	13	713	34
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.048	0.902	0.016	0.974	0.068
Departure Headway (Hd)	6.823	5.245	4.535	4.922	7.233
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	681	778	727	498
Service Time	4.828	3.037	2.327	3.006	5.236
HCM Lane V/C Ratio	0.047	0.909	0.017	0.981	0.068
HCM Control Delay	10.2	37.5	7.4	49.4	10.8
HCM Lane LOS	B	E	A	E	B
HCM 95th-tile Q	0.2	11.5	0	15.1	0.2

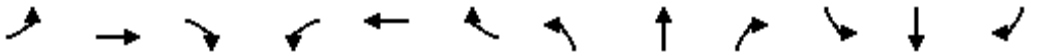
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	33	765	170	23	621	125	132	48	103	75	28
Future Volume (vph)	33	765	170	23	621	125	132	48	103	75	28
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	20.8	58.0	58.0	9.6	46.8	20.0	30.4	30.4	22.0	32.4	32.4
Total Split (%)	17.3%	48.3%	48.3%	8.0%	39.0%	16.7%	25.3%	25.3%	18.3%	27.0%	27.0%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	765	170	23	621	174	125	132	48	103	75	28
Future Volume (veh/h)	33	765	170	23	621	174	125	132	48	103	75	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	841	156	25	682	173	137	145	37	113	82	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	880	745	44	1303	330	166	489	415	141	463	392
Arrive On Green	0.03	0.46	0.46	0.02	0.46	0.46	0.09	0.26	0.26	0.08	0.24	0.24
Sat Flow, veh/h	1810	1900	1608	1810	2852	723	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	36	841	156	25	431	424	137	145	37	113	82	9
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1770	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.2	47.3	6.4	1.5	18.9	18.9	8.3	6.8	1.9	6.8	3.8	0.5
Cycle Q Clear(g_c), s	2.2	47.3	6.4	1.5	18.9	18.9	8.3	6.8	1.9	6.8	3.8	0.5
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	55	880	745	44	825	809	166	489	415	141	463	392
V/C Ratio(X)	0.66	0.96	0.21	0.57	0.52	0.52	0.83	0.30	0.09	0.80	0.18	0.02
Avail Cap(c_a), veh/h	264	906	767	82	825	809	251	489	415	284	463	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	28.7	17.7	53.5	21.5	21.5	49.5	33.1	31.3	50.3	33.2	31.9
Incr Delay (d2), s/veh	4.9	19.7	0.1	4.3	0.6	0.6	7.7	1.5	0.4	4.0	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	25.1	2.3	0.7	7.9	7.7	4.0	3.3	0.8	3.2	1.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	48.4	17.8	57.8	22.1	22.1	57.2	34.6	31.7	54.3	34.0	32.0
LnGrp LOS	E	D	B	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1033			880			319			204	
Approach Delay, s/veh		44.1			23.1			44.0			45.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	56.5	14.8	32.4	8.0	55.8	13.2	34.0
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	52.9	15.4	27.0	16.2	41.7	17.4	25.0
Max Q Clear Time (g_c+I1), s	3.5	49.3	10.3	5.8	4.2	20.9	8.8	8.8
Green Ext Time (p_c), s	0.0	2.1	0.1	0.2	0.0	5.4	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	915	764	23	0	53
Future Vol, veh/h	0	915	764	23	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	995	830	25	0	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	428
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	581
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	581
HCM Lane V/C Ratio	-	-	-	0.099
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	915	716	57	0	79
Future Vol, veh/h	0	915	716	57	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	995	778	62	0	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	420
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	588
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	588
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

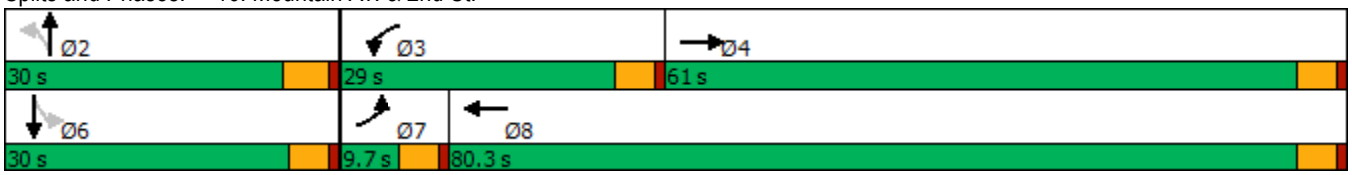
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	588
HCM Lane V/C Ratio	-	-	-	0.146
HCM Control Delay (s)	-	-	-	12.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	544	160	536	114	11	17	8
Future Volume (vph)	20	544	160	536	114	11	17	8
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	9.7	61.0	29.0	80.3	30.0	30.0	30.0	30.0
Total Split (%)	8.1%	50.8%	24.2%	66.9%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 77.3
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	544	61	160	536	17	114	11	299	17	8	17
Future Volume (veh/h)	20	544	61	160	536	17	114	11	299	17	8	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	604	68	178	596	19	127	12	332	19	9	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	710	80	222	954	30	343	14	394	98	56	57
Arrive On Green	0.02	0.42	0.42	0.12	0.52	0.52	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	1677	189	1810	1831	58	1404	56	1562	109	222	225
Grp Volume(v), veh/h	22	0	672	178	0	615	127	0	344	47	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1866	1810	0	1889	1404	0	1619	557	0	0
Q Serve(g_s), s	0.9	0.0	23.3	6.9	0.0	16.6	0.0	0.0	14.5	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	23.3	6.9	0.0	16.6	9.2	0.0	14.5	14.9	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.03	1.00		0.97	0.40		0.40
Lane Grp Cap(c), veh/h	45	0	790	222	0	985	343	0	408	211	0	0
V/C Ratio(X)	0.49	0.00	0.85	0.80	0.00	0.62	0.37	0.00	0.84	0.22	0.00	0.00
Avail Cap(c_a), veh/h	129	0	1464	615	0	1991	475	0	560	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.5	0.0	18.7	30.6	0.0	12.2	23.5	0.0	25.5	21.6	0.0	0.0
Incr Delay (d2), s/veh	3.1	0.0	2.7	2.6	0.0	0.7	0.7	0.0	8.4	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	9.4	3.0	0.0	6.0	1.8	0.0	6.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	21.4	33.2	0.0	12.8	24.2	0.0	33.9	22.1	0.0	0.0
LnGrp LOS	D	A	C	C	A	B	C	A	C	C	A	A
Approach Vol, veh/h		694			793			471			47	
Approach Delay, s/veh		21.9			17.4			31.3			22.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.3	13.4	35.1		23.3	6.4	42.1				
Change Period (Y+Rc), s		5.2	4.6	* 4.7		* 5.2	4.6	* 4.7				
Max Green Setting (Gmax), s		24.8	24.4	* 56		* 25	5.1	* 76				
Max Q Clear Time (g_c+I1), s		16.5	8.9	25.3		16.9	2.9	18.6				
Green Ext Time (p_c), s		1.6	0.2	5.1		0.1	0.0	4.7				

Intersection Summary		
HCM 6th Ctrl Delay		22.3
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	56	0	34	13	0	26	13	343	5	10	198	21
Future Vol, veh/h	56	0	34	13	0	26	13	343	5	10	198	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	61	0	37	14	0	28	14	373	5	11	215	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	655	119	534	664	189	238	0	0	378	0	0
Stage 1	249	249	-	404	404	-	-	-	-	-	-	-
Stage 2	215	406	-	130	260	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	486	388	917	433	384	827	1341	-	-	1192	-	-
Stage 1	739	704	-	600	603	-	-	-	-	-	-	-
Stage 2	773	601	-	866	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	461	379	917	408	375	827	1341	-	-	1192	-	-
Mov Cap-2 Maneuver	461	379	-	408	375	-	-	-	-	-	-	-
Stage 1	729	696	-	592	595	-	-	-	-	-	-	-
Stage 2	737	593	-	822	689	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	11.3	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1341	-	-	568	616	1192	-	-
HCM Lane V/C Ratio	0.011	-	-	0.172	0.069	0.009	-	-
HCM Control Delay (s)	7.7	0	-	12.7	11.3	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	41	0	32	33	0	19	11	301	9	11	218	16
Future Vol, veh/h	41	0	32	33	0	19	11	301	9	11	218	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	45	0	35	36	0	21	12	327	10	12	237	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	458	631	127	499	634	169	254	0	0	337	0	0
Stage 1	270	270	-	356	356	-	-	-	-	-	-	-
Stage 2	188	361	-	143	278	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	491	401	906	459	399	852	1323	-	-	1234	-	-
Stage 1	718	690	-	640	633	-	-	-	-	-	-	-
Stage 2	801	629	-	851	684	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	471	392	906	434	390	852	1323	-	-	1234	-	-
Mov Cap-2 Maneuver	471	392	-	434	390	-	-	-	-	-	-	-
Stage 1	710	682	-	633	626	-	-	-	-	-	-	-
Stage 2	773	622	-	809	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.6	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1323	-	-	597	529	1234	-	-
HCM Lane V/C Ratio	0.009	-	-	0.133	0.107	0.01	-	-
HCM Control Delay (s)	7.7	0	-	12	12.6	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.4	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	0	24	0	23	261	9	269
Future Volume (vph)	31	0	24	0	23	261	9	269
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.4	9.6	27.4
Total Split (s)	40.0	40.0	40.0	40.0	20.0	60.0	20.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	16.7%	50.0%	16.7%	50.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	5.4	4.6	5.4
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 36.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	49	24	0	28	23	261	11	9	269	6
Future Volume (veh/h)	31	0	49	24	0	28	23	261	11	9	269	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	0	53	26	0	30	25	284	12	10	292	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	53	215	270	51	185	56	1135	48	24	1095	26
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.03	0.32	0.32	0.01	0.30	0.30
Sat Flow, veh/h	382	239	968	496	228	835	1810	3530	149	1810	3603	86
Grp Volume(v), veh/h	87	0	0	56	0	0	25	145	151	10	146	153
Grp Sat Flow(s),veh/h/ln	1590	0	0	1559	0	0	1810	1805	1873	1810	1805	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9	2.0	0.2	2.0	2.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.9	0.0	0.0	0.4	1.9	2.0	0.2	2.0	2.0
Prop In Lane	0.39		0.61	0.46		0.54	1.00		0.08	1.00		0.05
Lane Grp Cap(c), veh/h	504	0	0	506	0	0	56	580	602	24	548	572
V/C Ratio(X)	0.17	0.00	0.00	0.11	0.00	0.00	0.45	0.25	0.25	0.42	0.27	0.27
Avail Cap(c_a), veh/h	1804	0	0	1778	0	0	847	2994	3107	847	2994	3126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	10.3	0.0	0.0	15.7	8.2	8.2	16.1	8.7	8.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	2.0	0.2	0.2	4.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	0.2	0.5	0.5	0.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	0.0	0.0	10.4	0.0	0.0	17.7	8.5	8.5	20.3	8.9	8.9
LnGrp LOS	B	A	A	B	A	A	B	A	A	C	A	A
Approach Vol, veh/h		87			56			321			309	
Approach Delay, s/veh		10.7			10.4			9.2			9.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	16.0		11.9	5.6	15.4		11.9				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	2.2	4.0		3.4	2.4	4.0		2.9				
Green Ext Time (p_c), s	0.0	1.7		0.5	0.0	1.7		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	0	42	23	0	28	21	235	11	9	327	6
Future Vol, veh/h	31	0	42	23	0	28	21	235	11	9	327	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	0	46	25	0	30	23	255	12	10	355	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	553	692	181	505	689	134	362	0	0	267	0	0
Stage 1	379	379	-	307	307	-	-	-	-	-	-	-
Stage 2	174	313	-	198	382	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	420	370	837	455	371	897	1208	-	-	1308	-	-
Stage 1	620	618	-	683	665	-	-	-	-	-	-	-
Stage 2	817	661	-	791	616	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	396	358	837	420	359	897	1208	-	-	1308	-	-
Mov Cap-2 Maneuver	396	358	-	420	359	-	-	-	-	-	-	-
Stage 1	606	612	-	668	650	-	-	-	-	-	-	-
Stage 2	772	646	-	740	610	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	11.7	0.7	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1208	-	-	568	593	1308	-	-
HCM Lane V/C Ratio	0.019	-	-	0.14	0.093	0.007	-	-
HCM Control Delay (s)	8	0.1	-	12.4	11.7	7.8	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	69	0	267	343	49
Future Vol, veh/h	0	69	0	267	343	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	75	0	290	373	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	213	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	798	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	798	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

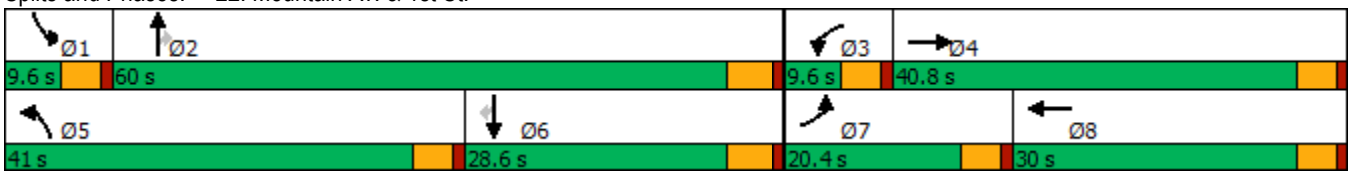
Approach	EB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

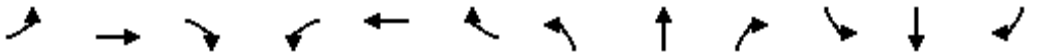
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	798	-	-
HCM Lane V/C Ratio	-	0.094	-	-
HCM Control Delay (s)	-	10	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	151	428	4	303	387	85	9	39	300	74
Future Volume (vph)	151	428	4	303	387	85	9	39	300	74
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	20.4	40.8	9.6	30.0	41.0	60.0	60.0	9.6	28.6	28.6
Total Split (%)	17.0%	34.0%	8.0%	25.0%	34.2%	50.0%	50.0%	8.0%	23.8%	23.8%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	428	335	4	303	30	387	85	9	39	300	74
Future Volume (veh/h)	151	428	335	4	303	30	387	85	9	39	300	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	157	446	349	4	316	31	403	89	9	41	312	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	617	481	10	371	36	446	772	655	67	374	317
Arrive On Green	0.11	0.32	0.32	0.01	0.22	0.22	0.25	0.41	0.41	0.04	0.20	0.20
Sat Flow, veh/h	1810	1930	1504	1810	1703	167	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	157	417	378	4	0	347	403	89	9	41	312	77
Grp Sat Flow(s),veh/h/ln	1810	1805	1629	1810	0	1870	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	7.0	16.9	17.0	0.2	0.0	14.7	17.8	2.4	0.3	1.8	13.0	3.3
Cycle Q Clear(g_c), s	7.0	16.9	17.0	0.2	0.0	14.7	17.8	2.4	0.3	1.8	13.0	3.3
Prop In Lane	1.00		0.92	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	577	521	10	0	407	446	772	655	67	374	317
V/C Ratio(X)	0.81	0.72	0.73	0.42	0.00	0.85	0.90	0.12	0.01	0.61	0.83	0.24
Avail Cap(c_a), veh/h	346	789	713	110	0	573	798	1261	1069	110	539	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	24.8	24.9	40.9	0.0	31.0	30.1	15.2	14.6	39.2	31.8	28.0
Incr Delay (d2), s/veh	3.0	2.1	2.4	10.3	0.0	8.6	3.2	0.1	0.0	3.4	7.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	7.1	6.5	0.1	0.0	7.3	7.6	1.0	0.1	0.8	6.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	26.9	27.2	51.2	0.0	39.6	33.3	15.3	14.6	42.5	39.3	28.3
LnGrp LOS	D	C	C	D	A	D	C	B	B	D	D	C
Approach Vol, veh/h		952			351			501			430	
Approach Delay, s/veh		29.0			39.7			29.8			37.6	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	38.8	5.0	31.1	24.9	21.5	13.5	22.7
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	54.8	5.0	* 36	36.4	23.4	15.8	* 25
Max Q Clear Time (g_c+I1), s	3.8	4.4	2.2	19.0	19.8	15.0	9.0	16.7
Green Ext Time (p_c), s	0.0	0.5	0.0	4.7	0.5	1.2	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	850	10	0	713	0	24
Future Vol, veh/h	850	10	0	713	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	924	11	0	775	0	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	930
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	327
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	327
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17
HCM LOS			C

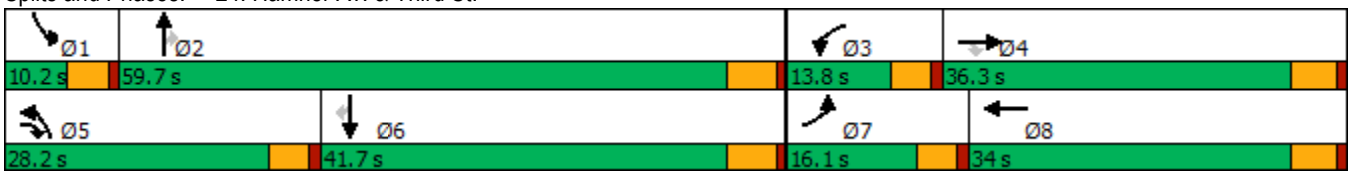
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	327	-	-	-
HCM Lane V/C Ratio	0.08	-	-	-
HCM Control Delay (s)	17	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

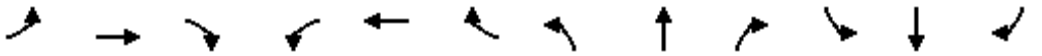
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	163	81	494	55	122	432	990	75	51	1157	220
Future Volume (vph)	163	81	494	55	122	432	990	75	51	1157	220
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	16.1	36.3	28.2	13.8	34.0	28.2	59.7	59.7	10.2	41.7	41.7
Total Split (%)	13.4%	30.3%	23.5%	11.5%	28.3%	23.5%	49.8%	49.8%	8.5%	34.8%	34.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.4
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	81	494	55	122	61	432	990	75	51	1157	220
Future Volume (veh/h)	163	81	494	55	122	61	432	990	75	51	1157	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	199	99	384	67	149	56	527	1207	78	62	1411	197
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	423	633	87	215	81	599	1815	808	80	1359	605
Arrive On Green	0.11	0.22	0.22	0.05	0.16	0.16	0.17	0.50	0.50	0.04	0.38	0.38
Sat Flow, veh/h	1810	1900	1608	1810	1310	492	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	199	99	384	67	0	205	527	1207	78	62	1411	197
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	11.5	4.6	20.6	4.0	0.0	11.6	15.8	27.0	2.7	3.7	40.7	9.4
Cycle Q Clear(g_c), s	11.5	4.6	20.6	4.0	0.0	11.6	15.8	27.0	2.7	3.7	40.7	9.4
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	423	633	87	0	296	599	1815	808	80	1359	605
V/C Ratio(X)	1.03	0.23	0.61	0.77	0.00	0.69	0.88	0.66	0.10	0.77	1.04	0.33
Avail Cap(c_a), veh/h	193	549	739	154	0	482	767	1815	808	94	1359	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.2	34.4	26.1	50.8	0.0	42.6	43.7	20.1	14.0	51.1	33.7	23.9
Incr Delay (d2), s/veh	73.7	0.3	1.1	5.4	0.0	2.9	8.1	1.9	0.2	23.5	35.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	2.1	7.8	1.9	0.0	5.3	7.4	11.0	1.0	2.2	23.4	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.9	34.7	27.2	56.2	0.0	45.5	51.8	22.0	14.3	74.6	68.6	25.4
LnGrp LOS	F	C	C	E	A	D	D	C	B	E	F	C
Approach Vol, veh/h		682			272			1812			1670	
Approach Delay, s/veh		55.9			48.1			30.3			63.8	
Approach LOS		E			D			C			E	

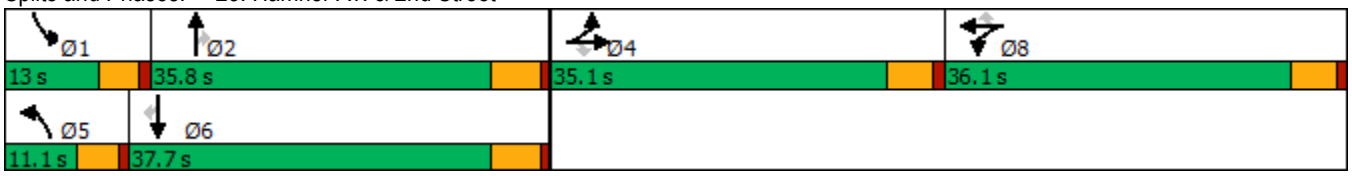
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	59.7	9.8	29.1	23.0	46.1	16.1	22.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	5.6	54.3	9.2	31.2	23.6	36.3	11.5	28.9
Max Q Clear Time (g_c+I1), s	5.7	29.0	6.0	22.6	17.8	42.7	13.5	13.6
Green Ext Time (p_c), s	0.0	9.7	0.0	1.3	0.6	0.0	0.0	0.9

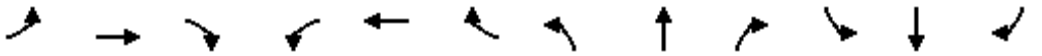
Intersection Summary	
HCM 6th Ctrl Delay	47.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	709	84	237	437	475	93	792	398	523	1117	239
Future Volume (vph)	299	709	84	237	437	475	93	792	398	523	1117	239
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	11.1	35.8	35.8	13.0	37.7	37.7
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	9.3%	29.8%	29.8%	10.8%	31.4%	31.4%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.7
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	709	84	237	437	475	93	792	398	523	1117	239
Future Volume (veh/h)	299	709	84	237	437	475	93	792	398	523	1117	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	305	723	53	229	464	277	95	808	277	534	1140	204
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	480	1008	424	386	811	343	104	970	431	134	1031	453
Arrive On Green	0.27	0.27	0.27	0.21	0.21	0.21	0.06	0.27	0.27	0.07	0.29	0.29
Sat Flow, veh/h	1810	3800	1599	1810	3800	1608	1810	3610	1605	1810	3610	1588
Grp Volume(v), veh/h	305	723	53	229	464	277	95	808	277	534	1140	204
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1608	1810	1805	1605	1810	1805	1588
Q Serve(g_s), s	16.9	19.5	2.8	12.9	12.4	18.5	5.9	23.9	17.3	8.4	32.3	11.9
Cycle Q Clear(g_c), s	16.9	19.5	2.8	12.9	12.4	18.5	5.9	23.9	17.3	8.4	32.3	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	1008	424	386	811	343	104	970	431	134	1031	453
V/C Ratio(X)	0.64	0.72	0.12	0.59	0.57	0.81	0.91	0.83	0.64	3.97	1.11	0.45
Avail Cap(c_a), veh/h	480	1008	424	496	1041	441	104	970	431	134	1031	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	37.7	31.6	40.1	39.9	42.3	53.0	39.0	36.6	52.4	40.4	33.1
Incr Delay (d2), s/veh	6.3	4.4	0.6	1.5	0.6	8.4	60.4	6.3	3.2	1356.3	61.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	9.5	1.2	5.8	5.8	8.0	4.4	11.1	7.0	54.4	22.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	42.1	32.2	41.5	40.5	50.7	113.4	45.3	39.8	1408.6	102.2	33.8
LnGrp LOS	D	D	C	D	D	D	F	D	D	F	F	C
Approach Vol, veh/h		1081			970			1180			1878	
Approach Delay, s/veh		41.9			43.7			49.5			466.3	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	11.1	37.7		29.2				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	6.5	32.3		31.0				
Max Q Clear Time (g_c+I1), s	10.4	25.9		21.5	7.9	34.3		20.5				
Green Ext Time (p_c), s	0.0	2.5		3.8	0.0	0.0		3.5				

Intersection Summary			
HCM 6th Ctrl Delay		200.0	
HCM 6th LOS		F	

Notes

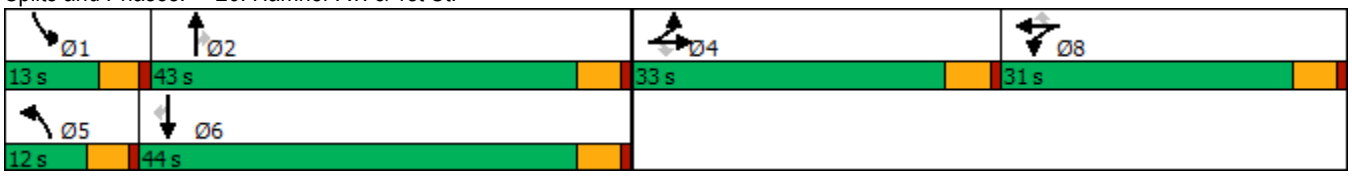
User approved volume balancing among the lanes for turning movement.

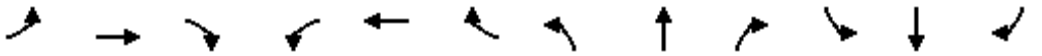
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	389	51	64	33	23	80	834	38	81	1111	245
Future Volume (vph)	389	51	64	33	23	80	834	38	81	1111	245
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	12.0	43.0	43.0	13.0	44.0	44.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	10.0%	35.8%	35.8%	10.8%	36.7%	36.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	389	51	64	57	33	23	80	834	38	81	1111	245
Future Volume (veh/h)	389	51	64	57	33	23	80	834	38	81	1111	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	448	0	48	60	35	7	84	878	29	85	1169	175
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	585	0	256	125	73	172	108	1610	700	110	1613	701
Arrive On Green	0.16	0.00	0.16	0.11	0.11	0.11	0.06	0.45	0.45	0.06	0.45	0.45
Sat Flow, veh/h	3619	0	1586	1163	679	1606	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	448	0	48	95	0	7	84	878	29	85	1169	175
Grp Sat Flow(s),veh/h/ln	1810	0	1586	1842	0	1606	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	10.3	0.0	2.3	4.2	0.0	0.3	4.0	15.5	0.9	4.0	23.1	6.1
Cycle Q Clear(g_c), s	10.3	0.0	2.3	4.2	0.0	0.3	4.0	15.5	0.9	4.0	23.1	6.1
Prop In Lane	1.00		1.00	0.63		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	585	0	256	198	0	172	108	1610	700	110	1613	701
V/C Ratio(X)	0.77	0.00	0.19	0.48	0.00	0.04	0.78	0.55	0.04	0.78	0.72	0.25
Avail Cap(c_a), veh/h	1161	0	509	549	0	478	153	1610	700	174	1613	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	31.6	36.7	0.0	34.9	40.5	17.7	13.6	40.4	19.8	15.0
Incr Delay (d2), s/veh	2.1	0.0	0.3	1.8	0.0	0.1	8.9	1.3	0.1	4.4	2.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.9	2.0	0.0	0.1	2.0	6.1	0.3	1.9	9.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	0.0	32.0	38.5	0.0	35.0	49.3	19.0	13.8	44.8	22.6	15.9
LnGrp LOS	D	A	C	D	A	D	D	B	B	D	C	B
Approach Vol, veh/h		496			102			991			1429	
Approach Delay, s/veh		36.7			38.2			21.4			23.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	43.9		19.1	9.8	44.0		14.4				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	8.4	38.0		28.0	7.4	39.0		26.0				
Max Q Clear Time (g_c+I1), s	6.0	17.5		12.3	6.0	25.1		6.2				
Green Ext Time (p_c), s	0.0	5.9		1.6	0.0	7.2		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		25.3	
HCM 6th LOS		C	

Notes

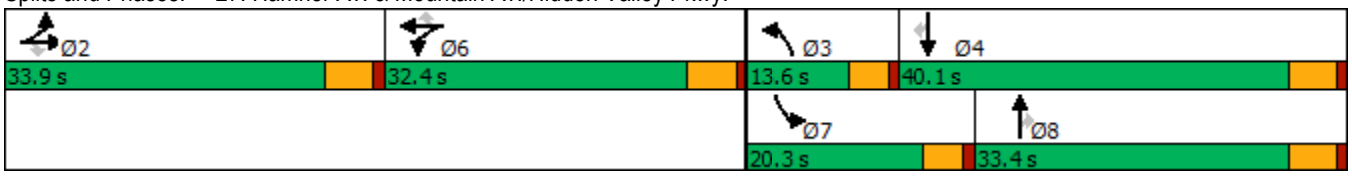
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	648	89	429	452	323	112	766	571	546	831	25
Future Volume (vph)	29	648	89	429	452	323	112	766	571	546	831	25
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	648	89	429	452	323	112	766	571	546	831	25
Future Volume (veh/h)	29	648	89	429	452	323	112	766	571	546	831	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	675	87	306	668	325	117	798	390	569	866	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	431	861	383	402	844	356	136	846	377	461	1048	460
Arrive On Green	0.24	0.24	0.24	0.22	0.22	0.22	0.08	0.23	0.23	0.13	0.29	0.29
Sat Flow, veh/h	1810	3610	1606	1810	3800	1604	1810	3610	1610	3510	3610	1586
Grp Volume(v), veh/h	30	675	87	306	668	325	117	798	390	569	866	18
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1604	1810	1805	1610	1755	1805	1586
Q Serve(g_s), s	1.5	20.9	5.2	18.9	19.8	23.6	7.6	26.0	28.0	15.7	26.8	1.0
Cycle Q Clear(g_c), s	1.5	20.9	5.2	18.9	19.8	23.6	7.6	26.0	28.0	15.7	26.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	861	383	402	844	356	136	846	377	461	1048	460
V/C Ratio(X)	0.07	0.78	0.23	0.76	0.79	0.91	0.86	0.94	1.03	1.23	0.83	0.04
Avail Cap(c_a), veh/h	431	861	383	409	858	362	136	846	377	461	1048	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	42.6	36.7	43.5	43.9	45.4	54.6	45.0	45.8	51.9	39.6	30.5
Incr Delay (d2), s/veh	0.3	7.1	1.4	8.1	5.0	26.5	37.4	18.7	55.4	123.0	5.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	10.0	2.2	9.2	9.7	11.8	4.8	13.5	16.7	14.6	12.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	49.7	38.0	51.6	48.9	71.8	92.1	63.7	101.2	174.9	45.2	30.5
LnGrp LOS	D	D	D	D	D	E	F	E	F	F	D	C
Approach Vol, veh/h		792			1299			1305			1453	
Approach Delay, s/veh		47.9			55.3			77.5			95.8	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	33.9	13.6	40.1	31.9	20.3	33.4
Change Period (Y+Rc), s	5.4	4.6	5.4	5.4	4.6	5.4
Max Green Setting (Gmax), s	28.5	9.0	34.7	27.0	15.7	28.0
Max Q Clear Time (g_c+I1), s	22.9	9.6	28.8	25.6	17.7	30.0
Green Ext Time (p_c), s	2.2	0.0	2.8	0.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	72.2
HCM 6th LOS	E

Notes

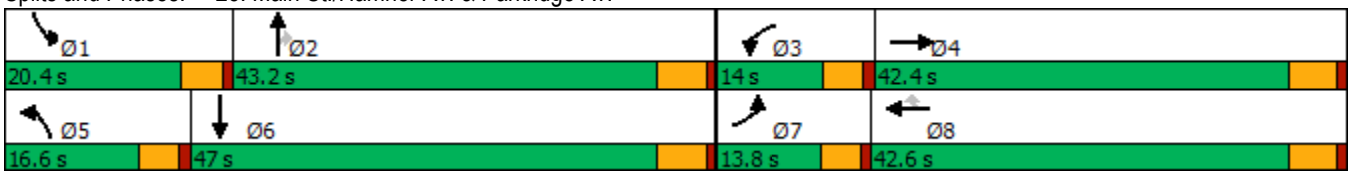
User approved volume balancing among the lanes for turning movement.

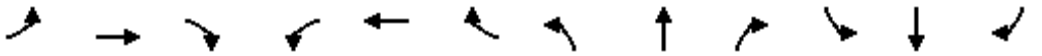
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	199	359	80	182	287	45	931	140	247	936
Future Volume (vph)	199	359	80	182	287	45	931	140	247	936
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	13.8	42.4	14.0	42.6	42.6	16.6	43.2	43.2	20.4	47.0
Total Split (%)	11.5%	35.3%	11.7%	35.5%	35.5%	13.8%	36.0%	36.0%	17.0%	39.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.8
Natural Cycle: 125
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	359	70	80	182	287	45	931	140	247	936	175
Future Volume (veh/h)	199	359	70	80	182	287	45	931	140	247	936	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	378	63	84	192	199	47	980	0	260	985	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	657	108	108	345	290	66	1349		283	2561	
Arrive On Green	0.09	0.21	0.21	0.06	0.18	0.18	0.04	0.37	0.00	0.16	0.49	0.00
Sat Flow, veh/h	1810	3088	510	1810	1900	1600	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	209	219	222	84	192	199	47	980	0	260	985	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1793	1810	1900	1600	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	9.2	11.0	11.2	4.6	9.3	11.8	2.6	23.6	0.0	14.3	12.0	0.0
Cycle Q Clear(g_c), s	9.2	11.0	11.2	4.6	9.3	11.8	2.6	23.6	0.0	14.3	12.0	0.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	165	384	381	108	345	290	66	1349		283	2561	
V/C Ratio(X)	1.27	0.57	0.58	0.78	0.56	0.69	0.72	0.73		0.92	0.38	
Avail Cap(c_a), veh/h	165	660	656	168	699	588	215	1349		283	2561	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.0	35.7	35.8	46.9	37.7	38.7	48.2	27.2	0.0	42.0	16.0	0.0
Incr Delay (d2), s/veh	160.3	1.3	1.4	4.5	1.4	2.9	5.4	3.4	0.0	32.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	4.8	4.9	2.2	4.3	4.7	1.2	10.2	0.0	8.7	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	206.3	37.0	37.2	51.4	39.1	41.6	53.6	30.7	0.0	74.7	16.4	0.0
LnGrp LOS	F	D	D	D	D	D	D	C		E	B	
Approach Vol, veh/h		650			475			1027	A		1245	A
Approach Delay, s/veh		91.5			42.3			31.7			28.6	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	43.2	10.6	26.9	8.3	55.3	13.8	23.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.8	37.8	9.4	37.0	12.0	41.6	9.2	37.2
Max Q Clear Time (g_c+I1), s	16.3	25.6	6.6	13.2	4.6	14.0	11.2	13.8
Green Ext Time (p_c), s	0.0	5.1	0.0	2.4	0.0	7.3	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

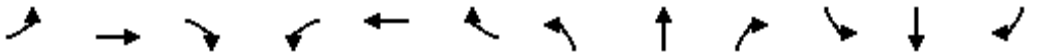
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	801	184	880	4	334
Future Volume (vph)	801	184	880	4	334
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	47.0	34.0	81.0	39.0	39.0
Total Split (%)	39.2%	28.3%	67.5%	32.5%	32.5%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	801	890	184	880	0	0	0	0	81	4	334
Future Volume (veh/h)	0	801	890	184	880	0	0	0	0	81	4	334
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	826	841	190	907	0				84	4	248
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1062	946	216	2691	0				298	14	277
Arrive On Green	0.00	0.59	0.59	0.24	1.00	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	1900	1607	1810	3705	0				1731	82	1610
Grp Volume(v), veh/h	0	826	841	190	907	0				88	0	248
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1805	0				1813	0	1610
Q Serve(g_s), s	0.0	41.7	54.2	12.1	0.0	0.0				5.1	0.0	18.1
Cycle Q Clear(g_c), s	0.0	41.7	54.2	12.1	0.0	0.0				5.1	0.0	18.1
Prop In Lane	0.00		1.00	1.00		0.00				0.95		1.00
Lane Grp Cap(c), veh/h	0	1062	946	216	2691	0				312	0	277
V/C Ratio(X)	0.00	0.78	0.89	0.88	0.34	0.00				0.28	0.00	0.89
Avail Cap(c_a), veh/h	0	1062	946	445	2691	0				509	0	452
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.70	0.70	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.7	21.3	44.8	0.0	0.0				43.2	0.0	48.6
Incr Delay (d2), s/veh	0.0	0.5	1.3	3.2	0.2	0.0				0.2	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.3	19.1	4.9	0.1	0.0				2.2	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.3	22.7	48.1	0.2	0.0				43.4	0.0	56.6
LnGrp LOS	A	B	C	D	A	A				D	A	E
Approach Vol, veh/h		1667			1097						336	
Approach Delay, s/veh		21.0			8.5						53.1	
Approach LOS		C			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.8	75.2		26.0		94.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	29.5	42.4		33.7		76.4
Max Q Clear Time (g_c+I1), s	14.1	56.2		20.1		2.0
Green Ext Time (p_c), s	0.2	0.0		0.6		4.7

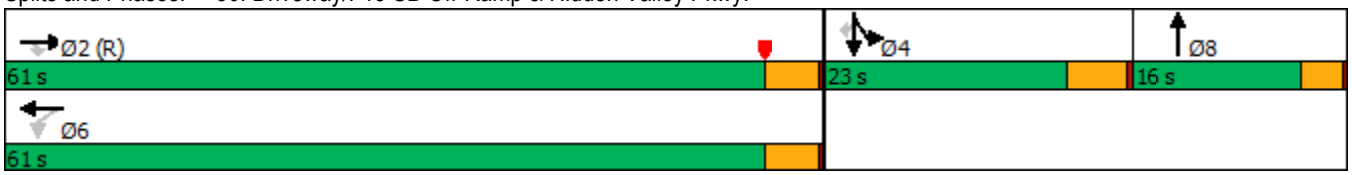
Intersection Summary		
HCM 6th Ctrl Delay		20.1
HCM 6th LOS		C

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	1714	44	110	858	0	416	84	381
Future Volume (vph)	1714	44	110	858	0	416	84	381
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	61.0	61.0	61.0	61.0	16.0	23.0	23.0	23.0
Total Split (%)	61.0%	61.0%	61.0%	61.0%	16.0%	23.0%	23.0%	23.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1714	44	110	858	0	0	0	239	416	84	381
Future Volume (veh/h)	0	1714	44	110	858	0	0	0	239	416	84	381
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1804	25	116	903	0	0	0	93	300	350	234
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2231	994	133	2231	0	0	0	116	326	342	290
Arrive On Green	0.00	0.62	0.62	0.82	0.82	0.00	0.00	0.00	0.07	0.18	0.18	0.18
Sat Flow, veh/h	0	3705	1609	258	3705	0	0	0	1610	1810	1900	1610
Grp Volume(v), veh/h	0	1804	25	116	903	0	0	0	93	300	350	234
Grp Sat Flow(s),veh/h/ln	0	1805	1609	258	1805	0	0	0	1610	1810	1900	1610
Q Serve(g_s), s	0.0	38.2	0.6	23.6	6.7	0.0	0.0	0.0	5.7	16.3	18.0	13.9
Cycle Q Clear(g_c), s	0.0	38.2	0.6	61.8	6.7	0.0	0.0	0.0	5.7	16.3	18.0	13.9
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2231	994	133	2231	0	0	0	116	326	342	290
V/C Ratio(X)	0.00	0.81	0.03	0.87	0.40	0.00	0.00	0.00	0.80	0.92	1.02	0.81
Avail Cap(c_a), veh/h	0	2231	994	133	2231	0	0	0	201	326	342	290
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.24	0.24	0.97	0.97	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.6	7.4	33.6	4.0	0.0	0.0	0.0	45.7	40.3	41.0	39.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	40.2	0.0	0.0	0.0	0.0	4.8	33.3	54.8	21.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.4	0.2	4.2	1.7	0.0	0.0	0.0	2.4	9.9	13.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.4	7.4	73.8	4.0	0.0	0.0	0.0	50.4	73.6	95.8	60.3
LnGrp LOS	A	B	A	E	A	A	A	A	D	E	F	E
Approach Vol, veh/h		1829			1019			93			884	
Approach Delay, s/veh		15.3			12.0			50.4			78.9	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	66.3	23.0	66.3	10.7
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	56.5	18.0	56.5	12.5
Max Q Clear Time (g_c+I1), s	40.2	20.0	63.8	7.7
Green Ext Time (p_c), s	8.8	0.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

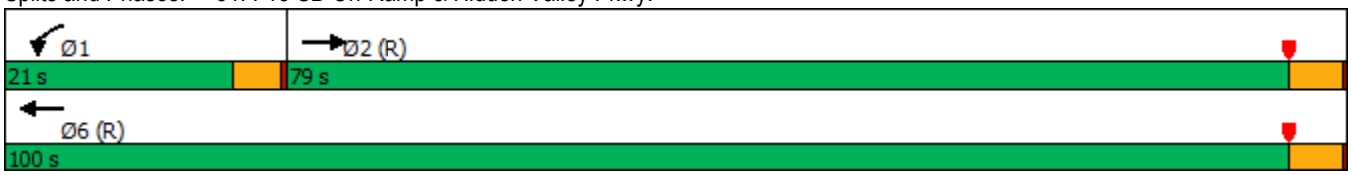
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	1803	159	968
Future Volume (vph)	1803	159	968
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	79.0	21.0	100.0
Total Split (%)	79.0%	21.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1803	567	159	968	0	0
Future Volume (veh/h)	1803	567	159	968	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	1878	575	166	1008		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2054	597	308	3448		
Arrive On Green	1.00	1.00	0.34	1.00		
Sat Flow, veh/h	2852	802	1810	3705		
Grp Volume(v), veh/h	1195	1258	166	1008		
Grp Sat Flow(s),veh/h/ln	1805	1754	1810	1805		
Q Serve(g_s), s	0.0	0.0	7.4	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	7.4	0.0		
Prop In Lane		0.46	1.00			
Lane Grp Cap(c), veh/h	1345	1307	308	3448		
V/C Ratio(X)	0.89	0.96	0.54	0.29		
Avail Cap(c_a), veh/h	1345	1307	308	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.30	0.30	0.62	0.62		
Uniform Delay (d), s/veh	0.0	0.0	29.8	0.0		
Incr Delay (d2), s/veh	3.0	7.4	4.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.1	2.7	3.2	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.0	7.4	34.0	0.1		
LnGrp LOS	A	A	C	A		
Approach Vol, veh/h	2453			1174		
Approach Delay, s/veh	5.3			4.9		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	21.0	79.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	17.0	74.5				95.5
Max Q Clear Time (g_c+I1), s	9.4	2.0				2.0
Green Ext Time (p_c), s	0.2	30.2				5.1

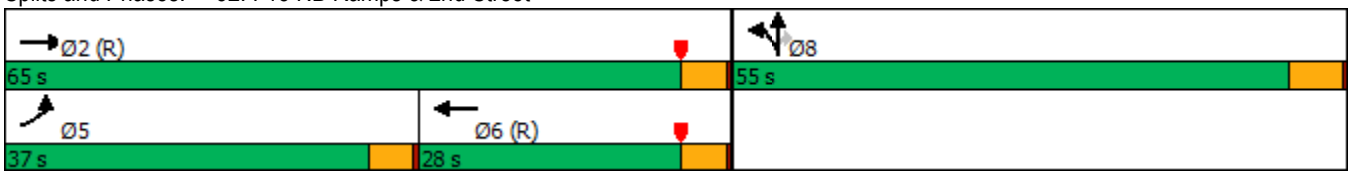
Intersection Summary	
HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

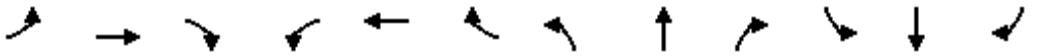
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	546	335	375	6	432
Future Volume (vph)	546	335	375	6	432
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	37.0	65.0	28.0	55.0	55.0
Total Split (%)	30.8%	54.2%	23.3%	45.8%	45.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	335	0	0	375	52	689	6	432	0	0	0
Future Volume (veh/h)	546	335	0	0	375	52	689	6	432	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	587	360	0	0	403	44	741	6	292			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	490	1817	0	0	640	69	744	6	667			
Arrive On Green	0.09	0.17	0.00	0.00	0.20	0.20	0.41	0.41	0.41			
Sat Flow, veh/h	1810	3705	0	0	3376	356	1796	15	1610			
Grp Volume(v), veh/h	587	360	0	0	221	226	747	0	292			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1833	1810	0	1610			
Q Serve(g_s), s	32.5	10.3	0.0	0.0	13.5	13.6	49.4	0.0	15.6			
Cycle Q Clear(g_c), s	32.5	10.3	0.0	0.0	13.5	13.6	49.4	0.0	15.6			
Prop In Lane	1.00		0.00	0.00		0.19	0.99		1.00			
Lane Grp Cap(c), veh/h	490	1817	0	0	352	357	750	0	667			
V/C Ratio(X)	1.20	0.20	0.00	0.00	0.63	0.63	1.00	0.00	0.44			
Avail Cap(c_a), veh/h	490	1817	0	0	352	357	750	0	667			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.38	0.38	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	54.6	29.2	0.0	0.0	44.3	44.4	35.1	0.0	25.2			
Incr Delay (d2), s/veh	96.8	0.1	0.0	0.0	8.2	8.3	31.9	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	29.0	4.9	0.0	0.0	6.8	6.9	26.9	0.0	5.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.4	29.2	0.0	0.0	52.5	52.6	67.0	0.0	25.5			
LnGrp LOS	F	C	A	A	D	D	E	A	C			
Approach Vol, veh/h		947			447			1039				
Approach Delay, s/veh		105.0			52.6			55.3				
Approach LOS		F			D			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		65.0			37.0	28.0		55.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		60.4			32.5	23.4		49.7				
Max Q Clear Time (g_c+I1), s		12.3			34.5	15.6		51.4				
Green Ext Time (p_c), s		1.6			0.0	1.1		0.0				

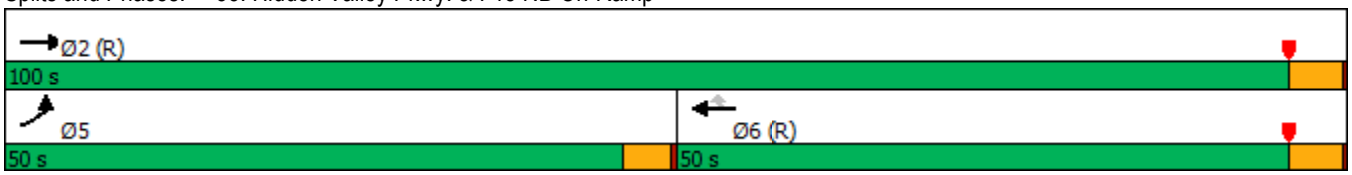
Intersection Summary	
HCM 6th Ctrl Delay	74.1
HCM 6th LOS	E

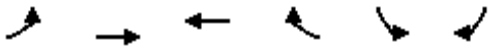
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	619	1185	1126	389
Future Volume (vph)	619	1185	1126	389
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	50.0	100.0	50.0	50.0
Total Split (%)	50.0%	100.0%	50.0%	50.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	619	1185	1126	389	0	0
Future Volume (veh/h)	619	1185	1126	389	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	652	1247	1185	353		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	832	3448	1643	716		
Arrive On Green	0.92	1.00	0.46	0.46		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	652	1247	1185	353		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	10.3	0.0	26.6	15.8		
Cycle Q Clear(g_c), s	10.3	0.0	26.6	15.8		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	832	3448	1643	716		
V/C Ratio(X)	0.78	0.36	0.72	0.49		
Avail Cap(c_a), veh/h	832	3448	1643	716		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.21	0.21	0.65	0.65		
Uniform Delay (d), s/veh	2.6	0.0	22.1	19.1		
Incr Delay (d2), s/veh	1.6	0.1	1.8	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.6	0.0	10.8	5.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.2	0.1	23.9	20.7		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		1899	1538			
Approach Delay, s/veh		1.5	23.2			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			50.0	50.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			46.0	45.5
Max Q Clear Time (g_c+I1), s		2.0			12.3	28.6
Green Ext Time (p_c), s		7.0			1.0	5.9

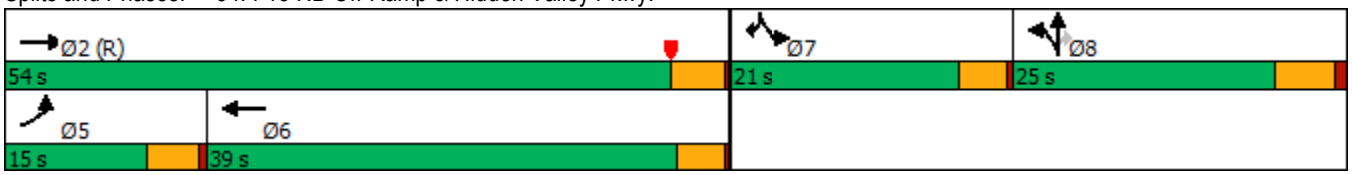
Intersection Summary						
HCM 6th Ctrl Delay			11.2			
HCM 6th LOS			B			

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	89	1097	880	487	64	287	65	148
Future Volume (vph)	89	1097	880	487	64	287	65	148
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	54.0	39.0	25.0	25.0	25.0	21.0	21.0
Total Split (%)	15.0%	54.0%	39.0%	25.0%	25.0%	25.0%	21.0%	21.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	1097	0	0	880	36	487	64	287	65	0	148
Future Volume (veh/h)	89	1097	0	0	880	36	487	64	287	65	0	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	93	1143	0	0	917	34	507	67	147	68	0	138
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	2545	0	0	2014	75	685	370	314	0	0	0
Arrive On Green	0.18	1.00	0.00	0.00	0.57	0.57	0.19	0.19	0.19	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3644	132	3510	1900	1610		0	
Grp Volume(v), veh/h	93	1143	0	0	466	485	507	67	147		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1876	1755	1900	1610			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	15.1	15.1	13.6	2.9	8.1			
Cycle Q Clear(g_c), s	4.7	0.0	0.0	0.0	15.1	15.1	13.6	2.9	8.1			
Prop In Lane	1.00		0.00	0.00		0.07	1.00		1.00			
Lane Grp Cap(c), veh/h	167	2545	0	0	1024	1065	685	371	314			
V/C Ratio(X)	0.56	0.45	0.00	0.00	0.46	0.46	0.74	0.18	0.47			
Avail Cap(c_a), veh/h	190	2545	0	0	1024	1065	685	371	314			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	38.9	0.0	0.0	0.0	12.6	12.6	37.9	33.6	35.7			
Incr Delay (d2), s/veh	2.0	0.5	0.0	0.0	1.5	1.4	7.1	1.1	4.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	0.2	0.0	0.0	5.7	5.9	6.2	1.4	3.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	0.5	0.0	0.0	14.1	14.0	45.0	34.7	40.6			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1236			951			721				
Approach Delay, s/veh		3.6			14.0			43.1				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.0			13.7	61.3		25.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		49.5			10.5	* 35		19.5				
Max Q Clear Time (g_c+I1), s		2.0			6.7	17.1		15.6				
Green Ext Time (p_c), s		6.0			0.0	3.3		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

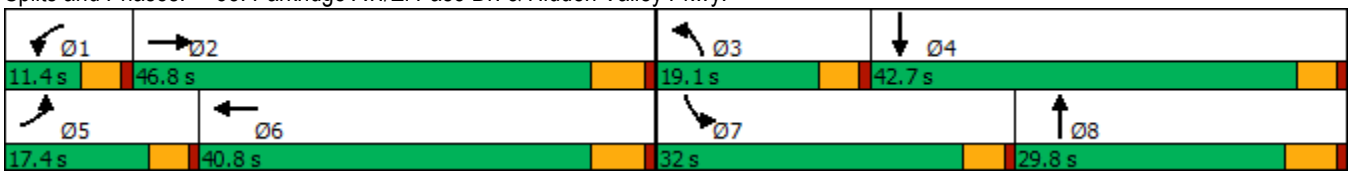
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	112	993	76	586	118	114	102	54
Future Volume (vph)	112	993	76	586	118	114	102	54
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	993	133	76	586	77	118	114	227	102	54	47
Future Volume (veh/h)	112	993	133	76	586	77	118	114	227	102	54	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	127	1128	112	86	666	78	134	130	188	408	61	27
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.25	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	1216	121	109	1111	130	162	266	233	434	738	307
Arrive On Green	0.09	0.37	0.37	0.06	0.34	0.34	0.09	0.15	0.15	0.24	0.30	0.30
Sat Flow, veh/h	1810	3317	329	1810	3255	381	1810	1805	1582	1810	2483	1033
Grp Volume(v), veh/h	127	613	627	86	369	375	134	130	188	408	43	45
Grp Sat Flow(s),veh/h/ln	1810	1805	1841	1810	1805	1831	1810	1805	1582	1810	1805	1712
Q Serve(g_s), s	7.7	36.4	36.6	5.2	18.9	19.0	8.1	7.4	12.9	24.8	1.9	2.1
Cycle Q Clear(g_c), s	7.7	36.4	36.6	5.2	18.9	19.0	8.1	7.4	12.9	24.8	1.9	2.1
Prop In Lane	1.00		0.18	1.00		0.21	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	155	662	675	109	616	625	162	266	233	434	537	509
V/C Ratio(X)	0.82	0.93	0.93	0.79	0.60	0.60	0.82	0.49	0.81	0.94	0.08	0.09
Avail Cap(c_a), veh/h	207	662	675	110	616	625	235	387	339	443	615	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	34.0	34.0	51.8	30.5	30.5	50.0	43.8	46.1	41.7	28.3	28.3
Incr Delay (d2), s/veh	13.2	21.0	21.0	28.3	4.3	4.2	9.8	1.4	8.8	27.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	18.8	19.2	3.2	8.6	8.7	4.0	3.3	5.5	14.4	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	55.0	55.0	80.2	34.8	34.7	59.8	45.2	54.9	69.3	28.4	28.4
LnGrp LOS	E	D	E	F	C	C	E	D	D	E	C	C
Approach Vol, veh/h		1367			830			452			496	
Approach Delay, s/veh		55.8			39.5			53.6			62.0	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	46.8	14.6	39.1	14.2	44.0	31.4	22.3
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	7.2	38.6	10.1	4.1	9.7	21.0	26.8	14.9
Green Ext Time (p_c), s	0.0	1.6	0.1	0.5	0.0	3.6	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

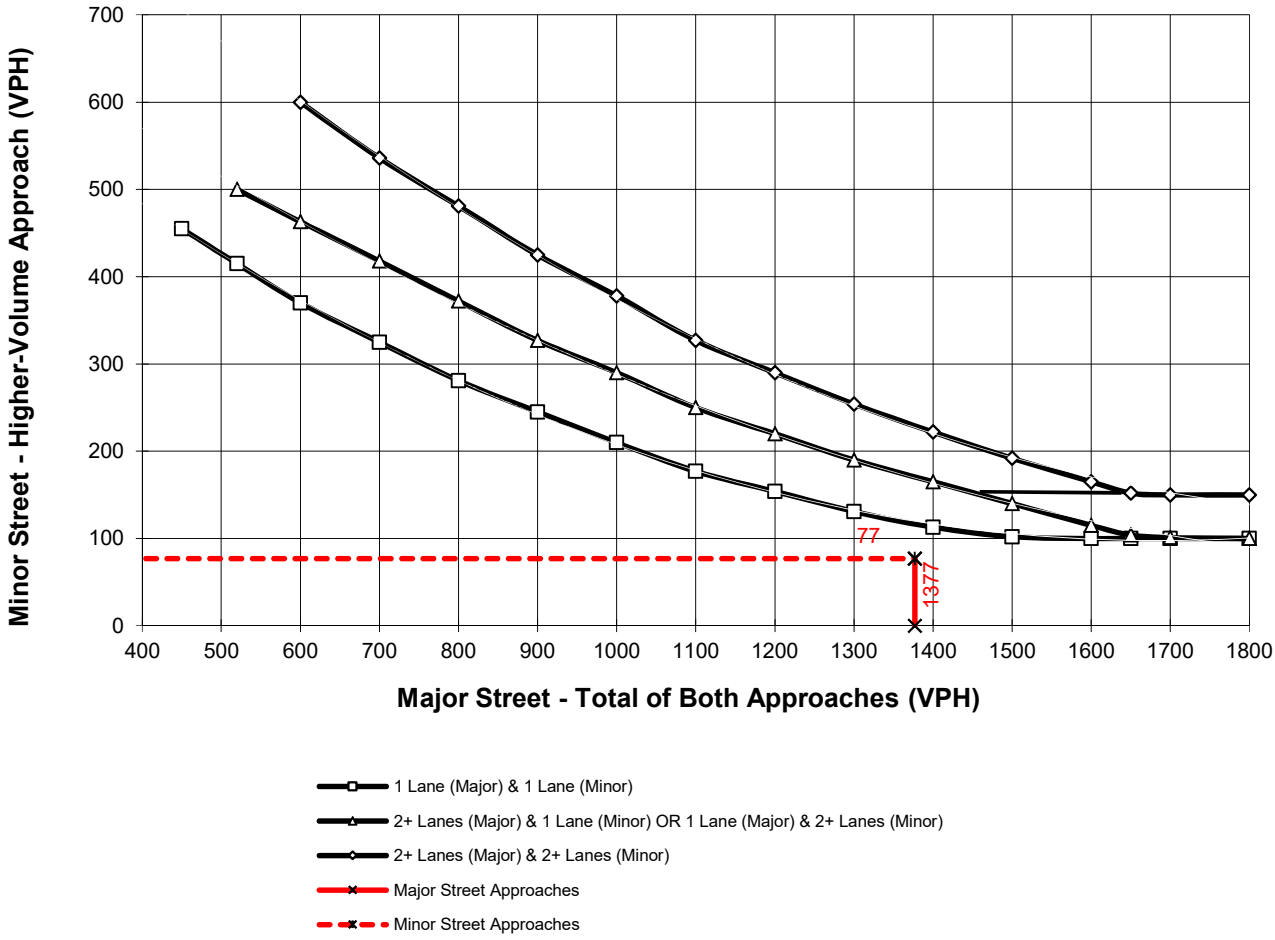
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **OYC (2022) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1377**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **77**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

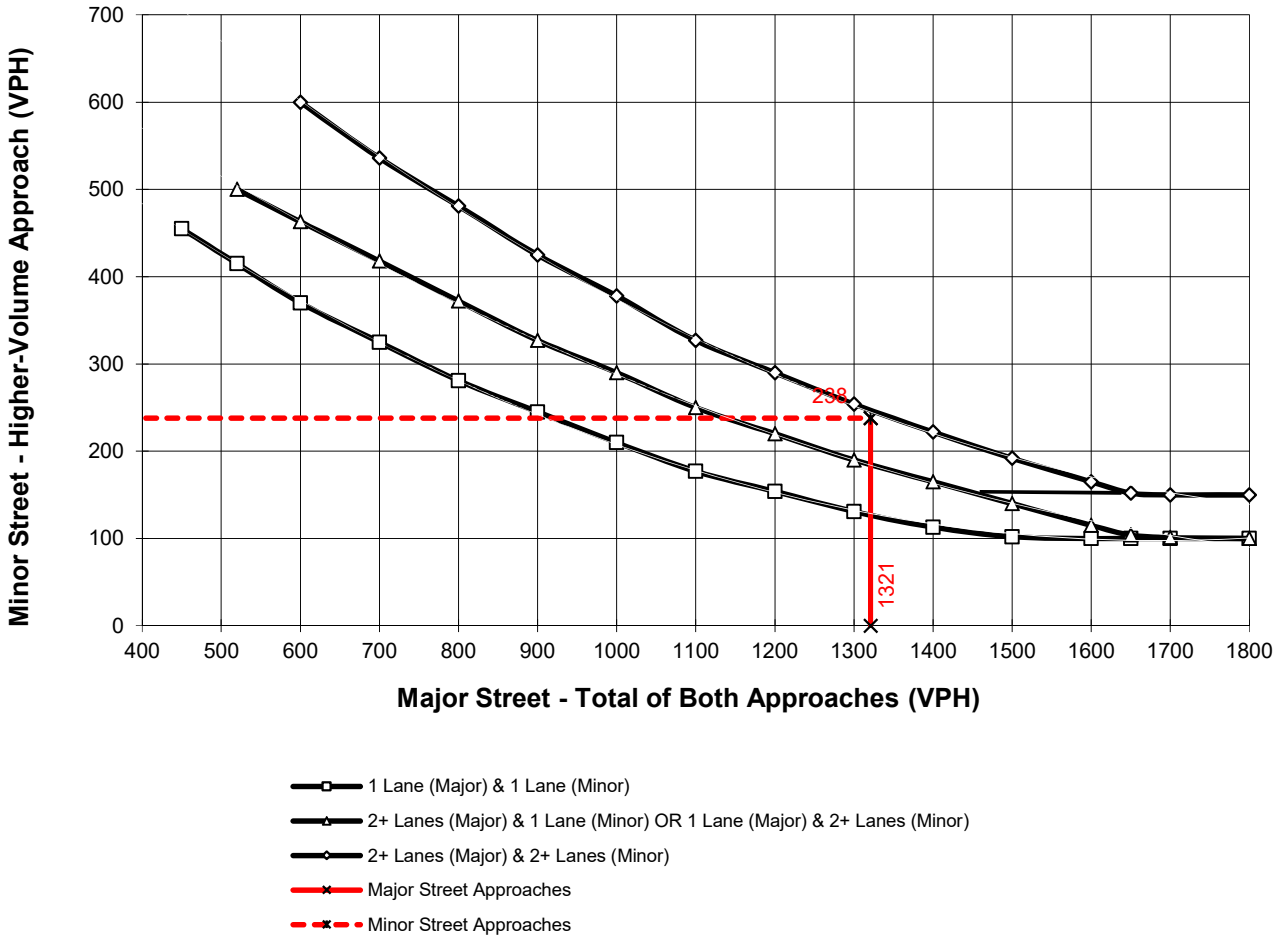
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **OYC (2022) Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1321**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (East)**
High Volume Approach (VPH) = **238**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

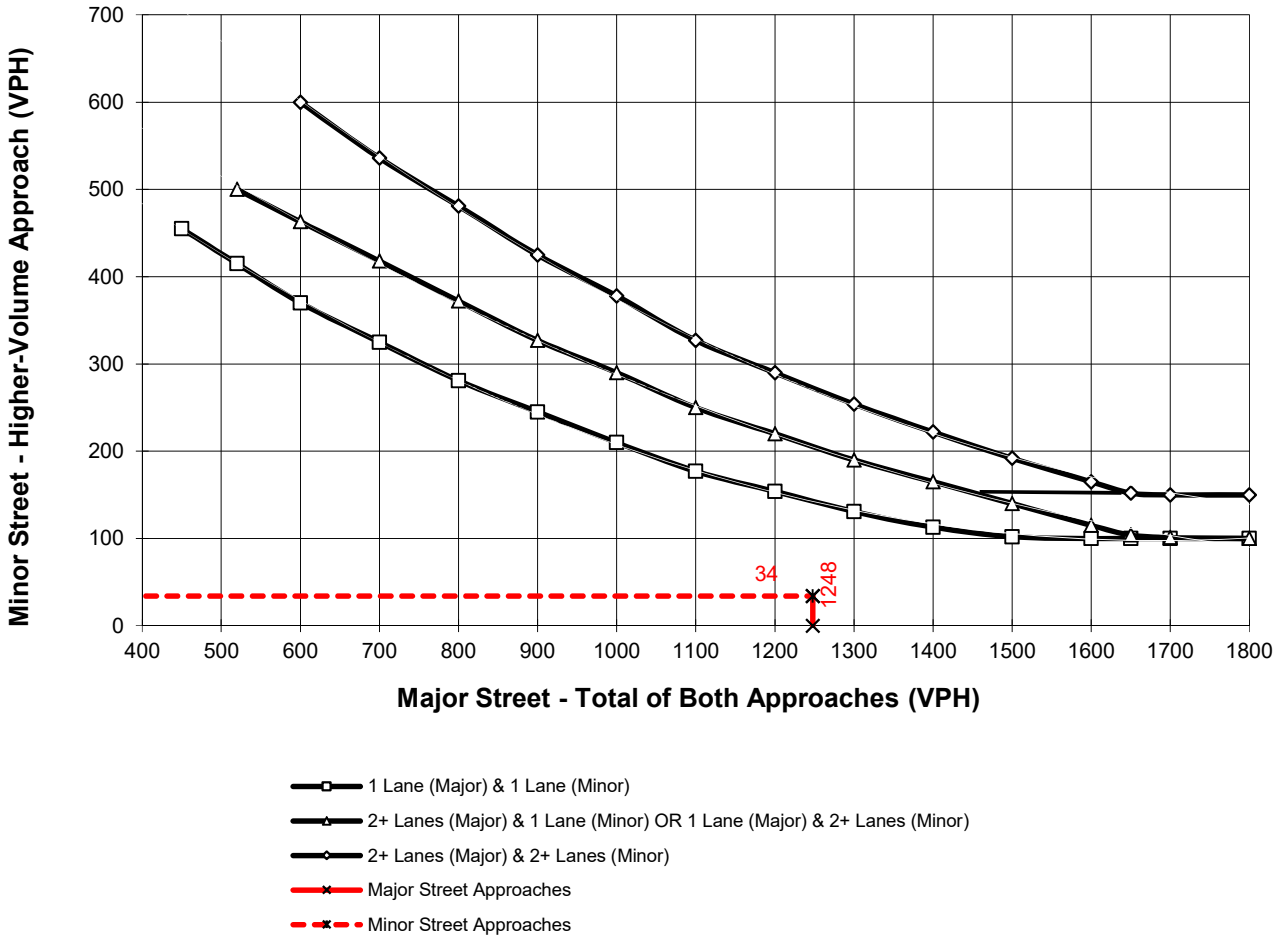
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **OYC (2022) Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1248**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **34**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

This Page Intentionally Left Blank

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

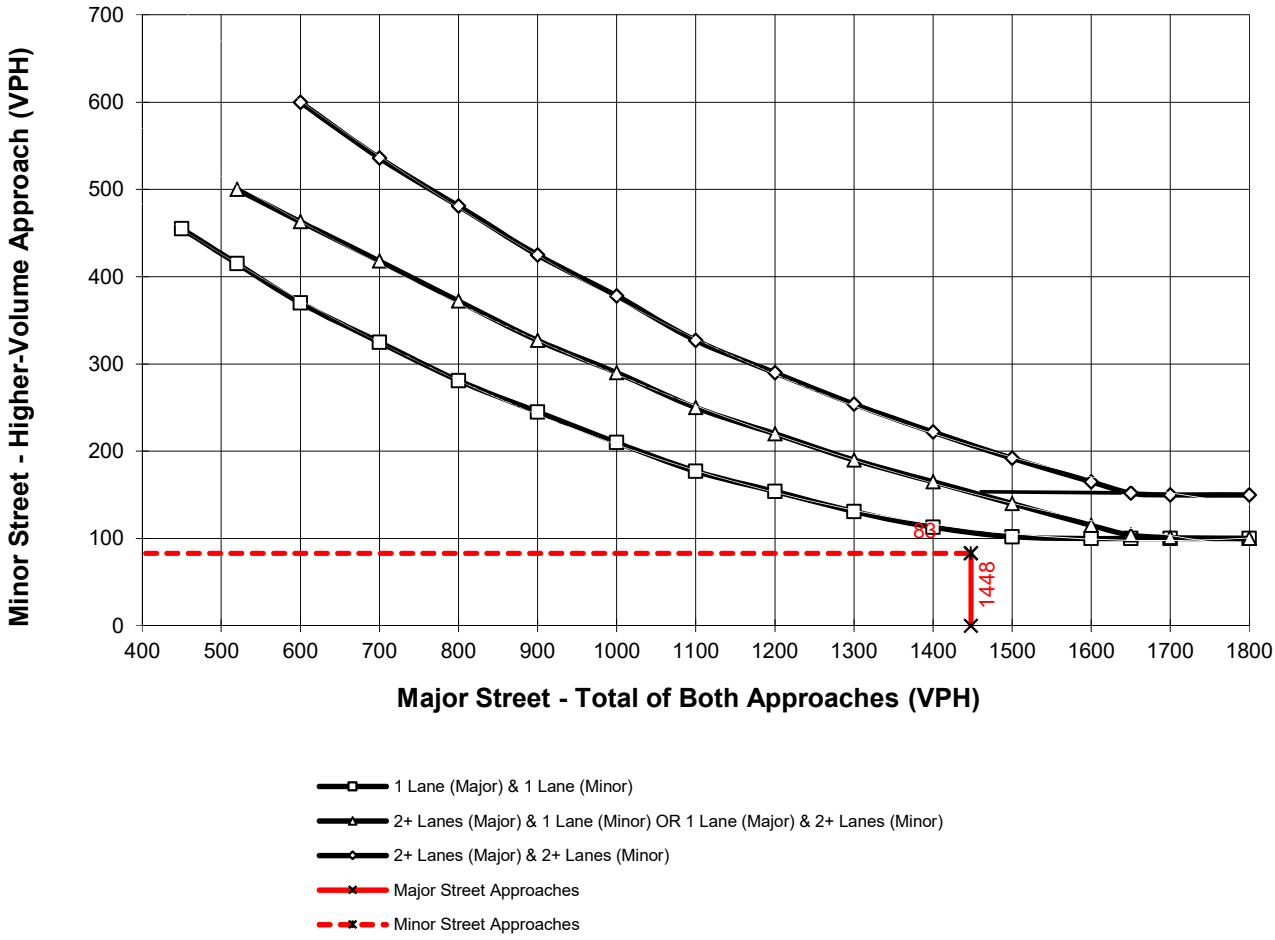
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **OYC (2022) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1448**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **83**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

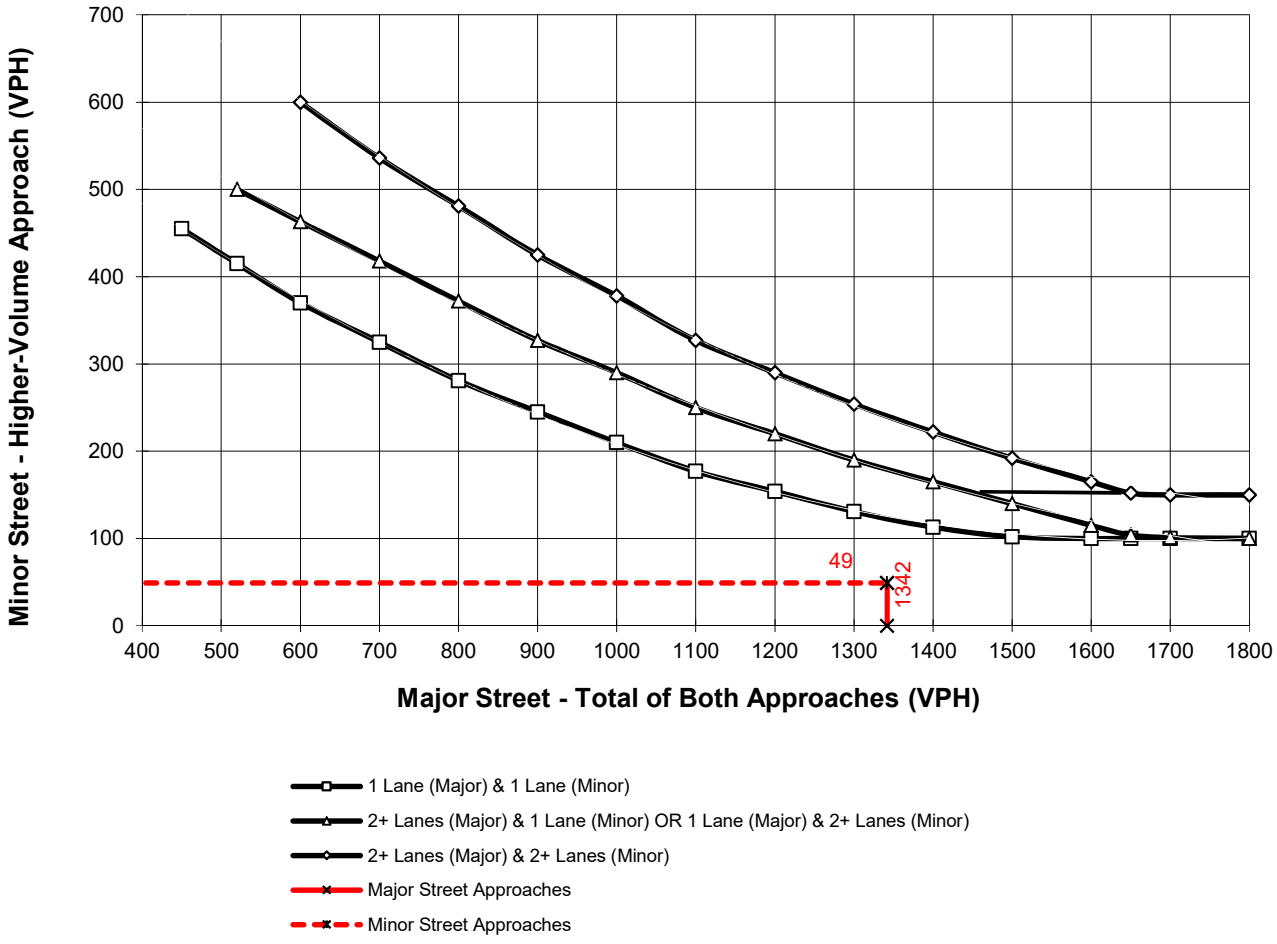
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **OYC (2022) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1342**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **49**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		OYC (2022) WP
				CALC LC	DATE	05/28/19
Jurisdiction: City of Norco				CHK BA	DATE	12/04/17
Major Street: First Street				Critical Approach Speed (Major)		40 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **20,919** vpd Minor Street Future ADT = **359** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **20,919** / *1* **359**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **20,919** / *1* **359**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 15% **B** 30%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: First Street				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **20,919** vpd Minor Street Future ADT = **819** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **20,919** / *1* **819**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **20,919** / *1* **819**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 34% B: 68%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 05/28/19
				CHK BA	DATE 12/04/17

Jurisdiction: **City of Norco**
Major Street: **Mountain Avenue**
Minor Street: **Driveway 3**
Critical Approach Speed (Major) 40 mph
Critical Approach Speed (Minor) 15 mph

Major Street Approach Lanes = **1** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,850** vpd
Minor Street Future ADT = **588** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..
or
In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,850** / *1* **588**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,850** / *1* **588**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 24% B: 49%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM				
				TRAFFIC CONDITIONS		**OYC (2022) WP**	
				CALC	LC	DATE	05/28/19
Jurisdiction:	**City of Norco**			CHK	BA	DATE	12/04/17
Major Street:	**Mountain Avenue**				Critical Approach Speed (Major)	40	mph
Minor Street:	**Driveway 4**				Critical Approach Speed (Minor)	15	mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,613** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,613**	*1* **479**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,613**	*1* **479**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 20% **B** 40%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		OYC (2022) WP
				CALC LC	DATE	05/28/19
Jurisdiction: **City of Norco**				CHK BA	DATE	12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 5**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,788** vpd Minor Street Future ADT = **522** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX				
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,788** / *1* **522**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **6,788** / *1* **522**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 22% B: 43%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		OYC (2022) WP
				CALC LC	DATE	05/28/19
Jurisdiction: **City of Norco**				CHK BA	DATE	12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 6**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,158** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **7,158** / *1* **479**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,158** / *1* **479**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 20% B: 40%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		OYC (2022) WP
				CALC LC	DATE	05/28/19
Jurisdiction: **City of Norco**				CHK BA	DATE	12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 7**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,321** vpd Minor Street Future ADT = **723** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **7,321** / *1* **723**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,321** / *1* **723**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 30% B: 60%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: **Second Street**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 8**				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **18,947** vpd Minor Street Future ADT = **163** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **18,947**	*1* **163**	8,000 *	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **18,947**	*1* **163**	12,000 *	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 7% **B** 14%				

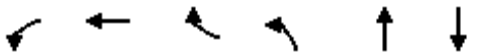
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

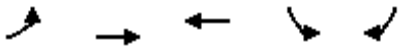


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	302	314	766	264	875	960
v/c Ratio	0.40	0.40	1.01	0.76	0.57	0.93
Control Delay	17.0	17.0	56.2	51.0	19.3	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	17.0	56.2	51.0	19.3	41.4
Queue Length 50th (ft)	103	107	~346	67	168	215
Queue Length 95th (ft)	169	174	#596	#122	225	#340
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	761	786	762	350	1534	1031
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.40	1.01	0.75	0.57	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1081	83	295	307	203
v/c Ratio	0.79	0.06	0.32	0.40	0.47
Control Delay	26.0	4.1	14.0	12.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	4.1	14.0	12.0	8.5
Queue Length 50th (ft)	236	11	30	22	0
Queue Length 95th (ft)	278	24	67	56	59
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1315	932	765	435
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.68	0.06	0.32	0.40	0.47

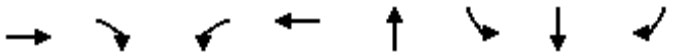
Intersection Summary



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1044	289	1226	67	415
v/c Ratio	0.66	0.83	0.50	0.15	0.91
Control Delay	23.2	34.8	4.2	34.8	60.2
Queue Delay	0.6	0.0	0.8	0.0	0.0
Total Delay	23.9	34.8	5.0	34.8	60.2
Queue Length 50th (ft)	259	232	147	40	252
Queue Length 95th (ft)	383	327	m98	76	#405
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1589	443	2437	508	513
Starvation Cap Reductn	229	0	823	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.65	0.76	0.13	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	777	25	84	996	86	212	444	422
v/c Ratio	0.46	0.03	0.36	0.59	0.25	0.32	0.63	0.59
Control Delay	21.6	0.9	16.1	14.5	1.7	25.0	19.3	17.7
Queue Delay	1.7	0.0	0.0	1.5	0.0	0.0	0.0	0.0
Total Delay	23.4	0.9	16.1	16.0	1.7	25.0	19.3	17.7
Queue Length 50th (ft)	197	0	36	281	0	108	154	130
Queue Length 95th (ft)	251	4	87	347	0	171	278	240
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1677	780	233	1677	383	670	710	715
Starvation Cap Reductn	693	0	0	461	0	0	0	0
Spillback Cap Reductn	42	0	0	0	3	0	2	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.03	0.36	0.82	0.23	0.32	0.63	0.59

Intersection Summary

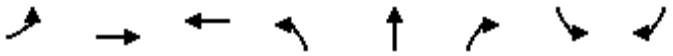


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	176	402	761	897	668
v/c Ratio	0.71	0.22	0.65	1.20	0.76
Control Delay	39.2	12.7	38.1	133.8	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	12.7	38.1	133.8	19.7
Queue Length 50th (ft)	127	105	261	~841	210
Queue Length 95th (ft)	135	90	357	#1088	376
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1817	1165	750	879
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.22	0.65	1.20	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

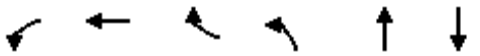
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	82	435	1208	558	90	177	40	191
v/c Ratio	0.50	0.23	0.81	0.86	0.25	0.40	0.13	0.69
Control Delay	69.3	12.6	35.0	57.4	40.5	8.7	39.8	56.6
Queue Delay	0.0	0.5	0.0	50.2	0.0	0.0	0.0	0.0
Total Delay	69.3	13.1	35.0	107.6	40.5	8.7	39.8	56.6
Queue Length 50th (ft)	62	66	407	198	55	0	24	128
Queue Length 95th (ft)	114	81	504	#285	102	59	56	#220
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	165	1854	1484	652	354	444	311	278
Starvation Cap Reductn	0	956	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	154	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.48	0.81	1.12	0.25	0.40	0.13	0.69

Intersection Summary

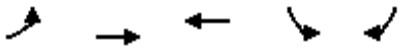
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	334	337	333	247	719	1400
v/c Ratio	0.71	0.71	0.65	0.57	0.33	0.92
Control Delay	35.3	35.4	23.7	32.6	8.1	36.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	35.4	23.7	32.6	8.1	36.3
Queue Length 50th (ft)	168	170	109	67	123	346
Queue Length 95th (ft)	222	224	164	106	193	#650
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	817	819	820	436	2171	1517
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.41	0.41	0.57	0.33	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	830	148	209	566	276
v/c Ratio	0.75	0.11	0.18	0.66	0.54
Control Delay	29.2	6.7	14.3	21.4	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	6.7	14.3	21.4	8.4
Queue Length 50th (ft)	237	49	24	78	0
Queue Length 95th (ft)	283	m16	56	132	70
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1623	1305	1131	856	510
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.11	0.18	0.66	0.54

Intersection Summary

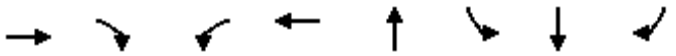
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1573	190	888	88	300
v/c Ratio	0.75	0.74	0.31	0.38	0.85
Control Delay	18.0	44.9	0.2	50.4	41.5
Queue Delay	3.9	0.0	0.2	0.0	0.0
Total Delay	21.9	44.9	0.4	50.4	41.5
Queue Length 50th (ft)	352	52	0	64	98
Queue Length 95th (ft)	#682	3	m0	105	186
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	2110	443	2854	509	577
Starvation Cap Reductn	444	0	1078	0	0
Spillback Cap Reductn	38	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	0.43	0.50	0.17	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1545	46	116	845	252	307	307	279
v/c Ratio	0.76	0.05	1.47	0.41	0.95	1.00	1.00	0.55
Control Delay	19.6	2.0	291.1	9.1	75.9	93.1	92.5	9.1
Queue Delay	48.2	0.0	0.0	0.6	59.6	11.4	12.0	0.0
Total Delay	67.8	2.0	291.1	9.7	135.5	104.5	104.5	9.1
Queue Length 50th (ft)	370	0	~100	82	117	207	~206	0
Queue Length 95th (ft)	460	11	#214	79	#272	#389	#401	74
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	2041	920	79	2041	267	308	306	504
Starvation Cap Reductn	680	0	0	739	0	0	0	0
Spillback Cap Reductn	0	0	0	0	167	12	12	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.05	1.47	0.65	2.52	1.04	1.04	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

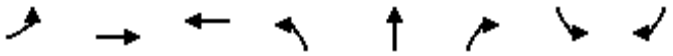
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	462	344	453	733	465
v/c Ratio	0.96	0.19	0.64	0.98	0.53
Control Delay	61.2	14.7	47.7	63.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	14.7	47.7	63.0	8.4
Queue Length 50th (ft)	353	80	167	551	52
Queue Length 95th (ft)	#491	76	225	#812	143
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1817	713	750	878
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.95	0.19	0.64	0.98	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



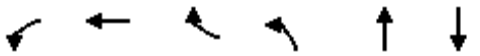
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	93	1092	933	472	67	299	68	154
v/c Ratio	0.51	0.61	0.68	0.69	0.18	0.61	0.22	0.56
Control Delay	54.4	10.4	29.7	43.5	35.2	16.5	38.0	46.9
Queue Delay	0.0	1.3	0.0	2.6	0.0	0.0	0.0	0.0
Total Delay	54.4	11.7	29.7	46.1	35.2	16.5	38.0	46.9
Queue Length 50th (ft)	53	192	267	145	36	43	38	91
Queue Length 95th (ft)	104	226	345	200	74	130	77	157
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1786	1372	682	370	492	306	274
Starvation Cap Reductn	0	448	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	112	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.82	0.68	0.83	0.18	0.61	0.22	0.56

Intersection Summary

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

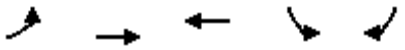


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	302	314	766	264	935	978
v/c Ratio	0.40	0.40	1.01	0.86	0.61	0.91
Control Delay	17.0	17.0	56.2	64.0	20.0	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	17.0	56.2	64.0	20.0	37.3
Queue Length 50th (ft)	103	107	~346	68	184	214
Queue Length 95th (ft)	169	174	#596	#134	245	#335
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	761	786	762	306	1534	1075
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.40	1.01	0.86	0.61	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1081	83	295	333	228
v/c Ratio	0.79	0.06	0.32	0.42	0.50
Control Delay	26.0	4.1	14.0	11.5	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	4.1	14.0	11.5	8.6
Queue Length 50th (ft)	236	11	30	22	0
Queue Length 95th (ft)	278	24	67	58	63
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1315	932	785	456
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.68	0.06	0.32	0.42	0.50

Intersection Summary



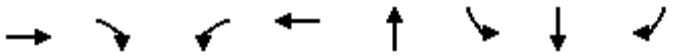
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1091	289	1276	67	535
v/c Ratio	0.74	0.83	0.56	0.13	1.06
Control Delay	27.6	33.6	4.8	33.2	91.6
Queue Delay	1.4	0.0	1.7	0.0	0.0
Total Delay	29.0	33.6	6.4	33.2	91.6
Queue Length 50th (ft)	297	238	158	39	~409
Queue Length 95th (ft)	417	327	m88	76	#629
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1469	443	2298	508	507
Starvation Cap Reductn	195	0	795	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.65	0.85	0.13	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	846	25	84	1145	86	212	494	483
v/c Ratio	0.49	0.03	0.39	0.66	0.26	0.32	0.71	0.68
Control Delay	21.2	0.9	15.7	14.1	1.9	25.0	24.0	22.9
Queue Delay	2.3	0.0	0.0	1.8	0.2	0.0	0.3	0.0
Total Delay	23.5	0.9	15.7	15.9	2.1	25.0	24.3	22.9
Queue Length 50th (ft)	214	0	30	331	0	108	207	188
Queue Length 95th (ft)	271	4	83	395	0	171	351	321
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1726	801	215	1726	365	670	700	706
Starvation Cap Reductn	713	0	0	394	0	0	0	0
Spillback Cap Reductn	557	0	0	0	43	0	26	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.03	0.39	0.86	0.27	0.32	0.73	0.68

Intersection Summary



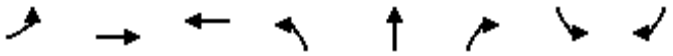
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	211	408	777	934	668
v/c Ratio	0.74	0.22	0.71	1.25	0.76
Control Delay	35.5	11.1	41.5	153.6	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	11.1	41.5	153.6	20.1
Queue Length 50th (ft)	151	106	276	~901	215
Queue Length 95th (ft)	m137	87	#401	#1149	382
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1817	1097	750	875
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.22	0.71	1.25	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

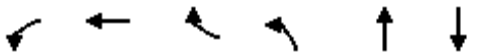
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	82	451	1261	659	90	177	40	191
v/c Ratio	0.48	0.24	0.85	0.94	0.24	0.38	0.13	0.69
Control Delay	60.3	20.5	36.9	66.3	38.9	8.2	39.8	56.6
Queue Delay	0.0	0.5	0.0	45.2	0.0	0.0	0.0	0.0
Total Delay	60.3	20.9	36.9	111.5	38.9	8.2	39.8	56.6
Queue Length 50th (ft)	62	91	435	238	54	0	24	128
Queue Length 95th (ft)	114	139	#575	#350	100	58	56	#220
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	173	1870	1484	700	380	464	311	278
Starvation Cap Reductn	0	957	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	174	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.49	0.85	1.25	0.24	0.38	0.13	0.69

Intersection Summary

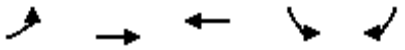
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	334	337	333	247	745	1460
v/c Ratio	0.71	0.71	0.66	0.57	0.34	0.96
Control Delay	35.3	35.4	24.8	32.5	7.6	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	35.4	24.8	32.5	7.6	41.3
Queue Length 50th (ft)	168	170	114	63	124	370
Queue Length 95th (ft)	222	224	169	106	195	#682
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	817	819	816	436	2171	1520
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.41	0.41	0.57	0.34	0.96

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	830	148	209	577	287
v/c Ratio	0.75	0.11	0.18	0.67	0.55
Control Delay	28.8	6.4	14.3	21.3	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	6.4	14.3	21.3	8.4
Queue Length 50th (ft)	237	48	24	78	0
Queue Length 95th (ft)	285	m16	56	134	71
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1623	1305	1131	862	519
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.11	0.18	0.67	0.55

Intersection Summary

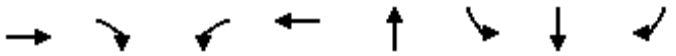
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1744	190	907	88	344
v/c Ratio	0.87	0.74	0.33	0.30	0.87
Control Delay	26.1	35.7	0.3	44.6	45.7
Queue Delay	27.5	0.0	0.2	0.0	0.0
Total Delay	53.5	35.7	0.5	44.6	45.7
Queue Length 50th (ft)	505	15	0	61	140
Queue Length 95th (ft)	#891	224	m15	100	230
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	2007	443	2735	509	572
Starvation Cap Reductn	351	0	999	0	0
Spillback Cap Reductn	175	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.05	0.43	0.52	0.17	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1804	46	116	903	252	320	318	289
v/c Ratio	0.88	0.05	1.53	0.44	0.95	1.04	1.03	0.56
Control Delay	25.6	2.0	317.3	9.1	75.9	103.3	97.7	9.1
Queue Delay	46.8	0.0	0.0	0.6	51.6	10.6	11.2	0.0
Total Delay	72.4	2.0	317.3	9.7	127.5	113.8	108.9	9.1
Queue Length 50th (ft)	494	0	~102	84	117	~232	~225	0
Queue Length 95th (ft)	615	11	#211	82	#272	#410	#415	75
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	2041	920	76	2041	267	308	309	513
Starvation Cap Reductn	587	0	0	695	0	0	0	0
Spillback Cap Reductn	0	0	0	0	121	9	10	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.05	1.53	0.67	1.73	1.07	1.06	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



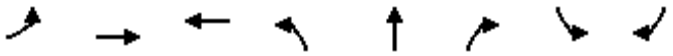
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	587	360	459	747	465
v/c Ratio	1.20	0.20	0.66	1.00	0.53
Control Delay	132.6	13.2	48.7	67.5	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	132.6	13.2	48.7	67.5	8.7
Queue Length 50th (ft)	~527	82	170	568	55
Queue Length 95th (ft)	m#626	m66	228	#837	148
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	488	1817	697	750	874
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.20	0.20	0.66	1.00	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	93	1143	955	507	67	299	68	154
v/c Ratio	0.51	0.64	0.70	0.74	0.18	0.61	0.22	0.56
Control Delay	55.0	10.9	30.2	45.5	35.2	17.3	38.0	46.9
Queue Delay	0.0	1.4	0.0	26.9	0.0	0.0	0.0	0.0
Total Delay	55.0	12.3	30.2	72.4	35.2	17.3	38.0	46.9
Queue Length 50th (ft)	54	180	276	158	36	46	38	91
Queue Length 95th (ft)	105	252	356	215	74	135	77	157
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1786	1372	682	370	487	306	274
Starvation Cap Reductn	0	415	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	188	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.83	0.70	1.03	0.18	0.61	0.22	0.56

Intersection Summary

APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6117	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1382
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7897	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1922
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5761	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2296
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	40.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6093	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1457
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5667	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1694
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5519	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2100
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	34.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6712	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1517
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.63
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6715	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1897
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7555	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1691
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8360	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1999
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5678	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2182
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	37.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5591	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1289
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5382	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1551
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5289	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1974
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5905	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1322
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5821	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1629
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6132	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1386
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7946	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1917
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5858	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2356
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.98
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	54.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	43.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6125	Heavy Vehicle Adjustment Factor (f_{HV})	0.901
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1478
Total Trucks, %	11.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5693	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1702
Total Trucks, %	10.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5550	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2112
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	35.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6745	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1524
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6798	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1920
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7604	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1702
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8381	Heavy Vehicle Adjustment Factor (f_{HV})	0.917
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1987
Total Trucks, %	9.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5719	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2197
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.92
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	37.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5626	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1297
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5465	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1575
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5386	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2029
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5940	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1342
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5857	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1639
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 6.9:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5526	591
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	6186	668
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.57	0.32

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.348
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1410
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.134	Outer Lanes Freeway Speed (SO), mi/h	66.7
Flow in Lanes 1 and 2 (v12), pc/h	1881	Ramp Junction Speed (S), mi/h	63.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2549	Average Density (D), pc/mi/ln	21.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7897	786
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.935
Flow Rate (vi),pc/h	9612	914
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.380
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1911
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.4
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.2
Flow in Lanes 1 and 2 (v12), pc/h	3868	Ramp Junction Speed (S), mi/h	65.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5761	442
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.952
Flow Rate (vi),pc/h	6889	505
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.96	0.24

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	38.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.343
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.4
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.565	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4189	Ramp Junction Speed (S), mi/h	63.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	35.9
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5320	773
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.952
Flow Rate (vi),pc/h	6418	883
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.01	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1513.8	Density in Ramp Influence Area (DR), pc/mi/ln	41.0
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	50.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	3718	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	4601	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6093	948
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.917
Flow Rate (vi),pc/h	7286	1124
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.61	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.399
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1741
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.9
Flow in Lanes 1 and 2 (v12), pc/h	2347	Ramp Junction Speed (S), mi/h	67.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	21.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5145	522
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.909
Flow Rate (vi),pc/h	6152	624
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.71	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.368
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1846
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.140	Outer Lanes Freeway Speed (SO), mi/h	65.2
Flow in Lanes 1 and 2 (v12), pc/h	2461	Ramp Junction Speed (S), mi/h	62.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3085	Average Density (D), pc/mi/ln	27.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5287	232
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.926
Flow Rate (vi),pc/h	5974	272
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.13

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	22.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.327
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1792
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.8
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.184	Outer Lanes Freeway Speed (SO), mi/h	65.3
Flow in Lanes 1 and 2 (v12), pc/h	2390	Ramp Junction Speed (S), mi/h	63.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	2662	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6712	1425
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.971
Flow Rate (vi),pc/h	7584	1595
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.63	0.38

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.442
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1655
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	2758	Ramp Junction Speed (S), mi/h	65.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5982	730
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.962
Flow Rate (vi),pc/h	6759	825
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.79	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.454
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2028
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	64.5
Flow in Lanes 1 and 2 (v12), pc/h	2704	Ramp Junction Speed (S), mi/h	60.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	3529	Average Density (D), pc/mi/ln	31.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6715	733
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.943
Flow Rate (vi),pc/h	7587	845
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.79	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1901
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.3
Flow in Lanes 1 and 2 (v12), pc/h	3785	Ramp Junction Speed (S), mi/h	65.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.9
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6990	565
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.980
Flow Rate (vi),pc/h	7825	627
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.70	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.367
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1678
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.139	Outer Lanes Freeway Speed (SO), mi/h	65.8
Flow in Lanes 1 and 2 (v12), pc/h	2238	Ramp Junction Speed (S), mi/h	62.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2865	Average Density (D), pc/mi/ln	26.9
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	8360	852
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.971
Flow Rate (vi),pc/h	9997	954
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.83	0.45

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	37.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.384
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1986
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	72.9
Flow in Lanes 1 and 2 (v12), pc/h	4025	Ramp Junction Speed (S), mi/h	65.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	30.6
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5678	358
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	6545	409
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.91	0.19

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.335
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2589
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.578	Outer Lanes Freeway Speed (SO), mi/h	70.6
Flow in Lanes 1 and 2 (v12), pc/h	3956	Ramp Junction Speed (S), mi/h	64.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	34.0
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5320	270
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.962
Flow Rate (vi),pc/h	6132	305
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.89	0.15

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1328.9	Density in Ramp Influence Area (DR), pc/mi/ln	35.4
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.504
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2588
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	55.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.7
Flow in Lanes 1 and 2 (v12), pc/h	3544	Ramp Junction Speed (S), mi/h	58.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	3849	Average Density (D), pc/mi/ln	36.9
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5591	820
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.962
Flow Rate (vi),pc/h	6445	927
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.54	0.22

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1644
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.3
Flow in Lanes 1 and 2 (v12), pc/h	2191	Ramp Junction Speed (S), mi/h	67.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	19.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4771	611
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	5499	698
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.353
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1650
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.131	Outer Lanes Freeway Speed (SO), mi/h	65.9
Flow in Lanes 1 and 2 (v12), pc/h	2200	Ramp Junction Speed (S), mi/h	63.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2898	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4829	460
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.943
Flow Rate (vi),pc/h	5406	530
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.62	0.25

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	22.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.329
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1622
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.8
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.152	Outer Lanes Freeway Speed (SO), mi/h	66.0
Flow in Lanes 1 and 2 (v12), pc/h	2162	Ramp Junction Speed (S), mi/h	63.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2692	Average Density (D), pc/mi/ln	23.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5905	1076
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	6610	1216
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.55	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.407
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1629
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.3
Flow in Lanes 1 and 2 (v12), pc/h	2361	Ramp Junction Speed (S), mi/h	66.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	19.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5041	864
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	5643	986
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.69	0.47

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.421
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1693
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	65.7
Flow in Lanes 1 and 2 (v12), pc/h	2257	Ramp Junction Speed (S), mi/h	61.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	3243	Average Density (D), pc/mi/ln	26.8
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5821	780
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	6516	881
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.68	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.2
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.377
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1589
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.4
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	74.5
Flow in Lanes 1 and 2 (v12), pc/h	3338	Ramp Junction Speed (S), mi/h	65.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 6.10:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5526	606
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	6186	685
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.57	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.349
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1410
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.132	Outer Lanes Freeway Speed (SO), mi/h	66.7
Flow in Lanes 1 and 2 (v12), pc/h	1881	Ramp Junction Speed (S), mi/h	63.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2566	Average Density (D), pc/mi/ln	21.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7946	835
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.935
Flow Rate (vi),pc/h	9586	971
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.46

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.5
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.385
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1889
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.3
Flow in Lanes 1 and 2 (v12), pc/h	3891	Ramp Junction Speed (S), mi/h	65.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5858	515
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.926
Flow Rate (vi),pc/h	7067	605
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.98	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	40.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.352
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.1
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.555	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4367	Ramp Junction Speed (S), mi/h	63.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	37.0
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5344	781
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.952
Flow Rate (vi),pc/h	6447	892
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.02	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1522.0	Density in Ramp Influence Area (DR), pc/mi/ln	41.3
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	49.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	3747	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	4639	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6125	972
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	11.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.901	0.893
Flow Rate (vi),pc/h	7389	1183
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.62	0.28

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.404
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1750
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.9
Flow in Lanes 1 and 2 (v12), pc/h	2412	Ramp Junction Speed (S), mi/h	66.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	22.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5153	540
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.909
Flow Rate (vi),pc/h	6162	646
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.71	0.31

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.370
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1849
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.137	Outer Lanes Freeway Speed (SO), mi/h	65.1
Flow in Lanes 1 and 2 (v12), pc/h	2465	Ramp Junction Speed (S), mi/h	62.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3111	Average Density (D), pc/mi/ln	27.2
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5295	255
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.917
Flow Rate (vi),pc/h	5983	302
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.14

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.329
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1795
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.8
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.180	Outer Lanes Freeway Speed (SO), mi/h	65.3
Flow in Lanes 1 and 2 (v12), pc/h	2393	Ramp Junction Speed (S), mi/h	63.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	2695	Average Density (D), pc/mi/ln	24.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6745	1450
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.971
Flow Rate (vi),pc/h	7621	1623
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.64	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	27.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.444
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1655
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	2786	Ramp Junction Speed (S), mi/h	65.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.2
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6007	738
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.952
Flow Rate (vi),pc/h	6787	843
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.79	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.458
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2036
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	64.5
Flow in Lanes 1 and 2 (v12), pc/h	2715	Ramp Junction Speed (S), mi/h	60.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	3558	Average Density (D), pc/mi/ln	31.3
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6798	791
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.935
Flow Rate (vi),pc/h	7681	920
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	36.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1907
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.3
Flow in Lanes 1 and 2 (v12), pc/h	3868	Ramp Junction Speed (S), mi/h	65.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6990	614
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.980
Flow Rate (vi),pc/h	7825	681
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.71	0.32

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.371
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1678
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.6
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.133	Outer Lanes Freeway Speed (SO), mi/h	65.8
Flow in Lanes 1 and 2 (v12), pc/h	2238	Ramp Junction Speed (S), mi/h	62.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2919	Average Density (D), pc/mi/ln	27.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	8381	873
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	9.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.917	0.980
Flow Rate (vi),pc/h	9934	968
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.83	0.46

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	37.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.385
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1968
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.0
Flow in Lanes 1 and 2 (v12), pc/h	4011	Ramp Junction Speed (S), mi/h	65.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	30.4
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5719	389
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.943
Flow Rate (vi),pc/h	6592	448
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.92	0.21

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	37.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.338
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2611
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.575	Outer Lanes Freeway Speed (SO), mi/h	70.5
Flow in Lanes 1 and 2 (v12), pc/h	3981	Ramp Junction Speed (S), mi/h	64.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	34.3
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5330	295
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	6144	337
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.90	0.16

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1338.3	Density in Ramp Influence Area (DR), pc/mi/ln	35.7
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.511
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2593
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	55.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.7
Flow in Lanes 1 and 2 (v12), pc/h	3551	Ramp Junction Speed (S), mi/h	58.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	3888	Average Density (D), pc/mi/ln	37.2
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5626	830
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	6485	948
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.54	0.23

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.383
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1654
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	2205	Ramp Junction Speed (S), mi/h	67.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	19.2
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4796	669
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.943
Flow Rate (vi),pc/h	5528	771
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.66	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.359
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1659
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.121	Outer Lanes Freeway Speed (SO), mi/h	65.8
Flow in Lanes 1 and 2 (v12), pc/h	2211	Ramp Junction Speed (S), mi/h	62.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	2982	Average Density (D), pc/mi/ln	25.0
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4853	533
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.926
Flow Rate (vi),pc/h	5433	626
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.63	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.336
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1630
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.6
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.140	Outer Lanes Freeway Speed (SO), mi/h	65.9
Flow in Lanes 1 and 2 (v12), pc/h	2173	Ramp Junction Speed (S), mi/h	63.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	2799	Average Density (D), pc/mi/ln	23.9
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5940	1087
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.962
Flow Rate (vi),pc/h	6712	1228
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.56	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.409
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1657
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	2392	Ramp Junction Speed (S), mi/h	66.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5052	888
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.926
Flow Rate (vi),pc/h	5655	1042
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.70	0.50

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.427
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1697
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	65.7
Flow in Lanes 1 and 2 (v12), pc/h	2262	Ramp Junction Speed (S), mi/h	61.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3304	Average Density (D), pc/mi/ln	27.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5857	805
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	6556	919
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.68	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.5
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1590
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	74.5
Flow in Lanes 1 and 2 (v12), pc/h	3377	Ramp Junction Speed (S), mi/h	65.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	24.9
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 6.11:

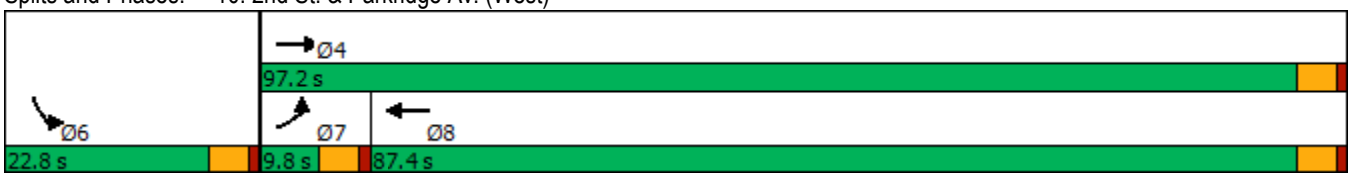
OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

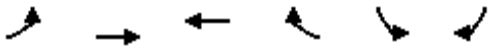
This Page Intentionally Left Blank

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	4	838	607	37
Future Volume (vph)	4	838	607	37
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.4	41.1	39.9	11.7
Actuated g/C Ratio	0.09	0.65	0.63	0.19
v/c Ratio	0.03	0.85	0.70	0.24
Control Delay	37.0	15.9	11.5	22.3
Queue Delay	0.0	0.0	0.4	0.0
Total Delay	37.0	15.9	12.0	22.3
LOS	D	B	B	C
Approach Delay		16.0	12.0	22.3
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 62.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	838	607	51	37	29
Future Volume (veh/h)	4	838	607	51	37	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	1061	768	65	47	37
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	12	1271	1008	85	163	128
Arrive On Green	0.01	0.67	0.58	0.58	0.17	0.17
Sat Flow, veh/h	1810	1900	1727	146	950	748
Grp Volume(v), veh/h	5	1061	0	833	85	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1873	1718	0
Q Serve(g_s), s	0.2	24.4	0.0	19.5	2.5	0.0
Cycle Q Clear(g_c), s	0.2	24.4	0.0	19.5	2.5	0.0
Prop In Lane	1.00			0.08	0.55	0.44
Lane Grp Cap(c), veh/h	12	1271	0	1093	295	0
V/C Ratio(X)	0.41	0.83	0.00	0.76	0.29	0.00
Avail Cap(c_a), veh/h	161	3013	0	2656	536	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.9	7.2	0.0	9.1	21.1	0.0
Incr Delay (d2), s/veh	8.2	1.5	0.0	1.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	0.0	5.8	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	8.7	0.0	10.2	21.6	0.0
LnGrp LOS	D	A	A	B	C	A
Approach Vol, veh/h		1066	833		85	
Approach Delay, s/veh		8.9	10.2		21.6	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			43.7		14.6	5.0	38.7
Change Period (Y+Rc), s			* 4.7		4.6	4.6	* 4.7
Max Green Setting (Gmax), s			* 93		18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s			26.4		4.5	2.2	21.5
Green Ext Time (p_c), s			12.6		0.2	0.0	7.7

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	539	11	435	223
Future Volume (vph)	539	11	435	223
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	68.2	5.3	71.5	21.5
Actuated g/C Ratio	0.66	0.05	0.70	0.21
v/c Ratio	0.92	0.15	0.42	0.80
Control Delay	29.2	58.1	7.6	57.5
Queue Delay	45.7	0.0	0.0	0.0
Total Delay	74.9	58.1	7.6	57.5
LOS	E	E	A	E
Approach Delay	74.9		8.8	57.5
Approach LOS	E		A	E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 53.3	Intersection LOS: D
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	539	336	11	435	223	15
Future Volume (veh/h)	539	336	11	435	223	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	682	425	14	551	282	19
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	722	450	29	1379	313	21
Arrive On Green	0.67	0.67	0.02	0.73	0.19	0.19
Sat Flow, veh/h	1084	676	1810	1900	1677	113
Grp Volume(v), veh/h	0	1107	14	551	302	0
Grp Sat Flow(s),veh/h/ln	0	1760	1810	1900	1796	0
Q Serve(g_s), s	0.0	59.6	0.8	11.8	17.3	0.0
Cycle Q Clear(g_c), s	0.0	59.6	0.8	11.8	17.3	0.0
Prop In Lane		0.38	1.00		0.93	0.06
Lane Grp Cap(c), veh/h	0	1173	29	1379	336	0
V/C Ratio(X)	0.00	0.94	0.48	0.40	0.90	0.00
Avail Cap(c_a), veh/h	0	1293	89	1572	402	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	15.8	51.4	5.6	41.9	0.0
Incr Delay (d2), s/veh	0.0	13.2	4.6	0.2	20.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.2	0.4	3.9	9.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	29.0	56.0	5.8	62.2	0.0
LnGrp LOS	A	C	E	A	E	A
Approach Vol, veh/h	1107			565	302	
Approach Delay, s/veh	29.0			7.0	62.2	
Approach LOS	C			A	E	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		24.3	6.3	74.8		81.1
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		19.3	2.8	61.6		13.8
Green Ext Time (p_c), s		0.4	0.0	8.6		4.0

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

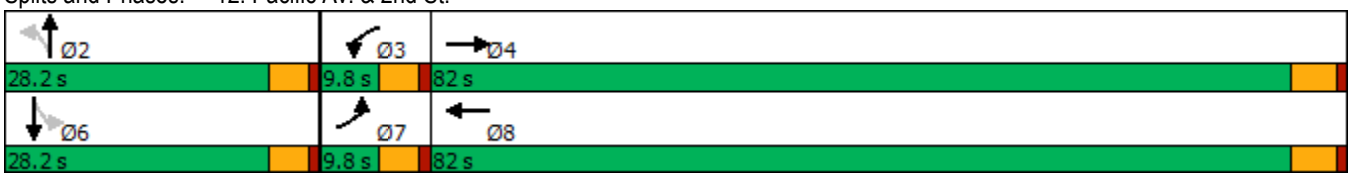
Notes

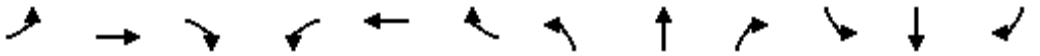
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	674	3	540	17	0	30	0
Future Volume (vph)	1	674	3	540	17	0	30	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	33.3	5.2	33.3		24.5		24.5
Actuated g/C Ratio	0.07	0.48	0.07	0.48		0.35		0.35
v/c Ratio	0.01	0.84	0.02	0.67		0.06		0.06
Control Delay	38.0	24.6	38.0	17.5		3.7		3.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	38.0	24.6	38.0	17.5		3.7		3.2
LOS	D	C	D	B		A		A
Approach Delay		24.7		17.6		3.7		3.2
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 69.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	674	16	3	540	14	17	0	17	30	0	2
Future Volume (veh/h)	1	674	16	3	540	14	17	0	17	30	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	741	18	3	593	15	19	0	19	33	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	3	869	21	7	874	22	301	24	251	538	3	27
Arrive On Green	0.00	0.47	0.47	0.00	0.47	0.47	0.33	0.00	0.33	0.33	0.00	0.33
Sat Flow, veh/h	1810	1846	45	1810	1845	47	695	74	769	1352	9	82
Grp Volume(v), veh/h	1	0	759	3	0	608	38	0	0	35	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1891	1810	0	1892	1538	0	0	1444	0	0
Q Serve(g_s), s	0.0	0.0	25.7	0.1	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	25.7	0.1	0.0	18.0	1.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.50		0.50	0.94		0.06
Lane Grp Cap(c), veh/h	3	0	890	7	0	896	576	0	0	567	0	0
V/C Ratio(X)	0.40	0.00	0.85	0.41	0.00	0.68	0.07	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	130	0	2007	130	0	2007	576	0	0	567	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.1	0.0	16.9	36.0	0.0	14.8	16.8	0.0	0.0	16.8	0.0	0.0
Incr Delay (d2), s/veh	34.2	0.0	2.4	13.1	0.0	0.9	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.1	0.1	0.0	6.9	0.5	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	0.0	19.4	49.0	0.0	15.7	17.0	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	E	A	B	D	A	B	B	A	A	B	A	A
Approach Vol, veh/h		760			611			38			35	
Approach Delay, s/veh		19.4			15.9			17.0			17.0	
Approach LOS		B			B			B			B	

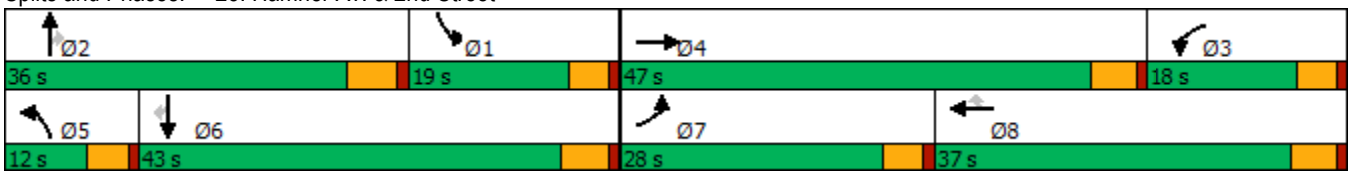
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.2	4.9	39.3		28.2	4.7	39.5				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		3.1	2.1	27.7		3.0	2.0	20.0				
Green Ext Time (p_c), s		0.1	0.0	6.4		0.1	0.0	4.6				

Intersection Summary												
HCM 6th Ctrl Delay			17.8									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	220	493	389	409	732	69	904	164	263	676	179
Future Volume (vph)	220	493	389	409	732	69	904	164	263	676	179
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	28.0	47.0	18.0	37.0	37.0	12.0	36.0	36.0	19.0	43.0	43.0
Total Split (%)	23.3%	39.2%	15.0%	30.8%	30.8%	10.0%	30.0%	30.0%	15.8%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	12.3	22.3	21.9	31.9	31.9	7.0	30.6	30.6	14.4	40.1	40.1
Actuated g/C Ratio	0.11	0.20	0.20	0.29	0.29	0.06	0.28	0.28	0.13	0.37	0.37
v/c Ratio	0.57	0.72	0.56	0.78	1.11	0.63	0.89	0.31	0.58	0.51	0.27
Control Delay	51.5	45.3	43.8	46.6	91.0	74.1	49.6	7.6	50.3	29.4	4.9
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	45.3	43.8	47.3	91.0	74.1	49.6	7.6	50.3	29.4	4.9
LOS	D	D	D	D	F	E	D	A	D	C	A
Approach Delay		47.1		67.3			45.0			30.4	
Approach LOS		D		E			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.9	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 49.3	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	493	40	389	409	732	69	904	164	263	676	179
Future Volume (veh/h)	220	493	40	389	409	732	69	904	164	263	676	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	519	31	409	431	442	73	952	99	277	712	146
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	322	735	44	534	515	430	94	1095	460	525	1480	625
Arrive On Green	0.09	0.21	0.21	0.15	0.27	0.27	0.05	0.29	0.29	0.15	0.39	0.39
Sat Flow, veh/h	3619	3547	211	3619	1900	1588	1810	3800	1597	3619	3800	1604
Grp Volume(v), veh/h	232	278	272	409	431	442	73	952	99	277	712	146
Grp Sat Flow(s),veh/h/ln	1810	1900	1858	1810	1900	1588	1810	1900	1597	1810	1900	1604
Q Serve(g_s), s	6.2	13.4	13.5	10.8	21.2	17.6	4.0	23.6	4.7	7.0	14.0	6.1
Cycle Q Clear(g_c), s	6.2	13.4	13.5	10.8	21.2	17.6	4.0	23.6	4.7	7.0	14.0	6.1
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	394	385	534	515	430	94	1095	460	525	1480	625
V/C Ratio(X)	0.72	0.70	0.71	0.77	0.84	1.03	0.77	0.87	0.22	0.53	0.48	0.23
Avail Cap(c_a), veh/h	854	803	785	534	611	511	135	1172	493	525	1480	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	36.5	36.5	40.6	34.1	15.5	46.4	33.5	26.8	39.2	22.8	20.3
Incr Delay (d2), s/veh	3.0	2.3	2.4	6.6	8.6	45.7	9.3	6.9	0.2	3.8	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.3	6.2	5.2	10.7	11.4	2.0	11.4	1.8	3.3	6.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	38.8	38.9	47.2	42.7	61.2	55.8	40.4	27.0	43.0	23.9	21.2
LnGrp LOS	D	D	D	D	D	F	E	D	C	D	C	C
Approach Vol, veh/h		782			1282			1124			1135	
Approach Delay, s/veh		41.3			50.5			40.2			28.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	34.0	19.7	25.7	9.8	44.0	13.4	32.0
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	14.4	* 31	13.4	* 42	7.4	37.6	23.4	31.9
Max Q Clear Time (g_c+I1), s	9.0	25.6	12.8	15.5	6.0	16.0	8.2	23.2
Green Ext Time (p_c), s	0.3	2.8	0.1	3.3	0.0	5.1	0.6	2.9

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

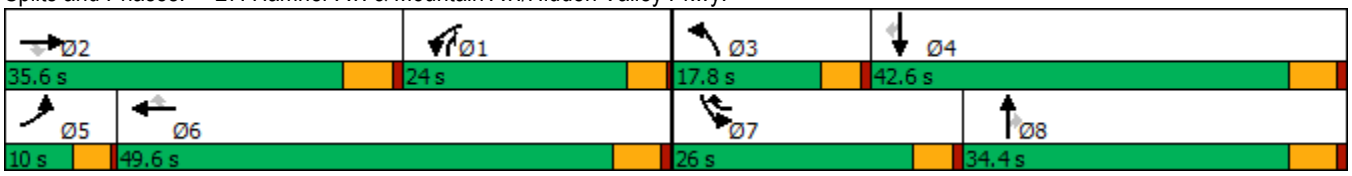
Notes

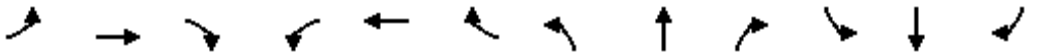
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	275	46	775	551	348	39	560	277	165	457	9
Future Volume (vph)	12	275	46	775	551	348	39	560	277	165	457	9
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	10.0	35.6	35.6	24.0	49.6	26.0	17.8	34.4	24.0	26.0	42.6	42.6
Total Split (%)	8.3%	29.7%	29.7%	20.0%	41.3%	21.7%	14.8%	28.7%	20.0%	21.7%	35.5%	35.5%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.8	30.3	30.3	20.1	52.6	63.0	6.9	22.2	43.7	9.6	29.1	29.1
Actuated g/C Ratio	0.06	0.30	0.30	0.20	0.52	0.62	0.07	0.22	0.43	0.09	0.29	0.29
v/c Ratio	0.13	0.27	0.08	1.19	0.31	0.35	0.33	0.76	0.35	0.53	0.47	0.02
Control Delay	51.4	29.3	0.3	137.2	16.5	5.8	54.3	44.0	3.1	50.9	32.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	29.3	0.3	137.2	17.0	6.0	54.3	44.0	3.1	50.9	32.6	0.1
LOS	D	C	A	F	B	A	D	D	A	D	C	A
Approach Delay		26.1			70.4			31.5			36.9	
Approach LOS		C			E			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.7	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 50.5	Intersection LOS: D
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	275	46	775	551	348	39	560	277	165	457	9
Future Volume (veh/h)	12	275	46	775	551	348	39	560	277	165	457	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	293	44	824	586	331	41	596	174	176	486	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	1097	489	707	1831	930	62	774	664	249	908	402
Arrive On Green	0.01	0.30	0.30	0.20	0.51	0.51	0.03	0.21	0.21	0.07	0.25	0.25
Sat Flow, veh/h	1810	3610	1609	3510	3610	1609	1810	3610	1584	3510	3610	1601
Grp Volume(v), veh/h	13	293	44	824	586	331	41	596	174	176	486	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1755	1805	1609	1810	1805	1584	1755	1805	1601
Q Serve(g_s), s	0.7	6.1	1.6	20.0	9.5	10.9	2.2	15.4	1.4	4.9	11.6	0.3
Cycle Q Clear(g_c), s	0.7	6.1	1.6	20.0	9.5	10.9	2.2	15.4	1.4	4.9	11.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	1097	489	707	1831	930	62	774	664	249	908	402
V/C Ratio(X)	0.59	0.27	0.09	1.17	0.32	0.36	0.66	0.77	0.26	0.71	0.54	0.01
Avail Cap(c_a), veh/h	109	1097	489	707	1831	930	240	1054	786	756	1351	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	26.2	16.1	39.7	14.4	11.1	47.4	36.7	7.9	45.1	32.2	27.9
Incr Delay (d2), s/veh	22.8	0.6	0.4	89.7	0.1	0.2	4.5	2.4	0.2	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.6	0.8	17.1	3.6	3.5	1.1	6.8	1.3	2.1	4.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	26.8	16.5	129.4	14.5	11.4	51.9	39.1	8.1	46.5	32.7	28.0
LnGrp LOS	E	C	B	F	B	B	D	D	A	D	C	C
Approach Vol, veh/h		350			1741			811			668	
Approach Delay, s/veh		27.2			68.3			33.1			36.3	
Approach LOS		C			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.4	35.6	8.0	30.4	5.2	55.8	11.7	26.7
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.0	* 30	13.2	37.2	6.0	44.2	21.4	29.0
Max Q Clear Time (g_c+I1), s	22.0	8.1	4.2	13.6	2.7	12.9	6.9	17.4
Green Ext Time (p_c), s	0.0	1.8	0.0	3.1	0.0	5.3	0.2	3.4

Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	164	374	628	825	9	621
Future Volume (vph)	164	374	628	825	9	621
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	42.0	70.0	28.0	50.0	50.0	50.0
Total Split (%)	35.0%	58.3%	23.3%	41.7%	41.7%	41.7%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	16.7	71.0	49.8	39.1	39.1	39.1
Actuated g/C Ratio	0.14	0.59	0.42	0.33	0.33	0.33
v/c Ratio	0.70	0.19	0.52	0.81	0.79	0.85
Control Delay	40.3	7.3	29.4	48.5	47.3	25.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	7.3	29.4	48.5	47.3	25.5
LOS	D	A	C	D	D	C
Approach Delay		17.4	29.4		38.3	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	374	0	0	628	80	825	9	621	0	0	0
Future Volume (veh/h)	164	374	0	0	628	80	825	9	621	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	176	402	0	0	675	75	894	0	522			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	2057	0	0	1361	151	1259	0	560			
Arrive On Green	0.04	0.19	0.00	0.00	0.42	0.42	0.35	0.00	0.35			
Sat Flow, veh/h	1810	3705	0	0	3362	363	3619	0	1610			
Grp Volume(v), veh/h	176	402	0	0	373	377	894	0	522			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1824	1810	0	1610			
Q Serve(g_s), s	11.6	11.3	0.0	0.0	18.2	18.3	25.7	0.0	37.5			
Cycle Q Clear(g_c), s	11.6	11.3	0.0	0.0	18.2	18.3	25.7	0.0	37.5			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	209	2057	0	0	752	760	1259	0	560			
V/C Ratio(X)	0.84	0.20	0.00	0.00	0.50	0.50	0.71	0.00	0.93			
Avail Cap(c_a), veh/h	565	2057	0	0	752	760	1348	0	600			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.6	25.5	0.0	0.0	25.7	25.8	33.9	0.0	37.8			
Incr Delay (d2), s/veh	4.8	0.1	0.0	0.0	2.3	2.3	1.5	0.0	20.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.9	5.4	0.0	0.0	8.2	8.3	11.1	0.0	17.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	25.7	0.0	0.0	28.1	28.1	35.4	0.0	58.4			
LnGrp LOS	E	C	A	A	C	C	D	A	E			
Approach Vol, veh/h		578			750			1416				
Approach Delay, s/veh		36.6			28.1			43.9				
Approach LOS		D			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.0			18.4	54.6		47.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		65.4			37.5	23.4		44.7				
Max Q Clear Time (g_c+I1), s		13.3			13.6	20.3		39.5				
Green Ext Time (p_c), s		1.8			0.3	1.0		2.2				
Intersection Summary												
HCM 6th Ctrl Delay			38.0									
HCM 6th LOS			D									

Notes

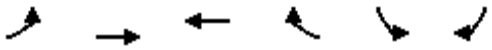
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	8	604	645	54
Future Volume (vph)	8	604	645	54
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	29.1	28.0	11.9
Actuated g/C Ratio	0.11	0.57	0.55	0.23
v/c Ratio	0.04	0.58	0.78	0.19
Control Delay	30.4	8.8	15.5	19.4
Queue Delay	0.0	0.0	0.2	0.0
Total Delay	30.4	8.8	15.7	19.4
LOS	C	A	B	B
Approach Delay		9.1	15.7	19.4
Approach LOS		A	B	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51.3	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	604	645	122	54	22
Future Volume (veh/h)	8	604	645	122	54	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	629	672	127	56	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	1201	826	156	233	96
Arrive On Green	0.01	0.63	0.53	0.53	0.19	0.19
Sat Flow, veh/h	1810	1900	1548	292	1224	503
Grp Volume(v), veh/h	8	629	0	799	80	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1840	1748	0
Q Serve(g_s), s	0.2	9.6	0.0	18.8	2.0	0.0
Cycle Q Clear(g_c), s	0.2	9.6	0.0	18.8	2.0	0.0
Prop In Lane	1.00			0.16	0.70	0.29
Lane Grp Cap(c), veh/h	19	1201	0	982	333	0
V/C Ratio(X)	0.42	0.52	0.00	0.81	0.24	0.00
Avail Cap(c_a), veh/h	179	3350	0	2901	607	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.8	5.3	0.0	10.1	18.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	1.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	0.0	5.7	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.2	5.7	0.0	11.8	18.4	0.0
LnGrp LOS	C	A	A	B	B	A
Approach Vol, veh/h		637	799		80	
Approach Delay, s/veh		6.0	11.8		18.4	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	37.9	14.6	5.2	32.7
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	11.6	4.0	2.2	20.8
Green Ext Time (p_c), s	4.8	0.1	0.0	7.2

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	512	5	525	241
Future Volume (vph)	512	5	525	241
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	27.8	5.6	29.0	14.7
Actuated g/C Ratio	0.52	0.10	0.54	0.27
v/c Ratio	0.72	0.03	0.54	0.52
Control Delay	15.3	32.6	9.9	24.2
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	15.4	32.6	9.9	24.2
LOS	B	C	A	C
Approach Delay	15.4		10.1	24.2
Approach LOS	B		B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 53.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	512	147	5	525	241	4
Future Volume (veh/h)	512	147	5	525	241	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	533	153	5	547	251	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	679	195	12	1114	381	6
Arrive On Green	0.48	0.48	0.01	0.59	0.22	0.22
Sat Flow, veh/h	1412	405	1810	1900	1771	28
Grp Volume(v), veh/h	0	686	5	547	256	0
Grp Sat Flow(s),veh/h/ln	0	1817	1810	1900	1806	0
Q Serve(g_s), s	0.0	14.6	0.1	7.8	6.0	0.0
Cycle Q Clear(g_c), s	0.0	14.6	0.1	7.8	6.0	0.0
Prop In Lane		0.22	1.00		0.98	0.02
Lane Grp Cap(c), veh/h	0	873	12	1114	389	0
V/C Ratio(X)	0.00	0.79	0.41	0.49	0.66	0.00
Avail Cap(c_a), veh/h	0	3029	203	3568	918	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	23.0	5.6	16.7	0.0
Incr Delay (d2), s/veh	0.0	1.6	8.0	0.3	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	0.1	1.8	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.7	31.0	5.9	18.6	0.0
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	686			552	256	
Approach Delay, s/veh	11.7			6.1	18.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.6	4.9	26.9		31.8
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		8.0	2.1	16.6		9.8
Green Ext Time (p_c), s		0.6	0.0	5.7		3.9

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

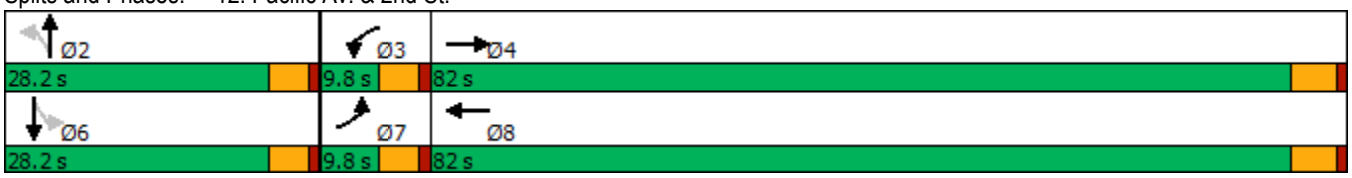
Notes

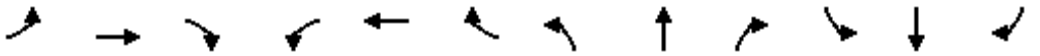
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	556	14	557	9	0	29	1
Future Volume (vph)	3	556	14	557	9	0	29	1
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.6	21.0	5.6	21.0		12.5		12.5
Actuated g/C Ratio	0.12	0.46	0.12	0.46		0.27		0.27
v/c Ratio	0.01	0.68	0.07	0.70		0.04		0.08
Control Delay	27.3	14.9	26.6	15.3		0.1		16.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	27.3	14.9	26.6	15.3		0.1		16.5
LOS	C	B	C	B		A		B
Approach Delay		15.0		15.5		0.1		16.5
Approach LOS		B		B		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 45.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 47.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	556	12	14	557	23	9	0	9	29	1	2
Future Volume (veh/h)	3	556	12	14	557	23	9	0	9	29	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	585	13	15	586	24	9	0	9	31	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	7	774	17	34	785	32	266	39	180	459	18	20
Arrive On Green	0.00	0.42	0.42	0.02	0.43	0.43	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	1851	41	1810	1812	74	612	169	781	1300	76	86
Grp Volume(v), veh/h	3	0	598	15	0	610	18	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1893	1810	0	1887	1562	0	0	1463	0	0
Q Serve(g_s), s	0.1	0.0	11.7	0.4	0.0	11.7	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	11.7	0.4	0.0	11.7	0.3	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.04	0.50		0.50	0.91		0.06
Lane Grp Cap(c), veh/h	7	0	791	34	0	817	485	0	0	496	0	0
V/C Ratio(X)	0.41	0.00	0.76	0.43	0.00	0.75	0.04	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	217	0	3353	217	0	3342	961	0	0	951	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.5	0.0	10.7	21.0	0.0	10.3	13.0	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	12.7	0.0	1.5	3.2	0.0	1.4	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.8	0.2	0.0	3.7	0.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	0.0	12.2	24.2	0.0	11.7	13.0	0.0	0.0	13.1	0.0	0.0
LnGrp LOS	C	A	B	C	A	B	B	A	A	B	A	A
Approach Vol, veh/h		601			625			18			34	
Approach Delay, s/veh		12.3			12.0			13.0			13.1	
Approach LOS		B			B			B			B	

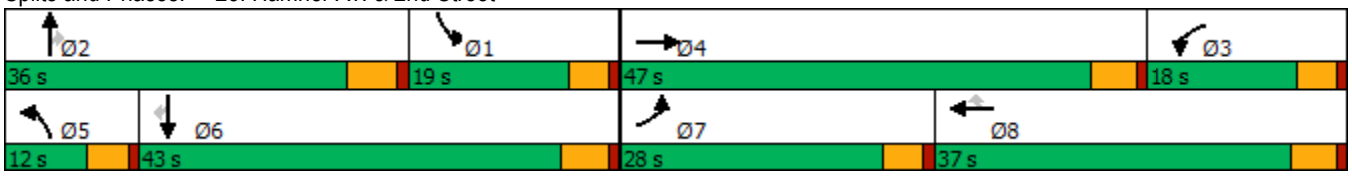
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	5.4	23.3		14.6	4.8	24.0				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		2.3	2.4	13.7		2.7	2.1	13.7				
Green Ext Time (p_c), s		0.0	0.0	4.5		0.1	0.0	4.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	270	545	237	375	475	91	792	398	523	1117	227
Future Volume (vph)	270	545	237	375	475	91	792	398	523	1117	227
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	28.0	47.0	18.0	37.0	37.0	12.0	36.0	36.0	19.0	43.0	43.0
Total Split (%)	23.3%	39.2%	15.0%	30.8%	30.8%	10.0%	30.0%	30.0%	15.8%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	13.7	24.9	15.6	26.9	26.9	7.4	28.1	28.1	17.1	37.8	37.8
Actuated g/C Ratio	0.13	0.24	0.15	0.25	0.25	0.07	0.27	0.27	0.16	0.36	0.36
v/c Ratio	0.61	0.75	0.47	0.79	0.77	0.74	0.80	0.63	0.91	0.84	0.34
Control Delay	50.1	42.6	45.1	49.9	22.1	83.5	43.3	14.8	67.5	39.0	7.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	42.6	45.1	50.0	22.1	83.5	43.3	14.8	67.5	39.0	7.6
LOS	D	D	D	D	C	F	D	B	E	D	A
Approach Delay		44.9		36.7			37.3			43.2	
Approach LOS		D		D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.6	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 40.6	Intersection LOS: D
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	545	75	237	375	475	91	792	398	523	1117	227
Future Volume (veh/h)	270	545	75	237	375	475	91	792	398	523	1117	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	556	44	242	383	277	93	808	277	534	1140	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	367	745	59	435	464	393	118	994	420	651	1460	605
Arrive On Green	0.10	0.22	0.22	0.12	0.24	0.24	0.08	0.33	0.26	0.22	0.48	0.38
Sat Flow, veh/h	3510	3387	267	3510	1900	1608	1810	3800	1605	3619	3800	1574
Grp Volume(v), veh/h	276	296	304	242	383	277	93	808	277	534	1140	192
Grp Sat Flow(s),veh/h/ln	1755	1805	1849	1755	1900	1608	1810	1900	1605	1810	1900	1574
Q Serve(g_s), s	7.5	15.0	15.0	6.3	18.7	9.5	4.9	19.1	15.1	13.7	24.4	8.4
Cycle Q Clear(g_c), s	7.5	15.0	15.0	6.3	18.7	9.5	4.9	19.1	15.1	13.7	24.4	8.4
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	397	407	435	464	393	118	994	420	651	1460	605
V/C Ratio(X)	0.75	0.74	0.75	0.56	0.82	0.70	0.79	0.81	0.66	0.82	0.78	0.32
Avail Cap(c_a), veh/h	840	773	792	481	620	524	137	1189	502	651	1460	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.25	1.00	1.25	1.25	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	35.6	35.6	40.3	35.0	13.0	44.3	30.7	32.2	36.4	22.0	21.1
Incr Delay (d2), s/veh	3.1	2.8	2.8	1.1	6.8	2.8	19.3	3.8	2.4	11.1	4.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	6.7	6.9	2.8	9.2	3.5	2.8	8.3	6.0	6.6	9.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	38.4	38.4	41.5	41.7	15.8	63.6	34.5	34.7	47.5	26.2	22.5
LnGrp LOS	D	D	D	D	D	B	E	C	C	D	C	C
Approach Vol, veh/h		876			902			1178			1866	
Approach Delay, s/veh		40.7			33.7			36.8			31.9	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	31.0	17.2	26.6	11.0	43.0	14.8	29.0
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	14.4	* 31	13.4	* 42	7.4	37.6	23.4	31.9
Max Q Clear Time (g_c+I1), s	15.7	21.1	8.3	17.0	6.9	26.4	9.5	20.7
Green Ext Time (p_c), s	0.0	4.3	0.4	3.6	0.0	6.1	0.8	2.5

Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	D

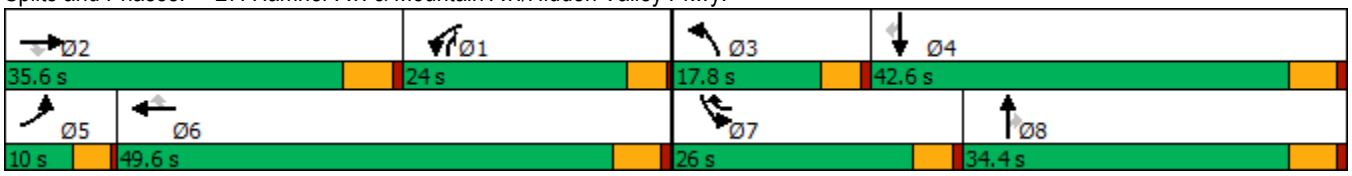
Notes

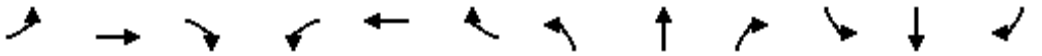
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	428	60	429	373	316	100	764	571	519	822	25
Future Volume (vph)	29	428	60	429	373	316	100	764	571	519	822	25
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	10.0	35.6	35.6	24.0	49.6	26.0	17.8	34.4	24.0	26.0	42.6	42.6
Total Split (%)	8.3%	29.7%	29.7%	20.0%	41.3%	21.7%	14.8%	28.7%	20.0%	21.7%	35.5%	35.5%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.9	30.3	30.3	18.9	47.4	68.2	10.6	27.6	48.0	20.0	37.1	37.1
Actuated g/C Ratio	0.05	0.26	0.26	0.16	0.41	0.59	0.09	0.24	0.41	0.17	0.32	0.32
v/c Ratio	0.33	0.47	0.12	0.78	0.26	0.34	0.64	0.88	0.79	0.87	0.71	0.04
Control Delay	64.9	39.1	0.5	57.8	24.9	8.9	69.3	55.5	21.6	63.2	39.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	39.1	0.5	57.8	24.9	9.1	69.3	55.5	21.6	63.2	39.1	0.1
LOS	E	D	A	E	C	A	E	E	C	E	D	A
Approach Delay		36.0			33.1			43.0			47.5	
Approach LOS		D			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.3	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	428	60	429	373	316	100	764	571	519	822	25
Future Volume (veh/h)	29	428	60	429	373	316	100	764	571	519	822	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	446	56	447	389	318	104	796	390	541	856	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	954	424	517	1452	915	130	910	623	605	1272	531
Arrive On Green	0.02	0.26	0.26	0.15	0.40	0.40	0.07	0.24	0.24	0.17	0.33	0.33
Sat Flow, veh/h	1810	3610	1607	3510	3610	1607	1810	3800	1610	3619	3800	1587
Grp Volume(v), veh/h	30	446	56	447	389	318	104	796	390	541	856	18
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1805	1607	1810	1900	1610	1810	1900	1587
Q Serve(g_s), s	1.9	11.9	2.4	14.2	8.3	12.1	6.5	23.0	7.6	16.7	22.1	0.9
Cycle Q Clear(g_c), s	1.9	11.9	2.4	14.2	8.3	12.1	6.5	23.0	7.6	16.7	22.1	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	954	424	517	1452	915	130	910	623	605	1272	531
V/C Ratio(X)	0.77	0.47	0.13	0.86	0.27	0.35	0.80	0.88	0.63	0.89	0.67	0.03
Avail Cap(c_a), veh/h	95	954	424	614	1452	915	209	964	646	678	1272	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	35.3	19.7	47.6	22.9	13.2	52.3	41.8	10.6	46.6	32.6	25.6
Incr Delay (d2), s/veh	26.8	1.6	0.6	10.8	0.1	0.2	4.3	8.7	1.8	12.6	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	1.2	6.8	3.4	4.1	3.0	11.6	3.7	8.4	10.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	37.0	20.3	58.4	23.0	13.4	56.5	50.5	12.4	59.2	34.1	25.6
LnGrp LOS	F	D	C	E	C	B	E	D	B	E	C	C
Approach Vol, veh/h		532			1154			1290			1415	
Approach Delay, s/veh		37.8			34.1			39.5			43.6	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	35.6	12.8	43.7	6.5	51.4	23.7	32.8
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.0	* 30	13.2	37.2	6.0	44.2	21.4	29.0
Max Q Clear Time (g_c+I1), s	16.2	13.9	8.5	24.1	3.9	14.1	18.7	25.0
Green Ext Time (p_c), s	0.6	2.6	0.0	4.6	0.0	3.7	0.4	2.3

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

Notes

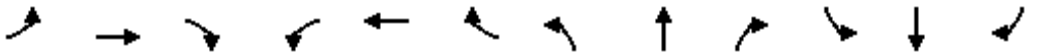
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	430	320	369	676	6	432
Future Volume (vph)	430	320	369	676	6	432
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	42.0	70.0	28.0	50.0	50.0	50.0
Total Split (%)	35.0%	58.3%	23.3%	41.7%	41.7%	41.7%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	34.0	76.5	38.1	33.6	33.6	33.6
Actuated g/C Ratio	0.28	0.64	0.32	0.28	0.28	0.28
v/c Ratio	0.91	0.15	0.40	0.76	0.77	0.59
Control Delay	44.9	7.6	35.4	49.1	49.9	5.8
Queue Delay	1.6	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	7.6	35.4	49.1	49.9	5.8
LOS	D	A	D	D	D	A
Approach Delay		29.9	35.4		32.5	
Approach LOS		C	D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 32.2	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	320	0	0	369	52	676	6	432	0	0	0
Future Volume (veh/h)	430	320	0	0	369	52	676	6	432	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	462	344	0	0	397	44	731	0	292			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	497	2470	0	0	1219	134	844	0	375			
Arrive On Green	0.09	0.23	0.00	0.00	0.37	0.37	0.23	0.00	0.23			
Sat Flow, veh/h	1810	3705	0	0	3372	361	3619	0	1610			
Grp Volume(v), veh/h	462	344	0	0	218	223	731	0	292			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1833	1810	0	1610			
Q Serve(g_s), s	30.4	9.1	0.0	0.0	10.3	10.5	23.3	0.0	20.4			
Cycle Q Clear(g_c), s	30.4	9.1	0.0	0.0	10.3	10.5	23.3	0.0	20.4			
Prop In Lane	1.00		0.00	0.00		0.20	1.00		1.00			
Lane Grp Cap(c), veh/h	497	2470	0	0	671	682	844	0	375			
V/C Ratio(X)	0.93	0.14	0.00	0.00	0.32	0.33	0.87	0.00	0.78			
Avail Cap(c_a), veh/h	565	2470	0	0	671	682	1348	0	600			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.4	18.2	0.0	0.0	26.9	27.0	44.2	0.0	43.1			
Incr Delay (d2), s/veh	13.6	0.1	0.0	0.0	1.3	1.3	3.0	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.7	4.1	0.0	0.0	4.7	4.8	10.4	0.0	8.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	18.3	0.0	0.0	28.2	28.2	47.3	0.0	45.7			
LnGrp LOS	E	B	A	A	C	C	D	A	D			
Approach Vol, veh/h		806			441			1023				
Approach Delay, s/veh		46.2			28.2			46.8				
Approach LOS		D			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		86.7			37.5	49.2		33.3				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		65.4			37.5	23.4		44.7				
Max Q Clear Time (g_c+I1), s		11.1			32.4	12.5		25.3				
Green Ext Time (p_c), s		1.5			0.6	1.2		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 6.12:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

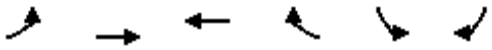
This Page Intentionally Left Blank

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	4	877	619	52
Future Volume (vph)	4	877	619	52
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.5	46.7	45.5	11.9
Actuated g/C Ratio	0.08	0.68	0.66	0.17
v/c Ratio	0.03	0.86	0.69	0.32
Control Delay	41.5	15.8	10.8	29.2
Queue Delay	0.0	0.0	0.6	0.0
Total Delay	41.5	15.8	11.4	29.2
LOS	D	B	B	C
Approach Delay		16.0	11.4	29.2
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.8	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	877	619	56	52	29
Future Volume (veh/h)	4	877	619	56	52	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	1110	784	71	66	37
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	12	1313	1048	95	176	99
Arrive On Green	0.01	0.69	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1810	1900	1716	155	1100	617
Grp Volume(v), veh/h	5	1110	0	855	104	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1872	1734	0
Q Serve(g_s), s	0.2	27.1	0.0	20.5	3.3	0.0
Cycle Q Clear(g_c), s	0.2	27.1	0.0	20.5	3.3	0.0
Prop In Lane	1.00			0.08	0.63	0.36
Lane Grp Cap(c), veh/h	12	1313	0	1143	278	0
V/C Ratio(X)	0.42	0.85	0.00	0.75	0.37	0.00
Avail Cap(c_a), veh/h	151	2813	0	2478	505	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	7.2	0.0	8.7	23.4	0.0
Incr Delay (d2), s/veh	8.3	1.6	0.0	1.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.6	0.0	6.1	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.2	8.8	0.0	9.7	24.3	0.0
LnGrp LOS	D	A	A	A	C	A
Approach Vol, veh/h		1115	855		104	
Approach Delay, s/veh		8.9	9.7		24.3	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	47.9	14.6	5.0	42.9
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	29.1	5.3	2.2	22.5
Green Ext Time (p_c), s	14.1	0.2	0.0	8.1

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	592	16	452	223
Future Volume (vph)	592	16	452	223
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	77.5	5.1	81.2	22.6
Actuated g/C Ratio	0.69	0.05	0.72	0.20
v/c Ratio	0.95	0.24	0.42	0.89
Control Delay	33.0	61.9	7.6	70.2
Queue Delay	44.7	0.0	0.0	0.0
Total Delay	77.8	61.9	7.6	70.2
LOS	E	E	A	E
Approach Delay	77.8		9.4	70.2
Approach LOS	E		A	E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 57.2	Intersection LOS: E
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	592	336	16	452	223	30
Future Volume (veh/h)	592	336	16	452	223	30
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	749	425	20	572	282	38
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	751	426	37	1379	305	41
Arrive On Green	0.67	0.67	0.02	0.73	0.19	0.19
Sat Flow, veh/h	1128	640	1810	1900	1567	211
Grp Volume(v), veh/h	0	1174	20	572	321	0
Grp Sat Flow(s),veh/h/ln	0	1767	1810	1900	1784	0
Q Serve(g_s), s	0.0	76.8	1.3	13.7	20.5	0.0
Cycle Q Clear(g_c), s	0.0	76.8	1.3	13.7	20.5	0.0
Prop In Lane		0.36	1.00		0.88	0.12
Lane Grp Cap(c), veh/h	0	1177	37	1379	348	0
V/C Ratio(X)	0.00	1.00	0.54	0.41	0.92	0.00
Avail Cap(c_a), veh/h	0	1177	81	1425	362	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.3	56.4	6.2	45.9	0.0
Incr Delay (d2), s/veh	0.0	25.6	4.5	0.2	28.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	35.3	0.6	4.8	11.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	44.9	60.9	6.4	74.1	0.0
LnGrp LOS	A	D	E	A	E	A
Approach Vol, veh/h	1174			592	321	
Approach Delay, s/veh	44.9			8.3	74.1	
Approach LOS	D			A	E	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.3	7.0	82.0		89.0
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		22.5	3.3	78.8		15.7
Green Ext Time (p_c), s		0.1	0.0	0.0		4.2

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

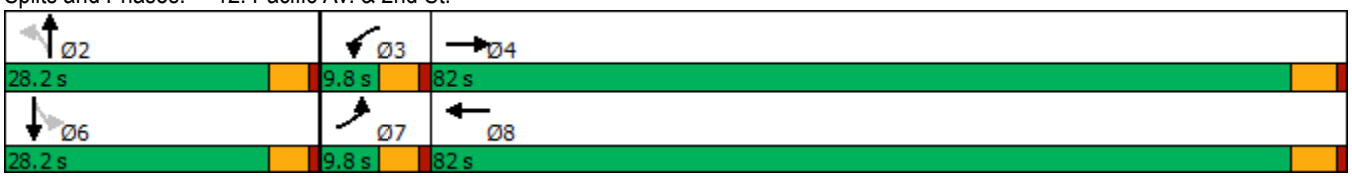
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	742	8	561	17	0	30	0
Future Volume (vph)	1	742	8	561	17	0	30	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	38.5	5.3	38.5		24.7		24.7
Actuated g/C Ratio	0.07	0.51	0.07	0.51		0.33		0.33
v/c Ratio	0.01	0.85	0.07	0.65		0.09		0.07
Control Delay	42.0	25.0	42.2	16.1		7.4		3.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.0	25.0	42.2	16.1		7.4		3.3
LOS	D	C	D	B		A		A
Approach Delay		25.0		16.5		7.4		3.3
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 74.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	742	16	8	561	14	17	0	32	30	0	2
Future Volume (veh/h)	1	742	16	8	561	14	17	0	32	30	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	815	18	9	616	15	19	0	35	33	0	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	939	21	21	955	23	199	28	304	491	3	25
Arrive On Green	0.00	0.51	0.51	0.01	0.52	0.52	0.30	0.00	0.30	0.30	0.00	0.30
Sat Flow, veh/h	1810	1851	41	1810	1847	45	459	93	1017	1346	9	82
Grp Volume(v), veh/h	1	0	833	9	0	631	54	0	0	35	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1892	1810	0	1892	1569	0	0	1438	0	0
Q Serve(g_s), s	0.0	0.0	30.6	0.4	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	30.6	0.4	0.0	19.1	1.8	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.35		0.65	0.94		0.06
Lane Grp Cap(c), veh/h	2	0	959	21	0	978	531	0	0	519	0	0
V/C Ratio(X)	0.40	0.00	0.87	0.44	0.00	0.64	0.10	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	119	0	1841	119	0	1841	531	0	0	519	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.4	0.0	17.1	38.8	0.0	13.8	20.0	0.0	0.0	19.8	0.0	0.0
Incr Delay (d2), s/veh	34.6	0.0	2.6	5.4	0.0	0.7	0.4	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	12.1	0.2	0.0	7.3	0.8	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	0.0	19.7	44.1	0.0	14.5	20.4	0.0	0.0	20.0	0.0	0.0
LnGrp LOS	E	A	B	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		834			640			54			35	
Approach Delay, s/veh		19.8			14.9			20.4			20.0	
Approach LOS		B			B			C			C	

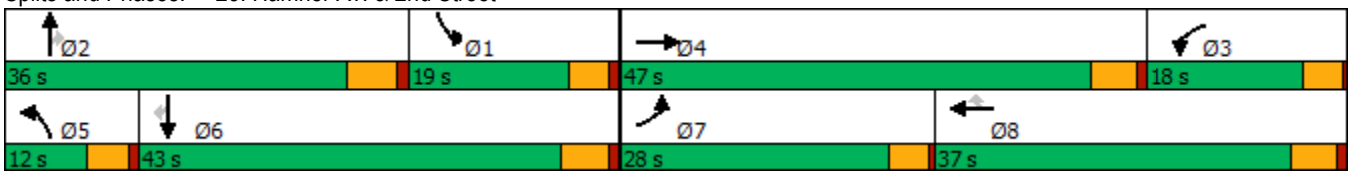
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.2	5.5	45.2		28.2	4.7	46.0				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		3.8	2.4	32.6		3.1	2.0	21.1				
Green Ext Time (p_c), s		0.2	0.0	7.4		0.1	0.0	4.8				

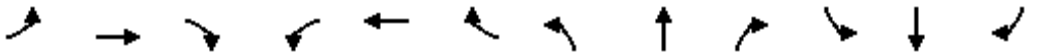
Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	229	539	389	573	732	78	904	164	263	676	208
Future Volume (vph)	229	539	389	573	732	78	904	164	263	676	208
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.1	35.1	9.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	28.0	47.0	18.0	37.0	37.0	12.0	36.0	36.0	19.0	43.0	43.0
Total Split (%)	23.3%	39.2%	15.0%	30.8%	30.8%	10.0%	30.0%	30.0%	15.8%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.1	5.1	4.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	12.7	24.5	20.2	31.9	31.9	7.2	30.6	30.6	14.4	37.9	37.9
Actuated g/C Ratio	0.12	0.22	0.19	0.29	0.29	0.07	0.28	0.28	0.13	0.35	0.35
v/c Ratio	0.59	0.76	0.63	1.08	1.11	0.69	0.89	0.31	0.58	0.54	0.32
Control Delay	51.7	45.2	46.9	100.3	92.6	79.8	49.6	7.6	50.2	30.7	4.9
Queue Delay	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	45.2	46.9	107.3	92.6	79.8	49.6	7.6	50.2	30.7	4.9
LOS	D	D	D	F	F	E	D	A	D	C	A
Approach Delay		47.1		87.1			45.6			30.5	
Approach LOS		D		F			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.9	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	539	42	389	573	732	78	904	164	263	676	208
Future Volume (veh/h)	229	539	42	389	573	732	78	904	164	263	676	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	241	567	33	409	603	371	82	952	99	277	712	177
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	324	759	44	584	575	481	105	1060	445	494	1387	585
Arrive On Green	0.09	0.22	0.22	0.17	0.30	0.30	0.06	0.28	0.28	0.14	0.37	0.37
Sat Flow, veh/h	3510	3464	201	3510	1900	1588	1810	3800	1596	3619	3800	1604
Grp Volume(v), veh/h	241	295	305	409	603	371	82	952	99	277	712	177
Grp Sat Flow(s),veh/h/ln	1755	1805	1860	1755	1900	1588	1810	1900	1596	1810	1900	1604
Q Serve(g_s), s	7.1	16.1	16.1	11.6	31.9	14.8	4.7	25.4	5.0	7.5	15.4	8.3
Cycle Q Clear(g_c), s	7.1	16.1	16.1	11.6	31.9	14.8	4.7	25.4	5.0	7.5	15.4	8.3
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	395	408	584	575	481	105	1060	445	494	1387	585
V/C Ratio(X)	0.74	0.75	0.75	0.70	1.05	0.77	0.78	0.90	0.22	0.56	0.51	0.30
Avail Cap(c_a), veh/h	796	717	739	584	575	481	127	1103	463	494	1387	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	38.4	38.4	41.5	36.8	14.6	49.0	36.6	29.2	42.5	26.1	23.9
Incr Delay (d2), s/veh	3.4	2.8	2.8	3.7	50.9	7.6	18.1	9.7	0.2	4.5	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.3	7.5	5.2	22.4	6.0	2.6	12.7	1.9	3.6	6.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	41.2	41.2	45.2	87.7	22.2	67.1	46.3	29.5	47.1	27.5	25.2
LnGrp LOS	D	D	D	D	F	C	E	D	C	D	C	C
Approach Vol, veh/h		841			1383			1133			1166	
Approach Delay, s/veh		43.8			57.6			46.3			31.8	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	34.8	22.6	28.2	10.7	43.9	13.8	37.0
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.1	5.1
Max Green Setting (Gmax), s	14.4	* 31	13.9	* 42	7.4	37.6	23.9	31.9
Max Q Clear Time (g_c+I1), s	9.5	27.4	13.6	18.1	6.7	17.4	9.1	33.9
Green Ext Time (p_c), s	0.2	1.9	0.1	3.6	0.0	5.1	0.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

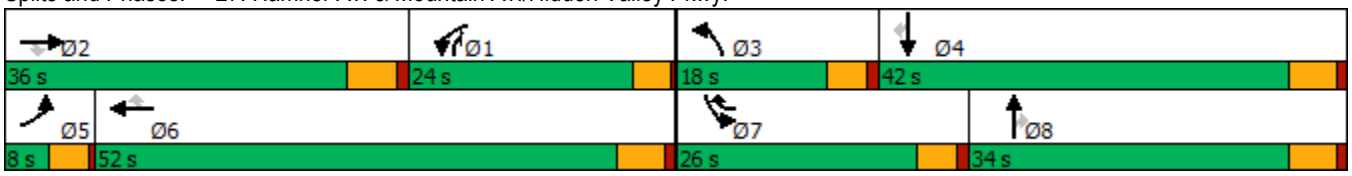
Notes

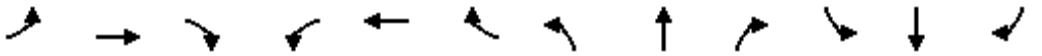
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	335	55	775	771	375	68	569	277	171	459	9
Future Volume (vph)	12	335	55	775	771	375	68	569	277	171	459	9
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	36.0	36.0	24.0	52.0	26.0	18.0	34.0	24.0	26.0	42.0	42.0
Total Split (%)	6.7%	30.0%	30.0%	20.0%	43.3%	21.7%	15.0%	28.3%	20.0%	21.7%	35.0%	35.0%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	30.7	30.7	20.1	53.4	64.0	8.5	22.7	44.2	9.8	26.1	26.1
Actuated g/C Ratio	0.04	0.30	0.30	0.20	0.52	0.62	0.08	0.22	0.43	0.10	0.25	0.25
v/c Ratio	0.19	0.33	0.10	1.20	0.83	0.39	0.48	0.76	0.36	0.55	0.53	0.02
Control Delay	56.9	30.2	0.3	143.0	32.0	7.4	56.9	44.3	4.3	51.5	36.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	49.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	30.2	0.3	143.0	81.8	7.6	56.9	44.3	4.3	51.5	36.3	0.1
LOS	E	C	A	F	F	A	E	D	A	D	D	A
Approach Delay		26.9			92.0			33.1			39.8	
Approach LOS		C			F			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.8	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 62.8	Intersection LOS: E
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	335	55	775	771	375	68	569	277	171	459	9
Future Volume (veh/h)	12	335	55	775	771	375	68	569	277	171	459	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	356	54	824	820	360	72	605	174	182	488	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	1101	491	700	962	932	93	778	662	255	854	377
Arrive On Green	0.01	0.31	0.31	0.20	0.51	0.51	0.05	0.22	0.22	0.07	0.24	0.24
Sat Flow, veh/h	1810	3610	1609	3510	1900	1609	1810	3610	1584	3510	3610	1593
Grp Volume(v), veh/h	13	356	54	824	820	360	72	605	174	182	488	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1755	1900	1609	1810	1805	1584	1755	1805	1593
Q Serve(g_s), s	0.7	7.6	1.9	20.0	37.6	12.2	3.9	15.8	1.5	5.1	12.0	0.3
Cycle Q Clear(g_c), s	0.7	7.6	1.9	20.0	37.6	12.2	3.9	15.8	1.5	5.1	12.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	1101	491	700	962	932	93	778	662	255	854	377
V/C Ratio(X)	0.59	0.32	0.11	1.18	0.85	0.39	0.77	0.78	0.26	0.71	0.57	0.02
Avail Cap(c_a), veh/h	72	1101	491	700	962	932	242	1029	773	749	1317	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	26.9	15.3	40.2	21.5	11.5	47.0	37.1	8.0	45.5	33.8	29.3
Incr Delay (d2), s/veh	23.0	0.8	0.5	94.2	7.5	0.3	5.0	2.8	0.2	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	0.9	17.5	17.0	4.0	1.9	7.0	1.3	2.2	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	27.6	15.8	134.4	29.0	11.7	52.0	39.9	8.2	46.9	34.4	29.4
LnGrp LOS	E	C	B	F	C	B	D	D	A	D	C	C
Approach Vol, veh/h		423			2004			851			676	
Approach Delay, s/veh		27.5			69.2			34.4			37.7	
Approach LOS		C			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.4	36.0	9.8	29.1	5.2	56.2	11.9	27.0
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.0	* 31	13.4	36.6	4.0	46.6	21.4	28.6
Max Q Clear Time (g_c+I1), s	22.0	9.6	5.9	14.0	2.7	39.6	7.1	17.8
Green Ext Time (p_c), s	0.0	2.2	0.0	3.0	0.0	3.8	0.2	3.3

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	196	379	643	859	9	621
Future Volume (vph)	196	379	643	859	9	621
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	42.0	70.0	28.0	50.0	50.0	50.0
Total Split (%)	35.0%	58.3%	23.3%	41.7%	41.7%	41.7%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	19.0	70.1	46.6	40.0	40.0	40.0
Actuated g/C Ratio	0.16	0.58	0.39	0.33	0.33	0.33
v/c Ratio	0.74	0.19	0.56	0.82	0.81	0.84
Control Delay	35.7	6.1	32.5	49.3	47.9	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	6.1	32.5	49.3	47.9	25.2
LOS	D	A	C	D	D	C
Approach Delay		16.2	32.5		38.8	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 122.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	379	0	0	643	80	859	9	621	0	0	0
Future Volume (veh/h)	196	379	0	0	643	80	859	9	621	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	211	408	0	0	691	75	931	0	522			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	246	2055	0	0	1298	141	1260	0	561			
Arrive On Green	0.04	0.19	0.00	0.00	0.40	0.40	0.35	0.00	0.35			
Sat Flow, veh/h	1810	3705	0	0	3370	355	3619	0	1610			
Grp Volume(v), veh/h	211	408	0	0	380	386	931	0	522			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1826	1810	0	1610			
Q Serve(g_s), s	13.9	11.4	0.0	0.0	19.4	19.4	27.1	0.0	37.5			
Cycle Q Clear(g_c), s	13.9	11.4	0.0	0.0	19.4	19.4	27.1	0.0	37.5			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	246	2055	0	0	715	723	1260	0	561			
V/C Ratio(X)	0.86	0.20	0.00	0.00	0.53	0.53	0.74	0.00	0.93			
Avail Cap(c_a), veh/h	565	2055	0	0	715	723	1348	0	600			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.2	25.6	0.0	0.0	27.7	27.7	34.3	0.0	37.7			
Incr Delay (d2), s/veh	4.0	0.1	0.0	0.0	2.8	2.8	1.9	0.0	20.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.0	5.5	0.0	0.0	8.8	8.9	11.7	0.0	17.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	25.8	0.0	0.0	30.5	30.5	36.2	0.0	58.2			
LnGrp LOS	E	C	A	A	C	C	D	A	E			
Approach Vol, veh/h		619			766			1453				
Approach Delay, s/veh		37.5			30.5			44.1				
Approach LOS		D			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		72.9			20.8	52.1		47.1				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		65.4			37.5	23.4		44.7				
Max Q Clear Time (g_c+I1), s		13.4			15.9	21.4		39.5				
Green Ext Time (p_c), s		1.8			0.4	0.7		2.3				

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

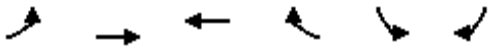
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	8	621	684	60
Future Volume (vph)	8	621	684	60
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	32.3	31.2	12.0
Actuated g/C Ratio	0.10	0.59	0.57	0.22
v/c Ratio	0.04	0.58	0.80	0.22
Control Delay	33.0	8.3	15.9	22.3
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	33.0	8.3	16.2	22.3
LOS	C	A	B	C
Approach Delay		8.6	16.2	22.3
Approach LOS		A	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 54.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	621	684	137	60	22
Future Volume (veh/h)	8	621	684	137	60	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	647	712	143	62	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	1245	861	173	226	84
Arrive On Green	0.01	0.66	0.56	0.56	0.18	0.18
Sat Flow, veh/h	1810	1900	1530	307	1263	469
Grp Volume(v), veh/h	8	647	0	855	86	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1837	1752	0
Q Serve(g_s), s	0.2	10.0	0.0	21.3	2.4	0.0
Cycle Q Clear(g_c), s	0.2	10.0	0.0	21.3	2.4	0.0
Prop In Lane	1.00			0.17	0.72	0.27
Lane Grp Cap(c), veh/h	19	1245	0	1034	313	0
V/C Ratio(X)	0.42	0.52	0.00	0.83	0.27	0.00
Avail Cap(c_a), veh/h	168	3139	0	2713	570	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	5.0	0.0	10.0	19.9	0.0
Incr Delay (d2), s/veh	5.5	0.3	0.0	1.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	0.0	6.4	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.0	5.4	0.0	11.8	20.3	0.0
LnGrp LOS	C	A	A	B	C	A
Approach Vol, veh/h		655	855		86	
Approach Delay, s/veh		5.7	11.8		20.3	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		41.4		14.6	5.2	36.2
Change Period (Y+Rc), s		* 4.7		4.6	4.6	* 4.7
Max Green Setting (Gmax), s		* 93		18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s		12.0		4.4	2.2	23.3
Green Ext Time (p_c), s		5.0		0.2	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	535	20	578	241
Future Volume (vph)	535	20	578	241
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	31.2	5.8	34.0	15.7
Actuated g/C Ratio	0.52	0.10	0.57	0.26
v/c Ratio	0.74	0.12	0.56	0.55
Control Delay	17.3	37.6	10.1	28.2
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	17.5	37.6	10.1	28.2
LOS	B	D	B	C
Approach Delay	17.5		11.0	28.2
Approach LOS	B		B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	535	147	20	578	241	10
Future Volume (veh/h)	535	147	20	578	241	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	557	153	21	602	251	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	699	192	46	1157	352	14
Arrive On Green	0.49	0.49	0.03	0.61	0.20	0.20
Sat Flow, veh/h	1427	392	1810	1900	1726	69
Grp Volume(v), veh/h	0	710	21	602	262	0
Grp Sat Flow(s),veh/h/ln	0	1820	1810	1900	1801	0
Q Serve(g_s), s	0.0	16.0	0.6	8.9	6.6	0.0
Cycle Q Clear(g_c), s	0.0	16.0	0.6	8.9	6.6	0.0
Prop In Lane		0.22	1.00		0.96	0.04
Lane Grp Cap(c), veh/h	0	891	46	1157	367	0
V/C Ratio(X)	0.00	0.80	0.46	0.52	0.71	0.00
Avail Cap(c_a), veh/h	0	2870	192	3376	866	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.5	23.6	5.5	18.2	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.6	0.4	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.9	0.2	2.1	2.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.2	26.2	5.9	20.8	0.0
LnGrp LOS	A	B	C	A	C	A
Approach Vol, veh/h	710			623	262	
Approach Delay, s/veh	12.2			6.5	20.8	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.6	5.8	28.6		34.5
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		8.6	2.6	18.0		10.9
Green Ext Time (p_c), s		0.6	0.0	6.0		4.5

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

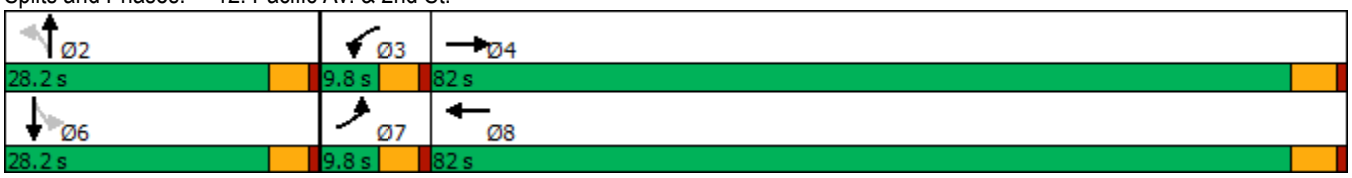
Notes

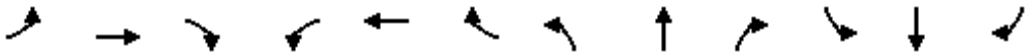
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	585	29	625	9	0	29	1
Future Volume (vph)	3	585	29	625	9	0	29	1
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.7	24.4	5.7	26.1		12.7		12.7
Actuated g/C Ratio	0.11	0.48	0.11	0.51		0.25		0.25
v/c Ratio	0.02	0.70	0.15	0.70		0.06		0.09
Control Delay	31.7	15.8	31.4	14.4		1.0		20.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.7	15.8	31.4	14.4		1.0		20.5
LOS	C	B	C	B		A		C
Approach Delay		15.8		15.1		1.0		20.5
Approach LOS		B		B		A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	585	12	29	625	23	9	0	15	29	1	2
Future Volume (veh/h)	3	585	12	29	625	23	9	0	15	29	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	616	13	31	658	24	9	0	16	31	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	7	803	17	64	847	31	189	42	222	433	17	19
Arrive On Green	0.00	0.43	0.43	0.04	0.46	0.46	0.22	0.00	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	1854	39	1810	1822	66	379	195	1020	1299	76	86
Grp Volume(v), veh/h	3	0	629	31	0	682	25	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1893	1810	0	1888	1594	0	0	1461	0	0
Q Serve(g_s), s	0.1	0.0	13.0	0.8	0.0	13.9	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	13.0	0.8	0.0	13.9	0.5	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.04	0.36		0.64	0.91		0.06
Lane Grp Cap(c), veh/h	7	0	820	64	0	877	454	0	0	468	0	0
V/C Ratio(X)	0.41	0.00	0.77	0.48	0.00	0.78	0.06	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	205	0	3165	205	0	3157	910	0	0	894	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	0.0	11.0	21.7	0.0	10.3	14.3	0.0	0.0	14.3	0.0	0.0
Incr Delay (d2), s/veh	12.7	0.0	1.5	2.1	0.0	1.5	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.2	0.3	0.0	4.3	0.2	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	0.0	12.6	23.8	0.0	11.8	14.3	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	D	A	B	C	A	B	B	A	A	B	A	A
Approach Vol, veh/h		632			713			25			34	
Approach Delay, s/veh		12.7			12.3			14.3			14.4	
Approach LOS		B			B			B			B	

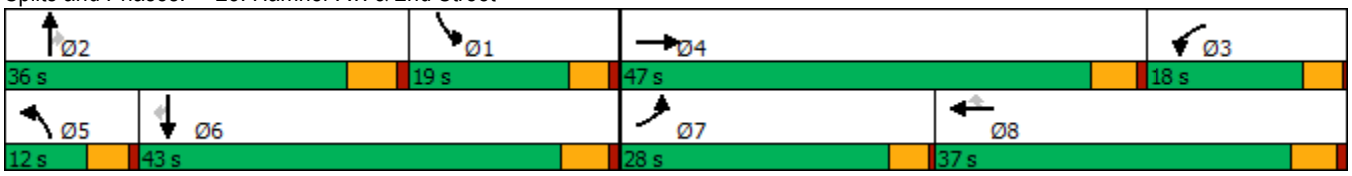
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	6.2	25.1		14.6	4.8	26.5				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		2.5	2.8	15.0		2.7	2.1	15.9				
Green Ext Time (p_c), s		0.1	0.0	4.8		0.1	0.0	5.4				

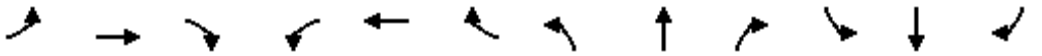
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	299	709	237	437	475	93	792	398	523	1117	239
Future Volume (vph)	299	709	237	437	475	93	792	398	523	1117	239
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.1	35.1	9.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	28.0	47.0	18.0	37.0	37.0	12.0	36.0	36.0	19.0	43.0	43.0
Total Split (%)	23.3%	39.2%	15.0%	30.8%	30.8%	10.0%	30.0%	30.0%	15.8%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.1	5.1	4.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	Max
Act Effct Green (s)	14.8	31.6	13.7	30.5	30.5	7.4	28.6	28.6	16.6	37.8	37.8
Actuated g/C Ratio	0.13	0.29	0.12	0.28	0.28	0.07	0.26	0.26	0.15	0.34	0.34
v/c Ratio	0.64	0.79	0.55	0.85	0.74	0.78	0.82	0.67	0.93	0.87	0.36
Control Delay	52.1	41.4	51.5	53.7	21.5	90.9	46.1	19.3	72.2	43.4	8.0
Queue Delay	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	41.4	51.5	55.1	21.5	90.9	46.1	19.3	72.2	43.4	8.0
LOS	D	D	D	E	C	F	D	B	E	D	A
Approach Delay		44.3		40.4			41.1			46.9	
Approach LOS		D		D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.8	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 43.6	Intersection LOS: D
Intersection Capacity Utilization 84.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	709	84	237	437	475	93	792	398	523	1117	239
Future Volume (veh/h)	299	709	84	237	437	475	93	792	398	523	1117	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	305	723	53	242	446	277	95	808	277	534	1140	204
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	394	904	66	370	510	431	120	983	415	601	1391	576
Arrive On Green	0.11	0.27	0.27	0.11	0.27	0.27	0.07	0.26	0.26	0.17	0.37	0.37
Sat Flow, veh/h	3510	3408	250	3510	1900	1608	1810	3800	1605	3619	3800	1574
Grp Volume(v), veh/h	305	383	393	242	446	277	95	808	277	534	1140	204
Grp Sat Flow(s),veh/h/ln	1755	1805	1853	1755	1900	1608	1810	1900	1605	1810	1900	1574
Q Serve(g_s), s	8.7	20.3	20.3	6.8	23.1	9.9	5.3	20.6	15.9	14.8	27.9	9.7
Cycle Q Clear(g_c), s	8.7	20.3	20.3	6.8	23.1	9.9	5.3	20.6	15.9	14.8	27.9	9.7
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	394	479	492	370	510	431	120	983	415	601	1391	576
V/C Ratio(X)	0.77	0.80	0.80	0.65	0.88	0.64	0.79	0.82	0.67	0.89	0.82	0.35
Avail Cap(c_a), veh/h	817	736	756	475	590	500	130	1132	478	601	1391	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	35.2	35.2	44.1	35.9	13.3	47.2	35.8	34.1	41.9	29.5	23.7
Incr Delay (d2), s/veh	3.3	3.6	3.5	2.1	12.5	2.2	22.7	4.4	2.9	17.6	5.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	9.1	9.4	3.0	12.1	3.6	3.1	9.7	6.4	7.9	13.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	38.7	38.7	46.2	48.4	15.5	69.9	40.3	37.0	59.5	35.0	25.4
LnGrp LOS	D	D	D	D	D	B	E	D	D	E	C	C
Approach Vol, veh/h		1081			965			1180			1878	
Approach Delay, s/veh		41.2			38.4			41.9			40.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	32.0	15.9	32.4	11.4	43.0	15.6	32.7
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.1	5.1
Max Green Setting (Gmax), s	14.4	* 31	13.9	* 42	7.4	37.6	23.9	31.9
Max Q Clear Time (g_c+I1), s	16.8	22.6	8.8	22.3	7.3	29.9	10.7	25.1
Green Ext Time (p_c), s	0.0	3.8	0.4	4.6	0.0	4.7	0.9	2.1

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

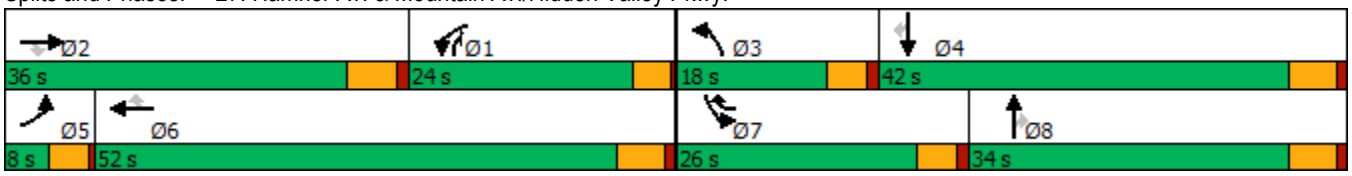
Notes

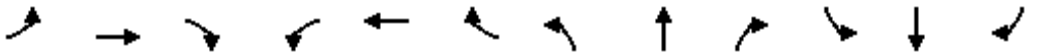
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	648	89	429	452	323	112	766	571	546	831	25
Future Volume (vph)	29	648	89	429	452	323	112	766	571	546	831	25
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	36.0	36.0	24.0	52.0	26.0	18.0	34.0	24.0	26.0	42.0	42.0
Total Split (%)	6.7%	30.0%	30.0%	20.0%	43.3%	21.7%	15.0%	28.3%	20.0%	21.7%	35.0%	35.0%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	30.7	30.7	19.0	49.0	70.3	11.1	27.5	47.9	20.5	37.0	37.0
Actuated g/C Ratio	0.03	0.26	0.26	0.16	0.42	0.60	0.09	0.23	0.41	0.17	0.32	0.32
v/c Ratio	0.48	0.71	0.18	0.79	0.59	0.34	0.69	0.89	0.80	0.90	0.72	0.04
Control Delay	82.7	44.8	1.2	58.4	31.5	9.6	72.2	57.3	22.2	66.2	40.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	11.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	44.8	1.2	58.4	43.0	9.9	72.2	57.3	22.2	66.2	40.2	0.1
LOS	F	D	A	E	D	A	E	E	C	E	D	A
Approach Delay		41.2			39.6			44.6			49.6	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.2	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.3	Intersection LOS: D
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	648	89	429	452	323	112	766	571	546	831	25
Future Volume (veh/h)	29	648	89	429	452	323	112	766	571	546	831	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	675	87	447	471	325	117	798	390	569	866	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	953	424	515	763	924	144	898	617	628	1256	519
Arrive On Green	0.02	0.26	0.26	0.15	0.40	0.40	0.08	0.24	0.24	0.17	0.33	0.33
Sat Flow, veh/h	1810	3610	1607	3510	1900	1607	1810	3800	1610	3619	3800	1571
Grp Volume(v), veh/h	30	675	87	447	471	325	117	798	390	569	866	18
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1900	1607	1810	1900	1610	1810	1900	1571
Q Serve(g_s), s	1.9	19.6	3.8	14.4	22.9	12.5	7.4	23.5	7.9	17.9	22.9	0.9
Cycle Q Clear(g_c), s	1.9	19.6	3.8	14.4	22.9	12.5	7.4	23.5	7.9	17.9	22.9	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	953	424	515	763	924	144	898	617	628	1256	519
V/C Ratio(X)	0.78	0.71	0.21	0.87	0.62	0.35	0.81	0.89	0.63	0.91	0.69	0.03
Avail Cap(c_a), veh/h	62	953	424	605	764	925	209	937	634	668	1256	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	38.6	19.9	48.4	27.6	13.1	52.5	42.8	10.9	47.0	33.7	26.3
Incr Delay (d2), s/veh	27.4	4.4	1.1	11.3	1.5	0.2	9.4	10.2	2.0	14.9	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.0	2.0	7.0	10.3	4.3	3.7	12.0	3.8	9.2	10.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.8	43.1	21.0	59.7	29.1	13.4	61.9	53.0	12.8	61.9	35.3	26.3
LnGrp LOS	F	D	C	E	C	B	E	D	B	E	D	C
Approach Vol, veh/h		792			1243			1305			1453	
Approach Delay, s/veh		42.2			36.0			41.8			45.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	36.0	13.8	43.7	6.5	51.9	24.7	32.8
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.0	* 31	13.4	36.6	4.0	46.6	21.4	28.6
Max Q Clear Time (g_c+I1), s	16.4	21.6	9.4	24.9	3.9	24.9	19.9	25.5
Green Ext Time (p_c), s	0.6	3.1	0.0	4.4	0.0	3.9	0.2	1.8

Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Notes

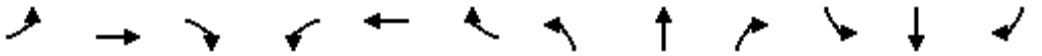
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	546	335	375	689	6	432
Future Volume (vph)	546	335	375	689	6	432
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	42.0	70.0	28.0	50.0	50.0	50.0
Total Split (%)	35.0%	58.3%	23.3%	41.7%	41.7%	41.7%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	37.5	76.1	34.1	34.0	34.0	34.0
Actuated g/C Ratio	0.31	0.63	0.28	0.28	0.28	0.28
v/c Ratio	1.04	0.16	0.45	0.76	0.77	0.59
Control Delay	65.6	6.4	38.0	49.0	49.8	6.1
Queue Delay	22.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.6	6.4	38.0	49.0	49.8	6.1
LOS	F	A	D	D	D	A
Approach Delay		56.7	38.0		32.8	
Approach LOS		E	D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 42.4	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	335	0	0	375	52	689	6	432	0	0	0
Future Volume (veh/h)	546	335	0	0	375	52	689	6	432	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	587	360	0	0	403	44	745	0	292			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	565	2456	0	0	1084	118	858	0	382			
Arrive On Green	0.10	0.22	0.00	0.00	0.33	0.33	0.24	0.00	0.24			
Sat Flow, veh/h	1810	3705	0	0	3378	356	3619	0	1610			
Grp Volume(v), veh/h	587	360	0	0	221	226	745	0	292			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1834	1810	0	1610			
Q Serve(g_s), s	37.5	9.6	0.0	0.0	11.2	11.3	23.7	0.0	20.3			
Cycle Q Clear(g_c), s	37.5	9.6	0.0	0.0	11.2	11.3	23.7	0.0	20.3			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	565	2456	0	0	596	606	858	0	382			
V/C Ratio(X)	1.04	0.15	0.00	0.00	0.37	0.37	0.87	0.00	0.76			
Avail Cap(c_a), veh/h	565	2456	0	0	596	606	1348	0	600			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.38	0.38	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.8	18.6	0.0	0.0	30.6	30.7	44.0	0.0	42.7			
Incr Delay (d2), s/veh	33.8	0.0	0.0	0.0	1.8	1.8	3.3	0.0	2.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	23.5	4.4	0.0	0.0	5.1	5.3	10.7	0.0	8.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.6	18.6	0.0	0.0	32.4	32.5	47.2	0.0	45.1			
LnGrp LOS	F	B	A	A	C	C	D	A	D			
Approach Vol, veh/h		947			447			1037				
Approach Delay, s/veh		61.4			32.4			46.6				
Approach LOS		E			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		86.2			42.0	44.2		33.8				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		65.4			37.5	23.4		44.7				
Max Q Clear Time (g_c+I1), s		11.6			39.5	13.3		25.7				
Green Ext Time (p_c), s		1.6			0.0	1.2		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 6.13:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4218	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1757
Total Trucks, %	15.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4410	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1102
Total Trucks, %	15.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4099	Heavy Vehicle Adjustment Factor (f_{HV})	0.877
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1270
Total Trucks, %	14.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3996	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1548
Total Trucks, %	7.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4857	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1120
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4895	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1410
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4118	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1611
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4051	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	951
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3935	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1155
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Service Volume Table

Target LOS	A	B	C	D	E
Max Service Flow Rate (MSF), pc/h/ln	770	1257	1737	2111	2400
Service Flow Rate (SF), veh/h	2852	4656	6435	7820	8890
Service Volume, veh/h	2624	4283	5920	7194	8178
One Direction DSV, 1000 veh/day	26	43	59	72	82
Bi-Directional DSV, 1000 veh/day	48	78	108	131	149

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3878	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1476
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4277	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	977
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	14.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4217	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1191
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 6.14:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

This Page Intentionally Left Blank

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4218	515
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.870	0.926
Flow Rate (vi),pc/h	5270	605
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.73	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.352
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1866
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.1
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.600	Outer Lanes Freeway Speed (SO), mi/h	73.4
Flow in Lanes 1 and 2 (v12), pc/h	3404	Ramp Junction Speed (S), mi/h	64.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.4
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP with Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3848	781
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	16.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.862	0.952
Flow Rate (vi),pc/h	4852	892
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1180.6	Density in Ramp Influence Area (DR), pc/mi/ln	34.0
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.478
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2048
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	56.6
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	64.4
Flow in Lanes 1 and 2 (v12), pc/h	2804	Ramp Junction Speed (S), mi/h	59.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3696	Average Density (D), pc/mi/ln	32.3
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4410	972
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.870	0.893
Flow Rate (vi),pc/h	5510	1183
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.46	0.28

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	20.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.404
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1295
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	75.6
Flow in Lanes 1 and 2 (v12), pc/h	2093	Ramp Junction Speed (S), mi/h	67.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	16.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3710	540
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.877	0.909
Flow Rate (vi),pc/h	4598	646
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.55	0.31

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.329
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1380
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.8
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.137	Outer Lanes Freeway Speed (SO), mi/h	66.8
Flow in Lanes 1 and 2 (v12), pc/h	1839	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2485	Average Density (D), pc/mi/ln	20.5
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3813	255
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.917
Flow Rate (vi),pc/h	4395	302
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.49	0.14

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	18.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.302
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1319
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	61.5
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.180	Outer Lanes Freeway Speed (SO), mi/h	67.1
Flow in Lanes 1 and 2 (v12), pc/h	1758	Ramp Junction Speed (S), mi/h	64.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2060	Average Density (D), pc/mi/ln	18.2
Level of Service (LOS)	B		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4857	1450
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.971
Flow Rate (vi),pc/h	5598	1623
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.47	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	24.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.444
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1160
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	76.2
Flow in Lanes 1 and 2 (v12), pc/h	2438	Ramp Junction Speed (S), mi/h	65.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	17.1
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4325	738
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	4985	843
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.61	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	27.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.388
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1496
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	66.4
Flow in Lanes 1 and 2 (v12), pc/h	1994	Ramp Junction Speed (S), mi/h	62.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2837	Average Density (D), pc/mi/ln	23.3
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4895	791
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.935
Flow Rate (vi),pc/h	5642	920
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.59	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1332
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	75.5
Flow in Lanes 1 and 2 (v12), pc/h	2979	Ramp Junction Speed (S), mi/h	66.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	21.4
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4118	389
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.943
Flow Rate (vi),pc/h	4834	448
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.67	0.21

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.338
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1671
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.619	Outer Lanes Freeway Speed (SO), mi/h	74.2
Flow in Lanes 1 and 2 (v12), pc/h	3163	Ramp Junction Speed (S), mi/h	64.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	24.9
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3838	295
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.952
Flow Rate (vi),pc/h	4505	337
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.67	0.16

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	987.6	Density in Ramp Influence Area (DR), pc/mi/ln	28.3
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.395
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1901
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2604	Ramp Junction Speed (S), mi/h	61.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	2941	Average Density (D), pc/mi/ln	26.4
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4051	830
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.952
Flow Rate (vi),pc/h	4755	948
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.40	0.23

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	18.5
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.383
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1233
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	75.9
Flow in Lanes 1 and 2 (v12), pc/h	1814	Ramp Junction Speed (S), mi/h	67.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	14.0
Level of Service (LOS)	B		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3453	669
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.943
Flow Rate (vi),pc/h	4053	771
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.50	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	21.2
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.325
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1216
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.121	Outer Lanes Freeway Speed (SO), mi/h	67.4
Flow in Lanes 1 and 2 (v12), pc/h	1621	Ramp Junction Speed (S), mi/h	64.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2392	Average Density (D), pc/mi/ln	18.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3494	533
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.926
Flow Rate (vi),pc/h	3989	626
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.48	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	19.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.307
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1197
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	61.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.140	Outer Lanes Freeway Speed (SO), mi/h	67.5
Flow in Lanes 1 and 2 (v12), pc/h	1596	Ramp Junction Speed (S), mi/h	64.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2222	Average Density (D), pc/mi/ln	17.9
Level of Service (LOS)	B		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4277	1087
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.962
Flow Rate (vi),pc/h	4883	1228
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.41	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	20.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.409
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1172
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.5
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	76.1
Flow in Lanes 1 and 2 (v12), pc/h	2051	Ramp Junction Speed (S), mi/h	66.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	14.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3638	888
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.926
Flow Rate (vi),pc/h	4111	1042
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.54	0.50

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.378
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1234
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	67.4
Flow in Lanes 1 and 2 (v12), pc/h	1644	Ramp Junction Speed (S), mi/h	63.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2686	Average Density (D), pc/mi/ln	20.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2022 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4217	805
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.952
Flow Rate (vi),pc/h	4765	919
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.50	0.44

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1085
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	76.5
Flow in Lanes 1 and 2 (v12), pc/h	2596	Ramp Junction Speed (S), mi/h	66.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.0
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.1:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

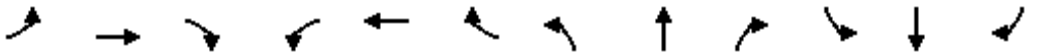
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	235	56	181	39	208	992	80	1836	523
Future Volume (vph)	247	145	235	56	181	39	208	992	80	1836	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	12.0	32.6	16.0	11.5	32.1	32.1	16.0	61.1	14.8	59.9	12.0
Total Split (%)	10.0%	27.2%	13.3%	9.6%	26.8%	26.8%	13.3%	50.9%	12.3%	49.9%	10.0%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.4
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	235	56	181	39	208	992	108	80	1836	523
Future Volume (veh/h)	247	145	235	56	181	39	208	992	108	80	1836	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	184	60	195	30	224	1067	107	86	1974	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	243	295	422	78	245	207	193	1832	184	110	1830	908
Arrive On Green	0.07	0.16	0.16	0.04	0.13	0.13	0.11	0.55	0.55	0.06	0.51	0.51
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3313	332	1810	3610	1572
Grp Volume(v), veh/h	266	156	184	60	195	30	224	581	593	86	1974	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1840	1810	1805	1572
Q Serve(g_s), s	7.4	8.1	10.2	3.5	10.6	1.8	11.4	22.7	22.7	5.0	54.1	17.3
Cycle Q Clear(g_c), s	7.4	8.1	10.2	3.5	10.6	1.8	11.4	22.7	22.7	5.0	54.1	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	243	295	422	78	245	207	193	998	1017	110	1830	908
V/C Ratio(X)	1.09	0.53	0.44	0.77	0.80	0.15	1.16	0.58	0.58	0.78	1.08	0.48
Avail Cap(c_a), veh/h	243	489	587	117	481	406	193	998	1017	173	1830	908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	41.5	32.8	50.6	45.1	41.3	47.7	15.7	15.7	49.4	26.3	13.2
Incr Delay (d2), s/veh	84.8	1.5	0.7	7.6	5.9	0.3	114.2	2.5	2.4	4.5	45.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	3.8	4.0	1.7	5.3	0.7	11.1	9.0	9.2	2.3	32.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.4	43.0	33.5	58.2	51.0	41.6	161.8	18.2	18.2	54.0	72.2	15.0
LnGrp LOS	F	D	C	E	D	D	F	B	B	D	F	B
Approach Vol, veh/h		606			285			1398			2494	
Approach Delay, s/veh		80.3			51.5			41.2			61.7	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	64.8	9.2	21.7	16.0	59.9	12.0	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.2	55.3	6.9	27.5	11.4	54.1	7.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	24.7	5.5	12.2	13.4	56.1	9.4	12.6
Green Ext Time (p_c), s	0.0	8.4	0.0	1.2	0.0	0.0	0.0	0.9

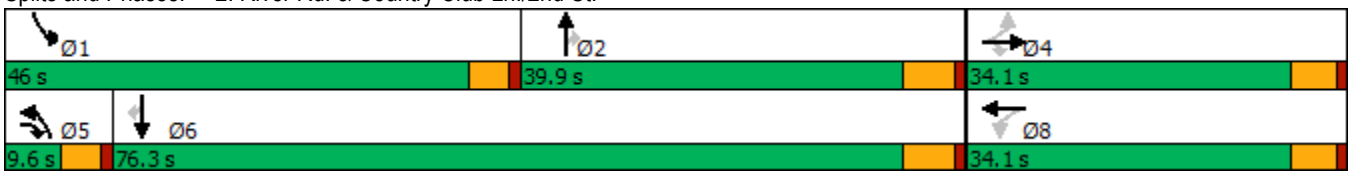
Intersection Summary	
HCM 6th Ctrl Delay	57.4
HCM 6th LOS	E

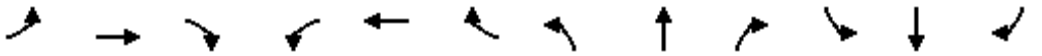
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	141	65	154	80	37	955	200	586	1529	25
Future Volume (vph)	37	141	65	154	80	37	955	200	586	1529	25
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	34.1	34.1	9.6	34.1	34.1	9.6	39.9	39.9	46.0	76.3	76.3
Total Split (%)	28.4%	28.4%	8.0%	28.4%	28.4%	8.0%	33.3%	33.3%	38.3%	63.6%	63.6%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	141	65	154	80	334	37	955	200	586	1529	25
Future Volume (veh/h)	37	141	65	154	80	334	37	955	200	586	1529	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	153	46	167	87	284	40	1038	160	637	1662	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	459	439	271	94	308	56	1026	456	624	2161	942
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.28	0.28	0.35	0.60	0.60
Sat Flow, veh/h	1026	1900	1610	1202	391	1276	1810	3610	1605	1810	3610	1573
Grp Volume(v), veh/h	40	153	46	167	0	371	40	1038	160	637	1662	25
Grp Sat Flow(s),veh/h/ln	1026	1900	1610	1202	0	1667	1810	1805	1605	1810	1805	1573
Q Serve(g_s), s	2.9	8.0	2.6	16.0	0.0	26.1	2.6	34.1	9.5	41.4	41.1	0.8
Cycle Q Clear(g_c), s	29.0	8.0	2.6	23.9	0.0	26.1	2.6	34.1	9.5	41.4	41.1	0.8
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	459	439	271	0	403	56	1026	456	624	2161	942
V/C Ratio(X)	0.47	0.33	0.10	0.62	0.00	0.92	0.72	1.01	0.35	1.02	0.77	0.03
Avail Cap(c_a), veh/h	85	459	439	271	0	403	75	1026	456	624	2161	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.1	37.5	32.7	47.4	0.0	44.4	57.6	43.0	34.2	39.3	17.9	9.8
Incr Delay (d2), s/veh	4.0	0.4	0.1	4.2	0.0	26.3	10.5	31.1	2.1	41.3	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	1.0	5.0	0.0	13.5	1.3	19.0	3.9	24.6	15.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	37.9	32.8	51.6	0.0	70.7	68.2	74.0	36.3	80.6	20.6	9.9
LnGrp LOS	E	D	C	D	A	E	E	F	D	F	C	A
Approach Vol, veh/h		239			538			1238			2324	
Approach Delay, s/veh		41.2			64.7			68.9			36.9	
Approach LOS		D			E			E			D	

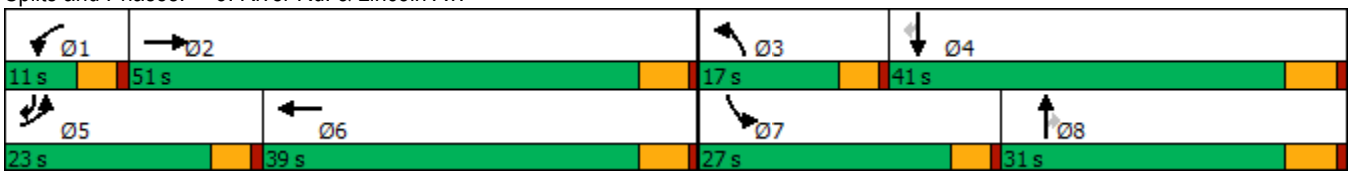
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	39.9		34.1	8.3	77.6		34.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	41.4	34.1		29.0	5.0	70.5		29.0				
Max Q Clear Time (g_c+I1), s	43.4	36.1		31.0	4.6	43.1		28.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	14.5		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		49.8	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	443	583	57	853	161	748	122	285	988	561
Future Volume (vph)	443	583	57	853	161	748	122	285	988	561
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	23.0	51.0	11.0	39.0	17.0	31.0	31.0	27.0	41.0	23.0
Total Split (%)	19.2%	42.5%	9.2%	32.5%	14.2%	25.8%	25.8%	22.5%	34.2%	19.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.6
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	583	47	57	853	284	161	748	122	285	988	561
Future Volume (veh/h)	443	583	47	57	853	284	161	748	122	285	988	561
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	482	634	39	62	927	285	175	813	92	310	1074	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	533	1339	82	80	761	233	187	766	322	335	1061	711
Arrive On Green	0.15	0.39	0.39	0.04	0.28	0.28	0.10	0.21	0.21	0.19	0.29	0.29
Sat Flow, veh/h	3510	3450	212	1810	2712	831	1810	3610	1518	1810	3610	1587
Grp Volume(v), veh/h	482	331	342	62	616	596	175	813	92	310	1074	483
Grp Sat Flow(s),veh/h/ln	1755	1805	1857	1810	1805	1738	1810	1805	1518	1810	1805	1587
Q Serve(g_s), s	16.2	16.5	16.5	4.1	33.6	33.6	11.5	25.4	6.1	20.2	35.2	29.0
Cycle Q Clear(g_c), s	16.2	16.5	16.5	4.1	33.6	33.6	11.5	25.4	6.1	20.2	35.2	29.0
Prop In Lane	1.00		0.11	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	701	721	80	506	487	187	766	322	335	1061	711
V/C Ratio(X)	0.90	0.47	0.47	0.78	1.22	1.22	0.93	1.06	0.29	0.92	1.01	0.68
Avail Cap(c_a), veh/h	539	701	721	97	506	487	187	766	322	338	1061	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	27.5	27.5	56.7	43.1	43.1	53.3	47.2	39.6	48.0	42.3	26.5
Incr Delay (d2), s/veh	18.0	2.3	2.2	21.8	114.5	117.6	46.6	50.2	0.5	29.7	30.8	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.3	7.6	2.3	30.6	29.9	7.5	16.3	2.3	11.6	19.5	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	29.7	29.7	78.4	157.6	160.7	99.9	97.4	40.1	77.7	73.1	29.1
LnGrp LOS	E	C	C	E	F	F	F	F	D	E	F	C
Approach Vol, veh/h		1155			1274			1080			1867	
Approach Delay, s/veh		45.7			155.2			92.9			62.5	
Approach LOS		D			F			F			E	

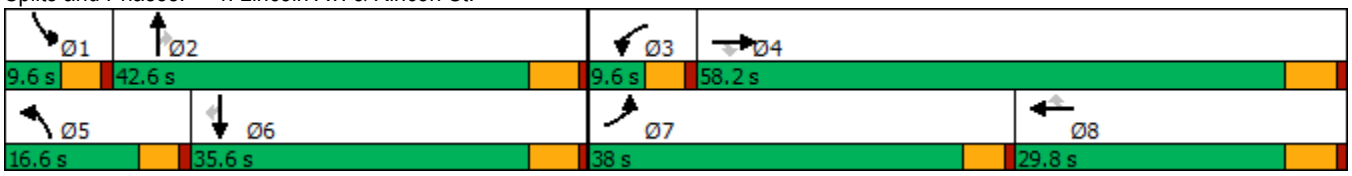
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	51.9	17.0	41.0	22.8	39.0	26.8	31.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.4	45.6	12.4	35.2	18.4	33.6	22.4	25.2
Max Q Clear Time (g_c+I1), s	6.1	18.5	13.5	37.2	18.2	35.6	22.2	27.4
Green Ext Time (p_c), s	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	87.0
HCM 6th LOS	F

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	122	111	2	2	237	866	6	9	1307	424
Future Volume (vph)	122	111	2	2	237	866	6	9	1307	424
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	38.0	58.2	9.6	29.8	16.6	42.6	42.6	9.6	35.6	35.6
Total Split (%)	31.7%	48.5%	8.0%	24.8%	13.8%	35.5%	35.5%	8.0%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	0	111	2	0	2	237	866	6	9	1307	424
Future Volume (veh/h)	122	0	111	2	0	2	237	866	6	9	1307	424
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	0	73	2	0	0	258	941	6	10	1421	407
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	257	218	5	83	70	299	2052	914	23	1501	654
Arrive On Green	0.09	0.00	0.14	0.00	0.00	0.00	0.17	0.57	0.57	0.01	0.42	0.42
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	133	0	73	2	0	0	258	941	6	10	1421	407
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	5.2	0.0	3.0	0.1	0.0	0.0	10.1	11.1	0.1	0.4	27.6	14.8
Cycle Q Clear(g_c), s	5.2	0.0	3.0	0.1	0.0	0.0	10.1	11.1	0.1	0.4	27.6	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	257	218	5	83	70	299	2052	914	23	1501	654
V/C Ratio(X)	0.78	0.00	0.33	0.41	0.00	0.00	0.86	0.46	0.01	0.44	0.95	0.62
Avail Cap(c_a), veh/h	832	1371	1162	125	628	532	299	2052	914	125	1501	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	28.4	36.2	0.0	0.0	29.5	9.2	6.8	35.6	20.4	16.7
Incr Delay (d2), s/veh	2.9	0.0	0.9	18.7	0.0	0.0	21.1	0.7	0.0	4.9	13.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.1	0.1	0.0	0.0	5.8	3.6	0.0	0.2	12.7	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	0.0	29.3	54.9	0.0	0.0	50.7	9.9	6.8	40.5	34.1	21.1
LnGrp LOS	D	A	C	D	A	A	D	A	A	D	C	C
Approach Vol, veh/h		206			2			1205			1838	
Approach Delay, s/veh		33.0			54.9			18.6			31.2	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	46.7	4.8	15.6	16.6	35.6	11.5	9.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	37.2	5.0	52.4	12.0	30.2	33.4	24.0
Max Q Clear Time (g_c+I1), s	2.4	13.1	2.1	5.0	12.1	29.6	7.2	0.0
Green Ext Time (p_c), s	0.0	6.7	0.0	0.2	0.0	0.6	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	46	130	67	550	259	801	126	181	799	229
Future Volume (vph)	46	130	67	550	259	801	126	181	799	229
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	10.0	35.1	16.9	42.0	29.0	42.8	16.9	25.2	39.0	39.0
Total Split (%)	8.3%	29.3%	14.1%	35.0%	24.2%	35.7%	14.1%	21.0%	32.5%	32.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 106.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	130	85	67	550	163	259	801	126	181	799	229
Future Volume (veh/h)	46	130	85	67	550	163	259	801	126	181	799	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	141	60	73	598	143	282	871	95	197	868	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	68	596	241	95	733	175	316	1379	691	231	1209	538
Arrive On Green	0.04	0.24	0.24	0.05	0.25	0.25	0.17	0.38	0.38	0.13	0.33	0.33
Sat Flow, veh/h	1810	2494	1010	1810	2890	689	1810	3610	1589	1810	3610	1607
Grp Volume(v), veh/h	50	100	101	73	373	368	282	871	95	197	868	170
Grp Sat Flow(s),veh/h/ln	1810	1805	1700	1810	1805	1774	1810	1805	1589	1810	1805	1607
Q Serve(g_s), s	2.7	4.5	4.8	4.0	19.5	19.6	15.3	19.7	3.6	10.7	21.1	7.9
Cycle Q Clear(g_c), s	2.7	4.5	4.8	4.0	19.5	19.6	15.3	19.7	3.6	10.7	21.1	7.9
Prop In Lane	1.00		0.59	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	431	406	95	458	450	316	1379	691	231	1209	538
V/C Ratio(X)	0.74	0.23	0.25	0.77	0.81	0.82	0.89	0.63	0.14	0.85	0.72	0.32
Avail Cap(c_a), veh/h	97	534	503	222	659	647	440	1379	691	372	1209	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	30.8	30.9	47.0	35.2	35.3	40.5	25.2	17.1	42.8	29.2	24.8
Incr Delay (d2), s/veh	7.4	0.3	0.3	4.9	5.2	5.5	12.7	2.2	0.4	5.7	3.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.9	2.0	1.9	8.9	8.8	7.7	8.4	1.3	5.0	9.3	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	31.0	31.2	51.9	40.4	40.7	53.2	27.5	17.5	48.5	32.9	26.3
LnGrp LOS	E	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		251			814			1248			1235	
Approach Delay, s/veh		35.9			41.6			32.5			34.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	43.7	9.8	29.4	22.1	39.0	8.4	30.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.6	37.4	12.3	29.7	24.4	33.6	5.4	36.6
Max Q Clear Time (g_c+I1), s	12.7	21.7	6.0	6.8	17.3	23.1	4.7	21.6
Green Ext Time (p_c), s	0.2	5.4	0.0	1.0	0.2	4.5	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

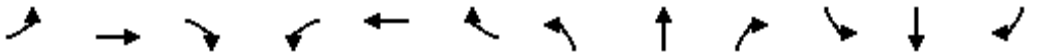
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	11	117	120	27	519	1116	66	804
Future Volume (vph)	14	11	117	120	27	519	1116	66	804
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	44.0	9.8	26.3	44.0	69.3	14.8	40.1
Total Split (%)	8.0%	21.8%	36.7%	8.2%	21.9%	36.7%	57.8%	12.3%	33.4%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.3
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	11	117	120	27	34	519	1116	101	66	804	86
Future Volume (veh/h)	14	11	117	120	27	34	519	1116	101	66	804	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	12	73	130	29	26	564	1213	98	72	874	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	185	685	281	120	108	594	2074	167	93	1107	114
Arrive On Green	0.02	0.10	0.10	0.05	0.13	0.13	0.33	0.61	0.61	0.05	0.34	0.34
Sat Flow, veh/h	1810	1900	1600	1810	923	828	1810	3383	273	1810	3293	339
Grp Volume(v), veh/h	15	12	73	130	0	55	564	646	665	72	479	485
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1751	1810	1805	1851	1810	1805	1827
Q Serve(g_s), s	0.8	0.6	2.9	5.2	0.0	3.0	31.8	22.6	22.7	4.1	25.1	25.1
Cycle Q Clear(g_c), s	0.8	0.6	2.9	5.2	0.0	3.0	31.8	22.6	22.7	4.1	25.1	25.1
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.15	1.00		0.19
Lane Grp Cap(c), veh/h	233	185	685	281	0	228	594	1107	1135	93	607	614
V/C Ratio(X)	0.06	0.06	0.11	0.46	0.00	0.24	0.95	0.58	0.59	0.77	0.79	0.79
Avail Cap(c_a), veh/h	289	381	850	281	0	355	681	1107	1135	176	607	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	42.9	18.1	40.7	0.0	40.9	34.3	12.2	12.2	49.1	31.4	31.4
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.4	0.0	0.5	20.4	2.3	2.2	5.1	10.1	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	1.0	3.1	0.0	1.3	16.8	8.9	9.1	2.0	12.1	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	43.0	18.1	41.1	0.0	41.4	54.7	14.5	14.4	54.1	41.5	41.4
LnGrp LOS	D	D	B	D	A	D	D	B	B	D	D	D
Approach Vol, veh/h		100			185			1875			1036	
Approach Delay, s/veh		24.6			41.2			26.5			42.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	69.6	9.8	15.3	39.0	40.6	6.4	18.7
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	10.2	* 64	5.2	21.0	39.4	34.7	5.0	21.2
Max Q Clear Time (g_c+I1), s	6.1	24.7	7.2	4.9	33.8	27.1	2.8	5.0
Green Ext Time (p_c), s	0.0	11.6	0.0	0.2	0.6	3.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

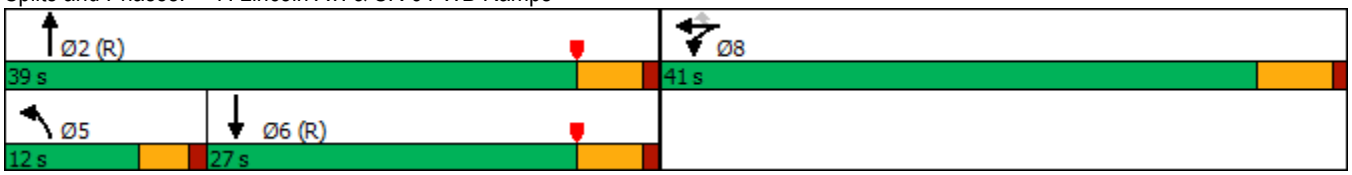
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

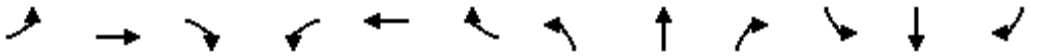
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	491	241	809	313	939	652
Future Volume (vph)	491	241	809	313	939	652
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	12.0	39.0	27.0
Total Split (%)	51.3%	51.3%	51.3%	15.0%	48.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	491	241	809	313	939	0	0	652	400
Future Volume (veh/h)	0	0	0	491	241	809	313	939	0	0	652	400
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				381	433	577	326	978	0	0	679	356
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				709	745	631	351	1721	0	0	746	391
Arrive On Green				0.39	0.39	0.39	0.10	0.48	0.00	0.00	0.33	0.33
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2379	1197
Grp Volume(v), veh/h				381	433	577	326	978	0	0	537	498
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1675
Q Serve(g_s), s				13.0	14.4	27.2	7.4	15.6	0.0	0.0	22.8	22.8
Cycle Q Clear(g_c), s				13.0	14.4	27.2	7.4	15.6	0.0	0.0	22.8	22.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.71
Lane Grp Cap(c), veh/h				709	745	631	351	1721	0	0	590	547
V/C Ratio(X)				0.54	0.58	0.91	0.93	0.57	0.00	0.00	0.91	0.91
Avail Cap(c_a), veh/h				803	843	715	351	1721	0	0	590	547
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.62	0.62	0.00	0.00	0.64	0.64
Uniform Delay (d), s/veh				18.7	19.1	23.0	35.7	15.0	0.0	0.0	25.8	25.8
Incr Delay (d2), s/veh				0.2	0.4	14.3	21.5	0.9	0.0	0.0	14.6	15.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	5.9	11.9	4.1	5.9	0.0	0.0	11.4	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.0	19.5	37.3	57.2	15.9	0.0	0.0	40.4	41.3
LnGrp LOS				B	B	D	E	B	A	A	D	D
Approach Vol, veh/h					1391			1304			1035	
Approach Delay, s/veh					26.7			26.2			40.8	
Approach LOS					C			C			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	43.1		12.0	31.1		36.9						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		35.5						
Max Q Clear Time (g_c+I1), s	17.6		9.4	24.8		29.2						
Green Ext Time (p_c), s	4.3		0.0	0.0		2.2						

Intersection Summary		
HCM 6th Ctrl Delay	30.5	
HCM 6th LOS	C	

Notes

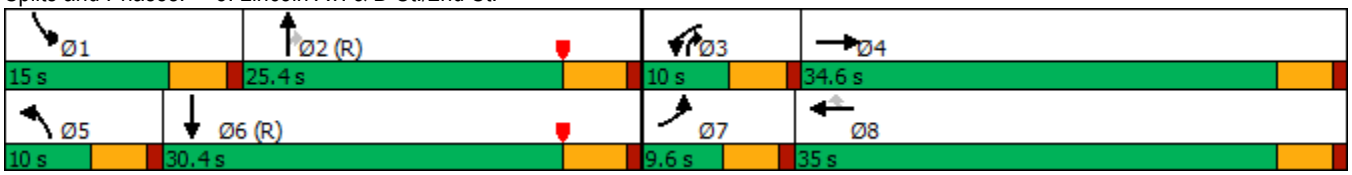
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	228	147	75	419	121	732	703	372	666
Future Volume (vph)	99	228	147	75	419	121	732	703	372	666
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	10.0	25.4	10.0	15.0	30.4
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.8%	29.9%	11.8%	17.6%	35.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	228	85	147	75	419	121	732	703	372	666	111
Future Volume (veh/h)	99	228	85	147	75	419	121	732	703	372	666	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	103	238	71	153	78	317	126	762	514	388	694	105
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	317	95	223	440	373	115	1318	688	430	1327	201
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.06	0.36	0.36	0.12	0.42	0.42
Sat Flow, veh/h	1810	1399	417	3510	1900	1610	1810	3610	1606	3510	3131	473
Grp Volume(v), veh/h	103	0	309	153	78	317	126	762	514	388	400	399
Grp Sat Flow(s),veh/h/ln	1810	0	1816	1755	1900	1610	1810	1805	1606	1755	1805	1800
Q Serve(g_s), s	4.8	0.0	13.5	3.6	2.8	16.0	5.4	14.4	22.9	9.3	13.9	14.0
Cycle Q Clear(g_c), s	4.8	0.0	13.5	3.6	2.8	16.0	5.4	14.4	22.9	9.3	13.9	14.0
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	412	223	440	373	115	1318	688	430	765	763
V/C Ratio(X)	0.97	0.00	0.75	0.69	0.18	0.85	1.10	0.58	0.75	0.90	0.52	0.52
Avail Cap(c_a), veh/h	106	0	641	223	680	576	115	1318	688	430	765	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.30	0.30	0.30
Uniform Delay (d), s/veh	39.9	0.0	30.6	39.0	26.2	31.3	39.8	21.7	20.4	36.8	18.1	18.1
Incr Delay (d2), s/veh	76.3	0.0	2.8	6.3	0.2	6.6	112.1	1.9	7.2	8.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	6.1	1.7	1.3	6.8	5.9	6.1	9.6	4.3	5.5	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.2	0.0	33.4	45.3	26.3	37.8	151.9	23.6	27.7	44.9	18.9	18.9
LnGrp LOS	F	A	C	D	C	D	F	C	C	D	B	B
Approach Vol, veh/h		412			548			1402			1187	
Approach Delay, s/veh		54.1			38.3			36.6			27.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	36.1	10.0	23.9	10.0	41.1	9.6	24.3
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	10.4	20.3	5.4	30.0	5.4	25.3	5.0	30.4
Max Q Clear Time (g_c+I1), s	11.3	24.9	5.6	15.5	7.4	16.0	6.8	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	3.3	0.0	1.3

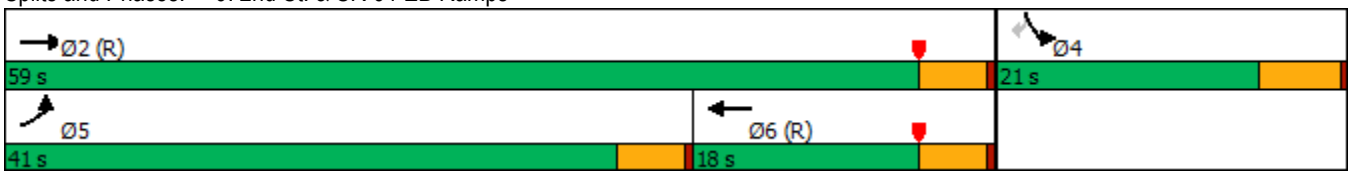
Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

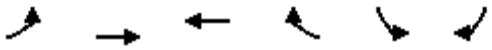
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	1142	99	170	124	472
Future Volume (vph)	1142	99	170	124	472
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	59.0	18.0	21.0	21.0
Total Split (%)	51.3%	73.8%	22.5%	26.3%	26.3%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1142	99	170	180	124	472
Future Volume (veh/h)	1142	99	170	180	124	472
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1190	103	177	128	129	492
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1350	1292	488	333	355	632
Arrive On Green	0.38	0.68	0.24	0.24	0.20	0.20
Sat Flow, veh/h	3510	1900	2146	1402	1810	3220
Grp Volume(v), veh/h	1190	103	155	150	129	492
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1648	1810	1610
Q Serve(g_s), s	25.2	1.5	5.7	6.1	4.9	11.6
Cycle Q Clear(g_c), s	25.2	1.5	5.7	6.1	4.9	11.6
Prop In Lane	1.00			0.85	1.00	1.00
Lane Grp Cap(c), veh/h	1350	1292	429	392	355	632
V/C Ratio(X)	0.88	0.08	0.36	0.38	0.36	0.78
Avail Cap(c_a), veh/h	1597	1292	429	392	355	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	4.3	25.4	25.6	27.8	30.5
Incr Delay (d2), s/veh	2.9	0.1	2.3	2.8	2.9	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	0.5	2.6	2.6	2.3	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	4.4	27.7	28.4	30.7	39.7
LnGrp LOS	C	A	C	C	C	D
Approach Vol, veh/h		1293	305		621	
Approach Delay, s/veh		24.1	28.1		37.8	
Approach LOS		C	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.0		21.0	35.4	23.6
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		54.4		15.7	36.4	13.4
Max Q Clear Time (g_c+I1), s		3.5		13.6	27.2	8.1
Green Ext Time (p_c), s		0.3		0.4	3.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	1005	712	62	46	36
Future Vol, veh/h	5	1005	712	62	46	36
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	1092	774	67	50	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	844	0	-	0	1913	811
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	1102	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	801	-	-	-	76	383
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	321	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	799	-	-	-	74	382
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	320	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	101.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	799	-	-	-	115
HCM Lane V/C Ratio	0.007	-	-	-	0.775
HCM Control Delay (s)	9.5	0	-	-	101.8
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	4.4

Intersection	
Intersection Delay, s/veh	258
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	644	406	26	511	263	31
Future Vol, veh/h	644	406	26	511	263	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	700	441	28	555	286	34
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	421	67	24.6
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	89%	0%	5%
Vol Thru, %	0%	61%	95%
Vol Right, %	11%	39%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	294	1050	537
LT Vol	263	0	26
Through Vol	0	644	511
RT Vol	31	406	0
Lane Flow Rate	320	1141	584
Geometry Grp	1	1	1
Degree of Util (X)	0.63	1.888	0.999
Departure Headway (Hd)	8.37	5.956	7.232
Convergence, Y/N	Yes	Yes	Yes
Cap	435	616	508
Service Time	6.37	4.005	5.232
HCM Lane V/C Ratio	0.736	1.852	1.15
HCM Control Delay	24.6	421	67
HCM Lane LOS	C	F	F
HCM 95th-tile Q	4.2	72.4	13.6

Intersection	
Intersection Delay, s/veh	120.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	813	19	4	642	17	20	0	21	37	0	3
Future Vol, veh/h	1	813	19	4	642	17	20	0	21	37	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	884	21	4	698	18	22	0	23	40	0	3
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	175	65.8	11.4	11.8
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	49%	0%	0%	1%	93%
Vol Thru, %	0%	100%	0%	97%	0%
Vol Right, %	51%	0%	100%	3%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	814	19	663	40
LT Vol	20	1	0	4	37
Through Vol	0	813	0	642	0
RT Vol	21	0	19	17	3
Lane Flow Rate	45	885	21	721	43
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.086	1.336	0.027	1.028	0.088
Departure Headway (Hd)	7.641	5.435	4.726	5.526	7.999
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	472	664	748	663	451
Service Time	5.641	3.225	2.515	3.526	5.999
HCM Lane V/C Ratio	0.095	1.333	0.028	1.087	0.095
HCM Control Delay	11.4	178.9	7.6	65.8	11.8
HCM Lane LOS	B	F	A	F	B
HCM 95th-tile Q	0.3	36.3	0.1	17	0.3

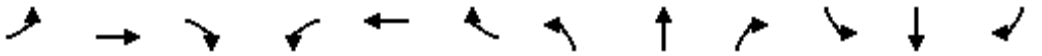
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	767	144	21	922	145	127	29	176	153	164
Future Volume (vph)	126	767	144	21	922	145	127	29	176	153	164
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	17.5	61.0	61.0	9.6	53.1	18.5	30.4	30.4	19.0	30.9	30.9
Total Split (%)	14.6%	50.8%	50.8%	8.0%	44.3%	15.4%	25.3%	25.3%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	767	144	21	922	151	145	127	29	176	153	164
Future Volume (veh/h)	126	767	144	21	922	151	145	127	29	176	153	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	834	120	23	1002	156	158	138	18	191	166	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	882	729	41	1238	193	186	417	345	219	451	375
Arrive On Green	0.09	0.46	0.46	0.02	0.40	0.40	0.10	0.22	0.22	0.12	0.24	0.24
Sat Flow, veh/h	1810	1900	1572	1810	3129	487	1810	1900	1575	1810	1900	1578
Grp Volume(v), veh/h	137	834	120	23	578	580	158	138	18	191	166	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1572	1810	1805	1810	1810	1900	1575	1810	1900	1578
Q Serve(g_s), s	8.5	47.8	5.1	1.4	32.4	32.5	9.8	7.0	1.0	11.8	8.3	6.5
Cycle Q Clear(g_c), s	8.5	47.8	5.1	1.4	32.4	32.5	9.8	7.0	1.0	11.8	8.3	6.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	882	729	41	714	716	186	417	345	219	451	375
V/C Ratio(X)	0.83	0.95	0.16	0.56	0.81	0.81	0.85	0.33	0.05	0.87	0.37	0.29
Avail Cap(c_a), veh/h	205	932	771	79	760	762	221	417	345	229	451	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	29.2	17.7	55.1	30.6	30.6	50.2	37.5	35.1	49.2	36.3	35.6
Incr Delay (d2), s/veh	17.1	17.4	0.1	4.4	6.2	6.3	19.9	2.1	0.3	26.6	2.3	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	24.9	1.8	0.7	14.8	14.9	5.4	3.4	0.4	6.9	4.1	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.1	46.6	17.8	59.5	36.8	36.9	70.1	39.6	35.4	75.8	38.6	37.6
LnGrp LOS	E	D	B	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		1091			1181			314			467	
Approach Delay, s/veh		46.1			37.3			54.7			53.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	58.0	16.3	32.5	15.0	50.2	18.4	30.4
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	55.9	13.9	25.5	12.9	48.0	14.4	25.0
Max Q Clear Time (g_c+I1), s	3.4	49.8	11.8	10.3	10.5	34.5	13.8	9.0
Green Ext Time (p_c), s	0.0	3.1	0.0	0.6	0.0	6.3	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	209.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	795	40	94	607	23	51	7	175	31	5	25
Future Vol, veh/h	18	795	40	94	607	23	51	7	175	31	5	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	864	43	102	660	25	55	8	190	34	5	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	289.9	191.7	19	14.8
HCM LOS	F	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	2%	13%	51%
Vol Thru, %	3%	93%	84%	8%
Vol Right, %	75%	5%	3%	41%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	853	724	61
LT Vol	51	18	94	31
Through Vol	7	795	607	5
RT Vol	175	40	23	25
Lane Flow Rate	253	927	787	66
Geometry Grp	1	1	1	1
Degree of Util (X)	0.486	1.585	1.352	0.149
Departure Headway (Hd)	8.371	6.665	6.971	10.049
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	433	556	527	359
Service Time	6.371	4.665	4.971	8.049
HCM Lane V/C Ratio	0.584	1.667	1.493	0.184
HCM Control Delay	19	289.9	191.7	14.8
HCM Lane LOS	C	F	F	B
HCM 95th-tile Q	2.6	46.4	31.1	0.5

Intersection	
Intersection Delay, s/veh	179
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	470	337	1	440	9	552	61	16	8	31	101
Future Vol, veh/h	162	470	337	1	440	9	552	61	16	8	31	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	171	495	355	1	463	9	581	64	17	8	33	106
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

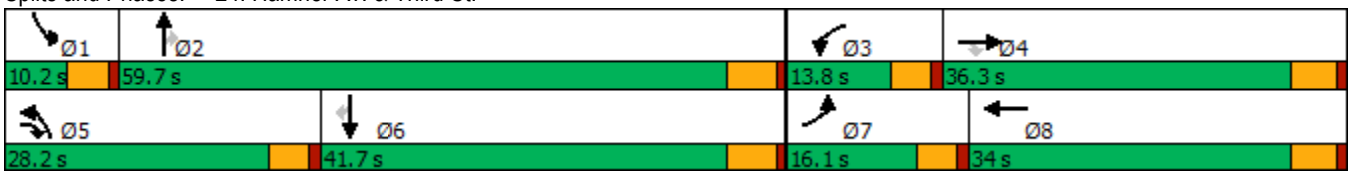
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	150.1	119.7	300.8	22.4
HCM LOS	F	F	F	C

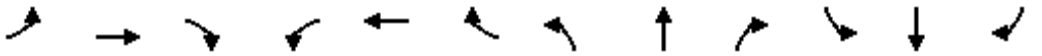
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	90%	0%	41%	0%	0%	6%
Vol Thru, %	10%	0%	59%	41%	98%	22%
Vol Right, %	0%	100%	0%	59%	2%	72%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	613	16	397	572	450	140
LT Vol	552	0	162	0	1	8
Through Vol	61	0	235	235	440	31
RT Vol	0	16	0	337	9	101
Lane Flow Rate	645	17	418	602	474	147
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.609	0.037	1	1.338	1.13	0.4
Departure Headway (Hd)	9.185	8.034	10.584	9.934	10.077	11.766
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	448	347	373	365	308
Service Time	6.885	5.734	8.284	7.634	8.077	9.766
HCM Lane V/C Ratio	1.613	0.038	1.205	1.614	1.299	0.477
HCM Control Delay	308.4	11	82.3	197.1	119.7	22.4
HCM Lane LOS	F	B	F	F	F	C
HCM 95th-tile Q	36.3	0.1	11.3	23.2	15.5	1.9

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	148	39	307	77	368	627	1386	61	31	834	552
Future Volume (vph)	148	39	307	77	368	627	1386	61	31	834	552
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	16.1	36.3	28.2	13.8	34.0	28.2	59.7	59.7	10.2	41.7	41.7
Total Split (%)	13.4%	30.3%	23.5%	11.5%	28.3%	23.5%	49.8%	49.8%	8.5%	34.8%	34.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	39	307	77	368	38	627	1386	61	31	834	552
Future Volume (veh/h)	148	39	307	77	368	38	627	1386	61	31	834	552
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	41	177	81	387	36	660	1459	42	33	878	466
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	530	766	103	410	38	691	1704	737	50	1094	485
Arrive On Green	0.10	0.28	0.28	0.06	0.24	0.24	0.20	0.47	0.47	0.03	0.30	0.30
Sat Flow, veh/h	1810	1900	1608	1810	1709	159	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	156	41	177	81	0	423	660	1459	42	33	878	466
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	10.2	1.9	7.8	5.3	0.0	26.7	22.3	42.9	1.7	2.2	26.8	34.3
Cycle Q Clear(g_c), s	10.2	1.9	7.8	5.3	0.0	26.7	22.3	42.9	1.7	2.2	26.8	34.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	530	766	103	0	448	691	1704	737	50	1094	485
V/C Ratio(X)	0.90	0.08	0.23	0.79	0.00	0.94	0.95	0.86	0.06	0.66	0.80	0.96
Avail Cap(c_a), veh/h	174	530	766	139	0	450	691	1704	737	85	1094	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	31.8	18.5	55.8	0.0	44.8	47.6	28.0	17.2	57.7	38.5	41.1
Incr Delay (d2), s/veh	39.8	0.1	0.2	13.2	0.0	28.8	23.4	5.8	0.1	5.3	6.3	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.9	2.9	2.8	0.0	15.7	11.8	18.8	0.7	1.0	12.5	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.4	31.9	18.7	69.0	0.0	73.5	71.0	33.8	17.3	63.0	44.7	73.1
LnGrp LOS	F	C	B	E	A	E	E	C	B	E	D	E
Approach Vol, veh/h		374			504			2161			1377	
Approach Delay, s/veh		51.3			72.8			44.8			54.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	62.0	11.4	38.5	28.2	41.7	16.1	33.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	5.6	54.3	9.2	31.2	23.6	36.3	11.5	28.9
Max Q Clear Time (g_c+I1), s	4.2	44.9	7.3	9.8	24.3	36.3	12.2	28.7
Green Ext Time (p_c), s	0.0	6.3	0.0	0.7	0.0	0.0	0.0	0.1

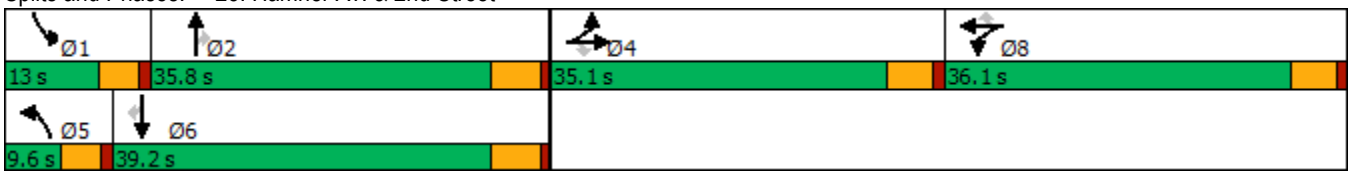
Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	597	47	587	491	806	83	994	225	324	831	217
Future Volume (vph)	268	597	47	587	491	806	83	994	225	324	831	217
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.8	35.8	13.0	39.2	39.2
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.0%	29.8%	29.8%	10.8%	32.7%	32.7%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	597	47	587	491	806	83	994	225	324	831	217
Future Volume (veh/h)	268	597	47	587	491	806	83	994	225	324	831	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	282	628	38	631	498	519	87	1046	163	341	875	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	452	950	397	935	491	410	75	915	404	127	1017	452
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.04	0.25	0.25	0.07	0.28	0.28
Sat Flow, veh/h	1810	3800	1589	3619	1900	1588	1810	3610	1595	1810	3610	1605
Grp Volume(v), veh/h	282	628	38	631	498	519	87	1046	163	341	875	186
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1588	1810	1805	1595	1810	1805	1605
Q Serve(g_s), s	16.6	17.8	2.2	18.8	31.0	31.0	5.0	30.4	10.2	8.4	27.6	11.3
Cycle Q Clear(g_c), s	16.6	17.8	2.2	18.8	31.0	31.0	5.0	30.4	10.2	8.4	27.6	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	950	397	935	491	410	75	915	404	127	1017	452
V/C Ratio(X)	0.62	0.66	0.10	0.67	1.01	1.27	1.15	1.14	0.40	2.69	0.86	0.41
Avail Cap(c_a), veh/h	452	950	397	935	491	410	75	915	404	127	1017	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	40.4	34.6	40.0	44.5	44.5	57.5	44.8	37.3	55.8	40.9	35.0
Incr Delay (d2), s/veh	6.3	3.6	0.5	1.9	44.3	137.6	151.2	77.7	0.6	783.4	7.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	8.7	0.9	8.5	20.3	27.6	5.4	23.1	4.0	31.3	13.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	44.0	35.1	41.9	88.8	182.1	208.7	122.5	37.9	839.2	48.5	35.6
LnGrp LOS	D	D	D	D	F	F	F	F	D	F	D	D
Approach Vol, veh/h		948			1648			1296			1402	
Approach Delay, s/veh		44.4			100.2			117.7			239.1	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	9.6	39.2		36.1				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	5.0	33.8		31.0				
Max Q Clear Time (g_c+I1), s	10.4	32.4		19.8	7.0	29.6		33.0				
Green Ext Time (p_c), s	0.0	0.0		3.7	0.0	2.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	131.3	
HCM 6th LOS	F	

Notes

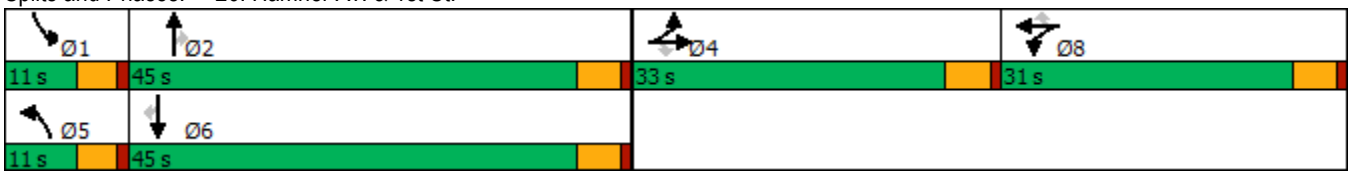
User approved volume balancing among the lanes for turning movement.

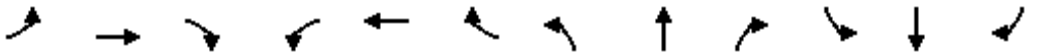
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	433	29	19	16	9	41	1024	2	21	911	338
Future Volume (vph)	433	29	19	16	9	41	1024	2	21	911	338
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	11.0	45.0	45.0	11.0	45.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	9.2%	37.5%	37.5%	9.2%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 87.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	433	29	19	11	16	9	41	1024	2	21	911	338
Future Volume (veh/h)	433	29	19	11	16	9	41	1024	2	21	911	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	483	0	11	12	17	1	44	1089	2	22	969	270
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	627	0	278	47	66	96	70	1816	791	44	1763	785
Arrive On Green	0.17	0.00	0.17	0.06	0.06	0.06	0.04	0.50	0.50	0.02	0.49	0.49
Sat Flow, veh/h	3619	0	1607	770	1091	1588	1810	3610	1572	1810	3610	1607
Grp Volume(v), veh/h	483	0	11	29	0	1	44	1089	2	22	969	270
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1861	0	1588	1810	1805	1572	1810	1805	1607
Q Serve(g_s), s	10.4	0.0	0.5	1.2	0.0	0.0	2.0	17.6	0.1	1.0	15.4	8.5
Cycle Q Clear(g_c), s	10.4	0.0	0.5	1.2	0.0	0.0	2.0	17.6	0.1	1.0	15.4	8.5
Prop In Lane	1.00		1.00	0.41		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	627	0	278	112	0	96	70	1816	791	44	1763	785
V/C Ratio(X)	0.77	0.00	0.04	0.26	0.00	0.01	0.63	0.60	0.00	0.51	0.55	0.34
Avail Cap(c_a), veh/h	1237	0	550	591	0	504	141	1816	791	141	1763	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	0.0	28.2	36.7	0.0	36.2	38.8	14.5	10.1	39.5	14.6	12.9
Incr Delay (d2), s/veh	2.0	0.0	0.1	1.2	0.0	0.0	3.4	1.5	0.0	3.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.2	0.6	0.0	0.0	0.9	6.6	0.0	0.5	5.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	0.0	28.2	37.9	0.0	36.2	42.2	16.0	10.1	42.8	15.9	14.1
LnGrp LOS	C	A	C	D	A	D	D	B	B	D	B	B
Approach Vol, veh/h		494			30			1135			1261	
Approach Delay, s/veh		34.2			37.9			17.0			16.0	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	46.2		19.2	7.8	45.0		9.9				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	6.4	40.0		28.0	6.4	40.0		26.0				
Max Q Clear Time (g_c+I1), s	3.0	19.6		12.4	4.0	17.4		3.2				
Green Ext Time (p_c), s	0.0	7.5		1.6	0.0	7.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		19.7	
HCM 6th LOS		B	

Notes

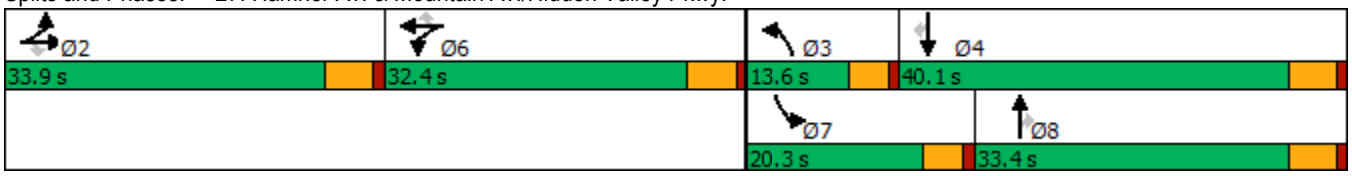
User approved volume balancing among the lanes for turning movement.

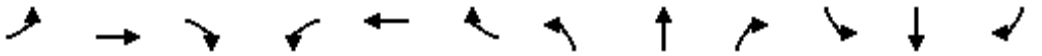
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	324	55	951	669	425	48	681	337	202	720	14
Future Volume (vph)	15	324	55	951	669	425	48	681	337	202	720	14
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 115.4
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	324	55	951	669	425	48	681	337	202	720	14
Future Volume (veh/h)	15	324	55	951	669	425	48	681	337	202	720	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	345	54	1012	712	413	51	724	238	215	766	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	465	927	413	881	462	391	66	839	368	280	996	442
Arrive On Green	0.26	0.26	0.26	0.24	0.24	0.24	0.04	0.23	0.23	0.08	0.28	0.28
Sat Flow, veh/h	1810	3610	1608	3619	1900	1608	1810	3610	1585	3510	3610	1601
Grp Volume(v), veh/h	16	345	54	1012	712	413	51	724	238	215	766	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1608	1810	1805	1585	1755	1805	1601
Q Serve(g_s), s	0.7	8.7	2.9	27.0	27.0	27.0	3.1	21.4	15.1	6.7	21.6	0.6
Cycle Q Clear(g_c), s	0.7	8.7	2.9	27.0	27.0	27.0	3.1	21.4	15.1	6.7	21.6	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	927	413	881	462	391	66	839	368	280	996	442
V/C Ratio(X)	0.03	0.37	0.13	1.15	1.54	1.06	0.77	0.86	0.65	0.77	0.77	0.02
Avail Cap(c_a), veh/h	465	927	413	881	462	391	147	911	400	497	1129	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	33.9	31.7	42.0	42.0	42.0	53.0	40.9	38.5	50.0	36.9	29.3
Incr Delay (d2), s/veh	0.1	1.1	0.7	80.3	253.6	60.8	6.9	8.1	3.2	1.7	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.9	1.2	21.4	44.8	16.9	1.5	10.1	6.0	2.9	9.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	35.0	32.4	122.3	295.6	102.8	59.9	49.0	41.6	51.7	39.8	29.3
LnGrp LOS	C	D	C	F	F	F	E	D	D	D	D	C
Approach Vol, veh/h		415			2137			1013			992	
Approach Delay, s/veh		34.5			176.3			47.8			42.3	
Approach LOS		C			F			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	8.7	36.0		32.4	13.5	31.2				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		10.7	5.1	23.6		29.0	8.7	23.4				
Green Ext Time (p_c), s		2.1	0.0	3.7		0.0	0.2	2.3				

Intersection Summary	
HCM 6th Ctrl Delay	105.6
HCM 6th LOS	F

Notes

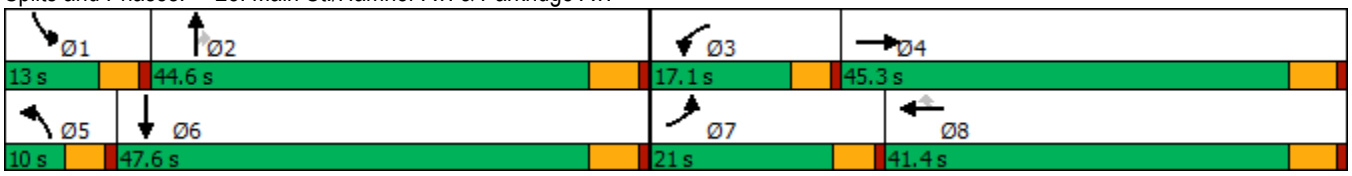
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	488	589	84	415	331	118	738	65	290	1026
Future Volume (vph)	488	589	84	415	331	118	738	65	290	1026
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	21.0	45.3	17.1	41.4	41.4	10.0	44.6	44.6	13.0	47.6
Total Split (%)	17.5%	37.8%	14.3%	34.5%	34.5%	8.3%	37.2%	37.2%	10.8%	39.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116
Natural Cycle: 145
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	488	589	84	84	415	331	118	738	65	290	1026	621
Future Volume (veh/h)	488	589	84	84	415	331	118	738	65	290	1026	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	530	640	83	91	451	234	128	802	0	315	1115	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	256	1129	146	115	522	440	84	1221		131	1889	
Arrive On Green	0.14	0.35	0.35	0.06	0.27	0.27	0.05	0.34	0.00	0.07	0.36	0.00
Sat Flow, veh/h	1810	3198	414	1810	1900	1600	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	530	361	362	91	451	234	128	802	0	315	1115	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1807	1810	1900	1600	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	16.4	18.7	18.8	5.7	26.1	14.4	5.4	21.9	0.0	8.4	20.2	0.0
Cycle Q Clear(g_c), s	16.4	18.7	18.8	5.7	26.1	14.4	5.4	21.9	0.0	8.4	20.2	0.0
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	256	637	638	115	522	440	84	1221		131	1889	
V/C Ratio(X)	2.07	0.57	0.57	0.79	0.86	0.53	1.52	0.66		2.40	0.59	
Avail Cap(c_a), veh/h	256	637	638	195	590	497	84	1221		131	1889	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	30.3	30.3	53.5	39.9	35.7	55.2	32.6	0.0	53.7	29.8	0.0
Incr Delay (d2), s/veh	494.4	1.2	1.2	4.5	11.5	1.0	284.2	2.8	0.0	653.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.4	8.1	8.1	2.7	13.5	5.6	9.1	9.7	0.0	27.6	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	544.1	31.5	31.5	58.0	51.5	36.7	339.5	35.4	0.0	706.9	31.2	0.0
LnGrp LOS	F	C	C	E	D	D	F	D		F	C	
Approach Vol, veh/h		1253			776			930	A		1430	A
Approach Delay, s/veh		248.3			47.8			77.2			180.0	
Approach LOS		F			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.6	12.0	46.3	10.0	47.6	21.0	37.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	8.4	39.2	12.5	39.9	5.4	42.2	16.4	36.0
Max Q Clear Time (g_c+I1), s	10.4	23.9	7.7	20.8	7.4	22.2	18.4	28.1
Green Ext Time (p_c), s	0.0	4.6	0.0	4.1	0.0	7.5	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	154.4
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	579	342	1295	1	487
Future Volume (vph)	579	342	1295	1	487
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	64.0	22.0	86.0	34.0	34.0
Total Split (%)	53.3%	18.3%	71.7%	28.3%	28.3%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	579	647	342	1295	0	0	0	0	78	1	487
Future Volume (veh/h)	0	579	647	342	1295	0	0	0	0	78	1	487
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	603	606	356	1349	0				81	1	476
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	893	769	264	2449	0				428	5	385
Arrive On Green	0.00	0.50	0.50	0.15	0.68	0.00				0.24	0.24	0.24
Sat Flow, veh/h	0	1900	1554	1810	3705	0				1788	22	1610
Grp Volume(v), veh/h	0	603	606	356	1349	0				82	0	476
Grp Sat Flow(s),veh/h/ln	0	1805	1554	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	30.4	38.7	17.5	23.0	0.0				4.3	0.0	28.7
Cycle Q Clear(g_c), s	0.0	30.4	38.7	17.5	23.0	0.0				4.3	0.0	28.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	893	769	264	2449	0				433	0	385
V/C Ratio(X)	0.00	0.67	0.79	1.35	0.55	0.00				0.19	0.00	1.24
Avail Cap(c_a), veh/h	0	893	769	264	2449	0				433	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.61	0.61	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.0	25.1	51.3	9.9	0.0				36.4	0.0	45.7
Incr Delay (d2), s/veh	0.0	0.4	0.8	171.8	0.5	0.0				0.1	0.0	126.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.5	13.8	20.4	8.4	0.0				1.9	0.0	24.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.4	25.9	223.0	10.5	0.0				36.5	0.0	172.4
LnGrp LOS	A	C	C	F	B	A				D	A	F
Approach Vol, veh/h		1209			1705						558	
Approach Delay, s/veh		24.6			54.8						152.4	
Approach LOS		C			D						F	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	64.0		34.0		86.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	17.5	59.4		28.7		81.4
Max Q Clear Time (g_c+I1), s	19.5	40.7		30.7		25.0
Green Ext Time (p_c), s	0.0	5.6		0.0		8.5

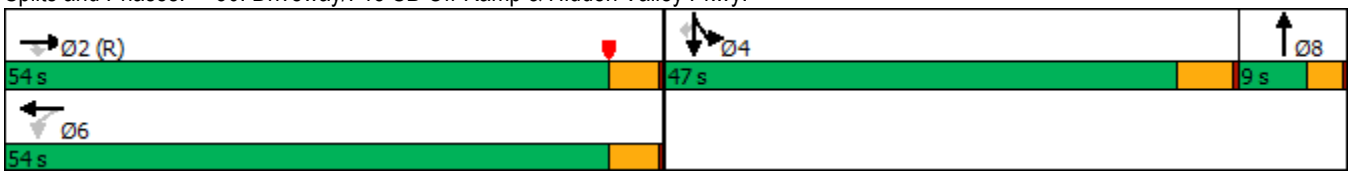
Intersection Summary		
HCM 6th Ctrl Delay		60.0
HCM 6th LOS		E

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	841	29	99	1041	0	283	86	897
Future Volume (vph)	841	29	99	1041	0	283	86	897
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	54.0	54.0	54.0	54.0	9.0	47.0	47.0	47.0
Total Split (%)	49.1%	49.1%	49.1%	49.1%	8.2%	42.7%	42.7%	42.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	841	29	99	1041	0	0	0	104	283	86	897
Future Volume (veh/h)	0	841	29	99	1041	0	0	0	104	283	86	897
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	885	23	104	1096	0	0	0	65	229	0	971
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1624	725	235	1624	0	0	0	81	691	0	1230
Arrive On Green	0.00	0.45	0.45	0.90	0.90	0.00	0.00	0.00	0.05	0.38	0.00	0.38
Sat Flow, veh/h	0	3705	1610	624	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	885	23	104	1096	0	0	0	65	229	0	971
Grp Sat Flow(s),veh/h/ln	0	1805	1610	624	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	19.6	0.9	12.6	8.5	0.0	0.0	0.0	4.4	9.9	0.0	29.4
Cycle Q Clear(g_c), s	0.0	19.6	0.9	32.2	8.5	0.0	0.0	0.0	4.4	9.9	0.0	29.4
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1625	725	235	1625	0	0	0	81	691	0	1230
V/C Ratio(X)	0.00	0.54	0.03	0.44	0.67	0.00	0.00	0.00	0.81	0.33	0.00	0.79
Avail Cap(c_a), veh/h	0	1625	725	235	1625	0	0	0	81	691	0	1230
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.95	0.95	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.0	16.9	11.4	3.5	0.0	0.0	0.0	51.7	24.1	0.0	30.1
Incr Delay (d2), s/veh	0.0	1.1	0.1	0.5	0.9	0.0	0.0	0.0	41.1	1.3	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.1	0.3	1.2	1.6	0.0	0.0	0.0	2.7	4.3	0.0	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.2	16.9	11.8	4.3	0.0	0.0	0.0	92.8	25.3	0.0	35.3
LnGrp LOS	A	C	B	B	A	A	A	A	F	C	A	D
Approach Vol, veh/h		908			1200			65			1200	
Approach Delay, s/veh		23.0			5.0			92.8			33.4	
Approach LOS		C			A			F			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.0		47.0		54.0		9.0				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		49.5		42.0		49.5		5.5				
Max Q Clear Time (g_c+I1), s		21.6		31.4		34.2		6.4				
Green Ext Time (p_c), s		4.1		3.0		5.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

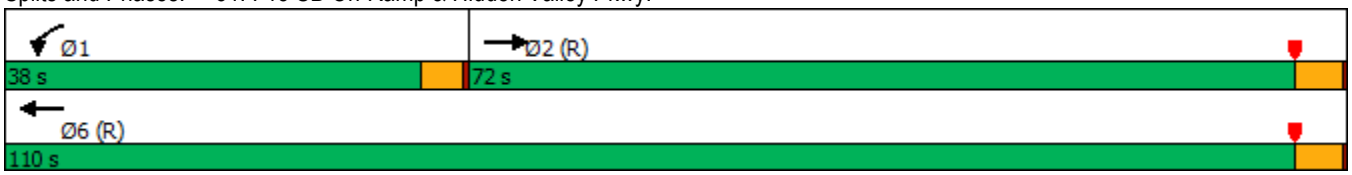
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	792	253	1141
Future Volume (vph)	792	253	1141
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	72.0	38.0	110.0
Total Split (%)	65.5%	34.5%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	792	436	253	1141	0	0
Future Volume (veh/h)	792	436	253	1141	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	861	472	275	1240		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1387	751	559	3462		
Arrive On Green	1.00	1.00	0.62	1.00		
Sat Flow, veh/h	2356	1224	1810	3705		
Grp Volume(v), veh/h	685	648	275	1240		
Grp Sat Flow(s),veh/h/ln	1805	1680	1810	1805		
Q Serve(g_s), s	0.0	0.0	9.2	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	9.2	0.0		
Prop In Lane		0.73	1.00			
Lane Grp Cap(c), veh/h	1108	1031	559	3462		
V/C Ratio(X)	0.62	0.63	0.49	0.36		
Avail Cap(c_a), veh/h	1108	1031	559	3462		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.85	0.85	0.79	0.79		
Uniform Delay (d), s/veh	0.0	0.0	16.3	0.0		
Incr Delay (d2), s/veh	2.2	2.5	2.4	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	0.7	3.3	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.2	2.5	18.7	0.2		
LnGrp LOS	A	A	B	A		
Approach Vol, veh/h	1333			1515		
Approach Delay, s/veh	2.3			3.6		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	38.0	72.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	34.0	67.5				105.5
Max Q Clear Time (g_c+I1), s	11.2	2.0				2.0
Green Ext Time (p_c), s	0.8	6.9				6.9

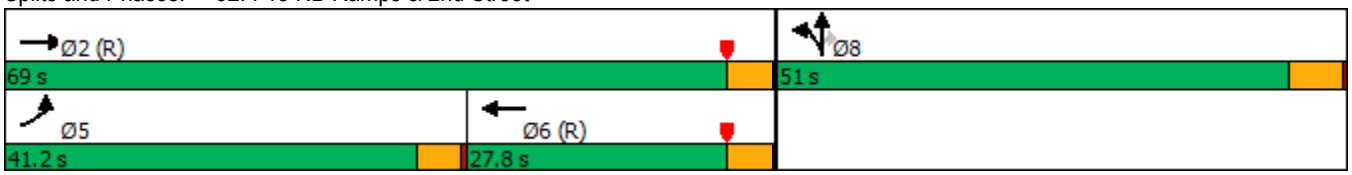
Intersection Summary	
HCM 6th Ctrl Delay	3.0
HCM 6th LOS	A

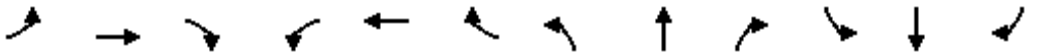
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	197	460	723	11	683
Future Volume (vph)	197	460	723	11	683
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	41.2	69.0	27.8	51.0	51.0
Total Split (%)	34.3%	57.5%	23.2%	42.5%	42.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





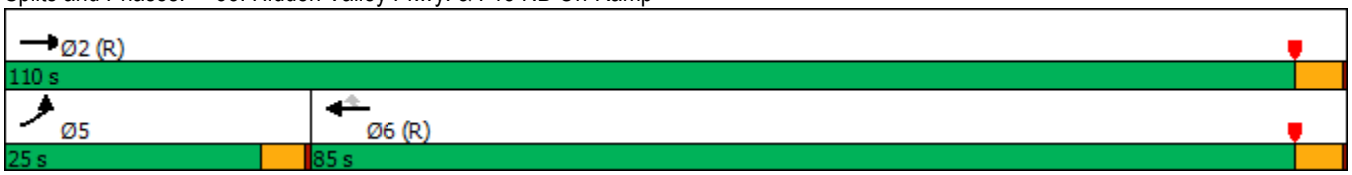
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	460	0	0	723	99	908	11	683	0	0	0
Future Volume (veh/h)	197	460	0	0	723	99	908	11	683	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	212	495	0	0	777	95	976	12	588			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	247	1937	0	0	1171	143	681	8	613			
Arrive On Green	0.04	0.18	0.00	0.00	0.36	0.36	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	3323	395	1789	22	1610			
Grp Volume(v), veh/h	212	495	0	0	434	438	988	0	588			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1817	1811	0	1610			
Q Serve(g_s), s	14.0	14.2	0.0	0.0	24.2	24.2	45.7	0.0	42.7			
Cycle Q Clear(g_c), s	14.0	14.2	0.0	0.0	24.2	24.2	45.7	0.0	42.7			
Prop In Lane	1.00		0.00	0.00		0.22	0.99		1.00			
Lane Grp Cap(c), veh/h	247	1937	0	0	655	659	690	0	613			
V/C Ratio(X)	0.86	0.26	0.00	0.00	0.66	0.66	1.43	0.00	0.96			
Avail Cap(c_a), veh/h	553	1937	0	0	655	659	690	0	613			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.63	0.63	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	56.2	28.7	0.0	0.0	32.1	32.1	37.2	0.0	36.2			
Incr Delay (d2), s/veh	4.2	0.2	0.0	0.0	5.2	5.2	203.1	0.0	26.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.1	6.9	0.0	0.0	11.3	11.4	57.9	0.0	20.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	28.9	0.0	0.0	37.3	37.3	240.2	0.0	62.5			
LnGrp LOS	E	C	A	A	D	D	F	A	E			
Approach Vol, veh/h		707			872			1576				
Approach Delay, s/veh		38.4			37.3			173.9				
Approach LOS		D			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.0			20.9	48.1		51.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		64.4			36.7	23.2		45.7				
Max Q Clear Time (g_c+I1), s		16.2			16.0	26.2		47.7				
Green Ext Time (p_c), s		2.2			0.4	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			105.8									
HCM 6th LOS			F									

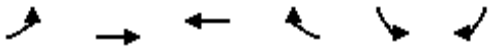
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	253	533	1398	636
Future Volume (vph)	253	533	1398	636
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	25.0	110.0	85.0	85.0
Total Split (%)	22.7%	100.0%	77.3%	77.3%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	253	533	1398	636	0	0
Future Volume (veh/h)	253	533	1398	636	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	138	579	1520	668		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	345	3462	2642	1154		
Arrive On Green	0.38	1.00	0.73	0.73		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	138	579	1520	668		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	6.1	0.0	21.5	21.7		
Cycle Q Clear(g_c), s	6.1	0.0	21.5	21.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	345	3462	2642	1154		
V/C Ratio(X)	0.40	0.17	0.58	0.58		
Avail Cap(c_a), veh/h	345	3462	2642	1154		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.75	0.75	0.19	0.19		
Uniform Delay (d), s/veh	29.4	0.0	6.8	6.9		
Incr Delay (d2), s/veh	2.6	0.1	0.2	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	0.0	6.4	5.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.0	0.1	7.0	7.3		
LnGrp LOS	C	A	A	A		
Approach Vol, veh/h		717	2188			
Approach Delay, s/veh		6.2	7.1			
Approach LOS		A	A			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		110.0			25.0	85.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		105.5			21.0	80.5
Max Q Clear Time (g_c+I1), s		2.0			8.1	23.7
Green Ext Time (p_c), s		2.5			0.1	12.8

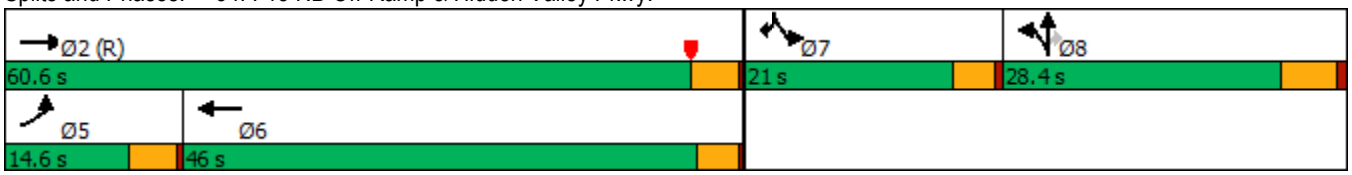
Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

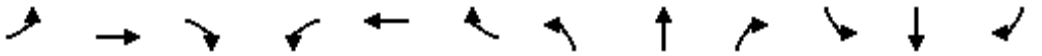
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	92	440	1187	627	103	209	49	218
Future Volume (vph)	92	440	1187	627	103	209	49	218
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	60.6	46.0	28.4	28.4	28.4	21.0	21.0
Total Split (%)	13.3%	55.1%	41.8%	25.8%	25.8%	25.8%	19.1%	19.1%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	440	0	0	1187	40	627	103	209	49	0	218
Future Volume (veh/h)	92	440	0	0	1187	40	627	103	209	49	0	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	100	478	0	0	1290	40	682	112	122	53	0	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	2530	0	0	2049	64	731	396	335	0	0	0
Arrive On Green	0.03	0.23	0.00	0.00	0.57	0.57	0.21	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3669	111	3510	1900	1610		0	
Grp Volume(v), veh/h	100	478	0	0	651	679	682	112	122		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1880	1755	1900	1610			
Q Serve(g_s), s	6.0	11.7	0.0	0.0	26.5	26.5	21.0	5.5	7.1			
Cycle Q Clear(g_c), s	6.0	11.7	0.0	0.0	26.5	26.5	21.0	5.5	7.1			
Prop In Lane	1.00		0.00	0.00		0.06	1.00		1.00			
Lane Grp Cap(c), veh/h	157	2530	0	0	1035	1078	731	396	335			
V/C Ratio(X)	0.64	0.19	0.00	0.00	0.63	0.63	0.93	0.28	0.36			
Avail Cap(c_a), veh/h	166	2530	0	0	1035	1078	731	396	335			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.7	17.1	0.0	0.0	15.7	15.7	42.8	36.6	37.3			
Incr Delay (d2), s/veh	6.4	0.2	0.0	0.0	2.9	2.8	20.5	1.8	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	5.4	0.0	0.0	10.5	10.9	10.8	2.7	3.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	17.3	0.0	0.0	18.6	18.5	63.3	38.4	40.4			
LnGrp LOS	E	B	A	A	B	B	E	D	D			
Approach Vol, veh/h		578			1330			916				
Approach Delay, s/veh		24.4			18.5			57.2				
Approach LOS		C			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.6			14.0	67.6		28.4				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.1			10.1	* 42		22.9				
Max Q Clear Time (g_c+I1), s		13.7			8.0	28.5		23.0				
Green Ext Time (p_c), s		2.0			0.0	4.6		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

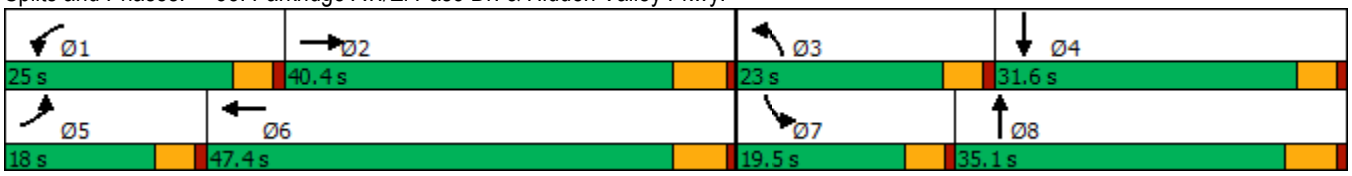
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	328	159	878	179	185	101	157
Future Volume (vph)	116	328	159	878	179	185	101	157
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	40.4	25.0	47.4	23.0	35.1	19.5	31.6
Total Split (%)	15.0%	33.7%	20.8%	39.5%	19.2%	29.3%	16.3%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	328	73	159	878	146	179	185	201	101	157	66
Future Volume (veh/h)	116	328	73	159	878	146	179	185	201	101	157	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	357	53	173	954	108	195	201	159	110	171	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	975	143	205	1099	124	227	596	445	138	684	220
Arrive On Green	0.09	0.31	0.31	0.11	0.34	0.34	0.13	0.30	0.30	0.08	0.26	0.26
Sat Flow, veh/h	1810	3157	465	1810	3268	370	1810	1955	1460	1810	2674	859
Grp Volume(v), veh/h	126	203	207	173	527	535	195	185	175	110	113	115
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1833	1810	1805	1610	1810	1805	1728
Q Serve(g_s), s	7.2	9.2	9.4	9.9	28.9	28.9	11.2	8.4	9.0	6.3	5.3	5.6
Cycle Q Clear(g_c), s	7.2	9.2	9.4	9.9	28.9	28.9	11.2	8.4	9.0	6.3	5.3	5.6
Prop In Lane	1.00		0.26	1.00		0.20	1.00		0.91	1.00		0.50
Lane Grp Cap(c), veh/h	155	557	561	205	607	617	227	550	491	138	462	442
V/C Ratio(X)	0.81	0.36	0.37	0.84	0.87	0.87	0.86	0.34	0.36	0.80	0.25	0.26
Avail Cap(c_a), veh/h	230	591	595	350	711	722	315	550	491	255	462	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	28.4	28.5	45.9	32.8	32.8	45.3	28.4	28.6	48.0	31.2	31.3
Incr Delay (d2), s/veh	7.8	0.4	0.4	3.6	9.9	9.8	12.2	1.6	2.0	4.0	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.9	4.0	4.5	13.5	13.7	5.6	3.7	3.6	3.0	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	28.8	28.9	49.5	42.7	42.6	57.5	30.1	30.7	51.9	32.5	32.7
LnGrp LOS	E	C	C	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		536			1235			555			338	
Approach Delay, s/veh		35.1			43.6			39.9			38.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	38.4	17.8	32.8	13.6	41.3	12.6	38.0
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	34.6	18.4	* 27	13.4	41.6	14.9	29.3
Max Q Clear Time (g_c+I1), s	11.9	11.4	13.2	7.6	9.2	30.9	8.3	11.0
Green Ext Time (p_c), s	0.1	2.1	0.1	1.3	0.1	4.6	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

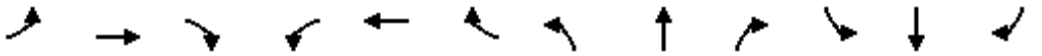
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	117	44	117	44	250	1387	87	1279	292
Future Volume (vph)	367	136	117	44	117	44	250	1387	87	1279	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	12.0	32.6	16.0	11.5	32.1	32.1	16.0	61.1	14.8	59.9	12.0
Total Split (%)	10.0%	27.2%	13.3%	9.6%	26.8%	26.8%	13.3%	50.9%	12.3%	49.9%	10.0%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	117	44	117	44	250	1387	76	87	1279	292
Future Volume (veh/h)	367	136	117	44	117	44	250	1387	76	87	1279	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	77	44	118	28	253	1401	66	88	1292	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	255	394	63	184	156	200	2012	95	112	1896	943
Arrive On Green	0.07	0.13	0.13	0.03	0.10	0.10	0.11	0.57	0.57	0.06	0.53	0.53
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3506	165	1810	3610	1576
Grp Volume(v), veh/h	371	137	77	44	118	28	253	720	747	88	1292	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1866	1810	1805	1576
Q Serve(g_s), s	7.4	6.9	3.9	2.5	6.2	1.6	11.4	29.1	29.3	4.9	27.3	6.0
Cycle Q Clear(g_c), s	7.4	6.9	3.9	2.5	6.2	1.6	11.4	29.1	29.3	4.9	27.3	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	252	255	394	63	184	156	200	1036	1071	112	1896	943
V/C Ratio(X)	1.47	0.54	0.20	0.70	0.64	0.18	1.26	0.69	0.70	0.78	0.68	0.21
Avail Cap(c_a), veh/h	252	507	608	121	498	422	200	1036	1071	179	1896	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	41.6	30.8	49.2	44.8	42.7	45.8	15.6	15.6	47.6	18.1	9.6
Incr Delay (d2), s/veh	232.3	1.8	0.2	5.2	3.7	0.5	152.1	3.8	3.8	4.4	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	3.3	1.5	1.2	3.0	0.7	13.4	11.4	11.9	2.3	10.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	280.1	43.4	31.1	54.3	48.4	43.3	197.9	19.4	19.4	52.0	20.1	10.1
LnGrp LOS	F	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		585			190			1720			1578	
Approach Delay, s/veh		191.9			49.0			45.6			20.6	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	64.9	8.2	18.9	16.0	59.9	12.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.2	55.3	6.9	27.5	11.4	54.1	7.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	31.3	4.5	8.9	13.4	29.3	9.4	8.2
Green Ext Time (p_c), s	0.0	10.6	0.0	0.8	0.0	10.7	0.0	0.6

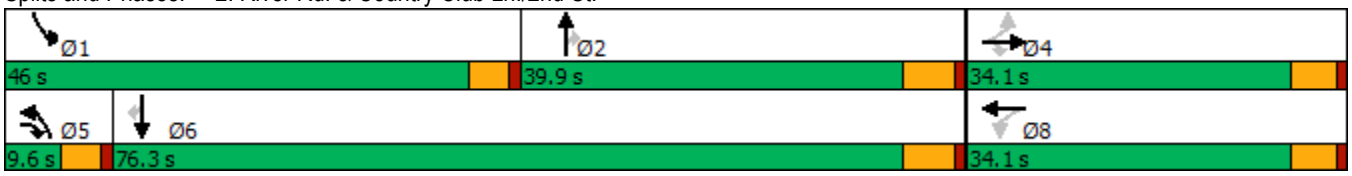
Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

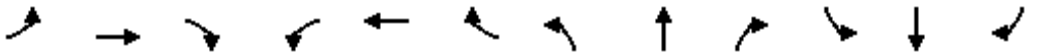
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	62	52	86	88	48	1147	100	380	1057	38
Future Volume (vph)	25	62	52	86	88	48	1147	100	380	1057	38
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	34.1	34.1	9.6	34.1	34.1	9.6	39.9	39.9	46.0	76.3	76.3
Total Split (%)	28.4%	28.4%	8.0%	28.4%	28.4%	8.0%	33.3%	33.3%	38.3%	63.6%	63.6%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	62	52	86	88	426	48	1147	100	380	1057	38
Future Volume (veh/h)	25	62	52	86	88	426	48	1147	100	380	1057	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	65	30	91	93	359	51	1207	73	400	1113	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	462	449	346	81	314	66	1407	628	429	2132	931
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.39	0.39	0.24	0.59	0.59
Sat Flow, veh/h	954	1900	1608	1320	335	1292	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	26	65	30	91	0	452	51	1207	73	400	1113	35
Grp Sat Flow(s),veh/h/ln	954	1900	1608	1320	0	1627	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	0.0	3.2	1.6	6.9	0.0	29.0	3.3	36.6	3.5	25.8	21.8	1.1
Cycle Q Clear(g_c), s	29.0	3.2	1.6	10.1	0.0	29.0	3.3	36.6	3.5	25.8	21.8	1.1
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	462	449	346	0	395	66	1407	628	429	2132	931
V/C Ratio(X)	0.43	0.14	0.07	0.26	0.00	1.14	0.77	0.86	0.12	0.93	0.52	0.04
Avail Cap(c_a), veh/h	60	462	449	346	0	395	76	1407	628	628	2132	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	35.4	31.6	39.4	0.0	45.2	57.0	33.4	23.3	44.6	14.5	10.2
Incr Delay (d2), s/veh	4.8	0.1	0.1	0.4	0.0	90.4	28.8	6.9	0.4	13.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.5	0.6	2.3	0.0	21.4	2.0	16.5	1.3	12.7	8.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	35.5	31.6	39.8	0.0	135.6	85.9	40.3	23.6	57.8	15.4	10.3
LnGrp LOS	E	D	C	D	A	F	F	D	C	E	B	B
Approach Vol, veh/h		121			543			1331			1548	
Approach Delay, s/veh		40.8			119.6			41.1			26.2	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.9	52.3		34.1	9.0	76.3		34.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	41.4	34.1		29.0	5.0	70.5		29.0				
Max Q Clear Time (g_c+I1), s	27.8	38.6		31.0	5.3	23.8		31.0				
Green Ext Time (p_c), s	0.5	0.0		0.0	0.0	9.5		0.0				

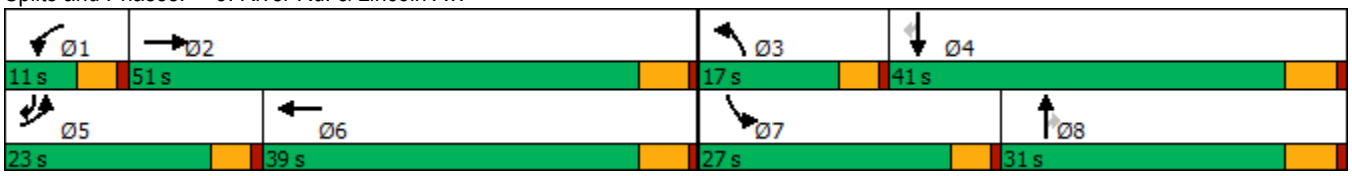
Intersection Summary			
HCM 6th Ctrl Delay		46.6	
HCM 6th LOS		D	

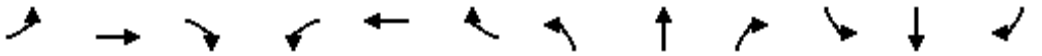
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	383	869	47	501	85	560	54	232	567	344
Future Volume (vph)	383	869	47	501	85	560	54	232	567	344
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	23.0	51.0	11.0	39.0	17.0	31.0	31.0	27.0	41.0	23.0
Total Split (%)	19.2%	42.5%	9.2%	32.5%	14.2%	25.8%	25.8%	22.5%	34.2%	19.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	869	141	47	501	226	85	560	54	232	567	344
Future Volume (veh/h)	383	869	141	47	501	226	85	560	54	232	567	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	399	905	120	49	522	190	89	583	37	242	591	259
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	468	1369	182	65	858	311	114	697	306	274	1017	659
Arrive On Green	0.13	0.43	0.43	0.04	0.33	0.33	0.06	0.19	0.19	0.15	0.28	0.28
Sat Flow, veh/h	3510	3198	424	1810	2595	940	1810	3610	1587	1810	3610	1576
Grp Volume(v), veh/h	399	511	514	49	362	350	89	583	37	242	591	259
Grp Sat Flow(s),veh/h/ln	1755	1805	1817	1810	1805	1731	1810	1805	1587	1810	1805	1576
Q Serve(g_s), s	11.8	24.0	24.0	2.9	17.9	18.0	5.2	16.6	2.1	14.0	15.0	12.3
Cycle Q Clear(g_c), s	11.8	24.0	24.0	2.9	17.9	18.0	5.2	16.6	2.1	14.0	15.0	12.3
Prop In Lane	1.00		0.23	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	773	778	65	597	572	114	697	306	274	1017	659
V/C Ratio(X)	0.85	0.66	0.66	0.75	0.61	0.61	0.78	0.84	0.12	0.88	0.58	0.39
Avail Cap(c_a), veh/h	606	773	778	109	597	572	211	854	375	381	1193	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	24.3	24.3	50.9	29.8	29.9	49.2	41.4	35.5	44.3	32.9	21.8
Incr Delay (d2), s/veh	7.4	4.4	4.4	6.4	4.5	4.8	4.4	6.1	0.2	13.2	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	10.6	10.7	1.4	8.2	8.0	2.4	7.6	0.8	7.0	6.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	28.7	28.7	57.3	34.4	34.7	53.6	47.5	35.7	57.4	33.4	22.2
LnGrp LOS	D	C	C	E	C	C	D	D	D	E	C	C
Approach Vol, veh/h		1424			761			709			1092	
Approach Delay, s/veh		35.4			36.0			47.6			36.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	51.0	11.3	35.8	18.8	40.6	20.7	26.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.4	45.6	12.4	35.2	18.4	33.6	22.4	25.2
Max Q Clear Time (g_c+I1), s	4.9	26.0	7.2	17.0	13.8	20.0	16.0	18.6
Green Ext Time (p_c), s	0.0	6.3	0.0	4.3	0.4	3.5	0.2	2.0

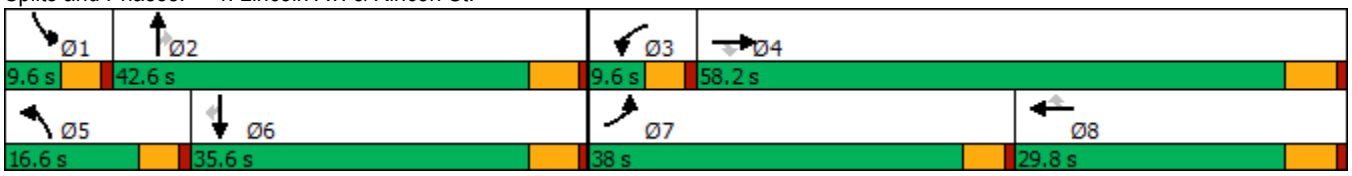
Intersection Summary	
HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

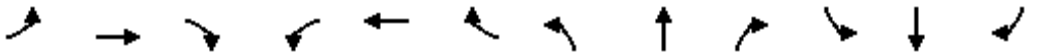
Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	469	4	288	8	11	158	1047	2	2	780	121
Future Volume (vph)	469	4	288	8	11	158	1047	2	2	780	121
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	38.0	58.2	58.2	9.6	29.8	16.6	42.6	42.6	9.6	35.6	35.6
Total Split (%)	31.7%	48.5%	48.5%	8.0%	24.8%	13.8%	35.5%	35.5%	8.0%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 96.9
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	4	288	8	0	11	158	1047	2	2	780	121
Future Volume (veh/h)	469	4	288	8	0	11	158	1047	2	2	780	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	489	4	214	8	0	4	165	1091	1	2	812	106
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	717	607	18	189	160	196	1468	654	5	1087	485
Arrive On Green	0.29	0.38	0.38	0.01	0.00	0.10	0.11	0.41	0.41	0.00	0.30	0.30
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	489	4	214	8	0	4	165	1091	1	2	812	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	26.5	0.1	9.6	0.4	0.0	0.2	9.0	25.8	0.0	0.1	20.4	4.9
Cycle Q Clear(g_c), s	26.5	0.1	9.6	0.4	0.0	0.2	9.0	25.8	0.0	0.1	20.4	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	717	607	18	189	160	196	1468	654	5	1087	485
V/C Ratio(X)	0.94	0.01	0.35	0.44	0.00	0.02	0.84	0.74	0.00	0.41	0.75	0.22
Avail Cap(c_a), veh/h	602	992	841	90	454	385	216	1468	654	90	1087	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	19.5	22.4	49.4	0.0	40.8	43.9	25.3	17.7	50.0	31.6	26.2
Incr Delay (d2), s/veh	20.1	0.0	0.3	6.2	0.0	0.1	21.0	3.4	0.0	19.1	4.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	0.1	3.5	0.2	0.0	0.1	5.0	11.0	0.0	0.1	9.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	19.5	22.8	55.6	0.0	40.8	64.9	28.7	17.7	69.0	36.3	27.3
LnGrp LOS	E	B	C	E	A	D	E	C	B	E	D	C
Approach Vol, veh/h		707			12			1257			920	
Approach Delay, s/veh		45.1			50.7			33.5			35.4	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	46.2	5.6	43.7	15.5	35.6	33.5	15.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	37.2	5.0	52.4	12.0	30.2	33.4	24.0
Max Q Clear Time (g_c+I1), s	2.1	27.8	2.4	11.6	11.0	22.4	28.5	2.2
Green Ext Time (p_c), s	0.0	4.8	0.0	0.7	0.0	3.4	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	105	577	129	86	112	881	135	108	871	22
Future Volume (vph)	105	577	129	86	112	881	135	108	871	22
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	10.0	35.1	16.9	42.0	29.0	42.8	16.9	25.2	39.0	39.0
Total Split (%)	8.3%	29.3%	14.1%	35.0%	24.2%	35.7%	14.1%	21.0%	32.5%	32.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	577	249	129	86	95	112	881	135	108	871	22
Future Volume (veh/h)	105	577	249	129	86	95	112	881	135	108	871	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	113	620	228	139	92	62	120	947	112	116	937	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	692	254	169	662	412	150	1311	734	145	1301	578
Arrive On Green	0.05	0.27	0.27	0.09	0.31	0.31	0.08	0.36	0.36	0.08	0.36	0.36
Sat Flow, veh/h	1810	2573	945	1810	2135	1329	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	113	435	413	139	77	77	120	947	112	116	937	24
Grp Sat Flow(s),veh/h/ln	1810	1805	1713	1810	1805	1659	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	5.4	23.9	23.9	7.8	3.2	3.5	6.7	23.3	4.2	6.5	23.1	1.0
Cycle Q Clear(g_c), s	5.4	23.9	23.9	7.8	3.2	3.5	6.7	23.3	4.2	6.5	23.1	1.0
Prop In Lane	1.00		0.55	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	486	461	169	560	514	150	1311	734	145	1301	578
V/C Ratio(X)	1.19	0.90	0.90	0.82	0.14	0.15	0.80	0.72	0.15	0.80	0.72	0.04
Avail Cap(c_a), veh/h	95	520	494	216	641	589	429	1311	734	362	1301	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	36.3	36.3	45.9	25.6	25.7	46.4	28.3	16.4	46.5	28.5	21.4
Incr Delay (d2), s/veh	152.7	17.2	18.1	14.3	0.1	0.1	3.7	3.5	0.4	3.8	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	12.4	11.9	4.1	1.3	1.3	3.1	10.2	1.6	3.0	10.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	201.5	53.5	54.4	60.2	25.7	25.9	50.1	31.8	16.8	50.3	31.9	21.5
LnGrp LOS	F	D	D	E	C	C	D	C	B	D	C	C
Approach Vol, veh/h		961			293			1179			1077	
Approach Delay, s/veh		71.3			42.1			32.2			33.7	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	42.8	14.2	33.1	13.1	42.5	10.0	37.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.6	37.4	12.3	29.7	24.4	33.6	5.4	36.6
Max Q Clear Time (g_c+I1), s	8.5	25.3	9.8	25.9	8.7	25.1	7.4	5.5
Green Ext Time (p_c), s	0.1	5.2	0.0	1.8	0.1	3.9	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	44.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	91	44	261	174	27	115	971	68	1097
Future Volume (vph)	91	44	261	174	27	115	971	68	1097
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	44.0	9.8	26.3	44.0	69.3	14.8	40.1
Total Split (%)	8.0%	21.8%	36.7%	8.2%	21.9%	36.7%	57.8%	12.3%	33.4%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.3
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	44	261	174	27	33	115	971	122	68	1097	46
Future Volume (veh/h)	91	44	261	174	27	33	115	971	122	68	1097	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	46	215	181	28	29	120	1011	113	71	1143	47
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	276	362	290	126	130	149	1892	211	92	1935	80
Arrive On Green	0.05	0.15	0.15	0.05	0.15	0.15	0.08	0.58	0.58	0.05	0.55	0.55
Sat Flow, veh/h	1810	1900	1582	1810	855	886	1810	3265	365	1810	3533	145
Grp Volume(v), veh/h	95	46	215	181	0	57	120	559	565	71	584	606
Grp Sat Flow(s),veh/h/ln	1810	1900	1582	1810	0	1741	1810	1805	1824	1810	1805	1873
Q Serve(g_s), s	5.0	2.3	13.5	5.2	0.0	3.2	7.2	20.9	20.9	4.3	23.9	24.0
Cycle Q Clear(g_c), s	5.0	2.3	13.5	5.2	0.0	3.2	7.2	20.9	20.9	4.3	23.9	24.0
Prop In Lane	1.00		1.00	1.00		0.51	1.00		0.20	1.00		0.08
Lane Grp Cap(c), veh/h	308	276	362	290	0	256	149	1046	1057	92	989	1026
V/C Ratio(X)	0.31	0.17	0.59	0.62	0.00	0.22	0.80	0.53	0.53	0.78	0.59	0.59
Avail Cap(c_a), veh/h	308	360	433	290	0	333	644	1046	1057	167	989	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	41.5	38.3	41.9	0.0	41.7	49.9	14.2	14.2	52.0	16.7	16.7
Incr Delay (d2), s/veh	0.2	0.3	1.6	3.1	0.0	0.4	3.8	2.0	1.9	5.2	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.1	5.3	2.3	0.0	1.4	3.4	8.5	8.6	2.0	9.8	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	41.8	39.8	45.0	0.0	42.1	53.7	16.1	16.1	57.1	19.3	19.2
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	B	B
Approach Vol, veh/h		356			238			1244			1261	
Approach Delay, s/veh		39.7			44.3			19.8			21.4	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	69.6	9.8	21.2	13.7	66.1	9.6	21.4
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	10.2	* 64	5.2	21.0	39.4	34.7	5.0	21.2
Max Q Clear Time (g_c+I1), s	6.3	22.9	7.2	15.5	9.2	26.0	7.0	5.2
Green Ext Time (p_c), s	0.0	9.2	0.0	0.4	0.1	4.7	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

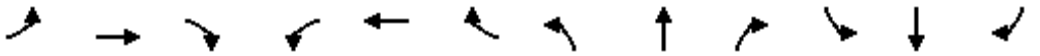
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	813	3	396	315	810	1190
Future Volume (vph)	813	3	396	315	810	1190
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	26.6	26.6	26.6	12.6	58.4	45.8
Total Split (%)	31.3%	31.3%	31.3%	14.8%	68.7%	53.9%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	813	3	396	315	810	0	0	1190	479
Future Volume (veh/h)	0	0	0	813	3	396	315	810	0	0	1190	479
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				832	0	284	321	827	0	0	1214	489
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				898	0	399	355	2268	0	0	1219	472
Arrive On Green				0.25	0.00	0.25	0.20	1.00	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2635	984
Grp Volume(v), veh/h				832	0	284	321	827	0	0	849	854
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1719
Q Serve(g_s), s				19.1	0.0	13.7	7.6	0.0	0.0	0.0	39.2	40.8
Cycle Q Clear(g_c), s				19.1	0.0	13.7	7.6	0.0	0.0	0.0	39.2	40.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.57
Lane Grp Cap(c), veh/h				898	0	399	355	2268	0	0	867	825
V/C Ratio(X)				0.93	0.00	0.71	0.90	0.36	0.00	0.00	0.98	1.04
Avail Cap(c_a), veh/h				898	0	400	355	2268	0	0	867	825
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.00	0.00	0.72	0.72
Uniform Delay (d), s/veh				31.2	0.0	29.2	33.5	0.0	0.0	0.0	21.7	22.1
Incr Delay (d2), s/veh				15.0	0.0	5.0	17.6	0.3	0.0	0.0	21.5	36.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	0.0	5.6	3.7	0.1	0.0	0.0	19.8	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.2	0.0	34.2	51.1	0.3	0.0	0.0	43.1	58.2
LnGrp LOS				D	A	C	D	A	A	A	D	F
Approach Vol, veh/h					1116			1148			1703	
Approach Delay, s/veh					43.2			14.5			50.7	
Approach LOS					D			B			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	58.4		12.6	45.8		26.6						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	53.4		8.6	40.8		21.1						
Max Q Clear Time (g_c+I1), s	2.0		9.6	42.8		21.1						
Green Ext Time (p_c), s	4.1		0.0	0.0		0.0						

Intersection Summary	
HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

Notes

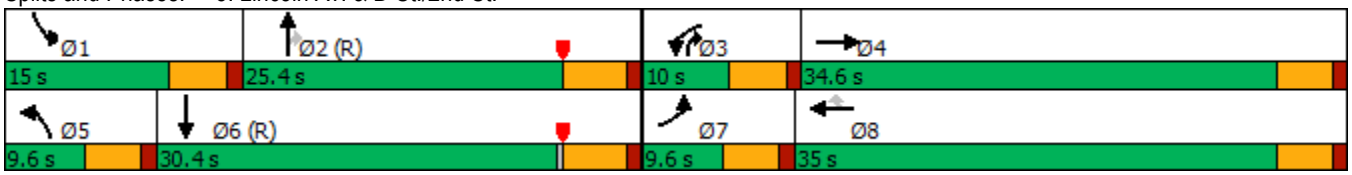
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	84	212	254	70	472	89	555	400	527	1133
Future Volume (vph)	84	212	254	70	472	89	555	400	527	1133
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	9.6	25.4	10.0	15.0	30.4
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.3%	29.9%	11.8%	17.6%	35.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	212	48	254	70	472	89	555	400	527	1133	170
Future Volume (veh/h)	84	212	48	254	70	472	89	555	400	527	1133	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	219	43	262	72	313	92	572	249	543	1168	170
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	361	71	230	456	385	106	1355	672	443	1361	197
Arrive On Green	0.06	0.24	0.24	0.06	0.24	0.24	0.06	0.36	0.36	0.12	0.42	0.42
Sat Flow, veh/h	1810	1535	301	3619	1900	1606	1810	3800	1597	3619	3240	470
Grp Volume(v), veh/h	87	0	262	262	72	313	92	572	249	543	683	655
Grp Sat Flow(s),veh/h/ln	1810	0	1836	1810	1900	1606	1810	1900	1597	1810	1900	1810
Q Serve(g_s), s	4.0	0.0	10.8	5.4	2.5	15.6	4.3	9.7	9.1	10.4	27.7	28.0
Cycle Q Clear(g_c), s	4.0	0.0	10.8	5.4	2.5	15.6	4.3	9.7	9.1	10.4	27.7	28.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	432	230	456	385	106	1355	672	443	798	760
V/C Ratio(X)	0.82	0.00	0.61	1.14	0.16	0.81	0.86	0.42	0.37	1.23	0.86	0.86
Avail Cap(c_a), veh/h	106	0	648	230	680	574	106	1355	672	443	798	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.10	0.10	0.10
Uniform Delay (d), s/veh	39.5	0.0	29.0	39.8	25.5	30.5	39.7	20.7	16.9	37.3	22.3	22.4
Incr Delay (d2), s/veh	35.2	0.0	1.4	99.5	0.1	5.0	46.1	1.0	1.6	104.0	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	4.9	5.6	1.2	6.5	3.2	4.2	3.5	10.8	11.6	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.7	0.0	30.4	139.3	25.7	35.5	85.7	21.7	18.5	141.3	23.6	23.8
LnGrp LOS	E	A	C	F	C	D	F	C	B	F	C	C
Approach Vol, veh/h		349			647			913			1881	
Approach Delay, s/veh		41.4			76.4			27.3			57.7	
Approach LOS		D			E			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	35.4	10.0	24.6	9.6	40.8	9.6	25.0
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	10.4	20.3	5.4	30.0	5.0	25.3	5.0	30.4
Max Q Clear Time (g_c+I1), s	12.4	11.7	7.4	12.8	6.3	30.0	6.0	17.6
Green Ext Time (p_c), s	0.0	3.0	0.0	1.4	0.0	0.0	0.0	1.3

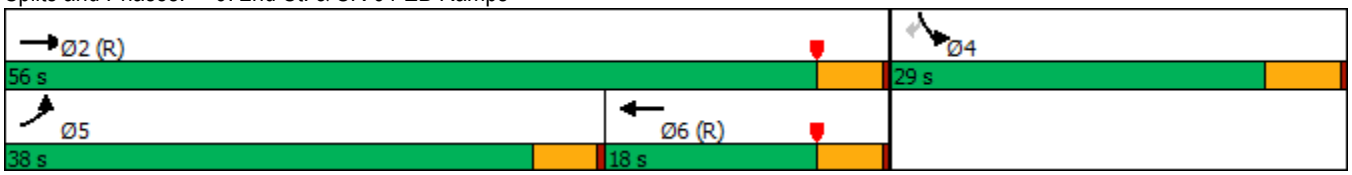
Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

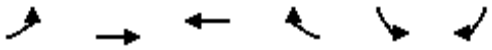
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	876	176	149	344	647
Future Volume (vph)	876	176	149	344	647
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	38.0	56.0	18.0	29.0	29.0
Total Split (%)	44.7%	65.9%	21.2%	34.1%	34.1%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	876	176	149	101	344	647
Future Volume (veh/h)	876	176	149	101	344	647
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	912	183	155	66	482	245
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1027	1149	645	263	1009	449
Arrive On Green	0.49	1.00	0.26	0.26	0.28	0.28
Sat Flow, veh/h	3510	1900	2596	1020	3619	1610
Grp Volume(v), veh/h	912	183	110	111	482	245
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1716	1810	1610
Q Serve(g_s), s	19.9	0.0	4.1	4.4	9.4	11.0
Cycle Q Clear(g_c), s	19.9	0.0	4.1	4.4	9.4	11.0
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	1027	1149	466	443	1009	449
V/C Ratio(X)	0.89	0.16	0.24	0.25	0.48	0.55
Avail Cap(c_a), veh/h	1379	1149	466	443	1009	449
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	24.9	25.0	25.5	26.1
Incr Delay (d2), s/veh	4.5	0.2	1.2	1.4	1.6	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.1	1.8	1.9	4.1	10.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.0	0.2	26.1	26.4	27.1	30.8
LnGrp LOS	C	A	C	C	C	C
Approach Vol, veh/h		1095	221		727	
Approach Delay, s/veh		20.8	26.2		28.4	
Approach LOS		C	C		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.0		29.0	29.5	26.5
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		51.4		23.7	33.4	13.4
Max Q Clear Time (g_c+I1), s		2.0		13.0	21.9	6.4
Green Ext Time (p_c), s		0.7		1.2	2.9	0.4

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

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	698	750	150	67	27
Future Vol, veh/h	9	698	750	150	67	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	727	781	156	70	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	937	0	-	0	1604	859
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	739	-	-	-	117	359
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	739	-	-	-	115	359
Mov Cap-2 Maneuver	-	-	-	-	115	-
Stage 1	-	-	-	-	410	-
Stage 2	-	-	-	-	473	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	72.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	739	-	-	-	143
HCM Lane V/C Ratio	0.013	-	-	-	0.685
HCM Control Delay (s)	9.9	0	-	-	72.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	3.9

Intersection	
Intersection Delay, s/veh	125.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	598	167	25	616	283	25
Future Vol, veh/h	598	167	25	616	283	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	623	174	26	642	295	26
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	181	108.4	23.3
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	92%	0%	4%
Vol Thru, %	0%	78%	96%
Vol Right, %	8%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	308	765	641
LT Vol	283	0	25
Through Vol	0	598	616
RT Vol	25	167	0
Lane Flow Rate	321	797	668
Geometry Grp	1	1	1
Degree of Util (X)	0.631	1.333	1.143
Departure Headway (Hd)	7.834	6.27	6.621
Convergence, Y/N	Yes	Yes	Yes
Cap	465	590	554
Service Time	5.834	4.27	4.621
HCM Lane V/C Ratio	0.69	1.351	1.206
HCM Control Delay	23.3	181	108.4
HCM Lane LOS	C	F	F
HCM 95th-tile Q	4.3	32.7	20.9

Intersection	
Intersection Delay, s/veh	61.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	655	13	17	657	28	10	0	11	36	1	3
Future Vol, veh/h	4	655	13	17	657	28	10	0	11	36	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	689	14	18	692	29	11	0	12	38	1	3
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	62.3	65.2	10.5	11.1
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	48%	1%	0%	2%	90%
Vol Thru, %	0%	99%	0%	94%	3%
Vol Right, %	52%	0%	100%	4%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	659	13	702	40
LT Vol	10	4	0	17	36
Through Vol	0	655	0	657	1
RT Vol	11	0	13	28	3
Lane Flow Rate	22	694	14	739	42
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.043	1.023	0.017	1.034	0.085
Departure Headway (Hd)	7.207	5.408	4.598	5.039	7.458
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	673	767	709	483
Service Time	5.207	3.108	2.396	3.132	5.458
HCM Lane V/C Ratio	0.044	1.031	0.018	1.042	0.087
HCM Control Delay	10.5	63.4	7.5	65.2	11.1
HCM Lane LOS	B	F	A	F	B
HCM 95th-tile Q	0.1	17	0.1	18.1	0.3

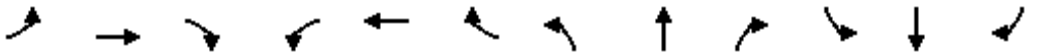
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	33	883	170	10	646	125	132	73	103	83	23
Future Volume (vph)	33	883	170	10	646	125	132	73	103	83	23
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	17.5	61.0	61.0	9.6	53.1	18.5	30.4	30.4	19.0	30.9	30.9
Total Split (%)	14.6%	50.8%	50.8%	8.0%	44.3%	15.4%	25.3%	25.3%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	883	170	10	646	174	125	132	73	103	83	23
Future Volume (veh/h)	33	883	170	10	646	174	125	132	73	103	83	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	960	155	11	702	172	136	143	63	112	90	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	942	797	23	1375	337	164	456	387	139	430	364
Arrive On Green	0.03	0.50	0.50	0.01	0.48	0.48	0.09	0.24	0.24	0.08	0.23	0.23
Sat Flow, veh/h	1810	1900	1609	1810	2874	704	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	36	960	155	11	441	433	136	143	63	112	90	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1609	1810	1805	1773	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.2	55.9	6.1	0.7	19.0	19.0	8.3	7.0	3.5	6.9	4.3	0.2
Cycle Q Clear(g_c), s	2.2	55.9	6.1	0.7	19.0	19.0	8.3	7.0	3.5	6.9	4.3	0.2
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	54	942	797	23	864	849	164	456	387	139	430	364
V/C Ratio(X)	0.66	1.02	0.19	0.47	0.51	0.51	0.83	0.31	0.16	0.81	0.21	0.01
Avail Cap(c_a), veh/h	207	942	797	80	864	849	223	456	387	231	430	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	28.4	15.9	55.3	20.3	20.3	50.4	35.2	33.9	51.2	35.5	33.8
Incr Delay (d2), s/veh	5.1	34.3	0.1	5.4	0.5	0.5	12.8	1.8	0.9	4.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	32.7	2.2	0.3	7.8	7.7	4.3	3.4	1.4	3.2	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	62.8	16.0	60.7	20.8	20.8	63.2	37.0	34.8	55.4	36.6	33.9
LnGrp LOS	E	F	B	E	C	C	E	D	C	E	D	C
Approach Vol, veh/h		1151			885			342			205	
Approach Delay, s/veh		56.4			21.3			47.0			46.8	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	61.0	14.8	30.9	8.0	59.1	13.3	32.5
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	55.9	13.9	25.5	12.9	48.0	14.4	25.0
Max Q Clear Time (g_c+I1), s	2.7	57.9	10.3	6.3	4.2	21.0	8.9	9.0
Green Ext Time (p_c), s	0.0	0.0	0.1	0.2	0.0	6.0	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	149
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	631	50	104	634	21	40	13	149	21	9	18
Future Vol, veh/h	22	631	50	104	634	21	40	13	149	21	9	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	686	54	113	689	23	43	14	162	23	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	148.6	193.2	16.3	13.4
HCM LOS	F	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	3%	14%	44%
Vol Thru, %	6%	90%	84%	19%
Vol Right, %	74%	7%	3%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	703	759	48
LT Vol	40	22	104	21
Through Vol	13	631	634	9
RT Vol	149	50	21	18
Lane Flow Rate	220	764	825	52
Geometry Grp	1	1	1	1
Degree of Util (X)	0.417	1.252	1.362	0.115
Departure Headway (Hd)	7.841	6.385	6.312	9.205
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	463	573	586	392
Service Time	5.841	4.385	4.312	7.205
HCM Lane V/C Ratio	0.475	1.333	1.408	0.133
HCM Control Delay	16.3	148.6	193.2	13.4
HCM Lane LOS	C	F	F	B
HCM 95th-tile Q	2	27.4	34.3	0.4

Intersection	
Intersection Delay, s/veh	151.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	133	527	396	6	370	28	408	41	11	16	70	79
Future Vol, veh/h	133	527	396	6	370	28	408	41	11	16	70	79
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	139	549	413	6	385	29	425	43	11	17	73	82
Number of Lanes	0	2	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	207.4	81.8	129.8	22.8
HCM LOS	F	F	F	C

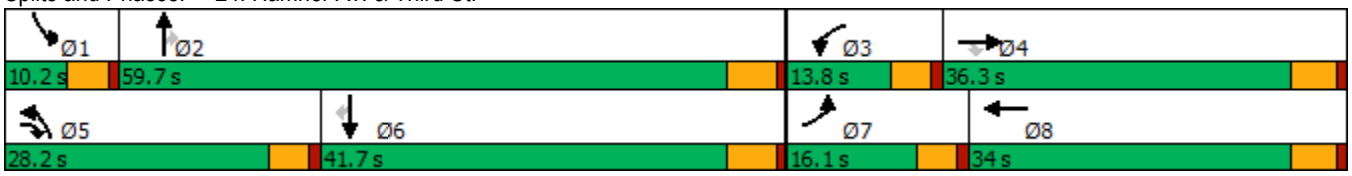
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	91%	0%	34%	0%	1%	10%
Vol Thru, %	9%	0%	66%	40%	92%	42%
Vol Right, %	0%	100%	0%	60%	7%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	449	11	397	660	404	165
LT Vol	408	0	133	0	6	16
Through Vol	41	0	264	264	370	70
RT Vol	0	11	0	396	28	79
Lane Flow Rate	468	11	413	687	421	172
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.176	0.025	1.004	1.558	1.016	0.47
Departure Headway (Hd)	9.427	8.225	9.405	8.791	9.422	10.688
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	388	438	388	419	387	339
Service Time	7.127	5.925	7.105	6.491	7.422	8.688
HCM Lane V/C Ratio	1.206	0.025	1.064	1.64	1.088	0.507
HCM Control Delay	132.7	11.1	78.2	285.1	81.8	22.8
HCM Lane LOS	F	B	F	F	F	C
HCM 95th-tile Q	17.8	0.1	12.1	35.3	12.5	2.4

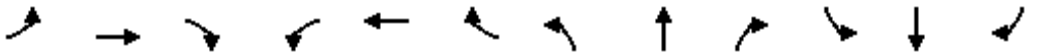
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	163	81	490	51	122	422	1195	65	51	1404	220
Future Volume (vph)	163	81	490	51	122	422	1195	65	51	1404	220
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	16.1	36.3	28.2	13.8	34.0	28.2	59.7	59.7	10.2	41.7	41.7
Total Split (%)	13.4%	30.3%	23.5%	11.5%	28.3%	23.5%	49.8%	49.8%	8.5%	34.8%	34.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.2
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	81	490	51	122	61	422	1195	65	51	1404	220
Future Volume (veh/h)	163	81	490	51	122	61	422	1195	65	51	1404	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	88	338	55	133	50	459	1299	59	55	1526	176
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	390	576	71	175	66	537	1897	844	71	1487	662
Arrive On Green	0.11	0.21	0.21	0.04	0.13	0.13	0.15	0.53	0.53	0.04	0.41	0.41
Sat Flow, veh/h	1810	1900	1608	1810	1310	492	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	177	88	338	55	0	183	459	1299	59	55	1526	176
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	10.0	4.0	17.7	3.1	0.0	10.1	13.2	27.6	1.9	3.1	42.6	7.5
Cycle Q Clear(g_c), s	10.0	4.0	17.7	3.1	0.0	10.1	13.2	27.6	1.9	3.1	42.6	7.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	390	576	71	0	240	537	1897	844	71	1487	662
V/C Ratio(X)	0.88	0.23	0.59	0.77	0.00	0.76	0.86	0.68	0.07	0.77	1.03	0.27
Avail Cap(c_a), veh/h	201	574	732	161	0	504	802	1897	844	98	1487	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	34.2	27.0	49.2	0.0	43.2	42.7	18.2	12.1	49.2	30.4	20.1
Incr Delay (d2), s/veh	31.9	0.3	1.0	6.5	0.0	4.9	4.0	2.0	0.2	14.6	30.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	1.9	6.7	1.5	0.0	4.8	5.8	11.0	0.7	1.7	23.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	34.5	27.9	55.6	0.0	48.1	46.7	20.2	12.2	63.8	60.7	21.1
LnGrp LOS	E	C	C	E	A	D	D	C	B	E	F	C
Approach Vol, veh/h		603			238			1817			1757	
Approach Delay, s/veh		43.3			49.9			26.6			56.8	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	59.7	8.7	26.3	20.4	48.0	16.1	18.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	5.6	54.3	9.2	31.2	23.6	36.3	11.5	28.9
Max Q Clear Time (g_c+I1), s	5.1	29.6	5.1	19.7	15.2	44.6	12.0	12.1
Green Ext Time (p_c), s	0.0	10.5	0.0	1.3	0.6	0.0	0.0	0.8

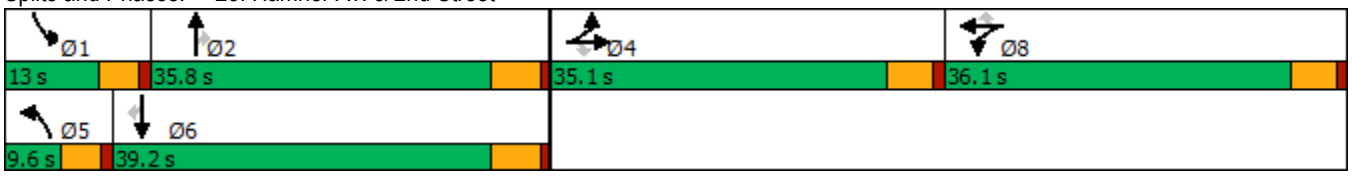
Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

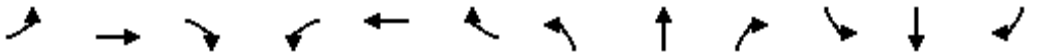
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	655	90	293	445	587	110	970	573	645	1229	275
Future Volume (vph)	328	655	90	293	445	587	110	970	573	645	1229	275
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.8	35.8	13.0	39.2	39.2
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.0%	29.8%	29.8%	10.8%	32.7%	32.7%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	655	90	293	445	587	110	970	573	645	1229	275
Future Volume (veh/h)	328	655	90	293	445	587	110	970	573	645	1229	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	334	669	59	251	521	391	112	990	456	658	1254	241
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	453	951	400	466	978	414	75	916	407	127	1018	448
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.04	0.25	0.25	0.07	0.28	0.28
Sat Flow, veh/h	1810	3800	1599	1810	3800	1608	1810	3610	1604	1810	3610	1588
Grp Volume(v), veh/h	334	669	59	251	521	391	112	990	456	658	1254	241
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1608	1810	1805	1604	1810	1805	1588
Q Serve(g_s), s	20.3	19.2	3.4	14.3	14.1	28.6	5.0	30.4	30.4	8.4	33.8	15.4
Cycle Q Clear(g_c), s	20.3	19.2	3.4	14.3	14.1	28.6	5.0	30.4	30.4	8.4	33.8	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	951	400	466	978	414	75	916	407	127	1018	448
V/C Ratio(X)	0.74	0.70	0.15	0.54	0.53	0.94	1.48	1.08	1.12	5.19	1.23	0.54
Avail Cap(c_a), veh/h	453	951	400	468	983	416	75	916	407	127	1018	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	40.9	35.0	38.4	38.3	43.7	57.4	44.7	44.7	55.7	43.0	36.4
Incr Delay (d2), s/veh	10.3	4.3	0.8	1.2	0.6	30.3	275.4	54.2	81.5	1902.1	112.9	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	9.4	1.4	6.5	6.6	14.6	8.0	20.1	20.9	70.8	30.5	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.6	45.2	35.7	39.6	38.8	74.0	332.8	98.9	126.3	1957.8	156.0	37.7
LnGrp LOS	D	D	D	D	D	E	F	F	F	F	F	D
Approach Vol, veh/h		1062			1163			1558			2153	
Approach Delay, s/veh		46.7			50.8			123.7			693.4	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	9.6	39.2		35.9				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	5.0	33.8		31.0				
Max Q Clear Time (g_c+I1), s	10.4	32.4		22.3	7.0	35.8		30.6				
Green Ext Time (p_c), s	0.0	0.0		3.4	0.0	0.0		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		302.3
HCM 6th LOS		F

Notes

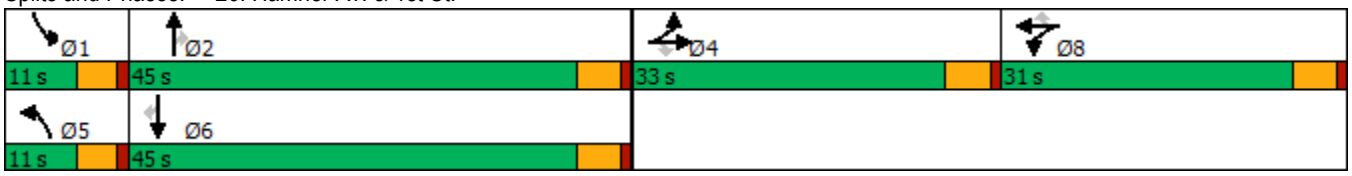
User approved volume balancing among the lanes for turning movement.

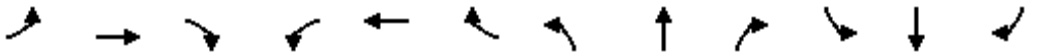
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	480	51	45	33	23	90	1056	38	81	1346	245
Future Volume (vph)	480	51	45	33	23	90	1056	38	81	1346	245
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	11.0	45.0	45.0	11.0	45.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	9.2%	37.5%	37.5%	9.2%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 98.3
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	51	45	57	33	23	90	1056	38	81	1346	245
Future Volume (veh/h)	480	51	45	57	33	23	90	1056	38	81	1346	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	544	0	28	60	35	7	95	1112	29	85	1417	175
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	673	0	295	119	70	165	121	1585	689	109	1561	679
Arrive On Green	0.19	0.00	0.19	0.10	0.10	0.10	0.07	0.44	0.44	0.06	0.43	0.43
Sat Flow, veh/h	3619	0	1586	1163	679	1606	1810	3610	1569	1810	3610	1569
Grp Volume(v), veh/h	544	0	28	95	0	7	95	1112	29	85	1417	175
Grp Sat Flow(s),veh/h/ln	1810	0	1586	1842	0	1606	1810	1805	1569	1810	1805	1569
Q Serve(g_s), s	13.3	0.0	1.4	4.5	0.0	0.4	4.8	23.1	1.0	4.3	33.9	6.6
Cycle Q Clear(g_c), s	13.3	0.0	1.4	4.5	0.0	0.4	4.8	23.1	1.0	4.3	33.9	6.6
Prop In Lane	1.00		1.00	0.63		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	673	0	295	189	0	165	121	1585	689	109	1561	679
V/C Ratio(X)	0.81	0.00	0.09	0.50	0.00	0.04	0.78	0.70	0.04	0.78	0.91	0.26
Avail Cap(c_a), veh/h	1096	0	480	518	0	451	125	1585	689	125	1561	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	31.2	39.3	0.0	37.4	42.5	21.0	14.8	42.8	24.5	16.8
Incr Delay (d2), s/veh	2.4	0.0	0.1	2.1	0.0	0.1	24.1	2.6	0.1	19.8	9.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.5	2.1	0.0	0.1	2.9	9.5	0.3	2.5	15.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	31.3	41.3	0.0	37.5	66.6	23.6	14.9	62.7	33.8	17.7
LnGrp LOS	D	A	C	D	A	D	E	C	B	E	C	B
Approach Vol, veh/h		572			102			1236			1677	
Approach Delay, s/veh		38.1			41.1			26.7			33.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	45.6		22.2	10.8	45.0		14.5				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	6.4	40.0		28.0	6.4	40.0		26.0				
Max Q Clear Time (g_c+I1), s	6.3	25.1		15.3	6.8	35.9		6.5				
Green Ext Time (p_c), s	0.0	6.7		1.8	0.0	3.1		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		32.1	
HCM 6th LOS		C	

Notes

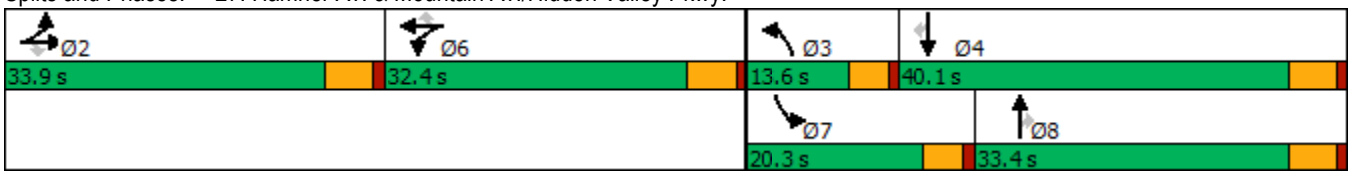
User approved volume balancing among the lanes for turning movement.

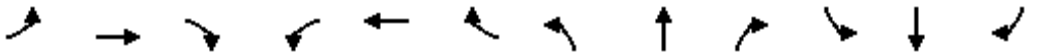
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	512	73	524	440	387	122	959	695	571	905	31
Future Volume (vph)	36	512	73	524	440	387	122	959	695	571	905	31
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.7
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	512	73	524	440	387	122	959	695	571	905	31
Future Volume (veh/h)	36	512	73	524	440	387	122	959	695	571	905	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	533	70	559	440	392	127	999	519	595	943	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
Arrive On Green	0.24	0.24	0.24	0.23	0.23	0.23	0.08	0.23	0.23	0.13	0.29	0.29
Sat Flow, veh/h	1810	3610	1606	3619	1900	1604	1810	3610	1610	3510	3610	1586
Grp Volume(v), veh/h	38	533	70	559	440	392	127	999	519	595	943	24
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1604	1810	1805	1610	1755	1805	1586
Q Serve(g_s), s	2.0	15.8	4.2	17.0	27.0	27.0	8.4	28.0	28.0	15.7	30.2	1.3
Cycle Q Clear(g_c), s	2.0	15.8	4.2	17.0	27.0	27.0	8.4	28.0	28.0	15.7	30.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
V/C Ratio(X)	0.09	0.62	0.18	0.69	1.03	1.09	0.94	1.19	1.38	1.30	0.90	0.05
Avail Cap(c_a), veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	40.9	36.5	42.6	46.5	46.5	55.2	46.0	46.0	52.2	41.0	30.8
Incr Delay (d2), s/veh	0.4	3.4	1.1	2.4	51.2	72.5	57.2	95.6	187.5	148.4	10.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.3	1.7	7.7	18.5	17.7	5.9	23.4	30.4	16.2	14.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	44.3	37.5	45.0	97.7	119.0	112.4	141.6	233.5	200.5	52.0	30.8
LnGrp LOS	D	D	D	D	F	F	F	F	F	F	D	C
Approach Vol, veh/h		641			1391			1645			1562	
Approach Delay, s/veh		43.1			82.5			168.4			108.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	13.6	40.1		32.4	20.3	33.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		17.8	10.4	32.2		29.0	17.7	30.0				
Green Ext Time (p_c), s		2.7	0.0	1.5		0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			112.3									
HCM 6th LOS			F									

Notes

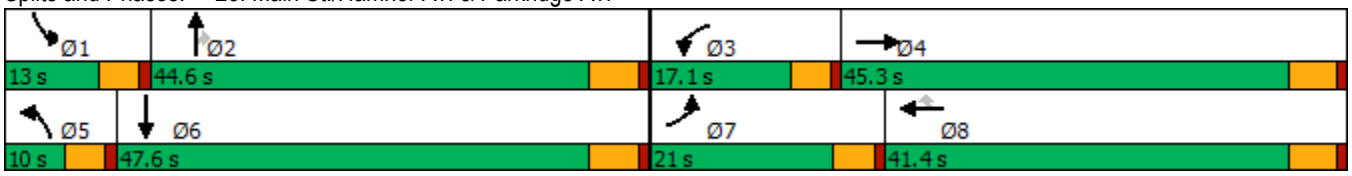
User approved volume balancing among the lanes for turning movement.

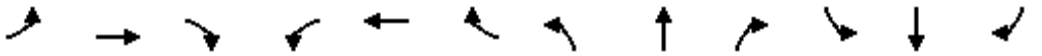
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	589	359	80	182	281	101	1220	140	232	1138
Future Volume (vph)	589	359	80	182	281	101	1220	140	232	1138
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	21.0	45.3	17.1	41.4	41.4	10.0	44.6	44.6	13.0	47.6
Total Split (%)	17.5%	37.8%	14.3%	34.5%	34.5%	8.3%	37.2%	37.2%	10.8%	39.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.9
Natural Cycle: 145
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	589	359	126	80	182	281	101	1220	140	232	1138	596
Future Volume (veh/h)	589	359	126	80	182	281	101	1220	140	232	1138	596
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	378	122	84	192	193	106	1284	0	244	1198	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	746	237	108	337	284	96	1386		149	2143	
Arrive On Green	0.16	0.28	0.28	0.06	0.18	0.18	0.05	0.38	0.00	0.08	0.41	0.00
Sat Flow, veh/h	1810	2678	851	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	620	253	247	84	192	193	106	1284	0	244	1198	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1724	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	16.4	12.0	12.3	4.7	9.4	11.5	5.4	34.7	0.0	8.4	18.0	0.0
Cycle Q Clear(g_c), s	16.4	12.0	12.3	4.7	9.4	11.5	5.4	34.7	0.0	8.4	18.0	0.0
Prop In Lane	1.00		0.49	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	291	503	480	108	337	284	96	1386		149	2143	
V/C Ratio(X)	2.13	0.50	0.51	0.78	0.57	0.68	1.11	0.93		1.64	0.56	
Avail Cap(c_a), veh/h	291	705	674	221	670	564	96	1386		149	2143	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	30.9	31.0	47.4	38.4	39.3	48.4	30.1	0.0	46.9	22.9	0.0
Incr Delay (d2), s/veh	521.6	0.8	0.9	4.5	1.5	2.8	124.1	12.0	0.0	316.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	49.2	5.1	5.0	2.2	4.4	4.6	5.7	16.4	0.0	16.7	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	564.5	31.7	31.9	51.8	39.9	42.1	172.5	42.1	0.0	362.9	23.9	0.0
LnGrp LOS	F	C	C	D	D	D	F	D		F	C	
Approach Vol, veh/h		1120			469			1390	A		1442	A
Approach Delay, s/veh		326.7			43.0			52.1			81.3	
Approach LOS		F			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.6	10.7	33.8	10.0	47.6	21.0	23.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	8.4	39.2	12.5	39.9	5.4	42.2	16.4	36.0
Max Q Clear Time (g_c+I1), s	10.4	36.7	6.7	14.3	7.4	20.0	18.4	13.5
Green Ext Time (p_c), s	0.0	1.8	0.0	2.9	0.0	8.5	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	130.2
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

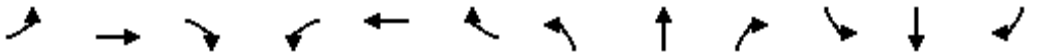
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	934	228	916	5	352
Future Volume (vph)	934	228	916	5	352
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	64.0	22.0	86.0	34.0	34.0
Total Split (%)	53.3%	18.3%	71.7%	28.3%	28.3%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	934	1050	228	916	54	0	0	0	115	5	352
Future Volume (veh/h)	0	934	1050	228	916	54	0	0	0	115	5	352
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	963	1005	235	944	56				119	5	267
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1004	888	257	2541	151				319	13	295
Arrive On Green	0.00	0.55	0.55	0.28	1.00	1.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1907	1602	1810	3462	205				1740	73	1610
Grp Volume(v), veh/h	0	959	1009	235	492	508				124	0	267
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1805	1863				1813	0	1610
Q Serve(g_s), s	0.0	60.6	66.5	15.1	0.0	0.0				7.2	0.0	19.5
Cycle Q Clear(g_c), s	0.0	60.6	66.5	15.1	0.0	0.0				7.2	0.0	19.5
Prop In Lane	0.00		1.00	1.00		0.11				0.96		1.00
Lane Grp Cap(c), veh/h	0	1000	891	257	1325	1367				333	0	295
V/C Ratio(X)	0.00	0.96	1.13	0.91	0.37	0.37				0.37	0.00	0.90
Avail Cap(c_a), veh/h	0	1000	891	264	1325	1367				434	0	385
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.49	0.49	0.49				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.4	26.7	42.2	0.0	0.0				42.9	0.0	48.0
Incr Delay (d2), s/veh	0.0	3.2	61.0	19.2	0.4	0.4				0.3	0.0	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.9	38.6	7.0	0.1	0.1				3.2	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.6	87.7	61.4	0.4	0.4				43.2	0.0	65.7
LnGrp LOS	A	C	F	E	A	A				D	A	E
Approach Vol, veh/h		1968			1235						391	
Approach Delay, s/veh		58.9			12.0						58.5	
Approach LOS		E			B						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.6	71.1		27.3		92.7
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	17.5	59.4		28.7		81.4
Max Q Clear Time (g_c+I1), s	17.1	68.5		21.5		2.0
Green Ext Time (p_c), s	0.0	0.0		0.5		4.5

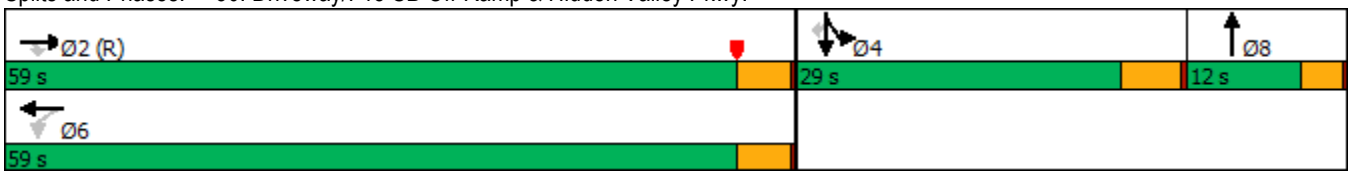
Intersection Summary		
HCM 6th Ctrl Delay		42.8
HCM 6th LOS		D

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	1635	71	137	865	0	525	104	439
Future Volume (vph)	1635	71	137	865	0	525	104	439
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	59.0	59.0	59.0	59.0	12.0	29.0	29.0	29.0
Total Split (%)	59.0%	59.0%	59.0%	59.0%	12.0%	29.0%	29.0%	29.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1635	71	137	865	0	0	0	304	525	104	439
Future Volume (veh/h)	0	1635	71	137	865	0	0	0	304	525	104	439
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1721	54	144	911	0	0	0	161	374	440	282
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1967	877	108	1967	0	0	0	137	434	456	386
Arrive On Green	0.00	0.55	0.55	0.55	0.55	0.00	0.00	0.00	0.09	0.24	0.24	0.24
Sat Flow, veh/h	0	3705	1609	272	3705	0	0	0	1610	1810	1900	1610
Grp Volume(v), veh/h	0	1721	54	144	911	0	0	0	161	374	440	282
Grp Sat Flow(s),veh/h/ln	0	1805	1609	272	1805	0	0	0	1610	1810	1900	1610
Q Serve(g_s), s	0.0	41.5	1.6	13.0	15.4	0.0	0.0	0.0	8.5	19.8	22.9	16.1
Cycle Q Clear(g_c), s	0.0	41.5	1.6	54.5	15.4	0.0	0.0	0.0	8.5	19.8	22.9	16.1
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1967	877	108	1967	0	0	0	137	434	456	386
V/C Ratio(X)	0.00	0.87	0.06	1.34	0.46	0.00	0.00	0.00	1.18	0.86	0.96	0.73
Avail Cap(c_a), veh/h	0	1967	877	108	1967	0	0	0	137	434	456	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.14	0.14	0.97	0.97	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	19.8	10.7	47.8	13.8	0.0	0.0	0.0	45.8	36.4	37.6	35.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	201.2	0.1	0.0	0.0	0.0	132.1	19.6	34.3	11.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.5	0.5	8.6	5.7	0.0	0.0	0.0	8.4	10.6	14.4	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.7	10.7	249.0	13.9	0.0	0.0	0.0	177.8	56.0	71.8	46.5
LnGrp LOS	A	C	B	F	B	A	A	A	F	E	E	D
Approach Vol, veh/h		1775			1055			161			1096	
Approach Delay, s/veh		20.4			46.0			177.8			59.9	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	59.0	29.0	59.0	12.0
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	54.5	24.0	54.5	8.5
Max Q Clear Time (g_c+I1), s	43.5	24.9	56.5	10.5
Green Ext Time (p_c), s	6.5	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

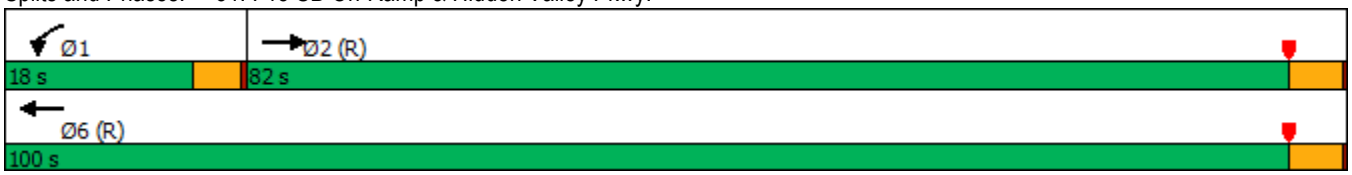
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	1894	220	1004
Future Volume (vph)	1894	220	1004
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	82.0	18.0	100.0
Total Split (%)	82.0%	18.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1894	576	220	1004	0	0
Future Volume (veh/h)	1894	576	220	1004	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	1973	584	229	1046		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2154	607	253	3448		
Arrive On Green	1.00	1.00	0.28	1.00		
Sat Flow, veh/h	2875	783	1810	3705		
Grp Volume(v), veh/h	1246	1311	229	1046		
Grp Sat Flow(s),veh/h/ln	1805	1758	1810	1805		
Q Serve(g_s), s	0.0	0.0	12.2	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	12.2	0.0		
Prop In Lane		0.45	1.00			
Lane Grp Cap(c), veh/h	1399	1362	253	3448		
V/C Ratio(X)	0.89	0.96	0.90	0.30		
Avail Cap(c_a), veh/h	1399	1362	253	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.34	0.34	0.49	0.49		
Uniform Delay (d), s/veh	0.0	0.0	35.4	0.0		
Incr Delay (d2), s/veh	3.3	7.9	21.8	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.3	3.0	5.9	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	7.9	57.1	0.1		
LnGrp LOS	A	A	E	A		
Approach Vol, veh/h	2557			1275		
Approach Delay, s/veh	5.7			10.4		
Approach LOS	A			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	18.0	82.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	14.0	77.5				95.5
Max Q Clear Time (g_c+I1), s	14.2	2.0				2.0
Green Ext Time (p_c), s	0.0	35.1				5.4

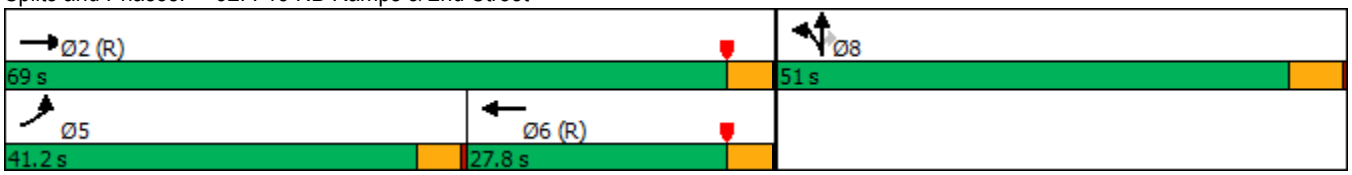
Intersection Summary			
HCM 6th Ctrl Delay		7.2	
HCM 6th LOS		A	

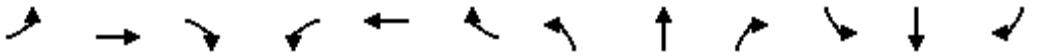
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	591	458	452	7	476
Future Volume (vph)	591	458	452	7	476
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	41.2	69.0	27.8	51.0	51.0
Total Split (%)	34.3%	57.5%	23.2%	42.5%	42.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





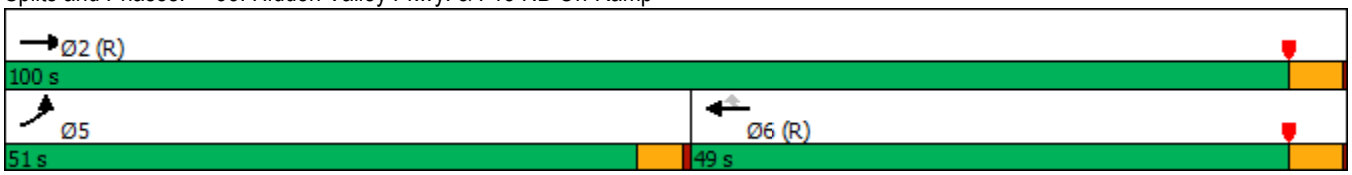
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	458	0	0	452	64	743	7	476	0	0	0
Future Volume (veh/h)	591	458	0	0	452	64	743	7	476	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	635	492	0	0	486	57	799	8	339			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	553	1937	0	0	629	73	683	7	613			
Arrive On Green	0.10	0.18	0.00	0.00	0.19	0.19	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	3348	380	1792	18	1610			
Grp Volume(v), veh/h	635	492	0	0	269	274	807	0	339			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1828	1810	0	1610			
Q Serve(g_s), s	36.7	14.1	0.0	0.0	16.9	17.1	45.7	0.0	19.8			
Cycle Q Clear(g_c), s	36.7	14.1	0.0	0.0	16.9	17.1	45.7	0.0	19.8			
Prop In Lane	1.00		0.00	0.00		0.21	0.99		1.00			
Lane Grp Cap(c), veh/h	553	1937	0	0	349	353	689	0	613			
V/C Ratio(X)	1.15	0.25	0.00	0.00	0.77	0.78	1.17	0.00	0.55			
Avail Cap(c_a), veh/h	553	1937	0	0	349	353	689	0	613			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.9	28.7	0.0	0.0	45.9	45.9	37.2	0.0	29.1			
Incr Delay (d2), s/veh	68.5	0.0	0.0	0.0	15.1	15.3	91.7	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	28.4	6.8	0.0	0.0	9.0	9.2	36.6	0.0	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.5	28.7	0.0	0.0	61.0	61.2	128.9	0.0	30.0			
LnGrp LOS	F	C	A	A	E	E	F	A	C			
Approach Vol, veh/h		1127			543			1146				
Approach Delay, s/veh		81.5			61.1			99.6				
Approach LOS		F			E			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.0			41.2	27.8		51.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		64.4			36.7	23.2		45.7				
Max Q Clear Time (g_c+I1), s		16.1			38.7	19.1		47.7				
Green Ext Time (p_c), s		2.2			0.0	0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			85.0									
HCM 6th LOS			F									

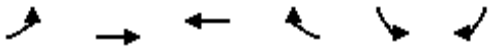
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	620	1264	1226	481
Future Volume (vph)	620	1264	1226	481
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	51.0	100.0	49.0	49.0
Total Split (%)	51.0%	100.0%	49.0%	49.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	620	1264	1226	481	0	0
Future Volume (veh/h)	620	1264	1226	481	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	653	1331	1291	450		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	850	3448	1606	700		
Arrive On Green	0.94	1.00	0.44	0.44		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	653	1331	1291	450		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	7.8	0.0	30.9	22.2		
Cycle Q Clear(g_c), s	7.8	0.0	30.9	22.2		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	850	3448	1606	700		
V/C Ratio(X)	0.77	0.39	0.80	0.64		
Avail Cap(c_a), veh/h	850	3448	1606	700		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.21	0.21	0.47	0.47		
Uniform Delay (d), s/veh	1.8	0.0	24.0	21.6		
Incr Delay (d2), s/veh	1.4	0.1	2.1	2.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.2	0.0	12.6	8.0		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.3	0.1	26.1	23.7		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		1984	1741			
Approach Delay, s/veh		1.1	25.5			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			51.0	49.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			47.0	44.5
Max Q Clear Time (g_c+I1), s		2.0			9.8	32.9
Green Ext Time (p_c), s		7.8			1.0	5.6

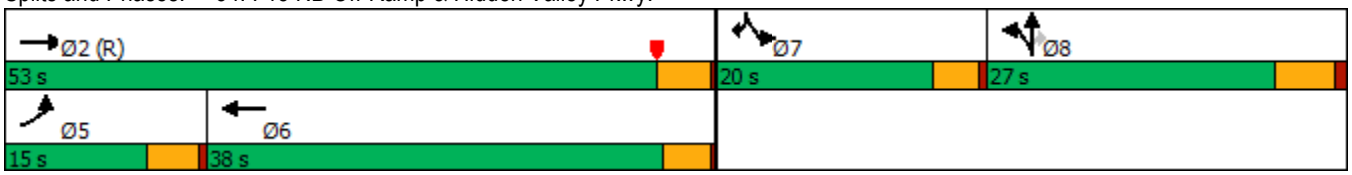
Intersection Summary						
HCM 6th Ctrl Delay			12.5			
HCM 6th LOS			B			

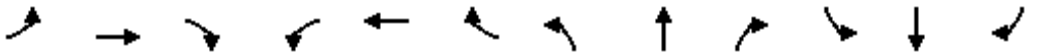
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	111	1153	959	558	80	355	81	187
Future Volume (vph)	111	1153	959	558	80	355	81	187
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	53.0	38.0	27.0	27.0	27.0	20.0	20.0
Total Split (%)	15.0%	53.0%	38.0%	27.0%	27.0%	27.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1153	0	0	959	52	558	80	355	81	0	187
Future Volume (veh/h)	111	1153	0	0	959	52	558	80	355	81	0	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	116	1201	0	0	999	50	581	83	218	84	0	179
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	2473	0	0	1903	95	755	408	346	0	0	0
Arrive On Green	0.19	1.00	0.00	0.00	0.54	0.54	0.22	0.22	0.22	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3593	175	3510	1900	1610		0	
Grp Volume(v), veh/h	116	1201	0	0	515	534	581	83	218		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1868	1755	1900	1610			
Q Serve(g_s), s	5.9	0.0	0.0	0.0	18.2	18.2	15.6	3.6	12.3			
Cycle Q Clear(g_c), s	5.9	0.0	0.0	0.0	18.2	18.2	15.6	3.6	12.3			
Prop In Lane	1.00		0.00	0.00		0.09	1.00		1.00			
Lane Grp Cap(c), veh/h	174	2473	0	0	982	1016	755	409	346			
V/C Ratio(X)	0.67	0.49	0.00	0.00	0.52	0.53	0.77	0.20	0.63			
Avail Cap(c_a), veh/h	190	2473	0	0	982	1016	755	409	346			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	38.9	0.0	0.0	0.0	14.6	14.6	36.9	32.2	35.6			
Incr Delay (d2), s/veh	6.5	0.6	0.0	0.0	2.0	1.9	7.4	1.1	8.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	0.2	0.0	0.0	7.1	7.4	7.1	1.7	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	0.6	0.0	0.0	16.6	16.5	44.4	33.3	44.1			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1317			1049			882				
Approach Delay, s/veh		4.6			16.5			43.2				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.0			14.1	58.9		27.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		48.5			10.5	* 34		21.5				
Max Q Clear Time (g_c+I1), s		2.0			7.9	20.2		17.6				
Green Ext Time (p_c), s		6.5			0.0	3.4		1.1				

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

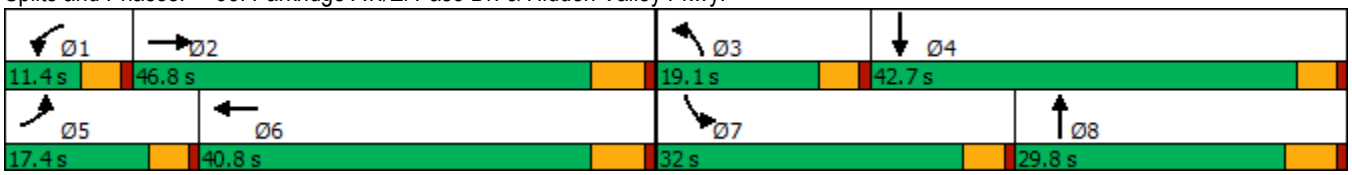
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

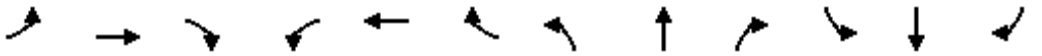
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	102	978	76	638	112	114	102	54
Future Volume (vph)	102	978	76	638	112	114	102	54
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	978	118	76	638	77	112	114	227	102	54	43
Future Volume (veh/h)	102	978	118	76	638	77	112	114	227	102	54	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1063	91	83	693	74	122	124	180	111	59	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	1156	99	105	1072	114	149	613	539	139	872	308
Arrive On Green	0.08	0.34	0.34	0.06	0.33	0.33	0.08	0.34	0.34	0.08	0.33	0.33
Sat Flow, veh/h	1810	3365	288	1810	3290	351	1810	1805	1587	1810	2613	924
Grp Volume(v), veh/h	111	570	584	83	380	387	122	124	180	111	40	41
Grp Sat Flow(s),veh/h/ln	1810	1805	1848	1810	1805	1836	1810	1805	1587	1810	1805	1732
Q Serve(g_s), s	6.9	34.6	34.6	5.2	20.5	20.6	7.6	5.6	9.6	6.9	1.7	1.9
Cycle Q Clear(g_c), s	6.9	34.6	34.6	5.2	20.5	20.6	7.6	5.6	9.6	6.9	1.7	1.9
Prop In Lane	1.00		0.16	1.00		0.19	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	137	620	635	105	588	598	149	613	539	139	602	578
V/C Ratio(X)	0.81	0.92	0.92	0.79	0.65	0.65	0.82	0.20	0.33	0.80	0.07	0.07
Avail Cap(c_a), veh/h	203	648	664	108	588	598	230	613	539	434	602	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	36.0	36.0	53.1	32.9	32.9	51.5	26.7	28.1	51.9	25.9	26.0
Incr Delay (d2), s/veh	8.4	18.0	17.8	28.2	2.5	2.4	6.8	0.7	1.7	4.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	17.5	17.9	3.1	9.0	9.1	3.6	2.4	3.8	3.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	54.0	53.8	81.2	35.3	35.3	58.3	27.5	29.8	55.9	26.1	26.2
LnGrp LOS	E	D	D	F	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1265			850			426			192	
Approach Delay, s/veh		54.4			39.8			37.3			43.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	45.0	14.0	43.9	13.3	43.0	13.3	44.6
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	7.2	36.6	9.6	3.9	8.9	22.6	8.9	11.6
Green Ext Time (p_c), s	0.0	2.6	0.1	0.4	0.0	3.5	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.2:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

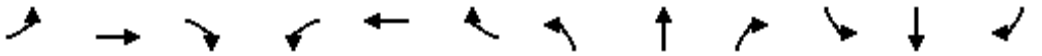
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	245	66	181	39	211	995	80	1846	523
Future Volume (vph)	247	145	245	66	181	39	211	995	80	1846	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	12.0	32.6	16.0	11.5	32.1	32.1	16.0	61.1	14.8	59.9	12.0
Total Split (%)	10.0%	27.2%	13.3%	9.6%	26.8%	26.8%	13.3%	50.9%	12.3%	49.9%	10.0%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.4
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	245	66	181	39	211	995	111	80	1846	523
Future Volume (veh/h)	247	145	245	66	181	39	211	995	111	80	1846	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	194	71	195	30	227	1070	110	86	1985	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	243	280	410	91	245	207	193	1827	188	110	1830	908
Arrive On Green	0.07	0.15	0.15	0.05	0.13	0.13	0.11	0.55	0.55	0.06	0.51	0.51
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	1810	3304	339	1810	3610	1572
Grp Volume(v), veh/h	266	156	194	71	195	30	227	584	596	86	1985	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1810	1805	1839	1810	1805	1572
Q Serve(g_s), s	7.4	8.1	10.9	4.1	10.6	1.8	11.4	22.8	22.9	5.0	54.1	17.3
Cycle Q Clear(g_c), s	7.4	8.1	10.9	4.1	10.6	1.8	11.4	22.8	22.9	5.0	54.1	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	243	280	410	91	245	207	193	998	1017	110	1830	908
V/C Ratio(X)	1.09	0.56	0.47	0.78	0.80	0.15	1.17	0.59	0.59	0.78	1.08	0.48
Avail Cap(c_a), veh/h	243	489	587	117	481	406	193	998	1017	173	1830	908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	42.3	33.7	50.1	45.1	41.3	47.7	15.8	15.8	49.4	26.3	13.2
Incr Delay (d2), s/veh	84.8	1.7	0.9	16.3	5.9	0.3	119.7	2.5	2.5	4.5	48.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	3.9	4.3	2.3	5.3	0.7	11.4	9.1	9.2	2.3	32.8	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.4	44.0	34.6	66.4	51.0	41.6	167.4	18.3	18.3	54.0	74.5	15.0
LnGrp LOS	F	D	C	E	D	D	F	B	B	D	F	B
Approach Vol, veh/h		616			296			1407			2505	
Approach Delay, s/veh		80.1			53.7			42.3			63.5	
Approach LOS		F			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	64.8	10.0	20.8	16.0	59.9	12.0	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.2	55.3	6.9	27.5	11.4	54.1	7.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	24.9	6.1	12.9	13.4	56.1	9.4	12.6
Green Ext Time (p_c), s	0.0	8.4	0.0	1.3	0.0	0.0	0.0	0.9

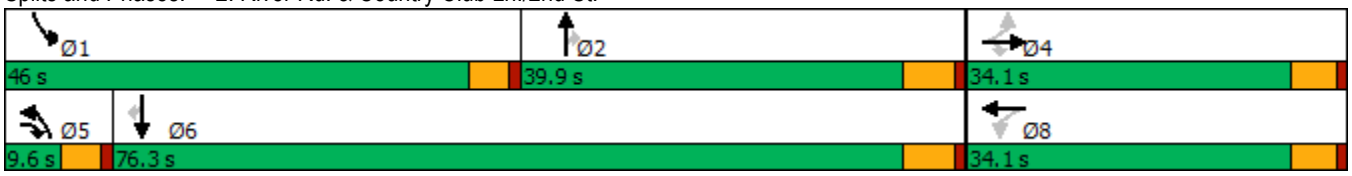
Intersection Summary	
HCM 6th Ctrl Delay	58.8
HCM 6th LOS	E

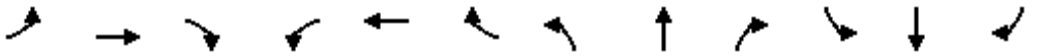
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	151	65	154	83	37	955	200	615	1529	25
Future Volume (vph)	37	151	65	154	83	37	955	200	615	1529	25
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	34.1	34.1	9.6	34.1	34.1	9.6	39.9	39.9	46.0	76.3	76.3
Total Split (%)	28.4%	28.4%	8.0%	28.4%	28.4%	8.0%	33.3%	33.3%	38.3%	63.6%	63.6%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.6
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	151	65	154	83	343	37	955	200	615	1529	25
Future Volume (veh/h)	37	151	65	154	83	343	37	955	200	615	1529	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	164	46	167	90	294	40	1038	160	668	1662	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	459	439	262	94	308	56	1026	456	624	2161	942
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.28	0.28	0.35	0.60	0.60
Sat Flow, veh/h	1014	1900	1610	1190	391	1276	1810	3610	1605	1810	3610	1573
Grp Volume(v), veh/h	40	164	46	167	0	384	40	1038	160	668	1662	25
Grp Sat Flow(s),veh/h/ln	1014	1900	1610	1190	0	1667	1810	1805	1605	1810	1805	1573
Q Serve(g_s), s	1.8	8.6	2.6	16.3	0.0	27.2	2.6	34.1	9.5	41.4	41.1	0.8
Cycle Q Clear(g_c), s	29.0	8.6	2.6	24.9	0.0	27.2	2.6	34.1	9.5	41.4	41.1	0.8
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	459	439	262	0	403	56	1026	456	624	2161	942
V/C Ratio(X)	0.53	0.36	0.10	0.64	0.00	0.95	0.72	1.01	0.35	1.07	0.77	0.03
Avail Cap(c_a), veh/h	75	459	439	262	0	403	75	1026	456	624	2161	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	37.8	32.7	48.1	0.0	44.8	57.6	43.0	34.2	39.3	17.9	9.8
Incr Delay (d2), s/veh	7.2	0.5	0.1	5.0	0.0	33.0	10.5	31.1	2.1	56.2	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.0	1.0	5.1	0.0	14.7	1.3	19.0	3.9	27.2	15.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.9	38.2	32.8	53.1	0.0	77.8	68.2	74.0	36.3	95.5	20.6	9.9
LnGrp LOS	E	D	C	D	A	E	E	F	D	F	C	A
Approach Vol, veh/h		250			551			1238			2355	
Approach Delay, s/veh		41.8			70.3			68.9			41.8	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	39.9		34.1	8.3	77.6		34.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	41.4	34.1		29.0	5.0	70.5		29.0				
Max Q Clear Time (g_c+I1), s	43.4	36.1		31.0	4.6	43.1		29.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	14.5		0.0				

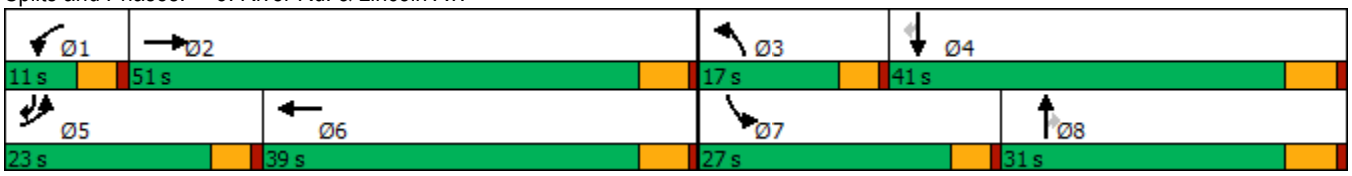
Intersection Summary			
HCM 6th Ctrl Delay		53.0	
HCM 6th LOS		D	

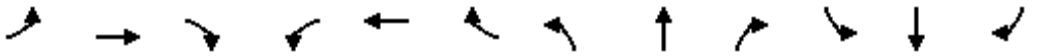
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	443	656	62	876	161	748	137	285	988	561
Future Volume (vph)	443	656	62	876	161	748	137	285	988	561
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	23.0	51.0	11.0	39.0	17.0	31.0	31.0	27.0	41.0	23.0
Total Split (%)	19.2%	42.5%	9.2%	32.5%	14.2%	25.8%	25.8%	22.5%	34.2%	19.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.6
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	656	47	62	876	284	161	748	137	285	988	561
Future Volume (veh/h)	443	656	47	62	876	284	161	748	137	285	988	561
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.94	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	482	713	39	67	952	285	175	813	108	310	1074	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	533	1338	73	86	766	228	187	766	322	335	1061	711
Arrive On Green	0.15	0.38	0.38	0.05	0.28	0.28	0.10	0.21	0.21	0.19	0.29	0.29
Sat Flow, veh/h	3510	3476	190	1810	2732	814	1810	3610	1518	1810	3610	1587
Grp Volume(v), veh/h	482	370	382	67	628	609	175	813	108	310	1074	483
Grp Sat Flow(s),veh/h/ln	1755	1805	1861	1810	1805	1741	1810	1805	1518	1810	1805	1587
Q Serve(g_s), s	16.2	19.0	19.0	4.4	33.6	33.6	11.5	25.4	7.2	20.2	35.2	29.0
Cycle Q Clear(g_c), s	16.2	19.0	19.0	4.4	33.6	33.6	11.5	25.4	7.2	20.2	35.2	29.0
Prop In Lane	1.00		0.10	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	695	716	86	506	488	187	766	322	335	1061	711
V/C Ratio(X)	0.90	0.53	0.53	0.78	1.24	1.25	0.93	1.06	0.34	0.92	1.01	0.68
Avail Cap(c_a), veh/h	539	695	716	97	506	488	187	766	322	338	1061	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	28.5	28.5	56.4	43.1	43.1	53.3	47.2	40.0	48.0	42.3	26.5
Incr Delay (d2), s/veh	18.0	2.9	2.8	25.4	124.0	127.7	46.6	50.2	0.6	29.7	30.8	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	8.5	8.8	2.6	31.9	31.3	7.5	16.3	2.7	11.6	19.5	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	31.4	31.4	81.9	167.1	170.8	99.9	97.4	40.6	77.7	73.1	29.1
LnGrp LOS	E	C	C	F	F	F	F	F	D	E	F	C
Approach Vol, veh/h		1234			1304			1096			1867	
Approach Delay, s/veh		45.7			164.5			92.2			62.5	
Approach LOS		D			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	51.5	17.0	41.0	22.8	39.0	26.8	31.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.4	45.6	12.4	35.2	18.4	33.6	22.4	25.2
Max Q Clear Time (g_c+I1), s	6.4	21.0	13.5	37.2	18.2	35.6	22.2	27.4
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0

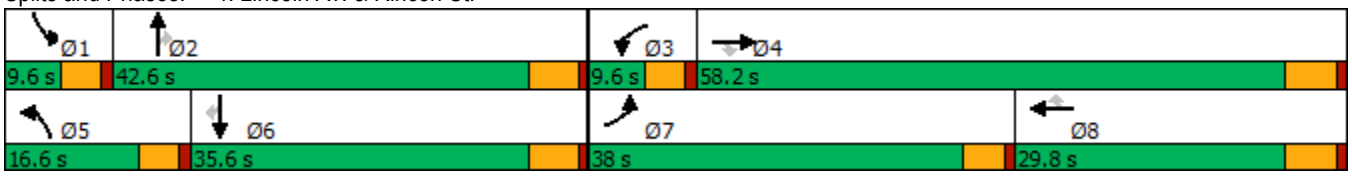
Intersection Summary	
HCM 6th Ctrl Delay	88.8
HCM 6th LOS	F

Lane Group	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	122	111	2	2	237	939	6	9	1330	424
Future Volume (vph)	122	111	2	2	237	939	6	9	1330	424
Turn Type	Prot	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7		3		5	2		1	6	
Permitted Phases		4		8			2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	38.0	58.2	9.6	29.8	16.6	42.6	42.6	9.6	35.6	35.6
Total Split (%)	31.7%	48.5%	8.0%	24.8%	13.8%	35.5%	35.5%	8.0%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 75
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	0	111	2	0	2	237	939	6	9	1330	424
Future Volume (veh/h)	122	0	111	2	0	2	237	939	6	9	1330	424
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	0	73	2	0	0	258	1021	6	10	1446	407
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	257	218	5	83	70	299	2052	914	23	1501	654
Arrive On Green	0.09	0.00	0.14	0.00	0.00	0.00	0.17	0.57	0.57	0.01	0.42	0.42
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1607	1810	3610	1573
Grp Volume(v), veh/h	133	0	73	2	0	0	258	1021	6	10	1446	407
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1607	1810	1805	1573
Q Serve(g_s), s	5.2	0.0	3.0	0.1	0.0	0.0	10.1	12.4	0.1	0.4	28.4	14.8
Cycle Q Clear(g_c), s	5.2	0.0	3.0	0.1	0.0	0.0	10.1	12.4	0.1	0.4	28.4	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	257	218	5	83	70	299	2052	914	23	1501	654
V/C Ratio(X)	0.78	0.00	0.33	0.41	0.00	0.00	0.86	0.50	0.01	0.44	0.96	0.62
Avail Cap(c_a), veh/h	832	1371	1162	125	628	532	299	2052	914	125	1501	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	28.4	36.2	0.0	0.0	29.5	9.4	6.8	35.6	20.7	16.7
Incr Delay (d2), s/veh	2.9	0.0	0.9	18.7	0.0	0.0	21.1	0.9	0.0	4.9	16.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.1	0.1	0.0	0.0	5.8	4.1	0.0	0.2	13.5	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	0.0	29.3	54.9	0.0	0.0	50.7	10.3	6.8	40.5	36.7	21.1
LnGrp LOS	D	A	C	D	A	A	D	B	A	D	D	C
Approach Vol, veh/h		206			2			1285			1863	
Approach Delay, s/veh		33.0			54.9			18.4			33.3	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	46.7	4.8	15.6	16.6	35.6	11.5	9.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	37.2	5.0	52.4	12.0	30.2	33.4	24.0
Max Q Clear Time (g_c+I1), s	2.4	14.4	2.1	5.0	12.1	30.4	7.2	0.0
Green Ext Time (p_c), s	0.0	7.3	0.0	0.2	0.0	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

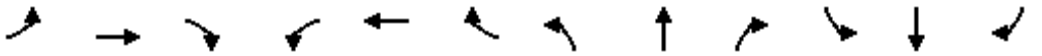
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	61	130	67	550	259	859	126	181	817	234
Future Volume (vph)	61	130	67	550	259	859	126	181	817	234
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	10.0	35.1	16.9	42.0	29.0	42.8	16.9	25.2	39.0	39.0
Total Split (%)	8.3%	29.3%	14.1%	35.0%	24.2%	35.7%	14.1%	21.0%	32.5%	32.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	130	85	67	550	163	259	859	126	181	817	234
Future Volume (veh/h)	61	130	85	67	550	163	259	859	126	181	817	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	141	60	73	598	143	282	934	95	197	888	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	617	250	94	730	174	315	1360	683	230	1190	530
Arrive On Green	0.05	0.25	0.25	0.05	0.25	0.25	0.17	0.38	0.38	0.13	0.33	0.33
Sat Flow, veh/h	1810	2494	1011	1810	2890	689	1810	3610	1589	1810	3610	1607
Grp Volume(v), veh/h	66	100	101	73	373	368	282	934	95	197	888	175
Grp Sat Flow(s),veh/h/ln	1810	1805	1700	1810	1805	1774	1810	1805	1589	1810	1805	1607
Q Serve(g_s), s	3.7	4.5	4.8	4.1	19.8	19.9	15.5	22.2	3.7	10.9	22.3	8.3
Cycle Q Clear(g_c), s	3.7	4.5	4.8	4.1	19.8	19.9	15.5	22.2	3.7	10.9	22.3	8.3
Prop In Lane	1.00		0.59	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	447	421	94	456	448	315	1360	683	230	1190	530
V/C Ratio(X)	0.77	0.22	0.24	0.77	0.82	0.82	0.89	0.69	0.14	0.86	0.75	0.33
Avail Cap(c_a), veh/h	96	526	495	218	648	637	433	1360	683	366	1190	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	30.5	30.7	47.7	35.9	35.9	41.1	26.7	17.7	43.5	30.4	25.7
Incr Delay (d2), s/veh	24.8	0.3	0.3	5.0	5.6	5.8	13.4	2.8	0.4	6.4	4.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.9	2.0	1.9	9.1	9.0	7.9	9.6	1.4	5.1	9.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	30.8	31.0	52.7	41.4	41.7	54.6	29.5	18.1	49.9	34.6	27.4
LnGrp LOS	E	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		267			814			1311			1260	
Approach Delay, s/veh		41.3			42.6			34.1			36.0	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	43.8	9.9	30.6	22.4	39.0	9.4	31.1
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.6	37.4	12.3	29.7	24.4	33.6	5.4	36.6
Max Q Clear Time (g_c+I1), s	12.9	24.2	6.1	6.8	17.5	24.3	5.7	21.9
Green Ext Time (p_c), s	0.2	5.4	0.0	1.0	0.2	4.3	0.0	3.8

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

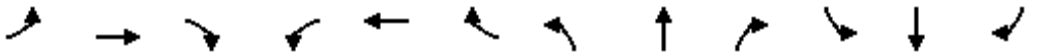
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	11	117	120	27	519	1174	66	822
Future Volume (vph)	14	11	117	120	27	519	1174	66	822
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	44.0	9.8	26.3	44.0	69.3	14.8	40.1
Total Split (%)	8.0%	21.8%	36.7%	8.2%	21.9%	36.7%	57.8%	12.3%	33.4%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.3
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	11	117	120	27	34	519	1174	101	66	822	86
Future Volume (veh/h)	14	11	117	120	27	34	519	1174	101	66	822	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	12	73	130	29	26	564	1276	98	72	893	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	185	685	281	120	108	594	2083	160	93	1110	112
Arrive On Green	0.02	0.10	0.10	0.05	0.13	0.13	0.33	0.61	0.61	0.05	0.34	0.34
Sat Flow, veh/h	1810	1900	1600	1810	923	828	1810	3398	260	1810	3301	333
Grp Volume(v), veh/h	15	12	73	130	0	55	564	677	697	72	488	495
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	0	1751	1810	1805	1853	1810	1805	1829
Q Serve(g_s), s	0.8	0.6	2.9	5.2	0.0	3.0	31.8	24.3	24.4	4.1	25.8	25.8
Cycle Q Clear(g_c), s	0.8	0.6	2.9	5.2	0.0	3.0	31.8	24.3	24.4	4.1	25.8	25.8
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.14	1.00		0.18
Lane Grp Cap(c), veh/h	233	185	685	281	0	228	594	1107	1136	93	607	615
V/C Ratio(X)	0.06	0.06	0.11	0.46	0.00	0.24	0.95	0.61	0.61	0.77	0.80	0.80
Avail Cap(c_a), veh/h	289	381	850	281	0	355	681	1107	1136	176	607	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	42.9	18.1	40.7	0.0	40.9	34.3	12.5	12.6	49.1	31.6	31.6
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.4	0.0	0.5	20.4	2.5	2.5	5.1	10.9	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	1.0	3.1	0.0	1.3	16.8	9.6	9.9	2.0	12.5	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	43.0	18.1	41.1	0.0	41.4	54.7	15.0	15.0	54.1	42.5	42.4
LnGrp LOS	D	D	B	D	A	D	D	B	B	D	D	D
Approach Vol, veh/h		100			185			1938			1055	
Approach Delay, s/veh		24.6			41.2			26.6			43.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	69.6	9.8	15.3	39.0	40.6	6.4	18.7
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	10.2	* 64	5.2	21.0	39.4	34.7	5.0	21.2
Max Q Clear Time (g_c+I1), s	6.1	26.4	7.2	4.9	33.8	27.8	2.8	5.0
Green Ext Time (p_c), s	0.0	12.4	0.0	0.2	0.6	3.3	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

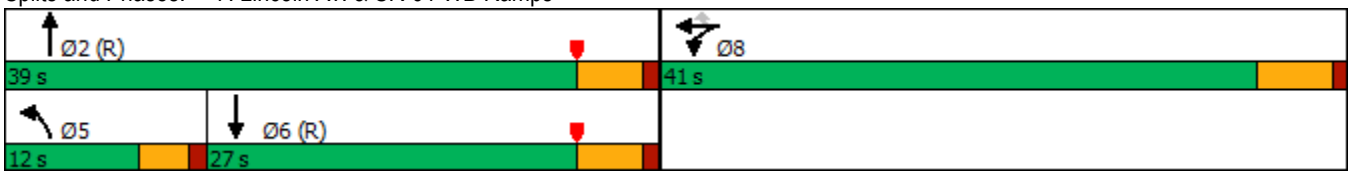
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

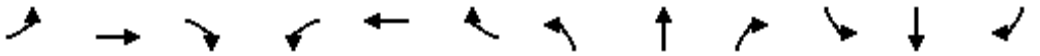
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	491	241	809	313	997	655
Future Volume (vph)	491	241	809	313	997	655
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	41.0	41.0	41.0	12.0	39.0	27.0
Total Split (%)	51.3%	51.3%	51.3%	15.0%	48.8%	33.8%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	491	241	809	313	997	0	0	655	415
Future Volume (veh/h)	0	0	0	491	241	809	313	997	0	0	655	415
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				381	433	577	326	1039	0	0	682	371
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				709	745	631	351	1721	0	0	735	400
Arrive On Green				0.39	0.39	0.39	0.10	0.48	0.00	0.00	0.33	0.33
Sat Flow, veh/h				1810	1900	1610	3510	3705	0	0	2346	1224
Grp Volume(v), veh/h				381	433	577	326	1039	0	0	547	506
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	1755	1805	0	0	1805	1670
Q Serve(g_s), s				13.0	14.4	27.2	7.4	16.9	0.0	0.0	23.4	23.4
Cycle Q Clear(g_c), s				13.0	14.4	27.2	7.4	16.9	0.0	0.0	23.4	23.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				709	745	631	351	1721	0	0	590	546
V/C Ratio(X)				0.54	0.58	0.91	0.93	0.60	0.00	0.00	0.93	0.93
Avail Cap(c_a), veh/h				803	843	715	351	1721	0	0	590	546
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.56	0.56	0.00	0.00	0.62	0.62
Uniform Delay (d), s/veh				18.7	19.1	23.0	35.7	15.4	0.0	0.0	26.0	26.0
Incr Delay (d2), s/veh				0.2	0.4	14.3	20.0	0.9	0.0	0.0	16.1	17.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	5.9	11.9	4.0	6.4	0.0	0.0	11.9	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.0	19.5	37.3	55.7	16.3	0.0	0.0	42.2	43.2
LnGrp LOS				B	B	D	E	B	A	A	D	D
Approach Vol, veh/h					1391			1365			1053	
Approach Delay, s/veh					26.7			25.7			42.7	
Approach LOS					C			C			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	43.1		12.0	31.1		36.9						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	34.0		8.0	22.0		35.5						
Max Q Clear Time (g_c+I1), s	18.9		9.4	25.4		29.2						
Green Ext Time (p_c), s	4.5		0.0	0.0		2.2						

Intersection Summary		
HCM 6th Ctrl Delay		30.8
HCM 6th LOS		C

Notes

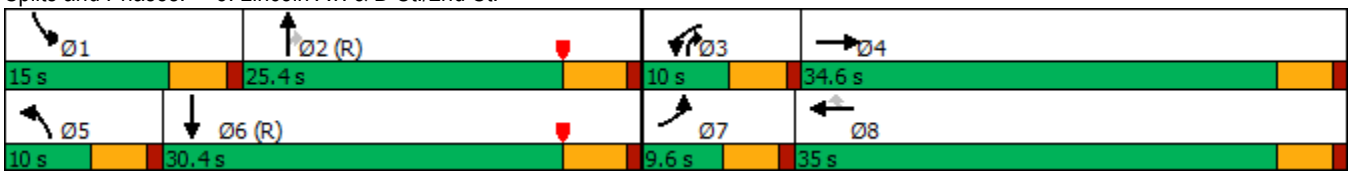
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	228	147	75	468	121	742	703	372	669
Future Volume (vph)	99	228	147	75	468	121	742	703	372	669
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	10.0	25.4	10.0	15.0	30.4
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.8%	29.9%	11.8%	17.6%	35.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	228	85	147	75	468	121	742	703	372	669	111
Future Volume (veh/h)	99	228	85	147	75	468	121	742	703	372	669	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	103	238	71	153	78	369	126	773	514	388	697	105
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	360	107	223	497	422	115	1208	640	430	1233	186
Arrive On Green	0.06	0.26	0.26	0.06	0.26	0.26	0.06	0.33	0.33	0.12	0.39	0.39
Sat Flow, veh/h	1810	1399	417	3510	1900	1610	1810	3610	1605	3510	3133	472
Grp Volume(v), veh/h	103	0	309	153	78	369	126	773	514	388	401	401
Grp Sat Flow(s),veh/h/ln	1810	0	1817	1755	1900	1610	1810	1805	1605	1755	1805	1800
Q Serve(g_s), s	4.8	0.0	12.9	3.6	2.7	18.7	5.4	15.4	24.1	9.3	14.7	14.8
Cycle Q Clear(g_c), s	4.8	0.0	12.9	3.6	2.7	18.7	5.4	15.4	24.1	9.3	14.7	14.8
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	467	223	497	422	115	1208	640	430	710	708
V/C Ratio(X)	0.97	0.00	0.66	0.69	0.16	0.88	1.10	0.64	0.80	0.90	0.57	0.57
Avail Cap(c_a), veh/h	106	0	641	223	680	576	115	1208	640	430	710	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.28	0.28	0.28
Uniform Delay (d), s/veh	39.9	0.0	28.3	39.0	24.1	30.0	39.8	23.9	22.6	36.8	20.1	20.1
Incr Delay (d2), s/veh	76.3	0.0	1.6	6.3	0.1	9.8	112.1	2.6	10.3	7.7	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	5.7	1.7	1.2	8.2	5.9	6.6	10.6	4.3	6.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.2	0.0	29.9	45.2	24.3	39.8	151.9	26.5	33.0	44.5	21.0	21.0
LnGrp LOS	F	A	C	D	C	D	F	C	C	D	C	C
Approach Vol, veh/h		412			600			1413			1190	
Approach Delay, s/veh		51.4			39.2			40.1			28.7	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.5	10.0	26.5	10.0	38.5	9.6	26.9
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	10.4	20.3	5.4	30.0	5.4	25.3	5.0	30.4
Max Q Clear Time (g_c+I1), s	11.3	26.1	5.6	14.9	7.4	16.8	6.8	20.7
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	3.2	0.0	1.3

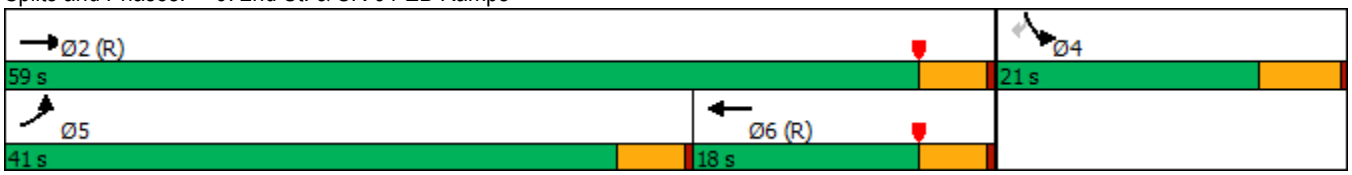
Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

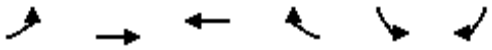
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	1142	99	170	124	521
Future Volume (vph)	1142	99	170	124	521
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	41.0	59.0	18.0	21.0	21.0
Total Split (%)	51.3%	73.8%	22.5%	26.3%	26.3%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1142	99	170	180	124	521
Future Volume (veh/h)	1142	99	170	180	124	521
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1190	103	177	128	129	543
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1350	1292	488	333	355	632
Arrive On Green	0.38	0.68	0.24	0.24	0.20	0.20
Sat Flow, veh/h	3510	1900	2146	1402	1810	3220
Grp Volume(v), veh/h	1190	103	155	150	129	543
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1648	1810	1610
Q Serve(g_s), s	25.2	1.5	5.7	6.1	4.9	13.0
Cycle Q Clear(g_c), s	25.2	1.5	5.7	6.1	4.9	13.0
Prop In Lane	1.00			0.85	1.00	1.00
Lane Grp Cap(c), veh/h	1350	1292	429	392	355	632
V/C Ratio(X)	0.88	0.08	0.36	0.38	0.36	0.86
Avail Cap(c_a), veh/h	1597	1292	429	392	355	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	4.3	25.4	25.6	27.8	31.1
Incr Delay (d2), s/veh	2.8	0.1	2.3	2.8	2.9	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.5	2.6	2.6	2.3	12.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	4.4	27.7	28.4	30.7	45.3
LnGrp LOS	C	A	C	C	C	D
Approach Vol, veh/h		1293	305		672	
Approach Delay, s/veh		24.0	28.1		42.5	
Approach LOS		C	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.0		21.0	35.4	23.6
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		54.4		15.7	36.4	13.4
Max Q Clear Time (g_c+I1), s		3.5		15.0	27.2	8.1
Green Ext Time (p_c), s		0.3		0.2	3.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	1044	724	67	61	36
Future Vol, veh/h	5	1044	724	67	61	36
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	1135	787	73	66	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	863	0	-	0	1972	827
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	1145	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	788	-	-	-	69	375
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	306	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	786	-	-	-	67	374
Mov Cap-2 Maneuver	-	-	-	-	67	-
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	305	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	202.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	786	-	-	-	96
HCM Lane V/C Ratio	0.007	-	-	-	1.098
HCM Control Delay (s)	9.6	0	-	-	202.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	6.9

Intersection	
Int Delay, s/veh	148.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	697	406	31	528	263	46
Future Vol, veh/h	697	406	31	528	263	46
Conflicting Peds, #/hr	0	2	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	758	441	34	574	286	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1201	0	1623	981
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	642	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	588	-	~ 114	305
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	528	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	587	-	~ 104	304
Mov Cap-2 Maneuver	-	-	-	-	~ 104	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	483	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	$ 945.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	115	-	-	587	-
HCM Lane V/C Ratio	2.921	-	-	0.057	-
HCM Control Delay (s)	$ 945.8	-	-	11.5	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	31.6	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	155.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	881	19	9	663	17	20	0	36	37	0	3
Future Vol, veh/h	1	881	19	9	663	17	20	0	36	37	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	958	21	10	721	18	22	0	39	40	0	3
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	226.4	83.7	11.8	12.1
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	36%	0%	0%	1%	93%
Vol Thru, %	0%	100%	0%	96%	0%
Vol Right, %	64%	0%	100%	2%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	882	19	689	40
LT Vol	20	1	0	9	37
Through Vol	0	881	0	663	0
RT Vol	36	0	19	17	3
Lane Flow Rate	61	959	21	749	43
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.117	1.458	0.027	1.084	0.089
Departure Headway (Hd)	7.765	5.649	4.939	5.722	8.337
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	464	652	729	644	433
Service Time	5.765	3.349	2.639	3.722	6.337
HCM Lane V/C Ratio	0.131	1.471	0.029	1.163	0.099
HCM Control Delay	11.8	231.1	7.8	83.7	12.1
HCM Lane LOS	B	F	A	F	B
HCM 95th-tile Q	0.4	44.3	0.1	19.6	0.3

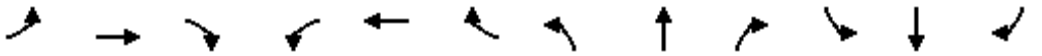
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	126	854	144	26	949	145	127	44	176	153	164
Future Volume (vph)	126	854	144	26	949	145	127	44	176	153	164
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	17.5	61.0	61.0	9.6	53.1	18.5	30.4	30.4	19.0	30.9	30.9
Total Split (%)	14.6%	50.8%	50.8%	8.0%	44.3%	15.4%	25.3%	25.3%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	854	144	26	949	151	145	127	44	176	153	164
Future Volume (veh/h)	126	854	144	26	949	151	145	127	44	176	153	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	928	120	28	1032	156	158	138	34	191	166	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	902	746	46	1286	194	186	403	334	218	437	363
Arrive On Green	0.09	0.47	0.47	0.03	0.41	0.41	0.10	0.21	0.21	0.12	0.23	0.23
Sat Flow, veh/h	1810	1900	1572	1810	3143	474	1810	1900	1575	1810	1900	1577
Grp Volume(v), veh/h	137	928	120	28	592	596	158	138	34	191	166	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1572	1810	1805	1813	1810	1900	1575	1810	1900	1577
Q Serve(g_s), s	8.8	55.9	5.1	1.8	34.0	34.1	10.1	7.3	2.0	12.2	8.7	6.8
Cycle Q Clear(g_c), s	8.8	55.9	5.1	1.8	34.0	34.1	10.1	7.3	2.0	12.2	8.7	6.8
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	902	746	46	739	742	186	403	334	218	437	363
V/C Ratio(X)	0.83	1.03	0.16	0.61	0.80	0.80	0.85	0.34	0.10	0.88	0.38	0.30
Avail Cap(c_a), veh/h	198	902	746	77	739	742	214	403	334	221	437	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	31.0	17.6	56.8	30.6	30.6	52.0	39.4	37.4	50.9	38.2	37.5
Incr Delay (d2), s/veh	19.1	37.7	0.1	4.7	6.3	6.4	21.9	2.3	0.6	28.7	2.5	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	33.6	1.8	0.9	15.6	15.7	5.6	3.6	0.8	7.2	4.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	68.7	17.7	61.5	36.9	37.0	73.8	41.7	38.0	79.6	40.7	39.7
LnGrp LOS	E	F	B	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		1185			1216			330			467	
Approach Delay, s/veh		63.9			37.5			56.7			56.4	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	61.0	16.7	32.5	15.3	53.3	18.8	30.4
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	55.9	13.9	25.5	12.9	48.0	14.4	25.0
Max Q Clear Time (g_c+I1), s	3.8	57.9	12.1	10.7	10.8	36.1	14.2	9.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	6.0	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	1071	1107	54	0	17
Future Vol, veh/h	0	1071	1107	54	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1164	1203	59	0	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	631
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	429
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	429
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	429
HCM Lane V/C Ratio	-	-	-	0.043
HCM Control Delay (s)	-	-	-	13.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1071	1092	97	0	70
Future Vol, veh/h	0	1071	1092	97	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1164	1187	105	0	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	646
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	419
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	419
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

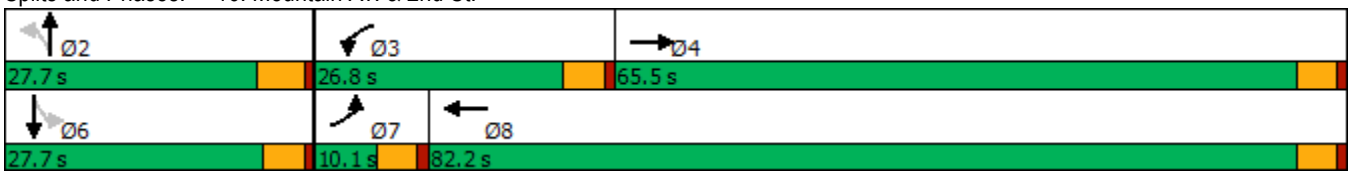
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	419
HCM Lane V/C Ratio	-	-	-	0.182
HCM Control Delay (s)	-	-	-	15.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.7

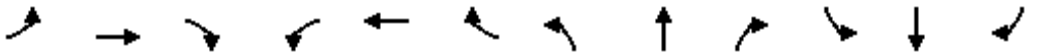
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	819	297	607	77	7	31	5
Future Volume (vph)	18	819	297	607	77	7	31	5
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	10.1	65.5	26.8	82.2	27.7	27.7	27.7	27.7
Total Split (%)	8.4%	54.6%	22.3%	68.5%	23.1%	23.1%	23.1%	23.1%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	819	98	297	607	23	77	7	225	31	5	25
Future Volume (veh/h)	18	819	98	297	607	23	77	7	225	31	5	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	890	54	323	660	8	84	8	245	34	5	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	893	54	333	1251	15	255	10	300	74	20	34
Arrive On Green	0.02	0.50	0.50	0.18	0.67	0.67	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	1771	107	1810	1873	23	1399	51	1567	150	106	177
Grp Volume(v), veh/h	20	0	944	323	0	668	84	0	253	66	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1879	1810	0	1896	1399	0	1618	433	0	0
Q Serve(g_s), s	1.3	0.0	60.4	21.4	0.0	21.8	0.0	0.0	18.1	3.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	60.4	21.4	0.0	21.8	9.0	0.0	18.1	21.5	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.01	1.00		0.97	0.52		0.41
Lane Grp Cap(c), veh/h	37	0	947	333	0	1266	255	0	310	128	0	0
V/C Ratio(X)	0.55	0.00	1.00	0.97	0.00	0.53	0.33	0.00	0.82	0.51	0.00	0.00
Avail Cap(c_a), veh/h	83	0	947	333	0	1266	255	0	310	128	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.5	0.0	29.8	48.9	0.0	10.3	43.1	0.0	46.7	49.2	0.0	0.0
Incr Delay (d2), s/veh	4.6	0.0	28.4	40.9	0.0	1.6	0.7	0.0	15.5	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	33.1	13.3	0.0	8.8	2.2	0.0	8.5	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	0.0	58.2	89.7	0.0	11.8	43.8	0.0	62.2	52.7	0.0	0.0
LnGrp LOS	E	A	E	F	A	B	D	A	E	D	A	A
Approach Vol, veh/h		964			991			337			66	
Approach Delay, s/veh		58.3			37.2			57.6			52.7	
Approach LOS		E			D			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.3	26.8	65.5		28.3	7.0	85.3				
Change Period (Y+Rc), s		5.2	4.6	* 4.7		* 5.2	4.6	* 4.7				
Max Green Setting (Gmax), s		22.5	22.2	* 61		* 23	5.5	* 78				
Max Q Clear Time (g_c+I1), s		20.1	23.4	62.4		23.5	3.3	23.8				
Green Ext Time (p_c), s		0.4	0.0	0.0		0.0	0.0	5.2				

Intersection Summary		
HCM 6th Ctrl Delay		49.2
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	17	0	8	4	0	8	39	284	13	27	324	51
Future Vol, veh/h	17	0	8	4	0	8	39	284	13	27	324	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	0	9	4	0	9	42	309	14	29	352	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	677	845	204	634	865	162	407	0	0	323	0	0
Stage 1	438	438	-	400	400	-	-	-	-	-	-	-
Stage 2	239	407	-	234	465	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	343	302	809	368	294	861	1163	-	-	1248	-	-
Stage 1	573	582	-	603	605	-	-	-	-	-	-	-
Stage 2	749	601	-	754	566	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	321	280	809	344	273	861	1163	-	-	1248	-	-
Mov Cap-2 Maneuver	321	280	-	344	273	-	-	-	-	-	-	-
Stage 1	548	565	-	576	578	-	-	-	-	-	-	-
Stage 2	709	575	-	724	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	11.4	1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1163	-	-	398	574	1248	-	-
HCM Lane V/C Ratio	0.036	-	-	0.068	0.023	0.024	-	-
HCM Control Delay (s)	8.2	0.1	-	14.7	11.4	8	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	12	0	8	9	0	5	32	320	23	28	267	41
Future Vol, veh/h	12	0	8	9	0	5	32	320	23	28	267	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	9	10	0	5	35	348	25	30	290	45

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	617	816	168	636	826	187	335	0	0	373	0	0
Stage 1	373	373	-	431	431	-	-	-	-	-	-	-
Stage 2	244	443	-	205	395	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	378	314	853	367	310	830	1236	-	-	1197	-	-
Stage 1	625	622	-	578	586	-	-	-	-	-	-	-
Stage 2	744	579	-	784	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	356	293	853	345	290	830	1236	-	-	1197	-	-
Mov Cap-2 Maneuver	356	293	-	345	290	-	-	-	-	-	-	-
Stage 1	603	603	-	557	565	-	-	-	-	-	-	-
Stage 2	713	558	-	752	589	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	13.6	0.8	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1236	-	-	464	436	1197	-	-
HCM Lane V/C Ratio	0.028	-	-	0.047	0.035	0.025	-	-
HCM Control Delay (s)	8	0.1	-	13.1	13.6	8.1	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	9	0	6	0	64	358	244	
Future Volume (vph)	9	0	6	0	64	358	244	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.4	27.4	9.6
Total Split (s)	40.0	40.0	40.0	40.0	20.0	60.0	60.0	20.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	16.7%	50.0%	50.0%	17%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.4	4.4	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.4	5.4	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 40.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	13	6	0	8	64	358	28	23	244	17
Future Volume (veh/h)	9	0	13	6	0	8	64	358	28	23	244	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	0	14	7	0	9	70	389	30	25	265	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	8	86	228	11	83	134	1927	148	0	1160	78
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.07	0.57	0.57	0.00	0.34	0.34
Sat Flow, veh/h	559	88	906	564	116	874	1810	3397	261	0	3432	232
Grp Volume(v), veh/h	24	0	0	16	0	0	70	206	213	0	139	144
Grp Sat Flow(s),veh/h/ln	1552	0	0	1553	0	0	1810	1805	1853	0	1805	1858
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	1.7	0.0	1.6	1.6
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.3	0.0	0.0	1.1	1.6	1.7	0.0	1.6	1.6
Prop In Lane	0.42		0.58	0.44		0.56	1.00		0.14	0.00		0.12
Lane Grp Cap(c), veh/h	319	0	0	322	0	0	134	1024	1051	0	610	628
V/C Ratio(X)	0.08	0.00	0.00	0.05	0.00	0.00	0.52	0.20	0.20	0.00	0.23	0.23
Avail Cap(c_a), veh/h	2004	0	0	1999	0	0	942	3331	3419	0	3331	3429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	0.0	12.2	0.0	0.0	13.2	3.1	3.1	0.0	7.0	7.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	1.2	0.1	0.1	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.4	0.1	0.1	0.0	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	0.0	0.0	12.3	0.0	0.0	14.4	3.2	3.2	0.0	7.2	7.2
LnGrp LOS	B	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		24			16			489			283	
Approach Delay, s/veh		12.4			12.3			4.8			7.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	22.2		7.4	6.8	15.4		7.4				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	0.0	3.7		2.4	3.1	3.6		2.3				
Green Ext Time (p_c), s	0.0	2.5		0.1	0.0	1.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			6.0									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	11	6	0	8	57	433	28	24	223	17
Future Vol, veh/h	9	0	11	6	0	8	57	433	28	24	223	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	0	12	7	0	9	62	471	30	26	242	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	663	928	130	783	922	251	260	0	0	501	0	0
Stage 1	303	303	-	610	610	-	-	-	-	-	-	-
Stage 2	360	625	-	173	312	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	351	270	902	288	272	755	1316	-	-	1074	-	-
Stage 1	687	667	-	453	488	-	-	-	-	-	-	-
Stage 2	636	480	-	818	661	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	323	245	902	264	247	755	1316	-	-	1074	-	-
Mov Cap-2 Maneuver	323	245	-	264	247	-	-	-	-	-	-	-
Stage 1	642	648	-	423	456	-	-	-	-	-	-	-
Stage 2	587	448	-	785	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	13.9	1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1316	-	-	499	420	1074	-	-
HCM Lane V/C Ratio	0.047	-	-	0.044	0.036	0.024	-	-
HCM Control Delay (s)	7.9	0.2	-	12.5	13.9	8.4	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	63	0	518	155	86
Future Vol, veh/h	0	63	0	518	155	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	68	0	563	168	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	131	261	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	901	1315	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	901	1315	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

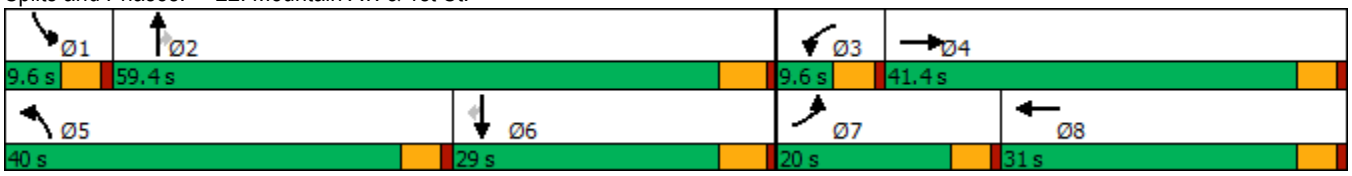
Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

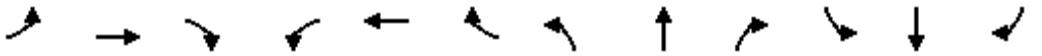
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1315	-	901	-	-
HCM Lane V/C Ratio	-	-	0.076	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	264	470	1	440	644	218	16	14	100	104
Future Volume (vph)	264	470	1	440	644	218	16	14	100	104
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	20.0	41.4	9.6	31.0	40.0	59.4	59.4	9.6	29.0	29.0
Total Split (%)	16.7%	34.5%	8.0%	25.8%	33.3%	49.5%	49.5%	8.0%	24.2%	24.2%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.4
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	470	337	1	440	36	644	218	16	14	100	104
Future Volume (veh/h)	264	470	337	1	440	36	644	218	16	14	100	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	278	495	355	1	463	38	678	229	17	15	105	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	262	786	563	2	428	35	603	780	661	30	179	152
Arrive On Green	0.15	0.39	0.39	0.00	0.25	0.25	0.33	0.41	0.41	0.02	0.09	0.09
Sat Flow, veh/h	1810	2009	1438	1810	1730	142	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	278	445	405	1	0	501	678	229	17	15	105	109
Grp Sat Flow(s),veh/h/ln	1810	1805	1641	1810	0	1872	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	15.4	21.1	21.2	0.1	0.0	26.3	35.4	8.6	0.7	0.9	5.6	7.0
Cycle Q Clear(g_c), s	15.4	21.1	21.2	0.1	0.0	26.3	35.4	8.6	0.7	0.9	5.6	7.0
Prop In Lane	1.00		0.88	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	706	642	2	0	464	603	780	661	30	179	152
V/C Ratio(X)	1.06	0.63	0.63	0.40	0.00	1.08	1.12	0.29	0.03	0.49	0.59	0.72
Avail Cap(c_a), veh/h	262	706	642	85	0	464	603	970	822	85	426	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	26.1	26.1	53.0	0.0	40.0	35.4	21.0	18.6	51.8	46.1	46.7
Incr Delay (d2), s/veh	72.1	1.8	2.0	34.9	0.0	65.2	75.8	0.2	0.0	4.5	3.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	9.1	8.3	0.1	0.0	20.2	27.5	3.7	0.2	0.4	2.7	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.5	27.9	28.1	87.9	0.0	105.1	111.2	21.2	18.7	56.3	49.2	53.0
LnGrp LOS	F	C	C	F	A	F	F	C	B	E	D	D
Approach Vol, veh/h		1128			502			924			229	
Approach Delay, s/veh		50.1			105.1			87.2			51.4	
Approach LOS		D			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	48.8	4.7	46.3	40.0	15.2	20.0	31.0
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	54.2	5.0	* 37	35.4	23.8	15.4	* 26
Max Q Clear Time (g_c+I1), s	2.9	10.6	2.1	23.2	37.4	9.0	17.4	28.3
Green Ext Time (p_c), s	0.0	1.3	0.0	4.6	0.0	0.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	72.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1051	24	0	927	0	8
Future Vol, veh/h	1051	24	0	927	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1142	26	0	1008	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1155
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	242
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	242
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.4
HCM LOS			C

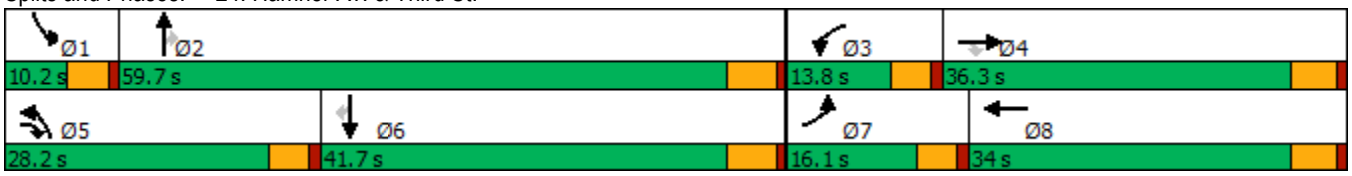
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	242	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-
HCM Control Delay (s)	20.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

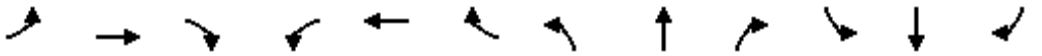
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	148	39	317	87	368	630	1389	64	31	844	552
Future Volume (vph)	148	39	317	87	368	630	1389	64	31	844	552
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	16.1	36.3	28.2	13.8	34.0	28.2	59.7	59.7	10.2	41.7	41.7
Total Split (%)	13.4%	30.3%	23.5%	11.5%	28.3%	23.5%	49.8%	49.8%	8.5%	34.8%	34.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.5
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	39	317	87	368	38	630	1389	64	31	844	552
Future Volume (veh/h)	148	39	317	87	368	38	630	1389	64	31	844	552
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	41	188	92	387	36	663	1462	45	33	888	466
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	517	755	115	410	38	691	1704	737	50	1094	485
Arrive On Green	0.10	0.27	0.27	0.06	0.24	0.24	0.20	0.47	0.47	0.03	0.30	0.30
Sat Flow, veh/h	1810	1900	1608	1810	1709	159	3510	3610	1562	1810	3610	1602
Grp Volume(v), veh/h	156	41	188	92	0	423	663	1462	45	33	888	466
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1868	1755	1805	1562	1810	1805	1602
Q Serve(g_s), s	10.2	1.9	8.4	6.0	0.0	26.7	22.4	43.1	1.9	2.2	27.3	34.3
Cycle Q Clear(g_c), s	10.2	1.9	8.4	6.0	0.0	26.7	22.4	43.1	1.9	2.2	27.3	34.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	517	755	115	0	448	691	1704	737	50	1094	485
V/C Ratio(X)	0.90	0.08	0.25	0.80	0.00	0.94	0.96	0.86	0.06	0.66	0.81	0.96
Avail Cap(c_a), veh/h	174	517	755	139	0	450	691	1704	737	85	1094	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	32.5	19.1	55.3	0.0	44.8	47.6	28.1	17.2	57.7	38.6	41.1
Incr Delay (d2), s/veh	39.8	0.1	0.2	19.2	0.0	28.8	24.3	5.8	0.2	5.3	6.6	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.9	3.1	3.3	0.0	15.7	11.9	18.9	0.7	1.0	12.7	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.4	32.5	19.3	74.5	0.0	73.5	71.9	33.9	17.4	63.0	45.2	73.1
LnGrp LOS	F	C	B	E	A	E	E	C	B	E	D	E
Approach Vol, veh/h		385			515			2170			1387	
Approach Delay, s/veh		50.7			73.7			45.2			55.0	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	62.0	12.2	37.7	28.2	41.7	16.1	33.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	5.6	54.3	9.2	31.2	23.6	36.3	11.5	28.9
Max Q Clear Time (g_c+I1), s	4.2	45.1	8.0	10.4	24.4	36.3	12.2	28.7
Green Ext Time (p_c), s	0.0	6.3	0.0	0.8	0.0	0.0	0.0	0.1

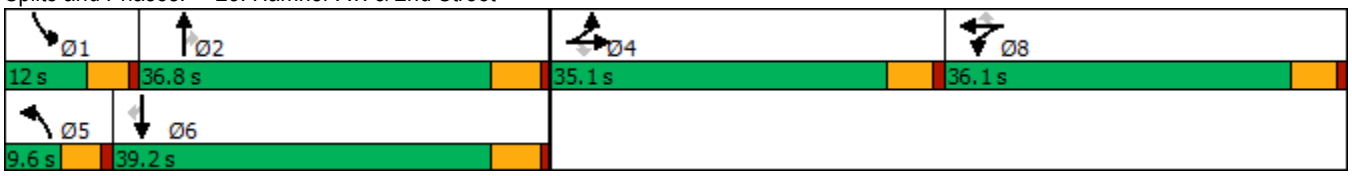
Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	643	49	587	655	806	92	994	225	324	831	246
Future Volume (vph)	277	643	49	587	655	806	92	994	225	324	831	246
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	36.8	36.8	12.0	39.2	39.2
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.0%	30.7%	30.7%	10.0%	32.7%	32.7%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	643	49	587	655	806	92	994	225	324	831	246
Future Volume (veh/h)	277	643	49	587	655	806	92	994	225	324	831	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	292	677	41	436	944	519	97	1046	163	341	875	217
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	452	950	397	467	982	410	75	945	417	112	1017	452
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.04	0.26	0.26	0.06	0.28	0.28
Sat Flow, veh/h	1810	3800	1589	1810	3800	1588	1810	3610	1595	1810	3610	1605
Grp Volume(v), veh/h	292	677	41	436	944	519	97	1046	163	341	875	217
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1588	1810	1805	1595	1810	1805	1605
Q Serve(g_s), s	17.3	19.5	2.4	28.3	29.4	31.0	5.0	31.4	10.1	7.4	27.6	13.5
Cycle Q Clear(g_c), s	17.3	19.5	2.4	28.3	29.4	31.0	5.0	31.4	10.1	7.4	27.6	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	950	397	467	982	410	75	945	417	112	1017	452
V/C Ratio(X)	0.65	0.71	0.10	0.93	0.96	1.27	1.29	1.11	0.39	3.06	0.86	0.48
Avail Cap(c_a), veh/h	452	950	397	467	982	410	75	945	417	112	1017	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	41.1	34.6	43.5	43.9	44.5	57.5	44.3	36.4	56.3	40.9	35.8
Incr Delay (d2), s/veh	6.9	4.5	0.5	25.8	20.0	137.6	198.5	63.3	0.6	948.5	7.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	9.6	1.0	15.7	16.3	27.6	6.4	21.9	3.9	32.7	13.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	45.6	35.2	69.3	63.9	182.1	256.0	107.6	37.0	1004.8	48.5	36.6
LnGrp LOS	D	D	D	E	E	F	F	F	D	F	D	D
Approach Vol, veh/h		1010			1899			1306			1433	
Approach Delay, s/veh		45.6			97.4			109.8			274.3	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.8		35.1	9.6	39.2		36.1				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	7.4	31.4		30.0	5.0	33.8		31.0				
Max Q Clear Time (g_c+I1), s	9.4	33.4		21.5	7.0	29.6		33.0				
Green Ext Time (p_c), s	0.0	0.0		3.6	0.0	2.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		135.9
HCM 6th LOS		F

Notes

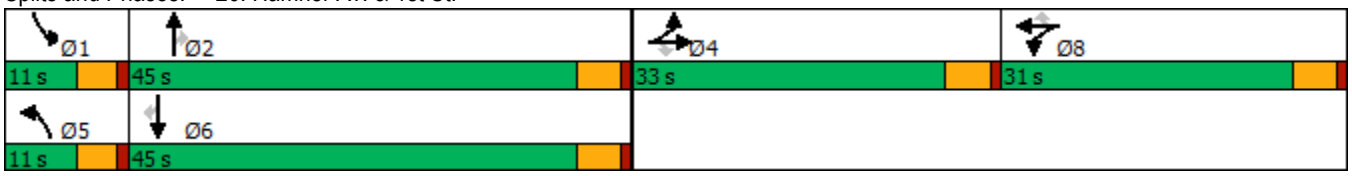
User approved volume balancing among the lanes for turning movement.

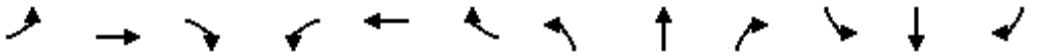
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	433	29	25	16	9	68	1033	2	21	913	338
Future Volume (vph)	433	29	25	16	9	68	1033	2	21	913	338
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	11.0	45.0	45.0	11.0	45.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	9.2%	37.5%	37.5%	9.2%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 90
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	433	29	25	11	16	9	68	1033	2	21	913	338
Future Volume (veh/h)	433	29	25	11	16	9	68	1033	2	21	913	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	483	0	18	12	17	1	72	1099	2	22	971	270
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	625	0	278	46	66	95	93	1833	798	43	1734	772
Arrive On Green	0.17	0.00	0.17	0.06	0.06	0.06	0.05	0.51	0.51	0.02	0.48	0.48
Sat Flow, veh/h	3619	0	1607	770	1091	1588	1810	3610	1572	1810	3610	1607
Grp Volume(v), veh/h	483	0	18	29	0	1	72	1099	2	22	971	270
Grp Sat Flow(s),veh/h/ln	1810	0	1607	1861	0	1588	1810	1805	1572	1810	1805	1607
Q Serve(g_s), s	10.6	0.0	0.8	1.2	0.0	0.0	3.3	17.9	0.1	1.0	15.9	8.7
Cycle Q Clear(g_c), s	10.6	0.0	0.8	1.2	0.0	0.0	3.3	17.9	0.1	1.0	15.9	8.7
Prop In Lane	1.00		1.00	0.41		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	0	278	112	0	95	93	1833	798	43	1734	772
V/C Ratio(X)	0.77	0.00	0.06	0.26	0.00	0.01	0.77	0.60	0.00	0.51	0.56	0.35
Avail Cap(c_a), veh/h	1217	0	541	581	0	496	139	1833	798	139	1734	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	28.8	37.4	0.0	36.8	39.0	14.5	10.1	40.2	15.4	13.5
Incr Delay (d2), s/veh	2.1	0.0	0.1	1.2	0.0	0.0	7.0	1.5	0.0	3.4	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.3	0.6	0.0	0.0	1.6	6.7	0.0	0.5	6.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	0.0	28.9	38.6	0.0	36.8	46.0	16.0	10.1	43.5	16.7	14.8
LnGrp LOS	C	A	C	D	A	D	D	B	B	D	B	B
Approach Vol, veh/h		501			30			1173			1263	
Approach Delay, s/veh		34.7			38.5			17.8			16.7	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	47.3		19.4	8.9	45.0		10.0				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	6.4	40.0		28.0	6.4	40.0		26.0				
Max Q Clear Time (g_c+I1), s	3.0	19.9		12.6	5.3	17.9		3.2				
Green Ext Time (p_c), s	0.0	7.6		1.6	0.0	7.8		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		20.4	
HCM 6th LOS		C	

Notes

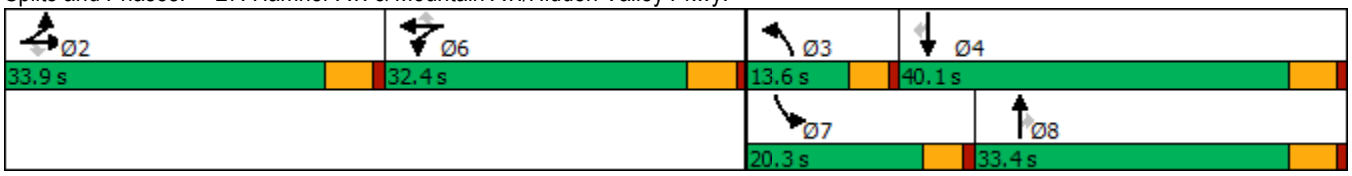
User approved volume balancing among the lanes for turning movement.

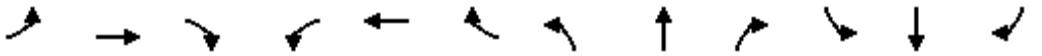
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	384	64	951	889	452	77	690	337	208	722	14
Future Volume (vph)	15	384	64	951	889	452	77	690	337	208	722	14
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 115.7
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	384	64	951	889	452	77	690	337	208	722	14
Future Volume (veh/h)	15	384	64	951	889	452	77	690	337	208	722	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	409	63	1093	832	442	82	734	238	221	768	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	463	923	411	877	460	390	105	844	371	286	930	412
Arrive On Green	0.26	0.26	0.26	0.24	0.24	0.24	0.06	0.23	0.23	0.08	0.26	0.26
Sat Flow, veh/h	1810	3610	1608	3619	1900	1608	1810	3610	1585	3510	3610	1601
Grp Volume(v), veh/h	16	409	63	1093	832	442	82	734	238	221	768	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1608	1810	1805	1585	1755	1805	1601
Q Serve(g_s), s	0.7	10.6	3.4	27.0	27.0	27.0	5.0	21.8	15.1	6.9	22.4	0.6
Cycle Q Clear(g_c), s	0.7	10.6	3.4	27.0	27.0	27.0	5.0	21.8	15.1	6.9	22.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	923	411	877	460	390	105	844	371	286	930	412
V/C Ratio(X)	0.03	0.44	0.15	1.25	1.81	1.13	0.78	0.87	0.64	0.77	0.83	0.03
Avail Cap(c_a), veh/h	463	923	411	877	460	390	146	907	398	495	1124	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	34.8	32.1	42.2	42.2	42.2	51.8	41.1	38.5	50.2	39.0	30.9
Incr Delay (d2), s/veh	0.1	1.5	0.8	120.5	371.9	87.4	10.8	8.7	3.2	1.7	4.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.7	1.4	26.3	59.8	19.8	2.5	10.4	6.0	3.0	10.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	36.3	32.9	162.7	414.1	129.7	62.6	49.7	41.7	51.8	43.4	31.0
LnGrp LOS	C	D	C	F	F	F	E	D	D	D	D	C
Approach Vol, veh/h		488			2367			1054			1000	
Approach Delay, s/veh		35.7			244.9			48.9			45.1	
Approach LOS		D			F			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	11.0	34.1		32.4	13.7	31.5				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		12.6	7.0	24.4		29.0	8.9	23.8				
Green Ext Time (p_c), s		2.4	0.0	3.6		0.0	0.2	2.1				

Intersection Summary		
HCM 6th Ctrl Delay		141.3
HCM 6th LOS		F

Notes

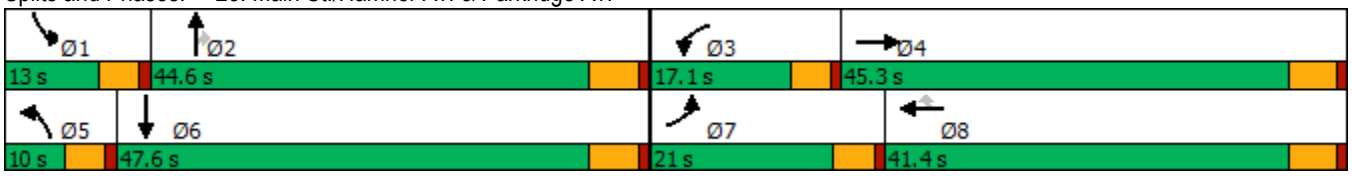
User approved volume balancing among the lanes for turning movement.

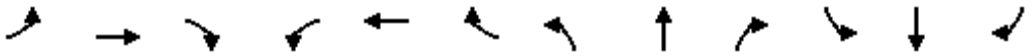
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	488	589	84	415	346	118	761	65	295	1032
Future Volume (vph)	488	589	84	415	346	118	761	65	295	1032
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	21.0	45.3	17.1	41.4	41.4	10.0	44.6	44.6	13.0	47.6
Total Split (%)	17.5%	37.8%	14.3%	34.5%	34.5%	8.3%	37.2%	37.2%	10.8%	39.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116
Natural Cycle: 145
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	488	589	84	84	415	346	118	761	65	295	1032	621
Future Volume (veh/h)	488	589	84	84	415	346	118	761	65	295	1032	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	530	640	83	91	451	250	128	827	0	321	1122	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	256	1129	146	115	523	440	84	1221		131	1889	
Arrive On Green	0.14	0.35	0.35	0.06	0.28	0.28	0.05	0.34	0.00	0.07	0.36	0.00
Sat Flow, veh/h	1810	3198	414	1810	1900	1600	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	530	361	362	91	451	250	128	827	0	321	1122	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1807	1810	1900	1600	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	16.4	18.7	18.8	5.7	26.1	15.6	5.4	22.8	0.0	8.4	20.3	0.0
Cycle Q Clear(g_c), s	16.4	18.7	18.8	5.7	26.1	15.6	5.4	22.8	0.0	8.4	20.3	0.0
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	256	637	638	115	523	440	84	1221		131	1889	
V/C Ratio(X)	2.07	0.57	0.57	0.79	0.86	0.57	1.52	0.68		2.45	0.59	
Avail Cap(c_a), veh/h	256	637	638	195	590	497	84	1221		131	1889	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	30.3	30.3	53.5	39.9	36.1	55.2	32.9	0.0	53.7	29.9	0.0
Incr Delay (d2), s/veh	494.6	1.2	1.2	4.5	11.5	1.2	284.4	3.0	0.0	673.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.4	8.1	8.1	2.7	13.5	6.1	9.1	10.1	0.0	28.3	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	544.3	31.5	31.5	58.0	51.4	37.3	339.6	35.9	0.0	727.4	31.3	0.0
LnGrp LOS	F	C	C	E	D	D	F	D		F	C	
Approach Vol, veh/h		1253			792			955	A		1443	A
Approach Delay, s/veh		248.4			47.7			76.6			186.1	
Approach LOS		F			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.6	12.0	46.3	10.0	47.6	21.0	37.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	8.4	39.2	12.5	39.9	5.4	42.2	16.4	36.0
Max Q Clear Time (g_c+I1), s	10.4	24.8	7.7	20.8	7.4	22.3	18.4	28.1
Green Ext Time (p_c), s	0.0	4.7	0.0	4.1	0.0	7.5	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	155.5
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

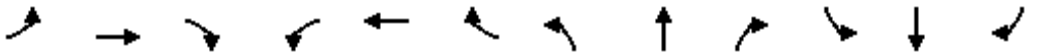
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	615	342	1343	1	603
Future Volume (vph)	615	342	1343	1	603
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	64.0	22.0	86.0	34.0	34.0
Total Split (%)	53.3%	18.3%	71.7%	28.3%	28.3%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	615	657	342	1343	0	0	0	0	78	1	603
Future Volume (veh/h)	0	615	657	342	1343	0	0	0	0	78	1	603
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	641	616	356	1399	0				81	1	597
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	893	769	264	2449	0				428	5	385
Arrive On Green	0.00	0.50	0.50	0.15	0.68	0.00				0.24	0.24	0.24
Sat Flow, veh/h	0	1900	1554	1810	3705	0				1788	22	1610
Grp Volume(v), veh/h	0	641	616	356	1399	0				82	0	597
Grp Sat Flow(s),veh/h/ln	0	1805	1554	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	33.4	39.8	17.5	24.4	0.0				4.3	0.0	28.7
Cycle Q Clear(g_c), s	0.0	33.4	39.8	17.5	24.4	0.0				4.3	0.0	28.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	893	769	264	2449	0				433	0	385
V/C Ratio(X)	0.00	0.72	0.80	1.35	0.57	0.00				0.19	0.00	1.55
Avail Cap(c_a), veh/h	0	893	769	264	2449	0				433	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.52	0.52	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.7	25.3	51.3	10.1	0.0				36.4	0.0	45.7
Incr Delay (d2), s/veh	0.0	0.5	0.8	169.8	0.5	0.0				0.1	0.0	260.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.8	14.2	20.3	8.9	0.0				1.9	0.0	38.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.2	26.2	221.0	10.6	0.0				36.5	0.0	305.8
LnGrp LOS	A	C	C	F	B	A				D	A	F
Approach Vol, veh/h		1257			1755						679	
Approach Delay, s/veh		25.2			53.3						273.3	
Approach LOS		C			D						F	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	64.0		34.0		86.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	17.5	59.4		28.7		81.4
Max Q Clear Time (g_c+I1), s	19.5	41.8		30.7		26.4
Green Ext Time (p_c), s	0.0	5.8		0.0		9.0

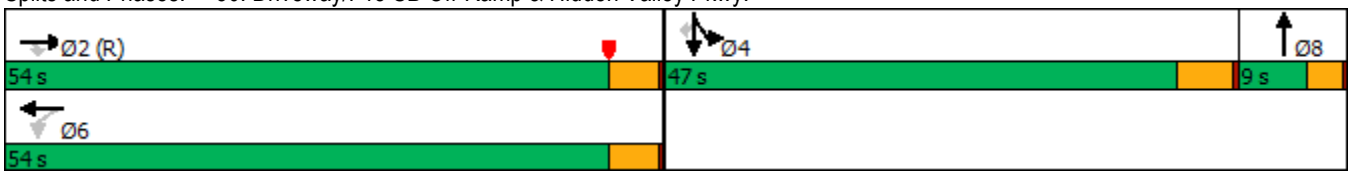
Intersection Summary		
HCM 6th Ctrl Delay		84.2
HCM 6th LOS		F

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	907	29	99	1183	0	283	86	1002
Future Volume (vph)	907	29	99	1183	0	283	86	1002
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	54.0	54.0	54.0	54.0	9.0	47.0	47.0	47.0
Total Split (%)	49.1%	49.1%	49.1%	49.1%	8.2%	42.7%	42.7%	42.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 109 (99%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	907	29	99	1183	0	0	0	104	283	86	1002
Future Volume (veh/h)	0	907	29	99	1183	0	0	0	104	283	86	1002
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	955	23	104	1245	0	0	0	65	229	0	1082
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	1624	725	213	1624	0	0	0	81	691	0	1230
Arrive On Green	0.00	0.45	0.45	0.90	0.90	0.00	0.00	0.00	0.05	0.38	0.00	0.38
Sat Flow, veh/h	0	3705	1610	584	3705	0	0	0	1610	1810	0	3220
Grp Volume(v), veh/h	0	955	23	104	1245	0	0	0	65	229	0	1082
Grp Sat Flow(s),veh/h/ln	0	1805	1610	584	1805	0	0	0	1610	1810	0	1610
Q Serve(g_s), s	0.0	21.8	0.9	15.1	12.2	0.0	0.0	0.0	4.4	9.9	0.0	34.4
Cycle Q Clear(g_c), s	0.0	21.8	0.9	36.8	12.2	0.0	0.0	0.0	4.4	9.9	0.0	34.4
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	1625	725	213	1625	0	0	0	81	691	0	1230
V/C Ratio(X)	0.00	0.59	0.03	0.49	0.77	0.00	0.00	0.00	0.81	0.33	0.00	0.88
Avail Cap(c_a), veh/h	0	1625	725	213	1625	0	0	0	81	691	0	1230
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.93	0.93	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.6	16.9	13.2	3.6	0.0	0.0	0.0	51.7	24.1	0.0	31.7
Incr Delay (d2), s/veh	0.0	1.3	0.1	0.6	1.9	0.0	0.0	0.0	41.1	1.3	0.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	0.3	1.4	2.1	0.0	0.0	0.0	2.7	4.3	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.9	16.9	13.8	5.5	0.0	0.0	0.0	92.8	25.3	0.0	40.8
LnGrp LOS	A	C	B	B	A	A	A	A	F	C	A	D
Approach Vol, veh/h		978			1349			65			1311	
Approach Delay, s/veh		23.8			6.2			92.8			38.1	
Approach LOS		C			A			F			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.0		47.0		54.0		9.0				
Change Period (Y+Rc), s		4.5		5.0		4.5		3.5				
Max Green Setting (Gmax), s		49.5		42.0		49.5		5.5				
Max Q Clear Time (g_c+I1), s		23.8		36.4		38.8		6.4				
Green Ext Time (p_c), s		4.5		2.3		5.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		23.6
HCM 6th LOS		C

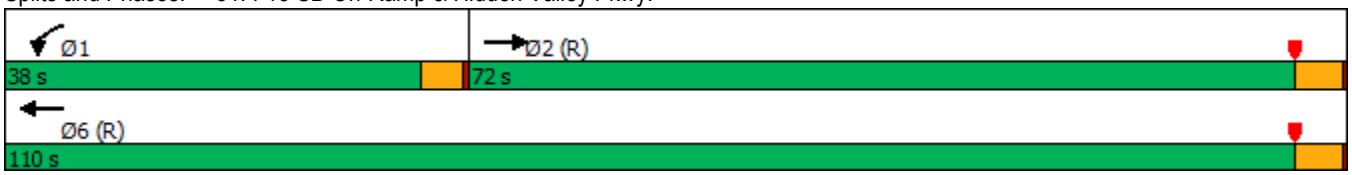
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	832	253	1283
Future Volume (vph)	832	253	1283
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	72.0	38.0	110.0
Total Split (%)	65.5%	34.5%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 23 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	832	462	253	1283	0	0
Future Volume (veh/h)	832	462	253	1283	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	904	500	275	1395		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1386	752	559	3462		
Arrive On Green	1.00	1.00	0.62	1.00		
Sat Flow, veh/h	2353	1226	1810	3705		
Grp Volume(v), veh/h	719	685	275	1395		
Grp Sat Flow(s),veh/h/ln	1805	1679	1810	1805		
Q Serve(g_s), s	0.0	0.0	9.2	0.0		
Cycle Q Clear(g_c), s	0.0	0.0	9.2	0.0		
Prop In Lane		0.73	1.00			
Lane Grp Cap(c), veh/h	1108	1030	559	3462		
V/C Ratio(X)	0.65	0.66	0.49	0.40		
Avail Cap(c_a), veh/h	1108	1030	559	3462		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.83	0.83	0.73	0.73		
Uniform Delay (d), s/veh	0.0	0.0	16.3	0.0		
Incr Delay (d2), s/veh	2.5	2.8	2.3	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.8	0.8	3.3	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.5	2.8	18.5	0.3		
LnGrp LOS	A	A	B	A		
Approach Vol, veh/h	1404			1670		
Approach Delay, s/veh	2.6			3.3		
Approach LOS	A			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	38.0	72.0				110.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	34.0	67.5				105.5
Max Q Clear Time (g_c+I1), s	11.2	2.0				2.0
Green Ext Time (p_c), s	0.8	7.6				8.4

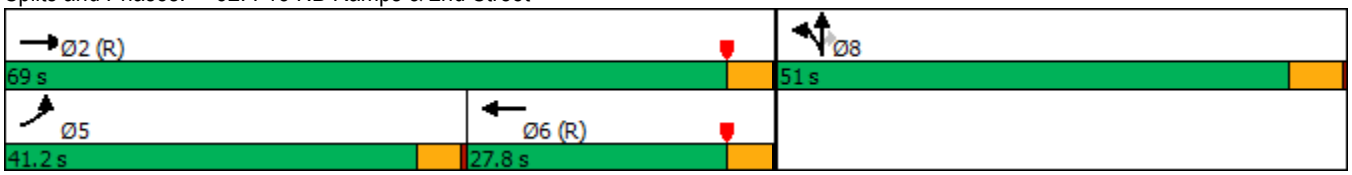
Intersection Summary						
HCM 6th Ctrl Delay			3.0			
HCM 6th LOS			A			

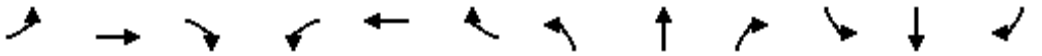
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	229	465	738	11	683
Future Volume (vph)	229	465	738	11	683
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	41.2	69.0	27.8	51.0	51.0
Total Split (%)	34.3%	57.5%	23.2%	42.5%	42.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 47 (39%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	465	0	0	738	99	942	11	683	0	0	0
Future Volume (veh/h)	229	465	0	0	738	99	942	11	683	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	246	500	0	0	794	95	1013	12	588			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	281	1937	0	0	1112	133	681	8	613			
Arrive On Green	0.05	0.18	0.00	0.00	0.34	0.34	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	3331	387	1789	21	1610			
Grp Volume(v), veh/h	246	500	0	0	443	446	1025	0	588			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1819	1811	0	1610			
Q Serve(g_s), s	16.2	14.3	0.0	0.0	25.6	25.6	45.7	0.0	42.7			
Cycle Q Clear(g_c), s	16.2	14.3	0.0	0.0	25.6	25.6	45.7	0.0	42.7			
Prop In Lane	1.00		0.00	0.00		0.21	0.99		1.00			
Lane Grp Cap(c), veh/h	281	1937	0	0	620	625	690	0	613			
V/C Ratio(X)	0.87	0.26	0.00	0.00	0.71	0.71	1.49	0.00	0.96			
Avail Cap(c_a), veh/h	553	1937	0	0	620	625	690	0	613			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.8	28.8	0.0	0.0	34.2	34.3	37.2	0.0	36.2			
Incr Delay (d2), s/veh	3.9	0.2	0.0	0.0	6.9	6.8	226.7	0.0	26.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.2	7.0	0.0	0.0	12.2	12.3	62.4	0.0	20.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	29.0	0.0	0.0	41.1	41.1	263.8	0.0	62.5			
LnGrp LOS	E	C	A	A	D	D	F	A	E			
Approach Vol, veh/h		746			889			1613				
Approach Delay, s/veh		39.1			41.1			190.4				
Approach LOS		D			D			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.0			23.2	45.8		51.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		64.4			36.7	23.2		45.7				
Max Q Clear Time (g_c+I1), s		16.3			18.2	27.6		47.7				
Green Ext Time (p_c), s		2.3			0.5	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			114.8									
HCM 6th LOS			F									

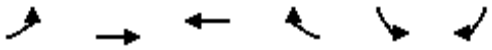
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	278	548	1540	636
Future Volume (vph)	278	548	1540	636
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	25.0	110.0	85.0	85.0
Total Split (%)	22.7%	100.0%	77.3%	77.3%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 103 (94%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	278	548	1540	636	0	0
Future Volume (veh/h)	278	548	1540	636	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	151	596	1674	668		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	345	3462	2642	1154		
Arrive On Green	0.38	1.00	0.73	0.73		
Sat Flow, veh/h	1810	3705	3705	1576		
Grp Volume(v), veh/h	151	596	1674	668		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1576		
Q Serve(g_s), s	6.8	0.0	25.5	21.7		
Cycle Q Clear(g_c), s	6.8	0.0	25.5	21.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	345	3462	2642	1154		
V/C Ratio(X)	0.44	0.17	0.63	0.58		
Avail Cap(c_a), veh/h	345	3462	2642	1154		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.71	0.71	0.09	0.09		
Uniform Delay (d), s/veh	29.6	0.0	7.4	6.9		
Incr Delay (d2), s/veh	2.8	0.1	0.1	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.9	0.0	7.6	5.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.5	0.1	7.5	7.1		
LnGrp LOS	C	A	A	A		
Approach Vol, veh/h		747	2342			
Approach Delay, s/veh		6.6	7.4			
Approach LOS		A	A			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		110.0			25.0	85.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		105.5			21.0	80.5
Max Q Clear Time (g_c+I1), s		2.0			8.8	27.5
Green Ext Time (p_c), s		2.6			0.1	15.0

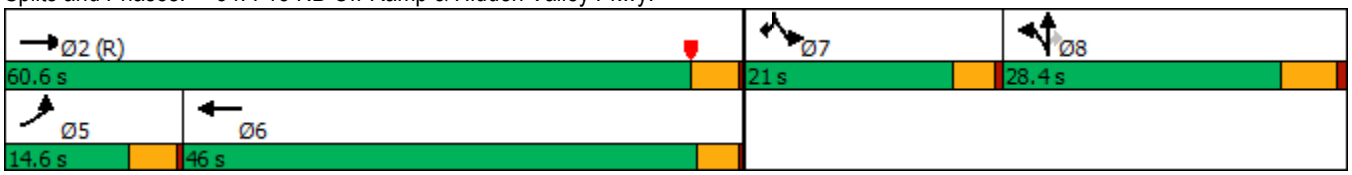
Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

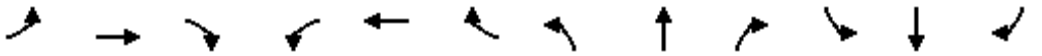
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	92	455	1236	720	103	209	49	218
Future Volume (vph)	92	455	1236	720	103	209	49	218
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	14.6	60.6	46.0	28.4	28.4	28.4	21.0	21.0
Total Split (%)	13.3%	55.1%	41.8%	25.8%	25.8%	25.8%	19.1%	19.1%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	455	0	0	1236	40	720	103	209	49	0	218
Future Volume (veh/h)	92	455	0	0	1236	40	720	103	209	49	0	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	100	495	0	0	1343	40	783	112	122	53	0	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	2530	0	0	2052	61	731	396	335	0	0	0
Arrive On Green	0.03	0.23	0.00	0.00	0.57	0.57	0.21	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3674	107	3510	1900	1610		0	
Grp Volume(v), veh/h	100	495	0	0	677	706	783	112	122		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1881	1755	1900	1610			
Q Serve(g_s), s	6.0	12.1	0.0	0.0	28.1	28.2	22.9	5.5	7.1			
Cycle Q Clear(g_c), s	6.0	12.1	0.0	0.0	28.1	28.2	22.9	5.5	7.1			
Prop In Lane	1.00		0.00	0.00		0.06	1.00		1.00			
Lane Grp Cap(c), veh/h	157	2530	0	0	1035	1078	731	396	335			
V/C Ratio(X)	0.64	0.20	0.00	0.00	0.65	0.65	1.07	0.28	0.36			
Avail Cap(c_a), veh/h	166	2530	0	0	1035	1078	731	396	335			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	51.7	17.3	0.0	0.0	16.0	16.0	43.5	36.6	37.3			
Incr Delay (d2), s/veh	6.4	0.2	0.0	0.0	3.2	3.1	54.1	1.8	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	5.7	0.0	0.0	11.2	11.7	15.0	2.7	3.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	17.5	0.0	0.0	19.2	19.1	97.6	38.4	40.4			
LnGrp LOS	E	B	A	A	B	B	F	D	D			
Approach Vol, veh/h		595			1383			1017				
Approach Delay, s/veh		24.3			19.2			84.2				
Approach LOS		C			B			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.6			14.0	67.6		28.4				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		56.1			10.1	* 42		22.9				
Max Q Clear Time (g_c+I1), s		14.1			8.0	30.2		24.9				
Green Ext Time (p_c), s		2.1			0.0	4.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

Notes

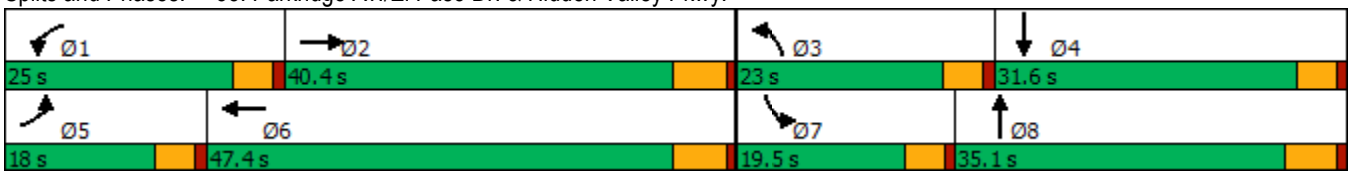
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	119	333	159	893	194	185	101	157
Future Volume (vph)	119	333	159	893	194	185	101	157
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	18.0	40.4	25.0	47.4	23.0	35.1	19.5	31.6
Total Split (%)	15.0%	33.7%	20.8%	39.5%	19.2%	29.3%	16.3%	26.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	333	78	159	893	146	194	185	201	101	157	76
Future Volume (veh/h)	119	333	78	159	893	146	194	185	201	101	157	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	362	59	173	971	108	211	201	159	110	171	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	971	157	204	1106	123	242	600	448	138	634	242
Arrive On Green	0.09	0.31	0.31	0.11	0.34	0.34	0.13	0.31	0.31	0.08	0.25	0.25
Sat Flow, veh/h	1810	3112	503	1810	3275	364	1810	1955	1460	1810	2542	969
Grp Volume(v), veh/h	129	209	212	173	535	544	211	185	175	110	119	120
Grp Sat Flow(s),veh/h/ln	1810	1805	1810	1810	1805	1834	1810	1805	1610	1810	1805	1706
Q Serve(g_s), s	7.6	9.7	9.9	10.2	30.2	30.2	12.4	8.5	9.2	6.5	5.7	6.1
Cycle Q Clear(g_c), s	7.6	9.7	9.9	10.2	30.2	30.2	12.4	8.5	9.2	6.5	5.7	6.1
Prop In Lane	1.00		0.28	1.00		0.20	1.00		0.91	1.00		0.57
Lane Grp Cap(c), veh/h	158	563	564	204	609	619	242	554	494	138	450	426
V/C Ratio(X)	0.82	0.37	0.38	0.85	0.88	0.88	0.87	0.33	0.35	0.80	0.26	0.28
Avail Cap(c_a), veh/h	224	577	578	341	694	705	308	554	494	249	450	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	29.0	29.0	47.1	33.7	33.8	46.0	28.9	29.2	49.2	32.6	32.8
Incr Delay (d2), s/veh	10.0	0.4	0.4	4.3	11.3	11.2	16.7	1.6	2.0	4.0	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	4.1	4.2	4.7	14.3	14.6	6.5	3.8	3.7	3.1	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	29.4	29.4	51.4	45.0	44.9	62.7	30.6	31.2	53.2	34.1	34.4
LnGrp LOS	E	C	C	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		550			1252			571			349	
Approach Delay, s/veh		36.3			45.9			42.6			40.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	39.6	19.1	32.8	14.0	42.3	12.8	39.0
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	20.4	34.6	18.4	* 27	13.4	41.6	14.9	29.3
Max Q Clear Time (g_c+I1), s	12.2	11.9	14.4	8.1	9.6	32.2	8.5	11.2
Green Ext Time (p_c), s	0.1	2.2	0.1	1.3	0.0	4.3	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	42.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

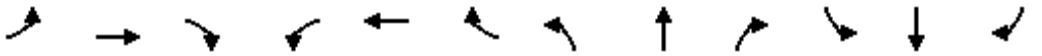
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	121	48	117	44	260	1397	87	1283	292
Future Volume (vph)	367	136	121	48	117	44	260	1397	87	1283	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	12.0	32.6	16.0	11.5	32.1	32.1	16.0	61.1	14.8	59.9	12.0
Total Split (%)	10.0%	27.2%	13.3%	9.6%	26.8%	26.8%	13.3%	50.9%	12.3%	49.9%	10.0%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	121	48	117	44	260	1397	86	87	1283	292
Future Volume (veh/h)	367	136	121	48	117	44	260	1397	86	87	1283	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	81	48	118	28	263	1411	76	88	1296	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	252	392	66	184	156	200	1997	107	112	1896	943
Arrive On Green	0.07	0.13	0.13	0.04	0.10	0.10	0.11	0.57	0.57	0.06	0.53	0.53
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	1810	3480	187	1810	3610	1576
Grp Volume(v), veh/h	371	137	81	48	118	28	263	730	757	88	1296	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1810	1805	1862	1810	1805	1576
Q Serve(g_s), s	7.4	6.9	4.1	2.7	6.2	1.6	11.4	29.8	30.1	4.9	27.4	6.0
Cycle Q Clear(g_c), s	7.4	6.9	4.1	2.7	6.2	1.6	11.4	29.8	30.1	4.9	27.4	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	252	252	392	66	184	156	200	1036	1068	112	1896	943
V/C Ratio(X)	1.47	0.54	0.21	0.73	0.64	0.18	1.31	0.70	0.71	0.78	0.68	0.21
Avail Cap(c_a), veh/h	252	507	608	121	498	422	200	1036	1068	179	1896	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	41.8	31.0	49.1	44.8	42.7	45.8	15.7	15.8	47.6	18.1	9.6
Incr Delay (d2), s/veh	232.3	1.8	0.3	5.7	3.7	0.5	171.8	4.0	4.0	4.4	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	3.3	1.6	1.3	3.0	0.7	14.5	11.7	12.2	2.3	10.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	280.1	43.6	31.3	54.9	48.4	43.3	217.6	19.7	19.7	52.0	20.1	10.1
LnGrp LOS	F	D	C	D	D	D	F	B	B	D	C	B
Approach Vol, veh/h		589			194			1750			1582	
Approach Delay, s/veh		190.9			49.3			49.5			20.6	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	64.9	8.3	18.8	16.0	59.9	12.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.2	55.3	6.9	27.5	11.4	54.1	7.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	32.1	4.7	8.9	13.4	29.4	9.4	8.2
Green Ext Time (p_c), s	0.0	10.6	0.0	0.9	0.0	10.7	0.0	0.6

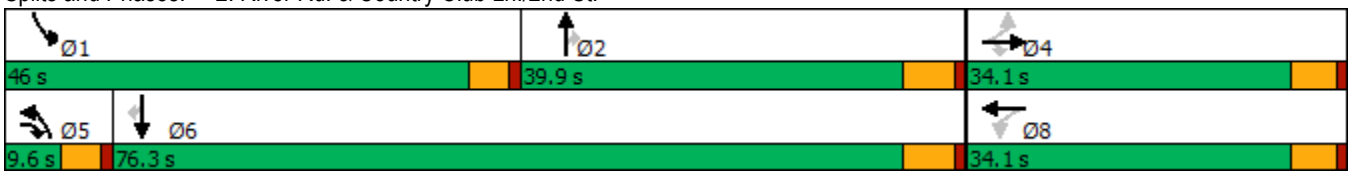
Intersection Summary	
HCM 6th Ctrl Delay	58.6
HCM 6th LOS	E

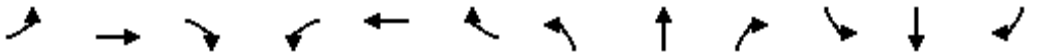
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	66	52	86	98	48	1147	100	392	1057	38
Future Volume (vph)	25	66	52	86	98	48	1147	100	392	1057	38
Turn Type	Perm	NA	pm+ov	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	5		8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	5	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.1	33.1	9.6	34.1	34.1	9.6	24.8	24.8	9.6	28.8	28.8
Total Split (s)	34.1	34.1	9.6	34.1	34.1	9.6	39.9	39.9	46.0	76.3	76.3
Total Split (%)	28.4%	28.4%	8.0%	28.4%	28.4%	8.0%	33.3%	33.3%	38.3%	63.6%	63.6%
Yellow Time (s)	4.1	4.1	3.6	4.1	4.1	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	4.6	5.1	5.1	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: River Rd. & Country Club Ln./2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	66	52	86	98	455	48	1147	100	392	1057	38
Future Volume (veh/h)	25	66	52	86	98	455	48	1147	100	392	1057	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	69	30	91	103	390	51	1207	73	413	1113	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	462	449	342	83	313	66	1382	616	442	2132	931
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.38	0.38	0.24	0.59	0.59
Sat Flow, veh/h	918	1900	1608	1315	340	1288	1810	3610	1610	1810	3610	1577
Grp Volume(v), veh/h	26	69	30	91	0	493	51	1207	73	413	1113	35
Grp Sat Flow(s),veh/h/ln	918	1900	1608	1315	0	1628	1810	1805	1610	1810	1805	1577
Q Serve(g_s), s	0.0	3.4	1.6	7.0	0.0	29.0	3.3	37.0	3.5	26.7	21.8	1.1
Cycle Q Clear(g_c), s	29.0	3.4	1.6	10.4	0.0	29.0	3.3	37.0	3.5	26.7	21.8	1.1
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	462	449	342	0	396	66	1382	616	442	2132	931
V/C Ratio(X)	0.43	0.15	0.07	0.27	0.00	1.25	0.77	0.87	0.12	0.93	0.52	0.04
Avail Cap(c_a), veh/h	60	462	449	342	0	396	76	1382	616	628	2132	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	35.5	31.6	39.6	0.0	45.2	57.0	34.2	23.8	44.1	14.5	10.2
Incr Delay (d2), s/veh	4.8	0.1	0.1	0.4	0.0	130.5	28.8	7.9	0.4	14.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.6	0.6	2.3	0.0	25.8	2.0	16.8	1.4	13.3	8.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	35.6	31.6	40.0	0.0	175.6	85.9	42.1	24.2	58.5	15.4	10.3
LnGrp LOS	E	D	C	D	A	F	F	D	C	E	B	B
Approach Vol, veh/h		125			584			1331			1561	
Approach Delay, s/veh		40.7			154.5			42.8			26.7	
Approach LOS		D			F			D			C	

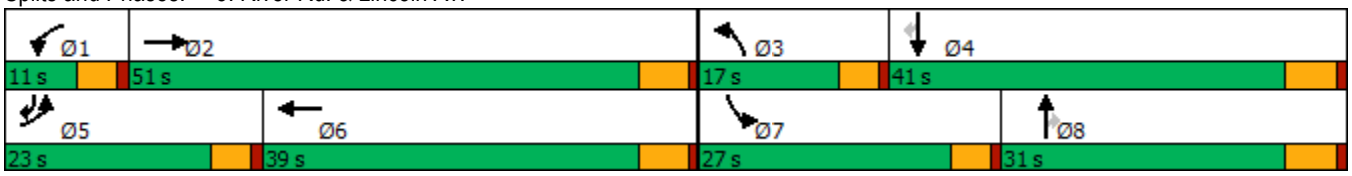
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	33.8	51.5		34.1	9.0	76.3		34.1				
Change Period (Y+Rc), s	4.6	5.8		5.1	4.6	5.8		5.1				
Max Green Setting (Gmax), s	41.4	34.1		29.0	5.0	70.5		29.0				
Max Q Clear Time (g_c+I1), s	28.7	39.0		31.0	5.3	23.8		31.0				
Green Ext Time (p_c), s	0.5	0.0		0.0	0.0	9.5		0.0				

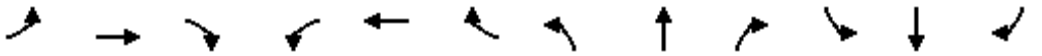
Intersection Summary			
HCM 6th Ctrl Delay		53.8	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	383	900	62	574	85	560	60	232	567	344
Future Volume (vph)	383	900	62	574	85	560	60	232	567	344
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6	3	8		7	4	5
Permitted Phases							8			4
Detector Phase	5	2	1	6	3	8	8	7	4	5
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	23.0	51.0	11.0	39.0	17.0	31.0	31.0	27.0	41.0	23.0
Total Split (%)	19.2%	42.5%	9.2%	32.5%	14.2%	25.8%	25.8%	22.5%	34.2%	19.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 112.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	900	141	62	574	226	85	560	60	232	567	344
Future Volume (veh/h)	383	900	141	62	574	226	85	560	60	232	567	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	399	938	120	65	598	190	89	583	43	242	591	259
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	467	1355	173	84	904	287	113	694	305	273	1013	656
Arrive On Green	0.13	0.42	0.42	0.05	0.34	0.34	0.06	0.19	0.19	0.15	0.28	0.28
Sat Flow, veh/h	3510	3213	411	1810	2696	855	1810	3610	1587	1810	3610	1576
Grp Volume(v), veh/h	399	527	531	65	400	388	89	583	43	242	591	259
Grp Sat Flow(s),veh/h/ln	1755	1805	1820	1810	1805	1746	1810	1805	1587	1810	1805	1576
Q Serve(g_s), s	12.0	25.8	25.8	3.8	20.5	20.5	5.2	16.8	2.4	14.2	15.2	12.5
Cycle Q Clear(g_c), s	12.0	25.8	25.8	3.8	20.5	20.5	5.2	16.8	2.4	14.2	15.2	12.5
Prop In Lane	1.00		0.23	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	467	761	767	84	605	585	113	694	305	273	1013	656
V/C Ratio(X)	0.85	0.69	0.69	0.77	0.66	0.66	0.78	0.84	0.14	0.89	0.58	0.39
Avail Cap(c_a), veh/h	597	761	767	107	605	585	208	841	370	375	1175	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	25.5	25.5	51.0	30.7	30.7	50.0	42.1	36.3	45.0	33.5	22.2
Incr Delay (d2), s/veh	7.9	5.1	5.1	17.4	5.6	5.8	4.4	6.5	0.2	13.9	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	11.5	11.6	2.1	9.5	9.2	2.4	7.8	0.9	7.2	6.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	30.7	30.6	68.4	36.3	36.6	54.4	48.6	36.5	58.9	34.0	22.6
LnGrp LOS	D	C	C	E	D	D	D	D	D	E	C	C
Approach Vol, veh/h		1457			853			715			1092	
Approach Delay, s/veh		37.0			38.9			48.6			36.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	51.0	11.4	36.1	19.0	41.6	20.9	26.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	6.4	45.6	12.4	35.2	18.4	33.6	22.4	25.2
Max Q Clear Time (g_c+I1), s	5.8	27.8	7.2	17.2	14.0	22.5	16.2	18.8
Green Ext Time (p_c), s	0.0	6.3	0.0	4.3	0.4	3.6	0.2	2.0

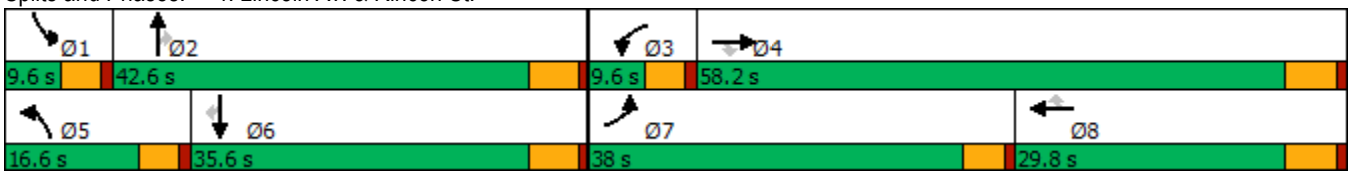
Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	469	4	288	8	11	158	1078	2	2	853	121
Future Volume (vph)	469	4	288	8	11	158	1078	2	2	853	121
Turn Type	Prot	NA	Perm	Prot	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	29.8	9.6	29.8	9.6	22.4	22.4	9.6	22.4	22.4
Total Split (s)	38.0	58.2	58.2	9.6	29.8	16.6	42.6	42.6	9.6	35.6	35.6
Total Split (%)	31.7%	48.5%	48.5%	8.0%	24.8%	13.8%	35.5%	35.5%	8.0%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 96.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Lincoln Av. & Rincon St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	4	288	8	0	11	158	1078	2	2	853	121
Future Volume (veh/h)	469	4	288	8	0	11	158	1078	2	2	853	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	489	4	214	8	0	4	165	1123	1	2	889	106
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	717	607	18	189	160	196	1468	654	5	1087	485
Arrive On Green	0.29	0.38	0.38	0.01	0.00	0.10	0.11	0.41	0.41	0.00	0.30	0.30
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	3610	1608	1810	3610	1610
Grp Volume(v), veh/h	489	4	214	8	0	4	165	1123	1	2	889	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1805	1608	1810	1805	1610
Q Serve(g_s), s	26.5	0.1	9.6	0.4	0.0	0.2	9.0	26.9	0.0	0.1	22.9	4.9
Cycle Q Clear(g_c), s	26.5	0.1	9.6	0.4	0.0	0.2	9.0	26.9	0.0	0.1	22.9	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	717	607	18	189	160	196	1468	654	5	1087	485
V/C Ratio(X)	0.94	0.01	0.35	0.44	0.00	0.02	0.84	0.76	0.00	0.41	0.82	0.22
Avail Cap(c_a), veh/h	602	992	841	90	454	385	216	1468	654	90	1087	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	19.5	22.4	49.4	0.0	40.8	43.9	25.6	17.7	50.0	32.5	26.2
Incr Delay (d2), s/veh	20.1	0.0	0.3	6.2	0.0	0.1	21.0	3.8	0.0	19.1	6.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	0.1	3.5	0.2	0.0	0.1	5.0	11.5	0.0	0.1	10.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	19.5	22.8	55.6	0.0	40.8	64.9	29.5	17.7	69.0	39.4	27.3
LnGrp LOS	E	B	C	E	A	D	E	C	B	E	D	C
Approach Vol, veh/h		707			12			1289			997	
Approach Delay, s/veh		45.1			50.7			34.0			38.2	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	46.2	5.6	43.7	15.5	35.6	33.5	15.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	5.0	37.2	5.0	52.4	12.0	30.2	33.4	24.0
Max Q Clear Time (g_c+I1), s	2.1	28.9	2.4	11.6	11.0	24.9	28.5	2.2
Green Ext Time (p_c), s	0.0	4.5	0.0	0.7	0.0	2.7	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

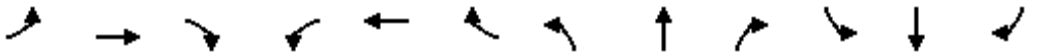
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	577	129	86	112	906	135	108	929	37
Future Volume (vph)	111	577	129	86	112	906	135	108	929	37
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	3	1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.4	9.6	27.4	9.6	27.4	9.6	9.6	26.4	26.4
Total Split (s)	10.0	35.1	16.9	42.0	29.0	42.8	16.9	25.2	39.0	39.0
Total Split (%)	8.3%	29.3%	14.1%	35.0%	24.2%	35.7%	14.1%	21.0%	32.5%	32.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	4.6	5.4	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Lincoln Av. & Railroad St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	577	249	129	86	95	112	906	135	108	929	37
Future Volume (veh/h)	111	577	249	129	86	95	112	906	135	108	929	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	119	620	228	139	92	62	120	974	112	116	999	40
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	692	254	169	662	412	150	1311	734	145	1301	578
Arrive On Green	0.05	0.27	0.27	0.09	0.31	0.31	0.08	0.36	0.36	0.08	0.36	0.36
Sat Flow, veh/h	1810	2573	945	1810	2135	1329	1810	3610	1606	1810	3610	1605
Grp Volume(v), veh/h	119	435	413	139	77	77	120	974	112	116	999	40
Grp Sat Flow(s),veh/h/ln	1810	1805	1713	1810	1805	1659	1810	1805	1606	1810	1805	1605
Q Serve(g_s), s	5.4	23.9	23.9	7.8	3.2	3.5	6.7	24.2	4.2	6.5	25.2	1.7
Cycle Q Clear(g_c), s	5.4	23.9	23.9	7.8	3.2	3.5	6.7	24.2	4.2	6.5	25.2	1.7
Prop In Lane	1.00		0.55	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	486	461	169	560	514	150	1311	734	145	1301	578
V/C Ratio(X)	1.25	0.90	0.90	0.82	0.14	0.15	0.80	0.74	0.15	0.80	0.77	0.07
Avail Cap(c_a), veh/h	95	520	494	216	641	589	429	1311	734	362	1301	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	36.3	36.3	45.9	25.6	25.7	46.4	28.6	16.4	46.5	29.1	21.6
Incr Delay (d2), s/veh	175.6	17.2	18.1	14.3	0.1	0.1	3.7	3.8	0.4	3.8	4.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	12.4	11.9	4.1	1.3	1.3	3.1	10.6	1.6	3.0	11.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	224.4	53.5	54.4	60.2	25.7	25.9	50.1	32.5	16.8	50.3	33.5	21.8
LnGrp LOS	F	D	D	E	C	C	D	C	B	D	C	C
Approach Vol, veh/h		967			293			1206			1155	
Approach Delay, s/veh		74.9			42.1			32.8			34.8	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	42.8	14.2	33.1	13.1	42.5	10.0	37.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	20.6	37.4	12.3	29.7	24.4	33.6	5.4	36.6
Max Q Clear Time (g_c+I1), s	8.5	26.2	9.8	25.9	8.7	27.2	7.4	5.5
Green Ext Time (p_c), s	0.1	5.1	0.0	1.8	0.1	3.4	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

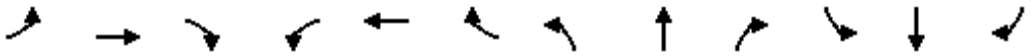
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	91	44	261	174	27	115	996	68	1155
Future Volume (vph)	91	44	261	174	27	115	996	68	1155
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8					
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.1	9.6	9.6	15.1	9.6	22.1	9.6	27.4
Total Split (s)	9.6	26.1	44.0	9.8	26.3	44.0	69.3	14.8	40.1
Total Split (%)	8.0%	21.8%	36.7%	8.2%	21.9%	36.7%	57.8%	12.3%	33.4%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Lincoln Av. & Pomona Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	44	261	174	27	33	115	996	122	68	1155	46
Future Volume (veh/h)	91	44	261	174	27	33	115	996	122	68	1155	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	46	215	181	28	29	120	1038	113	71	1203	47
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	276	362	290	126	130	149	1898	206	92	1940	76
Arrive On Green	0.05	0.15	0.15	0.05	0.15	0.15	0.08	0.58	0.58	0.05	0.55	0.55
Sat Flow, veh/h	1810	1900	1582	1810	855	886	1810	3275	356	1810	3541	138
Grp Volume(v), veh/h	95	46	215	181	0	57	120	572	579	71	613	637
Grp Sat Flow(s),veh/h/ln	1810	1900	1582	1810	0	1741	1810	1805	1826	1810	1805	1874
Q Serve(g_s), s	5.0	2.3	13.5	5.2	0.0	3.2	7.2	21.6	21.6	4.3	25.8	25.8
Cycle Q Clear(g_c), s	5.0	2.3	13.5	5.2	0.0	3.2	7.2	21.6	21.6	4.3	25.8	25.8
Prop In Lane	1.00		1.00	1.00		0.51	1.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	308	276	362	290	0	256	149	1046	1058	92	989	1027
V/C Ratio(X)	0.31	0.17	0.59	0.62	0.00	0.22	0.80	0.55	0.55	0.78	0.62	0.62
Avail Cap(c_a), veh/h	308	360	433	290	0	333	644	1046	1058	167	989	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	41.5	38.3	41.9	0.0	41.7	49.9	14.3	14.3	52.0	17.2	17.2
Incr Delay (d2), s/veh	0.2	0.3	1.6	3.1	0.0	0.4	3.8	2.1	2.0	5.2	2.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.1	5.3	2.3	0.0	1.4	3.4	8.8	8.9	2.0	10.6	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	41.8	39.8	45.0	0.0	42.1	53.7	16.4	16.4	57.1	20.1	20.0
LnGrp LOS	D	D	D	D	A	D	D	B	B	E	C	B
Approach Vol, veh/h		356			238			1271			1321	
Approach Delay, s/veh		39.7			44.3			19.9			22.0	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	69.6	9.8	21.2	13.7	66.1	9.6	21.4
Change Period (Y+Rc), s	4.6	* 5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	10.2	* 64	5.2	21.0	39.4	34.7	5.0	21.2
Max Q Clear Time (g_c+I1), s	6.3	23.6	7.2	15.5	9.2	27.8	7.0	5.2
Green Ext Time (p_c), s	0.0	9.5	0.0	0.4	0.1	4.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

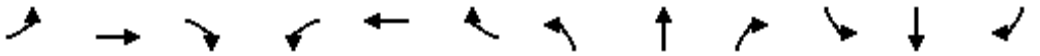
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	813	3	396	315	835	1200
Future Volume (vph)	813	3	396	315	835	1200
Turn Type	Split	NA	Perm	Prot	NA	NA
Protected Phases	8	8		5	2	6
Permitted Phases			8			
Detector Phase	8	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.1	23.1	23.1	9.6	23.1	23.1
Total Split (s)	26.6	26.6	26.6	12.6	58.4	45.8
Total Split (%)	31.3%	31.3%	31.3%	14.8%	68.7%	53.9%
Yellow Time (s)	4.5	4.5	4.5	3.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.0	5.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 7: Lincoln Av. & SR-91 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	813	3	396	315	835	0	0	1200	528
Future Volume (veh/h)	0	0	0	813	3	396	315	835	0	0	1200	528
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				832	0	284	321	852	0	0	1224	539
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				898	0	399	355	2268	0	0	1189	498
Arrive On Green				0.25	0.00	0.25	0.20	1.00	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	2571	1038
Grp Volume(v), veh/h				832	0	284	321	852	0	0	875	888
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1709
Q Serve(g_s), s				19.1	0.0	13.7	7.6	0.0	0.0	0.0	40.8	40.8
Cycle Q Clear(g_c), s				19.1	0.0	13.7	7.6	0.0	0.0	0.0	40.8	40.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.61
Lane Grp Cap(c), veh/h				898	0	399	355	2268	0	0	867	820
V/C Ratio(X)				0.93	0.00	0.71	0.90	0.38	0.00	0.00	1.01	1.08
Avail Cap(c_a), veh/h				898	0	400	355	2268	0	0	867	820
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.60	0.60	0.00	0.00	0.70	0.70
Uniform Delay (d), s/veh				31.2	0.0	29.2	33.5	0.0	0.0	0.0	22.1	22.1
Incr Delay (d2), s/veh				15.0	0.0	5.0	16.9	0.3	0.0	0.0	28.1	51.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	0.0	5.6	3.6	0.1	0.0	0.0	22.0	26.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.2	0.0	34.2	50.4	0.3	0.0	0.0	50.2	73.5
LnGrp LOS				D	A	C	D	A	A	A	F	F
Approach Vol, veh/h					1116			1173			1763	
Approach Delay, s/veh					43.2			14.0			61.9	
Approach LOS					D			B			E	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	58.4		12.6	45.8		26.6						
Change Period (Y+Rc), s	5.0		4.0	5.0		5.5						
Max Green Setting (Gmax), s	53.4		8.6	40.8		21.1						
Max Q Clear Time (g_c+I1), s	2.0		9.6	42.8		21.1						
Green Ext Time (p_c), s	4.3		0.0	0.0		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	42.9	
HCM 6th LOS	D	

Notes

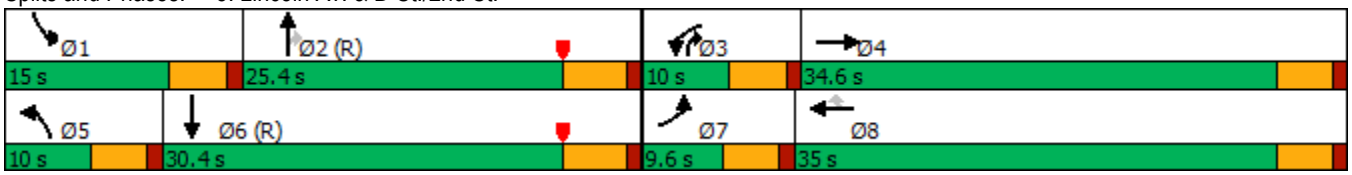
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	84	212	254	70	493	89	573	400	527	1143
Future Volume (vph)	84	212	254	70	493	89	573	400	527	1143
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8		5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	34.6	9.6	34.6	34.6	9.6	24.1	9.6	9.6	24.1
Total Split (s)	9.6	34.6	10.0	35.0	35.0	10.0	25.4	10.0	15.0	30.4
Total Split (%)	11.3%	40.7%	11.8%	41.2%	41.2%	11.8%	29.9%	11.8%	17.6%	35.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.1	3.6	3.6	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	5.1	4.6	4.6	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max

Intersection Summary

Cycle Length: 85
Actuated Cycle Length: 85
Offset: 35 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 8: Lincoln Av. & D St./2nd St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	212	48	254	70	493	89	573	400	527	1143	170
Future Volume (veh/h)	84	212	48	254	70	493	89	573	400	527	1143	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	219	43	262	72	334	92	591	249	543	1178	170
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	378	74	230	477	403	115	1312	654	443	1311	188
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.06	0.35	0.35	0.12	0.40	0.40
Sat Flow, veh/h	1810	1535	301	3619	1900	1606	1810	3800	1596	3619	3244	466
Grp Volume(v), veh/h	87	0	262	262	72	334	92	591	249	543	688	660
Grp Sat Flow(s),veh/h/ln	1810	0	1836	1810	1900	1606	1810	1900	1596	1810	1900	1811
Q Serve(g_s), s	4.0	0.0	10.7	5.4	2.5	16.7	4.3	10.2	9.3	10.4	28.7	29.1
Cycle Q Clear(g_c), s	4.0	0.0	10.7	5.4	2.5	16.7	4.3	10.2	9.3	10.4	28.7	29.1
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	106	0	452	230	477	403	115	1312	654	443	768	732
V/C Ratio(X)	0.82	0.00	0.58	1.14	0.15	0.83	0.80	0.45	0.38	1.23	0.90	0.90
Avail Cap(c_a), veh/h	106	0	648	230	680	574	115	1312	654	443	768	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	39.5	0.0	28.2	39.8	24.8	30.1	39.3	21.6	17.6	37.3	23.6	23.7
Incr Delay (d2), s/veh	35.2	0.0	1.2	99.2	0.1	6.2	29.8	1.1	1.7	103.8	1.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	4.8	5.6	1.1	7.0	2.8	4.5	3.6	10.8	12.2	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.7	0.0	29.3	139.0	24.9	36.3	69.1	22.7	19.3	141.1	25.4	25.7
LnGrp LOS	E	A	C	F	C	D	E	C	B	F	C	C
Approach Vol, veh/h		349			668			932			1891	
Approach Delay, s/veh		40.6			75.3			26.4			58.7	
Approach LOS		D			E			C			E	

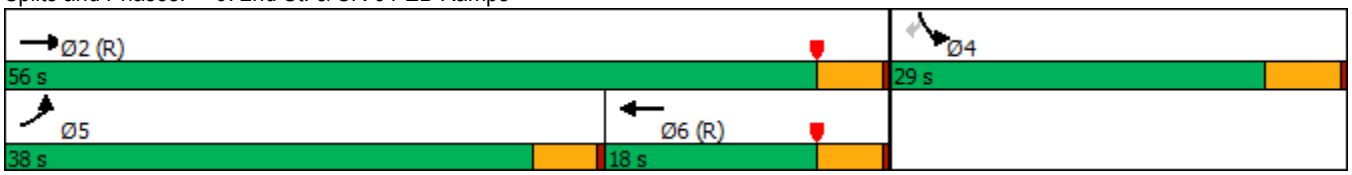
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	34.5	10.0	25.5	10.0	39.5	9.6	25.9
Change Period (Y+Rc), s	4.6	5.1	4.6	4.6	4.6	5.1	4.6	4.6
Max Green Setting (Gmax), s	10.4	20.3	5.4	30.0	5.4	25.3	5.0	30.4
Max Q Clear Time (g_c+I1), s	12.4	12.2	7.4	12.7	6.3	31.1	6.0	18.7
Green Ext Time (p_c), s	0.0	3.0	0.0	1.4	0.0	0.0	0.0	1.3

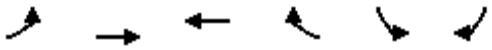
Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	876	176	149	344	668
Future Volume (vph)	876	176	149	344	668
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	9.6	9.6	10.3	10.3
Total Split (s)	38.0	56.0	18.0	29.0	29.0
Total Split (%)	44.7%	65.9%	21.2%	34.1%	34.1%
Yellow Time (s)	4.1	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	Max	Max

Intersection Summary
Cycle Length: 85
Actuated Cycle Length: 85
Offset: 73 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated

Splits and Phases: 9: 2nd St. & SR-91 EB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	876	176	149	101	344	668
Future Volume (veh/h)	876	176	149	101	344	668
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	912	183	155	66	496	253
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1027	1149	645	263	1009	449
Arrive On Green	0.49	1.00	0.26	0.26	0.28	0.28
Sat Flow, veh/h	3510	1900	2596	1020	3619	1610
Grp Volume(v), veh/h	912	183	110	111	496	253
Grp Sat Flow(s),veh/h/ln	1755	1900	1805	1716	1810	1610
Q Serve(g_s), s	19.9	0.0	4.1	4.4	9.7	11.4
Cycle Q Clear(g_c), s	19.9	0.0	4.1	4.4	9.7	11.4
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	1027	1149	466	443	1009	449
V/C Ratio(X)	0.89	0.16	0.24	0.25	0.49	0.56
Avail Cap(c_a), veh/h	1379	1149	466	443	1009	449
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	24.9	25.0	25.6	26.2
Incr Delay (d2), s/veh	4.5	0.2	1.2	1.4	1.7	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.1	1.8	1.9	4.2	10.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.0	0.2	26.1	26.4	27.3	31.3
LnGrp LOS	C	A	C	C	C	C
Approach Vol, veh/h		1095	221		749	
Approach Delay, s/veh		20.8	26.2		28.7	
Approach LOS		C	C		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.0		29.0	29.5	26.5
Change Period (Y+Rc), s		4.6		5.3	4.6	4.6
Max Green Setting (Gmax), s		51.4		23.7	33.4	13.4
Max Q Clear Time (g_c+I1), s		2.0		13.4	21.9	6.4
Green Ext Time (p_c), s		0.7		1.2	2.9	0.4

Intersection Summary		
HCM 6th Ctrl Delay		24.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	715	789	165	73	27
Future Vol, veh/h	9	715	789	165	73	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	745	822	172	76	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	994	0	-	0	1671	908
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	704	-	-	-	107	336
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	464	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	704	-	-	-	105	336
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	99.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	704	-	-	-	129
HCM Lane V/C Ratio	0.013	-	-	-	0.807
HCM Control Delay (s)	10.2	0	-	-	99.2
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	4.9

Intersection	
Intersection Delay, s/veh	154.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	621	167	40	669	283	31
Future Vol, veh/h	621	167	40	669	283	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	647	174	42	697	295	32
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	202.6	158.5	24.5
HCM LOS	F	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	90%	0%	6%
Vol Thru, %	0%	79%	94%
Vol Right, %	10%	21%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	314	788	709
LT Vol	283	0	40
Through Vol	0	621	669
RT Vol	31	167	0
Lane Flow Rate	327	821	739
Geometry Grp	1	1	1
Degree of Util (X)	0.647	1.383	1.273
Departure Headway (Hd)	8.01	6.457	6.721
Convergence, Y/N	Yes	Yes	Yes
Cap	455	566	547
Service Time	6.01	4.457	4.721
HCM Lane V/C Ratio	0.719	1.451	1.351
HCM Control Delay	24.5	202.6	158.5
HCM Lane LOS	C	F	F
HCM 95th-tile Q	4.5	35	27.6

Intersection	
Intersection Delay, s/veh	89.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	684	13	32	725	28	10	0	17	36	1	3
Future Vol, veh/h	4	684	13	32	725	28	10	0	17	36	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	720	14	34	763	29	11	0	18	38	1	3
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	76.6	108.3	10.8	11.4
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	37%	1%	0%	4%	90%
Vol Thru, %	0%	99%	0%	92%	3%
Vol Right, %	63%	0%	100%	4%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	688	13	785	40
LT Vol	10	4	0	32	36
Through Vol	0	684	0	725	1
RT Vol	17	0	13	28	3
Lane Flow Rate	28	724	14	826	42
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.054	1.07	0.018	1.162	0.085
Departure Headway (Hd)	7.358	5.519	4.807	5.206	7.721
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	490	666	749	702	467
Service Time	5.358	3.219	2.507	3.206	5.721
HCM Lane V/C Ratio	0.057	1.087	0.019	1.177	0.09
HCM Control Delay	10.8	77.9	7.6	108.3	11.4
HCM Lane LOS	B	F	A	F	B
HCM 95th-tile Q	0.2	19.3	0.1	25.7	0.3

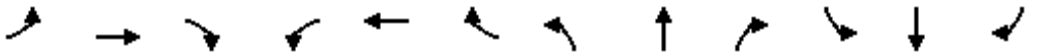
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	33	920	170	25	733	125	132	79	103	83	23
Future Volume (vph)	33	920	170	25	733	125	132	79	103	83	23
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.1	29.1	9.6	30.1	9.6	30.4	30.4	9.6	28.4	28.4
Total Split (s)	17.5	61.0	61.0	9.6	53.1	18.5	30.4	30.4	19.0	30.9	30.9
Total Split (%)	14.6%	50.8%	50.8%	8.0%	44.3%	15.4%	25.3%	25.3%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.1	4.1	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	5.1	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Parkridge Av. & Lincoln Av./1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	920	170	25	733	174	125	132	79	103	83	23
Future Volume (veh/h)	33	920	170	25	733	174	125	132	79	103	83	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	1000	155	27	797	172	136	143	70	112	90	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	929	786	46	1430	309	164	450	382	139	424	359
Arrive On Green	0.03	0.49	0.49	0.03	0.48	0.48	0.09	0.24	0.24	0.08	0.22	0.22
Sat Flow, veh/h	1810	1900	1609	1810	2953	637	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	36	1000	155	27	487	482	136	143	70	112	90	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1609	1810	1805	1785	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.3	55.9	6.2	1.7	21.8	21.8	8.4	7.1	4.0	7.0	4.4	0.2
Cycle Q Clear(g_c), s	2.3	55.9	6.2	1.7	21.8	21.8	8.4	7.1	4.0	7.0	4.4	0.2
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	54	929	786	46	874	865	164	450	382	139	424	359
V/C Ratio(X)	0.67	1.08	0.20	0.59	0.56	0.56	0.83	0.32	0.18	0.81	0.21	0.01
Avail Cap(c_a), veh/h	204	929	786	79	874	865	220	450	382	228	424	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	29.2	16.5	55.1	20.8	20.8	51.1	36.0	34.8	52.0	36.2	34.6
Incr Delay (d2), s/veh	5.2	52.4	0.1	4.5	0.8	0.8	13.5	1.8	1.1	4.2	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	37.4	2.2	0.8	9.0	8.9	4.4	3.5	1.6	3.3	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	81.6	16.6	59.6	21.6	21.6	64.6	37.8	35.9	56.1	37.4	34.6
LnGrp LOS	E	F	B	E	C	C	E	D	D	E	D	C
Approach Vol, veh/h		1191			996			349			205	
Approach Delay, s/veh		72.5			22.7			47.9			47.6	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	61.0	15.0	30.9	8.0	60.5	13.4	32.5
Change Period (Y+Rc), s	4.6	5.1	4.6	5.4	4.6	5.1	4.6	5.4
Max Green Setting (Gmax), s	5.0	55.9	13.9	25.5	12.9	48.0	14.4	25.0
Max Q Clear Time (g_c+I1), s	3.7	57.9	10.4	6.4	4.3	23.8	9.0	9.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	6.6	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	1100	876	23	0	53
Future Vol, veh/h	0	1100	876	23	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1196	952	25	0	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	489
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	530
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	530
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	530
HCM Lane V/C Ratio	-	-	-	0.109
HCM Control Delay (s)	-	-	-	12.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1100	858	57	0	79
Future Vol, veh/h	0	1100	858	57	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1196	933	62	0	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	498
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	523
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	523
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

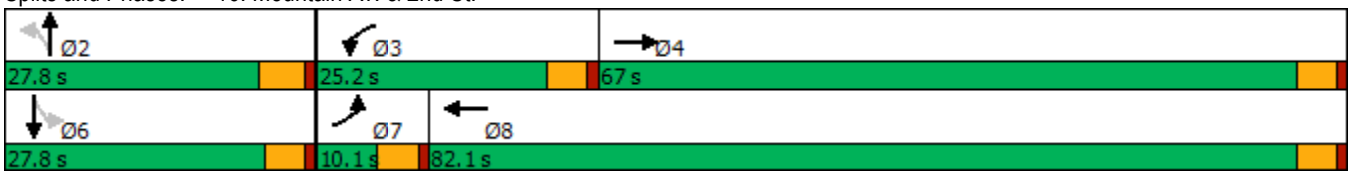
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	523
HCM Lane V/C Ratio	-	-	-	0.164
HCM Control Delay (s)	-	-	-	13.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

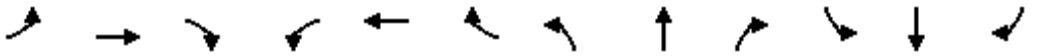
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	22	641	180	634	122	13	21	9
Future Volume (vph)	22	641	180	634	122	13	21	9
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	27.2	27.2	26.6	26.6
Total Split (s)	10.1	67.0	25.2	82.1	27.8	27.8	27.8	27.8
Total Split (%)	8.4%	55.8%	21.0%	68.4%	23.2%	23.2%	23.2%	23.2%
Yellow Time (s)	3.6	3.7	3.6	3.7	4.2	4.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	5.2	5.2		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 16: Mountain Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	641	75	180	634	21	122	13	327	21	9	18
Future Volume (veh/h)	22	641	75	180	634	21	122	13	327	21	9	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	697	82	196	689	23	133	14	355	23	10	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	927	109	225	1201	40	228	12	307	44	24	15
Arrive On Green	0.02	0.56	0.56	0.12	0.66	0.66	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	1668	196	1810	1828	61	1401	61	1558	0	124	75
Grp Volume(v), veh/h	24	0	779	196	0	712	133	0	369	53	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1865	1810	0	1889	1401	0	1620	200	0	0
Q Serve(g_s), s	1.5	0.0	37.6	12.5	0.0	24.5	0.0	0.0	23.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.5	0.0	37.6	12.5	0.0	24.5	17.6	0.0	23.2	23.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.96	0.43		0.38
Lane Grp Cap(c), veh/h	42	0	1036	225	0	1241	228	0	319	83	0	0
V/C Ratio(X)	0.57	0.00	0.75	0.87	0.00	0.57	0.58	0.00	1.16	0.64	0.00	0.00
Avail Cap(c_a), veh/h	84	0	1036	316	0	1241	228	0	319	83	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.0	0.0	20.0	50.7	0.0	11.1	45.1	0.0	47.3	42.7	0.0	0.0
Incr Delay (d2), s/veh	4.6	0.0	5.0	13.2	0.0	1.9	3.8	0.0	100.1	15.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	16.7	6.4	0.0	10.0	3.9	0.0	18.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	0.0	25.0	63.9	0.0	13.1	48.9	0.0	147.4	57.7	0.0	0.0
LnGrp LOS	E	A	C	E	A	B	D	A	F	E	A	A
Approach Vol, veh/h		803			908			502			53	
Approach Delay, s/veh		26.1			24.0			121.3			57.7	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	28.4	19.2	70.2	28.4	7.3	82.1
Change Period (Y+Rc), s	5.2	4.6	* 4.7	* 5.2	4.6	* 4.7
Max Green Setting (Gmax), s	22.6	20.6	* 62	* 23	5.5	* 77
Max Q Clear Time (g_c+I1), s	25.2	14.5	39.6	25.2	3.5	26.5
Green Ext Time (p_c), s	0.0	0.1	5.8	0.0	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	47.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	56	0	34	13	0	26	13	382	5	10	234	21
Future Vol, veh/h	56	0	34	13	0	26	13	382	5	10	234	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	61	0	37	14	0	28	14	415	5	11	254	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	524	736	139	595	745	210	277	0	0	420	0	0
Stage 1	288	288	-	446	446	-	-	-	-	-	-	-
Stage 2	236	448	-	149	299	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	441	349	890	392	345	802	1298	-	-	1150	-	-
Stage 1	701	677	-	567	577	-	-	-	-	-	-	-
Stage 2	752	576	-	844	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	417	340	890	368	336	802	1298	-	-	1150	-	-
Mov Cap-2 Maneuver	417	340	-	368	336	-	-	-	-	-	-	-
Stage 1	691	670	-	559	569	-	-	-	-	-	-	-
Stage 2	715	568	-	800	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	11.7	0.3	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1298	-	-	522	576	1150	-	-
HCM Lane V/C Ratio	0.011	-	-	0.187	0.074	0.009	-	-
HCM Control Delay (s)	7.8	0.1	-	13.5	11.7	8.2	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	0	32	33	0	19	11	340	9	11	256	16
Future Vol, veh/h	41	0	32	33	0	19	11	340	9	11	256	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	45	0	35	36	0	21	12	370	10	12	278	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	520	715	148	562	718	190	295	0	0	380	0	0
Stage 1	311	311	-	399	399	-	-	-	-	-	-	-
Stage 2	209	404	-	163	319	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	444	359	878	414	357	826	1278	-	-	1190	-	-
Stage 1	680	662	-	604	606	-	-	-	-	-	-	-
Stage 2	779	603	-	829	657	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	425	350	878	390	348	826	1278	-	-	1190	-	-
Mov Cap-2 Maneuver	425	350	-	390	348	-	-	-	-	-	-	-
Stage 1	672	654	-	597	599	-	-	-	-	-	-	-
Stage 2	750	596	-	787	649	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	13.2	0.2	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1278	-	-	549	426	826	1190	-	-
HCM Lane V/C Ratio	0.009	-	-	0.145	0.1	0.017	0.01	-	-
HCM Control Delay (s)	7.8	0	-	12.7	14.4	9.4	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT	Ø5
Lane Configurations								
Traffic Volume (vph)	31	0	24	0	300	9	307	
Future Volume (vph)	31	0	24	0	300	9	307	
Turn Type	Perm	NA	Perm	NA	NA	Prot	NA	
Protected Phases		4		8	2	1	6	5
Permitted Phases	4		8					
Detector Phase	4	4	8	8	2	1	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	27.4	9.6	27.4	9.6
Total Split (s)	40.0	40.0	40.0	40.0	60.0	20.0	60.0	20.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	50.0%	16.7%	50.0%	17%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.4	3.6	4.4	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	5.4	4.6	5.4	
Lead/Lag					Lag	Lead	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 41.3
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 19: Mountain Av. & Dwy. 5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	49	24	0	28	23	300	11	9	307	6
Future Volume (veh/h)	31	0	49	24	0	28	23	300	11	9	307	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	0	53	26	0	30	25	326	12	10	334	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	241	54	217	274	52	187	0	1101	40	24	1685	35
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.00	0.31	0.31	0.01	0.47	0.47
Sat Flow, veh/h	381	241	969	494	230	836	0	3551	130	1810	3616	76
Grp Volume(v), veh/h	87	0	0	56	0	0	0	165	173	10	166	175
Grp Sat Flow(s),veh/h/ln	1590	0	0	1560	0	0	0	1805	1877	1810	1805	1886
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.3	0.2	1.7	1.8
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.8	0.0	0.0	0.0	2.2	2.3	0.2	1.7	1.8
Prop In Lane	0.39		0.61	0.46		0.54	0.00		0.07	1.00		0.04
Lane Grp Cap(c), veh/h	511	0	0	513	0	0	0	560	582	24	841	879
V/C Ratio(X)	0.17	0.00	0.00	0.11	0.00	0.00	0.00	0.30	0.30	0.42	0.20	0.20
Avail Cap(c_a), veh/h	1841	0	0	1815	0	0	0	3056	3177	864	3056	3194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	10.0	0.0	0.0	0.0	8.4	8.5	15.8	5.1	5.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.3	4.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.6	0.6	0.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	0.0	0.0	10.1	0.0	0.0	0.0	8.7	8.7	20.0	5.2	5.2
LnGrp LOS	B	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h		87			56			338			351	
Approach Delay, s/veh		10.4			10.1			8.7			5.6	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	15.4		11.8	0.0	20.4		11.8				
Change Period (Y+Rc), s	4.6	5.4		4.6	4.6	5.4		4.6				
Max Green Setting (Gmax), s	15.4	54.6		35.4	15.4	54.6		35.4				
Max Q Clear Time (g_c+I1), s	2.2	4.3		3.3	0.0	3.8		2.8				
Green Ext Time (p_c), s	0.0	1.9		0.5	0.0	1.9		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	0	42	23	0	28	21	274	11	9	365	6
Future Vol, veh/h	31	0	42	23	0	28	21	274	11	9	365	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	0	46	25	0	30	23	298	12	10	397	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	616	777	202	569	774	155	404	0	0	310	0	0
Stage 1	421	421	-	350	350	-	-	-	-	-	-	-
Stage 2	195	356	-	219	424	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	379	330	811	409	332	869	1166	-	-	1262	-	-
Stage 1	586	592	-	645	636	-	-	-	-	-	-	-
Stage 2	794	633	-	769	590	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	356	319	811	376	321	869	1166	-	-	1262	-	-
Mov Cap-2 Maneuver	356	319	-	376	321	-	-	-	-	-	-	-
Stage 1	572	586	-	630	621	-	-	-	-	-	-	-
Stage 2	748	618	-	718	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	12.3	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1166	-	-	526	546	1262	-	-
HCM Lane V/C Ratio	0.02	-	-	0.151	0.102	0.008	-	-
HCM Control Delay (s)	8.1	0.1	-	13.1	12.3	7.9	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	69	0	306	381	49
Future Vol, veh/h	0	69	0	306	381	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	75	0	333	414	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	234	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	774	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	774	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

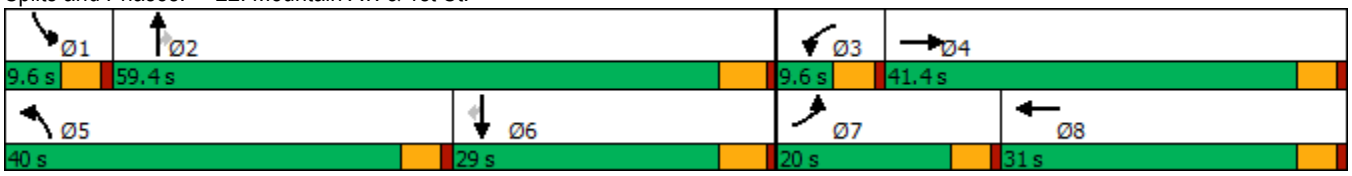
Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

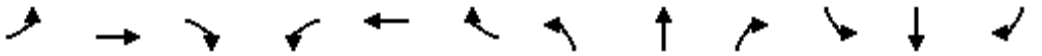
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	774	-	-
HCM Lane V/C Ratio	-	0.097	-	-
HCM Control Delay (s)	-	10.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	176	527	6	370	447	93	11	43	319	89
Future Volume (vph)	176	527	6	370	447	93	11	43	319	89
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	20.0	41.4	9.6	31.0	40.0	59.4	59.4	9.6	29.0	29.0
Total Split (%)	16.7%	34.5%	8.0%	25.8%	33.3%	49.5%	49.5%	8.0%	24.2%	24.2%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	527	396	6	370	35	447	93	11	43	319	89
Future Volume (veh/h)	176	527	396	6	370	35	447	93	11	43	319	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	183	549	412	6	385	36	466	97	11	45	332	93
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	213	686	515	14	410	38	496	826	700	62	370	314
Arrive On Green	0.12	0.35	0.35	0.01	0.24	0.24	0.27	0.43	0.43	0.03	0.19	0.19
Sat Flow, veh/h	1810	1965	1475	1810	1711	160	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	183	504	457	6	0	421	466	97	11	45	332	93
Grp Sat Flow(s),veh/h/ln	1810	1805	1635	1810	0	1871	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	10.9	27.6	27.6	0.4	0.0	24.2	27.6	3.3	0.4	2.7	18.7	5.4
Cycle Q Clear(g_c), s	10.9	27.6	27.6	0.4	0.0	24.2	27.6	3.3	0.4	2.7	18.7	5.4
Prop In Lane	1.00		0.90	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	631	571	14	0	448	496	826	700	62	370	314
V/C Ratio(X)	0.86	0.80	0.80	0.44	0.00	0.94	0.94	0.12	0.02	0.73	0.90	0.30
Avail Cap(c_a), veh/h	254	631	571	83	0	449	585	940	796	83	413	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	32.2	32.2	54.1	0.0	40.9	38.9	18.5	17.6	52.4	43.0	37.7
Incr Delay (d2), s/veh	19.2	7.2	7.9	7.8	0.0	27.9	20.3	0.1	0.0	11.8	20.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	13.0	11.8	0.2	0.0	14.4	14.6	1.4	0.2	1.4	10.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	39.4	40.1	62.0	0.0	68.8	59.2	18.5	17.6	64.2	63.5	38.2
LnGrp LOS	E	D	D	E	A	E	E	B	B	E	E	D
Approach Vol, veh/h		1144			427			574			470	
Approach Delay, s/veh		44.1			68.7			51.6			58.6	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	52.8	5.4	43.0	34.6	26.5	17.5	30.9
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	54.2	5.0	* 37	35.4	23.8	15.4	* 26
Max Q Clear Time (g_c+I1), s	4.7	5.3	2.4	29.6	29.6	20.7	12.9	26.2
Green Ext Time (p_c), s	0.0	0.5	0.0	3.4	0.4	0.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	980	10	0	836	0	24
Future Vol, veh/h	980	10	0	836	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1065	11	0	909	0	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1071
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	271
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	271
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

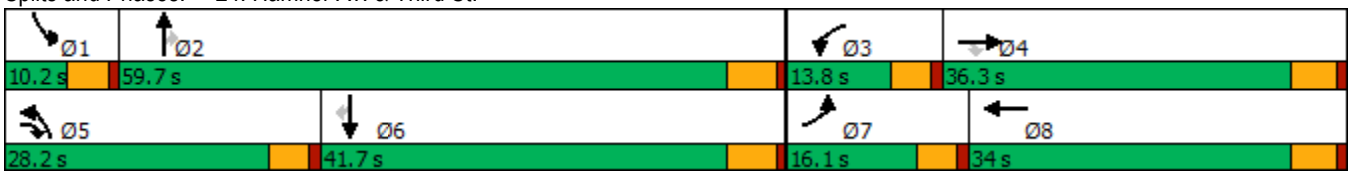
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	271	-	-	-
HCM Lane V/C Ratio	0.096	-	-	-
HCM Control Delay (s)	19.7	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

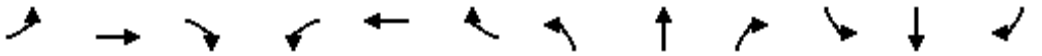
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	163	81	494	55	122	432	1205	75	51	1408	220
Future Volume (vph)	163	81	494	55	122	432	1205	75	51	1408	220
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	5	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	9.6	33.1	9.6	35.4	35.4	9.6	33.4	33.4
Total Split (s)	16.1	36.3	28.2	13.8	34.0	28.2	59.7	59.7	10.2	41.7	41.7
Total Split (%)	13.4%	30.3%	23.5%	11.5%	28.3%	23.5%	49.8%	49.8%	8.5%	34.8%	34.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.2
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Hamner Av. & Third St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	81	494	55	122	61	432	1205	75	51	1408	220
Future Volume (veh/h)	163	81	494	55	122	61	432	1205	75	51	1408	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	88	342	60	133	50	470	1310	70	55	1530	176
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	392	583	78	182	68	547	1884	839	71	1464	652
Arrive On Green	0.11	0.21	0.21	0.04	0.14	0.14	0.16	0.52	0.52	0.04	0.41	0.41
Sat Flow, veh/h	1810	1900	1608	1810	1310	492	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	177	88	342	60	0	183	470	1310	70	55	1530	176
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1802	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	10.0	4.0	17.9	3.4	0.0	10.1	13.6	28.3	2.3	3.1	42.2	7.6
Cycle Q Clear(g_c), s	10.0	4.0	17.9	3.4	0.0	10.1	13.6	28.3	2.3	3.1	42.2	7.6
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	392	583	78	0	250	547	1884	839	71	1464	652
V/C Ratio(X)	0.88	0.22	0.59	0.77	0.00	0.73	0.86	0.70	0.08	0.77	1.05	0.27
Avail Cap(c_a), veh/h	200	570	733	160	0	501	796	1884	839	97	1464	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	34.3	26.9	49.3	0.0	42.9	42.8	18.7	12.4	49.5	30.9	20.6
Incr Delay (d2), s/veh	33.2	0.3	0.9	5.9	0.0	4.1	4.6	2.1	0.2	15.0	36.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	1.9	6.8	1.7	0.0	4.7	6.1	11.3	0.8	1.7	24.4	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.8	34.6	27.8	55.2	0.0	47.0	47.4	20.8	12.6	64.5	67.3	21.7
LnGrp LOS	E	C	C	E	A	D	D	C	B	E	F	C
Approach Vol, veh/h		607			243			1850			1761	
Approach Delay, s/veh		43.7			49.0			27.3			62.6	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	59.7	9.1	26.6	20.8	47.6	16.1	19.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	5.6	54.3	9.2	31.2	23.6	36.3	11.5	28.9
Max Q Clear Time (g_c+I1), s	5.1	30.3	5.4	19.9	15.6	44.2	12.0	12.1
Green Ext Time (p_c), s	0.0	10.5	0.0	1.3	0.6	0.0	0.0	0.8

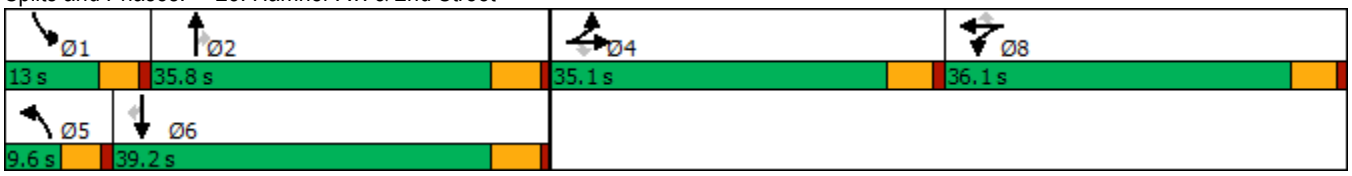
Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

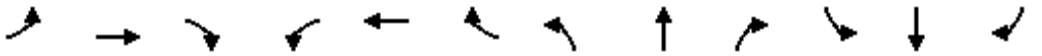
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	357	819	99	293	507	587	112	970	573	645	1229	287
Future Volume (vph)	357	819	99	293	507	587	112	970	573	645	1229	287
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.4	35.4	9.6	31.4	31.4
Total Split (s)	35.1	35.1	35.1	36.1	36.1	36.1	9.6	35.8	35.8	13.0	39.2	39.2
Total Split (%)	29.3%	29.3%	29.3%	30.1%	30.1%	30.1%	8.0%	29.8%	29.8%	10.8%	32.7%	32.7%
Yellow Time (s)	4.1	4.1	4.1	4.1	4.1	4.1	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1	5.1	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 150
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	819	99	293	507	587	112	970	573	645	1229	287
Future Volume (veh/h)	357	819	99	293	507	587	112	970	573	645	1229	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	364	836	68	272	555	391	114	990	456	658	1254	253
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	453	951	400	466	978	414	75	916	407	127	1018	448
Arrive On Green	0.25	0.25	0.25	0.26	0.26	0.26	0.04	0.25	0.25	0.07	0.28	0.28
Sat Flow, veh/h	1810	3800	1599	1810	3800	1608	1810	3610	1604	1810	3610	1588
Grp Volume(v), veh/h	364	836	68	272	555	391	114	990	456	658	1254	253
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1608	1810	1805	1604	1810	1805	1588
Q Serve(g_s), s	22.6	25.3	4.0	15.7	15.2	28.6	5.0	30.4	30.4	8.4	33.8	16.3
Cycle Q Clear(g_c), s	22.6	25.3	4.0	15.7	15.2	28.6	5.0	30.4	30.4	8.4	33.8	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	951	400	466	978	414	75	916	407	127	1018	448
V/C Ratio(X)	0.80	0.88	0.17	0.58	0.57	0.94	1.51	1.08	1.12	5.19	1.23	0.56
Avail Cap(c_a), veh/h	453	951	400	468	983	416	75	916	407	127	1018	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	43.2	35.2	38.9	38.7	43.7	57.4	44.7	44.7	55.7	43.0	36.7
Incr Delay (d2), s/veh	14.0	11.4	0.9	1.8	0.8	30.3	286.2	54.2	81.6	1902.3	113.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	13.2	1.7	7.2	7.1	14.6	8.2	20.1	20.9	70.8	30.6	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.2	54.6	36.1	40.7	39.5	73.9	343.6	98.9	126.3	1958.0	156.0	38.4
LnGrp LOS	E	D	D	D	D	E	F	F	F	F	F	D
Approach Vol, veh/h		1268			1218			1560			2165	
Approach Delay, s/veh		54.0			50.8			124.8			689.9	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.8		35.1	9.6	39.2		36.0				
Change Period (Y+Rc), s	4.6	5.4		5.1	4.6	5.4		5.1				
Max Green Setting (Gmax), s	8.4	30.4		30.0	5.0	33.8		31.0				
Max Q Clear Time (g_c+I1), s	10.4	32.4		27.3	7.0	35.8		30.6				
Green Ext Time (p_c), s	0.0	0.0		1.7	0.0	0.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		292.8	
HCM 6th LOS		F	

Notes

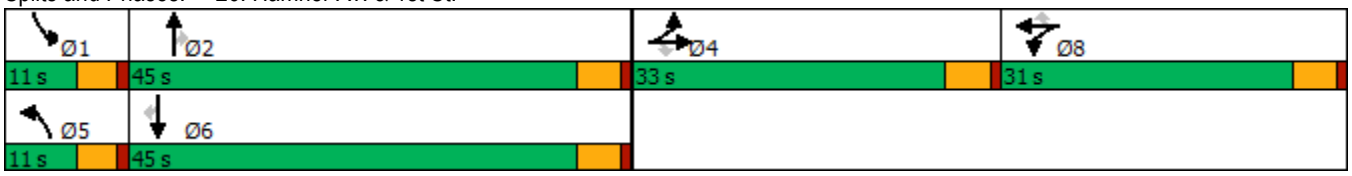
User approved volume balancing among the lanes for turning movement.

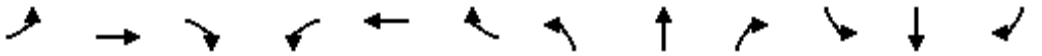
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	480	51	72	33	23	97	1058	38	81	1355	245
Future Volume (vph)	480	51	72	33	23	97	1058	38	81	1355	245
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		8		5	2		1	6	
Permitted Phases			4		8			2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.0	33.0	33.0	31.0	31.0	9.6	22.0	22.0	9.6	26.0	26.0
Total Split (s)	33.0	33.0	33.0	31.0	31.0	11.0	45.0	45.0	11.0	45.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	25.8%	25.8%	9.2%	37.5%	37.5%	9.2%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 98.5
Natural Cycle: 130
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Hamner Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	51	72	57	33	23	97	1058	38	81	1355	245
Future Volume (veh/h)	480	51	72	57	33	23	97	1058	38	81	1355	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	544	0	57	60	35	7	102	1114	29	85	1426	175
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	676	0	296	119	69	164	125	1587	690	109	1555	676
Arrive On Green	0.19	0.00	0.19	0.10	0.10	0.10	0.07	0.44	0.44	0.06	0.43	0.43
Sat Flow, veh/h	3619	0	1586	1163	679	1606	1810	3610	1569	1810	3610	1569
Grp Volume(v), veh/h	544	0	57	95	0	7	102	1114	29	85	1426	175
Grp Sat Flow(s),veh/h/ln	1810	0	1586	1842	0	1606	1810	1805	1569	1810	1805	1569
Q Serve(g_s), s	13.4	0.0	2.8	4.5	0.0	0.4	5.2	23.2	1.0	4.3	34.5	6.6
Cycle Q Clear(g_c), s	13.4	0.0	2.8	4.5	0.0	0.4	5.2	23.2	1.0	4.3	34.5	6.6
Prop In Lane	1.00		1.00	0.63		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	676	0	296	188	0	164	125	1587	690	109	1555	676
V/C Ratio(X)	0.80	0.00	0.19	0.50	0.00	0.04	0.82	0.70	0.04	0.78	0.92	0.26
Avail Cap(c_a), veh/h	1092	0	478	516	0	450	125	1587	690	125	1555	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	31.8	39.4	0.0	37.6	42.6	21.1	14.9	43.0	24.9	16.9
Incr Delay (d2), s/veh	2.3	0.0	0.3	2.1	0.0	0.1	31.2	2.6	0.1	20.0	10.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	1.1	2.1	0.0	0.1	3.3	9.5	0.3	2.5	15.5	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	32.2	41.5	0.0	37.7	73.8	23.7	15.0	63.1	34.9	17.8
LnGrp LOS	D	A	C	D	A	D	E	C	B	E	C	B
Approach Vol, veh/h		601			102			1245			1686	
Approach Delay, s/veh		37.8			41.3			27.6			34.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	45.8		22.3	11.0	45.0		14.5				
Change Period (Y+Rc), s	4.6	5.0		5.0	4.6	5.0		5.0				
Max Green Setting (Gmax), s	6.4	40.0		28.0	6.4	40.0		26.0				
Max Q Clear Time (g_c+I1), s	6.3	25.2		15.4	7.2	36.5		6.5				
Green Ext Time (p_c), s	0.0	6.6		1.8	0.0	2.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		32.9	
HCM 6th LOS		C	

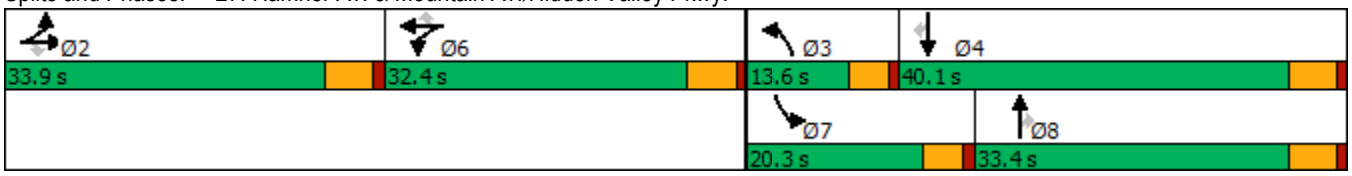
Notes

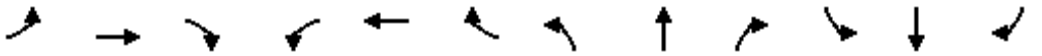
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	732	102	524	519	394	134	961	695	598	914	31
Future Volume (vph)	36	732	102	524	519	394	134	961	695	598	914	31
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	2	2	2	6	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	33.4	33.4	33.4	32.4	32.4	32.4	9.6	33.4	33.4	9.6	33.4	33.4
Total Split (s)	33.9	33.9	33.9	32.4	32.4	32.4	13.6	33.4	33.4	20.3	40.1	40.1
Total Split (%)	28.3%	28.3%	28.3%	27.0%	27.0%	27.0%	11.3%	27.8%	27.8%	16.9%	33.4%	33.4%
Yellow Time (s)	4.4	4.4	4.4	4.4	4.4	4.4	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4	5.4	5.4	5.4	5.4	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	Max	Max	None	None	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 140
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	732	102	524	519	394	134	961	695	598	914	31
Future Volume (veh/h)	36	732	102	524	519	394	134	961	695	598	914	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	762	100	608	454	399	140	1001	519	623	952	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
Arrive On Green	0.24	0.24	0.24	0.23	0.23	0.23	0.08	0.23	0.23	0.13	0.29	0.29
Sat Flow, veh/h	1810	3610	1606	3619	1900	1604	1810	3610	1610	3510	3610	1586
Grp Volume(v), veh/h	38	762	100	608	454	399	140	1001	519	623	952	24
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1604	1810	1805	1610	1755	1805	1586
Q Serve(g_s), s	2.0	24.5	6.1	18.8	27.0	27.0	9.0	28.0	28.0	15.7	30.6	1.3
Cycle Q Clear(g_c), s	2.0	24.5	6.1	18.8	27.0	27.0	9.0	28.0	28.0	15.7	30.6	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
V/C Ratio(X)	0.09	0.89	0.26	0.75	1.06	1.11	1.03	1.19	1.38	1.36	0.91	0.05
Avail Cap(c_a), veh/h	430	857	381	814	428	361	136	842	376	459	1044	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	44.2	37.2	43.3	46.5	46.5	55.5	46.0	46.0	52.2	41.2	30.8
Incr Delay (d2), s/veh	0.4	13.3	1.7	3.8	60.9	79.0	85.9	96.6	187.5	174.1	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	12.2	2.5	8.6	19.6	18.4	7.3	23.5	30.4	17.9	14.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	57.5	38.9	47.1	107.4	125.5	141.4	142.6	233.5	226.3	53.0	30.8
LnGrp LOS	D	E	D	D	F	F	F	F	F	F	D	C
Approach Vol, veh/h		900			1461			1660			1599	
Approach Delay, s/veh		54.5			87.3			170.9			120.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	13.6	40.1		32.4	20.3	33.4				
Change Period (Y+Rc), s		5.4	4.6	5.4		5.4	4.6	5.4				
Max Green Setting (Gmax), s		28.5	9.0	34.7		27.0	15.7	28.0				
Max Q Clear Time (g_c+I1), s		26.5	11.0	32.6		29.0	17.7	30.0				
Green Ext Time (p_c), s		1.1	0.0	1.3		0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			116.1									
HCM 6th LOS			F									

Notes

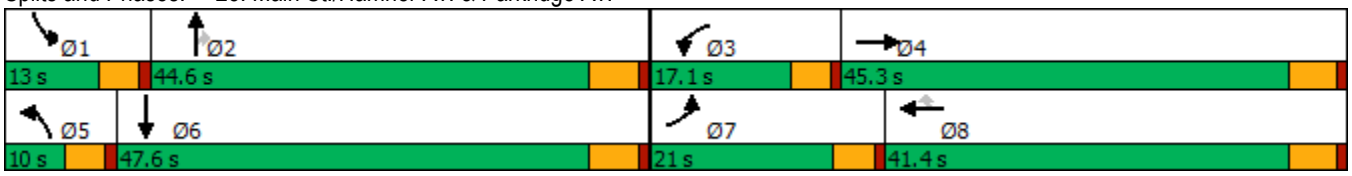
User approved volume balancing among the lanes for turning movement.

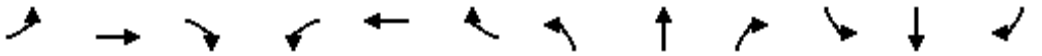
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	589	359	80	182	287	101	1229	140	247	1161
Future Volume (vph)	589	359	80	182	287	101	1229	140	247	1161
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	42.4	9.6	41.4	41.4	9.6	42.4	42.4	9.6	42.4
Total Split (s)	21.0	45.3	17.1	41.4	41.4	10.0	44.6	44.6	13.0	47.6
Total Split (%)	17.5%	37.8%	14.3%	34.5%	34.5%	8.3%	37.2%	37.2%	10.8%	39.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 104.2
Natural Cycle: 145
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	589	359	126	80	182	287	101	1229	140	247	1161	596
Future Volume (veh/h)	589	359	126	80	182	287	101	1229	140	247	1161	596
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	378	122	84	192	199	106	1294	0	260	1222	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	290	752	239	108	343	289	95	1381		148	2136	
Arrive On Green	0.16	0.28	0.28	0.06	0.18	0.18	0.05	0.38	0.00	0.08	0.41	0.00
Sat Flow, veh/h	1810	2678	851	1810	1900	1599	1810	3610	1610	1810	5358	0
Grp Volume(v), veh/h	620	253	247	84	192	199	106	1294	0	260	1222	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1724	1810	1900	1599	1810	1805	1610	1810	1729	0
Q Serve(g_s), s	16.4	12.0	12.3	4.7	9.4	11.9	5.4	35.4	0.0	8.4	18.6	0.0
Cycle Q Clear(g_c), s	16.4	12.0	12.3	4.7	9.4	11.9	5.4	35.4	0.0	8.4	18.6	0.0
Prop In Lane	1.00		0.49	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	290	507	484	108	343	289	95	1381		148	2136	
V/C Ratio(X)	2.14	0.50	0.51	0.78	0.56	0.69	1.11	0.94		1.75	0.57	
Avail Cap(c_a), veh/h	290	703	671	221	667	562	95	1381		148	2136	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.1	30.8	30.9	47.5	38.3	39.3	48.6	30.5	0.0	47.1	23.2	0.0
Incr Delay (d2), s/veh	525.1	0.8	0.8	4.5	1.4	2.9	125.6	13.3	0.0	365.2	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	49.3	5.1	5.1	2.2	4.4	4.8	5.7	16.9	0.0	18.7	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	568.1	31.6	31.8	52.0	39.7	42.2	174.1	43.7	0.0	412.3	24.3	0.0
LnGrp LOS	F	C	C	D	D	D	F	D		F	C	
Approach Vol, veh/h		1120			475			1400	A		1482	A
Approach Delay, s/veh		328.6			43.0			53.6			92.4	
Approach LOS		F			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.6	10.7	34.2	10.0	47.6	21.0	23.9
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	8.4	39.2	12.5	39.9	5.4	42.2	16.4	36.0
Max Q Clear Time (g_c+I1), s	10.4	37.4	6.7	14.3	7.4	20.6	18.4	13.9
Green Ext Time (p_c), s	0.0	1.4	0.0	2.9	0.0	8.6	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	134.1
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

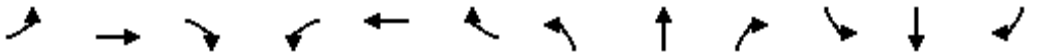
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	1065	228	935	5	395
Future Volume (vph)	1065	228	935	5	395
Turn Type	NA	Prot	NA	NA	Perm
Protected Phases	2	1	6	4	
Permitted Phases					4
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	9.5	23.6	20.0	20.0
Total Split (s)	64.0	22.0	86.0	34.0	34.0
Total Split (%)	53.3%	18.3%	71.7%	28.3%	28.3%
Yellow Time (s)	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1065	1084	228	935	54	0	0	0	115	5	395
Future Volume (veh/h)	0	1065	1084	228	935	54	0	0	0	115	5	395
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1098	1041	235	964	56				119	5	311
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	997	812	257	2455	143				364	15	337
Arrive On Green	0.00	0.53	0.53	0.28	1.00	1.00				0.21	0.21	0.21
Sat Flow, veh/h	0	1983	1537	1810	3467	201				1740	73	1610
Grp Volume(v), veh/h	0	1042	1097	235	502	518				124	0	311
Grp Sat Flow(s),veh/h/ln	0	1805	1620	1810	1805	1863				1813	0	1610
Q Serve(g_s), s	0.0	63.4	63.4	15.1	0.0	0.0				7.0	0.0	22.7
Cycle Q Clear(g_c), s	0.0	63.4	63.4	15.1	0.0	0.0				7.0	0.0	22.7
Prop In Lane	0.00		0.95	1.00		0.11				0.96		1.00
Lane Grp Cap(c), veh/h	0	954	856	257	1278	1319				380	0	337
V/C Ratio(X)	0.00	1.09	1.28	0.91	0.39	0.39				0.33	0.00	0.92
Avail Cap(c_a), veh/h	0	954	856	264	1278	1319				434	0	385
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.48	0.48	0.48				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	28.3	42.2	0.0	0.0				40.3	0.0	46.5
Incr Delay (d2), s/veh	0.0	43.6	127.6	18.9	0.4	0.4				0.2	0.0	24.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	37.0	53.2	7.0	0.2	0.2				3.1	0.0	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	71.9	155.9	61.1	0.4	0.4				40.4	0.0	70.7
LnGrp LOS	A	F	F	E	A	A				D	A	E
Approach Vol, veh/h		2139			1255						435	
Approach Delay, s/veh		115.0			11.8						62.1	
Approach LOS		F			B						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.6	68.0		30.4		89.6
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	17.5	59.4		28.7		81.4
Max Q Clear Time (g_c+I1), s	17.1	65.4		24.7		2.0
Green Ext Time (p_c), s	0.0	0.0		0.4		4.6

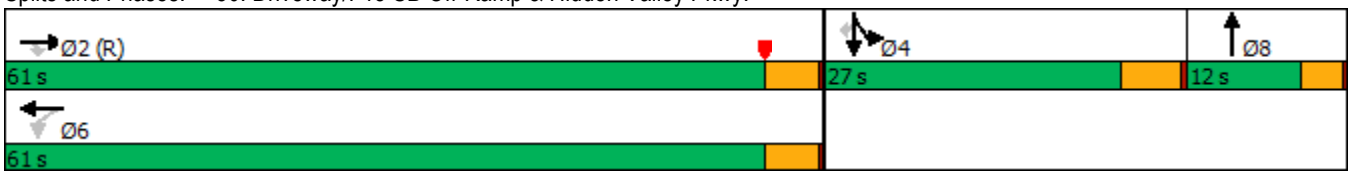
Intersection Summary			
HCM 6th Ctrl Delay		75.2	
HCM 6th LOS		E	

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	1881	71	137	920	0	525	104	471
Future Volume (vph)	1881	71	137	920	0	525	104	471
Turn Type	NA	Perm	Perm	NA	NA	Split	NA	Perm
Protected Phases	2			6	8	4	4	
Permitted Phases		2	6					4
Detector Phase	2	2	6	6	8	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	5.0	5.0	4.0	5.0	5.0	5.0
Minimum Split (s)	14.5	14.5	30.5	30.5	7.5	10.0	10.0	10.0
Total Split (s)	61.0	61.0	61.0	61.0	12.0	27.0	27.0	27.0
Total Split (%)	61.0%	61.0%	61.0%	61.0%	12.0%	27.0%	27.0%	27.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	3.5	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	None	None	None	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 30: Driveway/I-15 SB Off-Ramp & Hidden Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1881	71	137	920	0	0	0	304	525	104	471
Future Volume (veh/h)	0	1881	71	137	920	0	0	0	304	525	104	471
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1980	54	144	968	0	0	0	161	380	443	305
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2040	909	80	2040	0	0	0	137	398	418	354
Arrive On Green	0.00	0.56	0.56	0.75	0.75	0.00	0.00	0.00	0.09	0.22	0.22	0.22
Sat Flow, veh/h	0	3705	1609	212	3705	0	0	0	1610	1810	1900	1610
Grp Volume(v), veh/h	0	1980	54	144	968	0	0	0	161	380	443	305
Grp Sat Flow(s),veh/h/ln	0	1805	1609	212	1805	0	0	0	1610	1810	1900	1610
Q Serve(g_s), s	0.0	52.8	1.5	3.7	10.4	0.0	0.0	0.0	8.5	20.7	22.0	18.2
Cycle Q Clear(g_c), s	0.0	52.8	1.5	56.5	10.4	0.0	0.0	0.0	8.5	20.7	22.0	18.2
Prop In Lane	0.00		1.00	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	2040	909	80	2040	0	0	0	137	398	418	354
V/C Ratio(X)	0.00	0.97	0.06	1.81	0.47	0.00	0.00	0.00	1.18	0.95	1.06	0.86
Avail Cap(c_a), veh/h	0	2040	909	80	2040	0	0	0	137	398	418	354
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.96	0.96	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	21.0	9.8	40.5	6.7	0.0	0.0	0.0	45.8	38.5	39.0	37.5
Incr Delay (d2), s/veh	0.0	2.3	0.0	406.0	0.1	0.0	0.0	0.0	132.1	35.0	60.7	23.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.8	0.5	10.9	2.9	0.0	0.0	0.0	8.4	12.6	16.7	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.2	9.8	446.5	6.8	0.0	0.0	0.0	177.8	73.5	99.7	60.5
LnGrp LOS	A	C	A	F	A	A	A	A	F	E	F	E
Approach Vol, veh/h		2034			1112			161			1128	
Approach Delay, s/veh		22.8			63.7			177.8			80.3	
Approach LOS		C			E			F			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	61.0	27.0	61.0	12.0
Change Period (Y+Rc), s	4.5	5.0	4.5	3.5
Max Green Setting (Gmax), s	56.5	22.0	56.5	8.5
Max Q Clear Time (g_c+I1), s	54.8	24.0	58.5	10.5
Green Ext Time (p_c), s	1.4	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

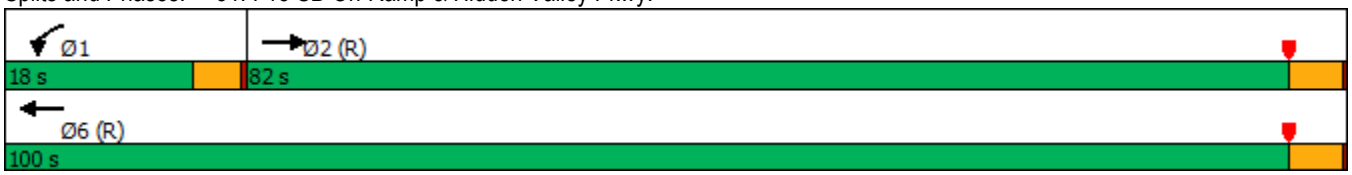
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT
Lane Configurations			
Traffic Volume (vph)	2047	220	1059
Future Volume (vph)	2047	220	1059
Turn Type	NA	Prot	NA
Protected Phases	2	1	6
Permitted Phases			
Detector Phase	2	1	6
Switch Phase			
Minimum Initial (s)	8.0	8.0	8.0
Minimum Split (s)	27.5	12.0	12.5
Total Split (s)	82.0	18.0	100.0
Total Split (%)	82.0%	18.0%	100.0%
Yellow Time (s)	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5
Lead/Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	C-Max	Max	C-Max

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 31: I-15 SB On-Ramp & Hidden Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2047	669	220	1059	0	0
Future Volume (veh/h)	2047	669	220	1059	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	2132	681	229	1103		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	2115	640	253	3448		
Arrive On Green	1.00	1.00	0.28	1.00		
Sat Flow, veh/h	2824	826	1810	3705		
Grp Volume(v), veh/h	1370	1443	229	1103		
Grp Sat Flow(s),veh/h/ln	1805	1750	1810	1805		
Q Serve(g_s), s	0.0	73.8	12.2	0.0		
Cycle Q Clear(g_c), s	0.0	73.8	12.2	0.0		
Prop In Lane		0.47	1.00			
Lane Grp Cap(c), veh/h	1399	1356	253	3448		
V/C Ratio(X)	0.98	1.06	0.90	0.32		
Avail Cap(c_a), veh/h	1399	1356	253	3448		
HCM Platoon Ratio	2.00	2.00	2.00	2.00		
Upstream Filter(I)	0.13	0.13	0.43	0.43		
Uniform Delay (d), s/veh	0.0	0.0	35.4	0.0		
Incr Delay (d2), s/veh	5.2	31.3	19.7	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.0	11.8	5.8	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2	31.3	55.1	0.1		
LnGrp LOS	A	F	E	A		
Approach Vol, veh/h	2813			1332		
Approach Delay, s/veh	18.5			9.6		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	18.0	82.0				100.0
Change Period (Y+Rc), s	4.0	4.5				4.5
Max Green Setting (Gmax), s	14.0	77.5				95.5
Max Q Clear Time (g_c+I1), s	14.2	75.8				2.0
Green Ext Time (p_c), s	0.0	1.6				5.8

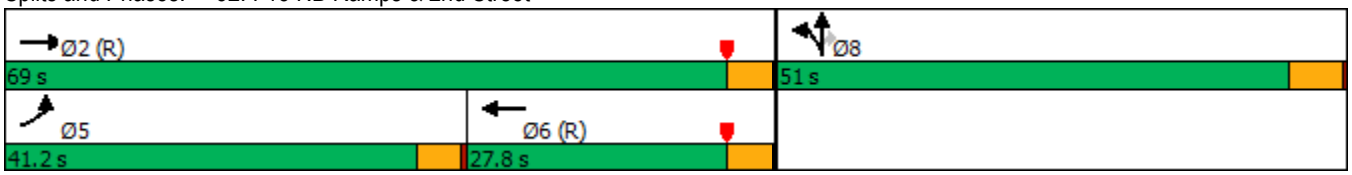
Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

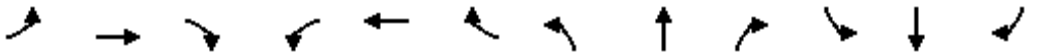
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	707	473	458	7	476
Future Volume (vph)	707	473	458	7	476
Turn Type	Prot	NA	NA	NA	Perm
Protected Phases	5	2	6	8	
Permitted Phases					8
Detector Phase	5	2	6	8	8
Switch Phase					
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0
Total Split (s)	41.2	69.0	27.8	51.0	51.0
Total Split (%)	34.3%	57.5%	23.2%	42.5%	42.5%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





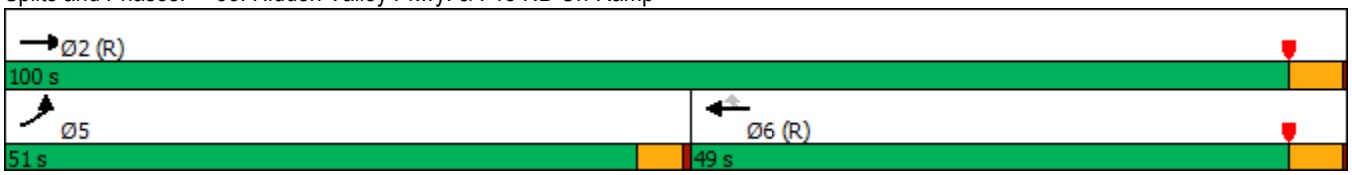
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	707	473	0	0	458	64	756	7	476	0	0	0
Future Volume (veh/h)	707	473	0	0	458	64	756	7	476	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	760	509	0	0	492	57	813	8	339			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	553	1937	0	0	630	73	683	7	613			
Arrive On Green	0.10	0.18	0.00	0.00	0.19	0.19	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	3353	376	1793	18	1610			
Grp Volume(v), veh/h	760	509	0	0	272	277	821	0	339			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1829	1810	0	1610			
Q Serve(g_s), s	36.7	14.6	0.0	0.0	17.2	17.3	45.7	0.0	19.8			
Cycle Q Clear(g_c), s	36.7	14.6	0.0	0.0	17.2	17.3	45.7	0.0	19.8			
Prop In Lane	1.00		0.00	0.00		0.21	0.99		1.00			
Lane Grp Cap(c), veh/h	553	1937	0	0	349	354	689	0	613			
V/C Ratio(X)	1.37	0.26	0.00	0.00	0.78	0.78	1.19	0.00	0.55			
Avail Cap(c_a), veh/h	553	1937	0	0	349	354	689	0	613			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.9	28.9	0.0	0.0	46.0	46.0	37.2	0.0	29.1			
Incr Delay (d2), s/veh	169.1	0.0	0.0	0.0	15.7	15.9	99.9	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	43.8	7.1	0.0	0.0	9.1	9.3	38.1	0.0	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	223.0	28.9	0.0	0.0	61.6	61.9	137.0	0.0	30.0			
LnGrp LOS	F	C	A	A	E	E	F	A	C			
Approach Vol, veh/h		1269			549			1160				
Approach Delay, s/veh		145.2			61.8			105.8				
Approach LOS		F			E			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		69.0			41.2	27.8		51.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		64.4			36.7	23.2		45.7				
Max Q Clear Time (g_c+I1), s		16.6			38.7	19.3		47.7				
Green Ext Time (p_c), s		2.3			0.0	0.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			114.4									
HCM 6th LOS			F									

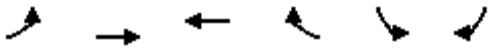
Lane Group	EBL	EBT	WBT	WBR
Lane Configurations				
Traffic Volume (vph)	725	1313	1281	481
Future Volume (vph)	725	1313	1281	481
Turn Type	Prot	NA	NA	Perm
Protected Phases	5	2	6	
Permitted Phases				6
Detector Phase	5	2	6	6
Switch Phase				
Minimum Initial (s)	8.0	8.0	8.0	8.0
Minimum Split (s)	12.0	12.5	28.5	28.5
Total Split (s)	51.0	100.0	49.0	49.0
Total Split (%)	51.0%	100.0%	49.0%	49.0%
Yellow Time (s)	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes
Recall Mode	Max	C-Max	C-Max	C-Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 92 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 33: Hidden Valley Pkwy. & I-15 NB On-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	725	1313	1281	481	0	0
Future Volume (veh/h)	725	1313	1281	481	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.98		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900		
Adj Flow Rate, veh/h	763	1382	1348	450		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	850	3448	1606	700		
Arrive On Green	0.94	1.00	0.44	0.44		
Sat Flow, veh/h	1810	3705	3705	1573		
Grp Volume(v), veh/h	763	1382	1348	450		
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1573		
Q Serve(g_s), s	16.1	0.0	33.1	22.2		
Cycle Q Clear(g_c), s	16.1	0.0	33.1	22.2		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	850	3448	1606	700		
V/C Ratio(X)	0.90	0.40	0.84	0.64		
Avail Cap(c_a), veh/h	850	3448	1606	700		
HCM Platoon Ratio	2.00	2.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.42	0.42		
Uniform Delay (d), s/veh	2.1	0.0	24.6	21.6		
Incr Delay (d2), s/veh	1.6	0.0	2.4	1.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.4	0.0	13.5	8.0		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.7	0.0	27.0	23.5		
LnGrp LOS	A	A	C	C		
Approach Vol, veh/h		2145	1798			
Approach Delay, s/veh		1.3	26.1			
Approach LOS		A	C			

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		100.0			51.0	49.0
Change Period (Y+Rc), s		4.5			4.0	4.5
Max Green Setting (Gmax), s		95.5			47.0	44.5
Max Q Clear Time (g_c+I1), s		2.0			18.1	35.1
Green Ext Time (p_c), s		8.3			1.2	5.1

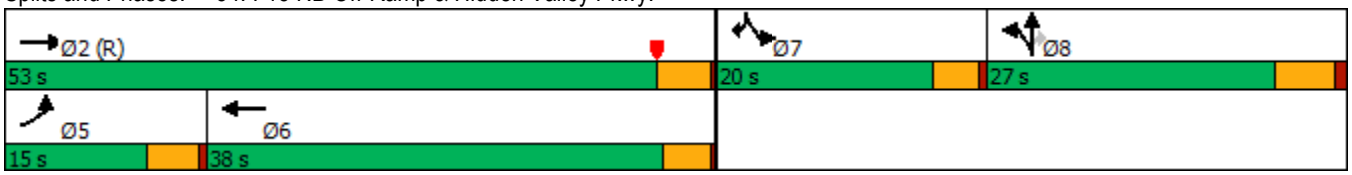
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

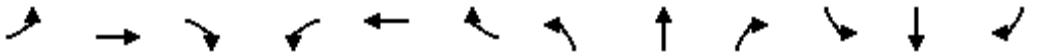
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Configurations								
Traffic Volume (vph)	111	1202	980	592	80	355	81	187
Future Volume (vph)	111	1202	980	592	80	355	81	187
Turn Type	Prot	NA	NA	Split	NA	Perm	Prot	Prot
Protected Phases	5	2	6	8	8		7	7
Permitted Phases						8		
Detector Phase	5	2	6	8	8	8	7	7
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	5.0	10.0	10.0
Minimum Split (s)	14.5	31.5	30.0	10.5	10.5	10.5	14.0	14.0
Total Split (s)	15.0	53.0	38.0	27.0	27.0	27.0	20.0	20.0
Total Split (%)	15.0%	53.0%	38.0%	27.0%	27.0%	27.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	3.5	4.5	4.5	4.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	5.5	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	Max	Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 34: I-15 NB Off-Ramp & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	1202	0	0	980	52	592	80	355	81	0	187
Future Volume (veh/h)	111	1202	0	0	980	52	592	80	355	81	0	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900	1900	0	1900
Adj Flow Rate, veh/h	116	1252	0	0	1021	50	617	83	218	84	0	179
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	2473	0	0	1905	93	755	408	346	0	0	0
Arrive On Green	0.19	1.00	0.00	0.00	0.54	0.54	0.22	0.22	0.22	0.00	0.00	0.00
Sat Flow, veh/h	1810	3705	0	0	3597	171	3510	1900	1610		0	
Grp Volume(v), veh/h	116	1252	0	0	526	545	617	83	218		0.0	
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1869	1755	1900	1610			
Q Serve(g_s), s	5.9	0.0	0.0	0.0	18.8	18.8	16.7	3.6	12.3			
Cycle Q Clear(g_c), s	5.9	0.0	0.0	0.0	18.8	18.8	16.7	3.6	12.3			
Prop In Lane	1.00		0.00	0.00		0.09	1.00		1.00			
Lane Grp Cap(c), veh/h	174	2473	0	0	982	1017	755	409	346			
V/C Ratio(X)	0.67	0.51	0.00	0.00	0.54	0.54	0.82	0.20	0.63			
Avail Cap(c_a), veh/h	190	2473	0	0	982	1017	755	409	346			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.93	0.93	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	38.9	0.0	0.0	0.0	14.7	14.7	37.4	32.2	35.6			
Incr Delay (d2), s/veh	6.4	0.7	0.0	0.0	2.1	2.0	9.6	1.1	8.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	0.2	0.0	0.0	7.4	7.6	7.8	1.7	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.7	0.0	0.0	16.8	16.7	46.9	33.3	44.1			
LnGrp LOS	D	A	A	A	B	B	D	C	D			
Approach Vol, veh/h		1368			1071			918				
Approach Delay, s/veh		4.5			16.7			45.0				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		73.0			14.1	58.9		27.0				
Change Period (Y+Rc), s		4.5			4.5	* 4.5		5.5				
Max Green Setting (Gmax), s		48.5			10.5	* 34		21.5				
Max Q Clear Time (g_c+I1), s		2.0			7.9	20.8		18.7				
Green Ext Time (p_c), s		6.9			0.0	3.5		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

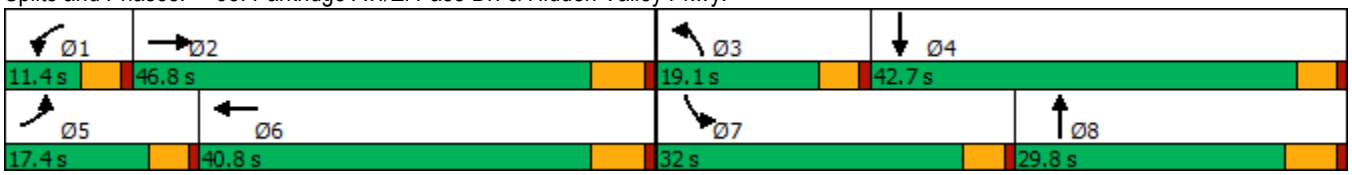
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

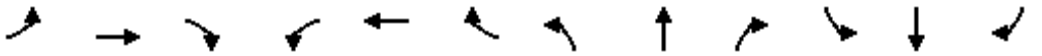
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	112	993	76	644	118	114	102	54
Future Volume (vph)	112	993	76	644	118	114	102	54
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	26.8	9.6	27.8	9.6	29.8	9.6	31.6
Total Split (s)	17.4	46.8	11.4	40.8	19.1	29.8	32.0	42.7
Total Split (%)	14.5%	39.0%	9.5%	34.0%	15.9%	24.8%	26.7%	35.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.8	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.8	4.6	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 35: Parkridge Av./El Paso Dr. & Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	993	133	76	644	77	118	114	227	102	54	47
Future Volume (veh/h)	112	993	133	76	644	77	118	114	227	102	54	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	1079	108	83	700	74	128	124	180	111	59	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	1149	115	105	1063	112	155	611	538	138	819	339
Arrive On Green	0.08	0.35	0.35	0.06	0.32	0.32	0.09	0.34	0.34	0.08	0.33	0.33
Sat Flow, veh/h	1810	3314	331	1810	3294	348	1810	1805	1587	1810	2487	1030
Grp Volume(v), veh/h	122	587	600	83	383	391	128	124	180	111	42	43
Grp Sat Flow(s),veh/h/ln	1810	1805	1840	1810	1805	1837	1810	1805	1587	1810	1805	1712
Q Serve(g_s), s	7.7	36.5	36.5	5.2	21.1	21.2	8.1	5.6	9.8	7.0	1.8	2.0
Cycle Q Clear(g_c), s	7.7	36.5	36.5	5.2	21.1	21.2	8.1	5.6	9.8	7.0	1.8	2.0
Prop In Lane	1.00		0.18	1.00		0.19	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	149	626	638	105	583	593	155	611	538	138	594	564
V/C Ratio(X)	0.82	0.94	0.94	0.79	0.66	0.66	0.82	0.20	0.33	0.80	0.07	0.08
Avail Cap(c_a), veh/h	200	640	652	106	583	593	227	611	538	429	594	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	36.6	36.6	53.8	33.7	33.7	52.0	27.2	28.5	52.6	26.6	26.7
Incr Delay (d2), s/veh	13.3	21.5	21.4	29.0	2.7	2.7	9.6	0.7	1.7	4.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	18.9	19.3	3.2	9.3	9.5	4.0	2.5	3.8	3.3	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	58.1	58.0	82.8	36.4	36.4	61.6	27.9	30.2	56.6	26.9	27.0
LnGrp LOS	E	E	E	F	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1309			857			432			196	
Approach Delay, s/veh		58.7			40.9			38.9			43.7	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	45.9	14.5	43.9	14.1	43.1	13.5	45.0
Change Period (Y+Rc), s	4.6	5.8	4.6	* 5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	6.8	41.0	14.5	* 38	12.8	35.0	27.4	24.0
Max Q Clear Time (g_c+I1), s	7.2	38.5	10.1	4.0	9.7	23.2	9.0	11.8
Green Ext Time (p_c), s	0.0	1.6	0.1	0.5	0.0	3.4	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.3:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

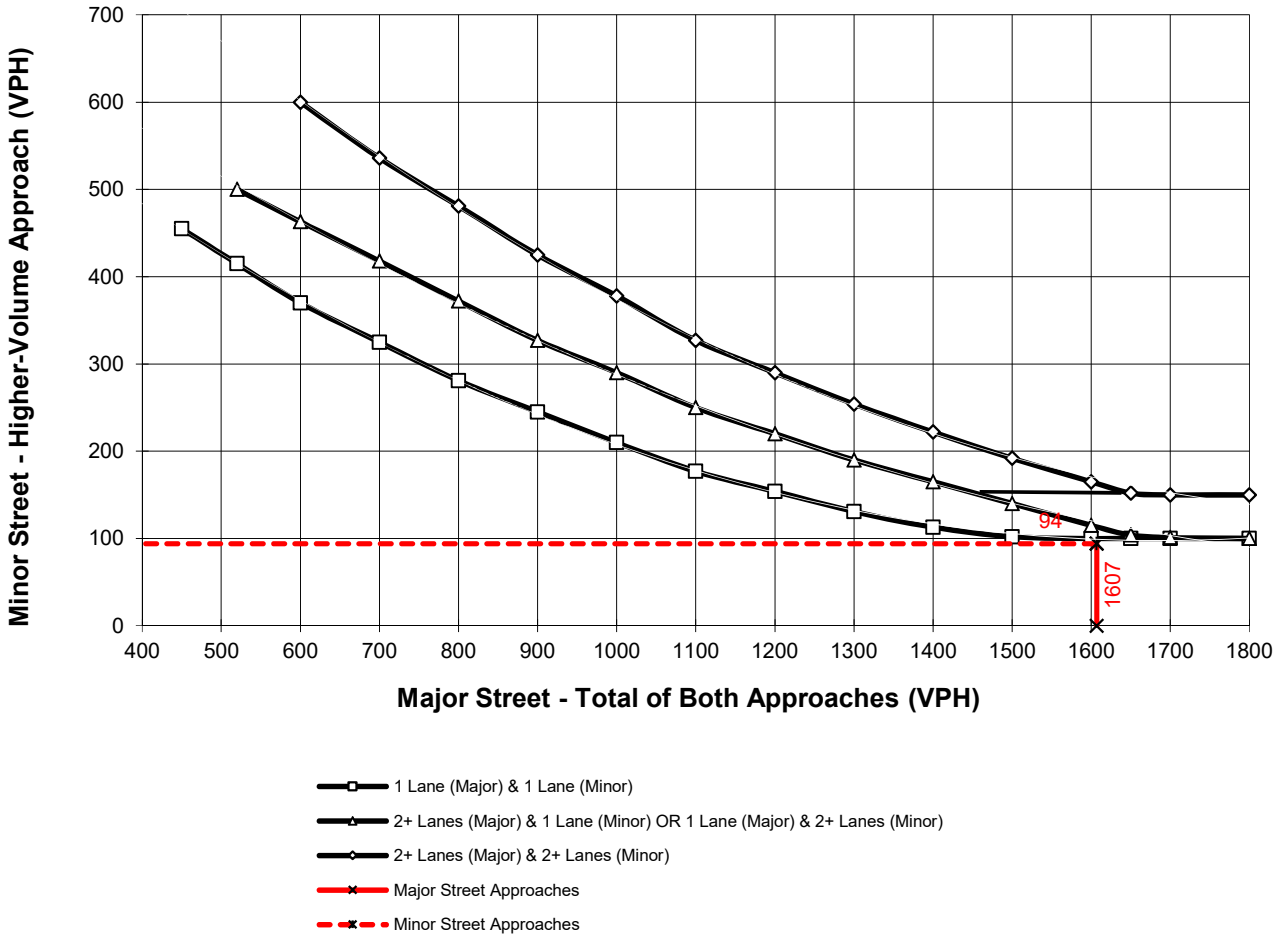
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **HY (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1607**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **94**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

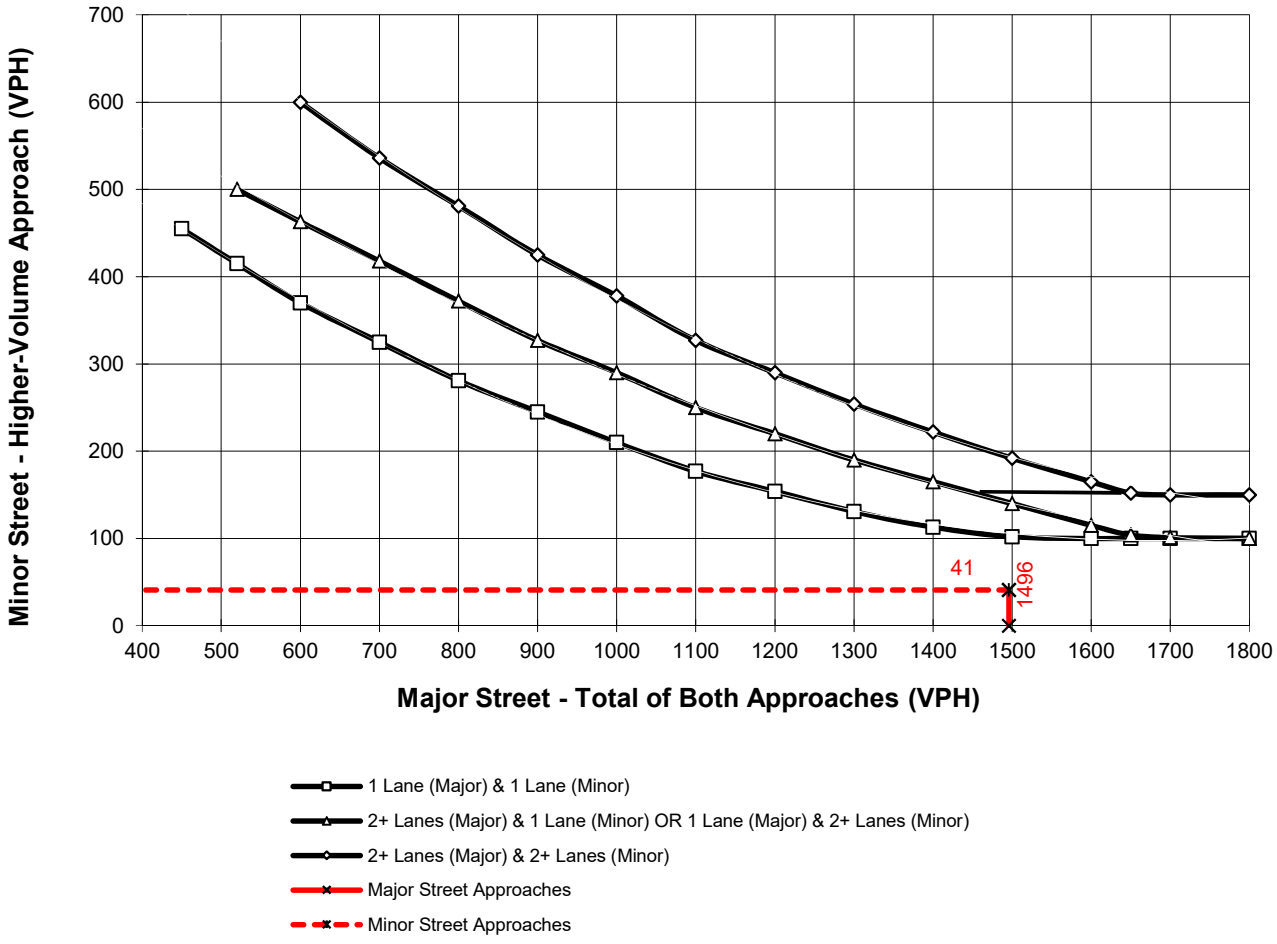
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **HY (2040) Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1496**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **41**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.4:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

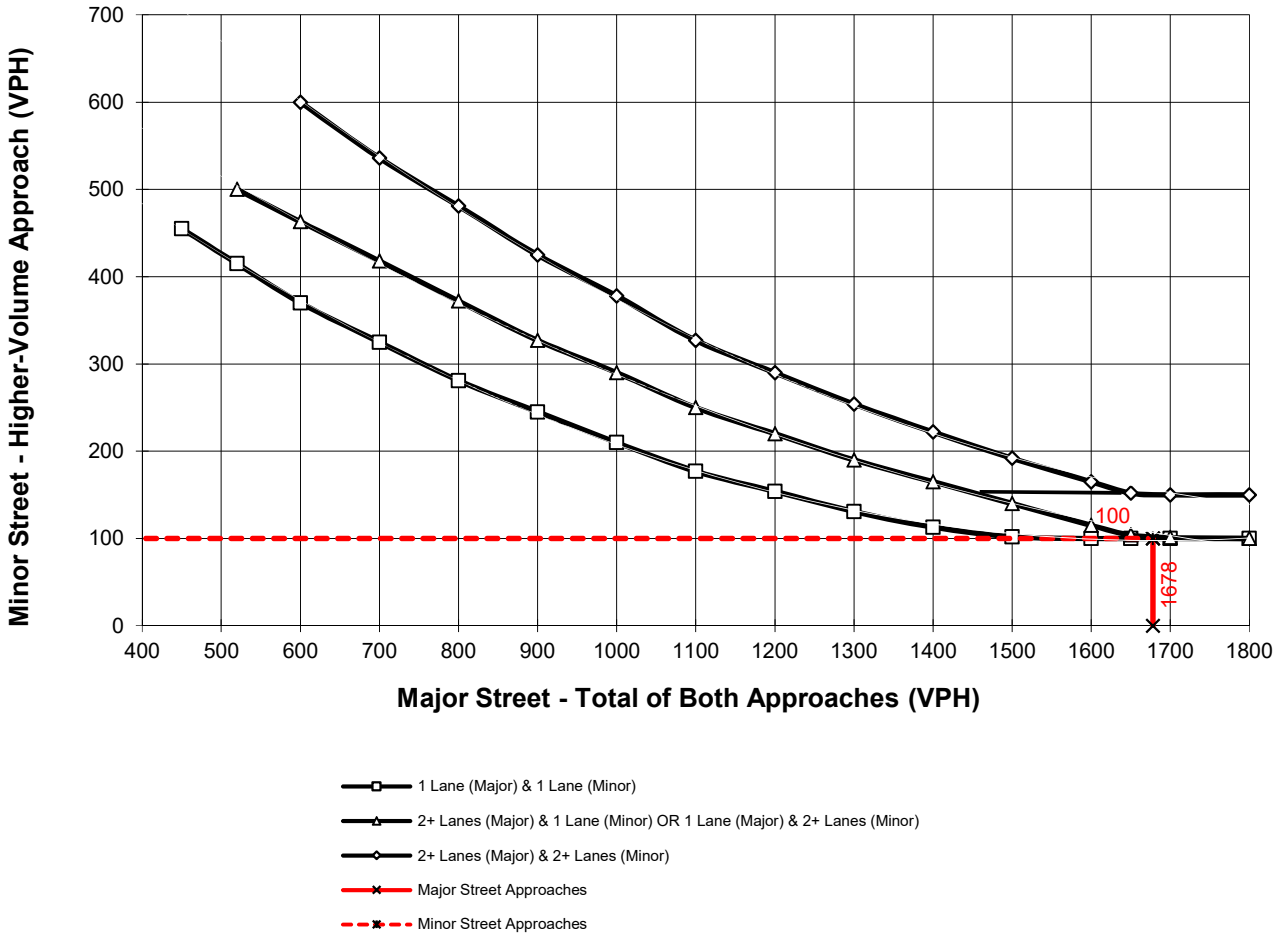
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **HY (2040) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1678**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Parkridge Av. (West)**
High Volume Approach (VPH) = **100**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

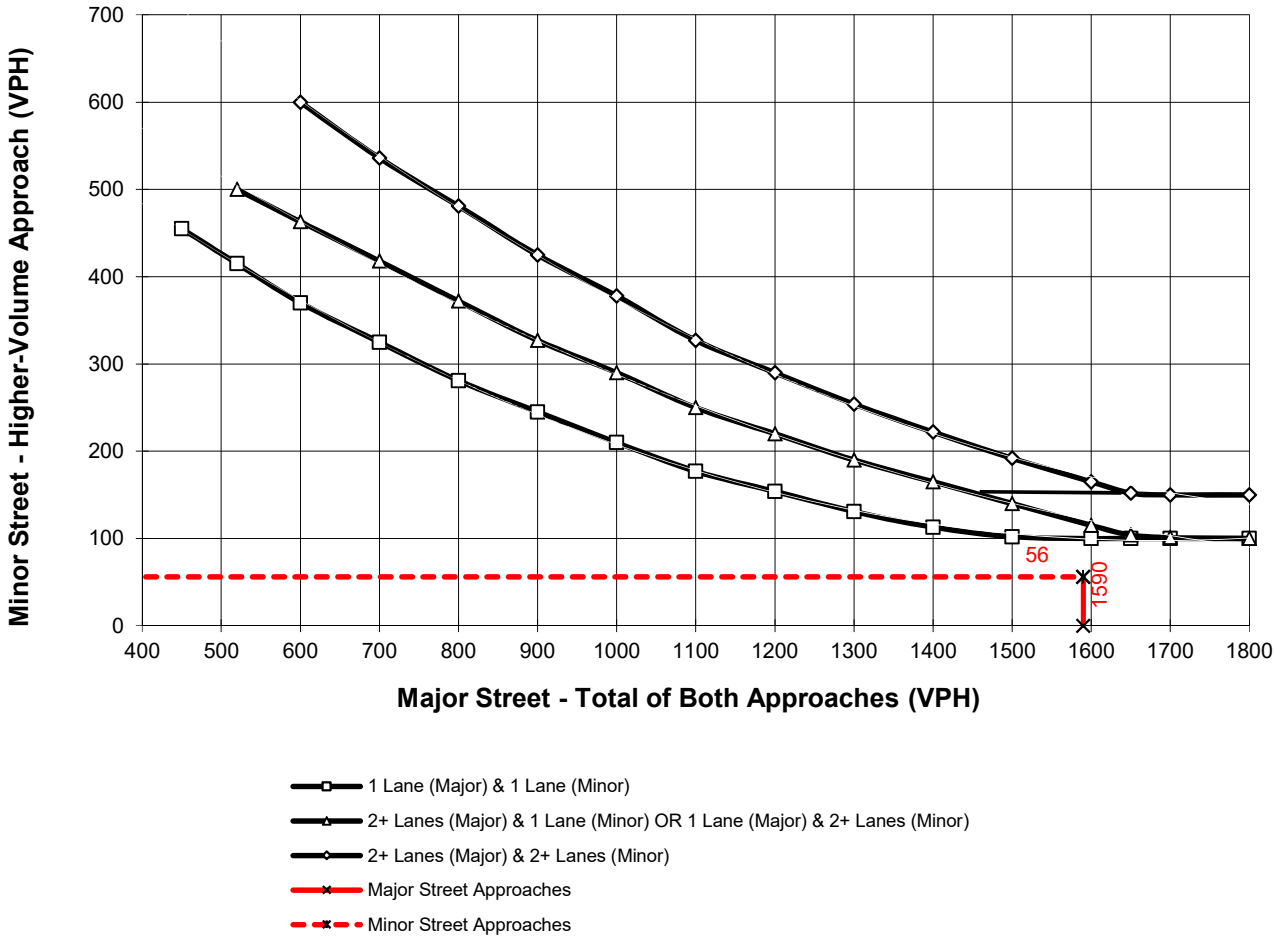
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **HY (2040) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **2nd St.**
Total of Both Approaches (VPH) = **1590**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Pacific Av.**
High Volume Approach (VPH) = **56**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 05/28/19
Jurisdiction: **City of Norco**				CHK BA	DATE 12/04/17
Major Street: **First Street**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 1**				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **25,001** vpd Minor Street Future ADT = **359** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **25,001** / *1* **359**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **25,001** / *1* **359**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 15% B: 30%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: First Street				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **25,002** vpd Minor Street Future ADT = **819** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **25,002** / *1* **819**	8,000 *	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **25,002** / *1* **819**	12,000 *	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 34% B: 68%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		HY (2040) WP
				CALC	LC	DATE	05/28/19
Jurisdiction:	City of Norco			CHK	BA	DATE	12/04/17
Major Street:	Mountain Avenue				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 3				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,710** vpd Minor Street Future ADT = **588** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1 **7,710**	*1* **588**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1 **7,710**	*1* **588**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 24% **B** 49%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 4**				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,473** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
XX Satisfied / XX Not Satisfied				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **7,473** / *1* **479**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / XX Not Satisfied				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,473** / *1* **479**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / XX Not Satisfied				
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 20% **B** 40%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 5**				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,648** vpd Minor Street Future ADT = **522** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **7,648** / *1* **522**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,648** / *1* **522**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 22% B: 43%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		HY (2040) WP
				CALC LC	DATE	05/28/19
Jurisdiction: City of Norco				CHK BA	DATE	12/04/17
Major Street: **Mountain Avenue**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 6**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **8,017** vpd Minor Street Future ADT = **479** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN: XX RURAL:

CONDITION A - Minimum Vehicular Volume

Satisfied: Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **8,017**	*1* **479**	8,000 *	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied: Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **8,017**	*1* **479**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied: Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 20% B: 40%

2 CONDITIONS 80% 2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		HY (2040) WP
				CALC LC	DATE	05/28/19
Jurisdiction: City of Norco				CHK BA	DATE	12/04/17
Major Street: Mountain Avenue				Critical Approach Speed (Major)		40 mph
Minor Street: Driveway 7				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **8,180** vpd Minor Street Future ADT = **723** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **8,180**	*1* **723**	8,000 *	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **8,180**	*1* **723**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 30%	**B** 60%			

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 05/28/19
Jurisdiction: City of Norco				CHK BA	DATE 12/04/17
Major Street: **Second Street**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 8**				Critical Approach Speed (Minor)	15 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **22,089** vpd Minor Street Future ADT = **163** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **22,089**	*1* **163**	8,000 *	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **22,089**	*1* **163**	12,000 *	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 7% **B** 14%	2 CONDITIONS 80%		2 CONDITIONS 80%	

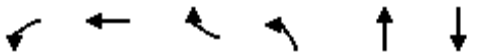
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 7.5:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

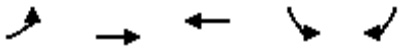


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	373	389	843	326	978	1096
v/c Ratio	0.49	0.49	1.11	0.93	0.64	1.05
Control Delay	18.6	18.6	88.2	71.6	20.5	67.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	18.6	88.2	71.6	20.5	67.3
Queue Length 50th (ft)	133	140	~465	85	196	~284
Queue Length 95th (ft)	214	222	#686	#162	260	#410
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	761	787	762	350	1534	1046
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.49	1.11	0.93	0.64	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1190	103	365	375	246
v/c Ratio	0.82	0.08	0.43	0.45	0.51
Control Delay	26.1	4.5	15.7	11.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	4.5	15.7	11.9	8.1
Queue Length 50th (ft)	258	15	39	27	0
Queue Length 95th (ft)	319	29	81	64	63
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1292	846	839	486
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.75	0.08	0.43	0.45	0.51

Intersection Summary



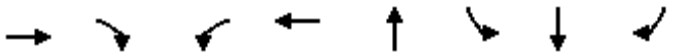
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1277	356	1349	82	507
v/c Ratio	0.72	1.35	0.55	0.19	1.14
Control Delay	19.5	196.5	4.0	37.8	123.2
Queue Delay	2.9	0.0	2.4	0.0	0.0
Total Delay	22.4	196.5	6.4	37.8	123.2
Queue Length 50th (ft)	297	~361	159	51	~412
Queue Length 95th (ft)	381	#515	m61	96	#628
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1784	263	2448	433	444
Starvation Cap Reductn	382	0	928	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	1.35	0.89	0.19	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	885	31	104	1096	109	268	536	529
v/c Ratio	0.53	0.04	0.55	0.66	0.39	0.41	0.80	0.78
Control Delay	22.8	1.8	29.3	20.8	3.9	27.3	32.0	30.9
Queue Delay	4.9	0.0	0.0	2.5	0.1	0.0	0.1	0.0
Total Delay	27.7	1.8	29.3	23.2	4.0	27.3	32.1	30.9
Queue Length 50th (ft)	229	0	60	333	0	144	274	255
Queue Length 95th (ft)	289	8	110	388	0	221	#453	411
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1657	771	190	1657	295	654	672	675
Starvation Cap Reductn	689	0	0	416	0	0	0	0
Spillback Cap Reductn	150	0	0	0	9	0	5	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.04	0.55	0.88	0.38	0.41	0.80	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	212	495	883	988	734
v/c Ratio	0.74	0.26	0.73	1.43	0.91
Control Delay	42.4	13.9	39.5	234.3	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	13.9	39.5	234.3	37.5
Queue Length 50th (ft)	152	125	310	~1037	349
Queue Length 95th (ft)	m199	152	#447	#1288	#614
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	552	1937	1209	689	804
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.26	0.73	1.43	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

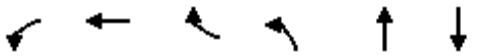
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	100	478	1333	682	112	227	53	237
v/c Ratio	0.61	0.26	0.97	0.94	0.28	0.44	0.19	0.95
Control Delay	74.8	13.1	52.0	64.2	39.0	7.8	42.6	93.1
Queue Delay	0.0	0.5	0.0	13.2	0.0	0.0	0.0	24.8
Total Delay	74.8	13.6	52.0	77.4	39.0	7.8	42.6	117.8
Queue Length 50th (ft)	76	75	479	245	67	0	33	168
Queue Length 95th (ft)	#141	88	#638	#357	120	63	71	#323
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	165	1841	1374	729	395	515	278	249
Starvation Cap Reductn	0	916	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	54	0	0	0	23
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.52	0.97	1.01	0.28	0.44	0.19	1.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



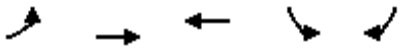
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	415	418	404	321	827	1703
v/c Ratio	0.98	0.98	0.74	0.91	0.36	1.00
Control Delay	72.2	73.3	24.9	60.3	3.7	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	11.2
Total Delay	72.2	73.3	24.9	60.3	3.7	55.8
Queue Length 50th (ft)	231	233	104	59	18	~443
Queue Length 95th (ft)	#423	#426	#224	m#153	m41	#627
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	425	426	544	354	2267	1699
Starvation Cap Reductn	0	0	0	0	0	59
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.98	0.74	0.91	0.36	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	913	183	260	695	337
v/c Ratio	0.79	0.16	0.31	0.62	0.52
Control Delay	32.3	10.0	18.7	18.2	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	10.0	18.7	18.2	6.1
Queue Length 50th (ft)	262	65	35	96	0
Queue Length 95th (ft)	318	m105	74	153	68
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1376	1148	828	1129	652
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.16	0.31	0.62	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



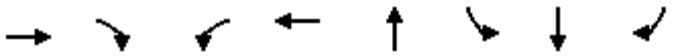
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	2045	235	1000	124	363
v/c Ratio	1.01	0.92	0.37	0.42	0.89
Control Delay	44.3	51.8	0.1	47.4	48.1
Queue Delay	35.5	0.0	0.4	0.0	0.0
Total Delay	79.8	51.8	0.5	47.4	48.1
Queue Length 50th (ft)	~820	33	0	87	150
Queue Length 95th (ft)	#1042	m#230	m4	135	250
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	2031	263	2698	433	518
Starvation Cap Reductn	289	0	1036	0	0
Spillback Cap Reductn	209	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.17	0.89	0.60	0.29	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBR
Lane Group Flow (vph)	1721	75	144	911	320	387	386	351
v/c Ratio	0.87	0.08	1.92	0.46	1.57	0.94	0.96	0.63
Control Delay	26.2	3.1	480.3	11.0	304.3	70.7	72.6	15.8
Queue Delay	47.1	0.0	0.0	0.7	4.0	46.6	44.3	0.0
Total Delay	73.3	3.1	480.3	11.6	308.4	117.3	116.8	15.8
Queue Length 50th (ft)	475	1	~141	72	~248	255	256	55
Queue Length 95th (ft)	590	21	#260	115	#421	#445	#462	156
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1967	894	75	1967	204	411	403	558
Starvation Cap Reductn	580	0	0	652	0	0	0	0
Spillback Cap Reductn	0	0	0	0	44	126	121	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.08	1.92	0.69	2.00	1.36	1.37	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



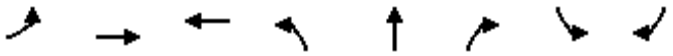
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	635	492	555	807	512
v/c Ratio	1.15	0.25	0.80	1.17	0.63
Control Delay	104.1	11.1	55.2	126.6	14.1
Queue Delay	0.6	0.0	0.0	0.0	0.0
Total Delay	104.7	11.1	55.2	126.6	14.1
Queue Length 50th (ft)	~551	87	213	~745	109
Queue Length 95th (ft)	m#512	m82	279	#987	228
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	552	1937	691	689	816
Starvation Cap Reductn	39	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.24	0.25	0.80	1.17	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	116	1201	1053	581	83	370	84	195
v/c Ratio	0.63	0.69	0.86	0.77	0.20	0.76	0.29	0.76
Control Delay	59.4	13.3	39.0	45.0	33.8	30.6	40.1	59.8
Queue Delay	0.0	1.8	0.0	53.1	0.0	0.0	0.0	0.0
Total Delay	59.4	15.1	39.0	98.1	33.8	30.6	40.1	59.8
Queue Length 50th (ft)	69	223	325	180	44	117	48	120
Queue Length 95th (ft)	#139	304	#421	242	86	#253	93	#228
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1750	1227	752	408	485	288	258
Starvation Cap Reductn	0	366	0	0	0	0	0	0
Spillback Cap Reductn	0	0	1	293	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.87	0.86	1.27	0.20	0.76	0.29	0.76

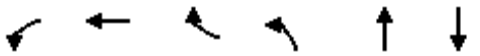
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 7.6:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

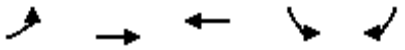


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	373	389	843	326	1039	1114
v/c Ratio	0.49	0.49	1.11	0.93	0.68	1.06
Control Delay	18.6	18.6	88.2	71.6	21.3	70.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	18.6	88.2	71.6	21.3	70.2
Queue Length 50th (ft)	133	140	~465	85	213	~290
Queue Length 95th (ft)	214	222	#686	#162	281	#415
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	761	787	762	350	1534	1053
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.49	1.11	0.93	0.68	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1190	103	365	401	271
v/c Ratio	0.82	0.08	0.43	0.47	0.54
Control Delay	26.1	4.5	15.7	11.4	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	4.5	15.7	11.4	8.3
Queue Length 50th (ft)	258	15	39	27	0
Queue Length 95th (ft)	319	29	81	65	67
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1593	1292	846	857	506
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.75	0.08	0.43	0.47	0.54

Intersection Summary



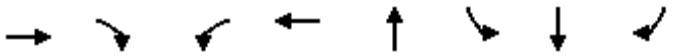
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	1325	356	1399	82	628
v/c Ratio	0.74	1.35	0.57	0.19	1.43
Control Delay	21.0	193.8	3.5	37.8	239.3
Queue Delay	4.4	0.0	3.5	0.0	0.0
Total Delay	25.4	193.8	6.9	37.8	239.3
Queue Length 50th (ft)	326	~361	159	51	~620
Queue Length 95th (ft)	416	m#478	m51	96	#851
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1779	263	2448	433	438
Starvation Cap Reductn	375	0	929	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	1.35	0.92	0.19	1.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBR
Lane Group Flow (vph)	955	31	104	1245	109	268	596	580
v/c Ratio	0.58	0.04	0.63	0.75	0.40	0.41	0.90	0.87
Control Delay	23.6	1.8	35.9	22.2	4.2	27.3	43.8	39.5
Queue Delay	9.3	0.0	0.0	4.1	0.1	0.0	0.5	0.0
Total Delay	33.0	1.8	35.9	26.3	4.3	27.3	44.3	39.5
Queue Length 50th (ft)	254	0	61	385	0	144	351	317
Queue Length 95th (ft)	317	8	#142	440	0	221	#602	#544
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	1657	771	165	1657	288	654	660	667
Starvation Cap Reductn	670	0	0	328	0	0	0	0
Spillback Cap Reductn	159	0	0	0	8	0	5	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.04	0.63	0.94	0.39	0.41	0.91	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



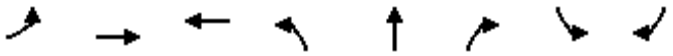
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	246	500	900	1025	734
v/c Ratio	0.77	0.26	0.79	1.49	0.92
Control Delay	40.2	13.6	43.4	257.1	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	13.6	43.4	257.1	38.0
Queue Length 50th (ft)	176	128	328	~1096	352
Queue Length 95th (ft)	m218	147	#498	#1349	#617
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	552	1937	1141	689	802
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.26	0.79	1.49	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

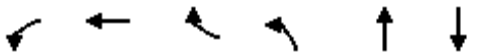


Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	100	495	1386	783	112	227	53	237
v/c Ratio	0.61	0.27	1.01	1.07	0.28	0.44	0.19	0.95
Control Delay	74.6	13.4	60.7	96.9	39.0	7.8	42.6	93.1
Queue Delay	0.0	0.5	0.0	10.9	0.0	0.0	0.0	26.3
Total Delay	74.6	14.0	60.7	107.9	39.0	7.8	42.6	119.3
Queue Length 50th (ft)	75	75	~518	~317	67	0	33	168
Queue Length 95th (ft)	#140	100	#680	#437	120	63	71	#323
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	165	1841	1374	729	395	515	278	249
Starvation Cap Reductn	0	905	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	83	0	0	0	24
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.53	1.01	1.21	0.28	0.44	0.19	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



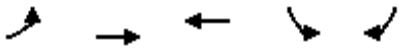
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	415	418	404	321	852	1763
v/c Ratio	0.98	0.98	0.75	0.91	0.38	1.04
Control Delay	72.2	73.3	26.4	59.9	3.9	54.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	12.9
Total Delay	72.2	73.3	26.4	59.9	3.9	67.0
Queue Length 50th (ft)	231	233	109	61	22	~523
Queue Length 95th (ft)	#423	#426	#245	m#154	m45	#662
Internal Link Dist (ft)		1385			752	450
Turn Bay Length (ft)			300	420		
Base Capacity (vph)	425	426	536	354	2267	1701
Starvation Cap Reductn	0	0	0	0	0	53
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.98	0.75	0.91	0.38	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	913	183	260	706	348
v/c Ratio	0.79	0.16	0.31	0.62	0.53
Control Delay	31.8	9.8	18.7	18.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	9.8	18.7	18.1	6.2
Queue Length 50th (ft)	262	66	35	96	0
Queue Length 95th (ft)	318	m104	74	154	68
Internal Link Dist (ft)		519	1579	79	
Turn Bay Length (ft)	185				
Base Capacity (vph)	1376	1148	828	1135	660
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.16	0.31	0.62	0.53

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



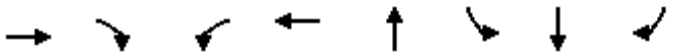
Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	2216	235	1020	124	407
v/c Ratio	1.14	0.92	0.39	0.36	0.91
Control Delay	96.0	41.4	0.2	43.3	52.8
Queue Delay	0.5	0.0	0.4	0.0	0.0
Total Delay	96.5	41.4	0.7	43.3	52.8
Queue Length 50th (ft)	~1024	8	0	82	189
Queue Length 95th (ft)	#1199	m#226	m4	135	#335
Internal Link Dist (ft)	410		438	1725	
Turn Bay Length (ft)		100			230
Base Capacity (vph)	1936	263	2593	433	513
Starvation Cap Reductn	221	0	985	0	0
Spillback Cap Reductn	319	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.37	0.89	0.63	0.29	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	1980	75	144	968	320	398	398	362
v/c Ratio	0.97	0.08	1.89	0.47	1.57	1.06	1.07	0.69
Control Delay	36.0	3.3	469.1	11.0	304.3	100.9	103.2	19.9
Queue Delay	42.6	0.0	0.0	0.6	8.8	20.6	15.5	0.0
Total Delay	78.5	3.3	469.1	11.6	313.1	121.5	118.7	19.9
Queue Length 50th (ft)	601	2	~140	74	~248	~293	~297	70
Queue Length 95th (ft)	#812	21	#260	131	#421	#487	#504	183
Internal Link Dist (ft)	277			244	357		1594	
Turn Bay Length (ft)			125					280
Base Capacity (vph)	2039	921	76	2039	204	377	372	524
Starvation Cap Reductn	524	0	0	643	0	0	0	0
Spillback Cap Reductn	0	0	0	0	79	125	119	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	0.08	1.89	0.69	2.56	1.58	1.57	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	760	509	561	821	512
v/c Ratio	1.38	0.26	0.81	1.19	0.63
Control Delay	195.8	9.9	55.8	134.5	15.0
Queue Delay	0.6	0.0	0.0	0.0	0.0
Total Delay	196.3	9.9	55.8	134.5	15.0
Queue Length 50th (ft)	~749	87	216	~767	119
Queue Length 95th (ft)	m#569	m77	#286	#1009	239
Internal Link Dist (ft)		438	542	1439	
Turn Bay Length (ft)	100				
Base Capacity (vph)	552	1937	691	689	808
Starvation Cap Reductn	39	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.48	0.26	0.81	1.19	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBR
Lane Group Flow (vph)	116	1252	1075	617	83	370	84	195
v/c Ratio	0.63	0.72	0.88	0.82	0.20	0.77	0.29	0.76
Control Delay	59.3	14.3	40.3	47.7	33.8	31.3	40.1	59.8
Queue Delay	0.0	2.0	0.0	52.6	0.0	0.0	0.0	0.0
Total Delay	59.3	16.3	40.4	100.3	33.8	31.3	40.1	59.8
Queue Length 50th (ft)	69	250	335	194	44	120	48	120
Queue Length 95th (ft)	#139	328	#454	#274	86	#258	93	#228
Internal Link Dist (ft)		231	995		1811			
Turn Bay Length (ft)				200		420		
Base Capacity (vph)	189	1750	1227	752	408	482	288	258
Starvation Cap Reductn	0	335	0	0	0	0	0	0
Spillback Cap Reductn	0	0	1	307	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.88	0.88	1.39	0.20	0.77	0.29	0.76

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 7.7:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8554	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1915
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7664	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1915
Total Trucks, %	15.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5963	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2419
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.01
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6387	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1555
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5810	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1768
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6015	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2289
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.95
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	40.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7280	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1662
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7330	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2070
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	61.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	33.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7344	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1660
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	12697	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2981
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.24
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6429	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2470
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7240	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1653
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6968	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1989
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7040	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2627
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.09
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7580	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1697
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	01/11/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7472	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2091
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.87
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	34.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.8:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8569	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1918
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7713	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1927
Total Trucks, %	15.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6060	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2481
Total Trucks, %	13.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.03
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6419	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1563
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5836	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1776
Total Trucks, %	12.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6046	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2301
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	41.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7313	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1670
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7413	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2094
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.87
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	34.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 WB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7393	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1671
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - SR-91 EB, West of Lincoln		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	12718	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2986
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.24
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6470	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2486
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.04
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7275	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1661
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7051	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2032
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7137	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2663
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.11
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7615	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1705
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7508	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2101
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	34.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.9:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7600	954
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.971
Flow Rate (vi),pc/h	8508	1068
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.51

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.424
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1803
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.084	Outer Lanes Freeway Speed (SO), mi/h	65.3
Flow in Lanes 1 and 2 (v12), pc/h	2403	Ramp Junction Speed (S), mi/h	61.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3471	Average Density (D), pc/mi/ln	31.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7664	596
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.870	0.893
Flow Rate (vi),pc/h	9575	725
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	35.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.363
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1956
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.1
Flow in Lanes 1 and 2 (v12), pc/h	3749	Ramp Junction Speed (S), mi/h	65.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.1
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5963	566
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.952
Flow Rate (vi),pc/h	7258	646
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.01	0.31

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	42.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.0
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.549	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4558	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5397	990
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.962
Flow Rate (vi),pc/h	6629	1119
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.08	0.53

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1609.5	Density in Ramp Influence Area (DR), pc/mi/ln	44.4
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	44.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	3929	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	5048	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6387	1266
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.926
Flow Rate (vi),pc/h	7774	1486
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.65	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.432
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1751
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.9
Flow in Lanes 1 and 2 (v12), pc/h	2717	Ramp Junction Speed (S), mi/h	65.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5121	689
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.909
Flow Rate (vi),pc/h	6290	824
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.74	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	28.5
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.392
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1887
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.115	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2516	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	3340	Average Density (D), pc/mi/ln	28.7
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5708	307
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	8.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.926
Flow Rate (vi),pc/h	6517	360
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.72	0.17

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.347
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1955
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.173	Outer Lanes Freeway Speed (SO), mi/h	64.8
Flow in Lanes 1 and 2 (v12), pc/h	2607	Ramp Junction Speed (S), mi/h	62.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2967	Average Density (D), pc/mi/ln	27.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7280	1572
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.971
Flow Rate (vi),pc/h	8312	1760
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.69	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.456
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1809
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.6
Flow in Lanes 1 and 2 (v12), pc/h	3031	Ramp Junction Speed (S), mi/h	65.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.5
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6391	889
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.962
Flow Rate (vi),pc/h	7297	1004
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.86	0.48

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	35.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.518
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2189
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	55.5
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	63.9
Flow in Lanes 1 and 2 (v12), pc/h	2919	Ramp Junction Speed (S), mi/h	59.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3923	Average Density (D), pc/mi/ln	34.8
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7330	939
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.943
Flow Rate (vi),pc/h	8369	1082
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.87	0.52

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	40.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.395
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2055
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	72.7
Flow in Lanes 1 and 2 (v12), pc/h	4259	Ramp Junction Speed (S), mi/h	65.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	32.2
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6547	797
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.980
Flow Rate (vi),pc/h	7397	884
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.69	0.42

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	27.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.380
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1620
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.107	Outer Lanes Freeway Speed (SO), mi/h	66.0
Flow in Lanes 1 and 2 (v12), pc/h	2160	Ramp Junction Speed (S), mi/h	62.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3044	Average Density (D), pc/mi/ln	26.5
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	12697	991
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.971
Flow Rate (vi),pc/h	14904	1109
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	1.24	0.53

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	59.2
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	6523	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6429	472
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	7410	539
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.03	0.26

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	43.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.550	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4710	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5957	1283
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	1.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.990
Flow Rate (vi),pc/h	6866	1409
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.15	0.67

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1722.3	Density in Ramp Influence Area (DR), pc/mi/ln	48.4
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	32.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	4166	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	5575	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7240	1068
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.962
Flow Rate (vi),pc/h	8266	1207
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.69	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.407
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1984
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.0
Flow in Lanes 1 and 2 (v12), pc/h	2645	Ramp Junction Speed (S), mi/h	66.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	24.9
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6172	796
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	7114	909
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.84	0.43

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	31.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.449
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2134
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.104	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2846	Ramp Junction Speed (S), mi/h	60.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	3755	Average Density (D), pc/mi/ln	33.0
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6378	662
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	7140	756
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.82	0.36

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.416
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2142
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.123	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2856	Ramp Junction Speed (S), mi/h	61.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	3612	Average Density (D), pc/mi/ln	32.1
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7580	1202
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	8485	1372
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.71	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.421
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2004
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	72.9
Flow in Lanes 1 and 2 (v12), pc/h	2780	Ramp Junction Speed (S), mi/h	66.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6479	1101
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	7253	1257
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.89	0.60

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	37.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.570
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2176
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	54.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	64.0
Flow in Lanes 1 and 2 (v12), pc/h	2901	Ramp Junction Speed (S), mi/h	58.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	4158	Average Density (D), pc/mi/ln	36.2
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	01/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7472	993
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	8364	1122
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.87	0.53

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	40.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.399
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2042
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	72.7
Flow in Lanes 1 and 2 (v12), pc/h	4280	Ramp Junction Speed (S), mi/h	64.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	32.2
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.10:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7600	969
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.971
Flow Rate (vi),pc/h	8508	1085
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.52

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.426
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1803
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.082	Outer Lanes Freeway Speed (SO), mi/h	65.3
Flow in Lanes 1 and 2 (v12), pc/h	2403	Ramp Junction Speed (S), mi/h	61.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3488	Average Density (D), pc/mi/ln	31.2
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7713	645
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	11.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.870	0.901
Flow Rate (vi),pc/h	9636	778
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.80	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	35.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.368
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1954
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	59.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	73.1
Flow in Lanes 1 and 2 (v12), pc/h	3800	Ramp Junction Speed (S), mi/h	65.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6060	639
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.935
Flow Rate (vi),pc/h	7443	743
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.03	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	43.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	59.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.540	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4743	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5421	998
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.877	0.952
Flow Rate (vi),pc/h	6719	1139
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.09	0.54

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1633.0	Density in Ramp Influence Area (DR), pc/mi/ln	45.3
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	42.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	4019	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	5158	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6419	1290
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	11.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.893	0.901
Flow Rate (vi),pc/h	7813	1556
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.65	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.438
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1737
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.9
Flow in Lanes 1 and 2 (v12), pc/h	2777	Ramp Junction Speed (S), mi/h	65.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5129	707
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.885	0.909
Flow Rate (vi),pc/h	6299	845
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.74	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	28.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.395
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1890
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.112	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2520	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	3365	Average Density (D), pc/mi/ln	28.8
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5716	330
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.917
Flow Rate (vi),pc/h	6526	391
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.72	0.19

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.350
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1958
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.169	Outer Lanes Freeway Speed (SO), mi/h	64.8
Flow in Lanes 1 and 2 (v12), pc/h	2610	Ramp Junction Speed (S), mi/h	62.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3001	Average Density (D), pc/mi/ln	27.6
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7313	1597
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.971
Flow Rate (vi),pc/h	8350	1788
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.70	0.43

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.459
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1810
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.1
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	73.6
Flow in Lanes 1 and 2 (v12), pc/h	3060	Ramp Junction Speed (S), mi/h	65.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.7
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6416	897
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.952
Flow Rate (vi),pc/h	7326	1024
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.87	0.49

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	35.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.524
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2198
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	55.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	63.9
Flow in Lanes 1 and 2 (v12), pc/h	2930	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3954	Average Density (D), pc/mi/ln	35.1
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7413	997
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.935
Flow Rate (vi),pc/h	8464	1159
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.88	0.55

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	40.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.402
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2060
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	72.7
Flow in Lanes 1 and 2 (v12), pc/h	4344	Ramp Junction Speed (S), mi/h	64.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	32.7
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 WB, On-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	250
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6547	846
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.980
Flow Rate (vi),pc/h	7397	938
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	0.69	0.45

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	27.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.385
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1620
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.2
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.101	Outer Lanes Freeway Speed (SO), mi/h	66.0
Flow in Lanes 1 and 2 (v12), pc/h	2160	Ramp Junction Speed (S), mi/h	62.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3098	Average Density (D), pc/mi/ln	26.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - SR-91 EB, Off-Ramp at Lincoln		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	130
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	12718	1012
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.971
Flow Rate (vi),pc/h	14929	1133
Capacity (c), pc/h	12000	2100
Volume-to-Capacity Ratio (v/c)	1.24	0.54

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	59.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	6543	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6470	503
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	7458	574
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.04	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	43.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.547	Outer Lanes Freeway Speed (SO), mi/h	70.2
Flow in Lanes 1 and 2 (v12), pc/h	4758	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5967	1308
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	1.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.990
Flow Rate (vi),pc/h	6878	1436
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	1.15	0.68

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1730.6	Density in Ramp Influence Area (DR), pc/mi/ln	48.7
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	-
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2700
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	31.1
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	61.1
Flow in Lanes 1 and 2 (v12), pc/h	4178	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (vR12), pc/h	5614	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7275	1078
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.962
Flow Rate (vi),pc/h	8306	1218
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.69	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.408
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1993
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	72.9
Flow in Lanes 1 and 2 (v12), pc/h	2658	Ramp Junction Speed (S), mi/h	66.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.0
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6197	854
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.943
Flow Rate (vi),pc/h	7143	984
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.85	0.47

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.464
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2143
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.095	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2857	Ramp Junction Speed (S), mi/h	60.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3841	Average Density (D), pc/mi/ln	33.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6402	735
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.935
Flow Rate (vi),pc/h	7167	854
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.84	0.41

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	30.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.433
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2150
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.111	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2867	Ramp Junction Speed (S), mi/h	61.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	3721	Average Density (D), pc/mi/ln	32.8
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7615	1213
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.952
Flow Rate (vi),pc/h	8524	1385
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.71	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	27.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.423
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2011
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	72.8
Flow in Lanes 1 and 2 (v12), pc/h	2798	Ramp Junction Speed (S), mi/h	66.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	6490	1125
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.935
Flow Rate (vi),pc/h	7265	1308
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.89	0.62

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	37.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.585
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2180
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	64.0
Flow in Lanes 1 and 2 (v12), pc/h	2906	Ramp Junction Speed (S), mi/h	58.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	4214	Average Density (D), pc/mi/ln	36.7
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	7508	1018
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	3.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.971	0.962
Flow Rate (vi),pc/h	8405	1150
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.88	0.55

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	40.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.402
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2046
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	72.7
Flow in Lanes 1 and 2 (v12), pc/h	4313	Ramp Junction Speed (S), mi/h	64.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	32.4
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.11:

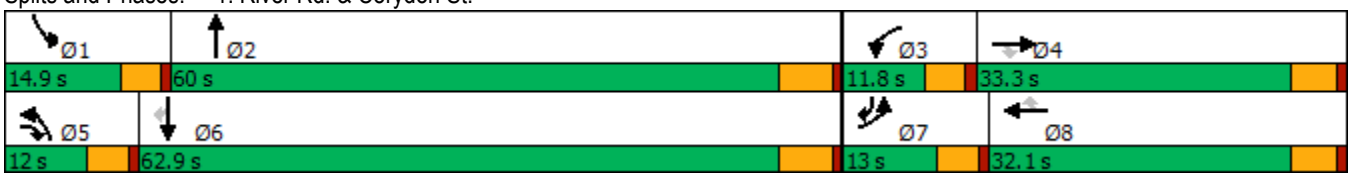
HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

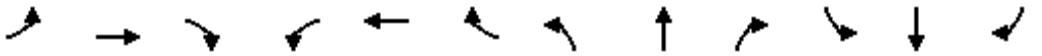
This Page Intentionally Left Blank

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	235	56	181	39	208	992	80	1836	523
Future Volume (vph)	247	145	235	56	181	39	208	992	80	1836	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	13.0	33.3	12.0	11.8	32.1	32.1	12.0	60.0	14.9	62.9	13.0
Total Split (%)	10.8%	27.8%	10.0%	9.8%	26.8%	26.8%	10.0%	50.0%	12.4%	52.4%	10.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None
Act Effct Green (s)	8.4	20.9	33.5	6.7	17.1	17.1	7.4	58.2	8.7	57.3	66.9
Actuated g/C Ratio	0.08	0.19	0.30	0.06	0.15	0.15	0.07	0.53	0.08	0.52	0.61
v/c Ratio	1.00	0.43	0.47	0.55	0.66	0.12	0.95	0.63	0.61	1.05	0.52
Control Delay	106.7	44.3	26.4	71.2	54.8	0.7	100.5	22.1	68.6	64.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.7	44.3	26.4	71.2	54.8	0.7	100.5	22.1	68.6	64.2	7.2
LOS	F	D	C	E	D	A	F	C	E	E	A
Approach Delay		62.2			50.4			34.6		52.1	
Approach LOS		E			D			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.4	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 48.5	Intersection LOS: D
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	235	56	181	39	208	992	108	80	1836	523
Future Volume (veh/h)	247	145	235	56	181	39	208	992	108	80	1836	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	184	60	195	30	224	1067	107	86	1974	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	313	377	78	245	207	243	1801	180	110	1931	976
Arrive On Green	0.08	0.16	0.16	0.04	0.13	0.13	0.07	0.54	0.54	0.06	0.53	0.53
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	3510	3313	332	1810	3610	1588
Grp Volume(v), veh/h	266	156	184	60	195	30	224	581	593	86	1974	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1755	1805	1840	1810	1805	1588
Q Serve(g_s), s	8.1	8.0	10.6	3.5	10.6	1.8	6.8	23.1	23.2	5.0	57.1	15.5
Cycle Q Clear(g_c), s	8.1	8.0	10.6	3.5	10.6	1.8	6.8	23.1	23.2	5.0	57.1	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	276	313	377	78	245	207	243	981	1000	110	1931	976
V/C Ratio(X)	0.96	0.50	0.49	0.77	0.80	0.15	0.92	0.59	0.59	0.78	1.02	0.44
Avail Cap(c_a), veh/h	276	502	537	122	481	406	243	981	1000	175	1931	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	40.6	35.4	50.6	45.1	41.3	49.4	16.4	16.4	49.4	24.8	11.0
Incr Delay (d2), s/veh	43.6	1.2	1.0	6.0	5.9	0.3	36.3	2.6	2.6	4.5	26.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.8	4.2	1.7	5.3	0.7	4.1	9.3	9.4	2.3	28.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.6	41.8	36.4	56.5	51.0	41.6	85.7	19.0	19.0	54.0	51.1	12.4
LnGrp LOS	F	D	D	E	D	D	F	B	B	D	F	B
Approach Vol, veh/h		606			285			1398			2494	
Approach Delay, s/veh		62.5			51.2			29.7			44.5	
Approach LOS		E			D			C			D	

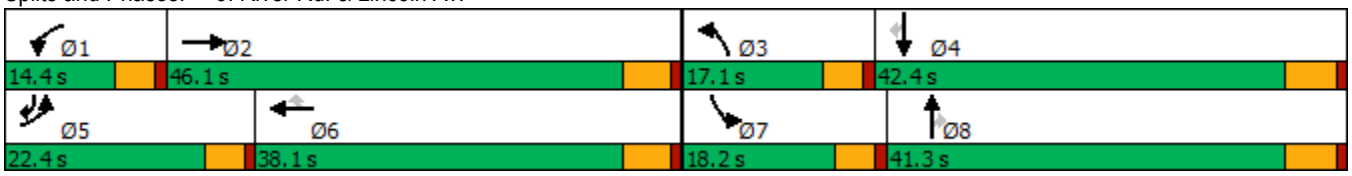
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	63.8	9.2	22.7	12.0	62.9	13.0	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.3	54.2	7.2	28.2	7.4	57.1	8.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	25.2	5.5	12.6	8.8	59.1	10.1	12.6
Green Ext Time (p_c), s	0.0	8.2	0.0	1.3	0.0	0.0	0.0	0.9

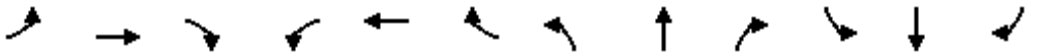
Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	443	583	57	853	284	161	748	122	285	988	561
Future Volume (vph)	443	583	57	853	284	161	748	122	285	988	561
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6		3	8		7	4	5
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	22.4	46.1	14.4	38.1	38.1	17.1	41.3	41.3	18.2	42.4	22.4
Total Split (%)	18.7%	38.4%	12.0%	31.8%	31.8%	14.3%	34.4%	34.4%	15.2%	35.3%	18.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	17.7	44.3	8.0	32.7	32.7	12.5	36.0	36.0	13.1	36.6	55.5
Actuated g/C Ratio	0.15	0.37	0.07	0.27	0.27	0.10	0.30	0.30	0.11	0.31	0.46
v/c Ratio	0.93	0.52	0.52	0.94	0.51	0.93	0.75	0.24	0.81	0.97	0.80
Control Delay	76.9	31.8	68.7	60.8	12.6	103.4	43.2	5.0	69.6	63.2	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	31.8	68.7	60.8	12.6	103.4	43.2	5.0	69.6	63.2	30.7
LOS	E	C	E	E	B	F	D	A	E	E	C
Approach Delay		50.4		49.7			48.1			54.3	
Approach LOS		D		D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 51.1	Intersection LOS: D
Intersection Capacity Utilization 90.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	583	47	57	853	284	161	748	122	285	988	561
Future Volume (veh/h)	443	583	47	57	853	284	161	748	122	285	988	561
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	482	634	39	62	927	285	175	813	92	310	1074	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	1299	80	80	984	433	188	1101	470	366	1101	723
Arrive On Green	0.15	0.38	0.38	0.04	0.27	0.27	0.10	0.31	0.31	0.10	0.31	0.31
Sat Flow, veh/h	3510	3450	212	1810	3610	1589	1810	3610	1540	3510	3610	1588
Grp Volume(v), veh/h	482	331	342	62	927	285	175	813	92	310	1074	483
Grp Sat Flow(s),veh/h/ln	1755	1805	1857	1810	1805	1589	1810	1805	1540	1755	1805	1588
Q Serve(g_s), s	16.3	16.8	16.9	4.1	30.2	19.1	11.5	24.2	5.3	10.4	35.3	28.7
Cycle Q Clear(g_c), s	16.3	16.8	16.9	4.1	30.2	19.1	11.5	24.2	5.3	10.4	35.3	28.7
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	680	699	80	984	433	188	1101	470	366	1101	723
V/C Ratio(X)	0.93	0.49	0.49	0.77	0.94	0.66	0.93	0.74	0.20	0.85	0.98	0.67
Avail Cap(c_a), veh/h	521	680	699	148	984	433	188	1101	470	398	1101	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	28.6	28.6	56.7	42.7	38.7	53.3	37.4	30.8	52.8	41.3	25.8
Incr Delay (d2), s/veh	22.3	2.5	2.4	5.8	17.8	7.6	44.9	2.7	0.2	13.6	21.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	7.6	7.8	2.0	15.5	8.1	7.4	10.7	1.9	5.2	18.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	31.1	31.0	62.6	60.5	46.3	98.2	40.1	31.0	66.4	62.6	28.1
LnGrp LOS	E	C	C	E	E	D	F	D	C	E	E	C
Approach Vol, veh/h		1155			1274			1080			1867	
Approach Delay, s/veh		48.4			57.4			48.7			54.3	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	50.6	17.1	42.4	22.4	38.1	17.1	42.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	9.8	40.7	12.5	36.6	17.8	32.7	13.6	35.5
Max Q Clear Time (g_c+I1), s	6.1	18.9	13.5	37.3	18.3	32.2	12.4	26.2
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	0.4	0.1	3.7

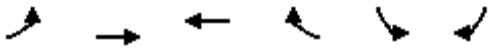
Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	5	1005	712	46
Future Volume (vph)	5	1005	712	46
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.4	44.5	43.3	11.7
Actuated g/C Ratio	0.08	0.67	0.65	0.18
v/c Ratio	0.03	0.86	0.69	0.27
Control Delay	39.6	15.7	10.9	24.5
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	39.6	15.7	11.4	24.5
LOS	D	B	B	C
Approach Delay		15.8	11.4	24.5
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 66.3	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	1005	712	62	46	36
Future Volume (veh/h)	5	1005	712	62	46	36
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	1092	774	67	50	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	12	1298	1036	90	157	122
Arrive On Green	0.01	0.68	0.60	0.60	0.16	0.16
Sat Flow, veh/h	1810	1900	1724	149	955	745
Grp Volume(v), veh/h	5	1092	0	841	90	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1873	1718	0
Q Serve(g_s), s	0.2	26.1	0.0	19.8	2.8	0.0
Cycle Q Clear(g_c), s	0.2	26.1	0.0	19.8	2.8	0.0
Prop In Lane	1.00			0.08	0.56	0.43
Lane Grp Cap(c), veh/h	12	1298	0	1125	282	0
V/C Ratio(X)	0.41	0.84	0.00	0.75	0.32	0.00
Avail Cap(c_a), veh/h	155	2886	0	2543	514	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	7.2	0.0	8.8	22.4	0.0
Incr Delay (d2), s/veh	8.2	1.6	0.0	1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.3	0.0	5.9	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.4	8.7	0.0	9.8	23.1	0.0
LnGrp LOS	D	A	A	A	C	A
Approach Vol, veh/h		1097	841		90	
Approach Delay, s/veh		8.9	9.8		23.1	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	46.3	14.6	5.0	41.3
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	28.1	4.8	2.2	21.8
Green Ext Time (p_c), s	13.5	0.2	0.0	7.8

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

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	644	26	511	263
Future Volume (vph)	644	26	511	263
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	73.5	5.3	78.9	22.5
Actuated g/C Ratio	0.66	0.05	0.71	0.20
v/c Ratio	0.95	0.33	0.41	0.87
Control Delay	35.1	66.0	7.5	68.3
Queue Delay	47.3	0.0	0.0	0.0
Total Delay	82.4	66.0	7.5	68.3
LOS	F	E	A	E
Approach Delay	82.4		10.3	68.3
Approach LOS	F		B	E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 59.6	Intersection LOS: E
Intersection Capacity Utilization 82.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	644	406	26	511	263	31
Future Volume (veh/h)	644	406	26	511	263	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	700	441	28	555	286	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	713	449	46	1380	310	37
Arrive On Green	0.66	0.66	0.03	0.73	0.19	0.19
Sat Flow, veh/h	1079	680	1810	1900	1592	189
Grp Volume(v), veh/h	0	1141	28	555	321	0
Grp Sat Flow(s),veh/h/ln	0	1759	1810	1900	1786	0
Q Serve(g_s), s	0.0	72.7	1.8	13.1	20.5	0.0
Cycle Q Clear(g_c), s	0.0	72.7	1.8	13.1	20.5	0.0
Prop In Lane		0.39	1.00		0.89	0.11
Lane Grp Cap(c), veh/h	0	1162	46	1380	348	0
V/C Ratio(X)	0.00	0.98	0.60	0.40	0.92	0.00
Avail Cap(c_a), veh/h	0	1173	81	1427	363	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.0	56.0	6.2	45.9	0.0
Incr Delay (d2), s/veh	0.0	21.8	4.6	0.2	28.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.4	0.9	4.6	11.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	40.8	60.6	6.3	73.9	0.0
LnGrp LOS	A	D	E	A	E	A
Approach Vol, veh/h	1141			583	321	
Approach Delay, s/veh	40.8			9.0	73.9	
Approach LOS	D			A	E	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.2	7.6	81.3		88.9
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		22.5	3.8	74.7		15.1
Green Ext Time (p_c), s		0.1	0.0	2.0		4.0

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

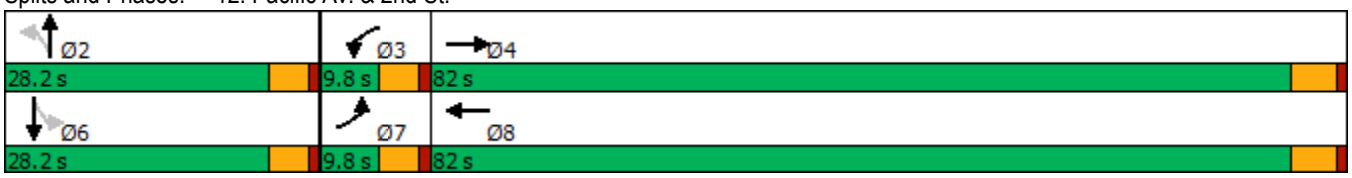
Notes

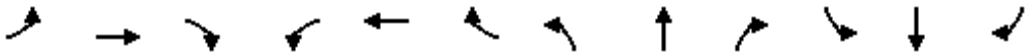
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	813	4	642	20	0	37	0
Future Volume (vph)	1	813	4	642	20	0	37	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.3	44.7	5.3	44.7		24.9		24.9
Actuated g/C Ratio	0.07	0.55	0.07	0.55		0.31		0.31
v/c Ratio	0.01	0.87	0.03	0.69		0.09		0.09
Control Delay	48.0	25.1	46.8	16.3		6.1		5.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	48.0	25.1	46.8	16.3		6.1		5.6
LOS	D	C	D	B		A		A
Approach Delay		25.1		16.5		6.1		5.6
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 81.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	813	19	4	642	17	20	0	21	37	0	3
Future Volume (veh/h)	1	813	19	4	642	17	20	0	21	37	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	884	21	4	698	18	22	0	23	40	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	1004	24	10	1009	26	253	21	220	457	3	28
Arrive On Green	0.00	0.54	0.54	0.01	0.55	0.55	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1810	1847	44	1810	1844	48	677	75	787	1338	11	101
Grp Volume(v), veh/h	1	0	905	4	0	716	45	0	0	43	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1891	1810	0	1891	1540	0	0	1450	0	0
Q Serve(g_s), s	0.0	0.0	35.3	0.2	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	35.3	0.2	0.0	23.2	1.6	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.03	0.49		0.51	0.93		0.07
Lane Grp Cap(c), veh/h	2	0	1028	10	0	1035	495	0	0	489	0	0
V/C Ratio(X)	0.40	0.00	0.88	0.42	0.00	0.69	0.09	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	112	0	1724	112	0	1725	495	0	0	489	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.0	0.0	16.8	41.8	0.0	13.9	22.4	0.0	0.0	22.3	0.0	0.0
Incr Delay (d2), s/veh	34.7	0.0	3.1	10.3	0.0	0.8	0.4	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	14.0	0.1	0.0	8.9	0.7	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	0.0	19.9	52.1	0.0	14.7	22.8	0.0	0.0	22.7	0.0	0.0
LnGrp LOS	E	A	B	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		906			720			45			43	
Approach Delay, s/veh		20.0			14.9			22.8			22.7	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.2	5.0	51.0		28.2	4.7	51.3				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		3.6	2.2	37.3		3.5	2.0	25.2				
Green Ext Time (p_c), s		0.2	0.0	8.5		0.1	0.0	5.8				

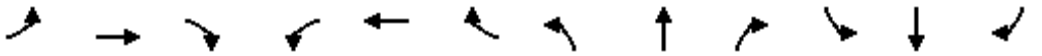
Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	162	470	1	440	552	61	16	8	31	101
Future Volume (vph)	162	470	1	440	552	61	16	8	31	101
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	21.0	38.1	9.6	26.7	44.0	62.7	62.7	9.6	28.3	28.3
Total Split (%)	17.5%	31.8%	8.0%	22.3%	36.7%	52.3%	52.3%	8.0%	23.6%	23.6%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	13.4	34.7	5.1	18.2	38.0	53.2	53.2	5.1	12.2	12.2
Actuated g/C Ratio	0.13	0.34	0.05	0.18	0.38	0.53	0.53	0.05	0.12	0.12
v/c Ratio	0.72	0.68	0.01	0.73	0.86	0.06	0.02	0.09	0.14	0.30
Control Delay	61.3	27.3	52.0	47.2	44.7	14.3	0.1	53.8	43.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	27.3	52.0	47.2	44.7	14.3	0.1	53.8	43.5	2.1
LOS	E	C	D	D	D	B	A	D	D	A
Approach Delay		33.0		47.3		40.6			14.2	
Approach LOS		C		D		D			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.2	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 36.9	Intersection LOS: D
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	470	337	1	440	9	552	61	16	8	31	101
Future Volume (veh/h)	162	470	337	1	440	9	552	61	16	8	31	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	495	355	1	463	9	581	64	17	8	33	106
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	612	438	2	690	13	622	862	731	18	229	194
Arrive On Green	0.12	0.30	0.30	0.00	0.19	0.19	0.34	0.45	0.45	0.01	0.12	0.12
Sat Flow, veh/h	1810	2009	1438	1810	3621	70	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	171	445	405	1	231	241	581	64	17	8	33	106
Grp Sat Flow(s),veh/h/ln	1810	1805	1641	1810	1805	1886	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	7.7	18.9	18.9	0.0	9.8	9.9	25.8	1.6	0.5	0.4	1.3	5.1
Cycle Q Clear(g_c), s	7.7	18.9	18.9	0.0	9.8	9.9	25.8	1.6	0.5	0.4	1.3	5.1
Prop In Lane	1.00		0.88	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	550	500	2	344	359	622	862	731	18	229	194
V/C Ratio(X)	0.82	0.81	0.81	0.40	0.67	0.67	0.93	0.07	0.02	0.44	0.14	0.55
Avail Cap(c_a), veh/h	357	726	660	109	478	500	858	1315	1114	109	528	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	26.7	26.7	41.4	31.2	31.2	26.4	12.8	12.5	40.9	32.7	34.4
Incr Delay (d2), s/veh	3.0	5.1	5.7	34.7	2.3	2.2	11.9	0.0	0.0	5.9	0.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	8.4	7.7	0.0	4.3	4.5	12.2	0.6	0.2	0.2	0.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	31.8	32.4	76.1	33.5	33.4	38.3	12.9	12.5	46.8	33.0	36.8
LnGrp LOS	D	C	C	E	C	C	D	B	B	D	C	D
Approach Vol, veh/h		1021			473			662			147	
Approach Delay, s/veh		33.2			33.5			35.1			36.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	42.9	4.7	30.0	33.2	15.2	14.2	20.5
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	57.5	5.0	* 33	39.4	23.1	16.4	* 22
Max Q Clear Time (g_c+I1), s	2.4	3.6	2.0	20.9	27.8	7.1	9.7	11.9
Green Ext Time (p_c), s	0.0	0.4	0.0	4.4	0.8	0.4	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

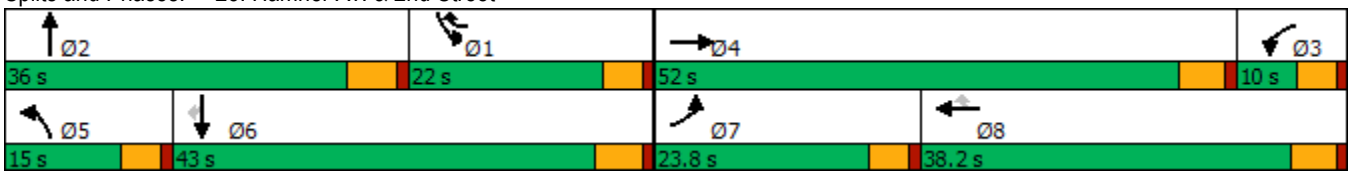
Notes

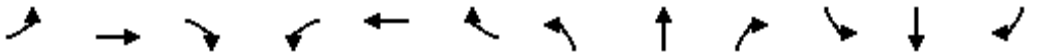
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	268	597	587	491	806	83	994	324	831	217
Future Volume (vph)	268	597	587	491	806	83	994	324	831	217
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	1	5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.1	35.1	9.6	36.1	9.6	9.6	35.4	9.6	31.4	31.4
Total Split (s)	23.8	52.0	10.0	38.2	22.0	15.0	36.0	22.0	43.0	43.0
Total Split (%)	19.8%	43.3%	8.3%	31.8%	18.3%	12.5%	30.0%	18.3%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	3.6	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	5.1	4.6	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	Max	Max	Max
Act Effct Green (s)	14.2	27.3	20.1	33.1	51.0	8.9	30.1	17.4	40.9	40.9
Actuated g/C Ratio	0.12	0.24	0.18	0.29	0.45	0.08	0.26	0.15	0.36	0.36
v/c Ratio	0.63	0.75	0.98	0.94	1.10	0.63	0.86	0.62	0.65	0.32
Control Delay	54.4	45.5	79.1	67.4	85.6	71.4	46.2	51.6	34.9	5.1
Queue Delay	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	45.5	79.1	77.9	85.6	71.4	46.2	51.6	34.9	5.1
LOS	D	D	E	E	F	E	D	D	C	A
Approach Delay		48.1		81.6			47.8		34.2	
Approach LOS		D		F			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.6	
Natural Cycle: 125	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 56.1	Intersection LOS: E
Intersection Capacity Utilization 94.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	597	47	587	491	806	83	994	225	324	831	217
Future Volume (veh/h)	268	597	47	587	491	806	83	994	225	324	831	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	282	628	24	618	517	424	87	1046	119	341	875	114
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	361	813	31	592	555	726	110	1274	145	589	1379	582
Arrive On Green	0.15	0.34	0.34	0.25	0.44	0.44	0.09	0.38	0.38	0.24	0.54	0.54
Sat Flow, veh/h	3619	3634	139	3619	1900	1588	1810	5021	570	3619	3800	1604
Grp Volume(v), veh/h	282	328	324	618	517	424	87	791	374	341	875	114
Grp Sat Flow(s),veh/h/ln	1810	1900	1873	1810	1900	1588	1810	1900	1791	1810	1900	1604
Q Serve(g_s), s	8.0	16.6	16.6	17.5	27.6	5.4	5.0	20.1	20.1	8.9	17.1	3.9
Cycle Q Clear(g_c), s	8.0	16.6	16.6	17.5	27.6	5.4	5.0	20.1	20.1	8.9	17.1	3.9
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	361	425	419	592	555	726	110	964	455	589	1379	582
V/C Ratio(X)	0.78	0.77	0.77	1.04	0.93	0.58	0.79	0.82	0.82	0.58	0.63	0.20
Avail Cap(c_a), veh/h	649	833	821	592	588	753	176	1087	512	589	1379	582
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	33.1	33.1	40.4	29.0	6.1	47.9	30.9	31.0	37.2	19.4	16.4
Incr Delay (d2), s/veh	3.7	3.0	3.1	48.8	21.1	1.1	4.6	4.6	9.4	4.1	2.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	7.0	6.9	11.0	13.8	2.7	2.3	8.3	8.5	4.0	6.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	36.1	36.2	89.1	50.2	7.2	52.6	35.6	40.4	41.3	21.7	17.2
LnGrp LOS	D	D	D	F	D	A	D	D	D	D	C	B
Approach Vol, veh/h		934			1559			1252			1330	
Approach Delay, s/veh		39.8			53.9			38.2			26.3	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	32.6	22.6	29.0	11.1	44.2	15.3	36.4
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	17.4	* 31	5.4	* 47	10.4	37.6	19.2	33.1
Max Q Clear Time (g_c+I1), s	10.9	22.1	19.5	18.6	7.0	19.1	10.0	29.6
Green Ext Time (p_c), s	0.4	4.5	0.0	4.1	0.0	6.0	0.6	1.6

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

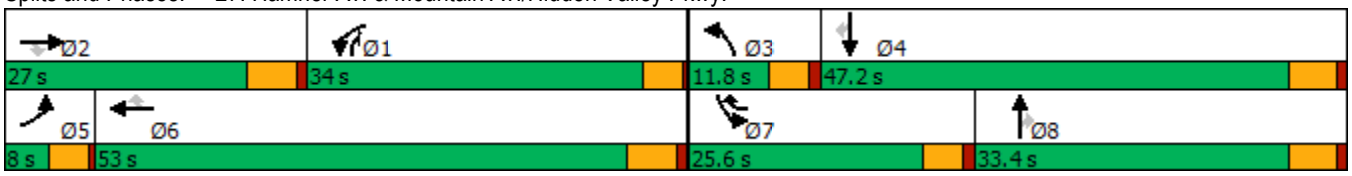
Notes

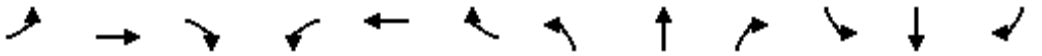
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	324	55	951	669	425	48	681	337	202	720	14
Future Volume (vph)	15	324	55	951	669	425	48	681	337	202	720	14
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	27.0	27.0	34.0	53.0	25.6	11.8	33.4	34.0	25.6	47.2	47.2
Total Split (%)	6.7%	22.5%	22.5%	28.3%	44.2%	21.3%	9.8%	27.8%	28.3%	21.3%	39.3%	39.3%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	28.1	28.1	30.1	59.0	71.0	6.6	26.0	57.4	11.2	32.7	32.7
Actuated g/C Ratio	0.03	0.24	0.24	0.26	0.51	0.62	0.06	0.23	0.50	0.10	0.29	0.29
v/c Ratio	0.25	0.37	0.12	1.07	0.73	0.44	0.50	0.84	0.41	0.61	0.47	0.03
Control Delay	66.0	38.2	0.5	91.0	29.1	9.6	70.5	52.7	7.0	57.7	35.4	0.1
Queue Delay	0.0	0.0	0.0	13.2	51.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	38.2	0.5	104.2	80.9	10.1	70.5	52.7	7.0	57.7	35.4	0.1
LOS	E	D	A	F	F	B	E	D	A	E	D	A
Approach Delay		33.9			77.0			39.0			39.7	
Approach LOS		C			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.7	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 56.2	Intersection LOS: E
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	324	55	951	669	425	48	681	337	202	720	14
Future Volume (veh/h)	15	324	55	951	669	425	48	681	337	202	720	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	345	54	1012	712	413	51	724	238	215	766	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	780	330	1032	931	917	67	881	827	289	1566	438
Arrive On Green	0.01	0.21	0.21	0.29	0.49	0.49	0.04	0.23	0.23	0.08	0.27	0.27
Sat Flow, veh/h	1810	3800	1608	3619	1900	1609	1810	3800	1585	3619	5700	1596
Grp Volume(v), veh/h	16	345	54	1012	712	413	51	724	238	215	766	11
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1609	1810	1900	1585	1810	1900	1596
Q Serve(g_s), s	0.9	8.3	2.4	29.2	32.2	15.6	2.9	19.0	2.3	6.1	11.8	0.5
Cycle Q Clear(g_c), s	0.9	8.3	2.4	29.2	32.2	15.6	2.9	19.0	2.3	6.1	11.8	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	780	330	1032	931	917	67	881	827	289	1566	438
V/C Ratio(X)	0.62	0.44	0.16	0.98	0.77	0.45	0.77	0.82	0.29	0.74	0.49	0.03
Avail Cap(c_a), veh/h	69	780	330	1032	931	917	124	1012	881	723	2266	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	36.5	23.9	37.3	21.9	13.1	50.2	38.3	5.0	47.3	32.0	27.9
Incr Delay (d2), s/veh	22.1	1.8	1.1	23.2	3.8	0.3	6.6	4.9	0.2	1.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.0	1.2	15.6	14.2	5.2	1.4	9.1	1.2	2.7	5.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.6	38.3	25.0	60.5	25.7	13.5	56.8	43.3	5.2	48.8	32.2	27.9
LnGrp LOS	E	D	C	E	C	B	E	D	A	D	C	C
Approach Vol, veh/h		415			2137			1013			992	
Approach Delay, s/veh		38.0			39.8			35.0			35.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.4	27.0	8.5	34.3	5.5	56.9	13.0	29.8
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	30.0	* 22	7.2	41.8	4.0	47.6	21.0	28.0
Max Q Clear Time (g_c+I1), s	31.2	10.3	4.9	13.8	2.9	34.2	8.1	21.0
Green Ext Time (p_c), s	0.0	1.7	0.0	5.5	0.0	5.2	0.3	3.1

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

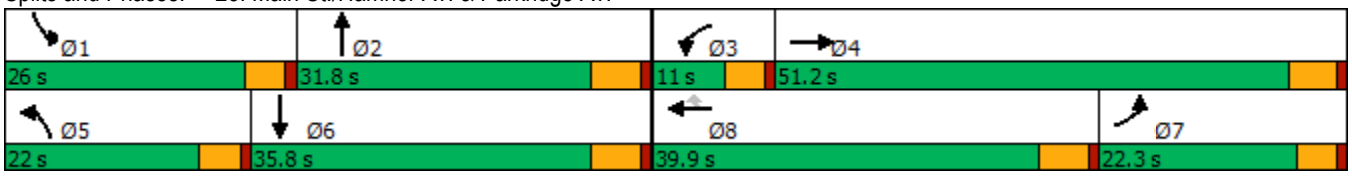
User approved pedestrian interval to be less than phase max green.

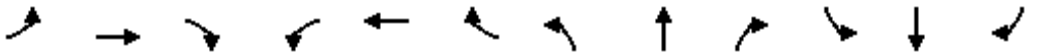
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	488	589	84	415	331	118	738	290	1026	621
Future Volume (vph)	488	589	84	415	331	118	738	290	1026	621
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Free
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					Free
Detector Phase	7	4	3	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	
Minimum Split (s)	9.6	38.4	9.6	39.4	39.4	9.6	31.4	9.6	31.4	
Total Split (s)	22.3	51.2	11.0	39.9	39.9	22.0	31.8	26.0	35.8	
Total Split (%)	18.6%	42.7%	9.2%	33.3%	33.3%	18.3%	26.5%	21.7%	29.8%	
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	3.6	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	4.6	5.4	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	20.0	45.8	6.4	32.2	32.2	12.7	26.4	21.4	35.1	120.0
Actuated g/C Ratio	0.17	0.38	0.05	0.27	0.27	0.11	0.22	0.18	0.29	1.00
v/c Ratio	0.88	1.03	0.95	0.89	0.55	0.67	0.70	0.98	0.67	0.42
Control Delay	66.5	77.9	135.5	62.0	9.3	68.2	46.1	95.3	40.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	77.9	135.5	62.0	9.3	68.2	46.1	95.3	40.3	0.8
LOS	E	E	F	E	A	E	D	F	D	A
Approach Delay		73.1		48.4			48.9		35.9	
Approach LOS		E		D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 49.4	Intersection LOS: D
Intersection Capacity Utilization 95.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	488	589	84	84	415	331	118	738	65	290	1026	621
Future Volume (veh/h)	488	589	84	84	415	331	118	738	65	290	1026	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	530	640	83	91	451	234	128	802	0	315	1115	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	577	626	81	97	511	430	155	1254		323	1783	
Arrive On Green	0.16	0.38	0.38	0.05	0.27	0.27	0.09	0.28	0.00	0.20	0.39	0.00
Sat Flow, veh/h	3619	1640	213	1810	1900	1599	1810	5700	0	1810	5700	1610
Grp Volume(v), veh/h	530	0	723	91	451	234	128	802	0	315	1115	0
Grp Sat Flow(s),veh/h/ln	1810	0	1853	1810	1900	1599	1810	1900	0	1810	1900	1610
Q Serve(g_s), s	17.3	0.0	45.8	6.0	27.3	9.7	8.3	14.9	0.0	20.8	18.9	0.0
Cycle Q Clear(g_c), s	17.3	0.0	45.8	6.0	27.3	9.7	8.3	14.9	0.0	20.8	18.9	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	577	0	707	97	511	430	155	1254		323	1783	
V/C Ratio(X)	0.92	0.00	1.02	0.94	0.88	0.54	0.83	0.64		0.98	0.63	
Avail Cap(c_a), veh/h	577	0	707	97	546	460	262	1254		323	1783	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.25	1.10	1.10	1.25	1.10
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	0.0	37.1	56.6	42.1	15.5	53.5	39.3	0.0	48.0	30.9	0.0
Incr Delay (d2), s/veh	19.4	0.0	39.6	72.3	15.0	1.1	4.2	2.5	0.0	43.3	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	27.5	4.6	14.6	3.5	3.9	6.8	0.0	12.9	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	0.0	76.7	128.9	57.1	16.6	57.7	41.8	0.0	91.3	32.5	0.0
LnGrp LOS	E	A	F	F	E	B	E	D		F	C	
Approach Vol, veh/h		1253			776			930	A		1430	A
Approach Delay, s/veh		73.5			53.3			44.0			45.5	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	31.8	11.0	51.2	14.9	42.9	24.5	37.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	5.4	* 5.4
Max Green Setting (Gmax), s	21.4	26.4	6.4	45.8	17.4	30.4	17.7	* 35
Max Q Clear Time (g_c+I1), s	22.8	16.9	8.0	47.8	10.3	20.9	19.3	29.3
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.1	4.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

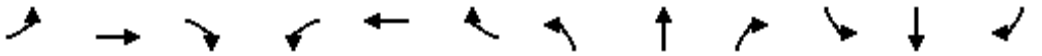
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	579	647	342	1295	1	487
Future Volume (vph)	579	647	342	1295	1	487
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	16.0	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	20.6	9.5	23.6	20.0	20.0
Total Split (s)	41.0	41.0	30.0	71.0	49.0	49.0
Total Split (%)	34.2%	34.2%	25.0%	59.2%	40.8%	40.8%
Yellow Time (s)	4.1	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	42.4	42.4	24.9	71.8	38.3	38.3
Actuated g/C Ratio	0.35	0.35	0.21	0.60	0.32	0.32
v/c Ratio	0.74	0.52	0.95	0.62	0.14	0.92
Control Delay	37.5	5.8	59.4	7.0	28.0	57.2
Queue Delay	0.4	0.0	0.0	0.7	0.0	0.0
Total Delay	37.9	5.8	59.4	7.7	28.0	57.2
LOS	D	A	E	A	C	E
Approach Delay	27.9			18.5	53.1	
Approach LOS	C			B	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 123.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	579	647	342	1295	0	0	0	0	78	1	487
Future Volume (veh/h)	0	579	647	342	1295	0	0	0	0	78	1	487
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	505	672	356	1349	0				81	1	476
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	680	1106	380	2187	0				558	7	502
Arrive On Green	0.00	0.36	0.36	0.21	0.61	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	1900	3090	1810	3705	0				1788	22	1610
Grp Volume(v), veh/h	0	505	672	356	1349	0				82	0	476
Grp Sat Flow(s),veh/h/ln	0	1900	1545	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	27.9	21.4	23.2	28.2	0.0				3.9	0.0	34.7
Cycle Q Clear(g_c), s	0.0	27.9	21.4	23.2	28.2	0.0				3.9	0.0	34.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	680	1106	380	2187	0				565	0	502
V/C Ratio(X)	0.00	0.74	0.61	0.94	0.62	0.00				0.15	0.00	0.95
Avail Cap(c_a), veh/h	0	680	1106	385	2187	0				659	0	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.61	0.61	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	33.7	31.6	46.6	14.9	0.0				29.8	0.0	40.3
Incr Delay (d2), s/veh	0.0	0.7	0.2	21.0	0.8	0.0				0.0	0.0	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.7	7.9	12.5	11.1	0.0				1.7	0.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.4	31.8	67.6	15.7	0.0				29.8	0.0	62.4
LnGrp LOS	A	C	C	E	B	A				C	A	E
Approach Vol, veh/h		1177			1705						558	
Approach Delay, s/veh		32.9			26.5						57.6	
Approach LOS		C			C						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	29.7	47.5		42.7		77.3
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	25.5	36.4		43.7		66.4
Max Q Clear Time (g_c+I1), s	25.2	29.9		36.7		30.2
Green Ext Time (p_c), s	0.0	2.3		0.8		8.1

Intersection Summary		
HCM 6th Ctrl Delay		33.8
HCM 6th LOS		C

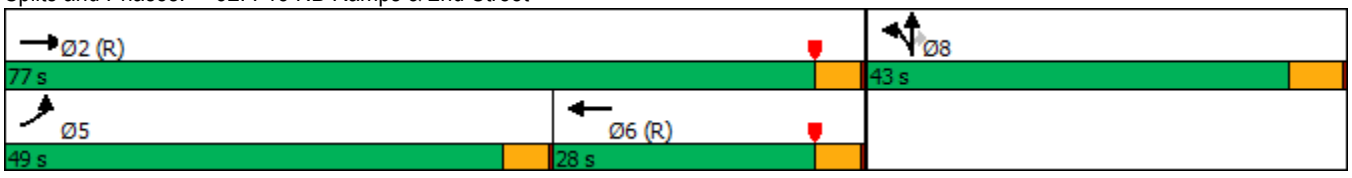
Notes

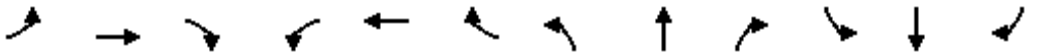
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	197	460	723	908	11	683
Future Volume (vph)	197	460	723	908	11	683
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	49.0	77.0	28.0	43.0	43.0	43.0
Total Split (%)	40.8%	64.2%	23.3%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	19.2	72.4	48.7	37.7	37.7	37.7
Actuated g/C Ratio	0.16	0.60	0.41	0.31	0.31	0.31
v/c Ratio	0.73	0.23	0.61	0.93	0.91	0.98
Control Delay	26.4	5.9	31.0	64.7	61.8	49.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	5.9	31.0	64.7	61.8	49.7
LOS	C	A	C	E	E	D
Approach Delay		12.1	31.0		57.5	
Approach LOS		B	C		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 56 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 40.7	Intersection LOS: D
Intersection Capacity Utilization 123.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	460	0	0	723	99	908	11	683	0	0	0
Future Volume (veh/h)	197	460	0	0	723	99	908	11	683	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	212	495	0	0	777	95	985	0	588			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	244	2178	0	0	1391	170	1137	0	506			
Arrive On Green	0.13	0.60	0.00	0.00	0.43	0.43	0.31	0.00	0.31			
Sat Flow, veh/h	1810	3705	0	0	3323	395	3619	0	1610			
Grp Volume(v), veh/h	212	495	0	0	434	438	985	0	588			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1818	1810	0	1610			
Q Serve(g_s), s	13.8	7.6	0.0	0.0	21.6	21.7	30.8	0.0	37.7			
Cycle Q Clear(g_c), s	13.8	7.6	0.0	0.0	21.6	21.7	30.8	0.0	37.7			
Prop In Lane	1.00		0.00	0.00		0.22	1.00		1.00			
Lane Grp Cap(c), veh/h	244	2178	0	0	778	783	1137	0	506			
V/C Ratio(X)	0.87	0.23	0.00	0.00	0.56	0.56	0.87	0.00	1.16			
Avail Cap(c_a), veh/h	671	2178	0	0	778	783	1137	0	506			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.60	0.60	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.9	10.9	0.0	0.0	25.6	25.6	38.8	0.0	41.1			
Incr Delay (d2), s/veh	4.4	0.1	0.0	0.0	2.9	2.9	7.1	0.0	93.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.5	2.9	0.0	0.0	9.7	9.8	14.2	0.0	27.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	11.1	0.0	0.0	28.5	28.5	45.9	0.0	134.2			
LnGrp LOS	E	B	A	A	C	C	D	A	F			
Approach Vol, veh/h		707			872			1573				
Approach Delay, s/veh		24.3			28.5			78.9				
Approach LOS		C			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			20.7	56.3		43.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		72.4			44.5	23.4		37.7				
Max Q Clear Time (g_c+I1), s		9.6			15.8	23.7		39.7				
Green Ext Time (p_c), s		2.2			0.4	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

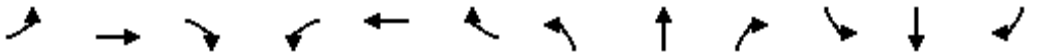
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	117	44	117	44	250	1387	87	1279	292
Future Volume (vph)	367	136	117	44	117	44	250	1387	87	1279	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	13.0	33.3	12.0	11.8	32.1	32.1	12.0	60.0	14.9	62.9	13.0
Total Split (%)	10.8%	27.8%	10.0%	9.8%	26.8%	26.8%	10.0%	50.0%	12.4%	52.4%	10.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None
Act Effct Green (s)	8.4	20.3	32.9	6.4	14.2	14.2	7.4	58.2	8.7	57.3	66.9
Actuated g/C Ratio	0.08	0.19	0.31	0.06	0.13	0.13	0.07	0.54	0.08	0.53	0.62
v/c Ratio	1.35	0.38	0.22	0.41	0.47	0.14	1.05	0.76	0.61	0.67	0.27
Control Delay	220.1	42.8	13.5	62.0	48.9	1.0	120.3	24.6	66.6	21.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.1	42.8	13.5	62.0	48.9	1.0	120.3	24.6	66.6	21.3	1.7
LOS	F	D	B	E	D	A	F	C	E	C	A
Approach Delay		142.3			41.5			38.6		20.2	
Approach LOS		F			D			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 46.8	Intersection LOS: D
Intersection Capacity Utilization 81.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	117	44	117	44	250	1387	76	87	1279	292
Future Volume (veh/h)	367	136	117	44	117	44	250	1387	76	87	1279	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	77	44	118	28	253	1401	66	88	1292	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	286	273	347	63	184	156	252	1978	93	112	2001	1013
Arrive On Green	0.08	0.14	0.14	0.03	0.10	0.10	0.07	0.56	0.56	0.06	0.55	0.55
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	3510	3506	165	1810	3610	1590
Grp Volume(v), veh/h	371	137	77	44	118	28	253	720	747	88	1292	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1755	1805	1866	1810	1805	1590
Q Serve(g_s), s	8.4	6.9	4.1	2.5	6.2	1.6	7.4	29.8	30.0	4.9	25.6	5.3
Cycle Q Clear(g_c), s	8.4	6.9	4.1	2.5	6.2	1.6	7.4	29.8	30.0	4.9	25.6	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	286	273	347	63	184	156	252	1018	1053	112	2001	1013
V/C Ratio(X)	1.30	0.50	0.22	0.70	0.64	0.18	1.00	0.71	0.71	0.78	0.65	0.20
Avail Cap(c_a), veh/h	286	520	557	126	498	422	252	1018	1053	181	2001	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	40.7	33.3	49.2	44.8	42.7	47.8	16.3	16.3	47.6	15.9	7.8
Incr Delay (d2), s/veh	156.6	1.4	0.3	5.2	3.7	0.5	57.5	4.1	4.1	4.4	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	3.3	1.6	1.2	3.0	0.7	5.1	11.9	12.3	2.3	9.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.9	42.1	33.6	54.3	48.4	43.3	105.3	20.4	20.4	52.0	17.5	8.2
LnGrp LOS	F	D	C	D	D	D	F	C	C	D	B	A
Approach Vol, veh/h		585			190			1720			1578	
Approach Delay, s/veh		143.6			49.0			32.9			18.3	
Approach LOS		F			D			C			B	

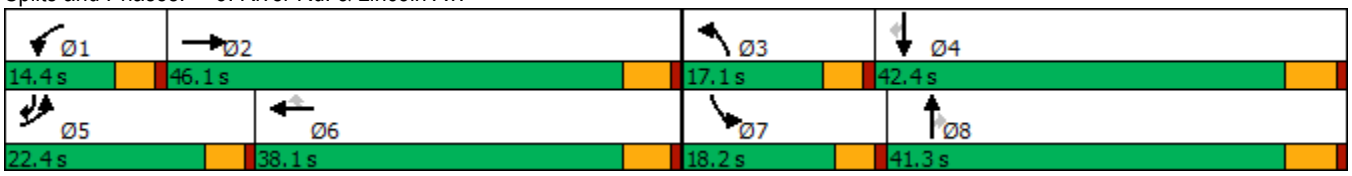
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	63.9	8.2	19.9	12.0	62.9	13.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.3	54.2	7.2	28.2	7.4	57.1	8.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	32.0	4.5	8.9	9.4	27.6	10.4	8.2
Green Ext Time (p_c), s	0.0	10.2	0.0	0.9	0.0	11.5	0.0	0.6

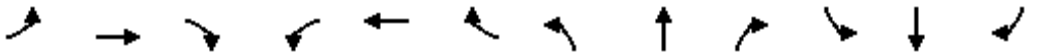
Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	383	869	47	501	226	85	560	54	232	567	344
Future Volume (vph)	383	869	47	501	226	85	560	54	232	567	344
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6		3	8		7	4	5
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	22.4	46.1	14.4	38.1	38.1	17.1	41.3	41.3	18.2	42.4	22.4
Total Split (%)	18.7%	38.4%	12.0%	31.8%	31.8%	14.3%	34.4%	34.4%	15.2%	35.3%	18.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	15.3	43.4	7.2	33.0	33.0	9.2	22.4	22.4	11.1	26.7	43.3
Actuated g/C Ratio	0.15	0.42	0.07	0.32	0.32	0.09	0.22	0.22	0.11	0.26	0.42
v/c Ratio	0.76	0.70	0.39	0.45	0.35	0.55	0.74	0.12	0.64	0.63	0.47
Control Delay	53.1	29.4	57.0	30.7	5.5	59.6	43.7	0.5	53.0	38.1	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	29.4	57.0	30.7	5.5	59.6	43.7	0.5	53.0	38.1	12.2
LOS	D	C	E	C	A	E	D	A	D	D	B
Approach Delay		35.9		24.9			42.3			33.3	
Approach LOS		D		C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 34.2	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	869	141	47	501	226	85	560	54	232	567	344
Future Volume (veh/h)	383	869	141	47	501	226	85	560	54	232	567	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	399	905	120	49	522	190	89	583	37	242	591	259
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	478	1421	188	69	1251	558	114	760	334	318	859	594
Arrive On Green	0.14	0.44	0.44	0.04	0.35	0.35	0.06	0.21	0.21	0.09	0.24	0.24
Sat Flow, veh/h	3510	3198	424	1810	3610	1610	1810	3610	1587	3510	3610	1573
Grp Volume(v), veh/h	399	511	514	49	522	190	89	583	37	242	591	259
Grp Sat Flow(s),veh/h/ln	1755	1805	1817	1810	1805	1610	1810	1805	1587	1755	1805	1573
Q Serve(g_s), s	10.5	20.7	20.7	2.5	10.4	8.3	4.6	14.3	1.8	6.4	14.1	11.6
Cycle Q Clear(g_c), s	10.5	20.7	20.7	2.5	10.4	8.3	4.6	14.3	1.8	6.4	14.1	11.6
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	478	802	808	69	1251	558	114	760	334	318	859	594
V/C Ratio(X)	0.83	0.64	0.64	0.71	0.42	0.34	0.78	0.77	0.11	0.76	0.69	0.44
Avail Cap(c_a), veh/h	662	802	808	188	1251	558	240	1358	597	506	1400	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	20.3	20.3	44.9	23.6	22.9	43.5	35.1	30.1	41.9	32.8	22.1
Incr Delay (d2), s/veh	4.8	3.8	3.8	4.8	1.0	1.7	4.2	1.7	0.1	1.4	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	8.9	8.9	1.2	4.4	3.2	2.1	6.1	0.7	2.7	5.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	24.2	24.1	49.7	24.6	24.5	47.8	36.7	30.3	43.4	33.8	22.6
LnGrp LOS	D	C	C	D	C	C	D	D	C	D	C	C
Approach Vol, veh/h		1424			761			709			1092	
Approach Delay, s/veh		29.9			26.2			37.8			33.3	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	47.3	10.6	28.2	17.5	38.1	13.1	25.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	9.8	40.7	12.5	36.6	17.8	32.7	13.6	35.5
Max Q Clear Time (g_c+I1), s	4.5	22.7	6.6	16.1	12.5	12.4	8.4	16.3
Green Ext Time (p_c), s	0.0	6.1	0.0	4.5	0.4	3.8	0.2	3.5

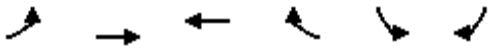
Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	9	698	750	67
Future Volume (vph)	9	698	750	67
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	38.2	37.1	12.1
Actuated g/C Ratio	0.09	0.63	0.61	0.20
v/c Ratio	0.05	0.61	0.82	0.27
Control Delay	37.7	8.3	16.1	26.5
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	37.7	8.3	16.6	26.5
LOS	D	A	B	C
Approach Delay		8.6	16.6	26.5
Approach LOS		A	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	698	750	150	67	27
Future Volume (veh/h)	9	698	750	150	67	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	727	781	156	70	28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	21	1308	923	184	200	80
Arrive On Green	0.01	0.69	0.60	0.60	0.16	0.16
Sat Flow, veh/h	1810	1900	1531	306	1237	495
Grp Volume(v), veh/h	9	727	0	937	99	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1837	1749	0
Q Serve(g_s), s	0.3	12.0	0.0	25.6	3.1	0.0
Cycle Q Clear(g_c), s	0.3	12.0	0.0	25.6	3.1	0.0
Prop In Lane	1.00			0.17	0.71	0.28
Lane Grp Cap(c), veh/h	21	1308	0	1108	282	0
V/C Ratio(X)	0.43	0.56	0.00	0.85	0.35	0.00
Avail Cap(c_a), veh/h	152	2835	0	2451	514	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	4.9	0.0	10.0	23.1	0.0
Incr Delay (d2), s/veh	5.1	0.4	0.0	1.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.8	0.0	7.7	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.5	5.2	0.0	11.9	23.8	0.0
LnGrp LOS	D	A	A	B	C	A
Approach Vol, veh/h		736	937		99	
Approach Delay, s/veh		5.6	11.9		23.8	
Approach LOS		A	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	47.4	14.6	5.3	42.1
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	14.0	5.1	2.3	27.6
Green Ext Time (p_c), s	6.0	0.2	0.0	9.7

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

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	598	25	616	283
Future Volume (vph)	598	25	616	283
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	39.7	5.6	42.7	20.3
Actuated g/C Ratio	0.54	0.08	0.58	0.28
v/c Ratio	0.79	0.19	0.58	0.64
Control Delay	20.4	45.4	11.3	34.5
Queue Delay	0.5	0.0	0.0	0.0
Total Delay	20.8	45.4	11.3	34.5
LOS	C	D	B	C
Approach Delay	20.8		12.6	34.5
Approach LOS	C		B	C

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 73.2			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.2		Intersection LOS: C	
Intersection Capacity Utilization 66.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	598	167	25	616	283	25
Future Volume (veh/h)	598	167	25	616	283	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	623	174	26	642	295	26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	746	208	53	1197	356	31
Arrive On Green	0.52	0.52	0.03	0.63	0.22	0.22
Sat Flow, veh/h	1422	397	1810	1900	1642	145
Grp Volume(v), veh/h	0	797	26	642	322	0
Grp Sat Flow(s),veh/h/ln	0	1819	1810	1900	1792	0
Q Serve(g_s), s	0.0	22.3	0.9	11.4	10.3	0.0
Cycle Q Clear(g_c), s	0.0	22.3	0.9	11.4	10.3	0.0
Prop In Lane		0.22	1.00		0.92	0.08
Lane Grp Cap(c), veh/h	0	954	53	1197	389	0
V/C Ratio(X)	0.00	0.84	0.49	0.54	0.83	0.00
Avail Cap(c_a), veh/h	0	2339	156	2753	703	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	12.1	28.8	6.2	22.5	0.0
Incr Delay (d2), s/veh	0.0	2.0	2.6	0.4	4.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.4	0.4	3.1	4.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.1	31.4	6.6	27.1	0.0
LnGrp LOS	A	B	C	A	C	A
Approach Vol, veh/h	797			668	322	
Approach Delay, s/veh	14.1			7.6	27.1	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.7	6.4	36.2		42.5
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		12.3	2.9	24.3		13.4
Green Ext Time (p_c), s		0.7	0.0	7.2		5.0

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

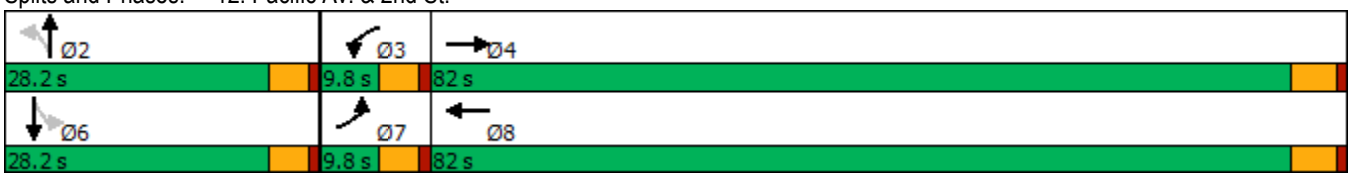
Notes

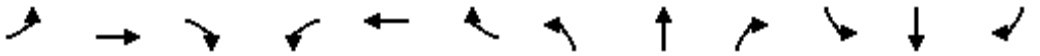
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	655	17	657	10	0	36	1
Future Volume (vph)	4	655	17	657	10	0	36	1
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.6	26.1	5.7	26.1		12.6		12.6
Actuated g/C Ratio	0.11	0.51	0.11	0.51		0.25		0.25
v/c Ratio	0.02	0.72	0.09	0.74		0.05		0.12
Control Delay	31.0	14.9	30.8	15.5		0.2		20.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.0	14.9	30.8	15.5		0.2		20.0
LOS	C	B	C	B		A		B
Approach Delay		15.0		15.9		0.2		20.0
Approach LOS		B		B		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 50.8	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 52.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	655	13	17	657	28	10	0	11	36	1	3
Future Volume (veh/h)	4	655	13	17	657	28	10	0	11	36	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	689	14	18	692	29	11	0	12	38	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	875	18	40	884	37	230	36	170	410	15	22
Arrive On Green	0.01	0.47	0.47	0.02	0.49	0.49	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	1856	38	1810	1810	76	575	174	817	1290	71	105
Grp Volume(v), veh/h	4	0	703	18	0	721	23	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1893	1810	0	1886	1566	0	0	1465	0	0
Q Serve(g_s), s	0.1	0.0	15.0	0.5	0.0	15.3	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	15.0	0.5	0.0	15.3	0.5	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.04	0.48		0.52	0.90		0.07
Lane Grp Cap(c), veh/h	10	0	893	40	0	921	435	0	0	446	0	0
V/C Ratio(X)	0.41	0.00	0.79	0.45	0.00	0.78	0.05	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	195	0	3016	195	0	3005	865	0	0	854	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.9	0.0	10.7	23.3	0.0	10.2	15.3	0.0	0.0	15.5	0.0	0.0
Incr Delay (d2), s/veh	9.8	0.0	1.6	2.9	0.0	1.5	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	4.8	0.2	0.0	4.7	0.2	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	12.3	26.2	0.0	11.7	15.4	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	C	A	B	C	A	B	B	A	A	B	A	A
Approach Vol, veh/h		707			739			23			42	
Approach Delay, s/veh		12.4			12.1			15.4			15.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	5.7	27.9		14.6	4.9	28.7				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		2.5	2.5	17.0		3.0	2.1	17.3				
Green Ext Time (p_c), s		0.1	0.0	5.7		0.1	0.0	5.9				

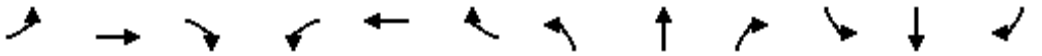
Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	133	527	6	370	408	41	11	16	70	79
Future Volume (vph)	133	527	6	370	408	41	11	16	70	79
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	21.0	38.1	9.6	26.7	44.0	62.7	62.7	9.6	28.3	28.3
Total Split (%)	17.5%	31.8%	8.0%	22.3%	36.7%	52.3%	52.3%	8.0%	23.6%	23.6%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	11.2	30.3	5.3	15.5	25.0	39.0	39.0	5.3	12.3	12.3
Actuated g/C Ratio	0.13	0.36	0.06	0.18	0.30	0.46	0.46	0.06	0.15	0.15
v/c Ratio	0.58	0.73	0.05	0.62	0.79	0.05	0.01	0.15	0.26	0.21
Control Delay	48.3	25.3	48.7	37.9	40.3	15.5	0.0	49.8	39.2	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	25.3	48.7	37.9	40.3	15.5	0.0	49.8	39.2	1.2
LOS	D	C	D	D	D	B	A	D	D	A
Approach Delay		28.2		38.0		37.2			22.1	
Approach LOS		C		D		D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	527	396	6	370	28	408	41	11	16	70	79
Future Volume (veh/h)	133	527	396	6	370	28	408	41	11	16	70	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	139	549	412	6	385	29	425	43	11	17	73	82
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	680	510	14	872	65	472	710	601	36	252	213
Arrive On Green	0.10	0.35	0.35	0.01	0.26	0.26	0.26	0.37	0.37	0.02	0.13	0.13
Sat Flow, veh/h	1810	1965	1475	1810	3404	255	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	139	504	457	6	203	211	425	43	11	17	73	82
Grp Sat Flow(s),veh/h/ln	1810	1805	1635	1810	1805	1854	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.7	19.2	19.2	0.2	7.1	7.2	17.1	1.1	0.3	0.7	2.6	3.5
Cycle Q Clear(g_c), s	5.7	19.2	19.2	0.2	7.1	7.2	17.1	1.1	0.3	0.7	2.6	3.5
Prop In Lane	1.00		0.90	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	624	565	14	463	475	472	710	601	36	252	213
V/C Ratio(X)	0.79	0.81	0.81	0.42	0.44	0.44	0.90	0.06	0.02	0.47	0.29	0.38
Avail Cap(c_a), veh/h	393	798	723	120	526	540	944	1447	1226	120	581	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	22.4	22.4	37.3	23.5	23.6	27.0	15.2	14.9	36.6	29.6	29.9
Incr Delay (d2), s/veh	3.0	4.8	5.3	7.3	0.7	0.6	2.6	0.0	0.0	3.6	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	8.3	7.6	0.1	2.9	3.1	7.1	0.4	0.1	0.3	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	27.3	27.7	44.6	24.2	24.2	29.6	15.2	14.9	40.2	30.2	31.1
LnGrp LOS	D	C	C	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h		1100			420			479			172	
Approach Delay, s/veh		28.6			24.5			27.9			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	33.4	5.2	30.8	24.3	15.2	12.0	24.1
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	57.5	5.0	* 33	39.4	23.1	16.4	* 22
Max Q Clear Time (g_c+I1), s	2.7	3.1	2.2	21.2	19.1	5.5	7.7	9.2
Green Ext Time (p_c), s	0.0	0.2	0.0	5.0	0.6	0.5	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

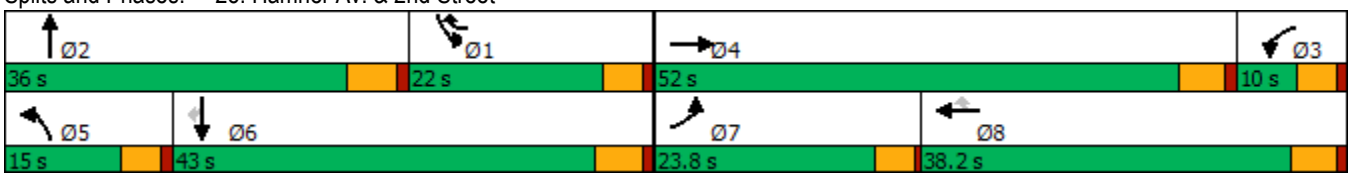
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

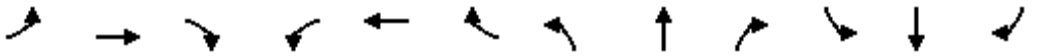
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	328	655	293	445	587	110	970	645	1229	275
Future Volume (vph)	328	655	293	445	587	110	970	645	1229	275
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	1	5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.1	35.1	9.6	36.1	9.6	9.6	35.4	9.6	31.4	31.4
Total Split (s)	23.8	52.0	10.0	38.2	22.0	15.0	36.0	22.0	43.0	43.0
Total Split (%)	19.8%	43.3%	8.3%	31.8%	18.3%	12.5%	30.0%	18.3%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	3.6	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.1	5.1	4.6	5.1	4.6	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	Max	Max	Max
Act Effct Green (s)	15.6	29.9	15.3	30.1	48.1	9.6	30.7	17.5	38.6	38.6
Actuated g/C Ratio	0.14	0.26	0.14	0.27	0.43	0.08	0.27	0.15	0.34	0.34
v/c Ratio	0.68	0.76	0.61	0.90	0.81	0.73	1.12dr	1.12	0.97	0.41
Control Delay	54.0	42.9	53.1	62.3	25.2	79.0	67.4	119.9	56.5	10.2
Queue Delay	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	42.9	53.1	64.3	25.2	79.0	67.4	119.9	56.5	10.2
LOS	D	D	D	E	C	E	E	F	E	B
Approach Delay		46.3		44.5			68.2		69.6	
Approach LOS		D		D			E		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.1	
Natural Cycle: 115	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 59.8	Intersection LOS: E
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	655	90	293	445	587	110	970	573	645	1229	275
Future Volume (veh/h)	328	655	90	293	445	587	110	970	573	645	1229	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	335	668	46	299	454	354	112	990	309	658	1254	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	415	834	57	488	507	690	138	1124	350	587	1380	572
Arrive On Green	0.17	0.36	0.36	0.20	0.40	0.40	0.11	0.40	0.40	0.24	0.54	0.54
Sat Flow, veh/h	3619	3513	242	3619	1900	1608	1810	4164	1298	3619	3800	1574
Grp Volume(v), veh/h	335	361	353	299	454	354	112	903	396	658	1254	150
Grp Sat Flow(s),veh/h/ln	1810	1900	1854	1810	1900	1608	1810	1900	1661	1810	1900	1574
Q Serve(g_s), s	9.6	18.4	18.4	8.1	24.0	4.4	6.5	23.6	23.7	17.4	31.9	5.4
Cycle Q Clear(g_c), s	9.6	18.4	18.4	8.1	24.0	4.4	6.5	23.6	23.7	17.4	31.9	5.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	415	451	440	488	507	690	138	1026	449	587	1380	572
V/C Ratio(X)	0.81	0.80	0.80	0.61	0.90	0.51	0.81	0.88	0.88	1.12	0.91	0.26
Avail Cap(c_a), veh/h	664	830	810	488	586	757	175	1084	474	587	1380	572
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	32.3	32.3	40.2	30.8	6.8	46.7	30.3	30.3	40.6	22.8	16.8
Incr Delay (d2), s/veh	3.9	3.3	3.4	2.3	14.9	0.6	15.7	8.3	16.9	75.2	10.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.8	7.6	3.5	11.4	2.4	3.4	10.1	9.9	12.9	12.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	35.6	35.7	42.5	45.7	7.4	62.4	38.6	47.2	115.8	33.2	17.9
LnGrp LOS	D	D	D	D	D	A	E	D	D	F	C	B
Approach Vol, veh/h		1049			1107			1411			2062	
Approach Delay, s/veh		39.3			32.6			42.9			58.4	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	34.4	19.6	30.6	12.8	44.4	16.4	33.7
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.1	5.1
Max Green Setting (Gmax), s	17.4	* 31	5.4	* 47	10.4	37.6	19.7	33.1
Max Q Clear Time (g_c+I1), s	19.4	25.7	10.1	20.4	8.5	33.9	11.6	26.0
Green Ext Time (p_c), s	0.0	3.3	0.0	4.5	0.0	2.6	0.7	2.4

Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

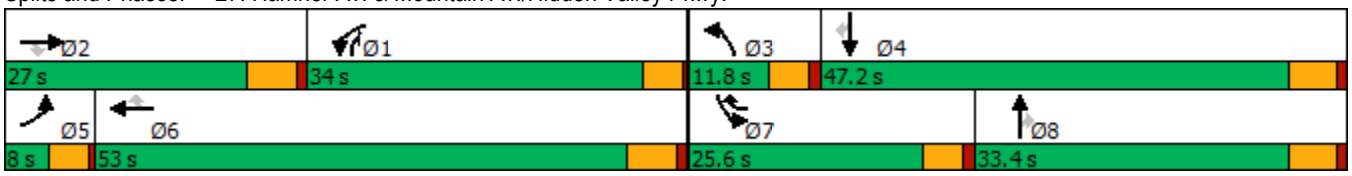
Notes

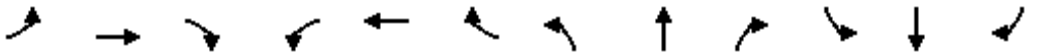
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	512	73	524	440	387	122	959	695	571	905	31
Future Volume (vph)	36	512	73	524	440	387	122	959	695	571	905	31
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	27.0	27.0	34.0	53.0	25.6	11.8	33.4	34.0	25.6	47.2	47.2
Total Split (%)	6.7%	22.5%	22.5%	28.3%	44.2%	21.3%	9.8%	27.8%	28.3%	21.3%	39.3%	39.3%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	28.1	28.1	25.1	50.9	72.0	7.2	28.1	54.6	20.3	41.2	41.2
Actuated g/C Ratio	0.03	0.23	0.23	0.21	0.42	0.60	0.06	0.23	0.45	0.17	0.34	0.34
v/c Ratio	0.64	0.60	0.16	0.73	0.57	0.41	1.12	1.13	0.77	0.93	0.49	0.04
Control Delay	102.6	45.7	0.7	50.9	30.7	10.8	174.1	116.8	17.6	72.9	33.0	0.1
Queue Delay	0.0	0.0	0.0	0.8	21.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.6	45.7	0.7	51.7	52.3	11.3	174.1	116.8	17.6	72.9	33.0	0.1
LOS	F	D	A	D	D	B	F	F	B	E	C	A
Approach Delay		43.7			40.3			81.9			47.5	
Approach LOS		D			D			F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 121	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 56.8	Intersection LOS: E
Intersection Capacity Utilization 97.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	512	73	524	440	387	122	959	695	571	905	31
Future Volume (veh/h)	36	512	73	524	440	387	122	959	695	571	905	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	533	70	546	458	392	127	999	519	595	943	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	748	316	647	687	870	119	969	699	651	2106	581
Arrive On Green	0.03	0.30	0.20	0.18	0.54	0.36	0.10	0.38	0.38	0.27	0.55	0.55
Sat Flow, veh/h	1810	3800	1605	3619	1900	1606	1810	3800	1610	3619	5700	1572
Grp Volume(v), veh/h	38	533	70	546	458	392	127	999	519	595	943	24
Grp Sat Flow(s),veh/h/ln	1810	1900	1605	1810	1900	1606	1810	1900	1610	1810	1900	1572
Q Serve(g_s), s	2.3	13.7	3.2	16.0	19.0	16.3	7.2	28.0	12.6	17.5	10.8	0.8
Cycle Q Clear(g_c), s	2.3	13.7	3.2	16.0	19.0	16.3	7.2	28.0	12.6	17.5	10.8	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	748	316	647	687	870	119	969	699	651	2106	581
V/C Ratio(X)	0.78	0.71	0.22	0.84	0.67	0.45	1.07	1.03	0.74	0.91	0.45	0.04
Avail Cap(c_a), veh/h	66	748	316	989	824	986	119	969	699	692	2171	599
HCM Platoon Ratio	1.00	1.50	1.00	1.00	1.50	1.00	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	35.9	24.0	43.6	20.4	15.3	49.5	33.9	7.2	39.2	17.8	15.6
Incr Delay (d2), s/veh	33.4	5.7	1.6	4.2	1.6	0.4	102.7	37.0	4.3	15.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.2	1.7	7.4	6.7	5.6	6.5	15.8	4.1	8.2	4.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.5	41.6	25.6	47.8	22.0	15.6	152.1	70.9	11.4	54.8	18.0	15.6
LnGrp LOS	F	D	C	D	C	B	F	F	B	D	B	B
Approach Vol, veh/h		641			1396			1645			1562	
Approach Delay, s/veh		42.5			30.3			58.4			32.0	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	27.0	11.8	45.9	6.9	45.1	24.3	33.4
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	30.0	* 22	7.2	41.8	4.0	47.6	21.0	28.0
Max Q Clear Time (g_c+I1), s	18.0	15.7	9.2	12.8	4.3	21.0	19.5	30.0
Green Ext Time (p_c), s	1.6	1.8	0.0	7.1	0.0	4.3	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

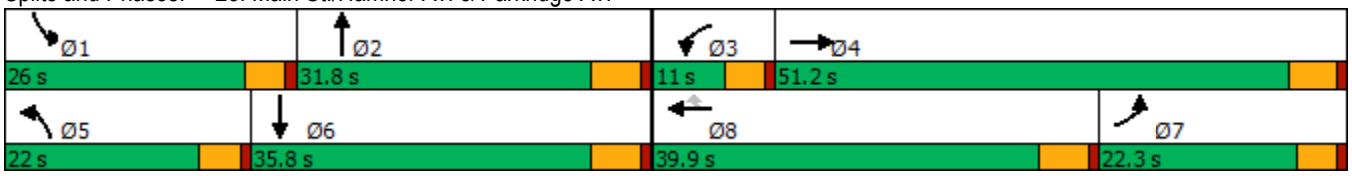
User approved pedestrian interval to be less than phase max green.

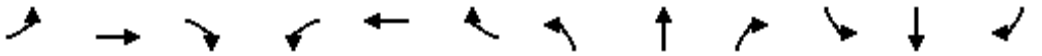
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	589	359	80	182	281	101	1220	232	1138	596
Future Volume (vph)	589	359	80	182	281	101	1220	232	1138	596
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Free
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					Free
Detector Phase	7	4	3	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	
Minimum Split (s)	9.6	38.4	9.6	39.4	39.4	9.6	31.4	9.6	31.4	
Total Split (s)	22.3	51.2	11.0	39.9	39.9	22.0	31.8	26.0	35.8	
Total Split (%)	18.6%	42.7%	9.2%	33.3%	33.3%	18.3%	26.5%	21.7%	29.8%	
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	3.6	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	4.6	5.4	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	21.9	33.6	6.5	18.1	18.1	10.6	26.8	17.5	33.7	104.7
Actuated g/C Ratio	0.21	0.32	0.06	0.17	0.17	0.10	0.26	0.17	0.32	1.00
v/c Ratio	0.85	0.86	0.75	0.59	0.57	0.58	1.09	0.81	0.72	0.39
Control Delay	52.9	47.6	89.8	47.4	8.7	59.9	90.5	64.1	36.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	47.6	89.8	47.4	8.7	59.9	90.5	64.1	36.0	0.7
LOS	D	D	F	D	A	E	F	E	D	A
Approach Delay		50.5		33.6			88.4		28.6	
Approach LOS		D		C			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.7	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 51.1	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	589	359	126	80	182	281	101	1220	140	232	1138	596
Future Volume (veh/h)	589	359	126	80	182	281	101	1220	140	232	1138	596
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	378	122	84	192	193	106	1284	0	244	1198	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	711	431	139	108	311	262	135	1392		279	1805	
Arrive On Green	0.20	0.31	0.31	0.06	0.16	0.16	0.07	0.27	0.00	0.15	0.35	0.00
Sat Flow, veh/h	3510	1368	442	1810	1900	1598	1810	5358	0	1810	5187	1610
Grp Volume(v), veh/h	620	0	500	84	192	193	106	1284	0	244	1198	0
Grp Sat Flow(s),veh/h/ln	1755	0	1809	1810	1900	1598	1810	1729	0	1810	1729	1610
Q Serve(g_s), s	16.8	0.0	25.7	4.5	9.2	7.8	5.7	23.7	0.0	13.0	19.3	0.0
Cycle Q Clear(g_c), s	16.8	0.0	25.7	4.5	9.2	7.8	5.7	23.7	0.0	13.0	19.3	0.0
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	711	0	570	108	311	262	135	1392		279	1805	
V/C Ratio(X)	0.87	0.00	0.88	0.78	0.62	0.74	0.79	0.92		0.88	0.66	
Avail Cap(c_a), veh/h	711	0	842	118	666	561	320	1392		394	1805	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	31.9	45.6	38.3	18.9	44.8	35.0	0.0	40.7	27.2	0.0
Incr Delay (d2), s/veh	11.1	0.0	7.2	22.9	2.0	4.0	3.8	11.5	0.0	11.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	11.8	2.7	4.3	3.0	2.6	11.0	0.0	6.5	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	0.0	39.1	68.5	40.2	22.9	48.6	46.5	0.0	52.1	29.1	0.0
LnGrp LOS	D	A	D	E	D	C	D	D		D	C	
Approach Vol, veh/h		1120			469			1390	A		1442	A
Approach Delay, s/veh		44.7			38.2			46.7			33.0	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	31.8	10.4	36.4	11.9	39.6	25.3	21.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	5.4	* 5.4
Max Green Setting (Gmax), s	21.4	26.4	6.4	45.8	17.4	30.4	17.7	* 35
Max Q Clear Time (g_c+I1), s	15.0	25.7	6.5	27.7	7.7	21.3	18.8	11.2
Green Ext Time (p_c), s	0.2	0.5	0.0	2.9	0.1	5.1	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	934	1050	228	916	5	352
Future Volume (vph)	934	1050	228	916	5	352
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	16.0	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	20.6	9.5	23.6	20.0	20.0
Total Split (s)	41.0	41.0	30.0	71.0	49.0	49.0
Total Split (%)	34.2%	34.2%	25.0%	59.2%	40.8%	40.8%
Yellow Time (s)	4.1	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	61.2	61.2	19.6	85.3	24.8	24.8
Actuated g/C Ratio	0.51	0.51	0.16	0.71	0.21	0.21
v/c Ratio	0.83	0.61	0.80	0.39	0.33	0.86
Control Delay	31.4	4.8	30.5	2.4	40.8	49.9
Queue Delay	14.6	0.4	0.0	0.4	0.0	0.0
Total Delay	46.0	5.1	30.5	2.8	40.8	49.9
LOS	D	A	C	A	D	D
Approach Delay	33.3			8.1	47.6	
Approach LOS	C			A	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 29: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	934	1050	228	916	54	0	0	0	115	5	352
Future Volume (veh/h)	0	934	1050	228	916	54	0	0	0	115	5	352
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	830	1093	235	944	56				119	5	267
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1047	1772	260	2535	150				322	14	298
Arrive On Green	0.00	0.55	0.55	0.29	1.00	1.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1900	3214	1810	3462	205				1740	73	1610
Grp Volume(v), veh/h	0	830	1093	235	492	508				124	0	267
Grp Sat Flow(s),veh/h/ln	0	1900	1607	1810	1805	1863				1813	0	1610
Q Serve(g_s), s	0.0	41.8	27.7	15.0	0.0	0.0				7.2	0.0	19.4
Cycle Q Clear(g_c), s	0.0	41.8	27.7	15.0	0.0	0.0				7.2	0.0	19.4
Prop In Lane	0.00		1.00	1.00		0.11				0.96		1.00
Lane Grp Cap(c), veh/h	0	1047	1772	260	1322	1364				336	0	298
V/C Ratio(X)	0.00	0.79	0.62	0.91	0.37	0.37				0.37	0.00	0.90
Avail Cap(c_a), veh/h	0	1047	1772	385	1322	1364				660	0	586
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.30	0.30	0.61	0.61	0.61				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.5	18.3	42.0	0.0	0.0				42.8	0.0	47.7
Incr Delay (d2), s/veh	0.0	1.9	0.5	9.4	0.5	0.5				0.3	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.0	9.9	6.3	0.2	0.2				3.2	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.4	18.8	51.4	0.5	0.5				43.0	0.0	51.6
LnGrp LOS	A	C	B	D	A	A				D	A	D
Approach Vol, veh/h		1923			1235						391	
Approach Delay, s/veh		20.8			10.2						48.9	
Approach LOS		C			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.7	70.8		27.5		92.5
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	25.5	36.4		43.7		66.4
Max Q Clear Time (g_c+I1), s	17.0	43.8		21.4		2.0
Green Ext Time (p_c), s	0.2	0.0		0.8		4.5

Intersection Summary		
HCM 6th Ctrl Delay		20.2
HCM 6th LOS		C

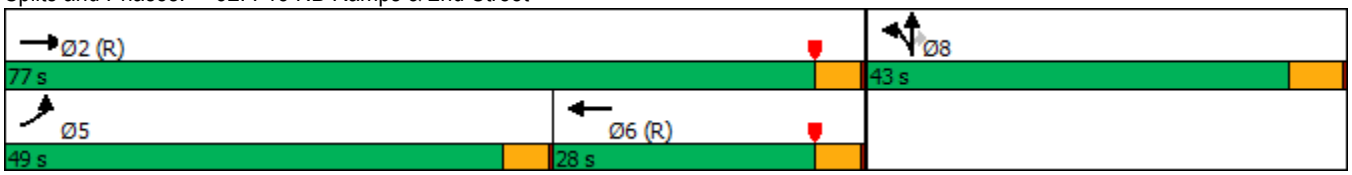
Notes

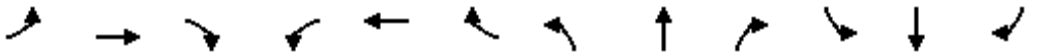
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	591	458	452	743	7	476
Future Volume (vph)	591	458	452	743	7	476
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	49.0	77.0	28.0	43.0	43.0	43.0
Total Split (%)	40.8%	64.2%	23.3%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	43.6	76.3	28.2	33.8	33.8	33.8
Actuated g/C Ratio	0.36	0.64	0.24	0.28	0.28	0.28
v/c Ratio	0.97	0.21	0.66	0.83	0.84	0.71
Control Delay	35.6	3.2	46.5	55.2	56.7	15.5
Queue Delay	10.8	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	3.2	46.5	55.2	56.7	15.5
LOS	D	A	D	E	E	B
Approach Delay		27.5	46.5		40.2	
Approach LOS		C	D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 36.6	Intersection LOS: D
Intersection Capacity Utilization 84.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	458	0	0	452	64	743	7	476	0	0	0
Future Volume (veh/h)	591	458	0	0	452	64	743	7	476	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	635	492	0	0	486	57	805	0	339			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	657	2403	0	0	862	101	911	0	405			
Arrive On Green	0.36	0.67	0.00	0.00	0.27	0.27	0.25	0.00	0.25			
Sat Flow, veh/h	1810	3705	0	0	3349	380	3619	0	1610			
Grp Volume(v), veh/h	635	492	0	0	269	274	805	0	339			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1829	1810	0	1610			
Q Serve(g_s), s	41.3	6.3	0.0	0.0	15.4	15.6	25.7	0.0	23.9			
Cycle Q Clear(g_c), s	41.3	6.3	0.0	0.0	15.4	15.6	25.7	0.0	23.9			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	657	2403	0	0	478	485	911	0	405			
V/C Ratio(X)	0.97	0.20	0.00	0.00	0.56	0.57	0.88	0.00	0.84			
Avail Cap(c_a), veh/h	671	2403	0	0	478	485	1137	0	506			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.45	0.45	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.5	7.8	0.0	0.0	38.1	38.1	43.2	0.0	42.5			
Incr Delay (d2), s/veh	15.7	0.1	0.0	0.0	4.7	4.7	6.8	0.0	9.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.6	2.3	0.0	0.0	7.4	7.5	11.9	0.0	10.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	7.8	0.0	0.0	42.8	42.9	50.0	0.0	51.6			
LnGrp LOS	D	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1127			543			1144				
Approach Delay, s/veh		33.4			42.8			50.4				
Approach LOS		C			D			D				

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.5			48.1	36.4		35.5				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		72.4			44.5	23.4		37.7				
Max Q Clear Time (g_c+I1), s		8.3			43.3	17.6		27.7				
Green Ext Time (p_c), s		2.2			0.3	1.1		2.5				

Intersection Summary												
HCM 6th Ctrl Delay			42.2									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 7.12:

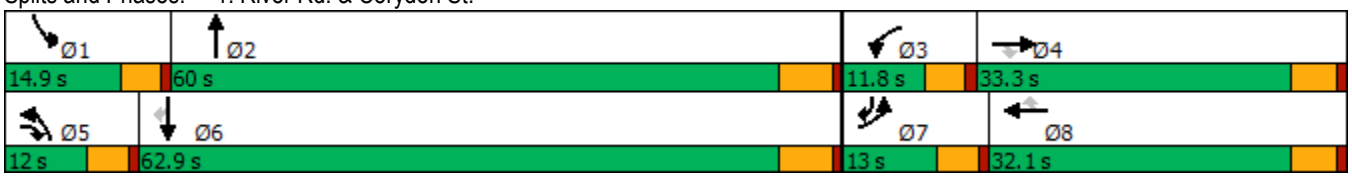
HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

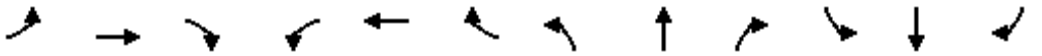
This Page Intentionally Left Blank

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	145	245	66	181	39	211	995	80	1846	523
Future Volume (vph)	247	145	245	66	181	39	211	995	80	1846	523
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	13.0	33.3	12.0	11.8	32.1	32.1	12.0	60.0	14.9	62.9	13.0
Total Split (%)	10.8%	27.8%	10.0%	9.8%	26.8%	26.8%	10.0%	50.0%	12.4%	52.4%	10.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None
Act Effct Green (s)	8.4	20.9	33.4	6.9	17.1	17.1	7.4	58.2	8.7	57.3	66.9
Actuated g/C Ratio	0.08	0.19	0.30	0.06	0.15	0.15	0.07	0.53	0.08	0.52	0.61
v/c Ratio	1.00	0.44	0.49	0.63	0.66	0.12	0.97	0.63	0.61	1.06	0.52
Control Delay	106.7	44.4	27.1	77.2	54.8	0.7	103.4	22.2	68.6	66.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.7	44.4	27.1	77.2	54.8	0.7	103.4	22.2	68.6	66.3	7.2
LOS	F	D	C	E	D	A	F	C	E	E	A
Approach Delay		62.0			52.6			35.2		53.7	
Approach LOS		E			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.4	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 49.6	Intersection LOS: D
Intersection Capacity Utilization 90.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	145	245	66	181	39	211	995	111	80	1846	523
Future Volume (veh/h)	247	145	245	66	181	39	211	995	111	80	1846	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	156	194	71	195	30	227	1070	110	86	1985	434
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	298	364	91	245	207	243	1796	184	110	1931	976
Arrive On Green	0.08	0.16	0.16	0.05	0.13	0.13	0.07	0.54	0.54	0.06	0.53	0.53
Sat Flow, veh/h	3510	1900	1610	1810	1900	1606	3510	3304	339	1810	3610	1588
Grp Volume(v), veh/h	266	156	194	71	195	30	227	584	596	86	1985	434
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1606	1755	1805	1839	1810	1805	1588
Q Serve(g_s), s	8.1	8.1	11.3	4.1	10.6	1.8	6.9	23.3	23.4	5.0	57.1	15.5
Cycle Q Clear(g_c), s	8.1	8.1	11.3	4.1	10.6	1.8	6.9	23.3	23.4	5.0	57.1	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	276	298	364	91	245	207	243	981	999	110	1931	976
V/C Ratio(X)	0.96	0.52	0.53	0.78	0.80	0.15	0.93	0.60	0.60	0.78	1.03	0.44
Avail Cap(c_a), veh/h	276	502	537	122	481	406	243	981	999	175	1931	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	41.3	36.3	50.1	45.1	41.3	49.4	16.4	16.5	49.4	24.8	11.0
Incr Delay (d2), s/veh	43.6	1.4	1.2	13.8	5.9	0.3	39.2	2.7	2.6	4.5	28.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.8	4.5	2.2	5.3	0.7	4.2	9.3	9.5	2.3	28.7	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.6	42.8	37.5	63.9	51.0	41.6	88.6	19.1	19.1	54.0	52.8	12.4
LnGrp LOS	F	D	D	E	D	D	F	B	B	D	F	B
Approach Vol, veh/h		616			296			1407			2505	
Approach Delay, s/veh		62.7			53.2			30.3			45.8	
Approach LOS		E			D			C			D	

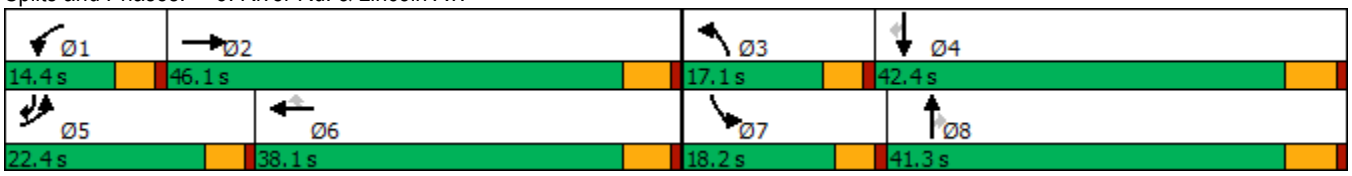
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	63.8	10.0	21.8	12.0	62.9	13.0	18.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.3	54.2	7.2	28.2	7.4	57.1	8.4	27.0
Max Q Clear Time (g_c+I1), s	7.0	25.4	6.1	13.3	8.9	59.1	10.1	12.6
Green Ext Time (p_c), s	0.0	8.3	0.0	1.3	0.0	0.0	0.0	0.9

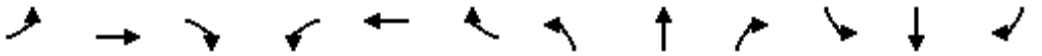
Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	443	656	62	876	284	161	748	137	285	988	561
Future Volume (vph)	443	656	62	876	284	161	748	137	285	988	561
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6		3	8		7	4	5
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	22.4	46.1	14.4	38.1	38.1	17.1	41.3	41.3	18.2	42.4	22.4
Total Split (%)	18.7%	38.4%	12.0%	31.8%	31.8%	14.3%	34.4%	34.4%	15.2%	35.3%	18.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	17.7	44.2	8.2	32.7	32.7	12.5	36.0	36.0	13.1	36.6	55.5
Actuated g/C Ratio	0.15	0.37	0.07	0.27	0.27	0.10	0.30	0.30	0.11	0.31	0.46
v/c Ratio	0.93	0.58	0.55	0.97	0.51	0.93	0.75	0.27	0.81	0.97	0.80
Control Delay	76.9	33.1	70.3	65.3	12.6	103.4	43.2	6.3	69.6	63.2	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	33.1	70.3	65.3	12.6	103.4	43.2	6.3	69.6	63.2	30.7
LOS	E	C	E	E	B	F	D	A	E	E	C
Approach Delay		50.1		53.3			47.6			54.3	
Approach LOS		D		D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 51.8	Intersection LOS: D
Intersection Capacity Utilization 90.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	656	47	62	876	284	161	748	137	285	988	561
Future Volume (veh/h)	443	656	47	62	876	284	161	748	137	285	988	561
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	482	713	39	67	952	285	175	813	108	310	1074	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	1297	71	86	984	433	188	1101	470	366	1101	723
Arrive On Green	0.15	0.37	0.37	0.05	0.27	0.27	0.10	0.31	0.31	0.10	0.30	0.30
Sat Flow, veh/h	3510	3476	190	1810	3610	1589	1810	3610	1540	3510	3610	1588
Grp Volume(v), veh/h	482	370	382	67	952	285	175	813	108	310	1074	483
Grp Sat Flow(s),veh/h/ln	1755	1805	1861	1810	1805	1589	1810	1805	1540	1755	1805	1588
Q Serve(g_s), s	16.3	19.4	19.4	4.4	31.3	19.1	11.5	24.2	6.3	10.4	35.3	28.7
Cycle Q Clear(g_c), s	16.3	19.4	19.4	4.4	31.3	19.1	11.5	24.2	6.3	10.4	35.3	28.7
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	674	695	86	984	433	188	1101	470	366	1101	723
V/C Ratio(X)	0.93	0.55	0.55	0.78	0.97	0.66	0.93	0.74	0.23	0.85	0.98	0.67
Avail Cap(c_a), veh/h	521	674	695	148	984	433	188	1101	470	398	1101	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	29.7	29.7	56.5	43.1	38.7	53.3	37.4	31.2	52.8	41.3	25.8
Incr Delay (d2), s/veh	22.3	3.2	3.1	5.5	21.9	7.6	44.9	2.7	0.2	13.6	21.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	8.8	9.0	2.1	16.5	8.1	7.4	10.7	2.3	5.2	18.3	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	32.9	32.8	62.0	65.0	46.3	98.2	40.1	31.4	66.4	62.6	28.1
LnGrp LOS	E	C	C	E	E	D	F	D	C	E	E	C
Approach Vol, veh/h		1234			1304			1096			1867	
Approach Delay, s/veh		48.4			60.8			48.5			54.3	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	50.2	17.1	42.4	22.4	38.1	17.1	42.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	9.8	40.7	12.5	36.6	17.8	32.7	13.6	35.5
Max Q Clear Time (g_c+I1), s	6.4	21.4	13.5	37.3	18.3	33.3	12.4	26.2
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.0	0.0	0.1	3.7

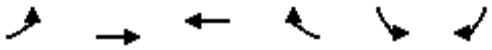
Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	5	1044	724	61
Future Volume (vph)	5	1044	724	61
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.5	49.2	48.0	12.0
Actuated g/C Ratio	0.08	0.69	0.67	0.17
v/c Ratio	0.04	0.87	0.68	0.34
Control Delay	43.6	16.2	10.4	30.9
Queue Delay	0.0	0.0	0.7	0.0
Total Delay	43.6	16.2	11.1	30.9
LOS	D	B	B	C
Approach Delay		16.3	11.1	30.9
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 71.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	1044	724	67	61	36
Future Volume (veh/h)	5	1044	724	67	61	36
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	1135	787	73	66	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	12	1334	1069	99	166	98
Arrive On Green	0.01	0.70	0.62	0.62	0.15	0.15
Sat Flow, veh/h	1810	1900	1712	159	1078	637
Grp Volume(v), veh/h	5	1135	0	860	106	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1871	1731	0
Q Serve(g_s), s	0.2	28.6	0.0	20.7	3.6	0.0
Cycle Q Clear(g_c), s	0.2	28.6	0.0	20.7	3.6	0.0
Prop In Lane	1.00			0.08	0.62	0.37
Lane Grp Cap(c), veh/h	12	1334	0	1168	267	0
V/C Ratio(X)	0.42	0.85	0.00	0.74	0.40	0.00
Avail Cap(c_a), veh/h	145	2713	0	2389	486	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	7.1	0.0	8.5	24.7	0.0
Incr Delay (d2), s/veh	8.3	1.6	0.0	0.9	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.9	0.0	6.1	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.3	8.8	0.0	9.4	25.6	0.0
LnGrp LOS	D	A	A	A	C	A
Approach Vol, veh/h		1140	860		106	
Approach Delay, s/veh		8.9	9.4		25.6	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	50.2	14.6	5.0	45.1
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	30.6	5.6	2.2	22.7
Green Ext Time (p_c), s	14.8	0.2	0.0	8.1

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

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	697	31	528	263
Future Volume (vph)	697	31	528	263
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	77.5	5.2	83.2	23.2
Actuated g/C Ratio	0.67	0.04	0.72	0.20
v/c Ratio	0.99	0.42	0.42	0.93
Control Delay	42.9	71.6	7.6	77.4
Queue Delay	39.1	0.0	0.0	0.0
Total Delay	82.0	71.6	7.6	77.4
LOS	F	E	A	E
Approach Delay	82.0		11.2	77.4
Approach LOS	F		B	E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.6	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 61.2	Intersection LOS: E
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	697	406	31	528	263	46
Future Volume (veh/h)	697	406	31	528	263	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	758	441	34	574	286	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	731	425	51	1373	301	53
Arrive On Green	0.66	0.66	0.03	0.72	0.20	0.20
Sat Flow, veh/h	1116	649	1810	1900	1508	264
Grp Volume(v), veh/h	0	1199	34	574	337	0
Grp Sat Flow(s),veh/h/ln	0	1765	1810	1900	1777	0
Q Serve(g_s), s	0.0	77.4	2.2	14.2	22.1	0.0
Cycle Q Clear(g_c), s	0.0	77.4	2.2	14.2	22.1	0.0
Prop In Lane		0.37	1.00		0.85	0.15
Lane Grp Cap(c), veh/h	0	1156	51	1373	355	0
V/C Ratio(X)	0.00	1.04	0.66	0.42	0.95	0.00
Avail Cap(c_a), veh/h	0	1156	80	1402	355	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	20.4	56.8	6.5	46.7	0.0
Incr Delay (d2), s/veh	0.0	36.5	5.3	0.2	34.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	39.3	1.1	5.0	13.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	56.9	62.1	6.7	81.4	0.0
LnGrp LOS	A	F	E	A	F	A
Approach Vol, veh/h	1199			608	337	
Approach Delay, s/veh	56.9			9.8	81.4	
Approach LOS	E			A	F	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		28.2	8.0	82.0		90.0
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		24.1	4.2	79.4		16.2
Green Ext Time (p_c), s		0.0	0.0	0.0		4.2

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

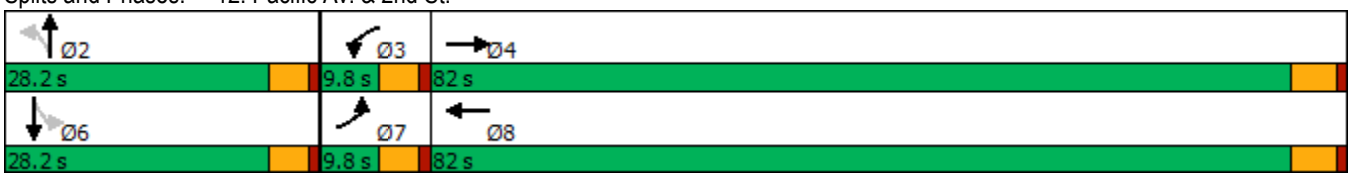
Notes

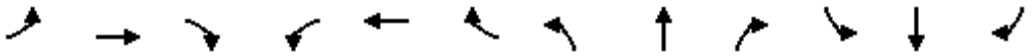
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	881	9	663	20	0	37	0
Future Volume (vph)	1	881	9	663	20	0	37	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	5.2	49.5	5.3	49.5		24.6		24.6
Actuated g/C Ratio	0.06	0.58	0.06	0.58		0.29		0.29
v/c Ratio	0.01	0.90	0.09	0.68		0.12		0.09
Control Delay	49.0	27.2	49.0	15.6		9.9		5.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	49.0	27.2	49.0	15.6		9.9		5.7
LOS	D	C	D	B		A		A
Approach Delay		27.3		16.0		9.9		5.7
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 85.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 64.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	881	19	9	663	17	20	0	36	37	0	3
Future Volume (veh/h)	1	881	19	9	663	17	20	0	36	37	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	958	21	10	721	18	22	0	39	40	0	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	1068	23	22	1085	27	174	23	256	416	3	26
Arrive On Green	0.00	0.58	0.58	0.01	0.59	0.59	0.26	0.00	0.26	0.26	0.00	0.26
Sat Flow, veh/h	1810	1851	41	1810	1846	46	473	92	1002	1336	11	101
Grp Volume(v), veh/h	1	0	979	10	0	739	61	0	0	43	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1892	1810	0	1892	1567	0	0	1449	0	0
Q Serve(g_s), s	0.1	0.0	42.0	0.5	0.0	24.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	42.0	0.5	0.0	24.4	2.6	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.36		0.64	0.93		0.07
Lane Grp Cap(c), veh/h	2	0	1092	22	0	1112	453	0	0	445	0	0
V/C Ratio(X)	0.40	0.00	0.90	0.45	0.00	0.66	0.13	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	102	0	1570	102	0	1570	453	0	0	445	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	0.0	17.2	45.4	0.0	12.9	26.6	0.0	0.0	26.3	0.0	0.0
Incr Delay (d2), s/veh	34.8	0.0	5.3	5.2	0.0	0.7	0.6	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	17.4	0.3	0.0	9.3	1.1	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.0	0.0	22.4	50.6	0.0	13.6	27.2	0.0	0.0	26.7	0.0	0.0
LnGrp LOS	F	A	C	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		980			749			61			43	
Approach Delay, s/veh		22.5			14.1			27.2			26.7	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.2	5.7	58.6		28.2	4.7	59.6				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		4.6	2.5	44.0		3.7	2.1	26.4				
Green Ext Time (p_c), s		0.2	0.0	9.4		0.1	0.0	6.1				

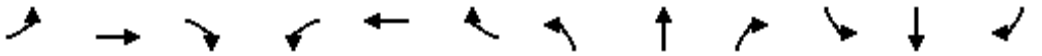
Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	264	470	1	440	644	218	16	14	100	104
Future Volume (vph)	264	470	1	440	644	218	16	14	100	104
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	21.0	38.1	9.6	26.7	44.0	62.7	62.7	9.6	28.3	28.3
Total Split (%)	17.5%	31.8%	8.0%	22.3%	36.7%	52.3%	52.3%	8.0%	23.6%	23.6%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	16.5	38.4	5.0	19.1	39.5	53.6	53.6	5.0	13.0	13.0
Actuated g/C Ratio	0.15	0.36	0.05	0.18	0.37	0.50	0.50	0.05	0.12	0.12
v/c Ratio	1.01	0.65	0.01	0.78	1.02	0.24	0.02	0.18	0.46	0.31
Control Delay	102.6	27.2	53.0	51.5	75.1	17.4	0.1	57.3	50.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.6	27.2	53.0	51.5	75.1	17.4	0.1	57.3	50.7	2.2
LOS	F	C	D	D	E	B	A	E	D	A
Approach Delay		45.8		51.5		59.4			28.0	
Approach LOS		D		D		E			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.3	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 49.9	Intersection LOS: D
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	470	337	1	440	36	644	218	16	14	100	104
Future Volume (veh/h)	264	470	337	1	440	36	644	218	16	14	100	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	278	495	355	1	463	38	678	229	17	15	105	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	657	470	2	566	46	699	888	753	31	186	158
Arrive On Green	0.16	0.33	0.33	0.00	0.17	0.17	0.39	0.47	0.47	0.02	0.10	0.10
Sat Flow, veh/h	1810	2009	1438	1810	3375	276	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	278	445	405	1	247	254	678	229	17	15	105	109
Grp Sat Flow(s),veh/h/ln	1810	1805	1641	1810	1805	1846	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	15.5	22.4	22.5	0.1	13.5	13.6	37.5	7.4	0.6	0.8	5.4	6.7
Cycle Q Clear(g_c), s	15.5	22.4	22.5	0.1	13.5	13.6	37.5	7.4	0.6	0.8	5.4	6.7
Prop In Lane	1.00		0.88	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	590	537	2	303	309	699	888	753	31	186	158
V/C Ratio(X)	0.96	0.75	0.76	0.40	0.82	0.82	0.97	0.26	0.02	0.49	0.56	0.69
Avail Cap(c_a), veh/h	291	591	537	89	389	398	699	1071	908	89	430	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	30.6	30.7	50.9	40.9	41.0	30.7	16.5	14.6	49.7	43.9	44.5
Incr Delay (d2), s/veh	40.4	5.4	6.0	34.9	10.0	10.3	26.5	0.2	0.0	4.4	2.7	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	10.3	9.5	0.0	6.7	6.9	20.4	3.1	0.2	0.4	2.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.8	36.1	36.7	85.8	51.0	51.2	57.2	16.6	14.6	54.1	46.6	49.8
LnGrp LOS	F	D	D	F	D	D	E	B	B	D	D	D
Approach Vol, veh/h		1128			502			924			229	
Approach Delay, s/veh		47.8			51.2			46.4			48.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	52.9	4.7	38.1	44.0	15.2	21.0	21.8
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	57.5	5.0	* 33	39.4	23.1	16.4	* 22
Max Q Clear Time (g_c+I1), s	2.8	9.4	2.1	24.5	39.5	8.7	17.5	15.6
Green Ext Time (p_c), s	0.0	1.4	0.0	3.6	0.0	0.7	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

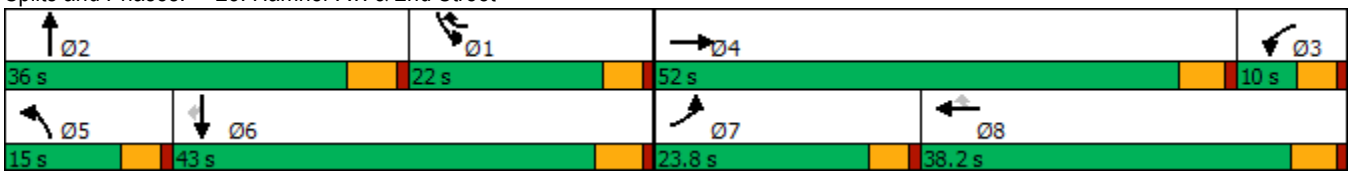
Notes

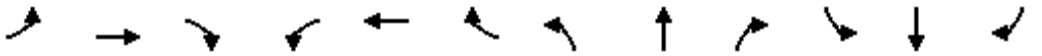
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	277	643	587	655	806	92	994	324	831	246
Future Volume (vph)	277	643	587	655	806	92	994	324	831	246
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	1	5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	36.1	9.6	9.6	35.4	9.6	31.4	31.4
Total Split (s)	23.8	52.0	10.0	38.2	22.0	15.0	36.0	22.0	43.0	43.0
Total Split (%)	19.8%	43.3%	8.3%	31.8%	18.3%	12.5%	30.0%	18.3%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	3.6	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	5.1	4.6	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	Max	Max	Max
Act Effct Green (s)	14.5	29.3	18.4	33.1	51.1	9.2	30.2	17.4	38.4	38.4
Actuated g/C Ratio	0.13	0.25	0.16	0.29	0.44	0.08	0.26	0.15	0.33	0.33
v/c Ratio	0.64	0.76	1.07	1.26	1.10	0.67	0.87	0.62	0.69	0.37
Control Delay	54.5	44.4	104.7	166.7	87.0	74.4	46.5	51.9	37.2	5.2
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	44.4	104.7	167.1	87.0	74.4	46.5	51.9	37.2	5.2
LOS	D	D	F	F	F	E	D	D	D	A
Approach Delay		47.3		117.7			48.4		35.0	
Approach LOS		D		F			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.26	
Intersection Signal Delay: 69.7	Intersection LOS: E
Intersection Capacity Utilization 94.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	643	49	587	655	806	92	994	225	324	831	246
Future Volume (veh/h)	277	643	49	587	655	806	92	994	225	324	831	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	292	677	41	618	689	519	97	1046	163	341	875	217
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	368	845	51	573	569	729	121	1229	191	570	1342	566
Arrive On Green	0.15	0.36	0.36	0.24	0.45	0.45	0.10	0.38	0.38	0.24	0.53	0.53
Sat Flow, veh/h	3619	3543	214	3619	1900	1588	1810	4809	748	3619	3800	1603
Grp Volume(v), veh/h	292	363	355	618	689	519	97	826	383	341	875	217
Grp Sat Flow(s),veh/h/ln	1810	1900	1858	1810	1900	1588	1810	1900	1757	1810	1900	1603
Q Serve(g_s), s	8.6	19.0	19.0	17.5	33.1	8.0	5.8	22.0	22.1	9.3	18.3	8.8
Cycle Q Clear(g_c), s	8.6	19.0	19.0	17.5	33.1	8.0	5.8	22.0	22.1	9.3	18.3	8.8
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	368	453	443	573	569	729	121	971	449	570	1342	566
V/C Ratio(X)	0.79	0.80	0.80	1.08	1.21	0.71	0.80	0.85	0.85	0.60	0.65	0.38
Avail Cap(c_a), veh/h	629	807	789	573	569	729	170	1053	487	570	1342	566
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	33.1	33.1	42.1	30.4	6.7	48.9	32.1	32.2	39.1	21.1	18.9
Incr Delay (d2), s/veh	3.9	3.3	3.4	60.2	110.2	3.3	10.9	6.4	12.9	4.6	2.5	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	8.1	7.9	11.8	30.1	4.1	2.9	9.4	9.5	4.2	6.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	36.4	36.6	102.3	140.6	10.0	59.8	38.5	45.1	43.7	23.6	20.8
LnGrp LOS	D	D	D	F	F	A	E	D	D	D	C	C
Approach Vol, veh/h		1010			1826			1306			1433	
Approach Delay, s/veh		40.3			90.5			42.0			27.9	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	33.6	22.6	31.4	12.0	44.4	15.8	38.2
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	17.4	* 31	5.4	* 47	10.4	37.6	19.2	33.1
Max Q Clear Time (g_c+I1), s	11.3	24.1	19.5	21.0	7.8	20.3	10.6	35.1
Green Ext Time (p_c), s	0.4	3.8	0.0	4.6	0.0	6.2	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

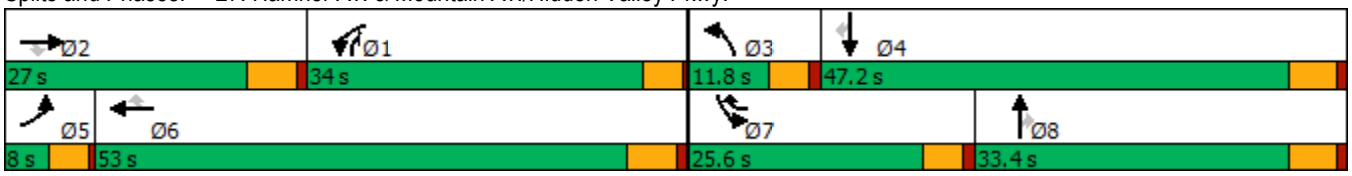
Notes

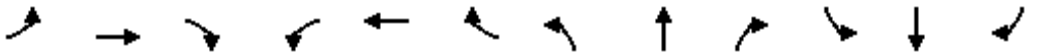
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	384	64	951	889	452	77	690	337	208	722	14
Future Volume (vph)	15	384	64	951	889	452	77	690	337	208	722	14
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	27.0	27.0	34.0	53.0	25.6	11.8	33.4	34.0	25.6	47.2	47.2
Total Split (%)	6.7%	22.5%	22.5%	28.3%	44.2%	21.3%	9.8%	27.8%	28.3%	21.3%	39.3%	39.3%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	28.1	28.1	30.1	59.0	71.2	7.0	26.1	57.6	11.4	30.5	30.5
Actuated g/C Ratio	0.03	0.24	0.24	0.26	0.51	0.62	0.06	0.23	0.50	0.10	0.26	0.26
v/c Ratio	0.26	0.44	0.13	1.07	0.97	0.47	0.75	0.85	0.41	0.62	0.51	0.03
Control Delay	66.3	39.4	0.5	92.4	52.0	10.1	91.8	53.4	7.2	57.8	37.0	0.1
Queue Delay	0.0	0.0	0.0	11.4	42.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	39.4	0.5	103.8	94.0	10.7	91.8	53.4	7.2	57.8	37.0	0.1
LOS	E	D	A	F	F	B	F	D	A	E	D	A
Approach Delay		34.9			81.7			42.0			41.0	
Approach LOS		C			F			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 60.0	Intersection LOS: E
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	384	64	951	889	452	77	690	337	208	722	14
Future Volume (veh/h)	15	384	64	951	889	452	77	690	337	208	722	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	409	63	1012	946	442	82	734	238	221	768	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	777	329	1028	926	916	105	886	827	295	1463	409
Arrive On Green	0.01	0.20	0.20	0.28	0.49	0.49	0.06	0.23	0.23	0.08	0.26	0.26
Sat Flow, veh/h	1810	3800	1608	3619	1900	1609	1810	3800	1585	3619	5700	1594
Grp Volume(v), veh/h	16	409	63	1012	946	442	82	734	238	221	768	11
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1609	1810	1900	1585	1810	1900	1594
Q Serve(g_s), s	0.9	10.1	2.8	29.4	51.5	17.2	4.7	19.4	2.3	6.3	12.2	0.5
Cycle Q Clear(g_c), s	0.9	10.1	2.8	29.4	51.5	17.2	4.7	19.4	2.3	6.3	12.2	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	777	329	1028	926	916	105	886	827	295	1463	409
V/C Ratio(X)	0.62	0.53	0.19	0.98	1.02	0.48	0.78	0.83	0.29	0.75	0.52	0.03
Avail Cap(c_a), veh/h	69	777	329	1028	926	916	123	1007	877	719	2255	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	37.5	22.7	37.6	27.1	13.5	49.1	38.5	5.0	47.5	33.7	29.4
Incr Delay (d2), s/veh	22.2	2.5	1.3	24.3	35.1	0.4	19.7	5.3	0.2	1.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	1.4	15.9	30.2	5.8	2.7	9.4	1.2	2.8	5.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	40.0	24.0	61.9	62.1	13.9	68.8	43.8	5.2	48.9	34.0	29.4
LnGrp LOS	E	D	C	E	F	B	E	D	A	D	C	C
Approach Vol, veh/h		488			2400			1054			1000	
Approach Delay, s/veh		39.1			53.2			37.0			37.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.4	27.0	10.7	32.5	5.5	56.9	13.2	30.0
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	30.0	* 22	7.2	41.8	4.0	47.6	21.0	28.0
Max Q Clear Time (g_c+I1), s	31.4	12.1	6.7	14.2	2.9	53.5	8.3	21.4
Green Ext Time (p_c), s	0.0	1.8	0.0	5.5	0.0	0.0	0.3	3.0

Intersection Summary	
HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

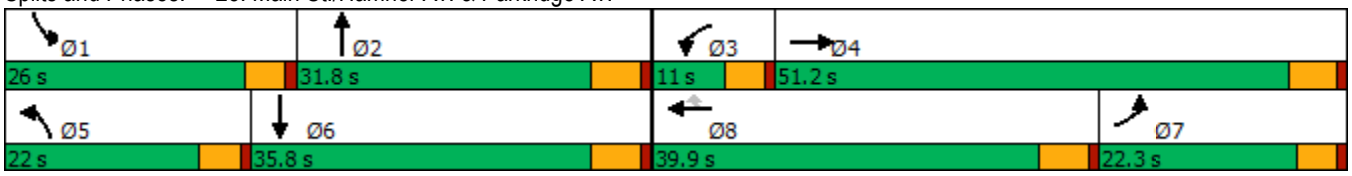
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	488	589	84	415	346	118	761	295	1032	621
Future Volume (vph)	488	589	84	415	346	118	761	295	1032	621
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Free
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					Free
Detector Phase	7	4	3	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	
Minimum Split (s)	9.6	38.4	9.6	39.4	39.4	9.6	31.4	9.6	31.4	
Total Split (s)	22.3	51.2	11.0	39.9	39.9	22.0	31.8	26.0	35.8	
Total Split (%)	18.6%	42.7%	9.2%	33.3%	33.3%	18.3%	26.5%	21.7%	29.8%	
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	3.6	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	4.6	5.4	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	20.0	45.8	6.4	32.2	32.2	12.7	26.4	21.4	35.1	120.0
Actuated g/C Ratio	0.17	0.38	0.05	0.27	0.27	0.11	0.22	0.18	0.29	1.00
v/c Ratio	0.88	1.03	0.95	0.89	0.57	0.67	0.72	1.00	0.67	0.42
Control Delay	66.5	77.9	135.5	62.0	10.4	68.2	46.7	99.9	40.4	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	77.9	135.5	62.0	10.4	68.2	46.7	99.9	40.4	0.8
LOS	E	E	F	E	B	E	D	F	D	A
Approach Delay		73.1		48.2			49.4		36.8	
Approach LOS		E		D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 49.8	Intersection LOS: D
Intersection Capacity Utilization 95.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	488	589	84	84	415	346	118	761	65	295	1032	621
Future Volume (veh/h)	488	589	84	84	415	346	118	761	65	295	1032	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	530	640	83	91	451	250	128	827	0	321	1122	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	577	626	81	97	511	430	155	1254		323	1783	
Arrive On Green	0.16	0.38	0.38	0.05	0.27	0.27	0.09	0.27	0.00	0.20	0.39	0.00
Sat Flow, veh/h	3619	1640	213	1810	1900	1599	1810	5700	0	1810	5700	1610
Grp Volume(v), veh/h	530	0	723	91	451	250	128	827	0	321	1122	0
Grp Sat Flow(s),veh/h/ln	1810	0	1853	1810	1900	1599	1810	1900	0	1810	1900	1610
Q Serve(g_s), s	17.3	0.0	45.8	6.0	27.3	10.4	8.3	15.4	0.0	21.3	19.1	0.0
Cycle Q Clear(g_c), s	17.3	0.0	45.8	6.0	27.3	10.4	8.3	15.4	0.0	21.3	19.1	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	577	0	707	97	511	430	155	1254		323	1783	
V/C Ratio(X)	0.92	0.00	1.02	0.94	0.88	0.58	0.83	0.66		0.99	0.63	
Avail Cap(c_a), veh/h	577	0	707	97	546	460	262	1254		323	1783	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.25	1.10	1.10	1.25	1.10
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	0.0	37.1	56.6	42.0	15.7	53.5	39.5	0.0	48.2	30.9	0.0
Incr Delay (d2), s/veh	19.6	0.0	39.6	72.3	15.0	1.6	4.2	2.7	0.0	48.6	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	27.5	4.6	14.6	3.8	3.9	7.0	0.0	13.6	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	0.0	76.7	128.9	57.0	17.3	57.7	42.3	0.0	96.7	32.6	0.0
LnGrp LOS	E	A	F	F	E	B	E	D		F	C	
Approach Vol, veh/h		1253			792			955	A		1443	A
Approach Delay, s/veh		73.6			52.8			44.3			46.9	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	31.8	11.0	51.2	14.9	42.9	24.5	37.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	5.4	* 5.4
Max Green Setting (Gmax), s	21.4	26.4	6.4	45.8	17.4	30.4	17.7	* 35
Max Q Clear Time (g_c+I1), s	23.3	17.4	8.0	47.8	10.3	21.1	19.3	29.3
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.1	4.8	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

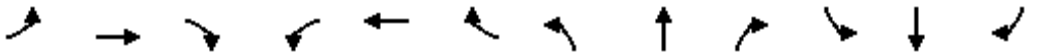
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	615	657	342	1343	1	603
Future Volume (vph)	615	657	342	1343	1	603
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	16.0	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	20.6	9.5	23.6	20.0	20.0
Total Split (s)	41.0	41.0	30.0	71.0	49.0	49.0
Total Split (%)	34.2%	34.2%	25.0%	59.2%	40.8%	40.8%
Yellow Time (s)	4.1	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	37.0	37.0	24.9	66.4	43.7	43.7
Actuated g/C Ratio	0.31	0.31	0.21	0.55	0.36	0.36
v/c Ratio	0.88	0.57	0.95	0.70	0.12	1.01
Control Delay	47.9	6.4	59.6	8.1	26.1	73.3
Queue Delay	0.7	0.0	0.0	2.0	0.0	0.0
Total Delay	48.6	6.4	59.6	10.1	26.1	73.3
LOS	D	A	E	B	C	E
Approach Delay	35.5			20.2	67.8	
Approach LOS	D			C	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 131.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: I-15 SB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	615	657	342	1343	0	0	0	0	78	1	603
Future Volume (veh/h)	0	615	657	342	1343	0	0	0	0	78	1	603
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	937	419	356	1399	0				81	1	597
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1157	477	382	1998	0				651	8	586
Arrive On Green	0.00	0.30	0.30	0.14	0.37	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3800	1568	1810	3705	0				1788	22	1610
Grp Volume(v), veh/h	0	937	419	356	1399	0				82	0	597
Grp Sat Flow(s),veh/h/ln	0	1900	1568	1810	1805	0				1811	0	1610
Q Serve(g_s), s	0.0	27.3	30.4	23.3	39.5	0.0				3.6	0.0	43.7
Cycle Q Clear(g_c), s	0.0	27.3	30.4	23.3	39.5	0.0				3.6	0.0	43.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1157	477	382	1998	0				659	0	586
V/C Ratio(X)	0.00	0.81	0.88	0.93	0.70	0.00				0.12	0.00	1.02
Avail Cap(c_a), veh/h	0	1157	477	385	1998	0				659	0	586
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.55	0.55	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.5	39.6	50.6	29.3	0.0				25.4	0.0	38.1
Incr Delay (d2), s/veh	0.0	4.0	13.7	18.8	1.1	0.0				0.0	0.0	41.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.1	13.3	12.9	18.2	0.0				1.5	0.0	23.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.5	53.3	69.4	30.4	0.0				25.4	0.0	80.0
LnGrp LOS	A	D	D	E	C	A				C	A	F
Approach Vol, veh/h		1356			1755						679	
Approach Delay, s/veh		45.8			38.4						73.4	
Approach LOS		D			D						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	29.9	41.1		49.0		71.0
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	25.5	36.4		43.7		66.4
Max Q Clear Time (g_c+I1), s	25.3	32.4		45.7		41.5
Green Ext Time (p_c), s	0.0	2.1		0.0		7.9

Intersection Summary		
HCM 6th Ctrl Delay		47.3
HCM 6th LOS		D

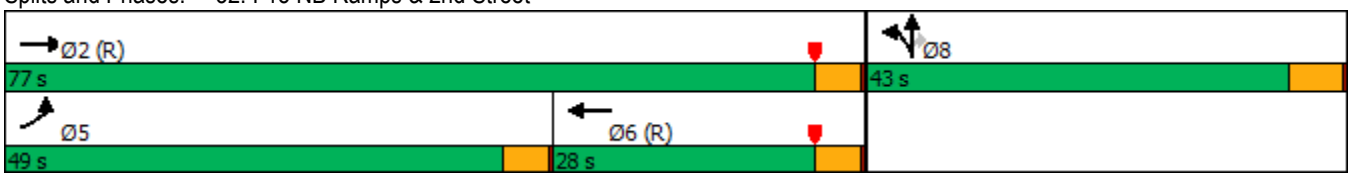
Notes

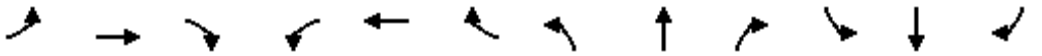
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	229	465	738	942	11	683
Future Volume (vph)	229	465	738	942	11	683
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	49.0	77.0	28.0	43.0	43.0	43.0
Total Split (%)	40.8%	64.2%	23.3%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	21.6	72.4	46.3	37.7	37.7	37.7
Actuated g/C Ratio	0.18	0.60	0.39	0.31	0.31	0.31
v/c Ratio	0.76	0.23	0.66	0.96	0.94	0.98
Control Delay	19.8	3.5	33.7	71.3	67.3	50.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	3.5	33.7	71.3	67.3	50.9
LOS	B	A	C	E	E	D
Approach Delay		8.9	33.7		61.6	
Approach LOS		A	C		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 56 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 42.7	Intersection LOS: D
Intersection Capacity Utilization 131.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	465	0	0	738	99	942	11	683	0	0	0
Future Volume (veh/h)	229	465	0	0	738	99	942	11	683	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	246	500	0	0	794	95	1022	0	588			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	278	2178	0	0	1333	160	1137	0	506			
Arrive On Green	0.15	0.60	0.00	0.00	0.41	0.41	0.31	0.00	0.31			
Sat Flow, veh/h	1810	3705	0	0	3332	387	3619	0	1610			
Grp Volume(v), veh/h	246	500	0	0	443	446	1022	0	588			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1819	1810	0	1610			
Q Serve(g_s), s	16.0	7.7	0.0	0.0	22.9	22.9	32.4	0.0	37.7			
Cycle Q Clear(g_c), s	16.0	7.7	0.0	0.0	22.9	22.9	32.4	0.0	37.7			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	278	2178	0	0	744	749	1137	0	506			
V/C Ratio(X)	0.88	0.23	0.00	0.00	0.60	0.60	0.90	0.00	1.16			
Avail Cap(c_a), veh/h	671	2178	0	0	744	749	1137	0	506			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.36	0.36	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.7	11.0	0.0	0.0	27.5	27.5	39.3	0.0	41.1			
Incr Delay (d2), s/veh	2.7	0.1	0.0	0.0	3.5	3.5	9.6	0.0	93.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.4	3.0	0.0	0.0	10.4	10.5	15.3	0.0	27.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	11.0	0.0	0.0	31.0	31.0	49.0	0.0	134.2			
LnGrp LOS	D	B	A	A	C	C	D	A	F			
Approach Vol, veh/h		746			889			1610				
Approach Delay, s/veh		24.7			31.0			80.1				
Approach LOS		C			C			F				

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.0			23.0	54.0		43.0				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		72.4			44.5	23.4		37.7				
Max Q Clear Time (g_c+I1), s		9.7			18.0	24.9		39.7				
Green Ext Time (p_c), s		2.3			0.5	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			53.9									
HCM 6th LOS			D									

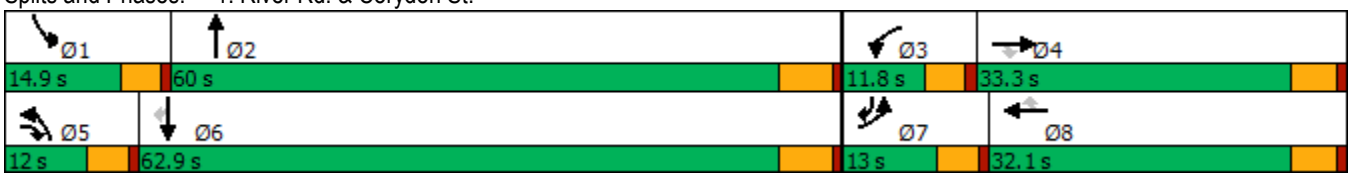
Notes

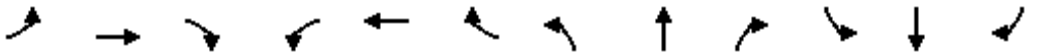
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	367	136	121	48	117	44	260	1397	87	1283	292
Future Volume (vph)	367	136	121	48	117	44	260	1397	87	1283	292
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	32.1	9.6	9.6	32.1	32.1	9.6	22.8	9.6	25.8	9.6
Total Split (s)	13.0	33.3	12.0	11.8	32.1	32.1	12.0	60.0	14.9	62.9	13.0
Total Split (%)	10.8%	27.8%	10.0%	9.8%	26.8%	26.8%	10.0%	50.0%	12.4%	52.4%	10.8%
Yellow Time (s)	3.6	4.1	3.6	3.6	4.1	4.1	3.6	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	4.6	5.1	5.1	4.6	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	None
Act Effct Green (s)	8.4	18.1	30.6	6.5	14.2	14.2	7.4	58.2	8.7	57.3	66.9
Actuated g/C Ratio	0.08	0.17	0.28	0.06	0.13	0.13	0.07	0.54	0.08	0.53	0.62
v/c Ratio	1.35	0.43	0.24	0.44	0.47	0.14	1.09	0.77	0.61	0.67	0.27
Control Delay	220.1	45.3	15.5	63.2	48.9	1.0	131.3	24.9	66.6	21.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.1	45.3	15.5	63.2	48.9	1.0	131.3	24.9	66.6	21.4	1.7
LOS	F	D	B	E	D	A	F	C	E	C	A
Approach Delay		142.4			42.1			40.8		20.3	
Approach LOS		F			D			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 47.8	Intersection LOS: D
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: River Rd. & Corydon St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	136	121	48	117	44	260	1397	86	87	1283	292
Future Volume (veh/h)	367	136	121	48	117	44	260	1397	86	87	1283	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	137	81	48	118	28	263	1411	76	88	1296	198
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	286	271	345	66	184	156	252	1963	105	112	2001	1013
Arrive On Green	0.08	0.14	0.14	0.04	0.10	0.10	0.07	0.56	0.56	0.06	0.55	0.55
Sat Flow, veh/h	3510	1900	1610	1810	1900	1610	3510	3480	187	1810	3610	1590
Grp Volume(v), veh/h	371	137	81	48	118	28	263	730	757	88	1296	198
Grp Sat Flow(s),veh/h/ln	1755	1900	1610	1810	1900	1610	1755	1805	1862	1810	1805	1590
Q Serve(g_s), s	8.4	6.9	4.3	2.7	6.2	1.6	7.4	30.5	30.8	4.9	25.7	5.3
Cycle Q Clear(g_c), s	8.4	6.9	4.3	2.7	6.2	1.6	7.4	30.5	30.8	4.9	25.7	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	286	271	345	66	184	156	252	1018	1050	112	2001	1013
V/C Ratio(X)	1.30	0.51	0.23	0.73	0.64	0.18	1.04	0.72	0.72	0.78	0.65	0.20
Avail Cap(c_a), veh/h	286	520	557	126	498	422	252	1018	1050	181	2001	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	40.8	33.5	49.1	44.8	42.7	47.8	16.4	16.5	47.6	16.0	7.8
Incr Delay (d2), s/veh	156.6	1.5	0.3	5.7	3.7	0.5	68.3	4.3	4.3	4.4	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	3.3	1.7	1.3	3.0	0.7	5.5	12.2	12.6	2.3	9.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.9	42.3	33.8	54.9	48.4	43.3	116.1	20.8	20.8	52.0	17.6	8.2
LnGrp LOS	F	D	C	D	D	D	F	C	C	D	B	A
Approach Vol, veh/h		589			194			1750			1582	
Approach Delay, s/veh		142.9			49.3			35.1			18.3	
Approach LOS		F			D			D			B	

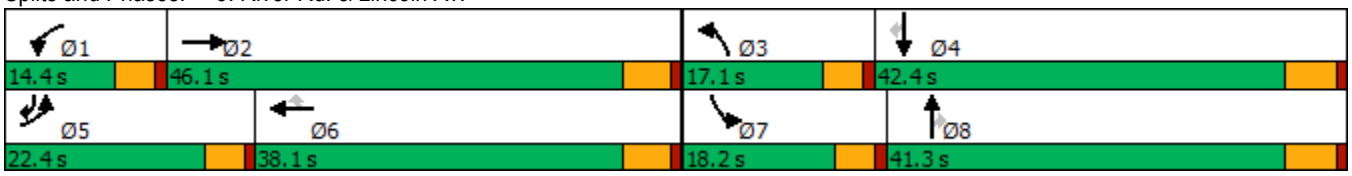
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	63.9	8.3	19.8	12.0	62.9	13.0	15.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.1	4.6	5.8	4.6	5.1
Max Green Setting (Gmax), s	10.3	54.2	7.2	28.2	7.4	57.1	8.4	27.0
Max Q Clear Time (g_c+I1), s	6.9	32.8	4.7	8.9	9.4	27.7	10.4	8.2
Green Ext Time (p_c), s	0.0	10.2	0.0	0.9	0.0	11.5	0.0	0.6

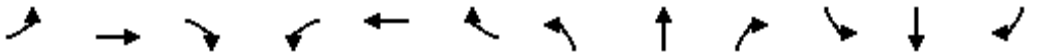
Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	383	900	62	574	226	85	560	60	232	567	344
Future Volume (vph)	383	900	62	574	226	85	560	60	232	567	344
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2	1	6		3	8		7	4	5
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	5
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	42.4	9.6	35.4	35.4	9.6	25.8	25.8	9.6	33.8	9.6
Total Split (s)	22.4	46.1	14.4	38.1	38.1	17.1	41.3	41.3	18.2	42.4	22.4
Total Split (%)	18.7%	38.4%	12.0%	31.8%	31.8%	14.3%	34.4%	34.4%	15.2%	35.3%	18.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	15.3	42.9	7.8	33.1	33.1	9.2	22.6	22.6	11.1	26.9	43.5
Actuated g/C Ratio	0.15	0.42	0.08	0.32	0.32	0.09	0.22	0.22	0.11	0.26	0.42
v/c Ratio	0.76	0.73	0.48	0.51	0.35	0.55	0.73	0.14	0.64	0.62	0.47
Control Delay	53.3	30.8	59.9	31.8	5.5	59.8	43.5	0.6	53.2	38.0	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.3	30.8	59.9	31.8	5.5	59.8	43.5	0.6	53.2	38.0	13.5
LOS	D	C	E	C	A	E	D	A	D	D	B
Approach Delay		36.8		27.0			41.8			33.7	
Approach LOS		D		C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: River Rd. & Lincoln Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	900	141	62	574	226	85	560	60	232	567	344
Future Volume (veh/h)	383	900	141	62	574	226	85	560	60	232	567	344
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	399	938	120	65	598	190	89	583	43	242	591	259
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	478	1401	179	84	1250	558	114	761	334	318	859	594
Arrive On Green	0.14	0.44	0.44	0.05	0.35	0.35	0.06	0.21	0.21	0.09	0.24	0.24
Sat Flow, veh/h	3510	3213	411	1810	3610	1610	1810	3610	1587	3510	3610	1573
Grp Volume(v), veh/h	399	527	531	65	598	190	89	583	43	242	591	259
Grp Sat Flow(s),veh/h/ln	1755	1805	1820	1810	1805	1610	1810	1805	1587	1755	1805	1573
Q Serve(g_s), s	10.5	21.9	21.9	3.4	12.3	8.3	4.6	14.3	2.1	6.4	14.1	11.6
Cycle Q Clear(g_c), s	10.5	21.9	21.9	3.4	12.3	8.3	4.6	14.3	2.1	6.4	14.1	11.6
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	478	787	793	84	1250	558	114	761	334	318	859	594
V/C Ratio(X)	0.83	0.67	0.67	0.77	0.48	0.34	0.78	0.77	0.13	0.76	0.69	0.44
Avail Cap(c_a), veh/h	662	787	793	188	1250	558	240	1358	597	506	1400	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	21.2	21.2	44.5	24.2	22.9	43.6	35.1	30.2	41.9	32.8	22.1
Incr Delay (d2), s/veh	4.8	4.5	4.5	5.5	1.3	1.7	4.2	1.6	0.2	1.4	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	9.5	9.6	1.6	5.2	3.2	2.1	6.1	0.8	2.7	5.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	25.7	25.7	50.0	25.5	24.5	47.8	36.7	30.4	43.4	33.8	22.6
LnGrp LOS	D	C	C	D	C	C	D	D	C	D	C	C
Approach Vol, veh/h		1457			853			715			1092	
Approach Delay, s/veh		30.8			27.1			37.7			33.3	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	46.6	10.6	28.3	17.5	38.1	13.1	25.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	9.8	40.7	12.5	36.6	17.8	32.7	13.6	35.5
Max Q Clear Time (g_c+I1), s	5.4	23.9	6.6	16.1	12.5	14.3	8.4	16.3
Green Ext Time (p_c), s	0.0	6.1	0.0	4.5	0.4	4.2	0.2	3.5

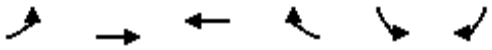
Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	9	715	789	73
Future Volume (vph)	9	715	789	73
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	14.7	21.7	21.6
Total Split (s)	9.8	97.2	87.4	22.8
Total Split (%)	8.2%	81.0%	72.8%	19.0%
Yellow Time (s)	3.6	3.7	3.7	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.7	4.6
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	42.7	41.6	12.4
Actuated g/C Ratio	0.09	0.65	0.63	0.19
v/c Ratio	0.06	0.60	0.84	0.30
Control Delay	41.3	7.9	16.7	30.1
Queue Delay	0.0	0.0	0.7	0.0
Total Delay	41.3	7.9	17.5	30.1
LOS	D	A	B	C
Approach Delay		8.3	17.5	30.1
Approach LOS		A	B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 65.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: 2nd St. & Parkridge Av. (West)





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	715	789	165	73	27
Future Volume (veh/h)	9	715	789	165	73	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	745	822	172	76	28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	21	1351	957	200	190	70
Arrive On Green	0.01	0.71	0.63	0.63	0.15	0.15
Sat Flow, veh/h	1810	1900	1517	318	1268	467
Grp Volume(v), veh/h	9	745	0	994	105	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1835	1752	0
Q Serve(g_s), s	0.3	12.4	0.0	29.2	3.6	0.0
Cycle Q Clear(g_c), s	0.3	12.4	0.0	29.2	3.6	0.0
Prop In Lane	1.00			0.17	0.72	0.27
Lane Grp Cap(c), veh/h	21	1351	0	1157	262	0
V/C Ratio(X)	0.43	0.55	0.00	0.86	0.40	0.00
Avail Cap(c_a), veh/h	141	2632	0	2272	478	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.8	4.6	0.0	9.9	25.7	0.0
Incr Delay (d2), s/veh	5.2	0.4	0.0	2.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	0.0	8.8	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.0	4.9	0.0	11.9	26.7	0.0
LnGrp LOS	D	A	A	B	C	A
Approach Vol, veh/h		754	994		105	
Approach Delay, s/veh		5.3	11.9		26.7	
Approach LOS		A	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	52.2	14.6	5.4	46.8
Change Period (Y+Rc), s	* 4.7	4.6	4.6	* 4.7
Max Green Setting (Gmax), s	* 93	18.2	5.2	* 83
Max Q Clear Time (g_c+I1), s	14.4	5.6	2.3	31.2
Green Ext Time (p_c), s	6.3	0.2	0.0	11.0

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	621	40	669	283
Future Volume (vph)	621	40	669	283
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	22.6	9.6	22.6	22.6
Total Split (s)	82.0	9.8	91.8	28.2
Total Split (%)	68.3%	8.2%	76.5%	23.5%
Yellow Time (s)	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	Min
Act Effct Green (s)	43.0	5.6	48.0	21.4
Actuated g/C Ratio	0.54	0.07	0.60	0.27
v/c Ratio	0.82	0.33	0.61	0.67
Control Delay	22.8	51.2	11.6	38.2
Queue Delay	0.5	0.0	0.0	0.0
Total Delay	23.4	51.2	11.6	38.2
LOS	C	D	B	D
Approach Delay	23.4		13.9	38.2
Approach LOS	C		B	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Parkridge Av. (East) & 2nd St.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	621	167	40	669	283	31
Future Volume (veh/h)	621	167	40	669	283	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	647	174	42	697	295	32
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	762	205	74	1220	349	38
Arrive On Green	0.53	0.53	0.04	0.64	0.22	0.22
Sat Flow, veh/h	1435	386	1810	1900	1608	174
Grp Volume(v), veh/h	0	821	42	697	328	0
Grp Sat Flow(s),veh/h/ln	0	1821	1810	1900	1788	0
Q Serve(g_s), s	0.0	25.2	1.5	13.6	11.5	0.0
Cycle Q Clear(g_c), s	0.0	25.2	1.5	13.6	11.5	0.0
Prop In Lane		0.21	1.00		0.90	0.10
Lane Grp Cap(c), veh/h	0	967	74	1220	388	0
V/C Ratio(X)	0.00	0.85	0.57	0.57	0.84	0.00
Avail Cap(c_a), veh/h	0	2152	144	2530	644	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	13.1	30.8	6.6	24.6	0.0
Incr Delay (d2), s/veh	0.0	2.2	2.6	0.4	5.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.7	0.7	3.9	5.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	15.3	33.4	7.0	29.9	0.0
LnGrp LOS	A	B	C	A	C	A
Approach Vol, veh/h	821			739	328	
Approach Delay, s/veh	15.3			8.5	29.9	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.8	7.3	39.4		46.7
Change Period (Y+Rc), s		4.6	4.6	4.6		4.6
Max Green Setting (Gmax), s		23.6	5.2	77.4		87.2
Max Q Clear Time (g_c+I1), s		13.5	3.5	27.2		15.6
Green Ext Time (p_c), s		0.7	0.0	7.6		5.6

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

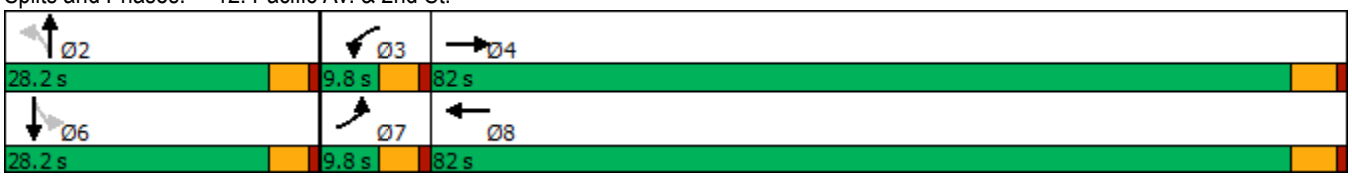
Notes

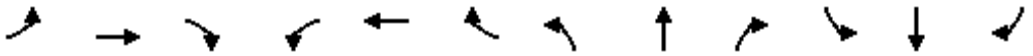
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	684	32	725	10	0	36	1
Future Volume (vph)	4	684	32	725	10	0	36	1
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.2	9.6	27.2	26.6	26.6	26.6	26.6
Total Split (s)	9.8	82.0	9.8	82.0	28.2	28.2	28.2	28.2
Total Split (%)	8.2%	68.3%	8.2%	68.3%	23.5%	23.5%	23.5%	23.5%
Yellow Time (s)	3.6	4.2	3.6	4.2	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.6	5.2	4.6	5.2		4.6		4.6
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	5.7	30.2	5.8	32.0		12.7		12.7
Actuated g/C Ratio	0.10	0.53	0.10	0.56		0.22		0.22
v/c Ratio	0.02	0.73	0.19	0.75		0.07		0.13
Control Delay	35.8	15.8	36.1	14.7		2.1		24.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	35.8	15.8	36.1	14.7		2.1		24.3
LOS	D	B	D	B		A		C
Approach Delay		15.9		15.6		2.1		24.3
Approach LOS		B		B		A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 57	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Pacific Av. & 2nd St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	684	13	32	725	28	10	0	17	36	1	3
Future Volume (veh/h)	4	684	13	32	725	28	10	0	17	36	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	720	14	34	763	29	11	0	18	38	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	907	18	68	946	36	176	37	192	384	14	20
Arrive On Green	0.01	0.49	0.49	0.04	0.52	0.52	0.19	0.00	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	1857	36	1810	1818	69	410	193	987	1291	71	105
Grp Volume(v), veh/h	4	0	734	34	0	792	29	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1893	1810	0	1888	1589	0	0	1466	0	0
Q Serve(g_s), s	0.1	0.0	16.7	0.9	0.0	17.8	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	16.7	0.9	0.0	17.8	0.7	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.04	0.38		0.62	0.90		0.07
Lane Grp Cap(c), veh/h	10	0	925	68	0	982	405	0	0	418	0	0
V/C Ratio(X)	0.41	0.00	0.79	0.50	0.00	0.81	0.07	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	183	0	2826	183	0	2817	812	0	0	798	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.5	0.0	11.0	24.3	0.0	10.2	17.0	0.0	0.0	17.1	0.0	0.0
Incr Delay (d2), s/veh	9.9	0.0	1.6	2.1	0.0	1.6	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	5.5	0.4	0.0	5.5	0.3	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	0.0	12.6	26.4	0.0	11.8	17.1	0.0	0.0	17.2	0.0	0.0
LnGrp LOS	D	A	B	C	A	B	B	A	A	B	A	A
Approach Vol, veh/h		738			826			29			42	
Approach Delay, s/veh		12.7			12.4			17.1			17.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	6.5	30.3		14.6	4.9	32.0				
Change Period (Y+Rc), s		4.6	4.6	5.2		4.6	4.6	5.2				
Max Green Setting (Gmax), s		23.6	5.2	76.8		23.6	5.2	76.8				
Max Q Clear Time (g_c+I1), s		2.7	2.9	18.7		3.0	2.1	19.8				
Green Ext Time (p_c), s		0.1	0.0	6.1		0.1	0.0	6.9				

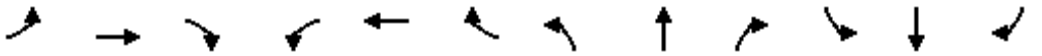
Intersection Summary												
HCM 6th Ctrl Delay			12.8									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	176	527	6	370	447	93	11	43	319	89
Future Volume (vph)	176	527	6	370	447	93	11	43	319	89
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.7	9.6	26.7	9.6	27.2	27.2	9.6	27.2	27.2
Total Split (s)	21.0	38.1	9.6	26.7	44.0	62.7	62.7	9.6	28.3	28.3
Total Split (%)	17.5%	31.8%	8.0%	22.3%	36.7%	52.3%	52.3%	8.0%	23.6%	23.6%
Yellow Time (s)	3.6	3.7	3.6	3.7	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.7	4.6	4.7	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	14.0	34.5	5.2	17.4	30.9	50.3	50.3	5.2	21.9	21.9
Actuated g/C Ratio	0.13	0.33	0.05	0.17	0.30	0.48	0.48	0.05	0.21	0.21
v/c Ratio	0.75	0.78	0.07	0.70	0.87	0.11	0.01	0.51	0.83	0.19
Control Delay	65.8	32.7	56.0	48.4	52.8	16.9	0.0	73.7	60.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	32.7	56.0	48.4	52.8	16.9	0.0	73.7	60.4	0.9
LOS	E	C	E	D	D	B	A	E	E	A
Approach Delay		38.0		48.5		45.7			49.9	
Approach LOS		D		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.9	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 43.5	Intersection LOS: D
Intersection Capacity Utilization 88.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Mountain Av. & 1st St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	527	396	6	370	35	447	93	11	43	319	89
Future Volume (veh/h)	176	527	396	6	370	35	447	93	11	43	319	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	183	549	412	6	385	36	466	97	11	45	332	93
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	217	622	467	14	682	63	502	838	710	66	380	322
Arrive On Green	0.12	0.32	0.32	0.01	0.20	0.20	0.28	0.44	0.44	0.04	0.20	0.20
Sat Flow, veh/h	1810	1965	1475	1810	3339	311	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	183	504	457	6	207	214	466	97	11	45	332	93
Grp Sat Flow(s),veh/h/ln	1810	1805	1635	1810	1805	1844	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	9.5	25.5	25.5	0.3	9.9	10.0	24.1	2.9	0.4	2.4	16.3	4.7
Cycle Q Clear(g_c), s	9.5	25.5	25.5	0.3	9.9	10.0	24.1	2.9	0.4	2.4	16.3	4.7
Prop In Lane	1.00		0.90	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	572	518	14	369	377	502	838	710	66	380	322
V/C Ratio(X)	0.84	0.88	0.88	0.43	0.56	0.57	0.93	0.12	0.02	0.68	0.87	0.29
Avail Cap(c_a), veh/h	308	626	567	94	412	421	740	1134	961	94	456	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	31.2	31.2	47.6	34.4	34.5	33.9	15.9	15.2	45.9	37.4	32.7
Incr Delay (d2), s/veh	9.9	13.2	14.3	7.6	1.4	1.4	11.0	0.1	0.0	4.6	15.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	12.7	11.7	0.2	4.4	4.5	11.5	1.2	0.1	1.1	8.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	44.4	45.5	55.2	35.8	35.9	44.8	15.9	15.2	50.5	52.4	33.2
LnGrp LOS	D	D	D	E	D	D	D	B	B	D	D	C
Approach Vol, veh/h		1144			427			574			470	
Approach Delay, s/veh		45.9			36.1			39.4			48.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	47.7	5.3	35.2	31.3	24.4	16.2	24.4
Change Period (Y+Rc), s	4.6	5.2	4.6	* 4.7	4.6	5.2	4.6	* 4.7
Max Green Setting (Gmax), s	5.0	57.5	5.0	* 33	39.4	23.1	16.4	* 22
Max Q Clear Time (g_c+I1), s	4.4	4.9	2.3	27.5	26.1	18.3	11.5	12.0
Green Ext Time (p_c), s	0.0	0.5	0.0	3.0	0.6	0.9	0.1	1.7

Intersection Summary	
HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

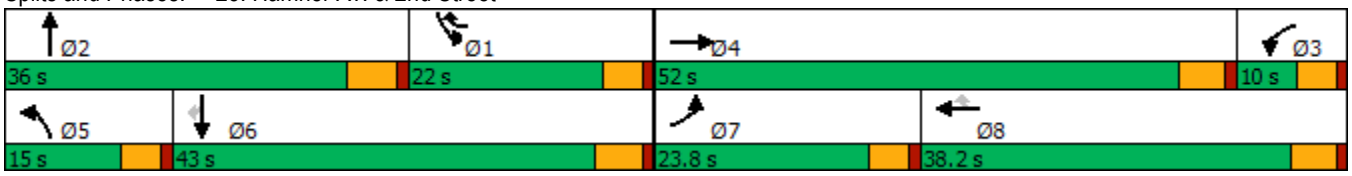
Notes

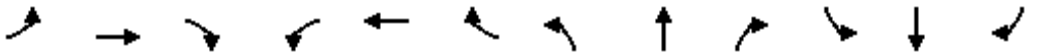
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	356	816	293	507	587	113	970	645	1229	287
Future Volume (vph)	356	816	293	507	587	113	970	645	1229	287
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	1	5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	1	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	35.1	9.6	36.1	9.6	9.6	35.4	9.6	31.4	31.4
Total Split (s)	23.8	52.0	10.0	38.2	22.0	15.0	36.0	22.0	43.0	43.0
Total Split (%)	19.8%	43.3%	8.3%	31.8%	18.3%	12.5%	30.0%	18.3%	35.8%	35.8%
Yellow Time (s)	3.6	4.1	3.6	4.1	3.6	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.1	4.6	5.1	4.6	4.6	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	Max	Max	Max
Act Effct Green (s)	16.1	36.9	12.3	33.1	51.0	9.6	30.6	17.4	38.4	38.4
Actuated g/C Ratio	0.14	0.32	0.11	0.28	0.44	0.08	0.26	0.15	0.33	0.33
v/c Ratio	0.70	0.79	0.75	0.96	0.68	0.74	1.00	1.16	1.01	0.39
Control Delay	55.6	40.8	64.4	72.5	17.0	79.5	63.4	135.9	66.6	9.6
Queue Delay	0.0	0.0	0.0	13.2	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	55.6	40.8	64.4	85.7	17.2	79.5	63.4	135.9	66.6	9.6
LOS	E	D	E	F	B	E	E	F	E	A
Approach Delay		44.9		52.2			64.5		79.7	
Approach LOS		D		D			E		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 63.1	Intersection LOS: E
Intersection Capacity Utilization 103.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 25: Hamner Av. & 2nd Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	356	816	99	293	507	587	113	970	573	645	1229	287
Future Volume (veh/h)	356	816	99	293	507	587	113	970	573	645	1229	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	363	833	53	299	517	354	115	990	294	658	1254	146
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	436	985	63	445	543	706	141	1097	325	554	1302	539
Arrive On Green	0.18	0.42	0.42	0.18	0.43	0.43	0.12	0.39	0.39	0.23	0.51	0.51
Sat Flow, veh/h	3619	3533	225	3619	1900	1608	1810	4219	1251	3619	3800	1574
Grp Volume(v), veh/h	363	448	438	299	517	354	115	892	392	658	1254	146
Grp Sat Flow(s),veh/h/ln	1810	1900	1858	1810	1900	1608	1810	1900	1670	1810	1900	1574
Q Serve(g_s), s	11.0	24.1	24.1	8.7	29.8	4.8	7.0	25.1	25.1	17.4	36.1	5.9
Cycle Q Clear(g_c), s	11.0	24.1	24.1	8.7	29.8	4.8	7.0	25.1	25.1	17.4	36.1	5.9
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	436	530	518	445	543	706	141	988	434	554	1302	539
V/C Ratio(X)	0.83	0.85	0.85	0.67	0.95	0.50	0.82	0.90	0.90	1.19	0.96	0.27
Avail Cap(c_a), veh/h	612	785	767	445	554	715	166	1024	450	554	1302	539
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	30.8	30.8	44.2	31.7	6.7	49.4	33.3	33.3	43.7	26.9	19.6
Incr Delay (d2), s/veh	6.8	5.6	5.8	3.9	26.5	0.6	20.2	10.8	21.0	101.2	17.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	10.3	10.1	3.9	15.7	2.4	3.8	11.3	11.2	14.7	16.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	36.5	36.6	48.1	58.2	7.3	69.6	44.0	54.3	144.9	44.5	20.8
LnGrp LOS	D	D	D	D	E	A	E	D	D	F	D	C
Approach Vol, veh/h		1249			1170			1399			2058	
Approach Delay, s/veh		41.1			40.2			49.0			74.9	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	34.9	19.1	36.8	13.4	44.3	18.3	37.6
Change Period (Y+Rc), s	5.4	* 5.4	5.1	* 5.1	4.6	5.4	4.6	5.1
Max Green Setting (Gmax), s	17.4	* 31	5.4	* 47	10.4	37.6	19.2	33.1
Max Q Clear Time (g_c+I1), s	19.4	27.1	10.7	26.1	9.0	38.1	13.0	31.8
Green Ext Time (p_c), s	0.0	2.4	0.0	5.6	0.0	0.0	0.7	0.6

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

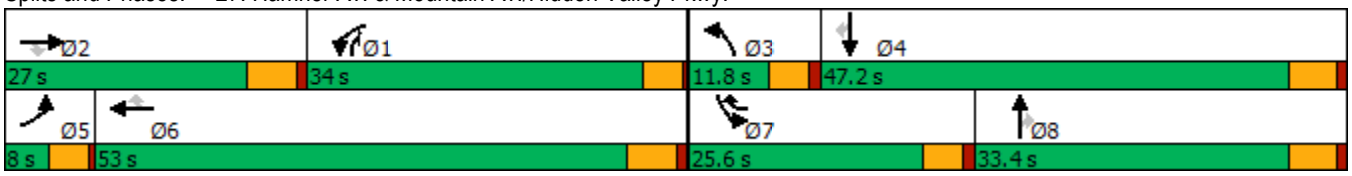
Notes

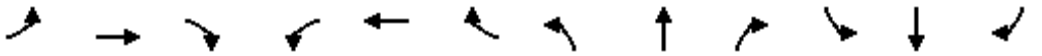
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	732	102	524	519	394	134	961	695	598	914	31
Future Volume (vph)	36	732	102	524	519	394	134	961	695	598	914	31
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	5	2		1	6	7	3	8	1	7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	1	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	5.0	5.0	10.0	4.0	5.0	10.0	10.0
Minimum Split (s)	8.0	33.4	33.4	8.0	32.4	9.6	9.6	33.4	8.0	9.6	33.4	33.4
Total Split (s)	8.0	27.0	27.0	34.0	53.0	25.6	11.8	33.4	34.0	25.6	47.2	47.2
Total Split (%)	6.7%	22.5%	22.5%	28.3%	44.2%	21.3%	9.8%	27.8%	28.3%	21.3%	39.3%	39.3%
Yellow Time (s)	3.5	4.4	4.4	3.5	4.4	3.6	3.6	4.4	3.5	3.6	4.4	4.4
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4	4.6	4.6	5.4	4.0	4.6	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	4.0	28.0	28.0	25.2	50.9	72.4	7.2	28.0	54.6	20.7	41.5	41.5
Actuated g/C Ratio	0.03	0.23	0.23	0.21	0.42	0.60	0.06	0.23	0.45	0.17	0.34	0.34
v/c Ratio	0.64	0.87	0.22	0.73	0.68	0.42	1.25	1.14	0.78	0.96	0.49	0.04
Control Delay	103.4	57.2	2.6	51.0	34.2	10.9	211.6	119.5	17.7	77.8	33.0	0.1
Queue Delay	0.0	0.0	0.0	0.8	53.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.4	57.2	2.6	51.9	87.9	11.5	211.6	119.5	17.7	77.8	33.0	0.1
LOS	F	E	A	D	F	B	F	F	B	E	C	A
Approach Delay		52.8			53.8			86.9			49.7	
Approach LOS		D			D			F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 121.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 63.0	Intersection LOS: E
Intersection Capacity Utilization 98.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Hamner Av. & Mountain Av./Hidden Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	732	102	524	519	394	134	961	695	598	914	31
Future Volume (veh/h)	36	732	102	524	519	394	134	961	695	598	914	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	762	100	546	541	399	140	1001	519	623	952	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	739	312	646	682	878	117	959	693	678	2136	589
Arrive On Green	0.03	0.19	0.19	0.18	0.36	0.36	0.06	0.25	0.25	0.19	0.37	0.37
Sat Flow, veh/h	1810	3800	1605	3619	1900	1606	1810	3800	1610	3619	5700	1572
Grp Volume(v), veh/h	38	762	100	546	541	399	140	1001	519	623	952	24
Grp Sat Flow(s),veh/h/ln	1810	1900	1605	1810	1900	1606	1810	1900	1610	1810	1900	1572
Q Serve(g_s), s	2.3	21.6	4.8	16.2	28.3	16.7	7.2	28.0	12.1	18.8	13.9	1.1
Cycle Q Clear(g_c), s	2.3	21.6	4.8	16.2	28.3	16.7	7.2	28.0	12.1	18.8	13.9	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	739	312	646	682	878	117	959	693	678	2136	589
V/C Ratio(X)	0.78	1.03	0.32	0.85	0.79	0.45	1.19	1.04	0.75	0.92	0.45	0.04
Avail Cap(c_a), veh/h	65	739	312	978	815	991	117	959	693	685	2146	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	44.7	25.0	44.1	31.9	15.2	51.9	41.5	9.1	44.3	26.0	22.0
Incr Delay (d2), s/veh	34.2	41.2	2.7	4.4	4.6	0.4	144.0	41.3	4.5	17.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	14.1	2.5	7.5	13.3	5.7	7.9	18.1	4.0	9.8	6.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.8	85.9	27.7	48.5	36.5	15.6	195.9	82.8	13.6	61.3	26.2	22.1
LnGrp LOS	F	F	C	D	D	B	F	F	B	E	C	C
Approach Vol, veh/h		900			1486			1660			1599	
Approach Delay, s/veh		79.5			35.3			70.7			39.8	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.2	27.0	11.8	47.0	7.0	45.2	25.4	33.4
Change Period (Y+Rc), s	5.4	* 5.4	4.6	5.4	4.0	5.4	4.6	5.4
Max Green Setting (Gmax), s	30.0	* 22	7.2	41.8	4.0	47.6	21.0	28.0
Max Q Clear Time (g_c+I1), s	18.2	23.6	9.2	15.9	4.3	30.3	20.8	30.0
Green Ext Time (p_c), s	1.6	0.0	0.0	7.0	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

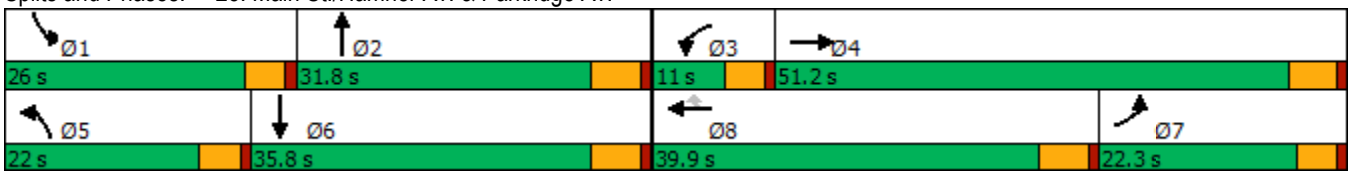
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	589	359	80	182	287	101	1229	247	1161	596
Future Volume (vph)	589	359	80	182	287	101	1229	247	1161	596
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Free
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					Free
Detector Phase	7	4	3	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	
Minimum Split (s)	9.6	38.4	9.6	39.4	39.4	9.6	31.4	9.6	31.4	
Total Split (s)	22.3	51.2	11.0	39.9	39.9	22.0	31.8	26.0	35.8	
Total Split (%)	18.6%	42.7%	9.2%	33.3%	33.3%	18.3%	26.5%	21.7%	29.8%	
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.4	3.6	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.4	4.6	5.4	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	22.1	33.7	6.5	18.2	18.2	10.6	26.8	18.3	34.5	105.6
Actuated g/C Ratio	0.21	0.32	0.06	0.17	0.17	0.10	0.25	0.17	0.33	1.00
v/c Ratio	0.85	0.86	0.76	0.59	0.58	0.59	1.11	0.83	0.72	0.39
Control Delay	53.5	48.2	91.2	47.9	8.8	60.5	97.4	65.9	36.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	48.2	91.2	47.9	8.8	60.5	97.4	65.9	36.1	0.7
LOS	D	D	F	D	A	E	F	E	D	A
Approach Delay		51.1		33.8			94.9		29.3	
Approach LOS		D		C			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.6	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 53.3	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Main St./Hamner Av. & Parkridge Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	589	359	126	80	182	287	101	1229	140	247	1161	596
Future Volume (veh/h)	589	359	126	80	182	287	101	1229	140	247	1161	596
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	378	122	84	192	199	106	1294	0	260	1222	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	709	429	139	108	310	261	134	1371		294	1828	
Arrive On Green	0.20	0.31	0.31	0.06	0.16	0.16	0.07	0.26	0.00	0.16	0.35	0.00
Sat Flow, veh/h	3510	1368	441	1810	1900	1598	1810	5358	0	1810	5187	1610
Grp Volume(v), veh/h	620	0	500	84	192	199	106	1294	0	260	1222	0
Grp Sat Flow(s),veh/h/ln	1755	0	1809	1810	1900	1598	1810	1729	0	1810	1729	1610
Q Serve(g_s), s	17.1	0.0	26.2	4.6	9.4	8.2	5.8	24.4	0.0	14.0	19.9	0.0
Cycle Q Clear(g_c), s	17.1	0.0	26.2	4.6	9.4	8.2	5.8	24.4	0.0	14.0	19.9	0.0
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	568	108	310	261	134	1371		294	1828	
V/C Ratio(X)	0.87	0.00	0.88	0.78	0.62	0.76	0.79	0.94		0.89	0.67	
Avail Cap(c_a), veh/h	709	0	830	116	656	552	315	1371		388	1828	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.6	0.0	32.5	46.3	38.9	18.8	45.5	36.0	0.0	40.9	27.4	0.0
Incr Delay (d2), s/veh	11.4	0.0	7.7	23.8	2.0	4.6	3.9	14.1	0.0	14.5	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	12.1	2.7	4.4	3.2	2.7	11.6	0.0	7.2	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	0.0	40.2	70.1	40.9	23.4	49.3	50.2	0.0	55.5	29.4	0.0
LnGrp LOS	D	A	D	E	D	C	D	D		E	C	
Approach Vol, veh/h		1120			475			1400	A		1482	A
Approach Delay, s/veh		45.6			38.7			50.1			33.9	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	31.8	10.5	36.7	12.0	40.6	25.6	21.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	5.4	* 5.4
Max Green Setting (Gmax), s	21.4	26.4	6.4	45.8	17.4	30.4	17.7	* 35
Max Q Clear Time (g_c+I1), s	16.0	26.4	6.6	28.2	7.8	21.9	19.1	11.4
Green Ext Time (p_c), s	0.2	0.0	0.0	2.9	0.1	4.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1062	1083	228	935	5	395
Future Volume (vph)	1062	1083	228	935	5	395
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	16.0	16.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.6	20.6	9.5	23.6	20.0	20.0
Total Split (s)	41.0	41.0	30.0	71.0	49.0	49.0
Total Split (%)	34.2%	34.2%	25.0%	59.2%	40.8%	40.8%
Yellow Time (s)	4.1	4.1	4.0	4.1	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.5	4.6	5.3	5.3
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	57.1	57.1	19.6	81.3	28.8	28.8
Actuated g/C Ratio	0.48	0.48	0.16	0.68	0.24	0.24
v/c Ratio	0.96	0.65	0.80	0.42	0.29	0.87
Control Delay	46.1	5.6	32.5	3.8	36.6	50.0
Queue Delay	42.9	0.3	0.0	0.6	0.0	0.0
Total Delay	89.0	5.9	32.5	4.4	36.6	50.0
LOS	F	A	C	A	D	D
Approach Delay	63.4			9.6	46.8	
Approach LOS	E			A	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 44.3	Intersection LOS: D
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 29: I-15 SB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1062	1083	228	935	54	0	0	0	115	5	395
Future Volume (veh/h)	0	1062	1083	228	935	54	0	0	0	115	5	395
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1586	711	235	964	56				119	5	311
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1992	843	260	2445	142				369	16	342
Arrive On Green	0.00	0.52	0.52	0.29	1.00	1.00				0.21	0.21	0.21
Sat Flow, veh/h	0	3800	1608	1810	3467	201				1740	73	1610
Grp Volume(v), veh/h	0	1586	711	235	502	518				124	0	311
Grp Sat Flow(s),veh/h/ln	0	1900	1608	1810	1805	1863				1813	0	1610
Q Serve(g_s), s	0.0	40.9	45.2	15.0	0.0	0.0				6.9	0.0	22.6
Cycle Q Clear(g_c), s	0.0	40.9	45.2	15.0	0.0	0.0				6.9	0.0	22.6
Prop In Lane	0.00		1.00	1.00		0.11				0.96		1.00
Lane Grp Cap(c), veh/h	0	1992	843	260	1273	1314				385	0	342
V/C Ratio(X)	0.00	0.80	0.84	0.91	0.39	0.39				0.32	0.00	0.91
Avail Cap(c_a), veh/h	0	1992	843	385	1273	1314				660	0	586
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.22	0.22	0.57	0.57	0.57				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.3	24.3	42.0	0.0	0.0				40.0	0.0	46.1
Incr Delay (d2), s/veh	0.0	0.8	2.4	8.9	0.5	0.5				0.2	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.5	16.8	6.2	0.2	0.2				3.0	0.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.1	26.8	50.9	0.5	0.5				40.1	0.0	52.4
LnGrp LOS	A	C	C	D	A	A				D	A	D
Approach Vol, veh/h		2297			1255						435	
Approach Delay, s/veh		24.9			9.9						48.9	
Approach LOS		C			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.7	67.5		30.8		89.2
Change Period (Y+Rc), s	4.5	4.6		5.3		4.6
Max Green Setting (Gmax), s	25.5	36.4		43.7		66.4
Max Q Clear Time (g_c+I1), s	17.0	47.2		24.6		2.0
Green Ext Time (p_c), s	0.2	0.0		0.9		4.6

Intersection Summary		
HCM 6th Ctrl Delay		22.8
HCM 6th LOS		C

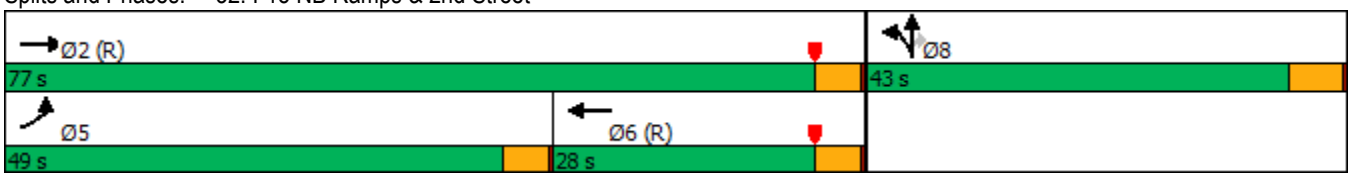
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	705	472	458	756	7	476
Future Volume (vph)	705	472	458	756	7	476
Turn Type	Prot	NA	NA	Split	NA	Perm
Protected Phases	5	2	6	8	8	
Permitted Phases						8
Detector Phase	5	2	6	8	8	8
Switch Phase						
Minimum Initial (s)	5.0	12.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	27.6	20.0	20.0	20.0
Total Split (s)	49.0	77.0	28.0	43.0	43.0	43.0
Total Split (%)	40.8%	64.2%	23.3%	35.8%	35.8%	35.8%
Yellow Time (s)	4.0	4.1	4.1	4.8	4.8	4.8
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	5.3	5.3	5.3
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max	None	None	None
Act Effct Green (s)	44.5	76.0	27.0	34.1	34.1	34.1
Actuated g/C Ratio	0.37	0.63	0.22	0.28	0.28	0.28
v/c Ratio	1.13	0.22	0.70	0.83	0.85	0.72
Control Delay	84.1	2.6	48.2	55.5	57.0	16.6
Queue Delay	0.3	0.0	0.0	0.1	0.1	0.0
Total Delay	84.4	2.6	48.2	55.6	57.1	16.6
LOS	F	A	D	E	E	B
Approach Delay		51.6	48.2		41.1	
Approach LOS		D	D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 46.6	Intersection LOS: D
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 32: I-15 NB Ramps & 2nd Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	705	472	0	0	458	64	756	7	476	0	0	0
Future Volume (veh/h)	705	472	0	0	458	64	756	7	476	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	758	508	0	0	492	57	819	0	339			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	671	2390	0	0	827	95	924	0	411			
Arrive On Green	0.37	0.66	0.00	0.00	0.25	0.25	0.26	0.00	0.26			
Sat Flow, veh/h	1810	3705	0	0	3354	376	3619	0	1610			
Grp Volume(v), veh/h	758	508	0	0	272	277	819	0	339			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1830	1810	0	1610			
Q Serve(g_s), s	44.5	6.6	0.0	0.0	15.9	16.0	26.1	0.0	23.8			
Cycle Q Clear(g_c), s	44.5	6.6	0.0	0.0	15.9	16.0	26.1	0.0	23.8			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	671	2390	0	0	458	464	924	0	411			
V/C Ratio(X)	1.13	0.21	0.00	0.00	0.59	0.60	0.89	0.00	0.82			
Avail Cap(c_a), veh/h	671	2390	0	0	458	464	1137	0	506			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.18	0.18	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.7	8.0	0.0	0.0	39.3	39.4	43.0	0.0	42.1			
Incr Delay (d2), s/veh	62.3	0.0	0.0	0.0	5.6	5.6	7.1	0.0	8.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	30.6	2.4	0.0	0.0	7.7	7.8	12.2	0.0	10.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.0	8.0	0.0	0.0	44.9	45.0	50.1	0.0	50.4			
LnGrp LOS	F	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1266			549			1158				
Approach Delay, s/veh		63.1			44.9			50.2				
Approach LOS		E			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.1			49.0	35.1		35.9				
Change Period (Y+Rc), s		4.6			4.5	4.6		5.3				
Max Green Setting (Gmax), s		72.4			44.5	23.4		37.7				
Max Q Clear Time (g_c+I1), s		8.6			46.5	18.0		28.1				
Green Ext Time (p_c), s		2.3			0.0	1.1		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

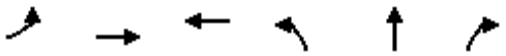
Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 7.13:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

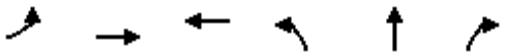
This Page Intentionally Left Blank



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	246	500	900	517	508	734
v/c Ratio	0.76	0.23	0.66	0.96	0.94	0.98
Control Delay	19.8	3.5	33.7	71.3	67.3	50.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	3.5	33.7	71.3	67.3	50.9
Queue Length 50th (ft)	81	43	294	412	402	347
Queue Length 95th (ft)	m65	m44	407	#646	#627	#620
Internal Link Dist (ft)		438	542		1439	
Turn Bay Length (ft)	100					
Base Capacity (vph)	669	2178	1370	538	540	747
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.23	0.66	0.96	0.94	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Group Flow (vph)	758	508	561	406	415	512
v/c Ratio	1.13	0.22	0.70	0.83	0.85	0.72
Control Delay	84.1	2.6	48.2	55.5	57.0	16.6
Queue Delay	0.3	0.0	0.0	0.1	0.1	0.0
Total Delay	84.4	2.6	48.2	55.6	57.1	16.6
Queue Length 50th (ft)	~632	31	214	301	308	98
Queue Length 95th (ft)	m#615	m12	282	426	437	225
Internal Link Dist (ft)		438	542		1439	
Turn Bay Length (ft)	100					
Base Capacity (vph)	669	2286	802	538	540	754
Starvation Cap Reductn	27	0	0	0	0	0
Spillback Cap Reductn	0	0	0	3	3	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.22	0.70	0.76	0.77	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.14:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

This Page Intentionally Left Blank

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4363	Heavy Vehicle Adjustment Factor (f_{HV})	0.847
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1866
Total Trucks, %	18.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Service Volume Table

Target LOS	A	B	C	D	E
Max Service Flow Rate (MSF), pc/h/ln	770	1257	1737	2111	2400
Service Flow Rate (SF), veh/h	1957	3194	4415	5365	6098
Service Volume, veh/h	1800	2938	4061	4935	5611
One Direction DSV, 1000 veh/day	18	29	41	49	56
Bi-Directional DSV, 1000 veh/day	33	53	74	90	102

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4622	Heavy Vehicle Adjustment Factor (f_{HV})	0.855
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1175
Total Trucks, %	17.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4202	Heavy Vehicle Adjustment Factor (f_{HV})	0.855
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1336
Total Trucks, %	17.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4353	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1687
Total Trucks, %	7.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	67.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5265	Heavy Vehicle Adjustment Factor (f_{HV})	0.943
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1214
Total Trucks, %	6.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5337	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1551
Total Trucks, %	7.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.65
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4658	Heavy Vehicle Adjustment Factor (f_{HV})	0.917
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1840
Total Trucks, %	9.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5238	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1230
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Service Volume Table

Target LOS	A	B	C	D	E
Max Service Flow Rate (MSF), pc/h/ln	770	1257	1737	2111	2400
Service Flow Rate (SF), veh/h	3565	5820	8044	9775	11112
Service Volume, veh/h	3280	5354	7400	8993	10223
One Direction DSV, 1000 veh/day	33	54	74	90	102
Bi-Directional DSV, 1000 veh/day	60	97	135	164	186

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 SB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5077	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1490
Total Trucks, %	8.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	69.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, North of 2nd		

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5139	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1956
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, 2nd to Hidden Valley		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5483	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1252
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 - Palomino Business Park - I-15 NB, South of Hidden Valley		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	70.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5406	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1527
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

Service Volume Table

Target LOS	A	B	C	D	E
Max Service Flow Rate (MSF), pc/h/ln	770	1257	1737	2111	2400
Service Flow Rate (SF), veh/h	2963	4837	6685	8124	9235
Service Volume, veh/h	2726	4450	6150	7474	8496
One Direction DSV, 1000 veh/day	27	44	62	75	85
Bi-Directional DSV, 1000 veh/day	50	81	112	136	154

Copyright © 2019 University of Florida. All Rights Reserved.

APPENDIX 7.15:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS RAMP JUNCTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

This Page Intentionally Left Blank

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4363	639
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	18.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.847	0.935
Flow Rate (vi),pc/h	5599	743
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.78	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	33.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.365
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2010
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	59.8
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.586	Outer Lanes Freeway Speed (SO), mi/h	72.9
Flow in Lanes 1 and 2 (v12), pc/h	3589	Ramp Junction Speed (S), mi/h	63.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.2
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3903	998
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	19.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.840	0.952
Flow Rate (vi),pc/h	5050	1139
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.86	0.54

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1275.9	Density in Ramp Influence Area (DR), pc/mi/ln	36.7
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.547
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2131
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	54.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2919	Ramp Junction Speed (S), mi/h	57.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	4058	Average Density (D), pc/mi/ln	35.8
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4622	1290
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	17.00	11.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.855	0.901
Flow Rate (vi),pc/h	5876	1556
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.49	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	24.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.438
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1272
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	75.7
Flow in Lanes 1 and 2 (v12), pc/h	2450	Ramp Junction Speed (S), mi/h	65.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	17.9
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3693	707
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	18.00	10.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.847	0.909
Flow Rate (vi),pc/h	4739	845
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.58	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.8
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.343
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1422
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.4
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.112	Outer Lanes Freeway Speed (SO), mi/h	66.7
Flow in Lanes 1 and 2 (v12), pc/h	1896	Ramp Junction Speed (S), mi/h	63.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2741	Average Density (D), pc/mi/ln	22.0
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4116	330
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	7.00	9.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.935	0.917
Flow Rate (vi),pc/h	4785	391
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.54	0.19

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	19.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.311
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1436
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	61.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.169	Outer Lanes Freeway Speed (SO), mi/h	66.6
Flow in Lanes 1 and 2 (v12), pc/h	1914	Ramp Junction Speed (S), mi/h	64.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2305	Average Density (D), pc/mi/ln	20.2
Level of Service (LOS)	B		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5265	1597
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	3.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.971
Flow Rate (vi),pc/h	6069	1788
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.51	0.43

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	25.9
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.459
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1247
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	57.1
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	75.8
Flow in Lanes 1 and 2 (v12), pc/h	2664	Ramp Junction Speed (S), mi/h	64.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.7
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4620	897
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	6.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.943	0.952
Flow Rate (vi),pc/h	5325	1024
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.66	0.49

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	29.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.412
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1598
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	58.5
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	66.0
Flow in Lanes 1 and 2 (v12), pc/h	2130	Ramp Junction Speed (S), mi/h	62.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	3154	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5337	997
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	7.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.935	0.935
Flow Rate (vi),pc/h	6204	1159
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.55

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.402
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1423
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	75.1
Flow in Lanes 1 and 2 (v12), pc/h	3359	Ramp Junction Speed (S), mi/h	65.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.8
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	165
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4658	503
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	9.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.917	0.952
Flow Rate (vi),pc/h	5521	574
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.77	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	33.1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.350
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1999
Distance to Downstream Ramp (LDOWN), ft	1770	Off-Ramp Influenece Area Speed (SR), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.596	Outer Lanes Freeway Speed (SO), mi/h	72.9
Flow in Lanes 1 and 2 (v12), pc/h	3522	Ramp Junction Speed (S), mi/h	64.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.6
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4296	1308
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	9.00	1.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.917	0.990
Flow Rate (vi),pc/h	5092	1436
Capacity (c), pc/h	7200	2100
Volume-to-Capacity Ratio (v/c)	0.91	0.68

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	1348.4	Density in Ramp Influence Area (DR), pc/mi/ln	39.0
Distance to Upstream Ramp (LUP), ft	1770	Speed Index (M)	0.632
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	2149
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	52.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.578	Outer Lanes Freeway Speed (SO), mi/h	64.1
Flow in Lanes 1 and 2 (v12), pc/h	2943	Ramp Junction Speed (S), mi/h	55.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	4379	Average Density (D), pc/mi/ln	39.1
Level of Service (LOS)	E		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	150
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5238	1078
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.962
Flow Rate (vi),pc/h	6148	1218
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.51	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	22.3
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.408
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1483
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.6
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	74.9
Flow in Lanes 1 and 2 (v12), pc/h	2260	Ramp Junction Speed (S), mi/h	66.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.4
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 SB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	430
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4462	854
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	8.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.926	0.943
Flow Rate (vi),pc/h	5238	984
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.65	0.47

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	26.4
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.367
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1572
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	59.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.095	Outer Lanes Freeway Speed (SO), mi/h	66.1
Flow in Lanes 1 and 2 (v12), pc/h	2095	Ramp Junction Speed (S), mi/h	62.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	3079	Average Density (D), pc/mi/ln	24.8
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc,	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	550
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4609	735
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.935
Flow Rate (vi),pc/h	5208	854
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.63	0.41

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	24.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.345
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1563
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	60.3
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.111	Outer Lanes Freeway Speed (SO), mi/h	66.2
Flow in Lanes 1 and 2 (v12), pc/h	2083	Ramp Junction Speed (S), mi/h	63.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	2937	Average Density (D), pc/mi/ln	24.0
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at 2nd		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	5	2
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	140
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5483	1213
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.952	0.952
Flow Rate (vi),pc/h	6260	1385
Capacity (c), pc/h	12000	4200
Volume-to-Capacity Ratio (v/c)	0.52	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	23.7
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.423
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1457
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.260	Outer Lanes Freeway Speed (SO), mi/h	75.0
Flow in Lanes 1 and 2 (v12), pc/h	2408	Ramp Junction Speed (S), mi/h	66.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	18.9
Level of Service (LOS)	C		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Merge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, On-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Acceleration Length (LA),ft	1500	0
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	4673	1125
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	7.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.935
Flow Rate (vi),pc/h	5280	1308
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.69	0.62

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	31.6
Distance to Upstream Ramp (LUP), ft	-	Speed Index (M)	0.440
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1584
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influenece Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PM)	0.000	Outer Lanes Freeway Speed (SO), mi/h	66.1
Flow in Lanes 1 and 2 (v12), pc/h	2112	Ramp Junction Speed (S), mi/h	61.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3420	Average Density (D), pc/mi/ln	26.8
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Diverge Report

Project Information			
Analyst	LC	Date	05/28/19
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP With Improvements
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:10899 Palomino Business Park - I-15 NB, Off-Ramp at Hidden Valley		

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	70.0	45.0
Segment Length (L) / Deceleration Length (LA),ft	1500	85
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	5406	1018
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	4.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	0.962
Flow Rate (vi),pc/h	6108	1150
Capacity (c), pc/h	9600	2100
Volume-to-Capacity Ratio (v/c)	0.64	0.55

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Density in Ramp Influence Area (DR), pc/mi/ln	32.0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (D)	0.402
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/mi/ln	1398
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influenece Area Speed (SR), mi/h	58.7
Prop. Freeway Vehicles in Lane 1 and 2 (PD)	0.436	Outer Lanes Freeway Speed (SO), mi/h	75.2
Flow in Lanes 1 and 2 (v12), pc/h	3312	Ramp Junction Speed (S), mi/h	65.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.4
Level of Service (LOS)	D		

Copyright © 2019 University of Florida. All Rights Reserved.