The Park @ Live Oak

TRAFFIC IMPACT ANALYSIS

CITY OF IRWINDALE

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
HCM	Highway Capacity Manual
ICU	Intersection Capacity Utilization
ITE	Institute of Transportation Engineers
LA	Los Angeles
LOS	Level of Service
METRO	Metropolitan Transportation Authority
mph	Miles per hour
MUTCD	Manual on Uniform Traffic Control Devices
N/A	Not Applicable
PA	Planning Area
PCE	Passenger Car Equivalents
PeMS	Performance Measurement System
PHF	Peak Hour Factor
Project	The Park @ Live Oak
RSA	Regional Statistical Area
RTPA	Regional Transportation Planning Agency
SBCTA	San Bernardino County Transportation Authority
SCAG	Southern California Association of Governments
sf	Square Feet
SHS	State Highway System
TIA	Traffic Impact Analysis
tsf	Thousand Square Feet
V/C	Volume to Capacity

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed The Park @ Live Oak ("Project"), which is located west of the I-605 Freeway between Arrow Highway and Live Oak Avenue in the City of Irwindale as shown on Exhibit 1-1.

The purpose of this traffic impact analysis is to evaluate the potential impacts to traffic and circulation associated with the development of the proposed Project, and to recommend improvements to mitigate impacts considered significant in comparison to established City thresholds of significance. The study follows the City of Irwindale's Policy Guidelines for Traffic Impact Reports and the California Department of Transportation's (Caltrans) Guide for the Preparation of Traffic Impact Studies. [1] [2]

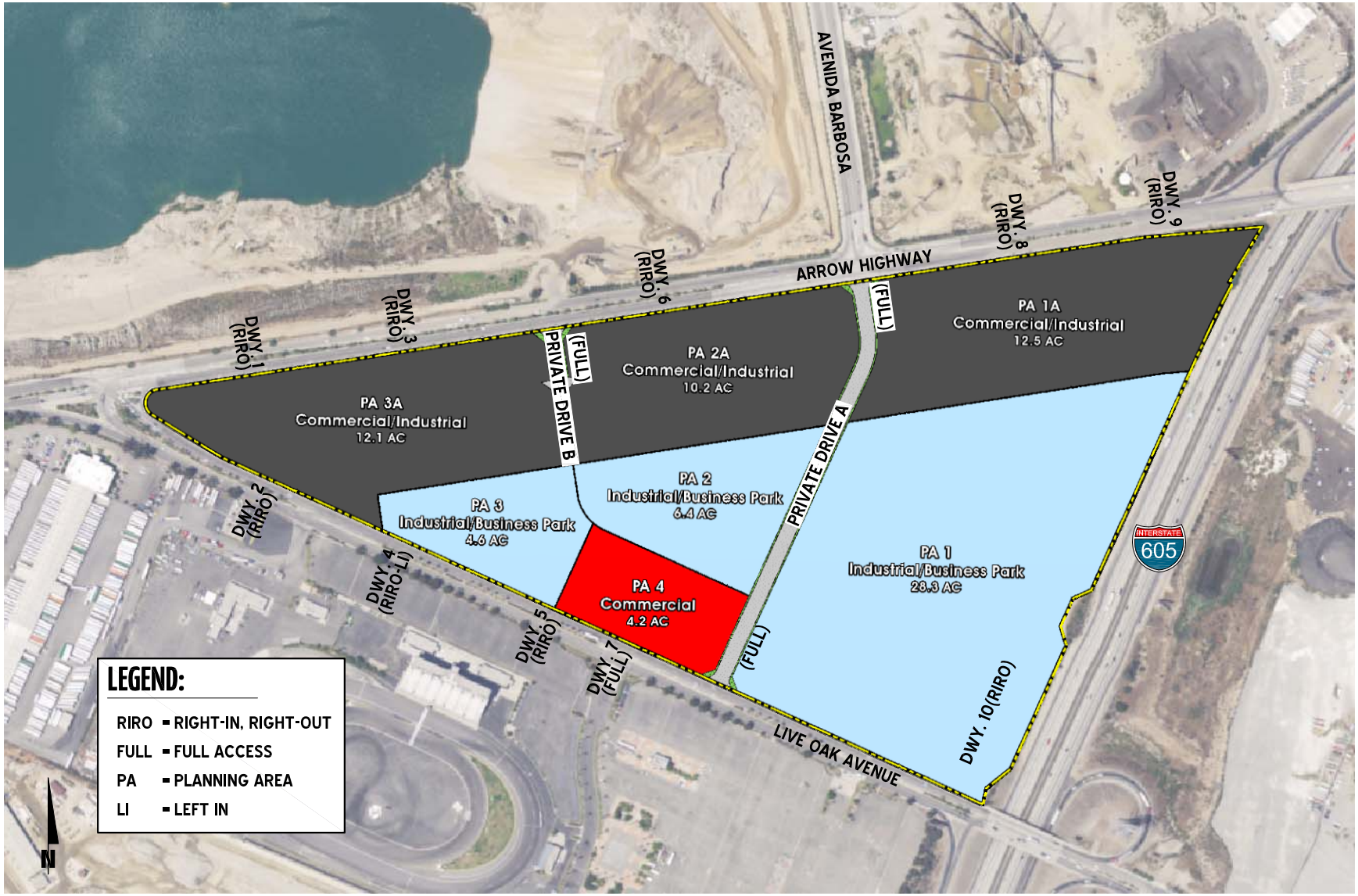
1.1 PROJECT OVERVIEW

The Project is entitling a Specific Plan for the proposed Project, which identifies allowable uses for each Planning Area (PA). The listed land use assumptions are intended to be reflective of future market conditions. For purposes of this TIA, the Project has assumed the following mix of land uses based on the allowable uses and intensities identified in the Specific Plan in order to conservatively estimate future Project traffic:

- PA 1: 412,500 square feet High-Cube Fulfillment Center Warehouse[1]
- PA 1: 412,500 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 1A: 8,700 square feet of Fast Food Restaurant with Drive-through Window
- PA 1A: 12,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 1A: 12,000 square feet of Shopping Center use
- PA 1A: 8 vehicle fueling position Gas Station with Convenience Market
- PA 2/PA 2A: 218,400 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 2/PA 2A: 54,600 square feet of General Light Industrial
- PA 2/PA 2A: 60,000 square feet of Warehousing
- PA 3: 102,000 square feet of Manufacturing
- PA 3: 191,400 square feet of Warehousing
- PA 3A: 3,000 square feet of Coffee-shop with Drive-Through Window
- PA 3A: 7,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 3A: 10,500 square feet of Shopping Center use
- PA 4: 47,000 square feet of Shopping Center use

[1] It should be noted that up to 387,500 square feet of High-Cube Warehouse (With Cold Storage) may be developed in lieu of 387,500 square feet of High-Cube Fulfillment Center Warehouse use or a combination of High-Cube Fulfillment Center Warehouse, Warehousing, and/or Manufacturing uses. The uses identified above have been evaluated for the purposes of this TIA.

EXHIBIT 1-1: PRELIMINARY LAND USE



URBAN CROSSROADS

The land use assumptions are based on the list of permitted uses specified for each PA by the Specific Plan. This TIA is focused on the evaluation of potential traffic impacts based on trip generation estimates that were developed to be conservative and provide flexibility for the placement, sizing, and design of specific buildings that will be developed in the Specific Plan area. Actual development proposals for the Project may differ slightly from that listed here, but would be required to adhere to the overall trip generation cap identified and evaluated by this TIA. Land use assumptions evaluated for the purposes of this TIA are conservative in nature in order to evaluate the maximum potential impacts. It should be noted that although for the purposes of this TIA the total commercial retail square footage totals 53,200 square feet, the Specific Plan identifies a maximum square footage of 51,600 square feet within PA 1A, PA 2A, and PA 3A. The land use plan showing the various planning areas is shown on Exhibit 1-1. The anticipated Opening Year for the Project is 2020.

Trips calculated to be generated by the Project have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) as presented in ITE's most current edition of Trip Generation Manual (10th Edition, 2017). [3] The Project is calculated to generate a net total of approximately 15,867 passenger car equivalent (PCE) trip-ends per day with 1,280 PCE AM peak hour trips and 1,644 PCE PM peak hour trips. The assumptions and methods used to estimate the Project's and each development phase's trip generation characteristics are discussed in detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

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

- Existing (2017)
- Existing plus Project
- Opening Year Cumulative (2020), Without and With Project
- Horizon Year (2040), Without and With Project

1.2.1 EXISTING (2017) CONDITIONS

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

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The Existing Plus Project (E+P) analysis determines whether or not significant traffic impacts would occur on the existing roadway system with the addition of Project traffic. The E+P analysis is intended to identify the Project-specific impacts and mitigation associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing conditions.

1.2.3 OPENING YEAR CUMULATIVE (2020) CONDITIONS

The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term cumulative traffic impacts based on a comparison of the "with Project" traffic scenario to

the "without Project" traffic scenario. 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 6.12% (2.0% per year, compounded over three years) is included for Opening Year Cumulative, as well as traffic generated by cumulative projects that could affect the study intersections.

The generalized growth factors provided in 2010 Los Angeles (LA) County Congestion Management Program (CMP) indicates a growth factor of 1.046 for ten years (2010 to 2020) or 0.45% per year for the Regional Statistical Area (RSA) 26 (West Covina) in which the Project is located. [4] As such, the analysis is in excess of the CMP guidelines and consistent with the City's traffic study guidelines.

1.2.4 Horizon Year (2040) Conditions

The Horizon Year conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs, or other approved funding mechanism can accommodate long-term cumulative traffic growth at the target level of service (LOS) identified by the City of Irwindale and surrounding jurisdictions.

Horizon Year Without Project traffic conditions include an ambient traffic growth factor of 12.78% (0.524% / year over 23 years) based on the growth factors provided in LA County CMP for RSA 26. A growth factor of 1.106 was estimated for 25 years (from 2010 to 2035) in LA County CMP, which is equivalent to 0.404% per year growth. This annual growth was compounded over 5 years and added to the 1.106 from the LA County CMP to determine the growth factor for Horizon Year (2040) traffic conditions. Lastly, traffic generated by cumulative projects that could affect the study intersections was added on top of the ambient growth.

1.3 STUDY AREA

1.3.1 INTERSECTIONS

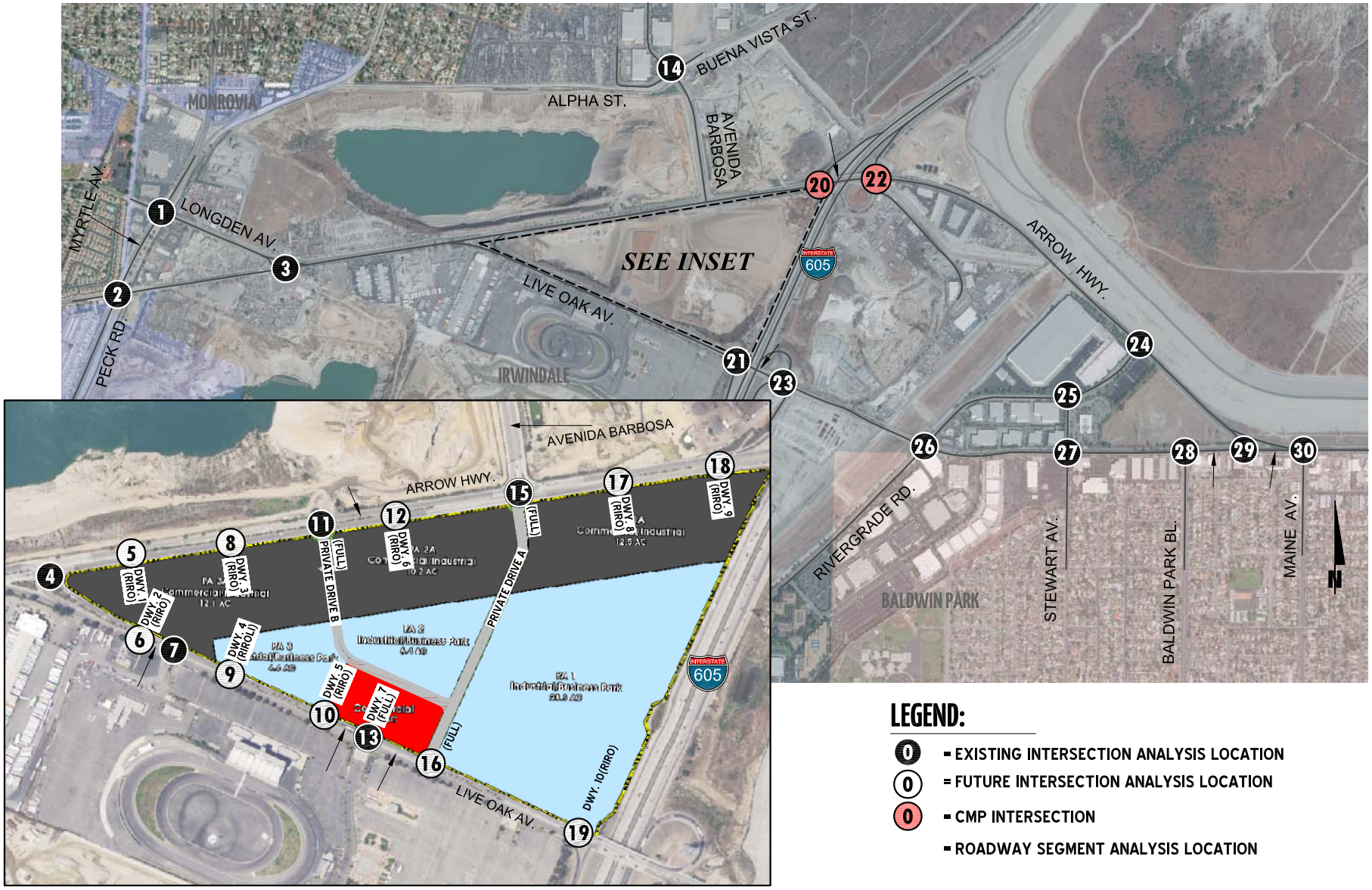
The potential impact study area was defined in conformance with the requirements of the City of Irwindale and Caltrans traffic study guidelines. Based on these guidelines, the area to be studied shall include any intersections at which the proposed project will add 50 or more peak hour trips. A scoping agreement summarizing the study area, trip generation, trip distribution and analysis methodology was provided to the City of Irwindale for review. The agreement approved by the City of Irwindale is included in Appendix 1.1.

30 study area intersection locations shown on Exhibit 1-2 and listed in Table 1-1 were selected for this TIA based on the City of Irwindale's traffic study requirements that require analysis of intersection locations in which a proposed Project is anticipated to contribute 50 or more peak-hour trips. It should be noted that only 2 of the study area intersections are CMP locations.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Myrtle Avenue & Longden Avenue	Irwindale
2	Myrtle Avenue/Peck Road & Live Oak Avenue	Irwindale, Monrovia, County of LA
3	Longden Avenue & Live Oak Avenue/Driveway	Irwindale
4	Live Oak Avenue & Arrow Highway (West)	Irwindale
5	Driveway 1 & Arrow Highway – Future Intersection	Irwindale
6	Driveway 2 & Live Oak Avenue – Future Intersection	Irwindale
7	Speedway Driveway & Live Oak Avenue	Irwindale
8	Driveway 3 & Arrow Highway – Future Intersection	Irwindale
9	Driveway 4 & Live Oak Avenue – Future Intersection	Irwindale
10	Driveway 5 & Live Oak Avenue – Future Intersection	Irwindale
11	Driveway/Private Drive B & Arrow Highway	Irwindale
12	Driveway 6 & Arrow Highway – Future Intersection	Irwindale
13	Driveway 7/Speedway Drive & Live Oak Avenue	Irwindale
14	Avenida Barbosa & Alpha Street/Buena Vista Street	Irwindale
15	Avenida Barbosa/Private Drive A & Arrow Highway	Irwindale
16	Private Drive A & Live Oak Avenue – Future Intersection	Irwindale
17	Driveway 8 & Arrow Highway – Future Intersection	Irwindale
18	Driveway 9 & Arrow Highway – Future Intersection	Irwindale
19	Driveway 10 & Live Oak Avenue – Future Intersection	Irwindale
20	I-605 Southbound Ramps & Arrow Highway	Irwindale, Caltrans
21	I-605 Southbound On-Ramp & Live Oak Avenue	Irwindale, Caltrans
22	I-605 Northbound On-Ramp/Live Oak Lane & Arrow Highway	Irwindale, Caltrans
23	I-605 Northbound Off-Ramp & Live Oak Avenue	Irwindale, Caltrans
24	Rivergrade Road & Arrow Highway	Irwindale
25	Stewart Avenue/Driveway & Rivergrade Road	Irwindale
26	Rivergrade Road & Live Oak Avenue	Irwindale, Baldwin Park
27	Stewart Avenue & Live Oak Avenue	Irwindale, Baldwin Park
28	Baldwin Park Boulevard & Live Oak Avenue	Irwindale, Baldwin Park
29	Arrow Highway & Live Oak Avenue (East)	Irwindale
30	Maine Avenue & Arrow Highway	Irwindale, Baldwin Park

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- = EXISTING INTERSECTION ANALYSIS LOCATION
- = FUTURE INTERSECTION ANALYSIS LOCATION
- = CMP INTERSECTION
- = ROADWAY SEGMENT ANALYSIS LOCATION

URBAN CROSSROADS

1.3.2 ROADWAY SEGMENTS

As shown on Table 1-2, the following roadway segments were also evaluated as the Project is anticipated to contribute 50 or more peak hour trips to these locations.

TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Roadway	Segment Limits
1	Longden Avenue	Myrtle Avenue to Live Oak Avenue
2	Live Oak Avenue	Peck Road to Longden Avenue
3	Live Oak Avenue	Longden Avenue to Live Oak Avenue
4	Arrow Highway	Live Oak Avenue to Driveway 1
5	Arrow Highway	Driveway 1 to Driveway 3
6	Arrow Highway	Driveway 3 to Driveway/Private Drive B
7	Arrow Highway	Driveway/Private Drive B to Driveway 6
8	Arrow Highway	Driveway 6 to Avenida Barbosa/Private Drive A
9	Arrow Highway	Avenida Barbosa/Private Drive A to Driveway 8
10	Arrow Highway	Driveway 8 to Driveway 9
11	Arrow Highway	Driveway 9 to I-605 Southbound Off-Ramp
12	Arrow Highway	I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane
13	Arrow Highway	I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road
14	Arrow Highway	Rivergrade Road to Live Oak Avenue
15	Private Drive B	South of Arrow Highway
16	Avenida Barbosa	Alpha Street/Buena Vista Street to Arrow Highway
17	Private Drive A	South of Arrow Highway
18	Private Drive A	North of Live Oak Avenue
19	Live Oak Avenue	Live Oak Avenue/Arrow Highway to Driveway 2
20	Live Oak Avenue	Driveway 2 to Speedway Driveway
21	Live Oak Avenue	Speedway Driveway to Driveway 4
22	Live Oak Avenue	Driveway 4 to Driveway 5
23	Live Oak Avenue	Driveway 5 to Driveway 7
24	Live Oak Avenue	Driveway 7 to Private Drive A
25	Live Oak Avenue	Private Drive A to Driveway 10
26	Live Oak Avenue	Driveway 10 to I-605 Southbound On-Ramp
27	Live Oak Avenue	I-605 Southbound On-Ramp to I-605 Northbound Off-Ramp
28	Live Oak Avenue	I-605 Northbound Off-Ramp to Rivergrade Road
29	Live Oak Avenue	Rivergrade Road to Stewart Avenue
30	Live Oak Avenue	Stewart Avenue to Baldwin Park Boulevard
31	Live Oak Avenue	Baldwin Park Boulevard to Arrow Highway
32	Live Oak Avenue	Arrow Highway to Maine Avenue
33	Rivergrade Road	Arrow Highway to Stewart Avenue
34	Rivergrade Road	Stewart Avenue to Live Oak Avenue

1.3.3 FREEWAY MAINLINE SEGMENTS

The study area freeway mainline analysis locations include six I-605 Freeway mainline segments for the southbound and northbound directions of flow as shown on Table 1-3:

TABLE 1-3: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	I-605 Freeway Southbound, North of Arrow Highway
2	I-605 Freeway Southbound, Arrow Highway to Live Oak Avenue
3	I-605 Freeway Southbound, South of Live Oak Avenue
4	I-605 Freeway Northbound, North of Arrow Highway
5	I-605 Freeway Northbound, Arrow Highway to Live Oak Avenue
6	I-605 Freeway Northbound, South of Live Oak Avenue

1.3.4 FREEWAY MERGE/DIVERGE RAMP JUNCTIONS

The study area freeway merge/diverge ramp junction analysis locations include five I-605 Freeway ramp junctions for the southbound and northbound directions of flow as shown on Table 1-4:

TABLE 1-4: FREEWAY RAMP JUNCTION ANALYSIS LOCATIONS

ID	Freeway Merge/Diverge Ramp Junctions
1	I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (Diverge)
2	I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (Merge)
3	I-605 Freeway – Northbound, On-Ramp at Arrow Highway (Merge)
4	I-605 Freeway – Northbound, Loop On-Ramp at Arrow Highway (Merge)
5	I-605 Freeway – Northbound, Off-Ramp at Live Oak Avenue (Diverge)

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing, E+P, Opening Year Cumulative, and Horizon Year traffic conditions. For signalized intersections, analysis results are provided using both the Highway Capacity Methodology (HCM) and the Intersection Capacity Utilization (ICU). However, only the ICU analysis will be utilized to determine significant impacts per the City's traffic study guidelines. Caltrans ramp locations and unsignalized intersections have been analyzed using the HCM analysis methodology only.

1.4.1 INTERSECTIONS

Existing (2017) Conditions

Intersection Operations Analysis

A summary of LOS results for Existing traffic conditions are presented in Exhibit 1-3. As shown, a total of 7 intersections within the study area are currently operating at a deficient LOS.

Roadway Segment Capacity Analysis

Exhibit 1-4 presents a summary of LOS conditions by analysis scenario for the roadway segments. As shown on Exhibit 1-4, there are currently 4 segments that are currently operating at a deficient LOS.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the southbound and northbound off-ramps at the I-605 Freeway on Arrow Highway and Live Oak Avenue interchanges. The analysis indicates there are currently no queuing issues that may potentially "spill back" onto the I-605 Freeway mainline.

Freeway Operations Analyses

For Existing (2017) traffic conditions, the study area freeway mainline segments and ramp merge/diverge junctions are currently operating at an acceptable LOS (i.e., LOS D or better) during one or both peak hours.

It should be noted that although the I-605 Northbound Freeway mainline is found to operate at an acceptable LOS, according to Caltrans Performance Measurement System (PeMS), the average speed along these freeway segments is 17 miles per hour (mph) during the PM peak hour only. However, the reported LOS is acceptable due to constrained traffic flow conditions. In other words, the freeway is slow moving at 17 mph during the PM peak hours, therefore, not as many vehicles are passing by and being reported in the PeMS data. As a result, the LOS is reported as acceptable, however, the freeway is considered at capacity during the evening peak commute hours (i.e., LOS E or worse).

Existing Plus Project (E+P) Conditions

Intersection Operations Analysis

As shown on Exhibit 1-3, there are 3 additional study area intersections that would operate at an unacceptable LOS during one or both peak hours with the addition of Project traffic in addition to those previously identified under Existing (2017) traffic conditions (i.e., Intersections #3, #27, #29).

Roadway Segment Capacity Analysis

As shown on Exhibit 1-4, there are 7 additional roadway segments that would operate at a deficient LOS with the addition of Project traffic, in addition to those previously identified for Existing traffic conditions.

EXHIBIT 1-3: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing (2017)	E+P	Opening Year (2020) Without Project	Opening Year (2020) With Project	Horizon Year (2040) Without Project	Horizon Year (2040) With Project
1	Myrtle Av. / Longden Av.						
2	Myrtle Av. / Peck Rd. / Live Oak Av.						
3	Longden Av. / Live Oak Av. / Dwy.						
4	Live Oak Av. / Arrow Hwy. (West)						
5	Dwy. 1 / Arrow Hwy.	NA		NA		NA	
6	Dwy. 2 / Live Oak Av.	NA		NA		NA	
7	Speedway Dwy. / Live Oak Av.						
8	Dwy. 3 / Arrow Hwy.	NA		NA		NA	
9	Dwy. 4 / Live Oak Av.	NA		NA		NA	
10	Dwy. 5 / Live Oak Av.	NA		NA		NA	
11	Dwy./ Private Dwy B / Arrow Hwy.						
12	Dwy. 6 / Arrow Hwy.	NA		NA		NA	
13	Dwy. 7 / Speedway Dr. / Live Oak Av.						
14	Ave Barbosa / Alpha St. / Buena Vista St.						
15	Ave Barbosa / Private Dwy. A / Arrow Hwy.						
16	Private Dwy. A / Live Oak Av.	NA		NA		NA	
17	Dwy. 8 / Arrow Hwy.	NA		NA		NA	
18	Dwy. 9 / Arrow Hwy.	NA		NA		NA	
19	Dwy. 10 / Live Oak Av.	NA		NA		NA	
20	I-605 SB Off-Ramp / Arrow Hwy.						
21	I-605 SB On-Ramp/ Live Oak Av.						
22	I-605 NB On-Ramp/Live Oak Ln./Arrow Hwy.						
23	I-605 NB Off-Ramp/ Live Oak Av.						
24	Rivergrade Rd. / Arrow Hwy.						
25	Stewart Rd. / Dwy. / Rivergrade Rd.						
26	Rivergrade Rd. / Live Oak Av.						
27	Stewart Rd. / Live Oak Av.						
28	Baldwin Park Bl. / Live Oak Av.						
29	Arrow Hwy. / Live Oak Av. (East)						
30	Maine Av. / Arrow Hwy.						

LEGEND:

- AM PEAK HOUR
- PM PEAK HOUR
- LOS A-D
- LOS E
- LOS F

EXHIBIT 1-4: SUMMARY OF ROADWAY SEGMENT LOS BY ANALYSIS SCENARIO

#	Roadway	Segment Limits	Existing (2017)	E+P	Opening Year (2020) Without Project	Opening Year (2020) With Project	Horizon Year (2040) Without Project	Horizon Year (2040) With Project
1	Longden Av.	Myrtle Av. to Live Oak Av.	D-E	D-E	D-E	D-E	F	F
2	Live Oak Av.	Peck Rd. to Longden Av.	A-C	D-E	D-E	D-E	D-E	D-E
3	Live Oak Av.	Longden Av. to Live Oak Av.	A-C	D-E	D-E	D-E	D-E	D-E
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	A-C	A-C	F	F	F	F
5	Arrow Hwy.	Dwy. 1 to Dwy. 3	A-C	A-C	F	F	F	F
6	Arrow Hwy.	Dwy. 3 to Dwy./Private Dwy. B	A-C	D-E	F	F	F	F
7	Arrow Hwy.	Dwy./Private Dwy. B to Dwy. 6	A-C	A-C	D-E	D-E	D-E	D-E
8	Arrow Hwy.	Dwy. 6 to Ave. Barbosa/Private Drive A	A-C	A-C	D-E	D-E	D-E	D-E
9	Arrow Hwy.	Ave. Barbosa/ Private Drive A to Dwy. 8	A-C	D-E	F	F	F	F
10	Arrow Hwy.	Dwy. 8 to Dwy. 9	A-C	F	F	F	F	F
11	Arrow Hwy.	Dwy. 9 to I-605 SB Off-Ramp	A-C	F	F	F	F	F
12	Arrow Hwy.	I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	D-E	F	F	F	F	F
13	Arrow Hwy.	I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	D-E	D-E	D-E	D-E	D-E	F
14	Arrow Hwy.	Rivergrade Rd. to Live Oak Av.	A-C	A-C	D-E	D-E	D-E	D-E
15	Private Drive B	South of Arrow Hwy.	NA	A-C	NA	A-C	NA	A-C
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	A-C	A-C	D-E	D-E	D-E	D-E
17	Private Drive A	South of Arrow Hwy.	NA	A-C	NA	A-C	NA	A-C
18	Private Drive A	North of Live Oak Av.	NA	A-C	NA	A-C	NA	A-C
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	A-C	A-C	D-E	F	F	F
20	Live Oak Av.	Dwy. 2 to Speedway Dr.	A-C	A-C	F	F	F	F
21	Live Oak Av.	Speedway Dr. to Dwy. 4	A-C	A-C	D-E	D-E	D-E	D-E
22	Live Oak Av.	Dwy. 4 to Dwy. 5	A-C	A-C	D-E	D-E	D-E	D-E
23	Live Oak Av.	Dwy. 5 to Dwy. 7	A-C	A-C	D-E	D-E	D-E	D-E
24	Live Oak Av.	Dwy. 7 to Private Drive A	A-C	A-C	D-E	D-E	D-E	D-E
25	Live Oak Av.	Private Drive A to Dwy. 10	A-C	A-C	D-E	D-E	D-E	F
26	Live Oak Av.	Dwy. 10 to I-605 SB On-Ramp	A-C	A-C	D-E	D-E	D-E	F
27	Live Oak Av.	I-605 SB On-Ramp to I-605 NB Off-Ramps	A-C	D-E	D-E	F	D-E	F
28	Live Oak Av.	I-605 NB Off-Ramps to Rivergrade Rd.	A-C	A-C	A-C	D-E	D-E	D-E
29	Live Oak Av.	Rivergrade Rd. to Stewart Av.	A-C	A-C	A-C	D-E	D-E	D-E
30	Live Oak Av.	Stewart Av. to Baldwin Park Bl.	A-C	A-C	D-E	D-E	D-E	D-E
31	Live Oak Av.	Baldwin Park Bl. to Arrow Hwy.	A-C	A-C	A-C	A-C	A-C	A-C
32	Live Oak Av.	Arrow Hwy. to Maine Av.	F	F	F	F	F	F
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	A-C	A-C	A-C	A-C	A-C	A-C
34	Rivergrade Rd.	Stewart Av. to Live Oak Av.	A-C	A-C	A-C	A-C	A-C	A-C

LEGEND:

- = LOS A-C
- = LOS D-E
- = LOS F

URBAN CROSSROADS

Mitigation Measures

Based on the applicable jurisdiction's significance criteria, the following study area intersections were found to be significantly impacted by the Project for E+P traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)

The following improvements are recommended to improve each impacted intersection's LOS back to pre-project conditions, or better:

Mitigation Measure 1.1 – Myrtle Avenue & Longden Avenue (#1)

- Contribute fair share towards restriping a 2nd eastbound through lane (this improvement may require the overcrossing to the east to be widened to accommodate the 2nd receiving lane).

Mitigation Measure 2.1 – Myrtle Avenue/Peck Road & Live Oak Avenue (#2)

- Contribute fair share towards a 2nd southbound left turn lane.

Mitigation Measure 3.1 – Longden Avenue & Live Oak Avenue/Driveway (#3)

- Project to restripe a 3rd eastbound through lane.

Mitigation Measure 4.1 – Live Oak Avenue & Arrow Highway (West) (#4)

- Contribute fair share towards a 3rd westbound through lane.

Mitigation Measure 5.1 – Avenida Barbosa/Private Drive A & Arrow Highway (#15)

- Project to construct a northbound left turn lane, through lane, and right turn lane (needed for site access).
- Project to construct a southbound through lane (needed for site access).
- Project to restripe a 3rd eastbound through lane (site adjacent improvement).
- Project to construct a westbound left turn lane (needed for site access) and contribute fair share towards a 3rd westbound through lane.

Mitigation Measure 6.1 – I-605 Northbound Off-Ramp & Live Oak Avenue (#23)

- Contribute fair share towards the installation of a traffic signal.

Mitigation Measure 7.1 – Rivergrade Road & Live Oak Avenue (#26)

- Contribute fair share towards modifying the traffic signal and implement overlap phasing on the northbound right turn lane.

Mitigation Measure 8.1 – Stewart Avenue & Live Oak Avenue (#27)

- Project to restripe a 3rd westbound through lane.

Mitigation Measure 9.1 – Arrow Highway & Live Oak Avenue (East) (#29)

- Project to restripe a 3rd eastbound through lane.

The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented.

Based on the planning level roadway segment capacity analysis, there are 7 roadway segments that would operate at a deficient LOS for E+P traffic conditions after the implementation of the intersection improvements identified above. Intersections represent the choke points along a roadway segment as they are locations where traffic is stopped or slowed, thus experiencing greater delays, in comparison to the roadway segment with free-flow operations. Due to the additional capacity provided by turn lanes at the study area intersections, roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS (or better than pre-project traffic conditions) during the peak hours with the recommended intersection improvements listed above.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the southbound and northbound off-ramps at the I-605 Freeway on Arrow Highway and Live Oak Avenue interchanges for E+P traffic conditions. Consistent with Existing traffic conditions, the analysis indicates there are no queuing issues anticipated that may potentially "spill back" onto the I-605 Freeway mainline.

Freeway Operations Analyses

For E+P traffic conditions, the study area freeway mainline segments and ramp merge/diverge junctions would continue to operate at an acceptable LOS (i.e., LOS D or better) during one or both peak hours, with the exception of the following ramp junctions:

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale on the State Highway System (SHS) freeway facilities. As such, no improvements have been recommended to address the E+P deficiencies on the SHS.

Opening Year Cumulative (2020) Conditions

Intersection Operations Analysis

As shown on Exhibit 1-3, there are 3 additional study area intersections that would operate at an unacceptable LOS during one or both peak hours for Opening Year Cumulative (2020) Without Project traffic conditions in addition to those previously identified under Existing (2017) traffic

conditions (i.e., #3, #27, and #29). For Opening Year Cumulative (2020) With Project traffic conditions, the study area intersection of Maine Avenue & Arrow Highway (#30) would operate at an unacceptable LOS with the addition of Project traffic.

Roadway Segment Capacity Analysis

As shown on Exhibit 1-4, there are 22 additional roadway segments would operate at a deficient LOS for Opening Year Cumulative (2020) Without Project traffic conditions in addition to those previously identified under Existing traffic conditions. The following roadway segments would operate at a deficient LOS with the addition of Project traffic in addition to those previously identified for Opening Year Cumulative (2020) Without Project traffic conditions:

- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Rivergrade Road to Stewart Avenue (#29) – LOS D

Mitigation Measures

Based on the applicable jurisdiction's significance criteria, the following study area intersections were found to be significantly impacted by the Project for Opening Year Cumulative (2020) traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Speedway Drive & Live Oak Avenue (#7)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)
- Maine Avenue & Arrow Highway (#30)

In conjunction with Mitigation Measures 1.1 through 9.1 identified previously for E+P traffic conditions, the following additional improvements are recommended to improve the impacted intersection's LOS back to pre-project conditions, or better:

Mitigation Measure 4.2 – Live Oak Avenue & Arrow Highway (West) (#4)

- Contribute fair share towards restriping a 3rd eastbound through lane.

Mitigation Measure 10.1 – Speedway Driveway & Live Oak Avenue (#7)

- Contribute fair share towards the installation of a traffic signal.
- Project to restripe a 3rd westbound through lane as part of the site adjacent improvements.

Mitigation Measure 11.1 – Maine Avenue & Arrow Highway (#30)

- Project to restripe a 3rd eastbound through lane.

The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented.

Based on the planning level roadway segment capacity analysis, there are 15 roadway segments would operate at a deficient LOS for Opening Year Cumulative (2020) With Project traffic conditions after the implementation of the intersection improvements identified above. Due to the additional capacity provided by turn lanes at the study area intersections, roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS (or better than pre-project traffic conditions) during the peak hours with the recommended intersection improvements listed above.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the southbound and northbound off-ramps at the I-605 Freeway on Arrow Highway and Live Oak Avenue interchanges for Opening Year Cumulative (2020) traffic conditions. Consistent with Existing traffic conditions, the analysis indicates there are no queuing issues that may potentially "spill back" onto the I-605 Freeway mainline for both Without and With Project traffic conditions.

Freeway Operations Analyses

For Opening Year Cumulative (2020) Without Project traffic conditions, the study area freeway mainline segments and ramp merge/diverge junctions would continue to operate at an acceptable LOS (i.e., LOS D or better) during one or both peak hours, with the exception of the following ramp junctions:

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only
- I-605 Freeway – Northbound, Off-Ramp at Live Oak Avenue (#5) – LOS E PM peak hour only

The addition of Project traffic would not result in any additional deficient freeway mainline segments or ramp merge/diverge junctions in addition to those previously identified for Opening Year Cumulative (2020) Without Project traffic conditions.

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale on the SHS freeway facilities. As such, no improvements have been recommended to address the Opening Year Cumulative (2020) Without and With Project deficiencies on the SHS.

Horizon Year (2040) Conditions

Intersection Operations Analysis

As shown on Exhibit 1-3, there are no additional study area intersections would operate at an unacceptable LOS during the peak hours for Horizon Year (2040) Without Project traffic conditions in addition to those previously identified under Opening Year Cumulative (2020) traffic conditions. Similarly, there are no additional study area intersections would operate at an

unacceptable LOS with the addition of Project traffic in addition to those operating at a deficient LOS under Horizon Year (2040) Without Project traffic conditions.

Roadway Segment Capacity Analysis

As shown on Exhibit 1-4, there are 2 additional roadway segments would operate at a deficient LOS for Horizon Year (2040) Without Project traffic conditions in addition to those previously identified under Existing and Opening Year Cumulative (2020 Without Project traffic conditions:

- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Rivergrade Road to Stewart Avenue (#29) – LOS D

There are no additional roadway segments anticipated to operate at a deficient LOS with the addition of Project traffic in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

Mitigation Measures

Based on the applicable jurisdiction's significance criteria, the following study area intersections were found to be significantly impacted by the Project for Horizon Year (2040) traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Speedway Drive & Live Oak Avenue (#7)
- Driveway 7/Driveway & Live Oak Avenue (#13)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)
- Maine Avenue & Arrow Highway (#30)

In conjunction with Mitigation Measures 1.1 through 11.1 identified previously for E+P and Opening Year Cumulative (2020) traffic conditions, the following additional improvements are recommended to improve the impacted intersection's LOS back to pre-project conditions, or better:

Mitigation Measure 12.1 – Driveway 7/Driveway & Live Oak Avenue (#13)

- Project to construct a southbound left turn lane and shared through-right turn lane (needed for site access).
- Contribute fair share towards an eastbound right turn lane.
- Project to restripe a 3rd eastbound through lane (site adjacent improvement).

Mitigation Measure 5.2 – Avenida Barbosa/Private Drive A & Arrow Highway (#15)

- Contribute fair share towards a 2nd eastbound left turn lane.

- Contribute fair share towards modifying the traffic signal to implement overlap phasing on the westbound right turn lane.

Mitigation Measure 8.2 – Stewart Avenue & Live Oak Avenue (#27)

- Contribute fair share towards restriping a 3rd eastbound through lane.

The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented.

Based on the planning level roadway segment capacity analysis, there are 17 roadway segments would operate at a deficient LOS for Horizon Year (2040) With Project traffic conditions after the implementation of the intersection improvements identified above. Due to the additional capacity provided by turn lanes at the study area intersections, roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS (or better than pre-project traffic conditions) during the peak hours with the recommended intersection improvements listed above.

Off-Ramp Queuing Analysis

A queuing analysis was performed for the southbound and northbound off-ramps at the I-605 Freeway on Arrow Highway and Live Oak Avenue interchanges for Horizon Year (2040) traffic conditions. Consistent with Existing traffic conditions, the analysis indicates there are no queuing issues that may potentially "spill back" onto the I-605 Freeway mainline for both Without and With Project traffic conditions.

Freeway Operations Analyses

The freeway mainline segments would operate at an acceptable LOS for Horizon Year (2040) Without Project traffic conditions. However, the addition of Project traffic would result in the following deficient freeway mainline segment:

- I-605 Freeway Southbound, South of Live Oak Avenue (#3) – LOS E PM peak hour only

For Horizon Year (2040) Without Project traffic conditions, the following freeway ramp merge/diverge junctions would operate at an unacceptable LOS (i.e., LOS E or worse) during one or both peak hours:

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only
- I-605 Freeway – Northbound, Off-Ramp at Live Oak Avenue (#5) – LOS E AM and PM peak hours

The addition of Project traffic would not result in any additional deficient ramp merge/diverge junctions in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale on the SHS freeway

facilities. As such, no improvements have been recommended to address the Horizon Year (2040) Without and With Project deficiencies on the SHS.

1.5 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements throughout LA County are typically funded through a combination of direct project mitigation, fair share contributions and regional/local Development Impact Fee (DIF) programs. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors. A regional fee program is currently in the process of being developed for Los Angeles County by the Metropolitan Transportation Authority (Metro) and the regional transportation planning agency (RTPA).

A summary of off-site improvements needed to address intersection operational deficiencies for each analysis scenario is included in Table 1-5. These recommended improvements are consistent with or less than the geometrics assumed in the City of Irwindale Circulation Element. Table 1-5 also indicates the Project's fair share percentage of the required improvements.

In cases where this assessment identifies that the proposed Project would have a significant cumulative impact to a study area intersection, and the recommended mitigation measure is a fair share monetary contribution, the following methodology was applied to determine the fair share contribution. Although a fair share contribution has been identified, the impact would remain significant until such time the recommended improvement is implemented. The project's fair share contribution at an off-site study area intersection is determined based on the following equation (from the City's traffic study guidelines), which is the ratio of project traffic to E+P traffic:

$$\text{Project Fair Share \%} = \text{Project Traffic} / \text{E+P Traffic}$$

The detailed Project fair share contribution calculations are provided in Table 1-6.

Table 1-5
Page 1 of 2

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements			Project respsonbility?[1]	Fair Share %[2]	Significant Impact?[3]
			E+P	2020 With Project	2040 With Project			
1	Myrtle Av. & Longden Av.	Irwindale	- Restripe a 2nd EB through lane[4]	- Same	- Same	Fair Share	2.7%	Yes
2	Myrtle Av./Peck Rd. & Live Oak Av.	Irwindale, Arcadia	- 2nd SB left turn lane	- Same	- Same	Fair Share	2.4%	Yes
3	Longden Av. & Live Oak Av./Driveway	Irwindale	- Restripe a 3rd EB through lane[5]	- Same	- Same	Construct	0.0%	No
4	Live Oak Av. & Arrow Hwy. (West)	Irwindale	- 3rd WB through lane	- Same - Restripe a 3rd EB through lane	- Same - Same	Fair Share Fair Share	3.4% 2.9%	Yes Yes
7	Speedway Dwy. & Live Oak Av.	Irwindale	- 3rd WB through lane[5]	- Same - Install a traffic signal	- Same - Same	Construct Fair Share	0.0% 4.8%	No Yes
13	Dwy. 7/Speedway Dr. & Live Oak Av.	Irwindale	- SB left turn lane[5] - SB shared through-right turn lane[5] - Restripe a 3rd EB through lane[5]	- Same - Same - Same	- Same - Same - Same - EB right turn lane	Construct Construct Construct Fair Share	0.0% 0.0% 0.0% 8.8%	No No No Yes
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	Irwindale	- NB left turn lane[5] - NB through lane[5] - NB right turn lane[5] - Restripe a SB through lane[5] - 3rd EB through lane[5] - WB left turn lane[5] - 3rd WB through lane	- Same - Same - Same - Same - Same - Same - Same	- Same - Same - Same - Same - Same - Same - Same - 2nd EB left turn lane - Modify the traffic signal to implement overlap phasing on the WB right turn lane	Construct Construct Construct Construct Construct Construct Fair Share Fair Share Fair Share	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 18.6% 14.9% 14.9%	No No No No No No Yes Yes Yes

Table 1-5
Page 2 of 2

Summary of Intersection Improvements

#	Intersection Location	Jurisdiction	Recommended Improvements			Project respsonbility?[1]	Fair Share %[2]	Significant Impact?[3]
			E+P	2020 With Project	2040 With Project			
23	I-605 NB Off-Ramp & Live Oak Av.	Caltrans, Irwindale	- Install a traffic signal	- Same	- Same	Fair Share	12.2%	Yes
26	Rivergrade Rd. & Live Oak Av.	Irwindale, Baldwin Park	- Modify the traffic signal to implement overlap phasing on the NB right turn lane	- Same	- Same	Fair Share	5.0%	Yes
27	Stewart Av. & Live Oak Av.	Irwindale, Baldwin Park	- Restripe a 3rd WB through lane[5]	- Same	- Same - Restripe a 3rd EB through lane	Construct Fair Share	0.0% 2.5%	Yes Yes
29	Arrow Hwy. & Live Oak Av. (East)	Irwindale	- Restripe a 3rd EB through lane[5]	- Same	- Same	Construct	0.0%	No
30	Maine Av. & Arrow Hwy.	Irwindale, Baldwin Park	- None	- Restripe a 3rd EB through lane	- Same	Construct	0.0%	No

[1] Identifies the Project's responsibility to construct an improvement or contribute fair share towards the implementation of the improvement shown.

[2] Program improvements constructed by project may be eligible for fee credit, at discretion of City of Irwindale. See Table 1-6 for Fair Share Calculations. Fair share applicable to non-construct improvements only.

[3] If improvements are not fully covered by an applicable pre-existing fee program, then the intersection has been identified to have a significant impact even after mitigation measures are implemented. However, if the improvements are in a pre-existing program are fully funded by the pre-existing fee program, or the Project constructs the improvements, then the intersection is found to have no significant impact after the implementation of the mitigation measure.

[4] Improvement requires overcrossing (bridge) to the east to be widened to accommodate the 2nd receiving lane.

[5] Direct Project impact; Project mitigation measure.

Table 1-6

Project Fair Share Calculations

#	Intersection		Project	E+P	Project % of E+P Traffic[1]	2020 WP	Project % of 2020 WP Traffic[1]	2040 WP	Project % of 2040 WP Traffic[1]
1	Myrtle Av. & Longden Av.								
		AM:	88	3,309	2.66%	Not Applicable		Not Applicable	
		PM:	99	3,675	**2.69%**				
2	Myrtle Av./Peck Rd. & Live Oak Av.								
		AM:	92	4,163	2.21%	Not Applicable		Not Applicable	
		PM:	102	4,335	**2.35%**				
4	Live Oak Av. & Arrow Hwy. (West)								
		AM:	125	4,456	2.81%	5,028	2.49%	Not Applicable	
		PM:	169	4,958	**3.41%**	5,819	**2.90%**		
7	Speedway Dwy. & Live Oak Av.								
		AM:	131	Not Applicable		2,727	**4.80%**	Not Applicable	
		PM:	145			4,478	3.24%		
13	Dwy. 7/Speedway Dr. & Live Oak Av.								
		AM:	266	Not Applicable		Not Applicable		3,023	**8.80%**
		PM:	322					5,167	6.23%
15	Avenida Barbosa/Private Drive A & Arrow Hwy.								
		AM:	534	4,049	13.19%	Not Applicable		4,770	11.19%
		PM:	684	3,682	**18.58%**			4,588	**14.91%**
23	I-605 NB Off-Ramp & Live Oak Av.								
		AM:	391	3,205	**12.20%**	Not Applicable		Not Applicable	
		PM:	307	3,709	8.28%				
26	Rivergrade Rd. & Live Oak Av.								
		AM:	150	3,197	4.69%	Not Applicable		Not Applicable	
		PM:	182	3,640	**5.00%**				
27	Stewart Av. & Live Oak Av.								
		AM:	86	Not Applicable		Not Applicable		3,480	2.47%
		PM:	95					3,767	**2.52%**

[1] Highest fair share percentage is highlighted.

1.6 CUMULATIVE MITIGATION MEASURES

This section provides a summary of recommended mitigation measures necessary to address cumulative impacts. The construction of facilities by the Project Applicant would be eligible for fee credit and reimbursement if the construction exceeds the Project's fair share. The City shall review the proposed mitigation measures to determine if the Project shall construct certain improvements, including traffic signals or contribute fair share.

1.6.1 MITIGATION MEASURES

Mitigation Measure 13.1 – Prior to the issuance of building permits, the Project Applicant shall pay the Project's fair share amount for the improvements identified in Table 1-5 that are consistent with the improvements shown on Table 7-7, or as agreed to by the City and Project Applicant.

Mitigation Measure 14.1 – Table 1-5 of the TIA includes intersections that either share a mutual border with the City of Baldwin Park or are wholly located within the City of Baldwin Park that have recommended improvements which are not covered by a pre-existing fee program. Because the City of Irwindale does not have plenary control over intersections that share a border with the City of Baldwin Park, the City cannot guarantee that such improvements will be constructed. Thus, the following additional mitigation measure is required: The City of Irwindale shall participate in a multi-jurisdictional effort with the City of Baldwin Park to develop a study to identify fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary to implement the improvements identified in Table 1-5 of the TIA, that are located in the City of Baldwin Park. The study shall include fair-share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts attributable to City of Baldwin Park facilities that are not attributable to development located within the City of Irwindale are not paying in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other agreed-upon relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program.

Mitigation Measure 14.2 – Developer shall use reasonable efforts to pay the fair share amount to the City of Baldwin Park prior to the issuance of the Project's final certificate of occupancy. If the City of Baldwin Park chooses to accept developer's fair share payment, the City of Baldwin Park shall apply Developer's Fair Share payment to any fee program adopted or agreed upon by the Developer and City of Baldwin Park as a result of compliance with Mitigation Measure 13.1. The City of Baldwin Park shall only accept the fair share payment if it has complied with Mitigation Measure 13.1. If, within five years from the date the final certificate of occupancy is issued for the project, and the Developer and the City of Baldwin Park have not complied with Mitigation Measure 13.1, then Developer's Fair Share payment shall be returned to the Developer, if it has been paid, or Developer shall have no further obligation to attempt to comply with this Mitigation Measure.

Mitigation Measure 15.1 – Table 1-5 of the TIA includes intersections that either share a mutual border with Caltrans or are wholly located within Caltrans' jurisdiction that have a recommended improvement which is not covered by a pre-existing fee program. Because the City of Irwindale does not have plenary control over intersections that are within Caltrans' jurisdiction, the City cannot guarantee that such improvements will be constructed. Thus, the following additional mitigation measure is required: The City of Irwindale shall participate in a multi-jurisdictional effort with Caltrans to develop a study to identify fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary to implement the improvements identified in Table 1-5 of the TIA, that are located in Caltrans' jurisdiction. The study shall include fair-share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts attributable to Caltrans facilities that are not attributable to development located within the City of Irwindale are not paying in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other agreed-upon relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program.

Mitigation Measure 15.2 – Developer shall use reasonable efforts to pay the fair share amount to Caltrans prior to the issuance of the Project's final certificate of occupancy. If Caltrans chooses to accept developer's fair share payment, Caltrans shall apply Developer's Fair Share payment to any fee program adopted or agreed upon by the Developer and Caltrans as a result of compliance with Mitigation Measure 14.1. Caltrans shall only accept the fair share payment if it has complied with Mitigation Measure 14.1. If, within five years from the date the final certificate of occupancy is issued for the project, and the Developer and Caltrans have not complied with Mitigation Measure 14.1, then Developer's Fair Share payment shall be returned to the Developer, if it has been paid, or Developer shall have no further obligation to attempt to comply with this Mitigation Measure.

1.6.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale (or other neighboring jurisdictions) on SHS roadway segments. As such, no improvements have been recommended to address the E+P, Opening Year Cumulative (2020), or Horizon Year (2040) deficiencies on the SHS, because there is no feasible mitigation available.

1.7 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements would be in place prior to Project building occupancy.

The site adjacent roadways of Arrow Highway and Live Oak Avenue appear to be built to their ultimate curb-to-curb width as indicated in the City of Irwindale General Plan Circulation Element as a Major Highway (100-foot right-of-way). However, the Project would restripe these roadways to provide the ultimate number of lanes adjacent to their site. Additional curb, gutter and parkway improvements are recommended, as needed for site access, along the Project's frontage consistent with City of Irwindale standards as will be specified in the Project's final conditions of approval.

1.7.1 SITE ACCESS IMPROVEMENTS

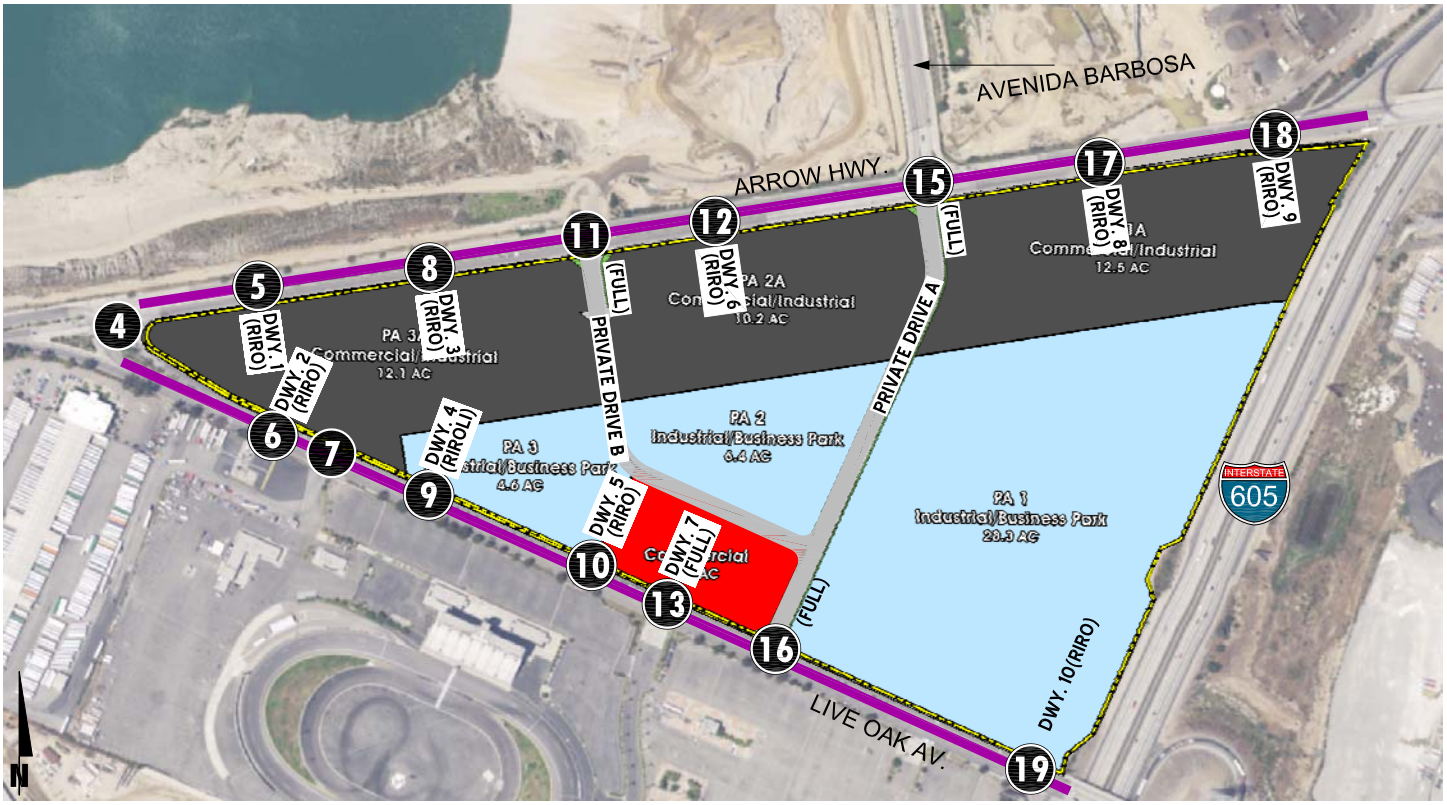
The recommended site access driveway improvements for the Project are described below. Exhibit 1-5 illustrates the on-site and site adjacent recommended roadway lane improvements. Construction of on-site and site adjacent improvements shall occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

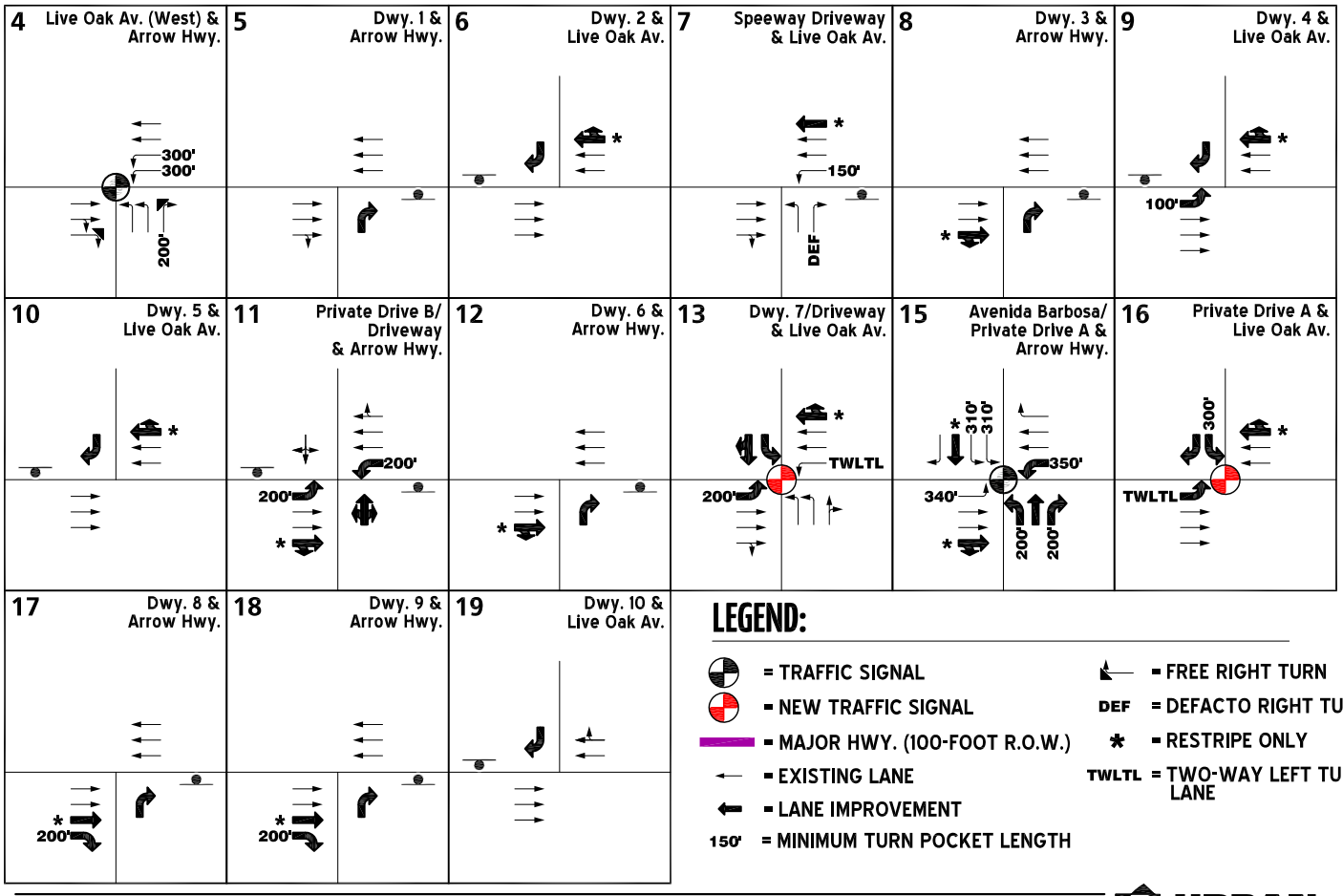
Exhibit 1-6 shows a conceptual striping plan for Live Oak Avenue between Driveway 7 and Private Drive A. The recommendations include removing the existing raised median to accommodate a striped two-way-left-turn lane between these two intersections.

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 Irwindale sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

EXHIBIT 1-5: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS





LEGEND:

- = TRAFFIC SIGNAL
- = NEW TRAFFIC SIGNAL
- = MAJOR HWY. (100-FOOT R.O.W.)
- = EXISTING LANE
- = LANE IMPROVEMENT
- 150' = MINIMUM TURN POCKET LENGTH
- = FREE RIGHT TURN
- DEF = DEFACTO RIGHT TURN
- * = RESTRIPE ONLY
- TWLTL = TWO-WAY LEFT TURN LANE

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URBAN CROSSROADS

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EXHIBIT 1-6: LIVE OAK AVENUE (DRIVEWAY 7 TO PRIVATE DRIVE A) CONCEPTUAL STRIPING



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.7.2 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS AND SITE ADJACENT INTERSECTIONS

A queuing analysis was conducted at the Project driveways along Arrow Highway and Live Oak Avenue for Horizon Year (2040) traffic conditions to determine the turn pocket length necessary to accommodate long-range 95th percentile peak hour volumes. The analysis was conducted for both the weekday AM and weekday PM peak hours. The 95th percentile queues for the applicable study area intersections can be found in Appendix 1.2.

The traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to assess queues at the Project driveways and site adjacent intersections. Synchro is a macroscopic traffic software program that is based on the signalized and unsignalized intersection capacity analyses 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 in Synchro. The LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

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.

SimTraffic has been utilized to assess peak hour queuing at the site access driveways for Horizon Year With Project 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 up to 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 60-minute periods with 60-minute recording intervals. The storage length recommendations for the turning movements at the Project were reflected previously on Exhibit 1-5.

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with the City of Irwindale and Caltrans traffic study requirements. [1] [2]

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. LOS analysis was conducted to determine existing traffic conditions using the Intersection Capacity Utilization (ICU) methodology for signalized study intersections in the Cities of Irwindale and Baldwin Park. [5] The Highway Capacity Manual (HCM) (6th Edition) methodology was used to determine LOS's for unsignalized intersections in those cities. In addition, in accordance with Caltrans' guidelines, HCM (6th Edition) methodology was used for ramp-to-arterial study area intersections. [6] The HCM (6th Edition) methodology expresses the LOS at an intersection in terms of average control delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Irwindale, City of Baldwin Park, City of Monrovia, and County of Los Angeles require signalized intersections to be evaluated through ICU analysis which compares the peak hour traffic volumes to intersection capacity. Lane capacities of 1,600 vehicles per hour of green time have been assumed for the ICU calculations. 0.10 of V/C assumed representing 10 seconds of delay for the yellow and all-red signal indication and inherent vehicle delay between cycles with an assumed signal cycle of 100 seconds. The ICU LOS definitions based on V/C ratio are presented in Table 2-1.

TABLE 2-1 INTERSECTION CAPACITY UTILIZATION (ICU) LOS DEFINITIONS

Level of Service	Critical Volume To Capacity Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Source: 2010 LA County CMP

Caltrans requires 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 2-2.

TABLE 2-2: SIGNALIZED INTERSECTION HCM 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 traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to analyze signalized intersections within the study area. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM (6th Edition). [6] 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 LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. The LOS analysis for signalized intersections has been performed using existing signal timing, where applicable. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis.

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-mintue 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 for HCM intersections. ICU intersections have assumed a PHF of 1.00 per the ICU methodology. 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. [6] As such, new intersections have been conservatively evaluated with a PHF of 0.92.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Irwindale, City of Baldwin Park, City of Monrovia, and County of Los Angeles require the operations of unsignalized intersections be evaluated using the methodology described in the HCM (6th Edition). [6] The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-3).

TABLE 2-3: UNSIGNALIZED INTERSECTION HCM 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, The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole. For all-way stop controlled intersections, LOS is based solely on control delay for assessment of LOS at the approach and intersection levels.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS

Roadway segment operations have been evaluated using the City of Irwindale roadway segment capacity thresholds provided in Table 4-10 (Roadway Classification Standards) of the City's General Plan Update. [7] The roadway segment analysis prepared for the purposes of this TIA evaluated is based on the projected daily volume for each study area roadway segment. LOS is determined based on the V/C ratio, for each roadway segment. For the purposes of this analysis, the roadway segment locations where the Project is anticipated to contribute 50 or more peak hour trips have been evaluated.

- Major Highways are 4-6 lanes (divided) with an estimated daily capacity of 40,400 to 53,000 vehicles per day
- Secondary Highways are 2-4 lanes (undivided) with an estimated daily capacity of 10,000 to 30,000 vehicles per day
- Collector Roads are 2 lanes with an estimated daily capacity of up to 10,000 vehicles per day
- Local Streets are 2 lanes with an estimated daily capacity of 2,000 (or less) vehicles per day.

For the purposes of this analysis, roadway widening has only been recommended if the more constrained peak hour intersection operations indicate that additional roadway widening is necessary to accommodate the future traffic flows.

2.4 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by 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 Caltrans 2014 *California Manual on Uniform Traffic Control Devices (CA MUTCD)* for all study area intersections. [8]

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 2014 *CAMUTCD* indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. [8] Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for Existing traffic conditions. 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 unsignalized intersections 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 unsignalized study area intersections (see Table 2-4):

TABLE 2-4: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
7	Speedway Driveway & Live Oak Avenue	Irwindale
11	Driveway/Private Drive B & Arrow Highway	Irwindale
16	Private Drive A & Live Oak Avenue	Irwindale

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.

2.5 FREEWAY RAMP QUEUING ANALYSIS

The study area for this TIA includes the I-605 Freeway at Arrow Highway and Live Oak Avenue ramps. Consistent with Caltrans requirements, the freeway ramp queuing has been assessed to determine potential queuing impacts at the freeway off-ramp intersections on both Arrow Highway and Live Oak Avenue at the I-605 Freeway. Specifically, the off-ramp queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-605 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential impacts/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group.

Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.6 FREEWAY MAINLINE SEGMENT ANALYSIS

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 (6th Edition) and performed using HCS7 software. [6] The performance

measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2-5 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

TABLE 2-5: FREEWAY MAINLINE LOS THRESHOLDS

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. Demand exceeds capacity.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM (6th Edition)

The number of lanes for Existing conditions has been obtained from field observations conducted by Urban Crossroads in December 2017. The I-605 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for the study segments. [9] In an effort to conduct a conservative analysis, the maximum value observed within the three-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, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and potential impacts. As such, actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the basic freeway segment analysis. Truck data has also been obtained from the PeMS website. Caltrans does not currently have any improvement plans to widen the I-605 Freeway Arrow Highway or Live Oak Avenue.

2.7 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 six existing on and off ramp locations. Although the HCM (6th Edition) 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, which goes beyond the HCM (6th Edition)

recommendations. This has been done in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in southern California. [6]

The merge/diverge analysis is based on the HCM (6th Edition) Freeway Merge and Diverge Segments analysis method and performed using HCS7 software. [6] 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 2-6 presents the merge/diverge area LOS thresholds for each density range utilized for this analysis.

TABLE 2-6: FREEWAY MERGE AND DIVERGE LOS THRESHOLDS

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 (6th Edition)

Similar to the basic freeway segment analysis, the I-605 Freeway mainline volume data were obtained from the Caltrans PeMS website for the segment of the I-605 Freeway north of Arrow Highway. The ramp data (per the count data presented in Appendix 3.1) were then utilized to flow conserve the mainline volumes and determines the I-605 Freeway mainline volumes. The data obtained was for November 28-30, 2017. In an effort to conduct a conservative analysis, the maximum value observed within the three-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, has been utilized on the Freeway mainline for the purposes of this analysis and PCE volumes for the ramps have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis. Truck data has also been obtained from the Caltrans PeMS website.

2.8 LOS CRITERIA

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

2.8.1 CITY OF IRWINDALE

The City of Irwindale has established LOS D as a target LOS standard and LOS E as a threshold standard. The City recognizes that not all intersections within the City can meet the target LOS D. In these instances, the City Council must find the improvements necessary to meet the target LOS D are not feasible because of one or more of the following reasons:

1. the cost of the necessary improvements exceeds available funding sources;
2. the design of the necessary improvements is not compatible with the surrounding land uses; or,
3. the design of the necessary improvements is contrary to other established City policies.

For individual roadway segments, a LOS C standard is used to monitor capacity needs.

2.8.2 CITY OF BALDWIN PARK

Per the City of Baldwin Park's General Plan (Policy 1.4), maintain as a goal the provision of service levels at intersections along arterial highways at Level of Service D or better during morning and evening peak travel periods. [10] The City's General Plan recognizes that the following facilities within the City of Baldwin Park are expected to experience decline in service levels, meaning increased congestion and delays with the future increase in traffic demand:

- Dalewood Street, north of Judith Street
- Francisquito Avenue, east of Big Dalton Avenue and east of Maine Avenue
- Live Oak Avenue, east of Steward Avenue
- Maine Avenue, south of Clark Street
- Puente Avenue, north of Dalewood Street
- Ramona Avenue, east of Maine Avenue and west of Merced Avenue
- Ramona Avenue, east of Syracuse Avenue and east of I-605 Freeway

2.8.3 CITY OF MONROVIA

With the recognition that the City is largely built out and that major physical improvements to the circulation system will be limited to certain areas, establish LOS D as the minimum standard (both intersections and roadway segments) to be maintained, expect at locations where LOS F conditions currently exist.

2.8.4 LA COUNTY CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better. The only two CMP intersections identified in the 2010 CMP within the study area are the I-605 Freeway ramps on Arrow Highway. [4] However, the more conservative LOS criteria of LOS D (per Caltrans) has been utilized for these locations.

2.8.5 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS 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. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. Consistent with the City of Irwindale LOS threshold of LOS D and in excess of the LA County CMP stated LOS threshold of LOS E, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions.

2.9 THRESHOLDS OF SIGNIFICANCE

2.9.1 CITY OF IRWINDALE

City of Irwindale traffic study guidelines states that a signalized intersection is significantly impacted by Project traffic if:

- When a signalized intersection operates at LOS D or better under existing or future conditions, and the addition of project trips degrades the intersection operations to LOS E or F.
- When a signalized intersection operates at LOS E or better under existing or future baseline conditions, and the addition of the project trips degrades the intersection operations to LOS F or increases the V/C ratio by 0.02 or greater.
- When a signalized intersection operates at LOS F under existing or future baseline conditions, and the addition of more than 50 peak hour project trips increases the V/C ratio by 0.02 or greater.

2.9.2 CITY OF MONROVIA

The City of Monrovia has determined that a project would have a significant traffic impact under the California Environmental Quality Act (CEQA) at an intersection if the conditions in the following table are found:

- LOS A (Intersection LOS under Existing) results in a project-related increase in V/C of 0.06
- LOS B (Intersection LOS under Existing) results in a project-related increase in V/C of 0.05
- LOS C (Intersection LOS under Existing) results in a project-related increase in V/C of 0.04
- LOS D (Intersection LOS under Existing) results in a project-related increase in V/C of 0.03
- LOS E (Intersection LOS under Existing) results in a project-related increase in V/C of 0.02
- LOS F (Intersection LOS under Existing) results in a project-related increase in V/C of 0.01

2.9.3 CITY OF BALDWIN PARK AND LA COUNTY CMP

The City of Baldwin Park and LA County CMP consider an increase of 0.02 or more in the V/C ratio at a location that reaches LOS E or F to be a significant impact.

2.9.4 CALTRANS

It should be noted that while Caltrans specifies target LOS, it does not specify thresholds of significance criteria for their facilities. For the purposes of this analysis, an impact is considered significant if the Project causes the level of service of a facility to go from acceptable to unacceptable or adds 50 or more peak hour trips to a facility already operating at unacceptable level of service.

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Irwindale General Plan Circulation Network, the City of Monrovia General Plan Mobility Element, the City of Baldwin Park Circulation Element, and a review of existing peak hour intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations.

3.1 EXISTING CIRCULATION NETWORK

The study area includes a total of 30 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 CITY OF IRWINDALE GENERAL PLAN CIRCULATION NETWORK

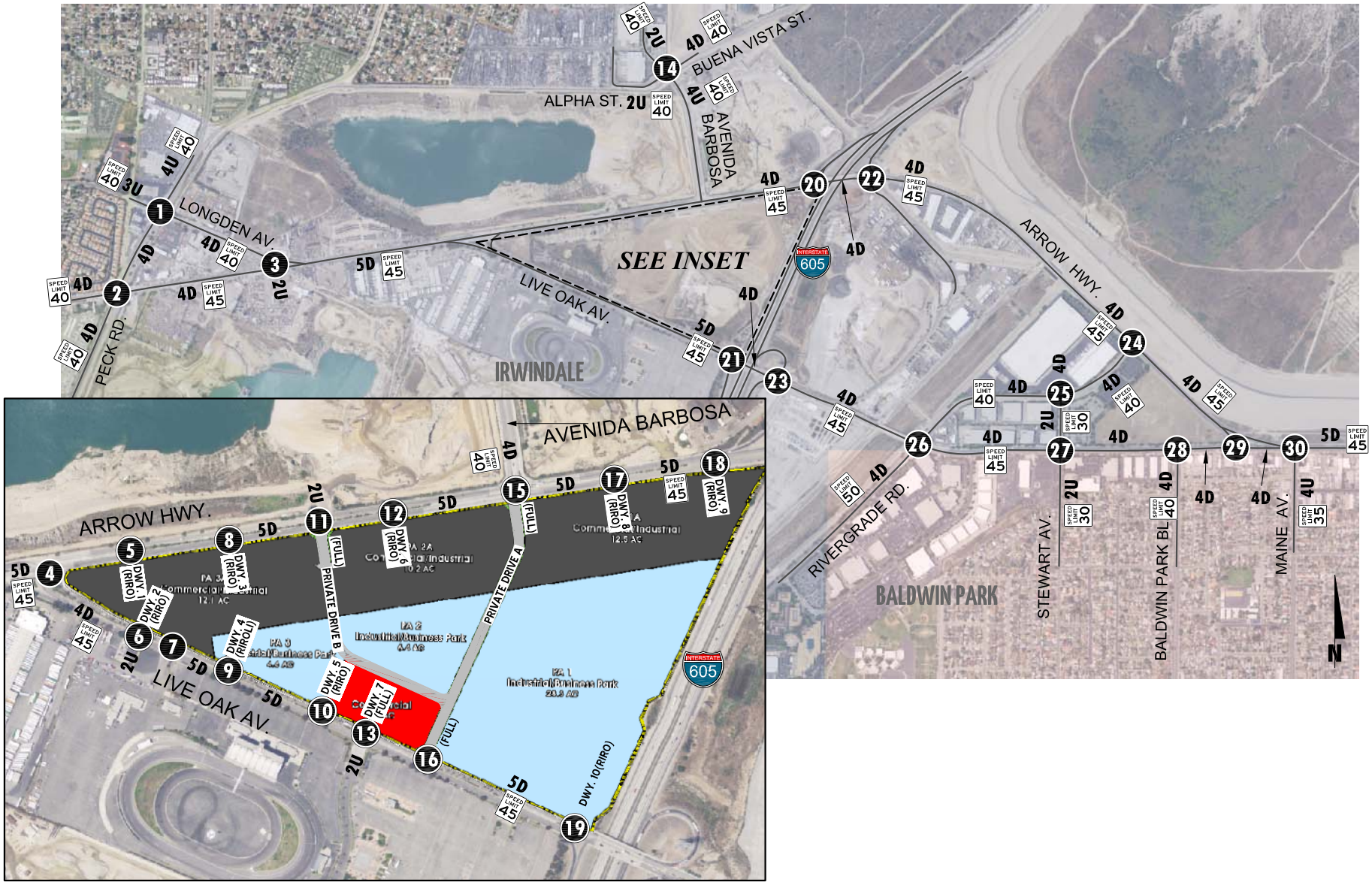
As previously noted, the Project site is located within the City of Irwindale. Exhibit 3-2 shows the City of Irwindale General Plan Circulation Network, and Exhibit 3-3 illustrates the City of Irwindale General Plan roadway cross-sections. [11] The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Irwindale General Plan Circulation Network, are described subsequently.

Arrow Highway: Arrow Highway is designated as a Secondary Highway in the City of Irwindale General Plan Circulation Network. The City of Irwindale roadway cross-sections indicate a right-of-way of 80 feet with a curb-to-curb measurement of 64-feet. Although the City's General Plan indicates that Secondary Highways are 4 lane roadways, some portions of Arrow Highway near the Project are currently striped to accommodate 3 lanes in each direction of travel. Arrow Highway along the Project frontage is currently built to its ultimate pavement width, however, the Project would restripe to accommodate the ultimate lanes.

Live Oak Avenue: Live Oak Avenue is designated as a Major Highway in the City of Irwindale General Plan Circulation Network, east of Live Oak Avenue/Arrow Highway (West). The City of Irwindale roadway cross-sections indicate a right-of-way of 100 feet with a curb-to-curb measurement of 84-feet. Live Oak Avenue along the Project frontage is currently built to its ultimate pavement width, however, the Project would restripe to accommodate the ultimate lanes.

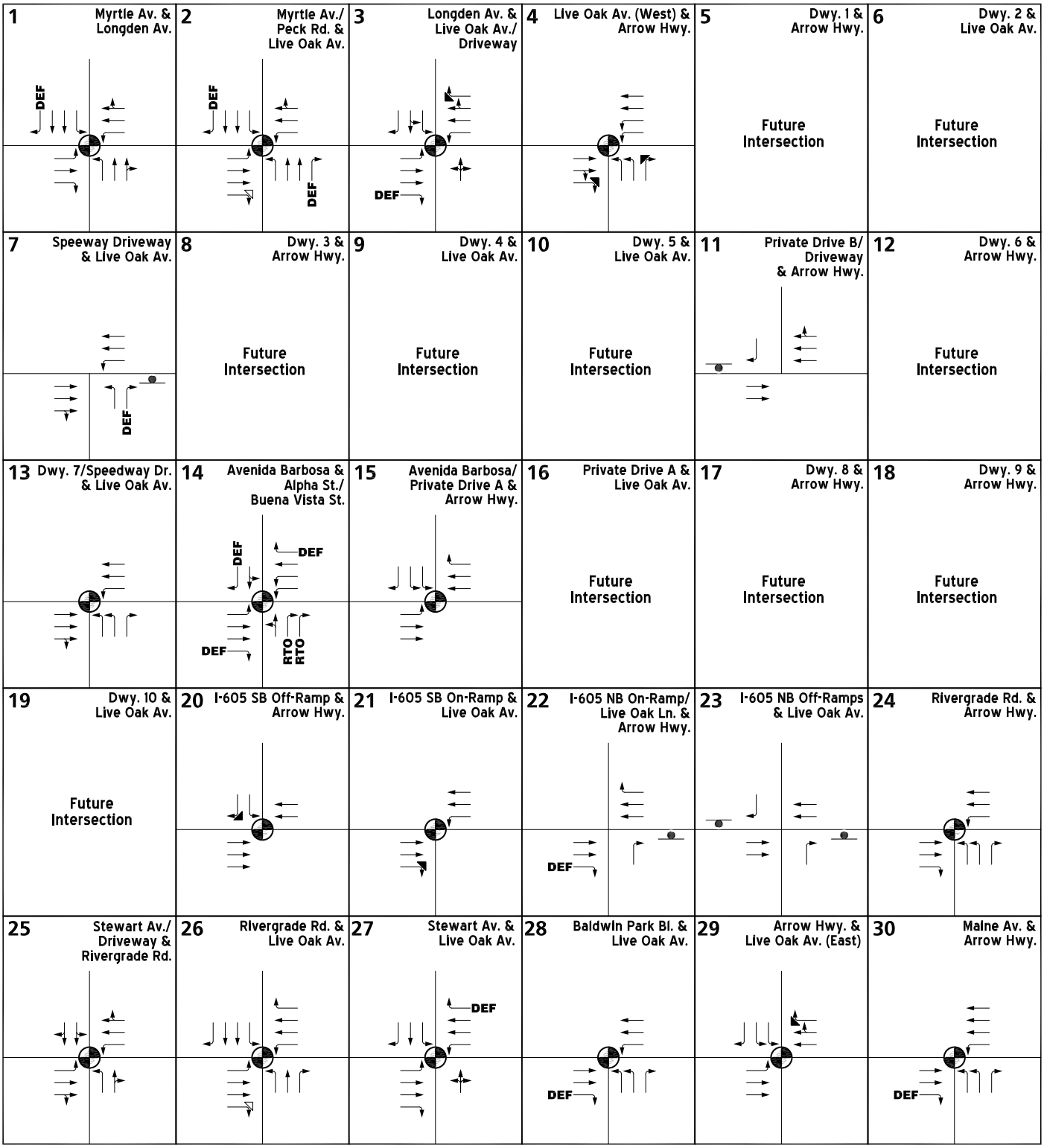
Myrtle Avenue/Peck Road, Avenida Barbosa, Rivergrade Road: Myrtle Avenue/Peck Road, Avenida Barbosa, Rivergrade Road are designated as a Collector Road/Local Street in the City of Irwindale General Plan Circulation Network. The City of Irwindale roadway cross-sections indicate a right-of-way of 60 feet with a curb-to-curb measurement of 40-feet.

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



URBAN CROSSROADS

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



LEGEND:

= TRAFFIC SIGNAL
= STOP SIGN
= CHANNELIZED YIELD
= FREE RIGHT TURN
RTO = RIGHT TURN OVERLAP
DEF = DEFACTO RIGHT TURN

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URBAN CROSSROADS

EXHIBIT 3-2: CITY OF IRWINDALE GENERAL PLAN CIRCULATION NETWORK

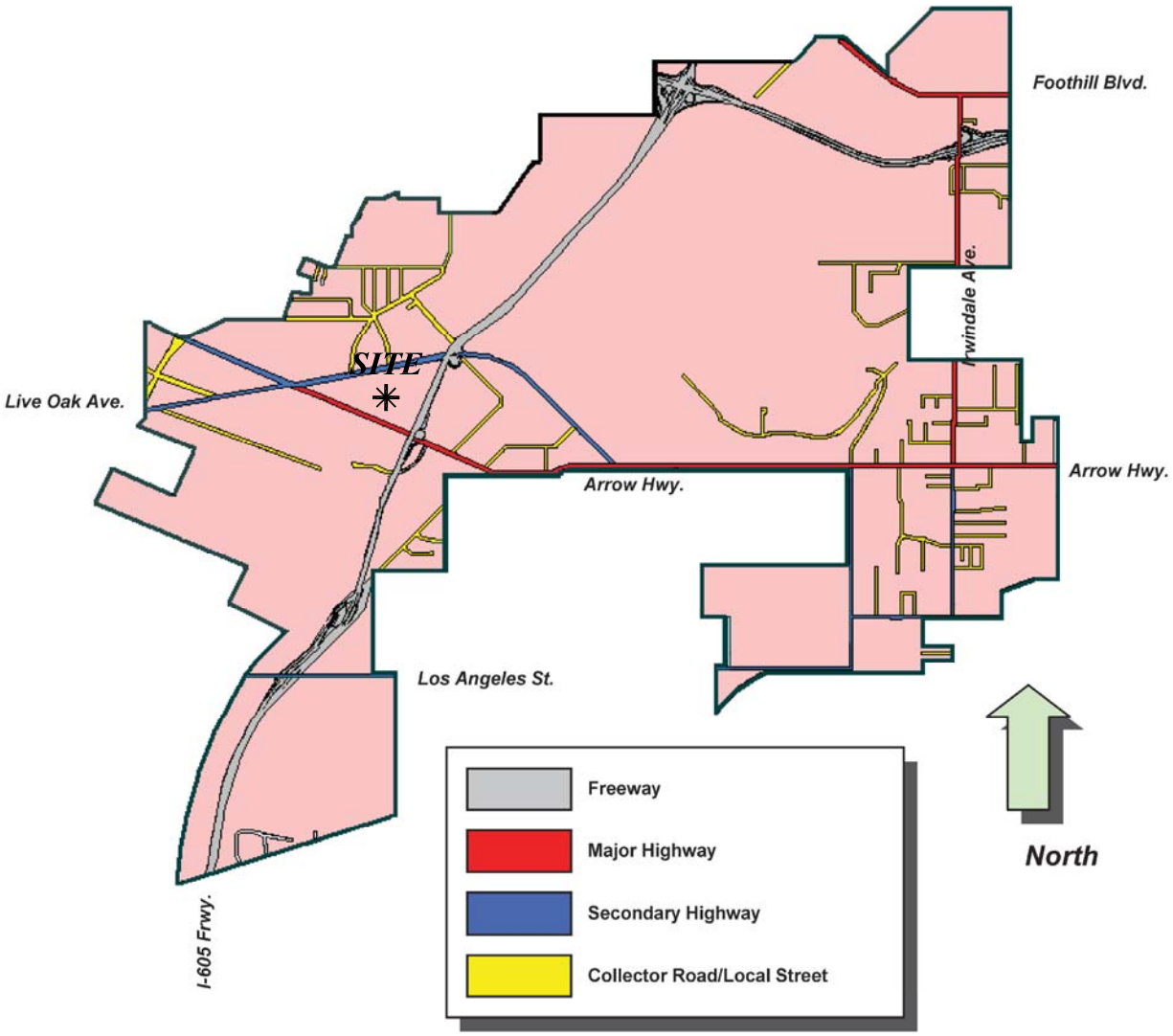


EXHIBIT 3-3: CITY OF IRWINDALE GENERAL PLAN ROADWAY CROSS-SECTIONS

Table 4-10 Roadway Classification Standards				
	Major Highways	**Secondary Highways**	**Collector Roads**	**Local Streets**
Travel Lanes	4-6 (divided)	2-4 lanes (Undivided)	2 lanes	2 lanes
Estimated Daily Capacity	40,400 to 53,000 vehicles/day	10,000 to 30,000 vehicles/day	Up to 10,000 vehicles/day	2,000 or less vehicles/day
ROW width	100 ft.	80 ft.	60 ft.	60 ft.
Pavement Width	84 ft.	64 ft.	40 ft.	40 ft.
Note: Estimated daily capacity for LOS expressed in vehicles/day				

3.3 CITY OF BALDWIN PARK GENERAL PLAN MOBILITY ELEMENT

Exhibit 3-4 shows the City of Baldwin Park General Plan Circulation Element, and Exhibit 3-5 illustrates the City of Baldwin Park General Plan roadway cross-sections. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Baldwin Park General Plan Circulation Element are described subsequently.

Live Oak Avenue/Arrow Highway: Live Oak Avenue/Arrow Highway is designated as an Arterial in the City of Baldwin Park Circulation Element. The City of Baldwin Park roadway cross-sections indicate a right-of-way of 100 feet.

Baldwin Park Boulevard: Baldwin Park Boulevard is designated as an Arterial in the City of Baldwin Park Circulation Element. The City of Baldwin Park roadway cross-sections indicate a right-of-way of 100 feet.

Maine Avenue: Maine Avenue is designated as a Collector/Industrial in the City of Baldwin Park Circulation Element. The City of Baldwin Park roadway cross-sections indicate a right-of-way of 80 feet.

3.4 CITY OF MONROVIA GENERAL PLAN CIRCULATION ELEMENT

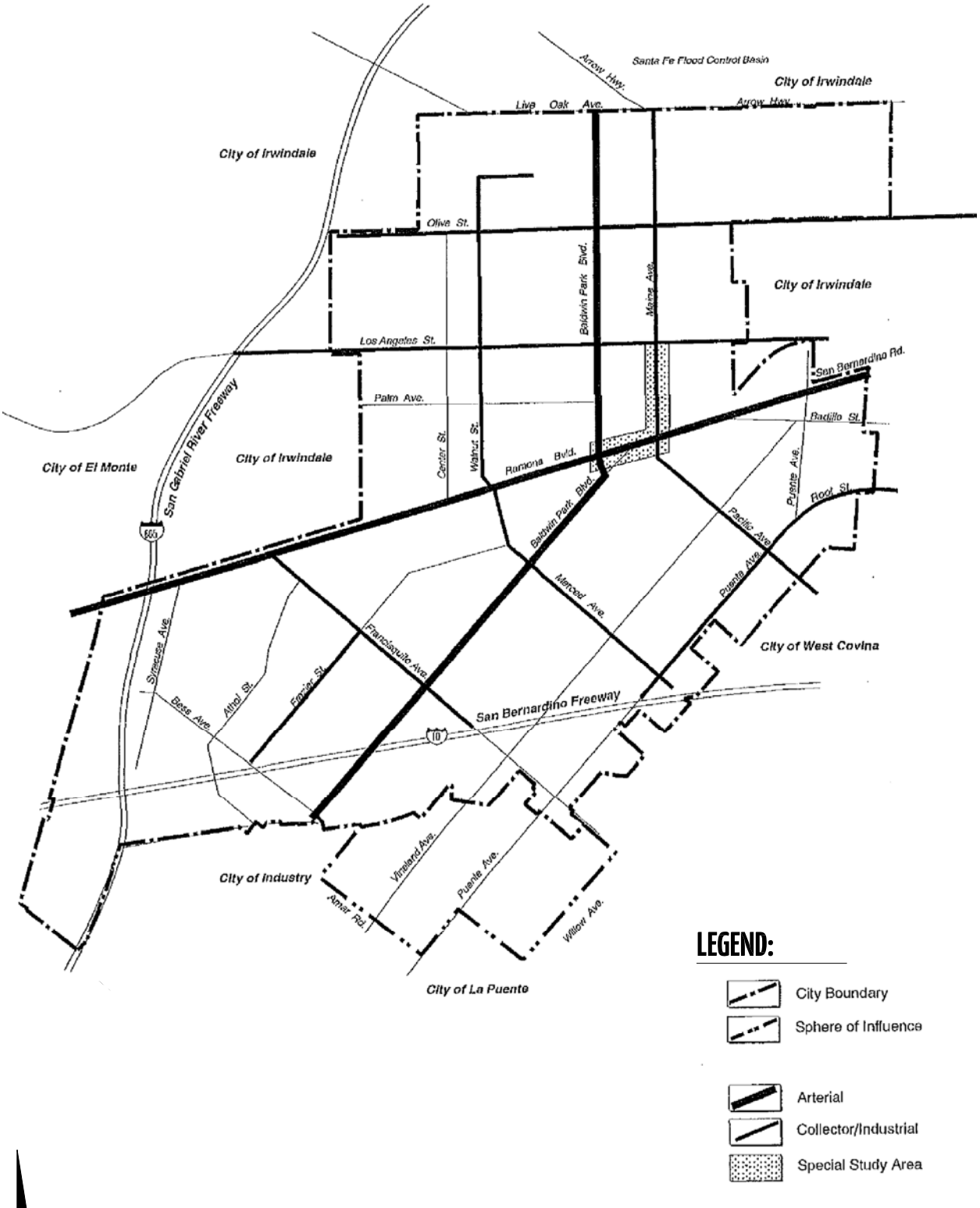
Exhibit 3-6 shows the City of Monrovia General Plan Circulation Element, and Exhibit 3-7 illustrates the City of Monrovia General Plan roadway cross-sections. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Monrovia General Plan Circulation Element are described subsequently.

Myrtle Avenue/Peck Road: Myrtle Avenue/Peck Road is designated as a Primary Arterial in the City of Monrovia General Plan Circulation Element. The City of Monrovia roadway cross-sections indicate a right-of-way of 100-120 feet.

3.5 TRUCK ROUTES

The City of Irwindale designated truck route map is shown on Exhibit 3-8. Arrow Highway and Live Oak Avenue are designated City of Irwindale truck routes. The City of Baldwin Park designated truck route map is shown on Exhibit 3-9. Baldwin Park Boulevard is identified as City of Baldwin Park truck routes. Lastly, Exhibit 3-10 shows the City of Monrovia Truck Routes, which identifies Myrtle Avenue/Peck Road as a truck route. The designated truck route maps have been utilized to route truck traffic from both the proposed Project and future cumulative development projects throughout the study area.

EXHIBIT 3-4: CITY OF BALDWIN PARK GENERAL PLAN CIRCULATION ELEMENT

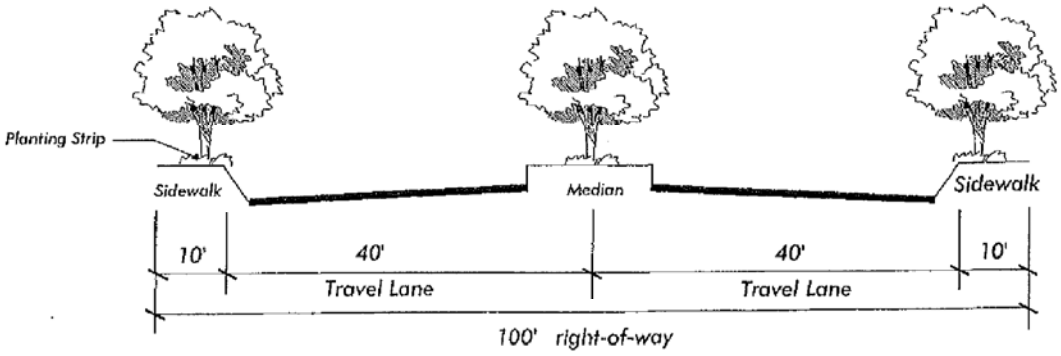


SOURCE: BALDWIN PARK 2020 GENERAL PLAN

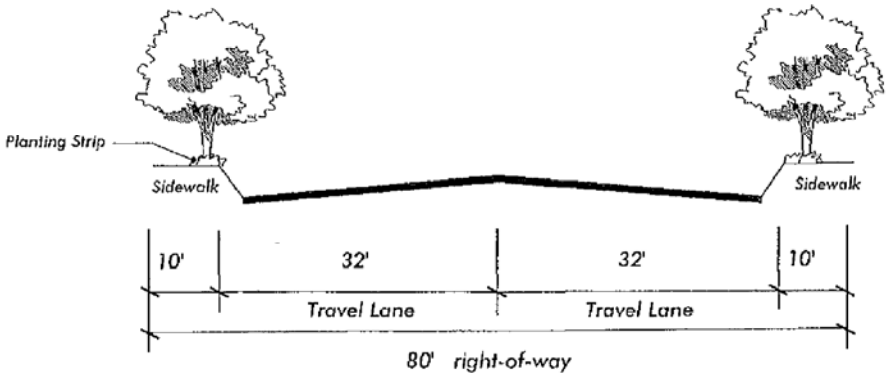
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EXHIBIT 3-5: CITY OF BALDWIN PARK GENERAL PLAN ROADWAY CROSS-SECTIONS

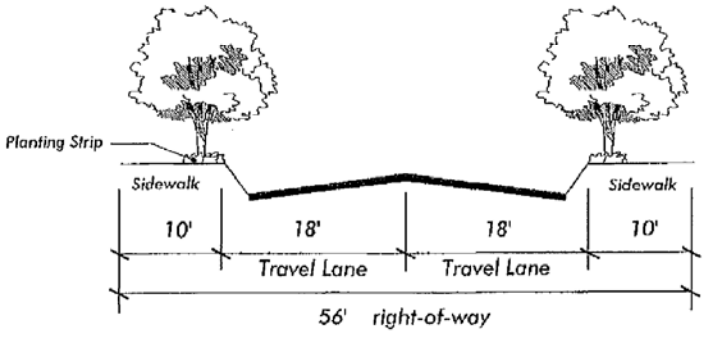
Arterial Street: 100' right-of-way



Collector / Industrial: 80'right-of-way



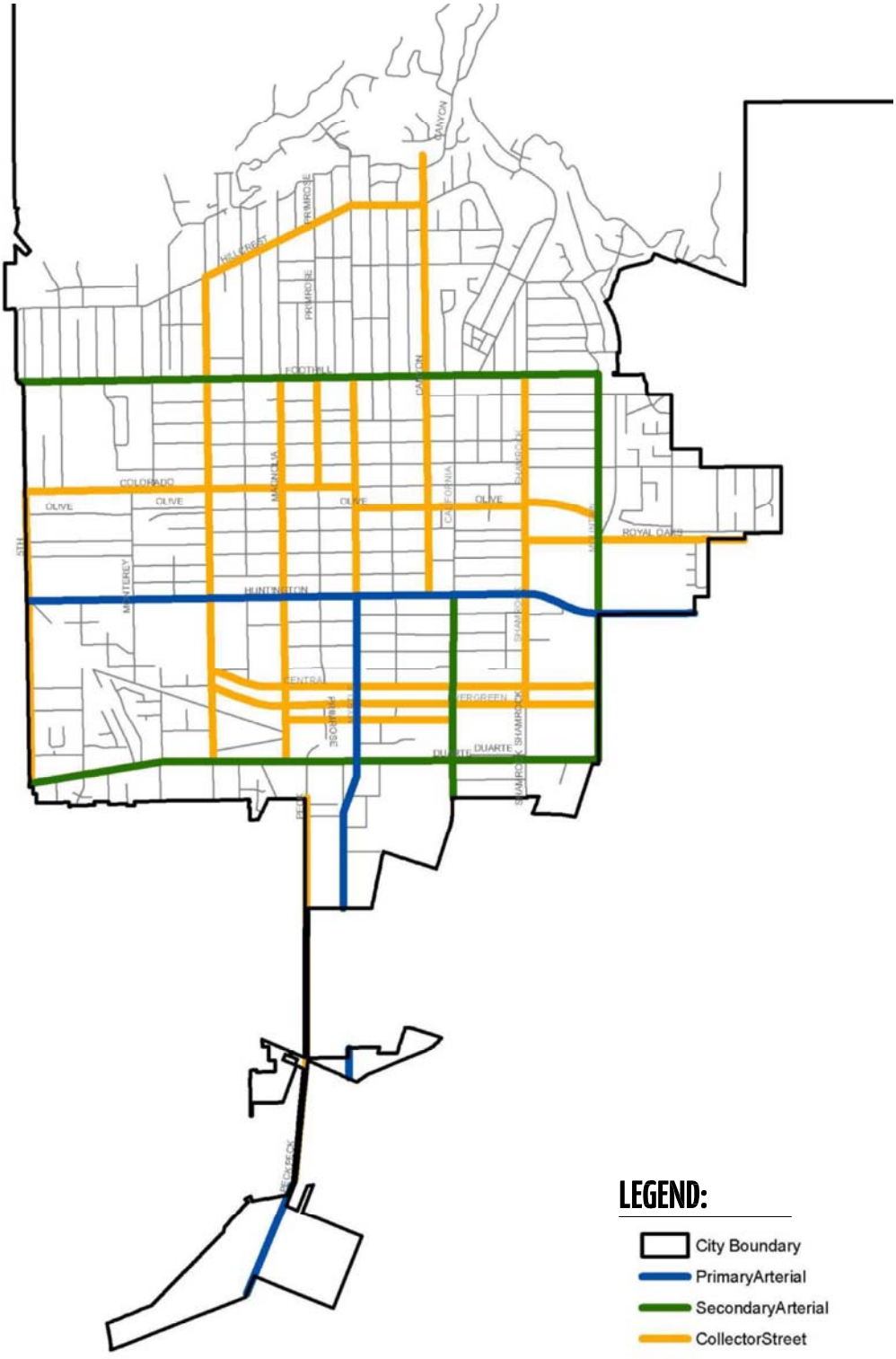
Residential: 60' right-of-way



Note: Right-of-way widths represent maximums. City reserves the right to develop narrower streets consistent with land use goals for pedestrian districts and within residential subdivisions.

SOURCE: BALDWIN PARK 2020 GENERAL PLAN

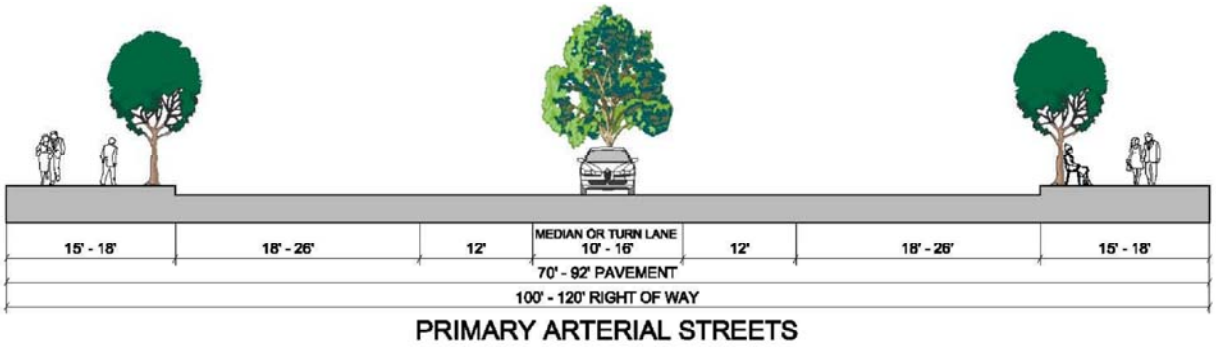
EXHIBIT 3-6: CITY OF MONROVIA GENERAL PLAN CIRCULATION ELEMENT



SOURCE: MONROVIA CIRCULATION ELEMENT 2008

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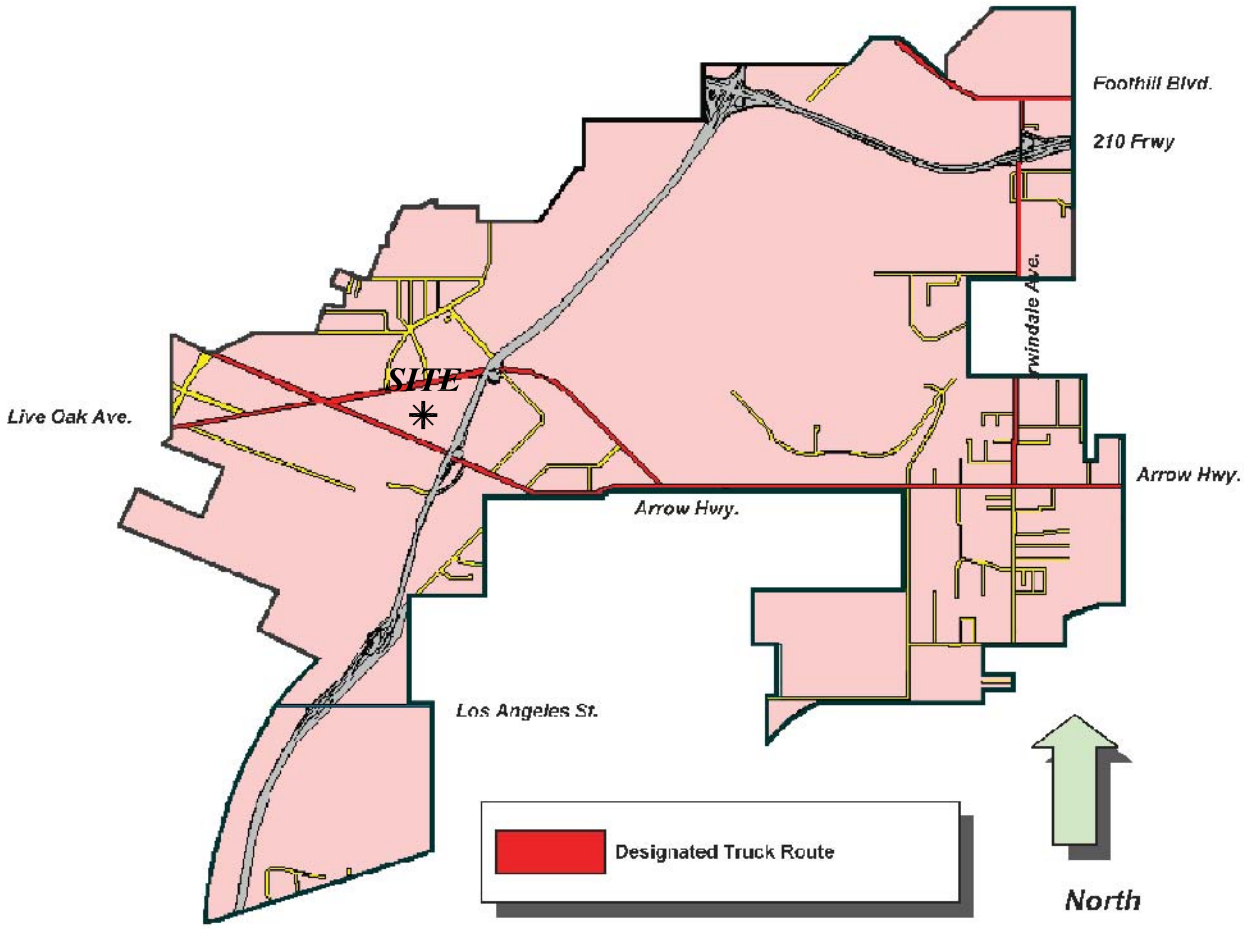
EXHIBIT 3-7: CITY OF MONROVIA GENERAL PLAN ROADWAY CROSS-SECTIONS



SOURCE: MONROVIA CIRCULATION ELEMENT 2008

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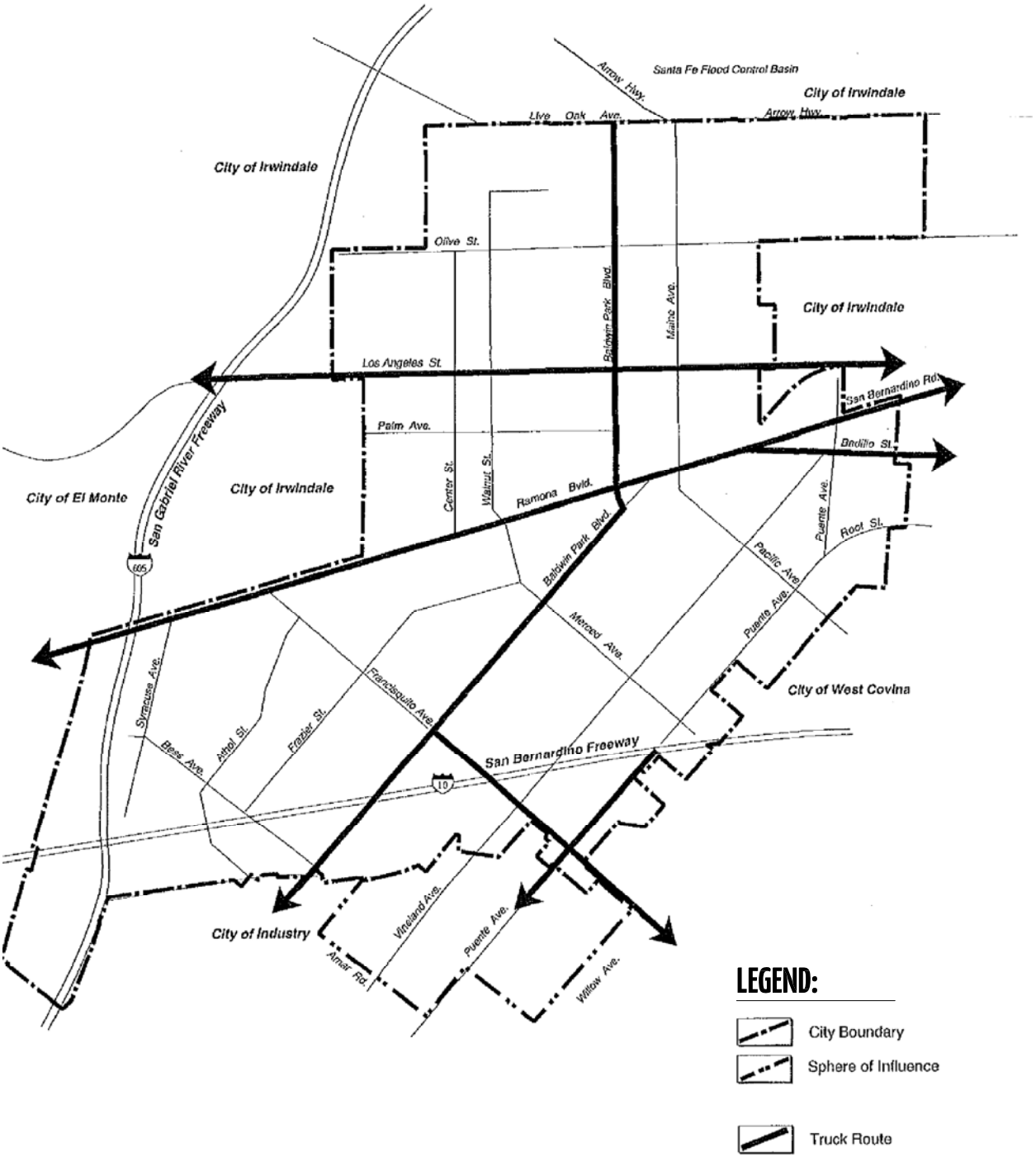
EXHIBIT 3-8: CITY OF IRWINDALE TRUCK ROUTES



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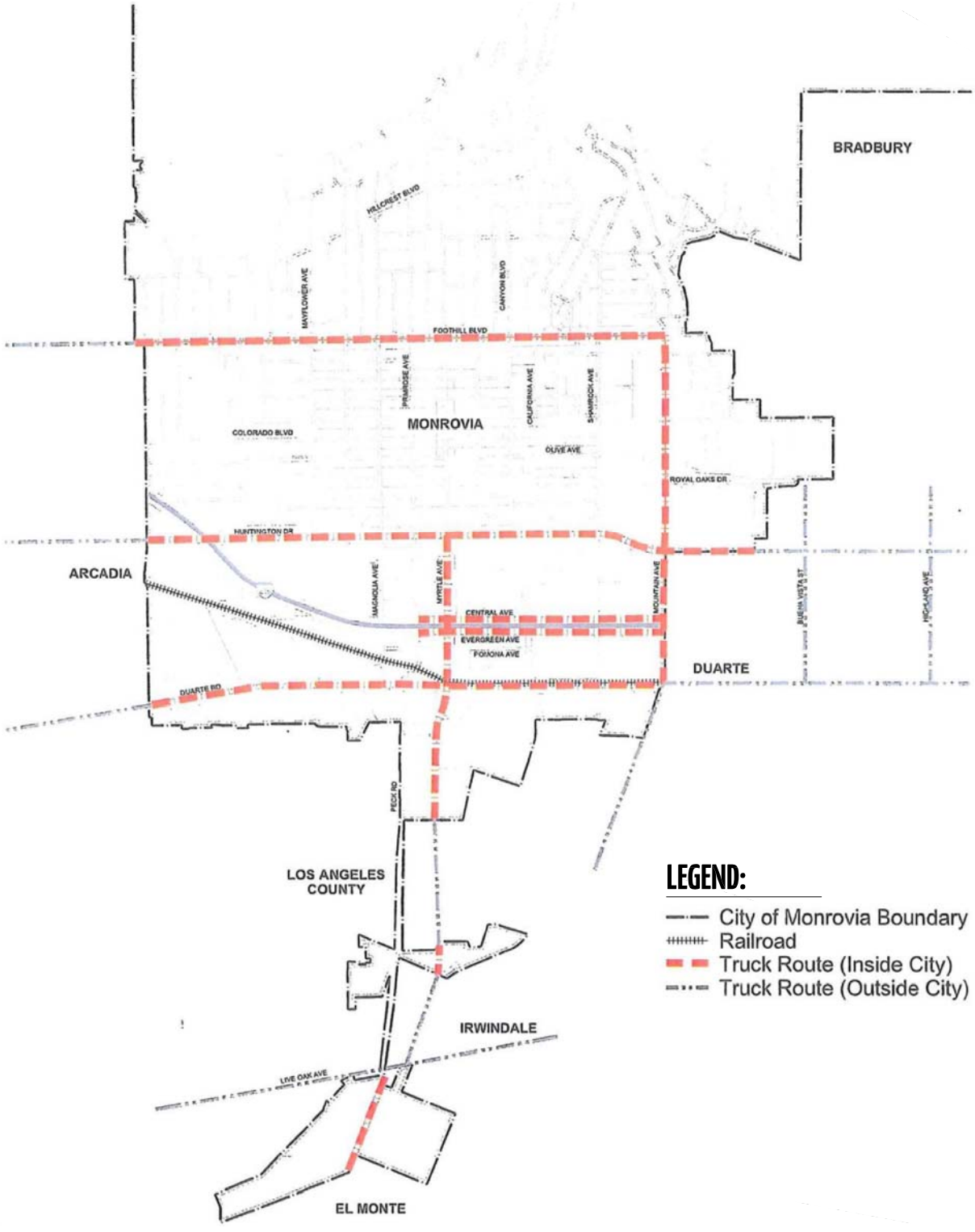
EXHIBIT 3-9: CITY OF BALDWIN PARK TRUCK ROUTES



SOURCE: BALDWIN PARK 2020 GENERAL PLAN

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EXHIBIT 3-10: CITY OF MONROVIA TRUCK ROUTES



SOURCE: MONROVIA CIRCULATION ELEMENT 2008

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3.6 BICYCLE & PEDESTRIAN FACILITIES

City of Baldwin Park bike routes are shown on Exhibit 3-11. Class II bikeways are on-road bike paths. There is a Class II bike lane proposed along Baldwin Park Boulevard. As shown on Exhibit 3-12, there are no bike lanes within the study area in the City of Monrovia.

Field observations conducted in December 2017 indicate nominal pedestrian and bicycle activity within the study area. Existing pedestrian facilities (sidewalk and crosswalk) and bus stop locations within the study area are shown on Exhibit 3-13.

3.7 TRANSIT SERVICE

The study area is currently served by Foothill Transit, a public transit agency serving 21-member cities in the San Gabriel and Pomona Valleys, including Irwindale and Baldwin Park. The existing transit routes in the study area are shown on Exhibit 3-14. Currently, the study area is served by Foothill Transit Route 492 along Live Oak Avenue/Arrow Highway, 272 along Buena Vista Street, Avenida Barbosa, Arrow Highway, and Baldwin Park Boulevard, and Foothill Transit Route 270 along Myrtle Avenue/Peck Road.

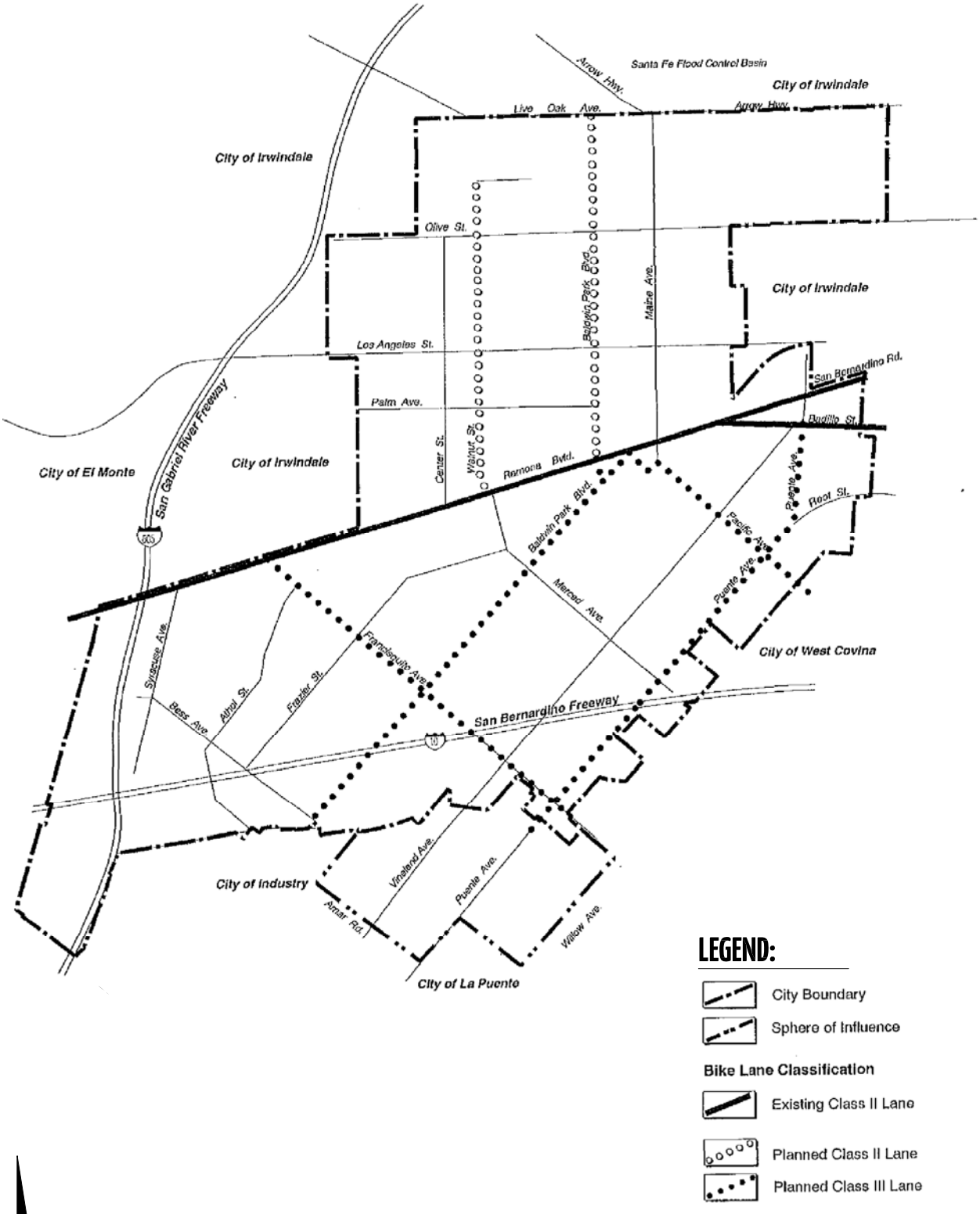
3.8 EXISTING TRAFFIC COUNTS

Manual weekday AM and PM peak hour turning movement counts were conducted in November 2017, while surrounding area schools were in session. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. The traffic counts collected in March and June 2017 include the vehicle classifications as shown below:

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

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 the purpose of 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. It should be noted that LA County and the Southern California Association of Governments (SCAG) do not have readily available PCE factor recommendations. As such, the PCE factors used are based on recommendations from San Bernardino County Transportation Authority (SBCTA) which is consistent with standard engineering practice throughout the southern California region. Further use of the SBCTA PCE factors was reviewed by the City of Irwindale staff during the traffic study scoping process and is appropriate based on Urban Crossroads' professional engineering judgment.

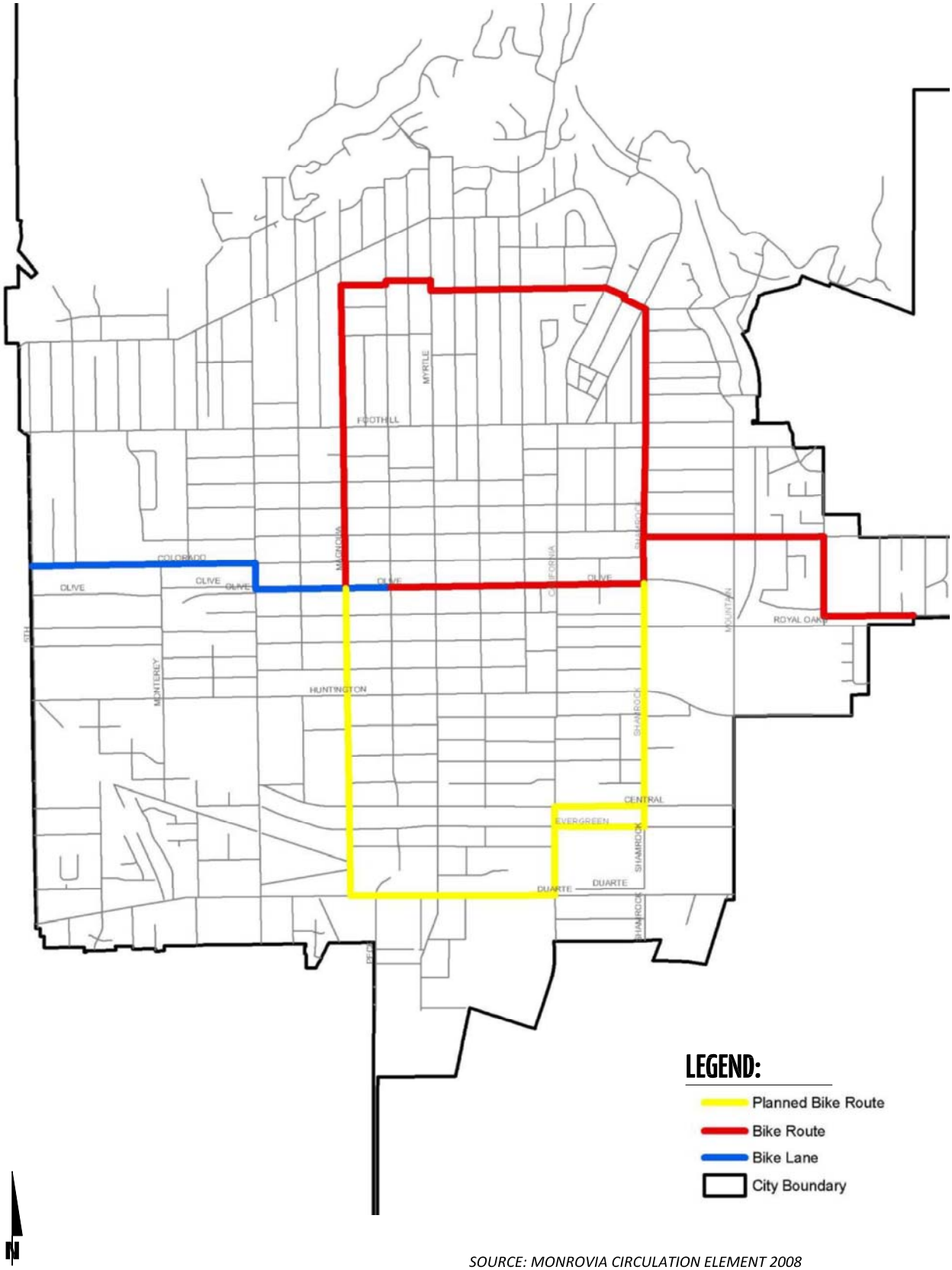
EXHIBIT 3-11: CITY OF BALDWIN PARK BIKEWAY PLAN



SOURCE: BALDWIN PARK 2020 GENERAL PLAN

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EXHIBIT 3-12: CITY OF MONROVIA BIKE ROUTES



SOURCE: MONROVIA CIRCULATION ELEMENT 2008

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EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES

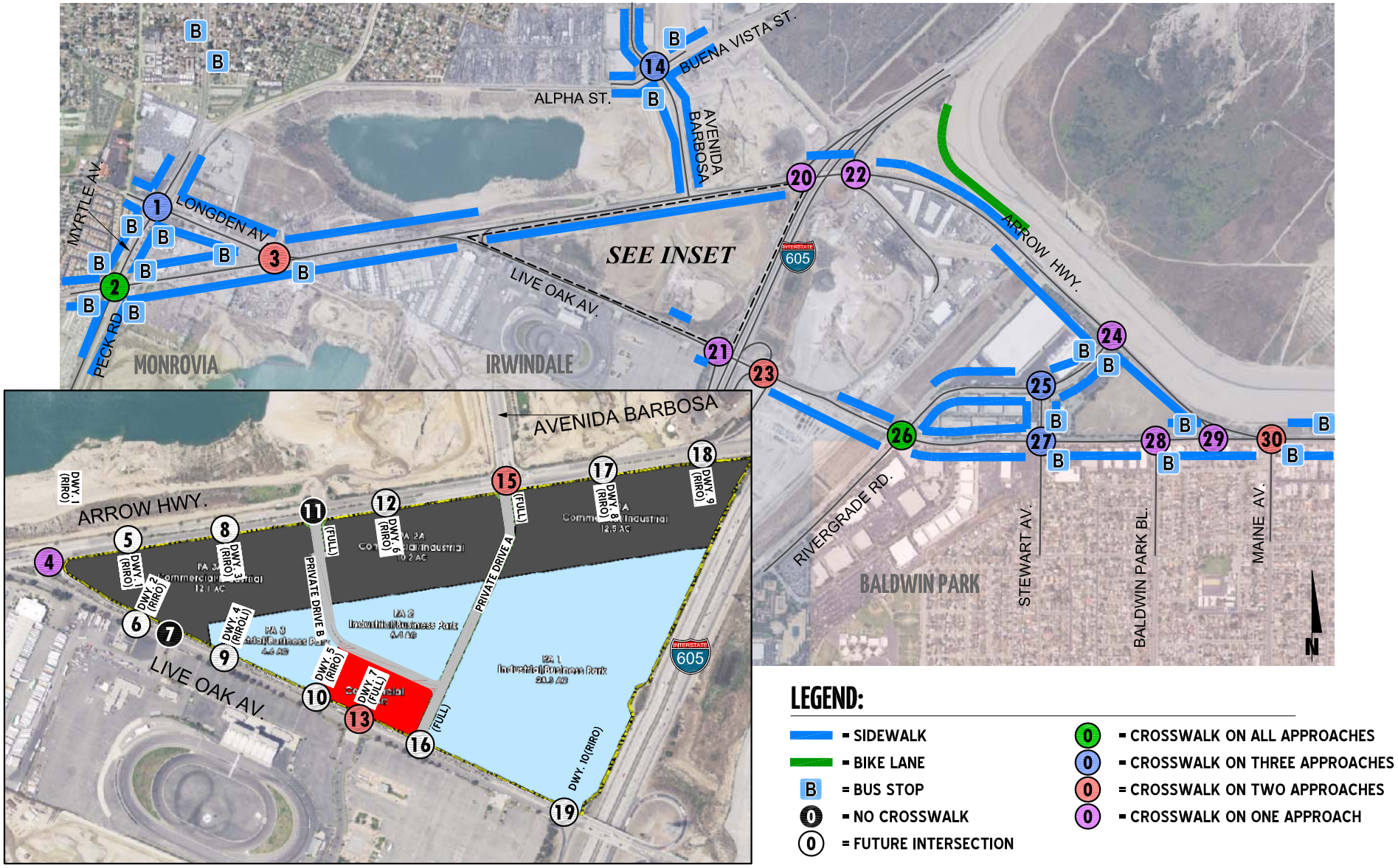
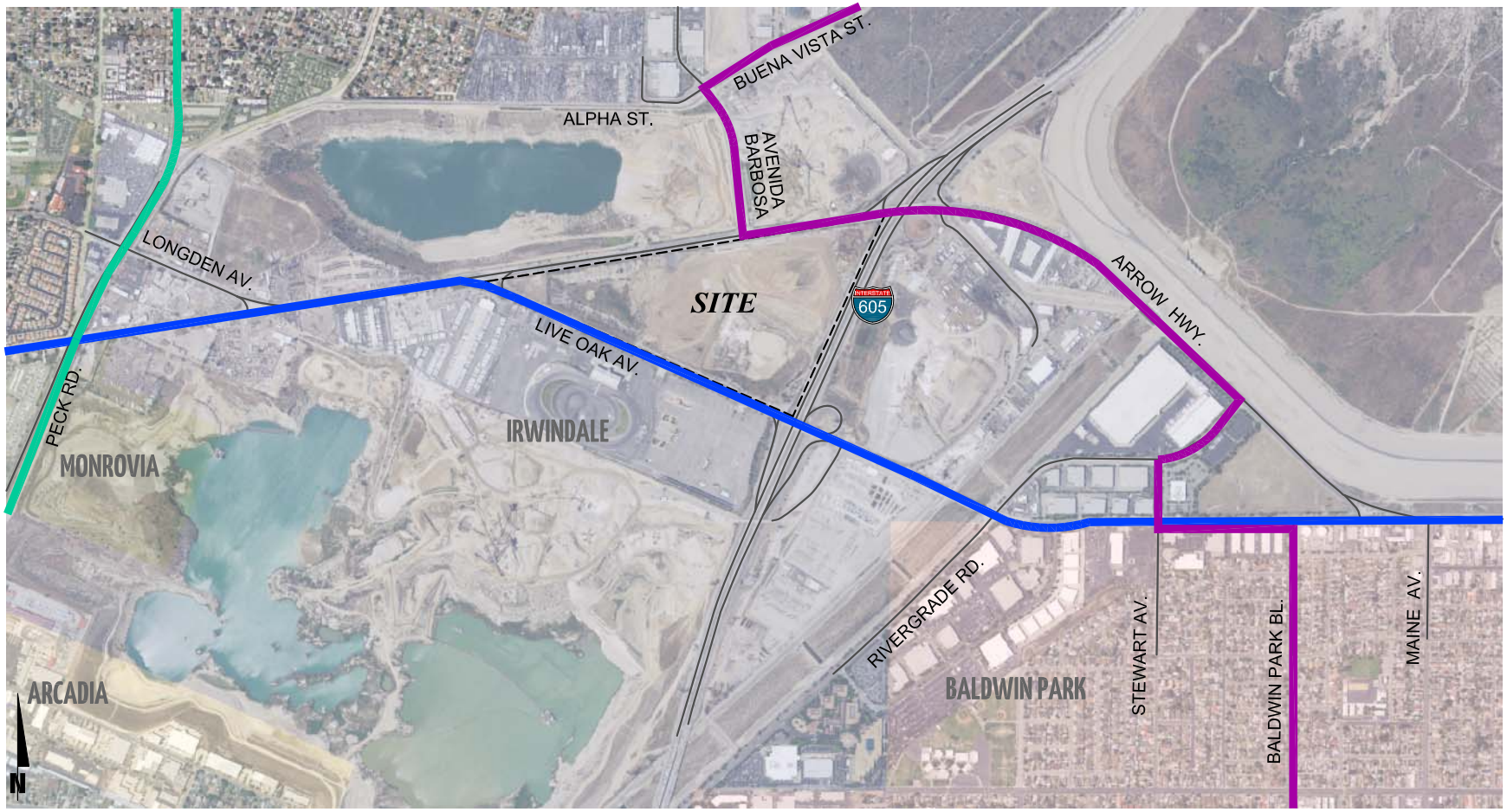


EXHIBIT 3-14: EXISTING TRANSIT ROUTES



Existing average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-15. 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 10.88 = 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 9.19 percent. As such, the above equation utilizing a factor of 10.88 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 9.19 percent (i.e., 1/0.0919 = 10.88) and was assumed to sufficiently estimate ADT volumes for planning-level analyses.

Existing AM and PM peak hour intersection volumes are shown on Exhibit 3-16. All of the intersection turning movement volumes illustrated on the exhibits and used in the peak hour operations analyses are shown in terms of PCE.

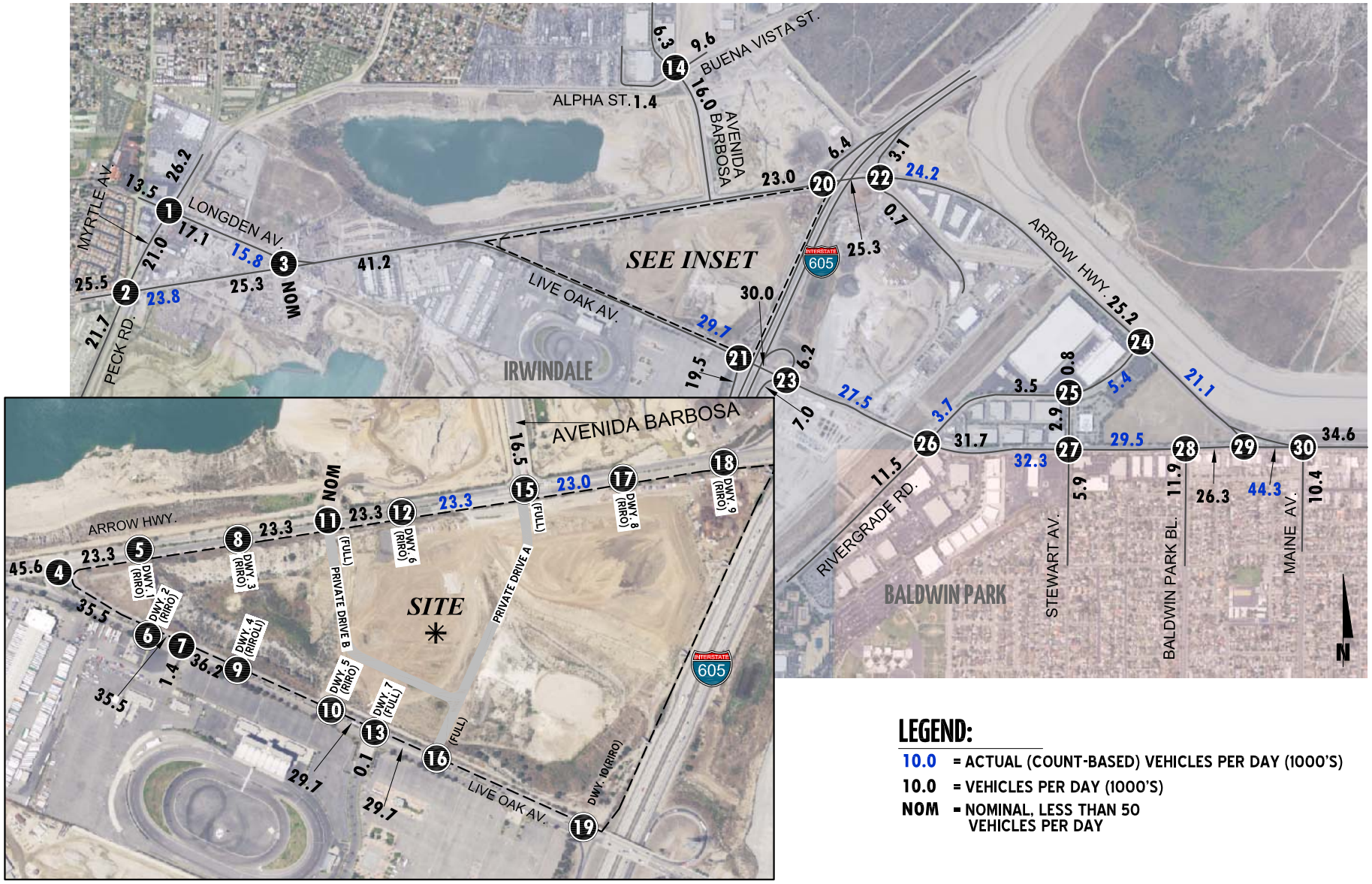
3.9 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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, based on each applicable jurisdiction's LOS criteria:

- Myrtle Avenue & Longden Avenue (#1) – LOS E PM peak hour only
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2) – LOS E PM peak hour only
- Live Oak Avenue & Arrow Highway (West) (#4) – LOS E AM peak hour only
- Speedway Driveway & Live Oak Avenue (#7) – LOS F PM peak hour only
- Avenida Barbosa & Arrow Highway (#15) – LOS F AM peak hour only
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23) – LOS F AM and PM peak hours
- Rivergrade Road & Live Oak Avenue (#26) – LOS F PM peak hour only

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions is shown on Exhibit 3-17. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

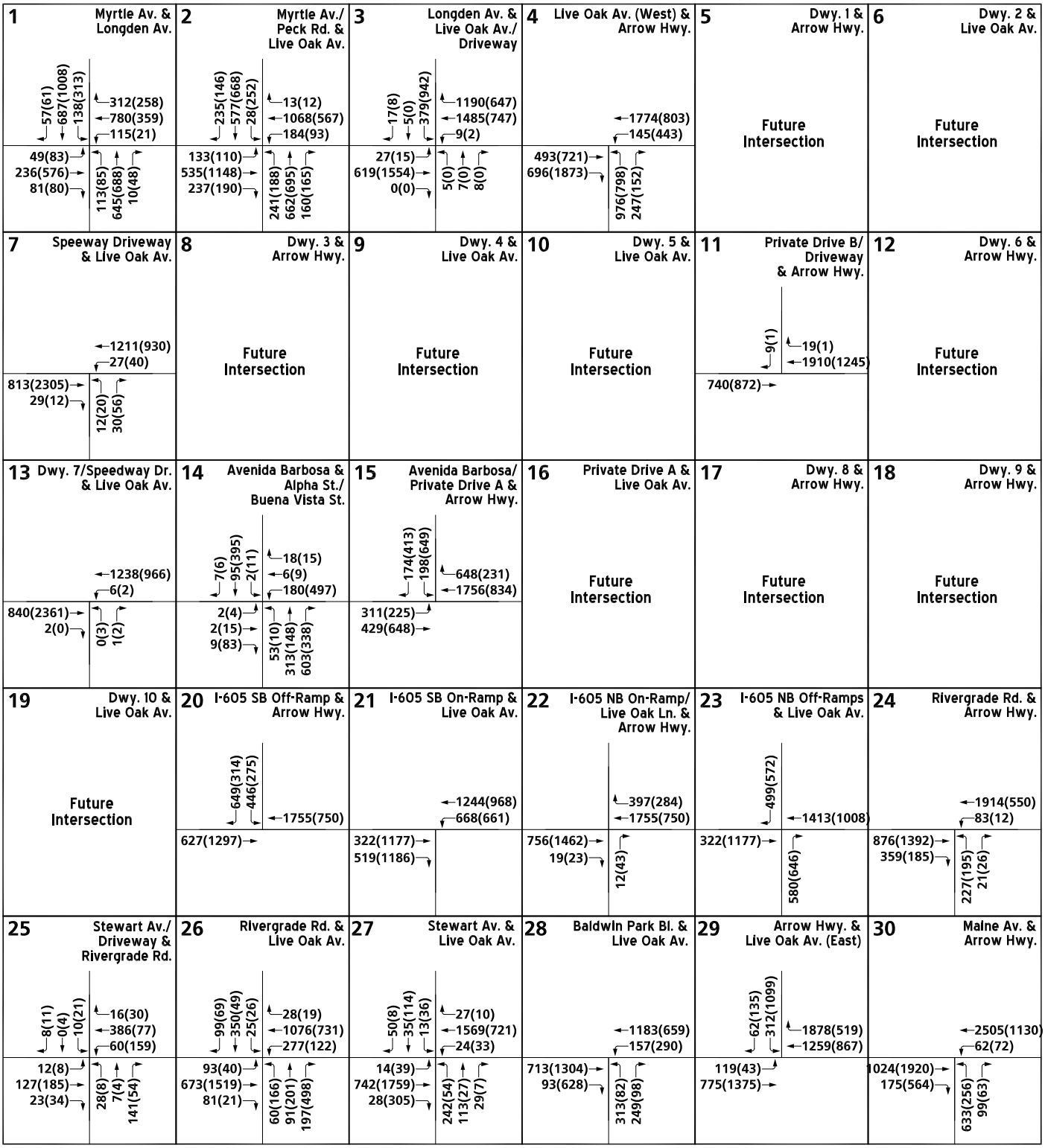
EXHIBIT 3-15: EXISTING (2017) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0	= ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0	= VEHICLES PER DAY (1000'S)
NOM	= NOMINAL, LESS THAN 50 VEHICLES PER DAY

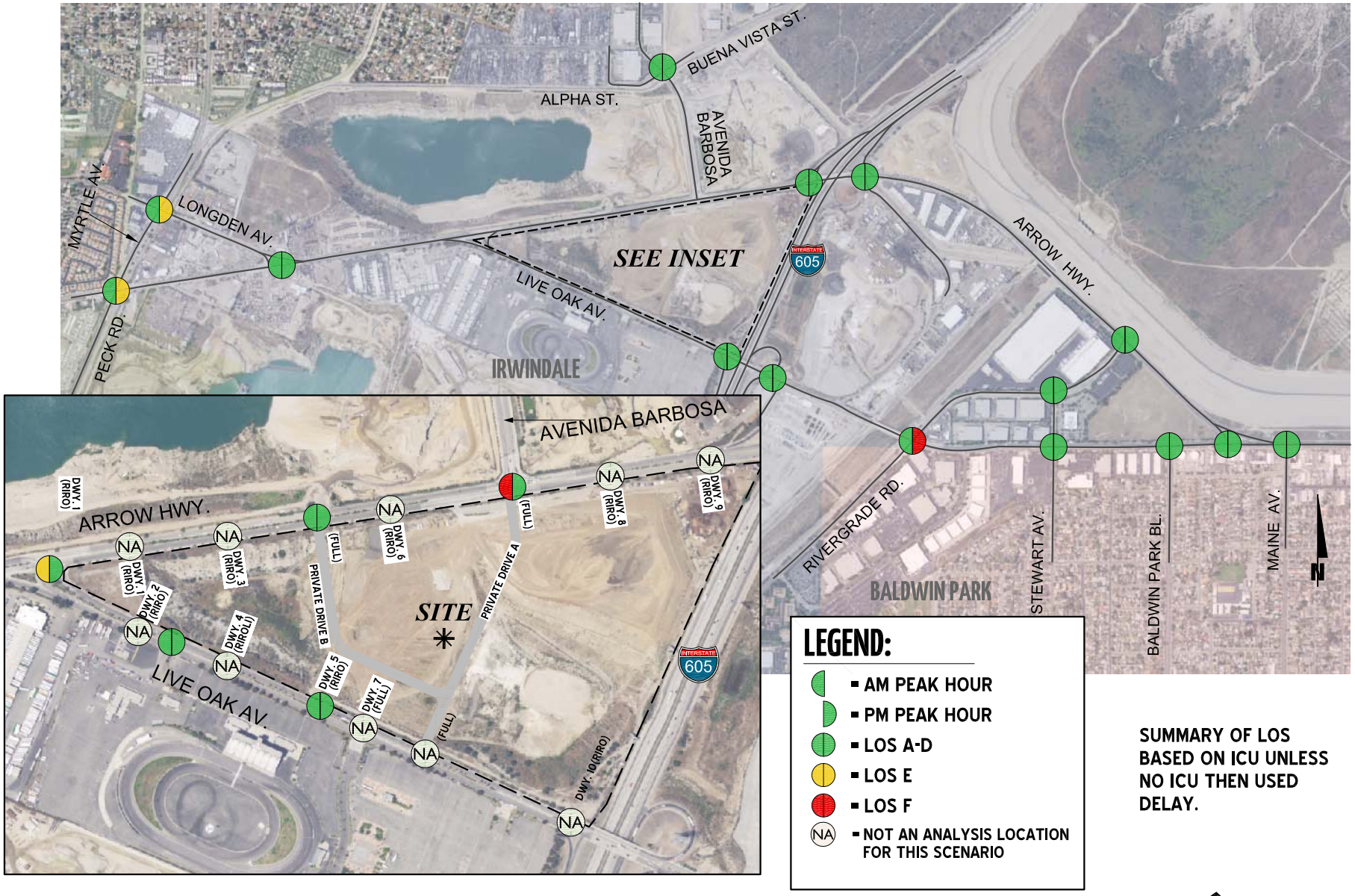
EXHIBIT 3-16: EXISTING (2017) TRAFFIC VOLUMES (IN PCE)



LEGEND:

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

EXHIBIT 3-17: EXISTING (2017) SUMMARY OF LOS



URBAN CROSSROADS

Table 3-1

Intersection Analysis for Existing (2017) Conditions

#	Intersection	Traffic Control[4]	Intersection Approach Lanes[1]												HCM Delay[2] (secs.)		Level of Service		ICU[3] (v/c)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.	TS	1	2	0	1	2	d	1	1	1	1	2	0	Not Applicable[7]				0.81	**0.92**	D	**E**
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	1	2	d	1	2	d	1	2	1	1	2	0	Not Applicable[7]				0.88	**0.94**	D	**E**
3	Longden Av. & Live Oak Av./Driveway	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	Not Applicable[7]				0.74	0.88	C	D
4	Live Oak Av. & Arrow Hwy. (West)	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	Not Applicable[7]				**0.99**	0.69	**E**	B
5	Dwy. 1 & Arrow Hwy.		Future Intersection																			
6	Dwy. 2 & Live Oak Av.		Future Intersection																			
7	Speedway Dwy. & Live Oak Av.	CSS	0	1	0	0	0	0	0	3	0	1	2	0	20.8	**>100.0**	C	**F**	Not Applicable[5]			
8	Dwy. 3 & Arrow Hwy.		Future Intersection																			
9	Dwy. 4 & Live Oak Av.		Future Intersection																			
10	Dwy. 5 & Live Oak Av.		Future Intersection																			
11	Driveway/Private Drive B & Arrow Hwy.	CSS	0	0	0	0	0	1	0	2	0	0	3	0	0.0	15.0	A	C	Not Applicable[5]			
12	Dwy. 6 & Arrow Hwy.		Future Intersection																			
13	Dwy. 7/Speedway Dr. & Live Oak Av.	TS	2	0	1	0	0	0	0	3	0	1	2	0	Not Applicable[7]				0.49	0.59	A	A
14	Avenida Barbosa & Alpha St./Buena Vista St.	TS	0	1	2>	0	1	d	1	2	d	1	2	d	Not Applicable[7]				0.51	0.72	A	C
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	0	0	0	2	0	1	1	2	0	0	2	1	Not Applicable[7]				**1.02**	0.69	**F**	B
16	Private Drive A & Live Oak Av.		Future Intersection																			
17	Dwy. 8 & Arrow Hwy.		Future Intersection																			
18	Dwy. 9 & Arrow Hwy.		Future Intersection																			
19	Dwy. 10 & Live Oak Av.		Future Intersection																			
20	I-605 SB Off-Ramp & Arrow Hwy.	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	17.7	7.6	B	A	Not Applicable[6]			
21	I-605 SB On-Ramp & Live Oak Av.	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	6.0	14.3	B	B	Not Applicable[6]			
22	I-605 NB On-Ramp/Live Oak Ln. & Arrow Hwy.	CSS	0	0	1	0	0	0	0	2	d	0	2	1	11.2	16.7	B	C	Not Applicable[5,6]			
23	I-605 NB Off-Ramp & Live Oak Av.	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	Not Applicable[5,6]			
24	Rivergrade Rd. & Arrow Hwy.	TS	2	0	1	0	0	0	0	2	1	1	2	0	Not Applicable[7]				0.79	0.61	C	B
25	Stewart Av./Driveway & Rivergrade Rd.	TS	1	1	0	0	2	0	1	2	0	1	2	0	Not Applicable[7]				0.37	0.32	A	A
26	Rivergrade Rd. & Live Oak Av.	TS	1	1	1	1	2	1	1	2	1	1	2	1	Not Applicable[7]				0.71	**1.04**	C	**F**
27	Stewart Av. & Live Oak Av.	TS	0	1	0	1	1	1	1	2	1	1	2	d	Not Applicable[7]				0.90	0.80	D	C
28	Baldwin Park Bl. & Live Oak Av.	TS	2	0	1	0	0	0	0	2	d	1	2	0	Not Applicable[7]				0.67	0.78	B	C
29	Arrow Hwy. & Live Oak Av. (East)	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	Not Applicable[7]				0.69	0.90	B	D
30	Maine Av. & Arrow Hwy.	TS	2	0	1	0	0	0	0	2	d	1	3	0	Not Applicable[7]				0.86	0.82	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 Lane; d= Defacto Right Turn Lane

[2] Per the Highway Capacity Manual (HCM) (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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

[4] TS = Traffic Signal; CSS = Cross-street Stop

[5] ICU not reported for intersections without a signal.

[6] ICU not reported for intersections under Caltrans' jurisdiction.

[7] HCM not reported for signalized intersections.

3.10 EXISTING CONDITIONS ROADWAY SEGMENT CAPACITY ANALYSIS

Table 3-2 provides a summary of the Existing (2017) conditions roadway segment capacity analysis based on the City of Irwindale Roadway Segment Capacity Thresholds. As shown on Table 3-2, the following study area roadway segments are currently operating at an unacceptable LOS based on the City's peak hour planning level roadway capacity thresholds:

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS D
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS D
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS F

3.11 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. For Existing traffic conditions, the following study area intersection currently warrants a traffic signal (See Appendix 3.3):

- Speedway Drive & Live Oak Avenue (#7)

3.11 EXISTING CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

An off-ramp queuing analysis was performed for the I-605 off-ramp at Arrow Highway and Live Oak Avenue to assess vehicle queues that may potentially impact peak hour operations at the ramp-to-arterial intersections and "spill back" onto the I-605 Freeway mainline. Off-ramp queuing analysis findings are presented in Table 3-3. As shown on Table 3-3, there are no queuing issues on the I-605 Freeway off-ramps during the peak hours. Worksheets for Existing conditions queuing analysis are provided in Appendix 3.4.

3.12 EXISTING CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

Existing mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 3-18 for the I-605 Freeway north of Arrow Highway Avenue to south of Live Oak Avenue. As shown on Table 3-4, the I-605 Freeway segments analyzed for this study were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing traffic conditions. Existing basic freeway segment analysis worksheets are provided in Appendix 3.5.

It should be noted that although the I-605 Northbound Freeway mainline is found to operate at an acceptable LOS, according to Caltrans PeMS, the average speed along these freeway segments is 17 mph during the PM peak hour only. However, the reported LOS is acceptable due to constrained traffic flow conditions. In other words, the freeway is slow moving at 17 mph during the PM peak hours, therefore, not as many vehicles are passing by and being reported in the PeMS data. As a result, the LOS is reported as acceptable, however, the freeway is considered at capacity during the evening peak commute hours (i.e., LOS E or worse).

Table 3-2

Roadway Segment Analysis for Existing (2017) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2017	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	17,118	**0.86**	**D**
2	Live Oak Av.	Peck Rd. to Longden Av.	4D	30,000	23,789	0.79	C
3		Longden Av. to Live Oak Av.	6D	53,000	41,218	0.78	C
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	4D	30,000	23,304	0.78	C
5		Dwy. 1 to Dwy. 3	4D	30,000	23,304	0.78	C
6		Dwy. 3 to Driveway/Private Drive B	4D	30,000	23,304	0.78	C
7		Driveway/Private Drive B to Dwy. 6	5D	37,500	23,304	0.62	B
8		Dwy. 6 to Avenida Barbosa/Private Drive A	5D	37,500	23,304	0.62	B
9		Avenida Barbosa/Private Drive A to Dwy. 8	4D	30,000	23,035	0.77	C
10		Dwy. 8 to Dwy. 9	4D	30,000	23,035	0.77	C
11		Dwy. 9 to I-605 SB Off-Ramp	4D	30,000	23,035	0.77	C
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	25,255	**0.84**	**D**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	24,237	**0.81**	**D**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	21,137	0.70	B
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment		
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	15,981	0.80	C
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment		
18		North of Live Oak Av.	2U	10,000	Future Segment		
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	5D	46,700	35,519	0.76	C
20		Dwy. 2 to Speedway Dwy.	5D	46,700	35,519	0.76	C
21		Speedway Dwy. to Dwy. 4	5D	46,700	29,664	0.64	B
22		Dwy. 4 to Dwy. 5	5D	46,700	29,664	0.64	B
23		Dwy. 5 to Dwy. 7	5D	46,700	29,664	0.64	B
24		Dwy. 7 to Private Drive A	5D	46,700	29,664	0.64	B
25		Private Drive A to Dwy. 10	5D	46,700	29,664	0.64	B
26		Dwy. 10 to I-605 SB On-Ramp	5D	46,700	29,664	0.64	B
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	29,982	0.74	C
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	27,508	0.68	B
29		Rivergrade Rd. to Stewart Av.	5D	46,700	32,254	0.69	B
30		Stewart Av. to Baldwin Park Bl.	4D	40,400	29,466	0.73	C
31		Baldwin Park Bl. to Arrow Hwy.	4D	40,400	26,310	0.65	B
32		Arrow Hwy. to Maine Av.	4D	40,400	44,296	**1.10**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	5,363	0.27	A
34		Stewart Av. to Live Oak Av.	4D	20,000	3,699	0.18	A

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

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 3-3

Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2017) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-605 SB Off-Ramp / Arrow Hwy.	SBLT	960	377	151	Yes	Yes
I-605 NB Off-Ramps / Live Oak Av.	NBR	1,920	148	588	Yes	Yes
	SBR	2,650	488	328	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 3-4

Basic Freeway Segment Analysis for Existing (2017) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Volume		Truck %	Truck %	Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-605	SB	North of Arrow Hwy.	4	5,922	4,987	5%	4%	25.1	20.3	C	C
		Arrow Hwy. to Live Oak Av.	4	4,897	4,449	5%	4%	20.1	18.0	C	B
		South of Live Oak Av.	4	5,820	6,130	8%	5%	25.5	26.3	C	D
	NB	North of Arrow Hwy.	4	4,568	4,330	10%	14%	19.6	19.2	C	C
		Arrow Hwy. to Live Oak Av.	4	3,981	3,977	10%	15%	17.0	17.7	B	B
		South of Live Oak Av.	4	4,883	5,121	10%	13%	21.1	23.0	C	C

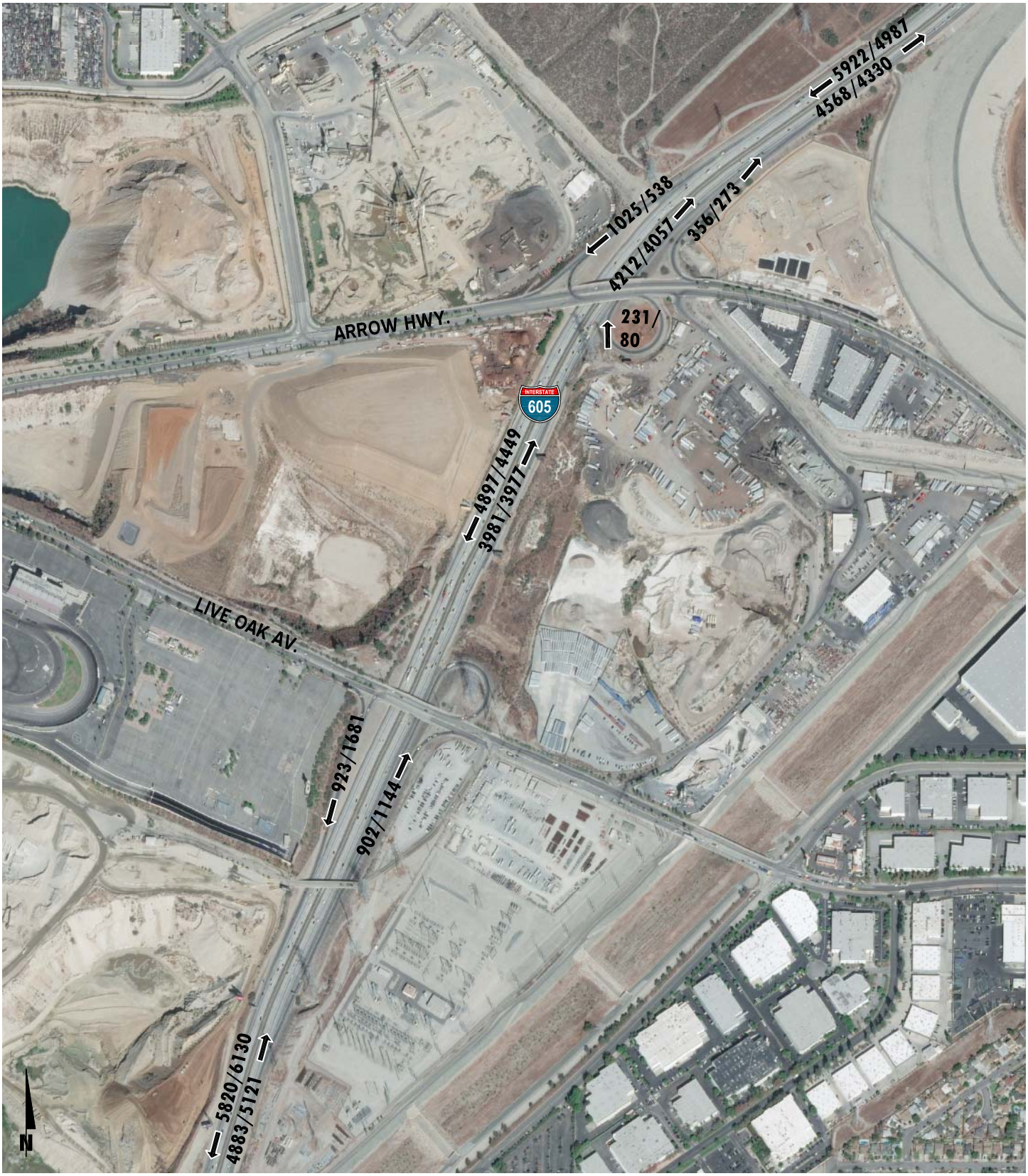
* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

EXHIBIT 3-18: EXISTING (2017) FREEWAY MAINLINE VOLUMES



3.13 EXISTING CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Existing conditions and the results of this analysis are presented in Table 3-5. As shown in Table 3-5, the I-605Freeway ramp merge/diverge ramp junctions are currently operating at LOS D or better during the peak hours under Existing traffic conditions. Existing freeway ramp junction operations worksheets are provided in Appendix 3.6.

Table 3-5

Freeway Ramp Junction Merge/Diverge Analysis for Existing (2017) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]
I-605	SB	Off-Ramp at Arrow Hwy.	4	25.6	D	20.7	C
		On-Ramp at Live Oak Av.	4	25.9	D	27.2	D
	NB	On-Ramp at Arrow Hwy.	4	20.2	C	19.8	C
		Loop On-Ramp at Arrow Hwy.	4	18.6	B	18.5	B
		Off-Ramp at Live Oak Av.	4	22.0	D	24.0	D

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

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. For purposes of this TIA, the Project is assumed to include the following mix of land uses within four PAs:

- PA 1: 412,500 square feet High-Cube Fulfillment Center Warehouse[1]
- PA 1: 412,500 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 1A: 8,700 square feet of Fast Food Restaurant with Drive-through Window
- PA 1A: 12,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 1A: 12,000 square feet of Shopping Center use
- PA 1A: 8 vehicle fueling position Gas Station with Convenience Market
- PA 2/PA 2A: 218,400 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 2/PA 2A: 54,600 square feet of General Light Industrial
- PA 2/PA 2A: 60,000 square feet of Warehousing
- PA 3: 102,000 square feet of Manufacturing
- PA 3: 191,400 square feet of Warehousing
- PA 3A: 3,000 square feet of Coffee-shop with Drive-Through Window
- PA 3A: 7,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 3A: 10,500 square feet of Shopping Center use
- PA 4: 47,000 square feet of Shopping Center use

[1] It should be noted that up to 387,500 square feet of High-Cube Warehouse (With Cold Storage) may be developed in lieu of 387,500 square feet of High-Cube Fulfillment Center Warehouse use or a combination of High-Cube Fulfillment Center Warehouse, Warehousing, and/or Manufacturing uses. The uses identified above have been evaluated for the purposes of this TIA.

The land use assumptions are based on the list of permitted uses specified for each PA by the Specific Plan. This TIA is focused on the evaluation of potential traffic impacts based on trip generation estimates that were developed to be conservative and provide flexibility for the placement, sizing, and design of specific buildings that will be developed in the Specific Plan area. Actual development proposals for the Project may differ slightly from that listed here, but would be required to adhere to the overall trip generation cap identified and evaluated by this TIA. Land use assumptions evaluated for the purposes of this TIA are conservative in nature in order to evaluate the maximum potential impacts. It should be noted that although for the purposes of this TIA the total commercial retail square footage totals 53,200 square feet, the Specific Plan identifies a maximum square footage of 51,600 square feet within PA 1A, PA 2A, and PA 3A.

The anticipated Opening Year for the Project is 2020. The Project is proposed to access to both Arrow Highway and Live Oak Avenue. Regional access to the Project site will be provided by the I-605 Freeway via Arrow Highway and Live Oak Avenue.

4.1 PROJECT TRIP GENERATION

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.

The Institute of Transportation Engineers (ITE)Trip Generation Manual is a nationally recognized source for estimating site specific trip generation. The trip generation rates used for the Project are based upon data collected by ITE in their Trip Generation Manual, 10th Edition, 2017. [3]

Brief descriptions of the proposed Project land uses are provided below:

General Light Industrial (ITE 110): A light industrial facility is a free-standing facility devoted to a single use. The facility has an emphasis on activities other than manufacturing and typically has minimal office space.

Manufacturing (ITE 140): A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facility generally also have office, warehouse, research, and associated functions.

Warehousing (ITE 150): Warehouses are primarily devoted to the storage of materials, but they may also include office and maintenance areas. High-cube warehouse/distribution center and business park are related uses.

A high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24-feet or more, and is used primarily for the storage and/or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. A typical high-cube warehouse has a high level of on-site automation and logistics management which enable highly efficient process of goods.

High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage) (ITE 154): Transload facilities have a primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. They typically have little storage duration, high throughput, and are high-efficiency facilities. Short-term high-cube warehouses are high-efficiency distribution facilities often with custom/special features built into structure movement of large volumes of freight with only short-term storage of products.

High-Cube Fulfillment Center Warehouse (ITE 155): High-cube fulfillment center warehouses include warehouses characterized by a significant storage function and direct distribution of ecommerce product to end users. These facilities typically handle smaller packages and quantities than other types of high-cube warehouses and often contain multiple mezzanine levels.

Shopping Center (ITE 820): Shopping centers are an integrated group of commercial establishments that are planned, developed, and owned and managed as a unit. Shopping centers include neighborhood centers, community centers, regional centers, and super regional centers. These centers often include non-merchandising facilities such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities.

Fast-Food Restaurant without Drive-Through Window (ITE 933): This land use includes fast-food restaurants without drive-through windows. These types of restaurants are characterized by a large carry-out clientele, long hours of service, and high turnover rates for dine-in customers. They generally do not provide table service.

Fast-Food Restaurant with Drive-Through Window (ITE 934): This category includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service, and high turnover rates for eat-in customers.

Coffee/Donut Shop with Drive-Through Window (ITE 937): This land use includes single-tenant coffee and donut restaurants with drive-through windows. Freshly brewed coffee and a variety of coffee-related accessories are the primary retail products sold at these sites. The coffee and donut shops contained in this land use typically hold long store hours with an early morning opening.

Gasoline Station with Convenience Market (ITE 945): This land use includes gasoline/service stations with convenience markets where the primary business is the fueling of motor vehicles. These service stations may also have ancillary facilities for servicing and repairing motor vehicles and may have a car wash.

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.

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. As the Project is proposed to include these types of land uses, pass-by percentages have been obtained from the ITE Trip Generation Handbook for each applicable land use. [12]

Trip generation rates used to estimate traffic generated by the Project in terms of PCE and actual vehicles are shown in Table 4-1. As shown on Table 4-2, the Project would generate a net total of approximately 15,867 PCE trip ends per day with 1,280 PCE AM peak hour trips and 1,644 PCE PM peak hour trips. A summary of trip generation for the Project in terms of actual vehicles is shown in Table 4-3; which indicates the Project would generate a net total of approximately 14,607 trip-ends per day with 1,198 AM peak hour trips and 1,562 PM peak hour trips.

Table 4-1

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	
Actual Vehicle Trip Generation Rates									
General Light Industrial[5]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars (78.6%)			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (8.0%)			0.049	0.007	0.056	0.007	0.044	0.050	0.397
3-Axle Trucks (3.9%)			0.024	0.003	0.027	0.003	0.021	0.025	0.193
4-Axle+ Trucks (9.5%)			0.059	0.008	0.067	0.008	0.052	0.060	0.471
Manufacturing[5]	TSF	140	0.477	0.143	0.620	0.208	0.462	0.670	3.930
Passenger Cars (79.57%)			0.380	0.113	0.493	0.165	0.368	0.533	3.127
2-Axle Trucks (3.46%)			0.017	0.005	0.021	0.007	0.016	0.023	0.136
3-Axle Trucks (4.64%)			0.022	0.007	0.029	0.010	0.021	0.031	0.182
4-Axle+ Trucks (12.33%)			0.059	0.018	0.076	0.026	0.057	0.083	0.485
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%)			0.004	0.001	0.005	0.002	0.005	0.007	0.058
3-Axle Trucks (4.14%)			0.005	0.002	0.007	0.002	0.006	0.008	0.072
4-Axle+ Trucks (12.52%)			0.016	0.005	0.021	0.006	0.017	0.023	0.218
High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)[4]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.043	0.013	0.055	0.022	0.056	0.078	0.949
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%)			0.003	0.001	0.004	0.001	0.003	0.004	0.075
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%)			0.004	0.001	0.005	0.001	0.003	0.004	0.093
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%)			0.012	0.004	0.015	0.004	0.010	0.014	0.282
High-Cube Fulfillment Center Warehouse[4]	TSF	155	0.454	0.136	0.590	0.384	0.986	1.370	8.180
Passenger Cars (AM-97.2%; PM-98.2%; Daily-91.2%)			0.442	0.132	0.573	0.377	0.969	1.345	7.460
2-Axle Trucks (AM-0.47%; PM-0.30%; Daily-1.47%)			0.002	0.001	0.003	0.001	0.003	0.004	0.120
3-Axle Trucks (AM-0.58%; PM-0.37%; Daily-1.82%)			0.003	0.001	0.003	0.001	0.004	0.005	0.149
4-Axle+ Trucks (AM-1.75%; PM-1.13%; Daily-5.50%)			0.008	0.002	0.010	0.004	0.011	0.015	0.450
Retail	TSF	820	0.583	0.357	0.940	1.829	1.981	3.810	37.750
Retail[6]	TSF	820	2.310	1.420	3.730	3.170	3.440	6.610	76.550
Fast Food w/o Drive Thru	TSF	933	15.060	10.040	25.100	14.170	14.170	28.340	346.230
Fast Food w/ Drive Thru	TSF	934	20.497	19.693	40.190	16.988	15.682	32.670	470.950
Coffee/Donut Shop w/ Drive Thru	TSF	937	45.385	43.605	88.990	21.690	21.690	43.380	820.380
Gasoline Station w/ Market	VFP	945	10.135	10.130	20.270	11.180	11.180	22.360	198.160

Table 4-1

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car Equivalent (PCE) Trip Generation Rates[5]									
General Light Industrial[5]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars (78.6%)			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (8.0%) (PCE = 1.5)			0.074	0.010	0.084	0.010	0.066	0.076	0.595
3-Axle Trucks (3.9%) (PCE = 2.0)			0.048	0.007	0.055	0.006	0.043	0.049	0.387
4-Axle+ Trucks (9.5%) (PCE = 3.0)			0.176	0.024	0.200	0.023	0.156	0.180	1.414
Manufacturing[5]	TSF	140	0.477	0.143	0.620	0.208	0.462	0.670	3.930
Passenger Cars (79.57%)			0.380	0.113	0.493	0.165	0.368	0.533	3.127
2-Axle Trucks (3.46%) (PCE = 1.5)			0.025	0.007	0.032	0.011	0.024	0.035	0.204
3-Axle Trucks (4.64%) (PCE = 2.0)			0.044	0.013	0.058	0.019	0.043	0.062	0.365
4-Axle+ Trucks (12.33%) (PCE = 3.0)			0.177	0.053	0.229	0.077	0.171	0.248	1.454
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%) (PCE = 1.5)			0.006	0.002	0.008	0.003	0.008	0.011	0.087
3-Axle Trucks (4.14%) (PCE = 2.0)			0.010	0.004	0.014	0.004	0.012	0.016	0.144
4-Axle+ Trucks (12.52%) (PCE = 3.0)			0.048	0.015	0.063	0.018	0.051	0.069	0.654
High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)[4]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.043	0.013	0.055	0.022	0.056	0.078	0.949
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%) (PCE = 1.5)			0.005	0.001	0.006	0.002	0.004	0.005	0.113
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%) (PCE = 2.0)			0.008	0.002	0.010	0.003	0.006	0.009	0.187
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%) (PCE = 3.0)			0.036	0.011	0.046	0.011	0.029	0.041	0.845
High-Cube Fulfillment Center Warehouse[4]	TSF	155	0.454	0.136	0.590	0.384	0.986	1.370	8.180
Passenger Cars (AM-97.2%; PM-98.2%; Daily-91.2%)			0.442	0.132	0.573	0.377	0.969	1.345	7.460
2-Axle Trucks (AM-0.47%; PM-0.30%; Daily-1.47%) (PCE = 1.5)			0.003	0.001	0.004	0.002	0.004	0.006	0.180
3-Axle Trucks (AM-0.58%; PM-0.37%; Daily-1.82%) (PCE = 2.0)			0.007	0.002	0.009	0.004	0.009	0.013	0.373
4-Axle+ Trucks (AM-1.75%; PM-1.13%; Daily-5.50%) (PCE = 3.0)			0.024	0.007	0.031	0.013	0.033	0.046	1.350

[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: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.

[4] Vehicle Mix Source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE.

Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for high-cube warehouse. PCE rates are per SBCTA.

[5] Vehicle Mix Source: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.

[6] Trip generation rates based on the regression equation for the commercial retail site in PA 4.

Table 4-2

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 1: High-Cube Fulfillment Center Warehouse	412.500	TSF							
Passenger Cars:			182	54	236	155	400	555	3,077
Truck Trips:									
2-axle:			1	0	1	1	2	3	74
3-axle:			3	1	4	1	4	5	154
4+-axle:			10	3	13	5	14	19	557
- Net Truck Trips			14	4	18	7	20	27	785
Planning Area 1: High-Cube Warehouse (Without Cold Storage)	412.500	TSF							
Passenger Cars:			18	5	23	9	23	32	392
Truck Trips:									
2-axle:			2	1	3	1	2	3	47
3-axle:			3	1	4	1	3	4	77
4+-axle:			15	4	19	5	12	17	349
- Net Truck Trips			20	6	26	7	17	24	473
PLANNING AREA 1 TOTAL NET TRIPS (PCE) [2]			**234**	**69**	**303**	**178**	**460**	**638**	**4,727**
Planning Area 1A: Fast Food With Drive-Thru	8.700	TSF	178	171	349	148	136	284	4,097
Pass-By (49% AM, 50% PM/Daily):			-84	-84	-168	-68	-68	-136	-2,049
Planning Area 1A: Fast Food Without Drive-Thru	12.000	TSF	181	120	301	170	170	340	4,155
Pass-By (49% AM, 50% PM/Daily):			-59	-59	-118	-83	-83	-166	-2,078
Planning Area 1A: Commercial Retail	12.000	TSF	7	4	11	22	24	46	453
Pass-By (34% PM/Daily):			0	0	0	-7	-7	-14	-154
Planning Area 1A: Gas Station w/ Market	8	VFP	81	81	162	89	89	178	1,585
Pass-By (62% am, 56% PM/Daily):			-50	-50	-100	-50	-50	-100	-888
PLANNING AREA 1A TOTAL NET TRIPS			**254**	**183**	**437**	**221**	**211**	**432**	**5,122**
Planning Area 2: High-Cube Warehouse (Without Cold Storage)	218.400	TSF							
Passenger Cars:			9	3	12	5	12	17	207
Truck Trips:									
2-axle:			1	0	1	0	1	1	25
3-axle:			2	1	3	1	1	2	41
4+-axle:			8	2	10	2	6	8	185
- Net Truck Trips			11	3	14	3	8	11	251
Planning Area 2: General Light Industrial	54.600	TSF							
Passenger Cars:			26	4	30	4	24	28	213
Truck Trips:									
2-axle:			4	1	5	1	4	5	32
3-axle:			3	0	3	0	2	2	21
4+-axle:			10	1	11	1	9	10	77
- Net Truck Trips			17	2	19	2	15	17	130
Planning Area 2: Warehouse	60.000	TSF							
Passenger Cars:			6	2	8	2	7	9	84
Truck Trips:									
2-axle:			0	0	0	0	0	0	5
3-axle:			1	0	1	0	1	1	9
4+-axle:			3	1	4	1	3	4	39
- Net Truck Trips			4	1	5	1	4	5	53
PLANNING AREA 2 TOTAL NET TRIPS (PCE) [2]			**73**	**15**	**88**	**17**	**70**	**87**	**938**

Table 4-2

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 3: Manufacturing	102.000	TSF							
Passenger Cars:			39	12	51	17	38	55	319
Truck Trips:									
2-axle:			3	1	4	1	2	3	21
3-axle:			5	1	6	2	4	6	37
4+-axle:			18	5	23	8	17	25	148
- Net Truck Trips			26	7	33	11	23	34	206
Planning Area 3: Warehouse	191.400	TSF							
Passenger Cars:			20	6	26	8	21	29	266
Truck Trips:									
2-axle:			1	0	1	1	1	2	17
3-axle:			2	1	3	1	2	3	28
4+-axle:			9	3	12	3	10	13	125
- Net Truck Trips			12	4	16	5	13	18	170
PLANNING AREA 3 TOTAL NET TRIPS (PCE) [2]			**97**	**29**	**126**	**41**	**95**	**136**	**961**
Planning Area 3A: Coffee Shop	3.000	TSF	136	131	267	65	65	130	2,461
Pass-By (89% AM/PM/Daily):			-117	-117	-234	-58	-58	-116	-2,190
Planning Area 3A: Fast Food Without Drive-Thru	7.000	TSF	105	70	175	99	99	198	2,424
Pass-By (49% AM, 50% PM/Daily):			-34	-34	-68	-49	-49	-98	-1,212
Planning Area 3A: Commercial Retail	10.500	TSF	6	4	10	19	21	40	396
Pass-By (34% PM/Daily):			0	0	0	-6	-6	-12	-135
PLANNING AREA 3A TOTAL NET TRIPS [2]			**96**	**54**	**150**	**70**	**72**	**142**	**1,744**
Planning Area 4: Commercial Retail	47.000	TSF	109	67	176	149	162	311	3598
Pass-By (34% PM/Daily):			0	0	0	-51	-51	-102	-1,223
PLANNING AREA 4 TOTAL NET TRIPS [2]			**109**	**67**	**176**	**98**	**111**	**209**	**2,375**
Total Proposed Project			**863**	**417**	**1,280**	**625**	**1,019**	**1,644**	**15,867**

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

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 4-3

Project Trip Generation Summary (Actual)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 1: High-Cube Fulfillment Center Warehouse	412.500	TSF							
Passenger Cars:			182	54	236	155	400	555	3,077
Truck Trips:									
2-axle:			1	0	1	0	1	1	50
3-axle:			1	0	1	1	2	3	61
4+-axle:			3	1	4	2	5	7	186
- Net Truck Trips			5	1	6	3	8	11	297
Planning Area 1: High-Cube Warehouse (Without Cold Storage)	412.500	TSF							
Passenger Cars:			18	5	23	9	23	32	392
Truck Trips:									
2-axle:			1	0	1	0	1	1	31
3-axle:			2	0	2	1	1	2	38
4+-axle:			5	1	6	2	4	6	116
- Net Truck Trips			8	1	9	3	6	9	185
PLANNING AREA 1 TOTAL NET TRIPS (Actual) [2]			**213**	**61**	**274**	**170**	**437**	**607**	**3,951**
Planning Area 1A: Fast Food With Drive-Thru	8.700	TSF	178	171	349	148	136	284	4,097
Pass-By (49% AM, 50% PM/Daily):			-84	-84	-168	-68	-68	-136	-2,049
Planning Area 1A: Fast Food Without Drive-Thru	12.000	TSF	181	120	301	170	170	340	4,155
Pass-By (49% AM, 50% PM/Daily):			-59	-59	-118	-83	-83	-166	-2,078
Planning Area 1A: Commercial Retail	12.000	TSF	7	4	11	22	24	46	453
Pass-By (34% PM/Daily):			0	0	0	-7	-7	-14	-154
Planning Area 1A: Gas Station w/ Market & Carwash	8	VFP	81	81	162	89	89	179	1,585
Pass-By (62% am, 56% PM/Daily):			-50	-50	-100	-50	-50	-100	-888
PLANNING AREA 1A TOTAL NET TRIPS			**254**	**183**	**437**	**221**	**211**	**433**	**5,122**
Planning Area 2: High-Cube Warehouse (Without Cold Storage)	218.400	TSF							
Passenger Cars:			9	3	12	5	12	17	207
Truck Trips:									
2-axle:			1	0	1	0	1	1	16
3-axle:			1	0	1	0	1	1	20
4+-axle:			3	1	4	1	2	3	62
- Net Truck Trips			5	1	6	1	4	5	98
Planning Area 2: General Light Industrial	54.600	TSF							
Passenger Cars:			26	4	30	4	24	28	213
Truck Trips:									
2-axle:			3	0	3	0	2	2	22
3-axle:			1	0	1	0	1	1	11
4+-axle:			3	0	3	0	3	3	26
- Net Truck Trips			7	0	7	0	6	6	59
Planning Area 2: Warehouse	60.000	TSF							
Passenger Cars:			6	2	8	2	7	9	84
Truck Trips:									
2-axle:			0	0	0	0	0	0	3
3-axle:			0	0	0	0	0	0	4
4+-axle:			1	0	1	0	1	1	13
- Net Truck Trips			1	0	1	0	1	1	20
PLANNING AREA 2 TOTAL NET TRIPS (Actual) [2]			**54**	**10**	**64**	**12**	**54**	**66**	**681**

Table 4-3

Project Trip Generation Summary (Actual)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 3: Manufacturing	102.000	TSF							
Passenger Cars:			39	12	51	17	38	55	319
Truck Trips:									
2-axle:			2	1	3	1	2	3	14
3-axle:			2	1	3	1	2	3	19
4+-axle:			6	2	8	3	6	9	49
- Net Truck Trips			10	4	14	5	10	15	82
Planning Area 3: Warehouse	191.400	TSF							
Passenger Cars:			20	6	26	8	21	29	266
Truck Trips:									
2-axle:			1	0	1	0	1	1	11
3-axle:			1	0	1	0	1	1	14
4+-axle:			3	1	4	1	3	4	42
- Net Truck Trips			5	1	6	1	5	6	67
PLANNING AREA 3 TOTAL NET TRIPS (Actual) [2]			**74**	**23**	**97**	**31**	**74**	**105**	**734**
Planning Area 3A: Coffee Shop	3.000	TSF	136	131	267	65	65	130	2,461
Pass-By (89% AM/PM/Daily):			-117	-117	-234	-58	-58	-116	-2,190
Planning Area 3A: Fast Food Without Drive-Thru	7.000	TSF	105	70	175	99	99	198	2,424
Pass-By (49% AM, 50% PM/Daily):			-34	-34	-68	-49	-49	-98	-1,212
Planning Area 3A: Commercial Retail	10.500	TSF	6	4	10	19	21	40	396
Pass-By (34% PM/Daily):			0	0	0	-6	-6	-12	-135
PLANNING AREA 3A TOTAL NET TRIPS [2]			**96**	**54**	**150**	**70**	**72**	**142**	**1,744**
Planning Area 4: Commercial Retail	47.000	TSF	109	67	176	149	162	311	3598
Pass-By (34% PM/Daily):			0	0	0	-51	-51	-102	-1,223
PLANNING AREA 4 TOTAL NET TRIPS [2]			**109**	**67**	**176**	**98**	**111**	**209**	**2,375**
Total Proposed Project			**800**	**398**	**1,198**	**602**	**959**	**1,562**	**14,607**

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

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

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 use 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. The existing roadway network and location of regional destinations have been reviewed to develop the Project trip distribution pattern.

Exhibit 4-1 and Exhibit 4-2 illustrate the outbound and inbound warehouse/industrial truck trip distribution patterns for the Project, respectively. Exhibit 4-3 and Exhibit 4-4 illustrate the outbound and inbound warehouse/industrial passenger car trip distribution patterns for the Project, respectively. Lastly, Exhibit 4-5 and Exhibit 4-6 illustrate the outbound and inbound commercial retail trip distribution patterns for the Project, respectively. The same trip distribution patterns are utilized for E+P, Opening Year Cumulative, and Horizon Year traffic conditions as the study area roadway network is similar for these analysis scenarios.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking or bicycling have not been considered in this TIA, in an effort to conduct a conservative analysis. However, this Project is located approximately four miles from the Irwindale Metro Gold Line Station on Irwindale Avenue (near the I-210 Freeway).

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, AM and PM peak hour traffic volumes are shown on Exhibit 4-7 and Exhibit 4-8, respectively.

EXHIBIT 4-1: PROJECT (OUTBOUND TRUCK) TRIP DISTRIBUTION

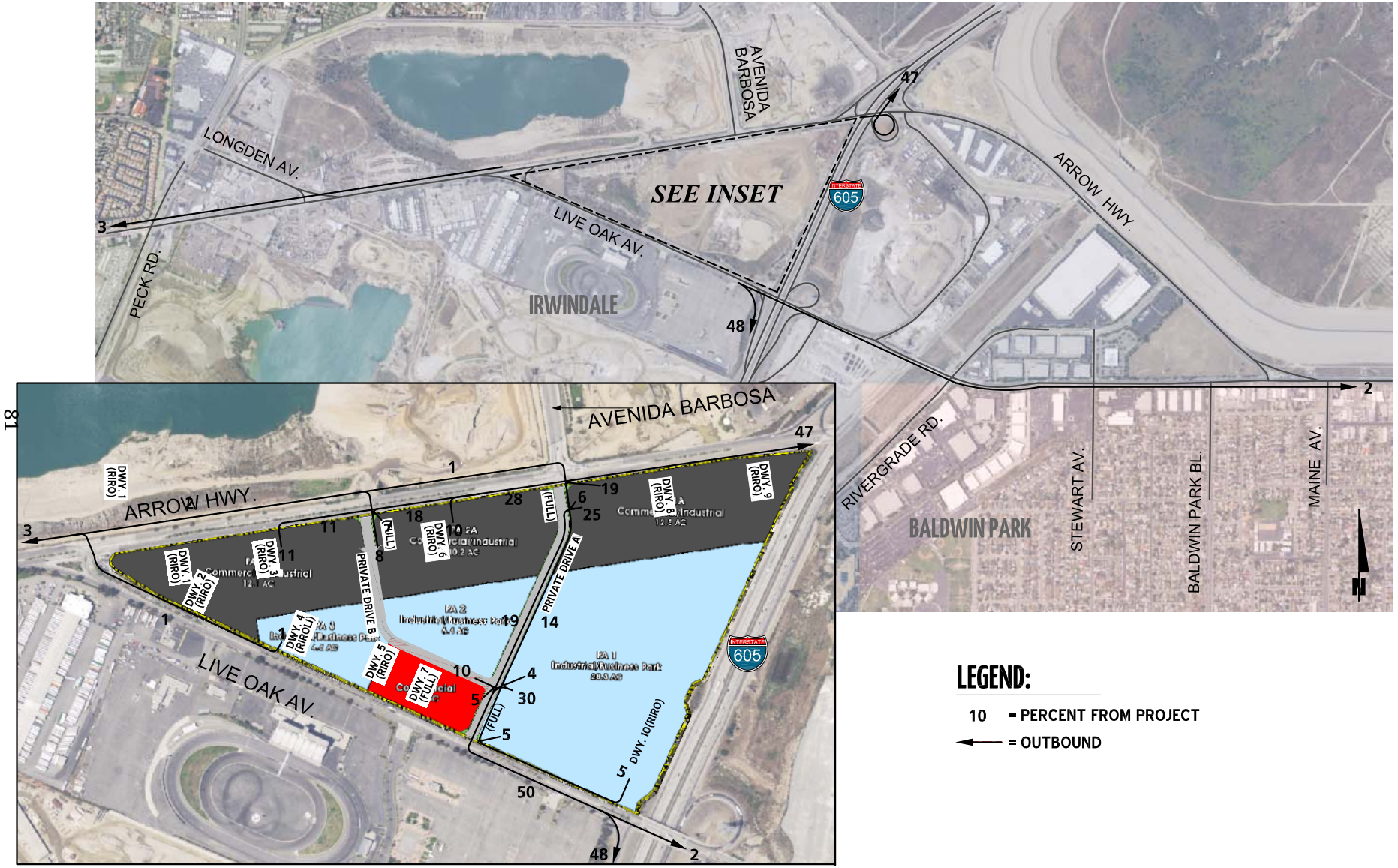


EXHIBIT 4-2: PROJECT (INBOUND TRUCK) TRIP DISTRIBUTION

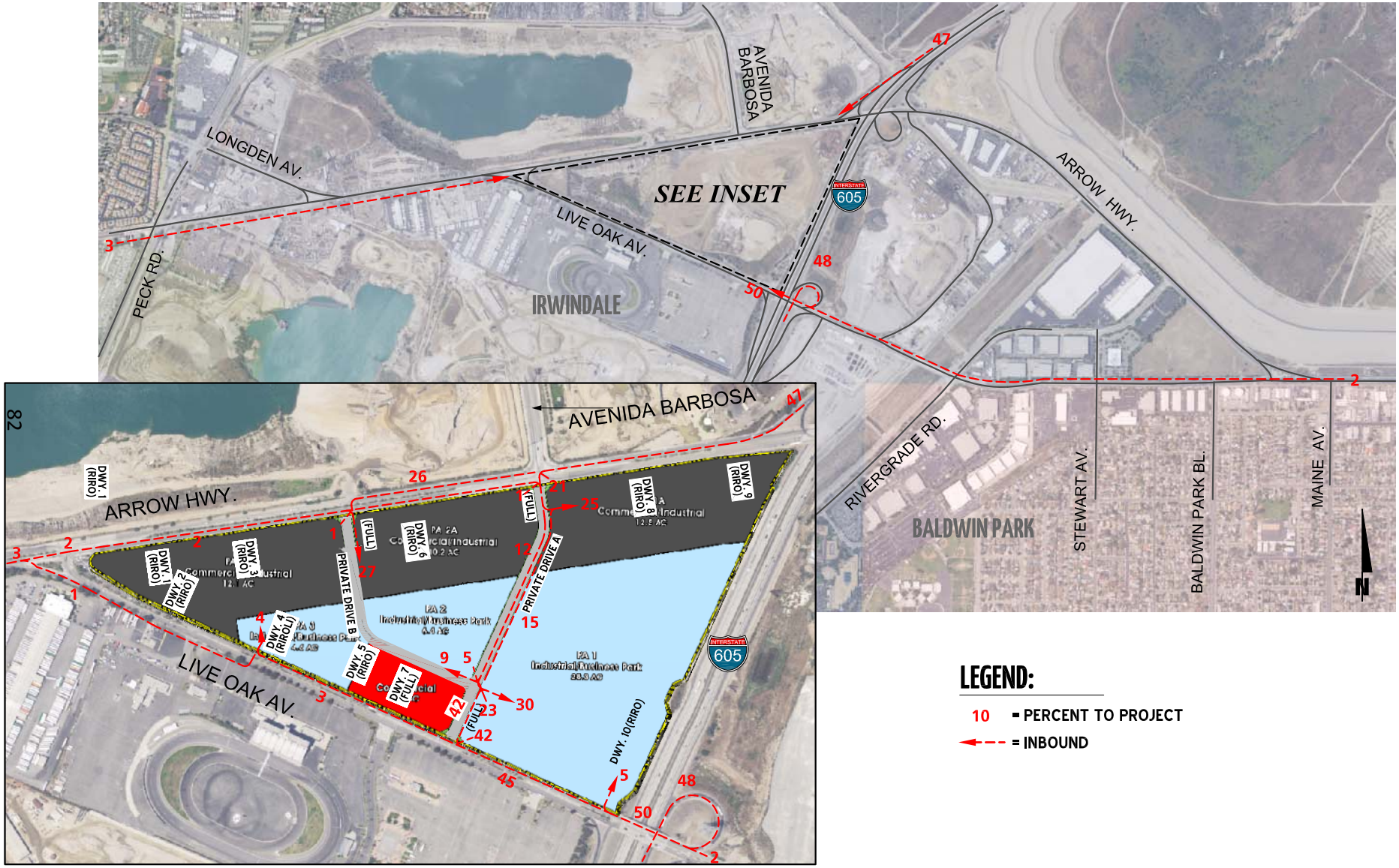


EXHIBIT 4-3: PROJECT (OUTBOUND WAREHOUSE PASSENGER CAR) TRIP DISTRIBUTION

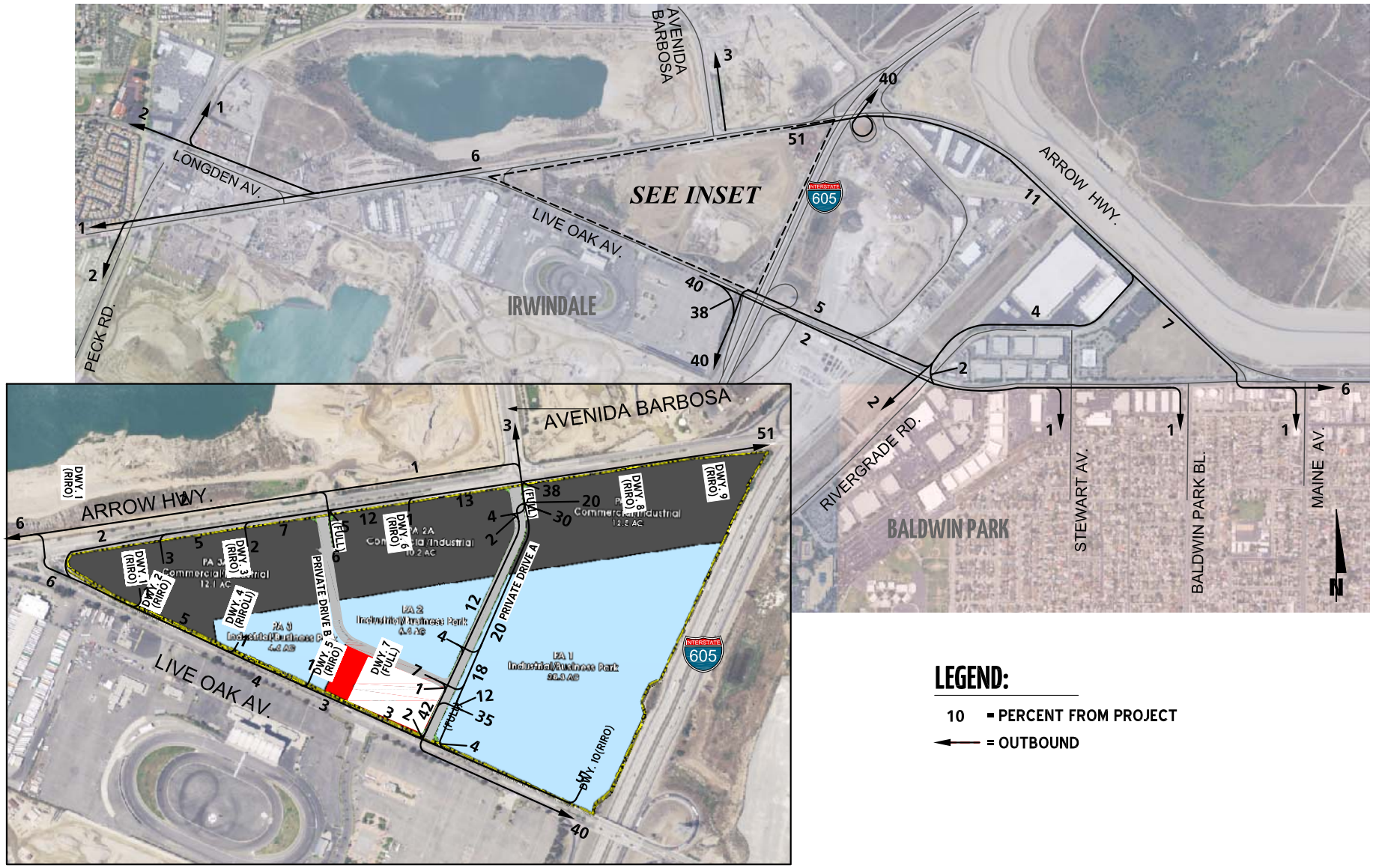
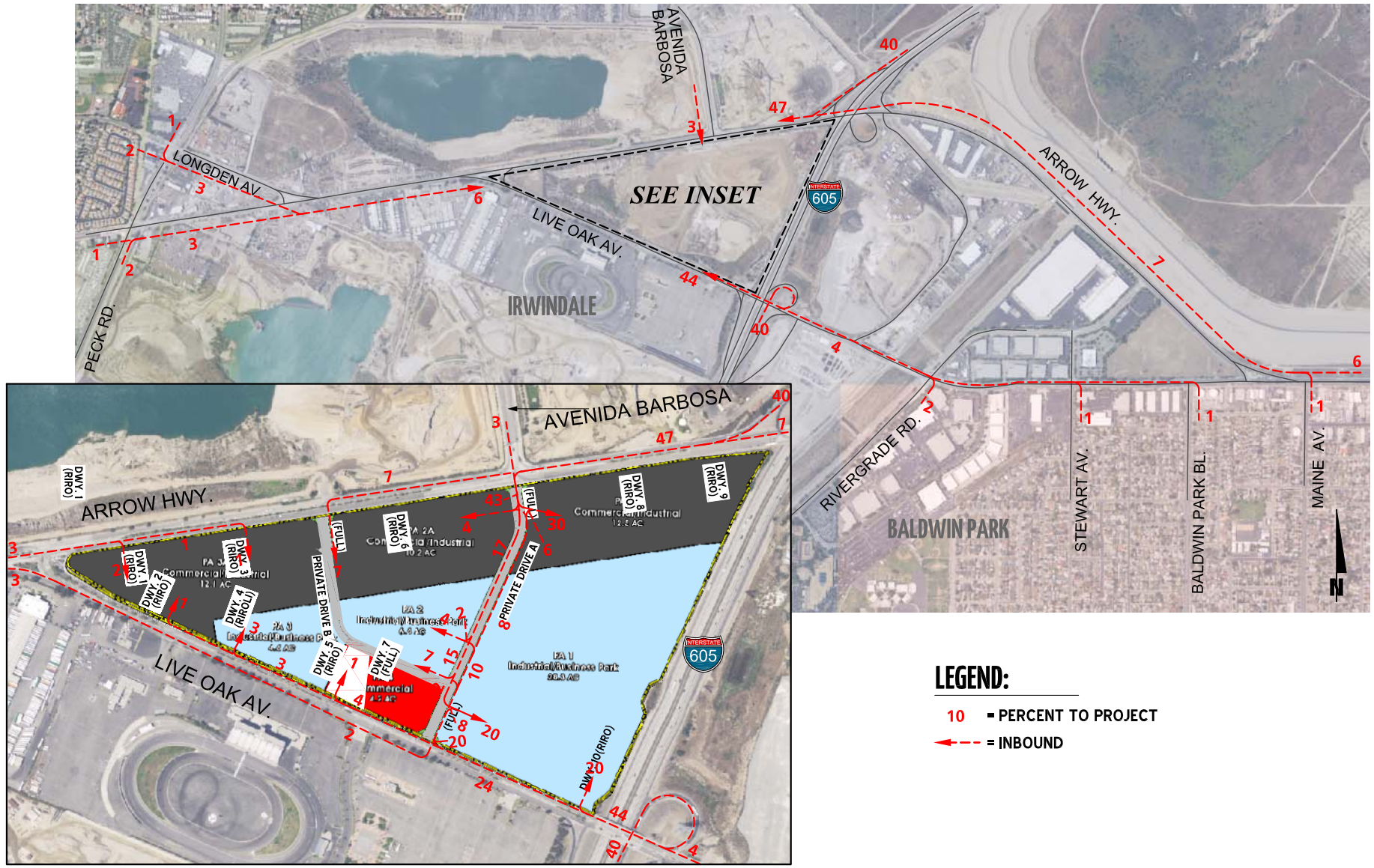
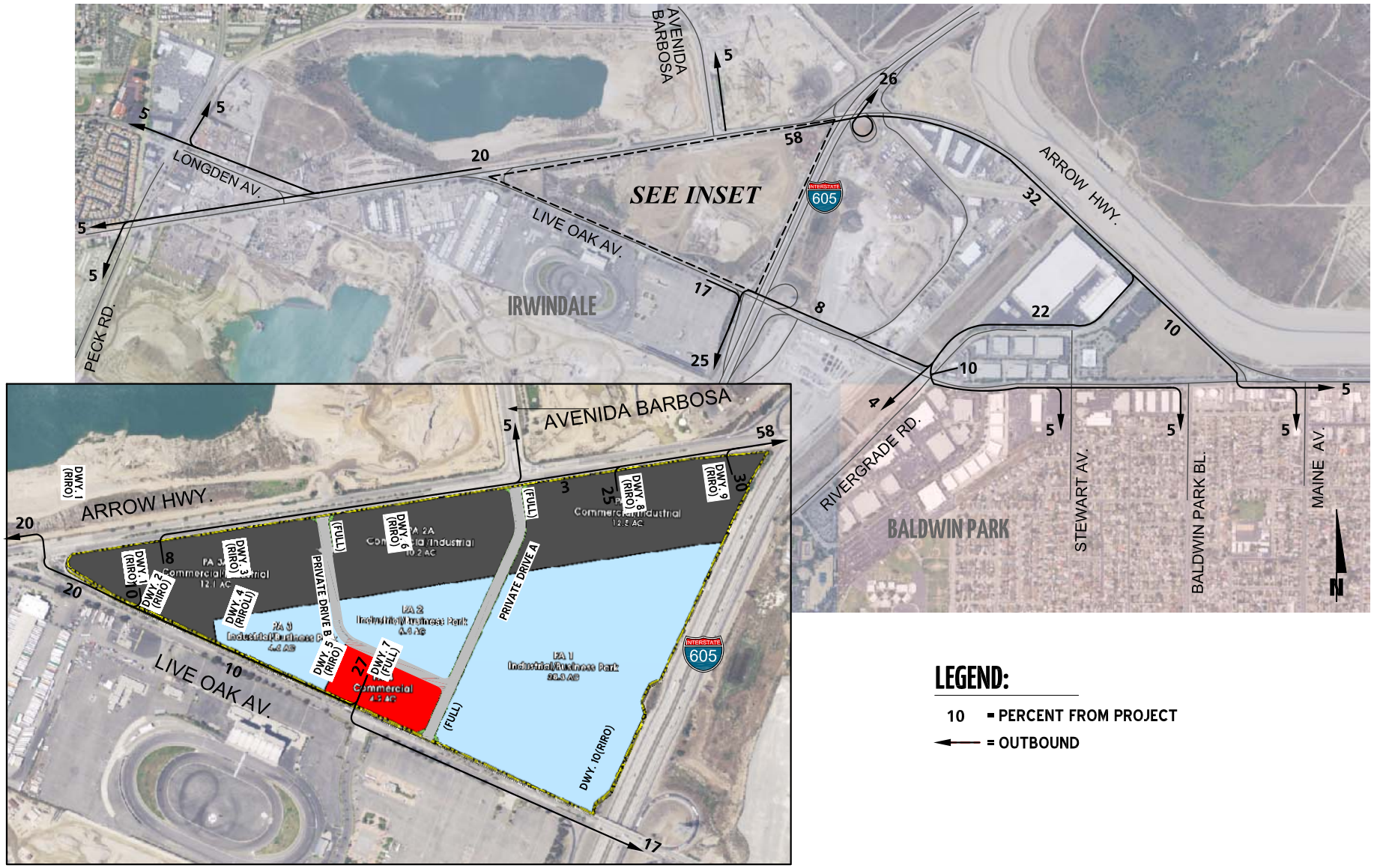


EXHIBIT 4-4: PROJECT (INBOUND WAREHOUSE PASSENGER CAR) TRIP DISTRIBUTION



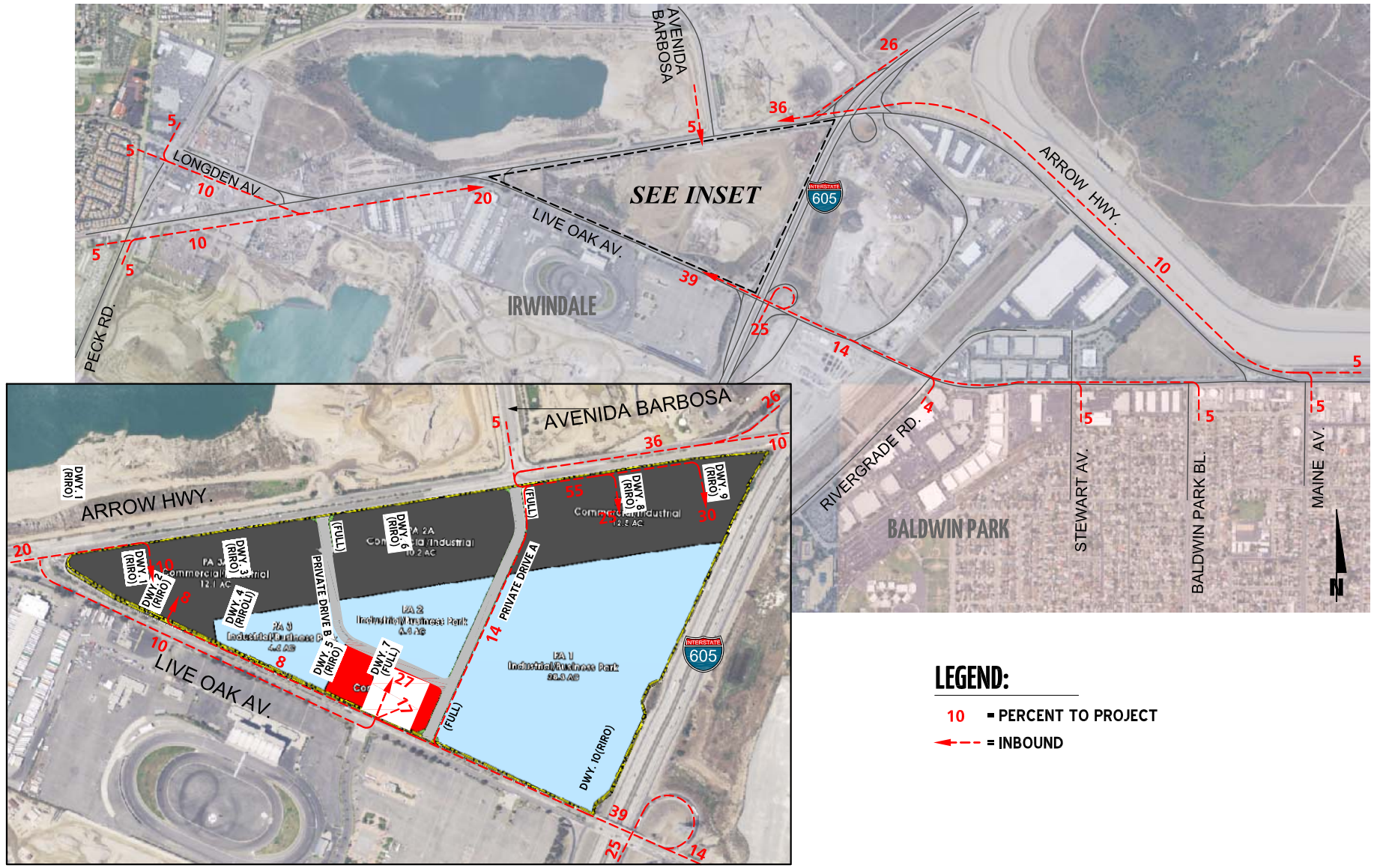
URBAN CROSSROADS

EXHIBIT 4-5: PROJECT (OUTBOUND COMMERCIAL RETAIL PASSENGER CAR) TRIP DISTRIBUTION



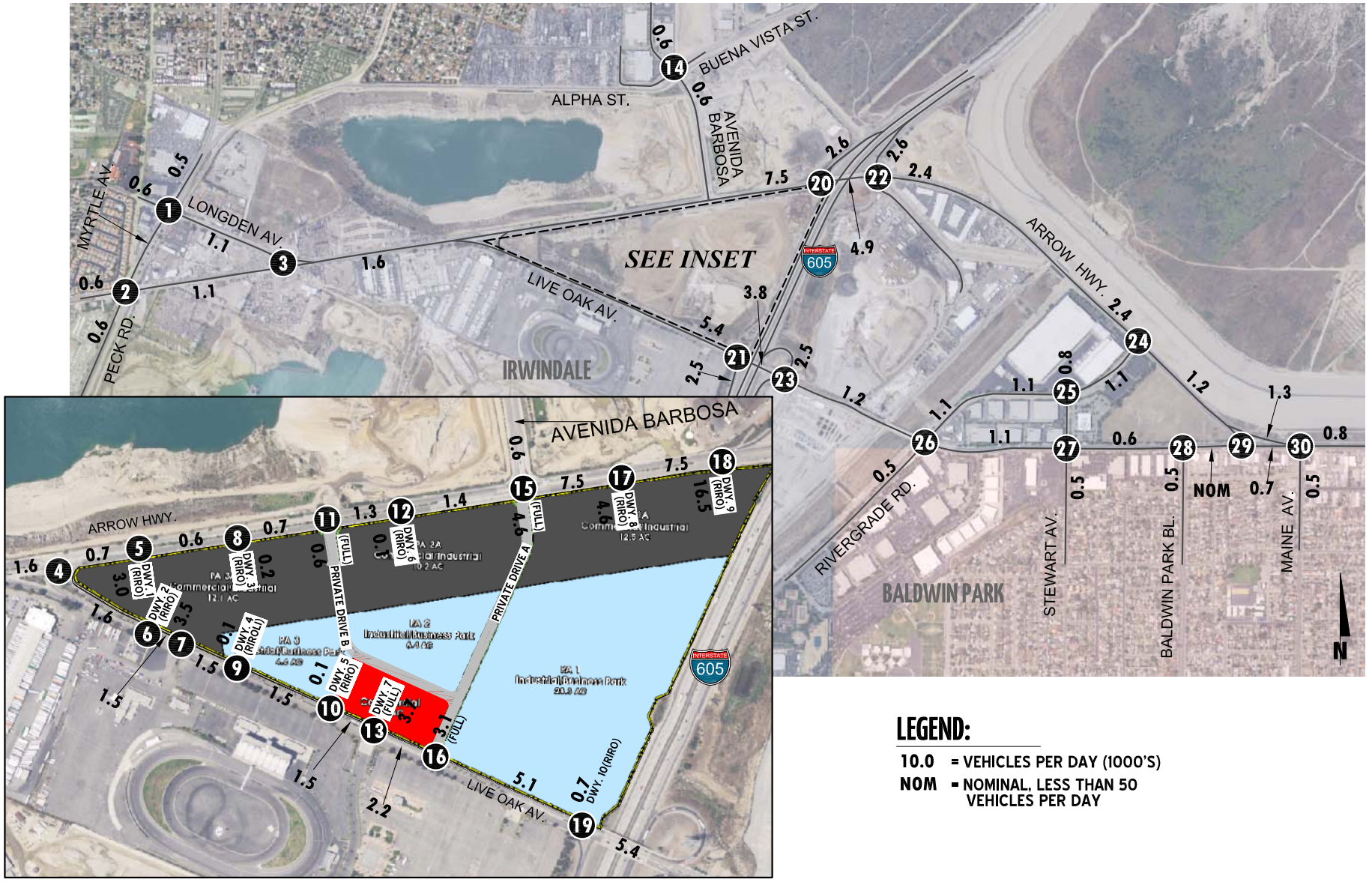
URBAN CROSSROADS

EXHIBIT 4-6: PROJECT (INBOUND COMMERCIAL RETAIL PASSENGER CAR) TRIP DISTRIBUTION



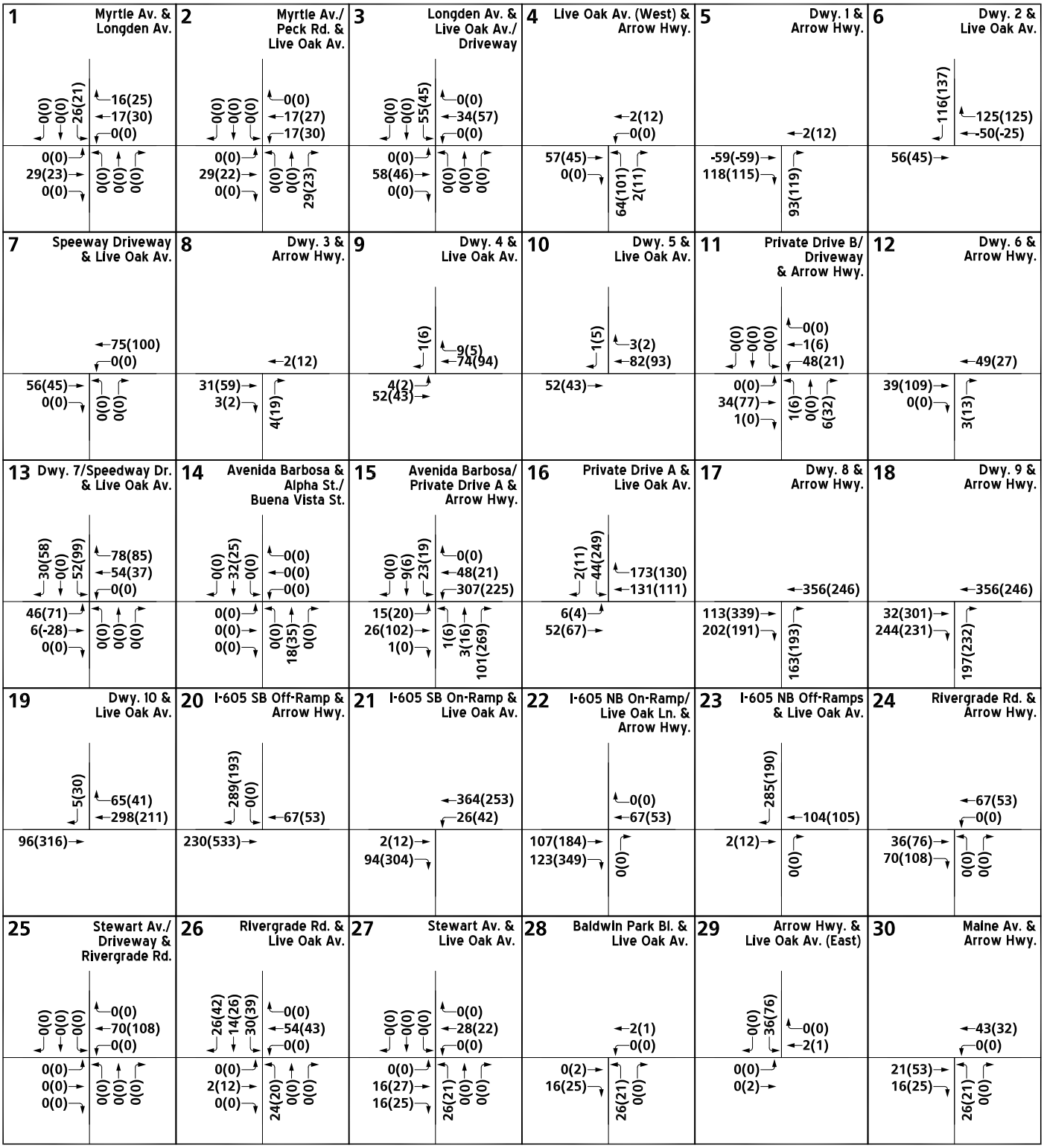
URBAN CROSSROADS

EXHIBIT 4-7: PROJECT ONLY AVERAGE DAILY TRAFFIC (ADT)



URBAN CROSSROADS

EXHIBIT 4-8: PROJECT ONLY TRAFFIC VOLUMES (IN PCE)



LEGEND:

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

4.5 BACKGROUND TRAFFIC

4.5.1 OPENING YEAR CUMULATIVE CONDITIONS

The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term cumulative traffic impacts based on a comparison of the "with Project" traffic scenario to the "without Project" traffic scenario. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2017) conditions of 6.12% (2% per year over three years) is included for Opening Year Cumulative, as well as traffic generated by cumulative projects that could affect the study intersections.

The generalized growth factors provided in 2010 Los Angeles (LA) County Congestion Management Program (CMP) indicates a growth factor of 1.046 for ten years (2010 to 2020) or 0.45% per year for the Regional Statistical Area (RSA) 26 (West Covina) in which the Project is located. [4] As such, the analysis is in excess of the CMP guidelines and consistent with the City's traffic study guidelines.

4.5.2 HORIZON YEAR CUMULATIVE CONDITIONS

Horizon Year Without Project traffic conditions include an ambient traffic growth factor of 12.78% (0.524% / year over 23 years) based on the growth factors provided in LA County CMP for RSA 26. A growth factor of 1.106 was estimated for 25 years (from 2010 to 2035) in LA County CMP, which is equivalent to 0.404% per year growth. This annual growth was compounded over 5 years and added to the 1.106 from the LA County CMP to determine the growth factor for Horizon Year (2040) traffic conditions. Lastly, traffic generated by cumulative projects that could affect the study intersections was added on top of the ambient growth.

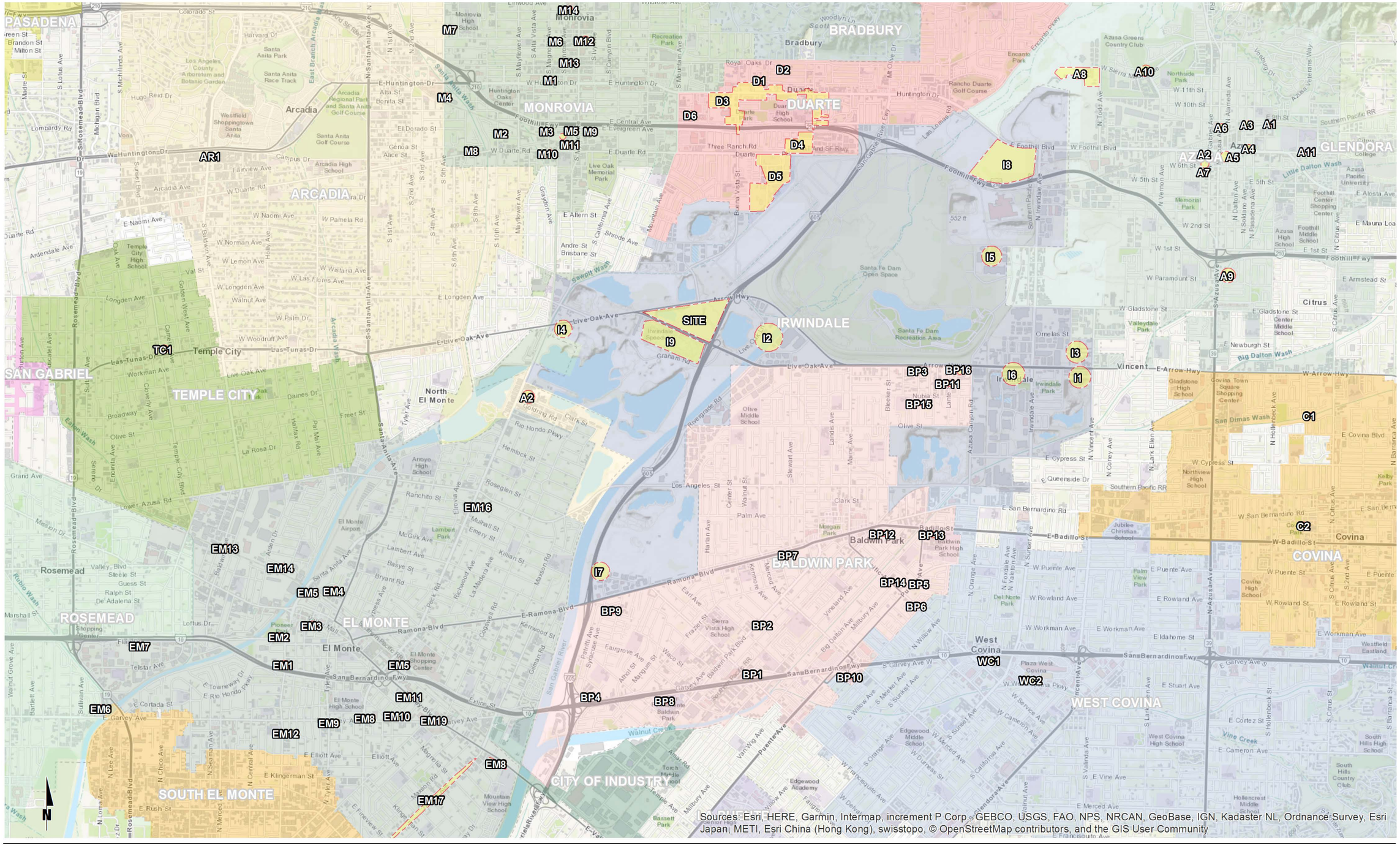
The RSA map for the San Gabriel Valley and the General Traffic Volume Growth Factors from Appendix *D – Guidelines for CMP Transportation Impact Analysis* from the 2010 LA County CMP is included in Appendix 4.1 of this report. [4]

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. Exhibit 4-9 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-4. If applicable (i.e. if the cumulative projects would contribute trips to study area intersections), the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative and Horizon Year forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-4 are reflected as part of the background traffic. Traffic from other cumulative developments farther away from the study area are not anticipated to add significant traffic and are accounted for by the ambient growth rate applied to forecast the background traffic. Cumulative ADT, AM and PM peak hour traffic volumes are shown on Exhibit 4-10 and Exhibit 4-11, respectively.

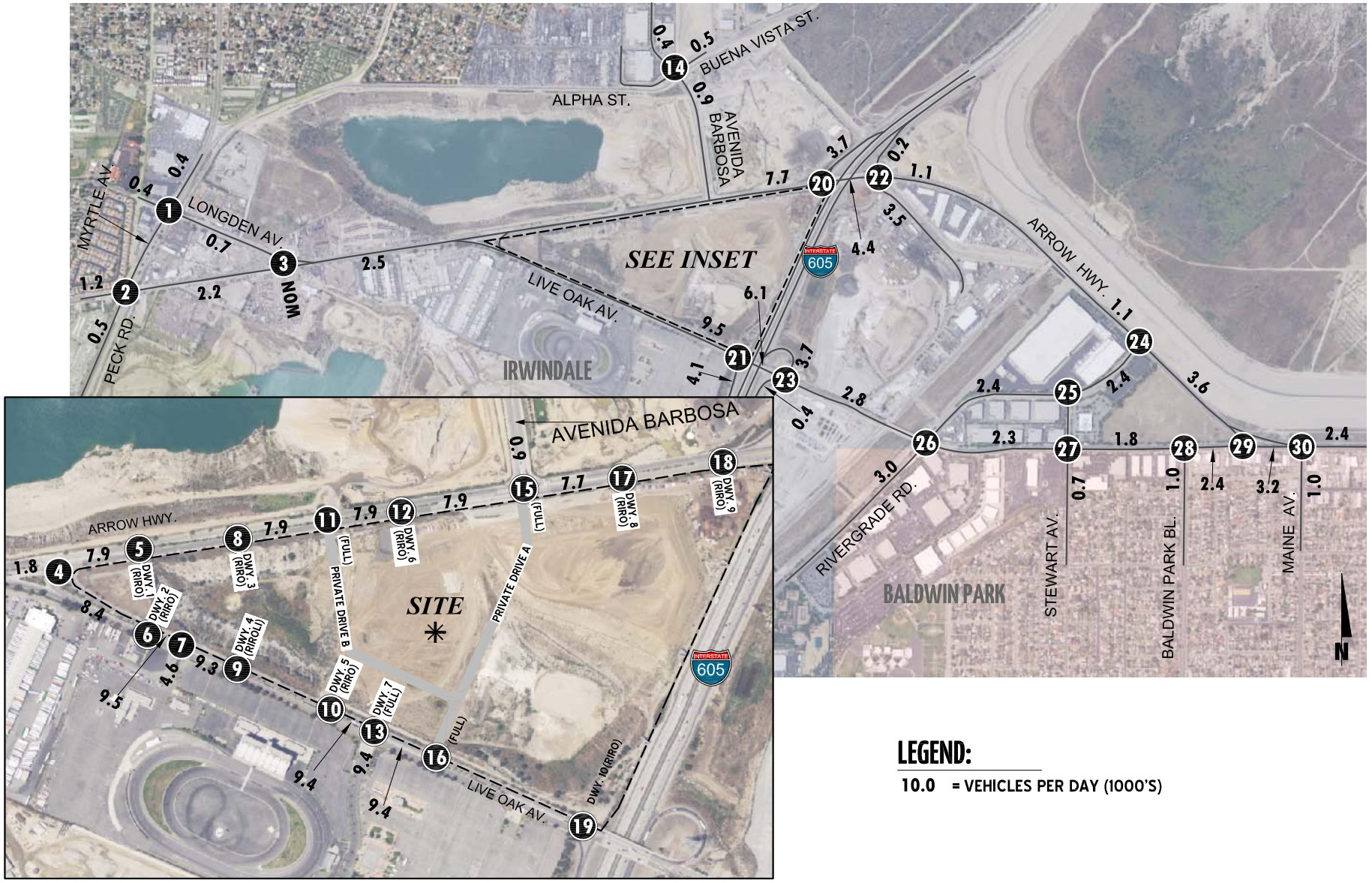
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EXHIBIT 4-9: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP



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EXHIBIT 4-10: CUMULATIVE PROJECT AVERAGE DAILY TRAFFIC (ADT)

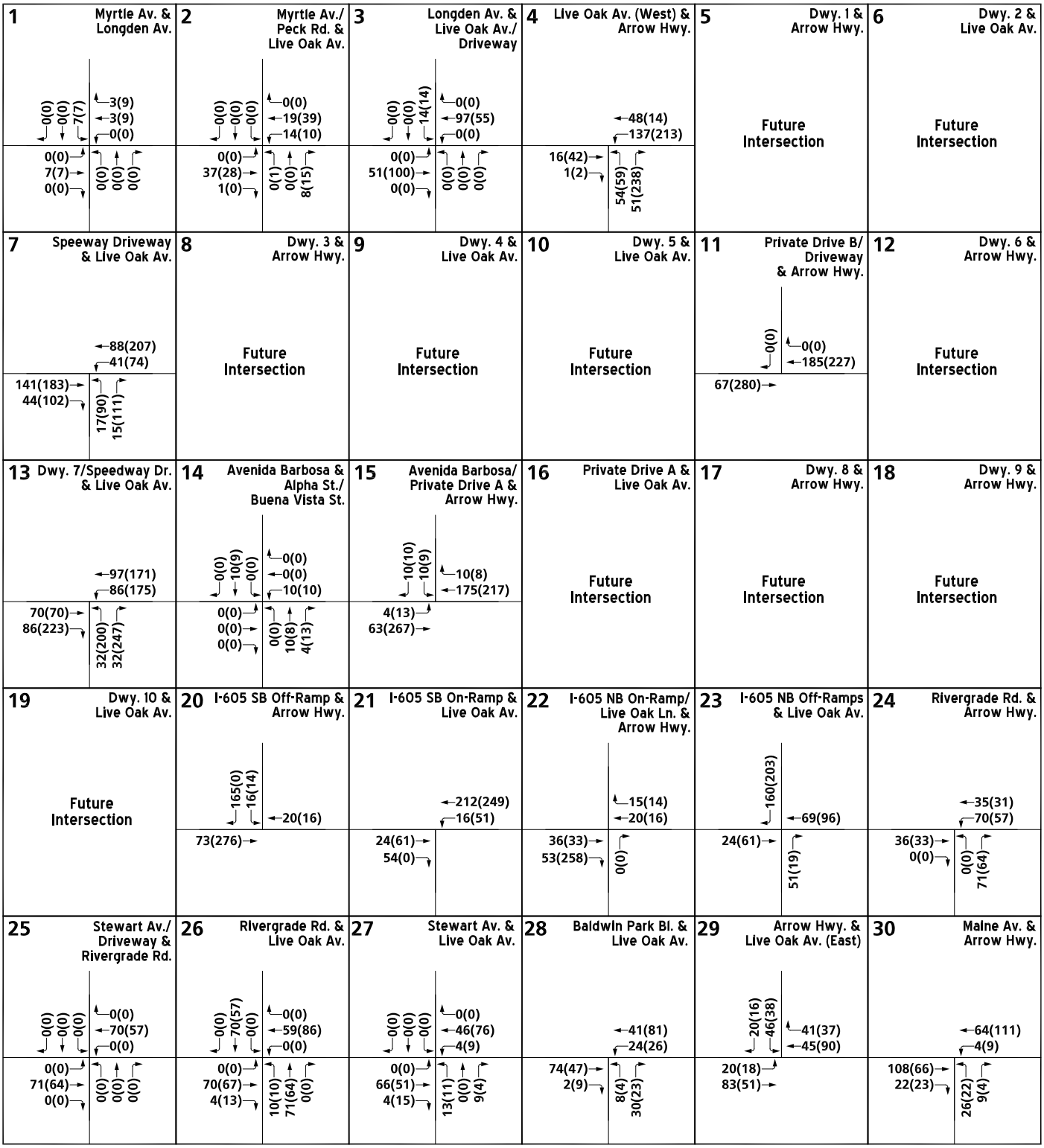


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

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EXHIBIT 4-11: CUMULATIVE PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

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

Table 4-4

Cumulative Development Land Use Summary

ID	Project Name/Location	Land Use	Quantity[1]
City of Irwindale			
I1	Manning Pit (SWC of Vincent Av. & Arrow Hwy.)	Industrial	545.735 TSF
I2	Nu-Way Pit (13620 Live Oak Lane)	Pilot Flying J Travel Center	15.000 TSF
		New Truck Sales Dealership	3.000 TSF
I3	Panatonni (16203-16233 Arrow Highway)	Industrial	133.800 TSF
I4	Panatonni (242 Live Oak Avenue)	Industrial	85.400 TSF
I5	Ayala Industrial Building (5589 Ayala Avenue)	Industrial	80.000 TSF
I6	Irwindale Med Clinic (15768 Arrow Highway)	Medical Office Building	13.300 TSF
	Wendy's Restaurant (15768 Arrow Highway)	Fast-food Restaurant with Drive-Thru	2.300 TSF
I7	Kaiser Medical Office Building (12761 Schabarum Av.)	Medical Office Building	90.000 TSF
I8	Irwindale Reliance II Business Park	Warehouse	1,241.442 TSF
		Industrial Park	612.058 TSF
		Commercial Retail	5.000 TSF
		Fast-Food without Drive-Thru	5.000 TSF
I9	Regional Shopping Center (500 Speedway Dr.)	Shopping Center	640.000 TSF
City of Baldwin Park			
BP1	Retail/Restaurant - 003 Garvey	Restaurant	6.800 TSF
BP2	SP Modification 8552-017-004	SFDR	51 DU
BP3	Warehouse - 5014 Heintz St.	Warehouse	1.500 TSF
BP4	Residential - 12762-70 Torch St.	Condos	24 DU
BP5	Residential - 3726 Puente Av.	Condos	4 DU
BP6	Commercial/Residential - 14911 Pacific	Commercial	1.740 TSF
		Apartments	4 DU
BP7	Residential - 3913 Stewart Av.	Multi-Family Residential	4 DU
BP8	Medical - 1011 Baldwin Park Bl.	Medical Office	60.000 TSF
BP9	Residential - 3540 Barnes Av.	SFDR	8 DU
BP10	Office - 14622 Dalewood St.	Office	60.000 TSF
BP11	Warehouse - 5044 Gayhurst Av.	Warehouse	2.600 TSF
BP12	Residential - 15000 Badillo St.	Condos	16 DU
BP13	Residential - 15110-20 Badillo St.	Condos	12 DU
BP14	Residential - 3715-3725 Puente Av.	SFDR	47 DU
BP15	Residential - 4923-4929 Fortin St.	SFDR	15 DU
BP16	Residential/Warehouse - 5115 Azusa Canyon Rd.	Condos	10 DU
		Warehouse	90.000 TSF
City of Duarte			
D1	The Huntington-Duarte Town Center Mixed Use Project (1405-37 Huntington Dr., Residential/Retail Hybrid)	Retail	3.500 TSF
		Apartments	161 DU
		Live/Work	2.100 TSF
D2	3rd & Oak Residential Development	Townhomes	18 DU
D3	Town Center Specific Plan	Retail	703.000 TSF
		Residential	800 DU
		Hotel	450 RM
D4	Duarte Station Specific Plan	Office	400.000 TSF
		Residential	475 DU
		Hotel	250 RM
D5	City of Hope Specific Plan	Core Medical	1,030.500 TSF
D6	928 Huntington Dr.	Apartments	22 DU

Table 4-4

Cumulative Development Land Use Summary

ID	Project Name/Location	Land Use	Quantity[1]
City of West Covina			
WC1	Porto's Bakery & Café (1360 W. Garvey Av.)	Restaurant	21.943 TSF
WC2	Gaucho Grill Argentinean Steakhouse (1129 W. Covina Pkwy.)	Restaurant	4.356 TSF
City of Azusa			
A1	Promenade at Citrus (Promenade and Citrus)	Retail	8.250 TSF
A2	525 N. Azusa Av. (Residential/Retail Hybrid)	Apartments	102 DU
		Retail	4.600 TSF
A3	Metro Walk (803-813 N. Dalton Av.)	Condo/Townhomes	30 DU
A4	Smart & Final Extra (303 E. Foothill Bl.)	Discount Store	29.429 TSF
A5	Block 36 (S. of Foothill Bl. between Azusa Av. & Alameda Av.)	Condo/Townhomes	108 DU
		Commercial Retail	33.000 TSF
		Movie Theater	10.000 TSF
A6	A-2 Property (Azusa Av. & 9th St.)	Apartments	350 DU
		Commercial Retail	15.000 TSF
A7	Azusa Regency Villas (618 N. San Gabriel Av., Residential/Retail Hybrid)	Apartments	70 DU
		Commercial Retail	14.840 TSF
A8	Azusa Business Center (1025 N. Todd Av.)	Industrial	462.491 TSF
A9	Gladstone Senior Villas (360 E. Gladstone St.)	Senior Apartments	60 DU
A10	619 N. San Gabriel Av. (Residential/Retail Hybrid)	Apartments	6 DU
		Commercial Retail	0.965 TSF
A11	Popeyes Louisiana Kitchen (994 E. Alosta Av.)	Fast Food w/ Drive-Thru	2.279 TSF
City of Monrovia			
M1	Marriott (102-140 W. Huntington Dr.)	Hotel	109 RM
M2	530 Fano St.	Condos	12 DU
M3	MODA (Pomona Av. between Primrose & Magnolia)	Multi-Family Residential	261 DU
		Gym	225.220 TSF
M4	1110-1212 S. Fifth Av.	Multi-Family Residential	154 DU
		Gym	1.340 TSF
M5	Artisan Food Village (137 W. Pomona Av.)	Restaurant	12.617 TSF
		Coffee Shop	2.165 TSF
		Brewery	3.477 TSF
		Retail	2.675 TSF
M6	239 W. Chestnut Av.	Condos	10 DU
M7	303 S. Madison Av.	SFDR	6 DU
M8	717-721 W. Duarte Rd.	Condos	11 DU
M9	1601 S. Myrtle Av.	Multi-Family Residential	103 DU
M10	Northeast Corner of Magnolia Av. & Duarte Rd.	Apartments	296 DU
M11	1625 S. Magnolia Av.	Apartments	392 DU
M12	825 S. Myrtle Av.	Multi-Family Residential	154 DU
M13	Starbucks (239 W. Huntington Dr.)	Coffee Shop w/Drive-Thru	2.200 TSF
M14	Corner of Myrtle & Lime	Multi-Family Residential	140 DU

Table 4-4

Cumulative Development Land Use Summary

ID	Project Name/Location	Land Use	Quantity[1]
City of El Monte			
EM1	Gateway Specific Plan	High-Density Residential	485 DU
EM2	El Monte Gateway	Apartments	420 DU
		Affordable Apartments	132 DU
		Retail	25.000 TSF
EM3	Valley Walk (NW of Valley & Ramona)	Townhomes	62 DU
EM4	Santa Fe Trail Plaza (NEC Santa Anita & Valley)	Retail	115.000 TSF
EM5	Norms (SEC of Valley & Santa Anita)	Restaurant	6.800 TSF
EM6	China Press Media Center (Garvey west of Rosemead)	Office	60.000 TSF
EM7	Flair Spectrum (SEC of Rio Hondo & Flair)	Hotel	250 RM
		Apartments	600 DU
		Restaurant	50.000 TSF
		Retail	640.000 TSF
EM8	Garvey Square (NEC of Garvey & Peck)	Apartments	114 DU
		Retail	2.800 TSF
EM9	Garvey Walk (SEC of Garvey & Tyler)	Apartments	70 DU
		Retail	2.100 TSF
EM10	Garvey Senior Homes (NEC of Garvey & La Madera, Retail/Residential Hybrid)	Memory Care	20 DU
		Assisted Living	78 DU
		Retail	19.500 TSF
EM11	La Madera Senior Homes (NWC of Garvey & La Madera, Retail/Residential Hybrid)	Senior Housing	30 DU
		Retail	6.100 TSF
EM12	Santa Anita & Owens Project (South of the Garvey Mixed-Use Corridor)	Townhomes	36 DU
		SFDR	2 DU
EM13	Baldwin Rose Veterans Village (Baldwin between Rose & railroad)	Affordable Housing	55 DU
EM14	Hickson Campus (Arden between Hickson & railroad)	Industrial	165.000 TSF
EM15	Valley Mixed Use (Valley east of I-10 Freeway, Retail/Residential Hybrid)	Apartments	78 DU
		Retail	30.000 TSF
EM16	Palo Verde Housing (NWC of Peck & Ranchito(	Affordable Housing	49 DU
EM17	Durfee Mixed-Use Projects (Durfee between Fineview & Magnolia	Apartments w/Ground Retail	49 DU
EM18	East Valley Hotel Projects (Valley between Durfee & I-605)	Hotel	140-160 RM
EM19	Valley Center (Mountain View between Valley & Garvey)	Retail	29.600 TSF
City of Temple City			
TC1	Terraces at Temple City (5935 Temple City Bl.)	Restaurant	7.250 TSF
City of Arcadia			
AR1	Bowlero (400 S. Baldwin Av.)	Bowling Alley	41.804 TSF
AR2	TTM No. 77169 (11700 Goldring Rd.)	Warehouse	16.360 TSF
City of Covina			
C1	Corona Innovation, Technology and Event Center (NEC of Citrus & Covina)	Condos	120 DU
		Event Center	21.000 TSF
		Office	17.200 TSF
C2	Hassen Development Project (Near North Citrus/West Orange & East San Bernardino/Park)	Multi-Family Residential	18 DU
		Retail	4.400 TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Unit; RM = Rooms

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5 E+P TRAFFIC CONDITIONS

In an effort to satisfy the CEQA Guidelines section 15125(a), an analysis of existing traffic volumes plus traffic generated by the proposed Project (E+P) has been included in this analysis. This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations 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 Project driveways and those facilities assumed to be constructed by the Project to provide site access, which are also assumed to be in place for E+P conditions. In other words, no other off-site improvements are assumed beyond those that currently exist with the exception of the intersections and roadways that would be improved by the Project for access.

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 and Exhibit 5-2 show the ADT, AM and PM peak hour traffic volumes which can be expected for E+P traffic conditions, respectively.

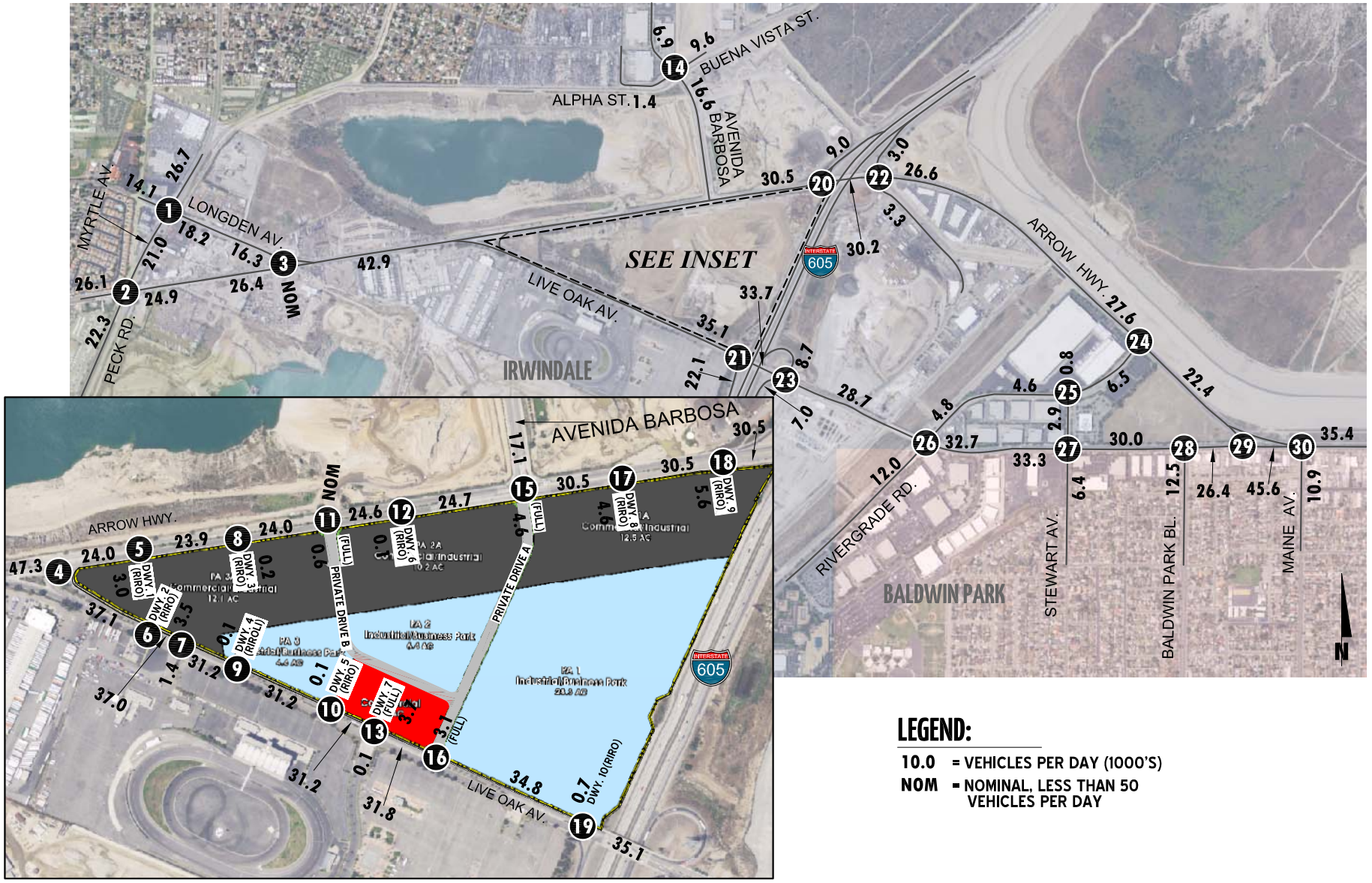
5.3 INTERSECTION OPERATIONS ANALYSIS

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 the addition of Project traffic would cause the following additional intersections to operate at unacceptable LOS based on applicable jurisdiction's LOS standards, in addition to those previously identified for Existing traffic conditions:

- Longden Avenue & Live Oak Avenue/Driveway (#3) – LOS E PM peak hour only
- Stewart Avenue & Live Oak Avenue (#27) – LOS E AM peak hour only
- Arrow Highway & Live Oak Avenue (East) (#29) – LOS E PM peak hour only

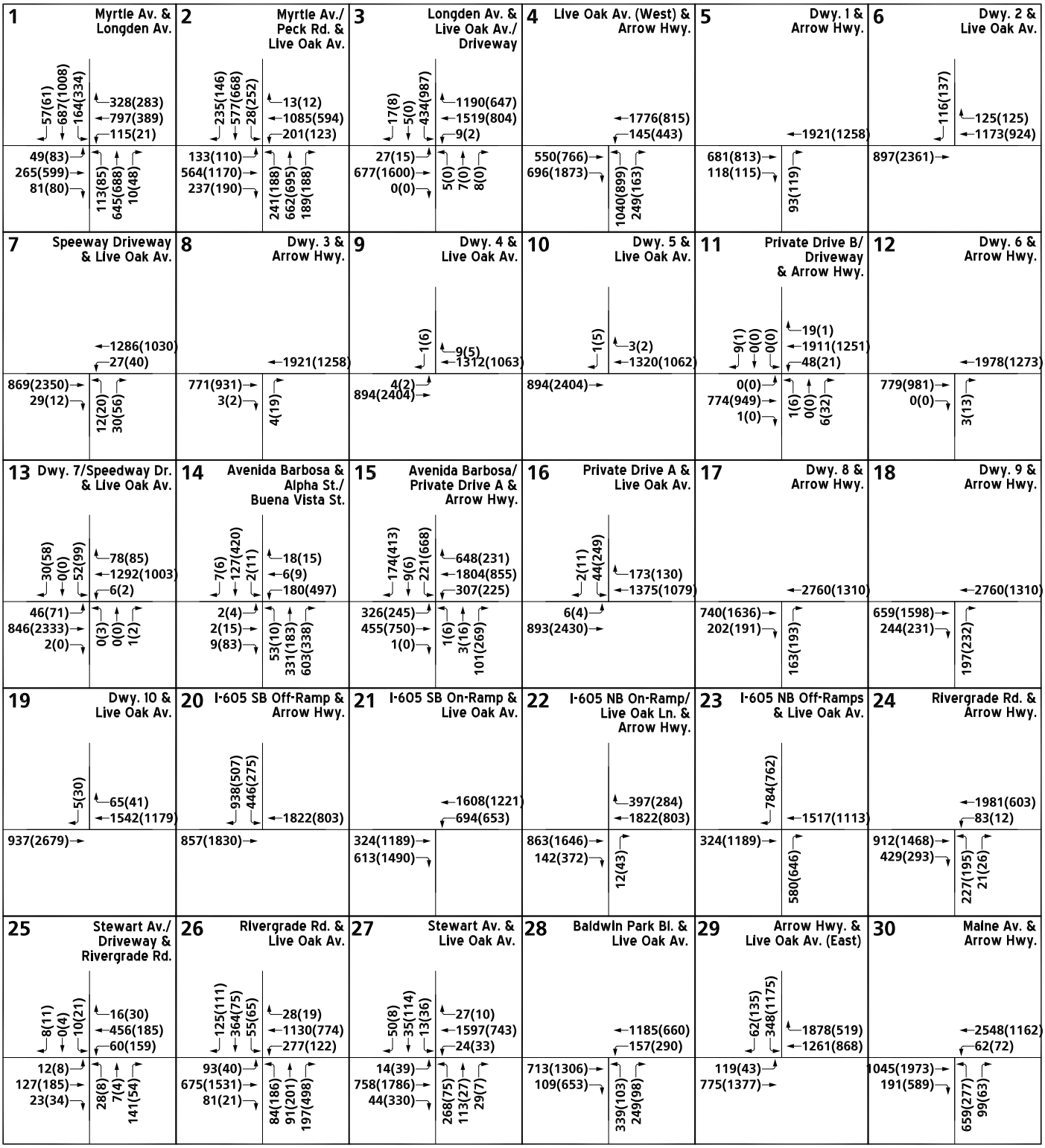
Consistent with Table 5-1, a summary of the peak hour intersection LOS for E+P conditions are shown on Exhibit 5-3. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

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



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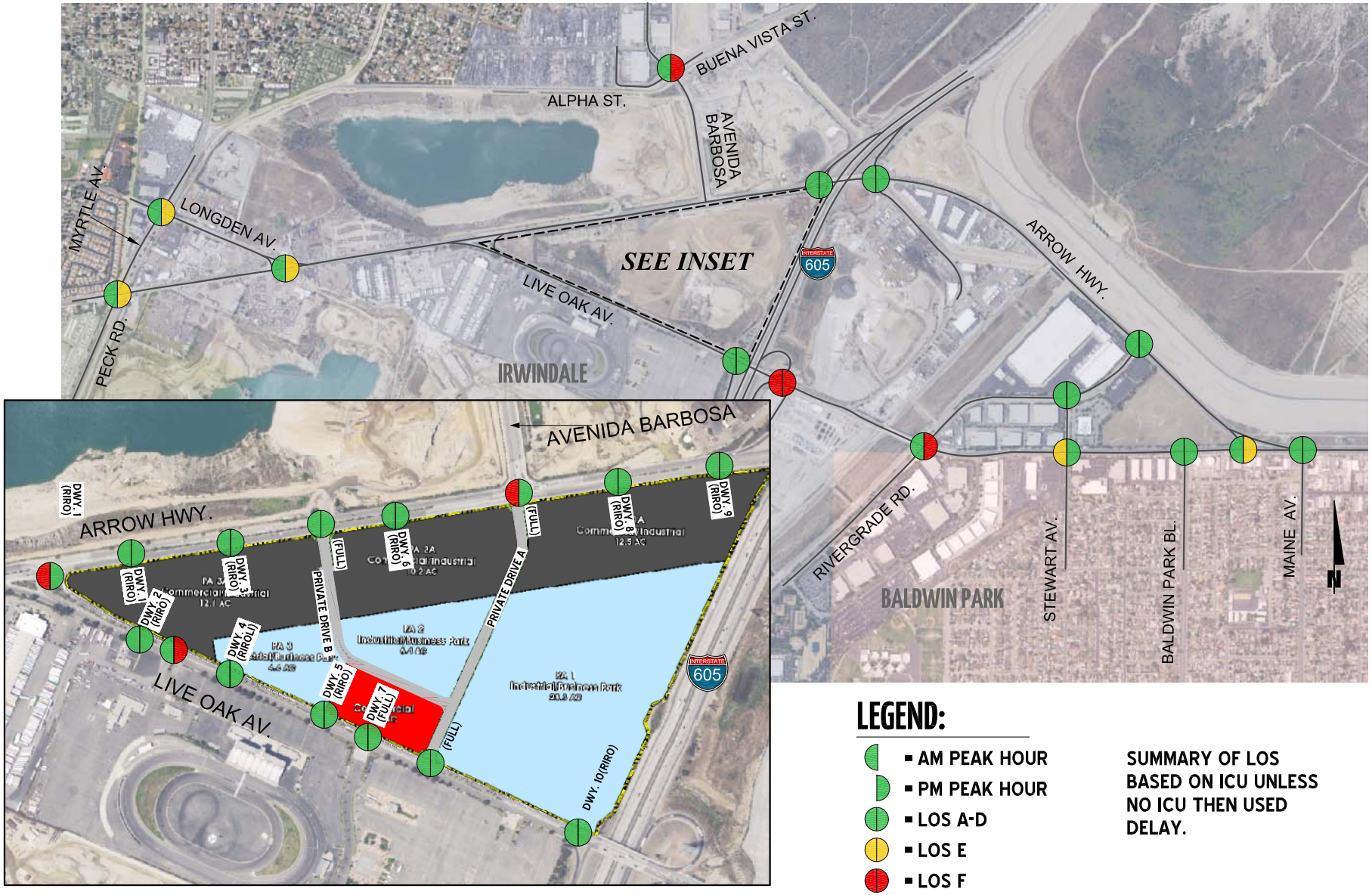
EXHIBIT 5-2: E+P TRAFFIC VOLUMES (IN PCE)



LEGEND:

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

EXHIBIT 5-3: E+P SUMMARY OF LOS



LEGEND:

- AM PEAK HOUR
- PM PEAK HOUR
- LOS A-D
- LOS E
- LOS F

SUMMARY OF LOS BASED ON ICU UNLESS NO ICU THEN USED DELAY.

URBAN CROSSROADS

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[3]	Existing (2017)								E+P							
			HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service		HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.	TS	--[6]	--[6]	--[6]	--[6]	0.81	**0.92**	D	**E**	--[6]	--[6]	--[6]	--[6]	0.84	**0.95**	D	**E**
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.88	**0.94**	D	**E**	--[6]	--[6]	--[6]	--[6]	0.88	**0.97**	D	**E**
3	Longden Av. & Live Oak Av./Driveway	TS	--[6]	--[6]	--[6]	--[6]	0.74	0.88	C	D	--[6]	--[6]	--[6]	--[6]	0.77	**0.91**	C	**E**
4	Live Oak Av. & Arrow Hwy. (West)	TS	--[6]	--[6]	--[6]	--[6]	**0.99**	0.69	**E**	B	--[6]	--[6]	--[6]	--[6]	**1.01**	0.74	**F**	C
5	Dwy. 1 & Arrow Hwy.	**CSS**	Future Intersection								14.2	16.4	B	C	--[4]	--[4]	--[4]	--[4]
6	Dwy. 2 & Live Oak Av.	**CSS**	Future Intersection								22.7	19.1	C	C	--[4]	--[4]	--[4]	--[4]
7	Speedway Dwy. & Live Oak Av.	CSS	20.8	**>100.0**	C	**F**	--[4]	--[4]	--[4]	--[4]	18.6	**>100.0**	C	**F**	--[4]	--[4]	--[4]	--[4]
8	Dwy. 3 & Arrow Hwy.	**CSS**	Future Intersection								12.2	13.6	B	B	--[4]	--[4]	--[4]	--[4]
9	Dwy. 4 & Live Oak Av.	**CSS**	Future Intersection								20.0	15.9	C	C	--[4]	--[4]	--[4]	--[4]
10	Dwy. 5 & Live Oak Av.	**CSS**	Future Intersection								16.2	14.2	C	B	--[4]	--[4]	--[4]	--[4]
11	Driveway/Private Drive B & Arrow Hwy.	CSS	0.0	15.0	A	C	--[4]	--[4]	--[4]	--[4]	24.4	16.2	C	C	--[4]	--[4]	--[4]	--[4]
12	Dwy. 6 & Arrow Hwy.	**CSS**	Future Intersection								12.3	13.8	B	B	--[4]	--[4]	--[4]	--[4]
13	Dwy. 7/Speedway Dr. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.49	0.59	A	A	--[6]	--[6]	--[6]	--[6]	0.47	0.68	A	B
14	Avenida Barbosa & Alpha St./Buena Vista St.	TS	--[6]	--[6]	--[6]	--[6]	0.51	0.72	A	C	--[6]	--[6]	--[6]	--[6]	0.55	0.76	A	C
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	**1.02**	0.69	**F**	B	--[6]	--[6]	--[6]	--[6]	**1.12**	0.89	**F**	D
16	Private Drive A & Live Oak Av.	**TS**	Future Intersection								--[6]	--[6]	--[6]	--[6]	0.49	0.80	A	C
17	Dwy. 8 & Arrow Hwy.	**CSS**	Future Intersection								10.7	17.6	B	C	--[4]	--[4]	--[4]	--[4]
18	Dwy. 9 & Arrow Hwy.	**CSS**	Future Intersection								10.7	19.1	B	C	--[4]	--[4]	--[4]	--[4]
19	Dwy. 10 & Live Oak Av.	**CSS**	Future Intersection								17.3	14.6	C	B	--[4]	--[4]	--[4]	--[4]
20	I-605 SB Off-Ramp & Arrow Hwy.	TS	17.7	7.6	B	A	--[5]	--[5]	--[5]	--[5]	18.3	8.3	B	A	--[5]	--[5]	--[5]	--[5]
21	I-605 SB On-Ramp & Live Oak Av.	TS	6.0	14.3	B	B	--[5]	--[5]	--[5]	--[5]	7.7	14.5	A	B	--[5]	--[5]	--[5]	--[5]
22	I-605 NB On-Ramp/Live Oak Ln. & Arrow Hwy.	CSS	11.2	16.7	B	C	--[5]	--[5]	--[5]	--[5]	11.8	18.9	B	C	--[5]	--[5]	--[5]	--[5]
23	I-605 NB Off-Ramp & Live Oak Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]
24	Rivergrade Rd. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	0.79	0.61	C	B	--[6]	--[6]	--[6]	--[6]	0.81	0.63	D	B
25	Stewart Av./Driveway & Rivergrade Rd.	TS	--[6]	--[6]	--[6]	--[6]	0.37	0.32	A	A	--[6]	--[6]	--[6]	--[6]	0.39	0.32	A	A
26	Rivergrade Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.71	**1.04**	C	**F**	--[6]	--[6]	--[6]	--[6]	0.75	**1.07**	C	**F**
27	Stewart Av. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.90	0.80	D	C	--[6]	--[6]	--[6]	--[6]	**0.93**	0.82	**E**	D
28	Baldwin Park Bl. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.67	0.78	B	C	--[6]	--[6]	--[6]	--[6]	0.67	0.78	B	C
29	Arrow Hwy. & Live Oak Av. (East)	TS	--[6]	--[6]	--[6]	--[6]	0.69	0.90	B	D	--[6]	--[6]	--[6]	--[6]	0.70	**0.92**	C	**E**
30	Maine Av. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	0.86	0.82	D	D	--[6]	--[6]	--[6]	--[6]	0.87	0.84	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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

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

[4] ICU not reported for intersections without a signal.

[5] ICU not reported for intersections under Caltrans' jurisdiction.

[6] HCM not reported for signalized intersections.

5.4 ROADWAY SEGMENT CAPACITY ANALYSIS

Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis based on the City of Irwindale Roadway Segment Capacity Thresholds. The following additional roadway segments would operate at a deficient LOS with the addition of Project traffic in addition to those previously identified for Existing (2017) traffic conditions:

- Live Oak Avenue, Peck Road to Longden Avenue (#2) – LOS D
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS D
- Arrow Highway, Driveway 3 to Driveway/Private Drive B (#6) – LOS D
- Arrow Highway, Avenida Barbosa/Private Drive A to Driveway 8 (#9) – LOS E
- Arrow Highway, Driveway 8 to Driveway 9 (#10) – LOS F
- Arrow Highway, Driveway 9 to I-605 Southbound Off-Ramp (#11) – LOS F
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramps (#27) – LOS D

5.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

For E+P conditions, the intersection of Private Drive A and Live Oak Avenue would meet the planning level traffic signal warrant (see Appendix 5.2).

5.6 FREEWAY OFF-RAMP QUEUING ANALYSIS

Ramp queuing analysis findings are presented in Table 5-3 for E+P traffic conditions. As shown on Table 5-3, there are no queuing issues on the study area freeway off-ramps during the peak hours for E+P traffic conditions, consistent with Existing traffic conditions. Worksheets for E+P conditions queuing analysis are provided in Appendix 5.3.

5.7 BASIC FREEWAY SEGMENT ANALYSIS

E+P mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 5-4. As shown on Table 5-4 and consistent with Existing conditions, the study area freeway mainline segments would continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for E+P traffic conditions. E+P basic freeway segment analysis worksheets are provided in Appendix 5.4.

5.8 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 5-5. As shown in Table 5-5, the following additional freeway merge/diverge ramp junctions would operate at unacceptable LOS (i.e., LOS E or worse) during the peak hours under E+P traffic conditions:

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only

E+P freeway ramp junction operations analysis worksheets are provided in Appendix 5.5.

Table 5-2

Roadway Segment Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2017	V/C[2]	LOS[3]	E+P	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	17,118	**0.86**	**D**	18,180	**0.91**	**E**
2	Live Oak Av.	Peck Rd. to Longden Av.	4D	30,000	23,789	0.79	C	24,907	**0.83**	**D**
3		Longden Av. to Live Oak Av.	6D	53,000	41,218	0.78	C	42,864	**0.81**	**D**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	4D	30,000	23,304	0.78	C	23,964	0.80	C
5		Dwy. 1 to Dwy. 3	4D	30,000	23,304	0.78	C	23,894	0.80	C
6		Dwy. 3 to Driveway/Private Drive B	4D	30,000	23,304	0.78	C	24,017	**0.80**	**D**
7		Driveway/Private Drive B to Dwy. 6	5D	37,500	23,304	0.62	B	24,557	0.65	B
8		Dwy. 6 to Avenida Barbosa/Private Drive A	5D	37,500	23,304	0.62	B	24,675	0.66	B
9		Avenida Barbosa/Private Drive A to Dwy. 8	4D	30,000	23,035	0.77	C	28,822	**0.96**	**E**
10		Dwy. 8 to Dwy. 9	4D	30,000	23,035	0.77	C	30,485	**1.02**	**F**
11		Dwy. 9 to I-605 SB Off-Ramp	4D	30,000	23,035	0.77	C	30,486	**1.02**	**F**
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	25,255	**0.84**	**D**	30,156	**1.01**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	24,237	**0.81**	**D**	26,589	**0.89**	**D**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	21,137	0.70	B	22,381	0.75	C
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	15,981	0.80	C	16,579	0.83	A
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	5D	46,700	35,519	0.76	C	37,130	0.80	C
20		Dwy. 2 to Speedway Dwy.	5D	46,700	35,519	0.76	C	37,037	0.79	C
21		Speedway Dwy. to Dwy. 4	5D	46,700	29,664	0.64	B	31,182	0.67	B
22		Dwy. 4 to Dwy. 5	5D	46,700	29,664	0.64	B	31,191	0.67	B
23		Dwy. 5 to Dwy. 7	5D	46,700	29,664	0.64	B	31,191	0.67	B
24		Dwy. 7 to Private Drive A	5D	46,700	29,664	0.64	B	31,838	0.68	B
25		Private Drive A to Dwy. 10	5D	46,700	29,664	0.64	B	34,751	0.74	C
26		Dwy. 10 to I-605 SB On-Ramp	5D	46,700	29,664	0.64	B	35,097	0.75	C
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	29,982	0.74	C	33,731	**0.83**	**D**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	27,508	0.68	B	28,744	0.71	C
29		Rivergrade Rd. to Stewart Av.	5D	46,700	32,254	0.69	B	33,306	0.71	C
30		Stewart Av. to Baldwin Park Bl.	4D	40,400	29,466	0.73	C	30,012	0.74	C
31		Baldwin Park Bl. to Arrow Hwy.	4D	40,400	26,310	0.65	B	26,348	0.65	C
32		Arrow Hwy. to Maine Av.	4D	40,400	44,296	**1.10**	**F**	45,576	**1.13**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	5,363	0.27	A	6,471	0.32	A
34		Stewart Av. to Live Oak Av.	4D	20,000	3,699	0.18	A	4,807	0.24	A

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

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 5-3

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

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-605 SB Off-Ramp / Arrow Hwy.	SBLT	960	377	226	Yes	Yes
I-605 NB Off-Ramps / Live Oak Av.	NBR	1,920	148	595	Yes	Yes
	SBR	2,650	1,425	848	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 5-4

Basic Freeway Segment Analysis for E+P Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2017)				E+P			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-605	SB	North of Arrow Hwy.	4	25.1	20.3	C	C	26.6	21.1	D	C
		Arrow Hwy. to Live Oak Av.	4	20.1	18.0	C	B	20.1	18.0	C	B
		South of Live Oak Av.	4	25.5	26.3	C	D	25.8	28.3	C	D
	NB	North of Arrow Hwy.	4	19.6	19.2	C	C	20.1	20.6	C	C
		Arrow Hwy. to Live Oak Av.	4	17.0	17.7	B	B	17.0	17.7	B	B
		South of Live Oak Av.	4	21.1	23.0	C	C	22.4	24.0	C	C

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

Table 5-5

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

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2017)				E+P			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
I-605	SB	Off-Ramp at Arrow Hwy.	4	25.6	D	20.7	C	**27.1**	**E**	21.7	C
		On-Ramp at Live Oak Av.	4	25.9	D	27.2	D	26.6	D	**-**	**F**
	NB	On-Ramp at Arrow Hwy.	4	20.2	C	19.8	C	20.7	C	21.2	C
		Loop On-Ramp at Arrow Hwy.	4	18.6	B	18.5	B	19.1	C	20.0	C
		Off-Ramp at Live Oak Av.	4	22.0	D	24.0	D	23.6	D	25.1	D

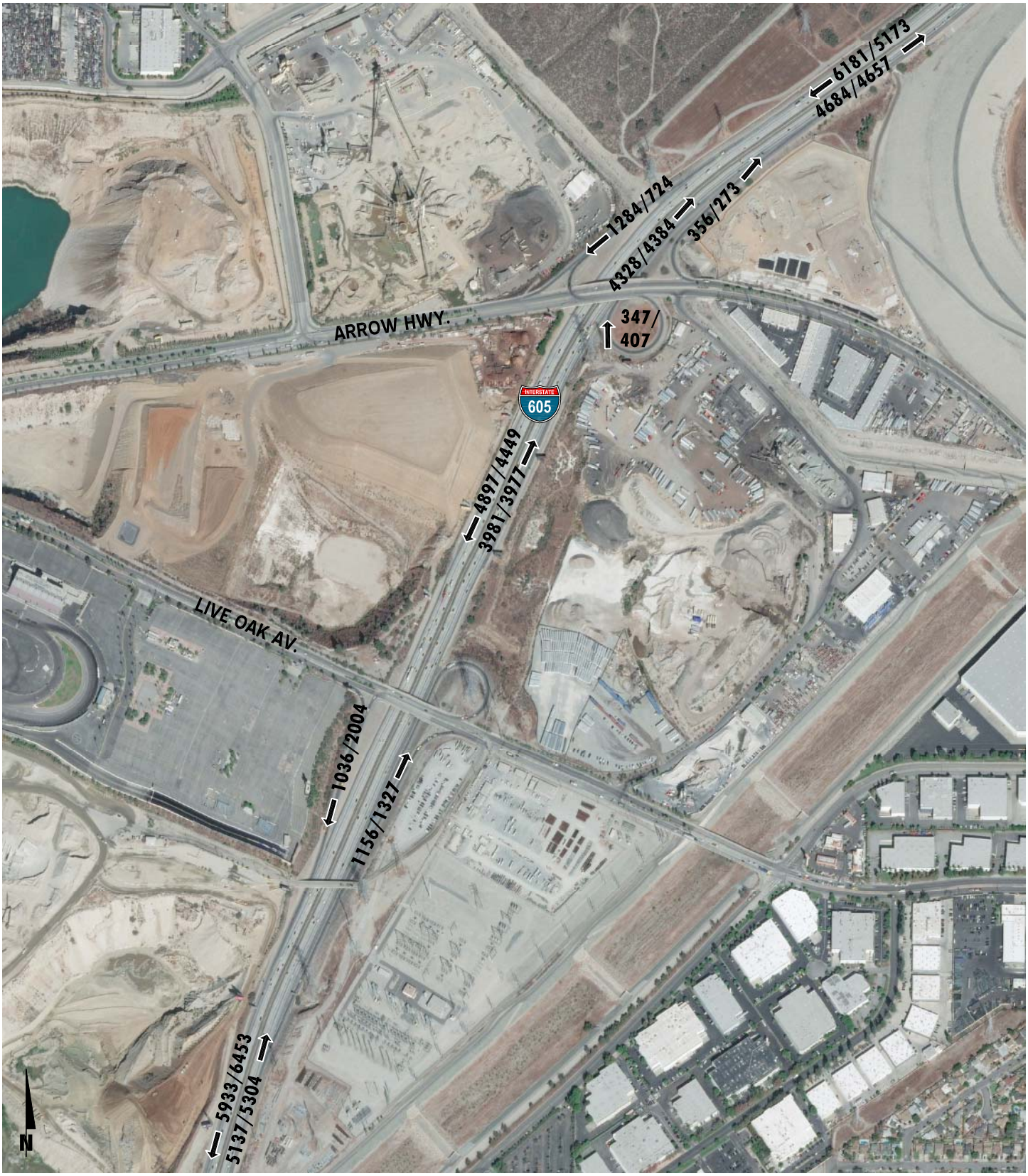
* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

EXHIBIT 5-4: E+P FREEWAY MAINLINE VOLUMES



5.9 E+P IMPACTS

Based on the applicable jurisdiction's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following study area intersections were found to be significantly impacted by the Project for E+P traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)

The determination of significant impacts is shown on Table 5-6.

5.10 E+P RECOMMENDED IMPROVEMENTS

5.10.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies are recommended at intersections that this report identifies as significantly impacted by the Project in an effort to reduce each location's peak hour delay and improve the associated LOS grade to pre-project traffic conditions, or better, for E+P traffic conditions. The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented. The effectiveness of the recommended improvement strategies discussed below to address E+P traffic deficiencies is presented in Table 5-7. HCM calculation worksheets for E+P conditions, with improvements, are provided in Appendix 5.6.

Mitigation Measure 1.1 – Myrtle Avenue & Longden Avenue (#1)

- Contribute fair share towards restriping a 2nd eastbound through lane (this improvement may require the overcrossing to the east to be widened to accommodate the 2nd receiving lane).

Mitigation Measure 2.1 – Myrtle Avenue/Peck Road & Live Oak Avenue (#2)

- Contribute fair share towards a 2nd southbound left turn lane.

Mitigation Measure 3.1 – Longden Avenue & Live Oak Avenue/Driveway (#3)

- Project to restripe a 3rd eastbound through lane.

Mitigation Measure 4.1 – Live Oak Avenue & Arrow Highway (West) (#4)

- Contribute fair share towards a 3rd westbound through lane.

Table 5-6

Determination of Significant Impacts for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2017) V/C Ratio or Delay[1]		E+P V/C Ratio or Delay[1]		Difference in V/C or Delay		Significant Impact?[3,4]
			AM	PM	AM	PM	AM	PM	
1	Myrtle Av. & Longden Av.	TS	0.81	**0.92**	0.84	**0.95**	--	**0.028**	Yes
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	0.88	**0.94**	0.88	**0.97**	--	**0.028**	Yes
3	Longden Av. & Live Oak Av./Driveway	TS	0.74	0.88	0.77	**0.91**	--	**0.029**	Yes
4	Live Oak Av. & Arrow Hwy. (West)	TS	**0.99**	0.69	**1.01**	0.74	**0.021**	--	Yes
7	Speedway Dwy. & Live Oak Av.[6]	CSS	20.8	**1177.1**	18.6	**758.0**	--	782.2	No
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	**1.02**	0.69	**1.12**	0.89	**0.100**	--	Yes
23	I-605 NB Off-Ramps & Live Oak Av.	CSS	**119.3**	**123.9**	**449.0**	**187.6**	329.7	63.7	Yes[5]
26	Rivergrade Rd. & Live Oak Av.	TS	0.71	**1.04**	0.75	**1.07**	--	**0.030**	Yes
27	Stewart Av. & Live Oak Av.	TS	0.90	0.80	**0.93**	0.82	**0.027**	--	Yes
29	Arrow Hwy. & Live Oak Av. (East)	TS	0.69	0.90	0.70	**0.92**	--	**0.025**	Yes

[1] V/C calculated using the TRAFFIX operation analysis software, based on the ICU methodology. Delay based on HCM (6th Edition) methodology.

[2] TS = Traffic Signal; CSS = Cross-Street Stop

[3] Significant impact occurs when V/C is increased by 0.02 or more for either peak hour.

[4] Significant impact occurs when the delay is increased by more than 2 seconds.

[5] Caltrans facility does not have significance threshold. However, Project will contribute to the existing deficiency. As such, impact is cumulatively considerable.

[6] Intersection includes additional 3rd westbound through lane along Project's frontage on Live Oak Avenue for With Project traffic conditions.

Table 5-7

Intersection Analysis for E+P Conditions With Improvements

#	Intersection	Traffic Control[4]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		ICU[3] (v/c)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.																					
	- Existing	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.810	**0.923**	D	**E**
	- E+P	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.839	**0.951**	D	**E**
	- With Improvements	TS	1	2	0	1	2	d	1	**2**	**0**	1	2	0	--	--	--	--	0.839	0.822	D	D
2	Myrtle Av./Peck Rd. & Live Oak Av.																					
	- Existing	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	0.878	**0.940**	D	**E**
	- E+P	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	0.883	**0.968**	D	**E**
	- With Improvements	TS	1	2	d	**2**	2	d	1	2	1	1	2	0	--	--	--	--	0.883	**0.916**	D	**E**
3	Longden Av. & Live Oak Av./Driveway																					
	- Existing	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	0.736	0.881	C	D
	- E+P	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	0.765	**0.910**	C	**E**
	- With Improvements	TS	0	1	0	1	1	1	1	**3**	**0**	1	2	1>>	--	--	--	--	0.765	0.743	C	C
4	Live Oak Av. & Arrow Hwy. (West)																					
	- Existing	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**0.989**	0.692	**E**	B
	- E+P	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**1.010**	0.738	**F**	C
	- With Improvements	TS	2	0	1>>	0	0	0	0	2	1>>	2	**3**	0	--	--	--	--	0.819	0.738	D	C
15	Avenida Barbosa/Private Drive A & Arrow Hwy.																					
	- Existing	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.016**	0.689	**F**	B
	- E+P	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.116**	0.887	**F**	D
	- With Improvements	TS	**1**	**1**	**1**	2	**1**	1	1	**3**	0	**1**	**3**	1	--	--	--	--	0.897	0.797	D	C
23	I-605 NB Off-Ramp & Live Oak Av.																					
	- Existing	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- E+P	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- With Improvements	**TS**	0	0	1	0	0	1	0	2	0	0	2	0	0.9	1.0	A	A	--	--	--	--
26	Rivergrade Rd. & Live Oak Av.																					
	- Existing	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.711	**1.042**	C	**F**
	- E+P	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.752	**1.072**	C	**F**
	- With Improvements	TS	1	1	**1>**	1	2	1	1	2	1	1	2	1	--	--	--	--	0.752	**0.990**	C	**E**
27	Stewart Av. & Live Oak Av.																					
	- Existing	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	0.898	0.795	D	C
	- E+P	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	**0.925**	0.818	**E**	D
	- With Improvements	TS	0	1	0	1	1	1	1	2	1	1	**3**	**0**	--	--	--	--	0.753	0.818	C	D
29	Arrow Hwy. & Live Oak Av. (East)																					
	- Existing	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.691	0.897	B	D
	- E+P	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.703	**0.922**	C	**E**
	- With Improvements	TS	0	0	0	2	0	1	1	**3**	0	0	2	1>>	--	--	--	--	0.703	0.786	C	C

[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 Lane; 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio. ICU not reported for unsignalized intersections or at Caltrans facilities.

[4] TS = Traffic Signal; CSS = Cross-Street Stop; **TS** = Improvement

[5] Remove the southbound cross-walk (west leg).

Mitigation Measure 5.1 – Avenida Barbosa/Private Drive A & Arrow Highway (#15)

- Project to construct a northbound left turn lane, through lane, and right turn lane (needed for site access).
- Project to construct a southbound through lane (needed for site access).
- Project to restripe a 3rd eastbound through lane (site adjacent improvement).
- Project to construct a westbound left turn lane (needed for site access) and contribute fair share towards a 3rd westbound through lane.

Mitigation Measure 6.1 – I-605 Northbound Off-Ramp & Live Oak Avenue (#23)

- Contribute fair share towards the installation of a traffic signal.

Mitigation Measure 7.1 – Rivergrade Road & Live Oak Avenue (#26)

- Contribute fair share towards modifying the traffic signal and implement overlap phasing on the northbound right turn lane.

Mitigation Measure 8.1 – Stewart Avenue & Live Oak Avenue (#27)

- Project to restripe a 3rd westbound through lane.

Mitigation Measure 9.1 – Arrow Highway & Live Oak Avenue (East) (#29)

- Project to restripe a 3rd eastbound through lane.

5.10.2 Recommended Improvements to Address Deficiencies on Roadway Segments

With the implementation of the intersection improvements listed above in conjunction with the Project's site adjacent improvements, only the following roadway segments would continue to operate at a deficient LOS for E+P traffic conditions (see Table 5-8):

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS E
- Live Oak Avenue, Peck Road to Longden Avenue (#2) – LOS D
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS D
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS F
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS D
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramps (#27) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS E

However, additional roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS during the peak hours with the recommended improvements.

5.10.3 Recommended Improvements to Address Deficiencies on Freeway Facilities

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale (or other neighboring jurisdictions) on SHS facilities. As such, no improvements have been recommended to address E+P deficiencies on the SHS, because there is no feasible mitigation available.

Table 5-8

Roadway Segment Analysis for E+P Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2017	V/C[2]	LOS[3]	E+P	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	17,118	**0.86**	**D**	18,180	**0.91**	**E**
2	Live Oak Av.	Peck Rd. to Longden Av.	4D	30,000	23,789	0.79	C	24,907	**0.83**	**D**
3		Longden Av. to Live Oak Av.	6D	53,000	41,218	0.78	C	42,864	**0.81**	**D**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	**6D**	**53,000**	23,304	0.44	A	23,964	0.45	A
5		Dwy. 1 to Dwy. 3	**6D**	**53,000**	23,304	0.44	A	23,894	0.45	A
6		Dwy. 3 to Driveway/Private Drive B	**6D**	**53,000**	23,304	0.44	A	24,017	0.45	A
7		Driveway/Private Drive B to Dwy. 6	**6D**	**53,000**	23,304	0.44	A	24,557	0.46	A
8		Dwy. 6 to Avenida Barbosa/Private Drive A	**6D**	**53,000**	23,304	0.44	A	24,675	0.47	A
9		Avenida Barbosa/Private Drive A to Dwy. 8	**6D**	**53,000**	23,035	0.43	A	28,822	0.54	A
10		Dwy. 8 to Dwy. 9	**6D**	**53,000**	23,035	0.43	A	30,485	0.58	A
11		Dwy. 9 to I-605 SB Off-Ramp	**6D**	**53,000**	23,035	0.43	A	30,486	0.58	A
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	25,255	**0.84**	**D**	30,156	**1.01**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	24,237	**0.81**	**D**	26,589	**0.89**	**D**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	21,137	0.70	B	22,381	0.75	C
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	15,981	0.80	C	16,579	0.83	A
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	**6D**	**53,000**	35,519	0.67	B	37,130	0.70	C
20		Dwy. 2 to Speedway Dwy.	**6D**	**53,000**	35,519	0.67	B	37,037	0.70	B
21		Speedway Dwy. to Dwy. 4	**6D**	**53,000**	29,664	0.56	A	31,182	0.59	A
22		Dwy. 4 to Dwy. 5	**6D**	**53,000**	29,664	0.56	A	31,191	0.59	A
23		Dwy. 5 to Dwy. 7	**6D**	**53,000**	29,664	0.56	A	31,191	0.59	A
24		Dwy. 7 to Private Drive A	**6D**	**53,000**	29,664	0.56	A	31,838	0.60	B
25		Private Drive A to Dwy. 10	**6D**	**53,000**	29,664	0.56	A	34,751	0.66	B
26		Dwy. 10 to I-605 SB On-Ramp	**6D**	**53,000**	29,664	0.56	A	35,097	0.66	B
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	29,982	0.74	C	33,731	**0.83**	**D**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	27,508	0.68	B	28,744	0.71	C
29		Rivergrade Rd. to Stewart Av.	5D	46,700	32,254	0.69	B	33,306	0.71	C
30		Stewart Av. to Baldwin Park Bl.	**5D**	**46,700**	29,466	0.63	B	30,012	0.64	B
31		Baldwin Park Bl. to Arrow Hwy.	**5D**	**46,700**	26,310	0.56	A	26,348	0.56	A
32		Arrow Hwy. to Maine Av.	**5D**	**46,700**	44,296	**0.95**	**E**	45,576	**0.98**	**E**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	5,363	0.27	A	6,471	0.32	A
34		Stewart Av. to Live Oak Av.	4D	20,000	3,699	0.18	A	4,807	0.24	A

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

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

6 OPENING YEAR CUMULATIVE (2020) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access, which would be in place for Opening Year Cumulative traffic conditions.

6.2 OPENING YEAR CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT, AM and PM peak hour volumes which can be expected for Opening Year Cumulative Without Project traffic conditions are shown on Exhibit 6-1 and Exhibit 6-2, respectively.

6.3 OPENING YEAR CUMULATIVE WITH PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT, AM and PM peak hour volumes which can be expected for Opening Year Cumulative With Project traffic conditions are shown on Exhibit 6-3 and Exhibit 6-4, respectively.

6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative Without Project conditions, with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the following intersections were identified to operate at a deficient LOS for Opening Year Cumulative Without Project traffic conditions in addition to those previously identified under Existing traffic conditions:

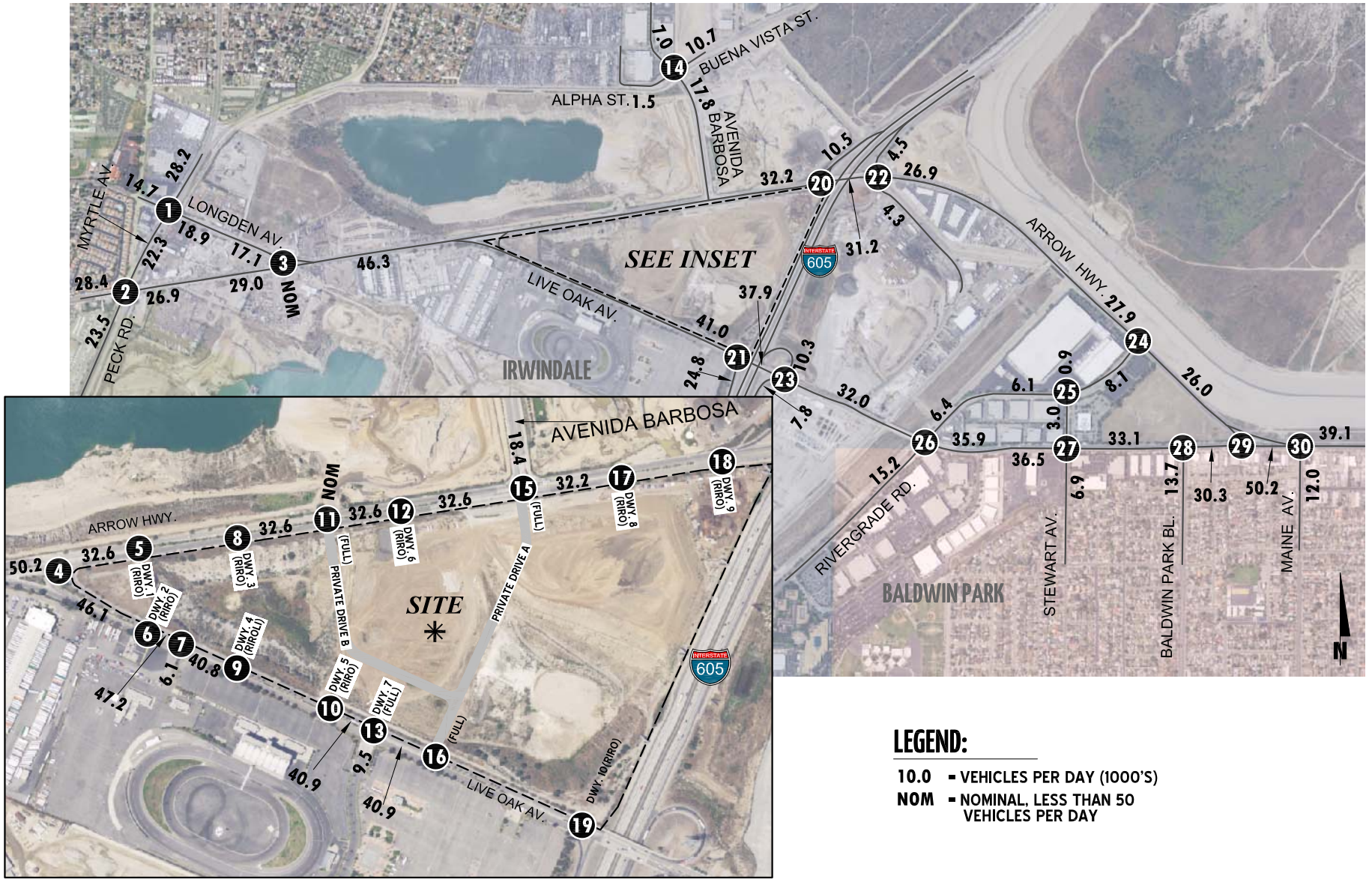
- Longden Avenue & Live Oak Avenue/Driveway (#3) – LOS E PM peak hour only
- Stewart Avenue & Live Oak Avenue (#27) – LOS E AM peak hour only
- Arrow Highway & Live Oak Avenue (East) (#29) – LOS E PM peak hour only

The following additional intersection would operate at unacceptable level of service with the addition of Project traffic:

- Maine Avenue & Arrow Highway (#30) – LOS E AM peak hour only

A summary of the peak hour intersection LOS for Opening Year Cumulative Without and With Project conditions are shown on Exhibits 6-5 and 6-6, respectively. The intersection operations analysis worksheets for Opening Year Cumulative Without and With Project traffic conditions are included in Appendix 6.1 and Appendix 6.2 of this TIA, respectively.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)

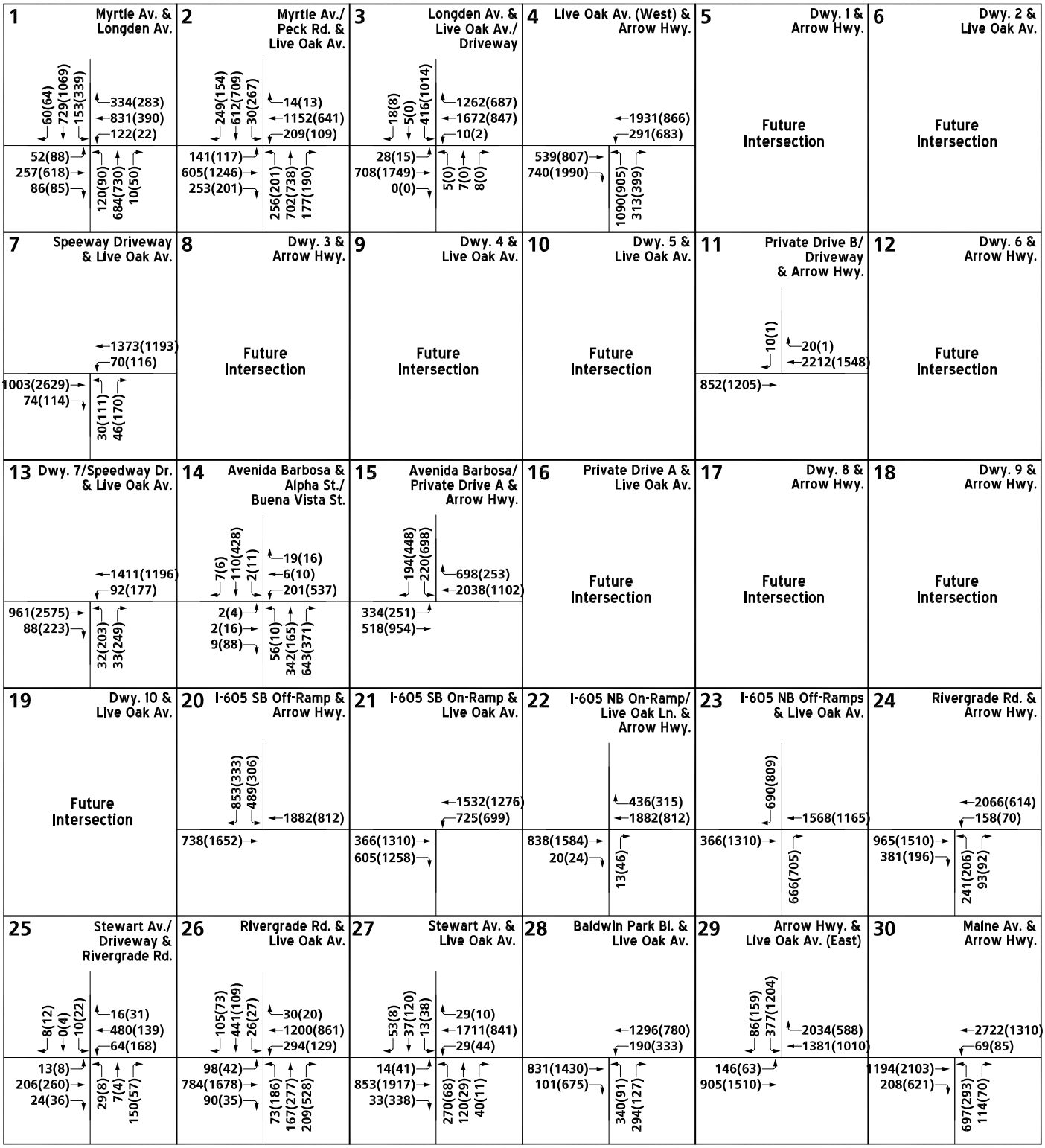


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

URBAN CROSSROADS

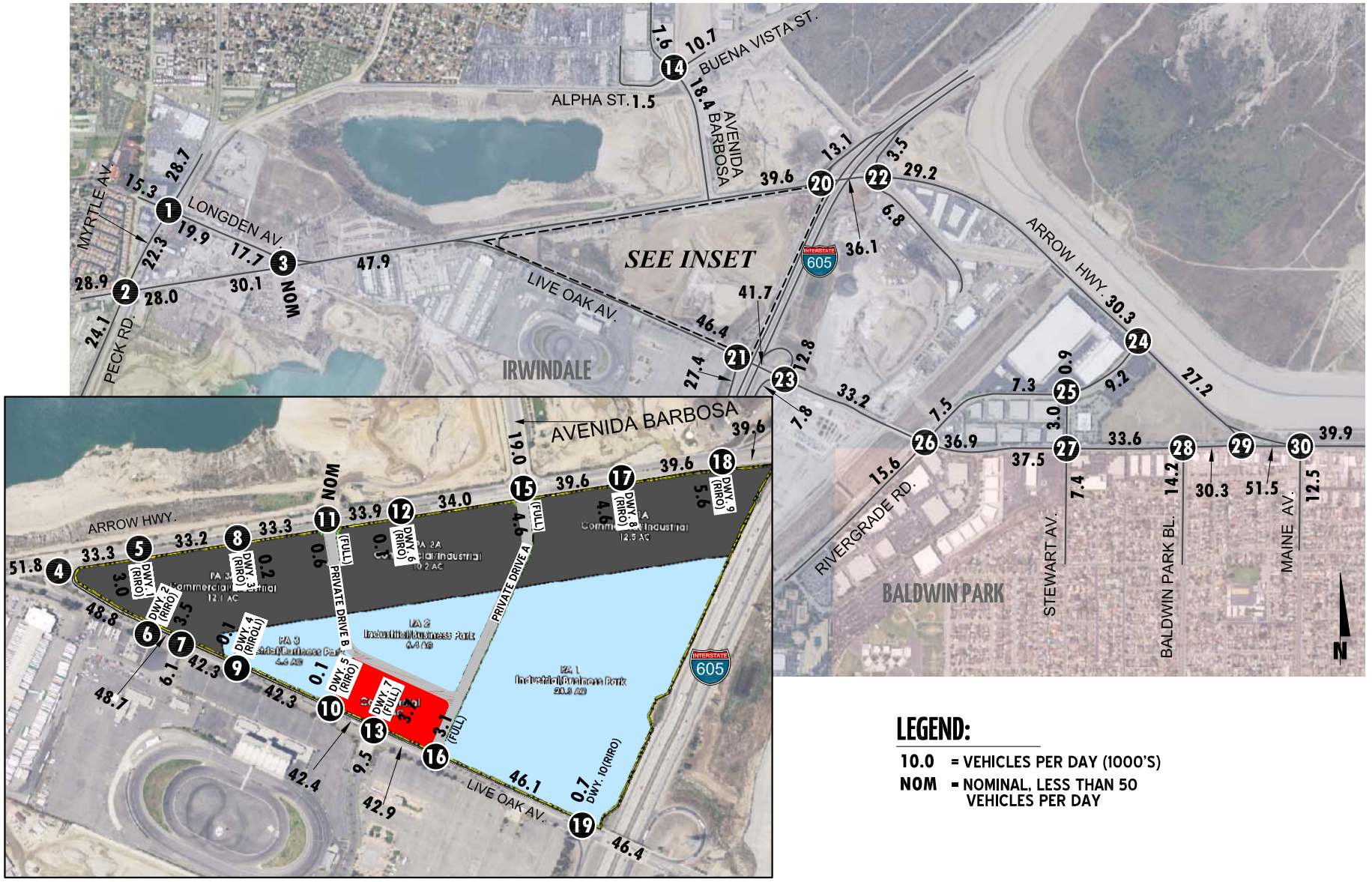
EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

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

EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2020) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)

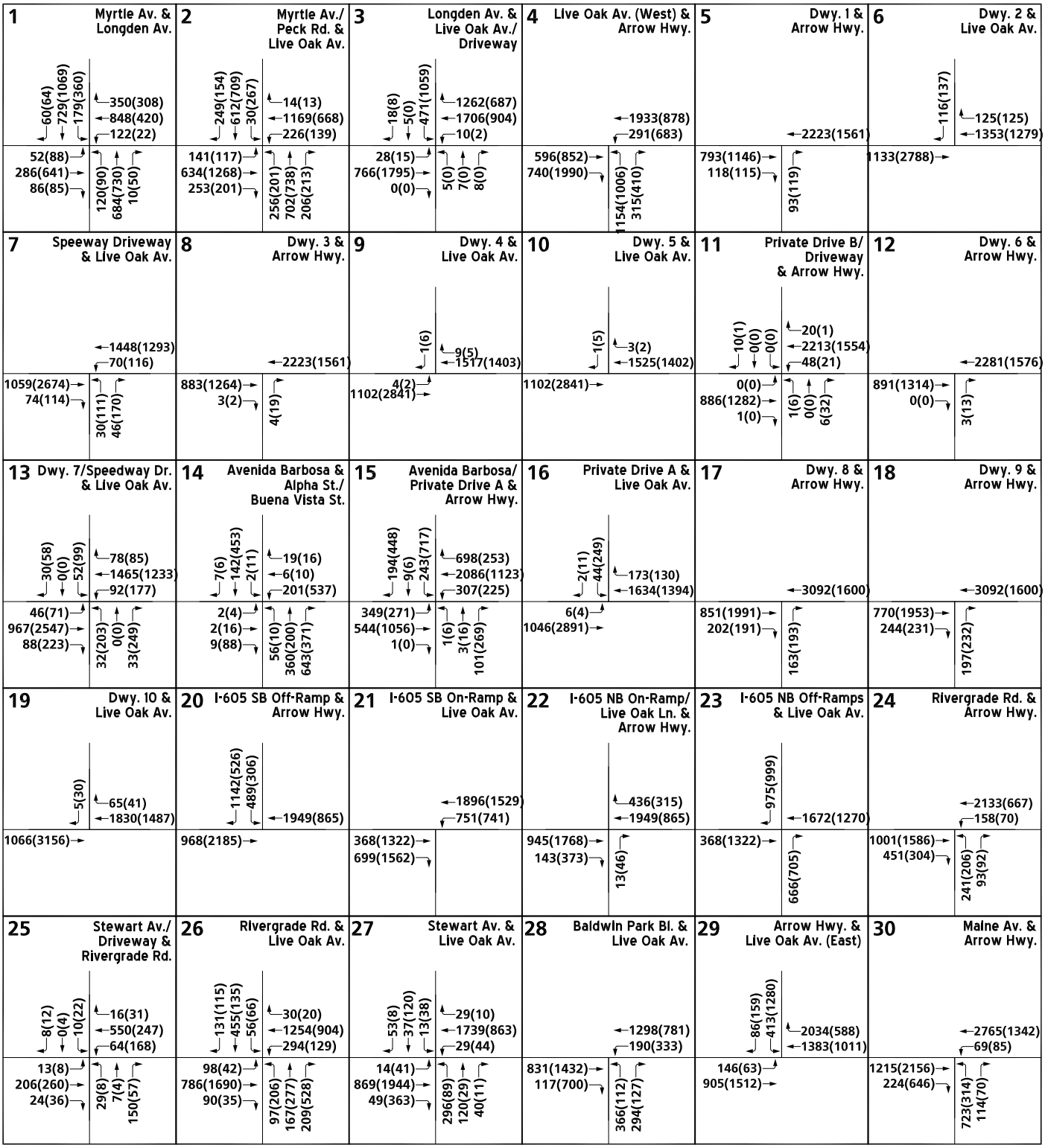


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

URBAN CROSSROADS

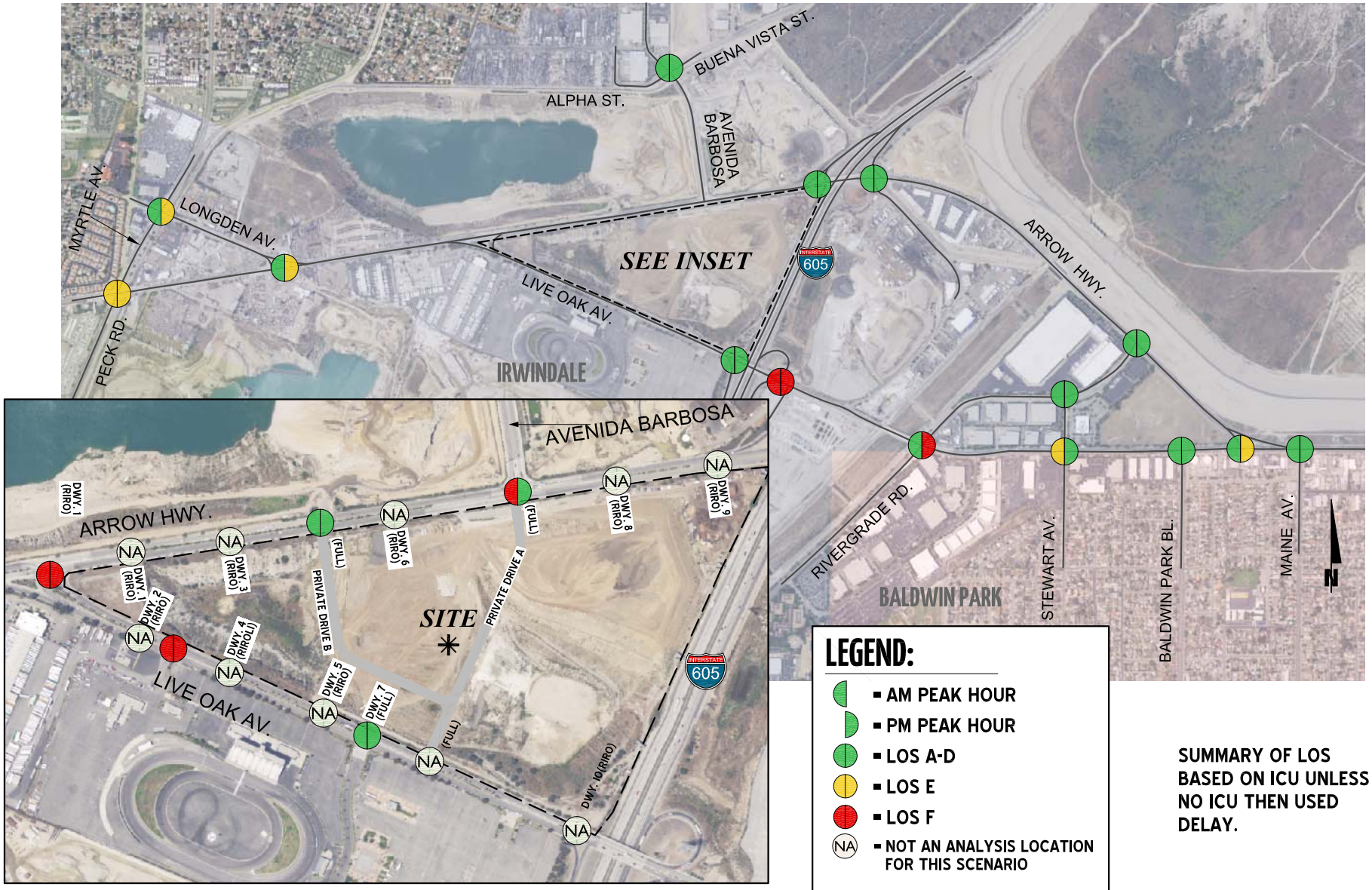
EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

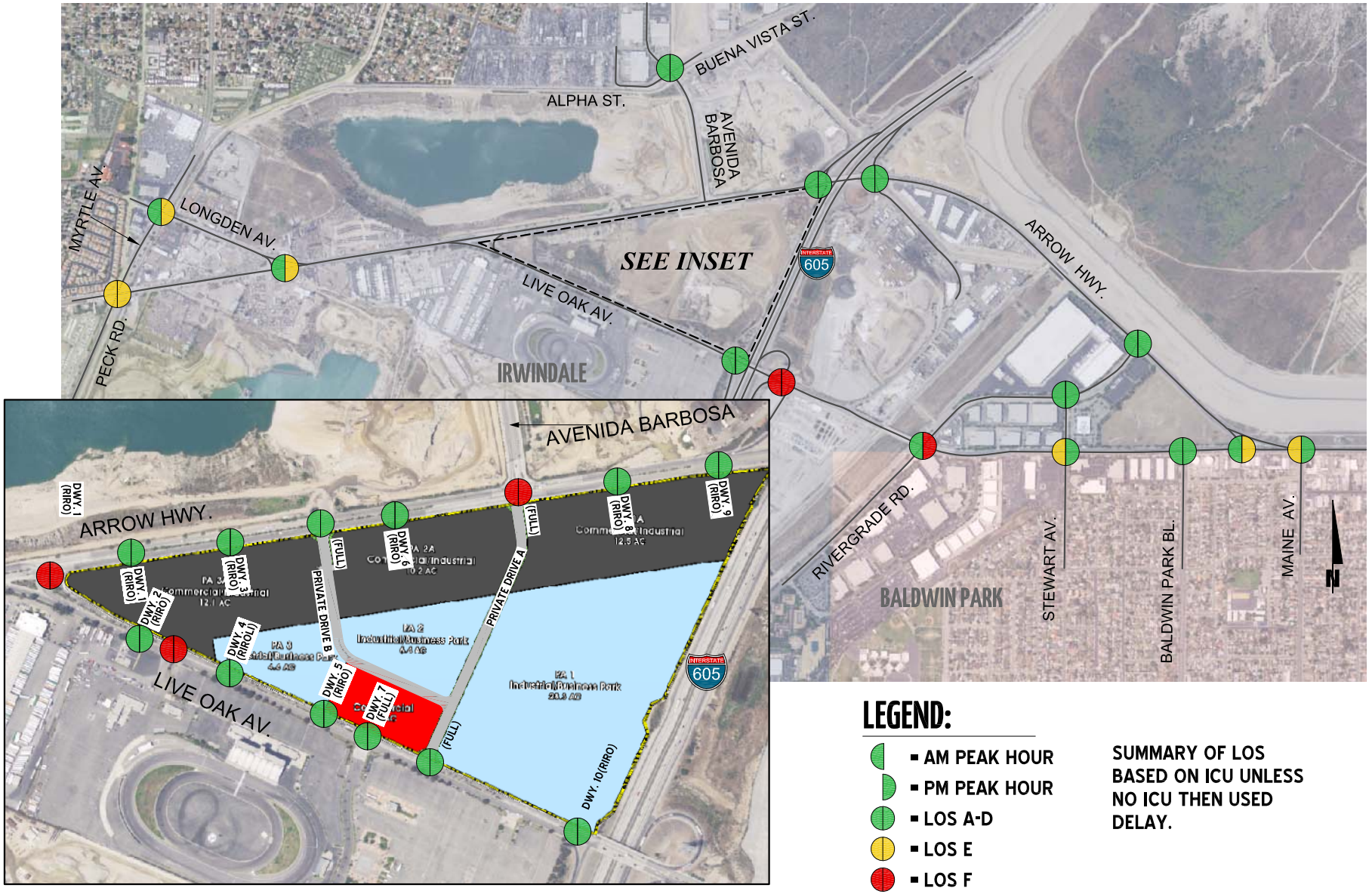
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT SUMMARY OF LOS



URBAN CROSSROADS

EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2020) WITH PROJECT SUMMARY OF LOS



LEGEND:

- AM PEAK HOUR
- PM PEAK HOUR
- LOS A-D
- LOS E
- LOS F

SUMMARY OF LOS BASED ON ICU UNLESS NO ICU THEN USED DELAY.

URBAN CROSSROADS

Table 6-1

Intersection Analysis for Opening Year Cumulative (2020) Conditions

#	Intersection	Traffic Control[3]	2020 Without Project								2020 With Project							
			HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service		HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.	TS	--[6]	--[6]	--[6]	--[6]	0.81	**0.96**	D	**E**	--[6]	--[6]	--[6]	--[6]	0.84	**0.98**	D	**E**
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	**0.90**	**0.96**	**E**	**E**	--[6]	--[6]	--[6]	--[6]	**0.91**	**0.98**	**E**	**E**
3	Longden Av. & Live Oak Av./Driveway	TS	--[6]	--[6]	--[6]	--[6]	0.78	**0.97**	C	**E**	--[6]	--[6]	--[6]	--[6]	0.81	**0.99**	D	**E**
4	Live Oak Av. & Arrow Hwy. (West)	TS	--[6]	--[6]	--[6]	--[6]	**1.04**	**1.82**	**F**	**F**	--[6]	--[6]	--[6]	--[6]	**1.07**	**1.85**	**F**	**F**
5	Dwy. 1 & Arrow Hwy.	**CSS**	Future Intersection								15.3	22.1	C	C	--[4]	--[4]	--[4]	--[4]
6	Dwy. 2 & Live Oak Av.	**CSS**	Future Intersection								27.6	28.1	D	D	--[4]	--[4]	--[4]	--[4]
7	Speedway Dwy. & Live Oak Av.	CSS	**68.8**	**>100.0**	**F**	**F**	--[4]	--[4]	--[4]	--[4]	**44.7**	**>100.0**	**E**	**F**	--[4]	--[4]	--[4]	--[4]
8	Dwy. 3 & Arrow Hwy.	**CSS**	Future Intersection								12.9	16.4	B	C	--[4]	--[4]	--[4]	--[4]
9	Dwy. 4 & Live Oak Av.	**CSS**	Future Intersection								24.4	21.5	C	C	--[4]	--[4]	--[4]	--[4]
10	Dwy. 5 & Live Oak Av.	**CSS**	Future Intersection								18.3	17.2	C	C	--[4]	--[4]	--[4]	--[4]
11	Driveway/Private Drive B & Arrow Hwy.	CSS	30.5	16.9	D	C	--[4]	--[4]	--[4]	--[4]	30.7	22.0	D	C	--[4]	--[4]	--[4]	--[4]
12	Dwy. 6 & Arrow Hwy.	**CSS**	Future Intersection								12.9	16.6	B	C	--[4]	--[4]	--[4]	--[4]
13	Dwy. 7/Speedway Dr. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.56	0.79	A	C	--[6]	--[6]	--[6]	--[6]	0.52	0.88	A	D
14	Avenida Barbosa & Alpha St./Buena Vista St.	TS	--[6]	--[6]	--[6]	--[6]	0.49	0.71	A	C	--[6]	--[6]	--[6]	--[6]	0.52	0.74	A	C
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	**1.07**	0.86	**F**	D	--[6]	--[6]	--[6]	--[6]	**1.16**	**1.05**	**F**	**F**
16	Private Drive A & Live Oak Av.	**TS**	Future Intersection								--[6]	--[6]	--[6]	--[6]	0.51	0.84	A	D
17	Dwy. 8 & Arrow Hwy.	**CSS**	Future Intersection								11.2	23.1	B	C	--[4]	--[4]	--[4]	--[4]
18	Dwy. 9 & Arrow Hwy.	**CSS**	Future Intersection								11.2	26.3	B	D	--[4]	--[4]	--[4]	--[4]
19	Dwy. 10 & Live Oak Av.	**CSS**	Future Intersection								20.8	17.7	C	C	--[4]	--[4]	--[4]	--[4]
20	I-605 SB Off-Ramp & Arrow Hwy.	TS	23.8	8.5	C	A	--[5]	--[5]	--[5]	--[5]	25.5	10.0	C	A	--[5]	--[5]	--[5]	--[5]
21	I-605 SB On-Ramp & Live Oak Av.	TS	7.5	20.1	A	C	--[5]	--[5]	--[5]	--[5]	9.2	21.6	A	C	--[5]	--[5]	--[5]	--[5]
22	I-605 NB On-Ramp/Live Oak Ln. & Arrow Hwy.	CSS	11.6	18.2	B	C	--[5]	--[5]	--[5]	--[5]	12.2	20.8	B	C	--[5]	--[5]	--[5]	--[5]
23	I-605 NB Off-Ramp & Live Oak Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]
24	Rivergrade Rd. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	0.82	0.68	D	B	--[6]	--[6]	--[6]	--[6]	0.84	0.70	D	C
25	Stewart Av./Driveway & Rivergrade Rd.	TS	--[6]	--[6]	--[6]	--[6]	0.37	0.35	A	A	--[6]	--[6]	--[6]	--[6]	0.39	0.35	A	A
26	Rivergrade Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.72	**1.05**	C	**F**	--[6]	--[6]	--[6]	--[6]	0.76	**1.08**	C	**F**
27	Stewart Av. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	**0.92**	0.84	**E**	D	--[6]	--[6]	--[6]	--[6]	**0.95**	0.87	**E**	D
28	Baldwin Park Bl. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.69	0.83	B	D	--[6]	--[6]	--[6]	--[6]	0.69	0.84	B	D
29	Arrow Hwy. & Live Oak Av. (East)	TS	--[6]	--[6]	--[6]	--[6]	0.74	**0.95**	C	**E**	--[6]	--[6]	--[6]	--[6]	0.75	**0.97**	C	**E**
30	Maine Av. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	0.89	0.46	D	A	--[6]	--[6]	--[6]	--[6]	**0.90**	0.48	**E**	A

* **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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

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

[4] ICU not reported for intersections without a signal.

[5] ICU not reported for intersections under Caltrans' jurisdiction.

[6] HCM not reported for signalized intersections.

6.5 ROADWAY SEGMENT CAPACITY ANALYSIS

Table 6-2 provides a summary of the Opening Year Cumulative (2020) Without Project traffic conditions roadway segment capacity analysis based on the City of Irwindale Roadway Segment Capacity Thresholds. The following study area roadway segments would operate at an unacceptable LOS for Opening Year Cumulative (2020) Without Project traffic conditions:

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS E
- Live Oak Avenue, Peck Road to Longden Avenue (#2) – LOS D
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS D
- Arrow Highway, Live Oak Avenue to Driveway 1 (#4) – LOS F
- Arrow Highway, Driveway 1 to Driveway 3 (#5) – LOS F
- Arrow Highway, Driveway 3 to Driveway/Private Drive B (#6) – LOS F
- Arrow Highway, Driveway/Private Drive B to Driveway 6 (#7) – LOS D
- Arrow Highway, Driveway 6 to Avenida Barbosa/Private Drive A (#8) – LOS D
- Arrow Highway, Avenida Barbosa/Private Drive A to Driveway 8 (#9) – LOS F
- Arrow Highway, Driveway 8 to Driveway 9 (#10) – LOS F
- Arrow Highway, Driveway 9 to I-605 Southbound Off-Ramp (#11) – LOS F
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS F
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS D
- Arrow Highway, Rivergrade Road to Live Oak Avenue (#14) – LOS D
- Avenida Barbosa, Alpha Street/Buena Vista Street to Arrow Highway (#16) – LOS D
- Live Oak Avenue, Live Oak Avenue/Arrow Highway to Driveway 2 (#19) – LOS E
- Live Oak Avenue, Driveway 2 to Speedway Driveway (#20) – LOS F
- Live Oak Avenue, Speedway Driveway to Driveway 4 (#21) – LOS D
- Live Oak Avenue, Driveway 4 to Driveway 5 (#22) – LOS D
- Live Oak Avenue, Driveway 5 to Driveway 7 (#23) – LOS D
- Live Oak Avenue, Driveway 7 to Private Drive A (#24) – LOS D
- Live Oak Avenue, Private Drive A to Driveway 10 (#25) – LOS D
- Live Oak Avenue, Driveway 10 to I-605 Southbound On-Ramp (#26) – LOS D
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramp (#27) – LOS E
- Live Oak Avenue, Stewart Avenue to Baldwin Park Boulevard (#30) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS F

The following roadway segments would operate at a deficient LOS with the addition of Project traffic in addition to those previously identified for Opening Year Cumulative (2020) Without Project traffic conditions:

- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Rivergrade Road to Stewart Avenue (#29) – LOS D

Table 6-2

Roadway Segment Analysis for Opening Year Cumulative (2020) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 Without Project	V/C[2]	LOS[3]	2020 With Project	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	18,878	**0.94**	**E**	19,940	**1.00**	**E**
2	Live Oak Av.	Peck Rd. to Longden Av.	4D	30,000	26,917	**0.90**	**D**	28,035	**0.93**	**E**
3		Longden Av. to Live Oak Av.	6D	53,000	46,253	**0.87**	**D**	47,899	**0.90**	**E**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	4D	30,000	32,633	**1.09**	**F**	33,293	**1.11**	**F**
5		Dwy. 1 to Dwy. 3	4D	30,000	32,631	**1.09**	**F**	33,221	**1.11**	**F**
6		Dwy. 3 to Driveway/Private Drive B	4D	30,000	32,631	**1.09**	**F**	33,344	**1.11**	**F**
7		Driveway/Private Drive B to Dwy. 6	5D	37,500	32,631	**0.87**	**D**	33,884	**0.90**	**E**
8		Dwy. 6 to Avenida Barbosa/Private Drive A	5D	37,500	32,631	**0.87**	**D**	34,002	**0.91**	**E**
9		Avenida Barbosa/Private Drive A to Dwy. 8	4D	30,000	32,158	**1.07**	**F**	37,945	**1.26**	**F**
10		Dwy. 8 to Dwy. 9	4D	30,000	32,158	**1.07**	**F**	39,608	**1.32**	**F**
11		Dwy. 9 to I-605 SB Off-Ramp	4D	30,000	32,158	**1.07**	**F**	39,609	**1.32**	**F**
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	31,213	**1.04**	**F**	36,114	**1.20**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	26,846	**0.89**	**D**	29,198	**0.97**	**E**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	25,978	**0.87**	**D**	27,222	**0.91**	**E**
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	17,839	**0.89**	**D**	18,437	**0.92**	**E**
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	5D	46,700	45,596	**0.98**	**E**	47,207	**1.01**	**F**
20		Dwy. 2 to Speedway Dwy.	5D	46,700	47,170	**1.01**	**F**	48,688	**1.04**	**F**
21		Speedway Dwy. to Dwy. 4	5D	46,700	40,779	**0.87**	**D**	42,297	**0.91**	**E**
22		Dwy. 4 to Dwy. 5	5D	46,700	40,779	**0.87**	**D**	42,306	**0.91**	**E**
23		Dwy. 5 to Dwy. 7	5D	46,700	40,779	**0.87**	**D**	42,306	**0.91**	**E**
24		Dwy. 7 to Private Drive A	5D	46,700	40,842	**0.87**	**D**	43,016	**0.92**	**E**
25		Private Drive A to Dwy. 10	5D	46,700	40,751	**0.87**	**D**	45,838	**0.98**	**E**
26		Dwy. 10 to I-605 SB On-Ramp	5D	46,700	40,957	**0.88**	**D**	46,390	**0.99**	**E**
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	37,937	**0.94**	**E**	41,686	**1.03**	**F**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	31,969	0.79	C	33,205	**0.82**	**D**
29		Rivergrade Rd. to Stewart Av.	5D	46,700	36,473	0.78	C	37,525	**0.80**	**D**
30		Stewart Av. to Baldwin Park Bl.	4D	40,400	33,071	**0.82**	**D**	33,617	**0.83**	**D**
31		Baldwin Park Bl. to Arrow Hwy.	4D	40,400	30,305	0.75	C	30,343	0.75	C
32		Arrow Hwy. to Maine Av.	4D	40,400	50,172	**1.24**	**F**	51,452	**1.27**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	8,112	0.41	A	9,220	0.46	A
34		Stewart Av. to Live Oak Av.	4D	20,000	6,346	0.32	A	7,454	0.37	A

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

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

6.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrant analysis was not performed for Opening Year Cumulative (2020) Without Project traffic conditions as there are no additional unsignalized intersections aside from the location previously warranted under Existing (2017) traffic conditions. No additional study area intersections would meet either peak hour volume-based or the planning level traffic signal warrants for Opening Year Cumulative (2020) With Project traffic conditions (see Appendix 6.3).

6.7 FREEWAY OFF-RAMP QUEUING ANALYSIS

Ramp queuing analysis findings are presented in Table 6-3 for Opening Year Cumulative conditions. As shown on Table 6-3, there are no queuing issues on the study area freeway off-ramps during the peak hours for both Opening Year Cumulative Without and With Project traffic conditions. Worksheets for Opening Year Cumulative Without and With Project conditions queuing analysis are provided in Appendix 6.4 and Appendix 6.5, respectively.

6.8 BASIC FREEWAY SEGMENT ANALYSIS

Opening Year Cumulative Without and With Project mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 6-7 and 6-8 for the I-605 Freeway, respectively. As shown on Table 6-4, the basic freeway segments would continue to operate at an acceptable LOS for both Opening Year Cumulative Without and With Project traffic conditions. Opening Year Cumulative Without Project basic freeway segment analysis worksheets are provided in Appendix 6.6. Opening Year Cumulative With Project basic freeway segment analysis worksheets are provided in Appendix 6.7.

6.9 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Opening Year Cumulative Without and With Project traffic conditions and the results of this analysis are presented in Table 6-5. As shown on Table 6-5, the following freeway ramp junctions would operate at a deficient LOS for Opening Year Cumulative Without traffic conditions:

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only
- I-605 Freeway – Northbound, Off-Ramp at Live Oak Avenue (#5) – LOS E PM peak hour only

The addition of Project traffic would not result in any additional deficient freeway ramp junctions, in addition to those identified under Opening Year Cumulative (2020) Without Project traffic conditions. Opening Year Cumulative Without Project freeway ramp junction operations and weaving analysis worksheets are provided in Appendix 6.8. Opening Year Cumulative With Project freeway ramp junction operations analysis worksheets are provided in Appendix 6.9.

Table 6-3

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2020) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2020 Without Project				2020 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
I-605 SB Off-Ramp / Arrow Hwy.	SBLT	960	422	215	Yes	Yes	422	253	Yes	Yes
I-605 NB Off-Ramps / Live Oak Av.	NBR	1,920	235	845	Yes	Yes	235	853	Yes	Yes
	SBR	2,650	1,158	848	Yes	Yes	2,173	1,695	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 6-4

Basic Freeway Segment Analysis for Opening Year Cumulative (2020) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Without Project				With Project			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-605	SB	North of Arrow Hwy.	4	28.2	22.7	D	C	29.9	23.6	D	C
		Arrow Hwy. to Live Oak Av.	4	21.5	19.1	C	C	21.5	19.1	C	C
		South of Live Oak Av.	4	27.7	30.1	D	D	28.3	32.4	D	D
	NB	North of Arrow Hwy.	4	21.2	21.6	C	C	21.8	23.3	C	C
		Arrow Hwy. to Live Oak Av.	4	18.0	18.9	B	C	18.0	18.9	B	C
		South of Live Oak Av.	4	23.6	25.7	C	C	25.0	26.8	C	D

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

Table 6-5

Freeway Ramp Junction Merge/Diverge Analysis for Opening Year Cumulative (2020) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Without Project				With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
I-605	SB	Off-Ramp at Arrow Hwy.	4	**28.2**	**E**	23.2	D	**29.9**	**E**	24.3	D
		On-Ramp at Live Oak Av.	4	28.2	D	**--[4]**	**F**	32.2	D	**--[4]**	**F**
	NB	On-Ramp at Arrow Hwy.	4	21.8	C	22.1	C	22.4	C	23.8	C
		Loop On-Ramp at Arrow Hwy.	4	20.0	C	20.8	C	20.6	C	22.4	C
		Off-Ramp at Live Oak Av.	4	24.6	D	**26.7**	**E**	**26.3**	**E**	**27.8**	**E**

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

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

EXHIBIT 6-7: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES

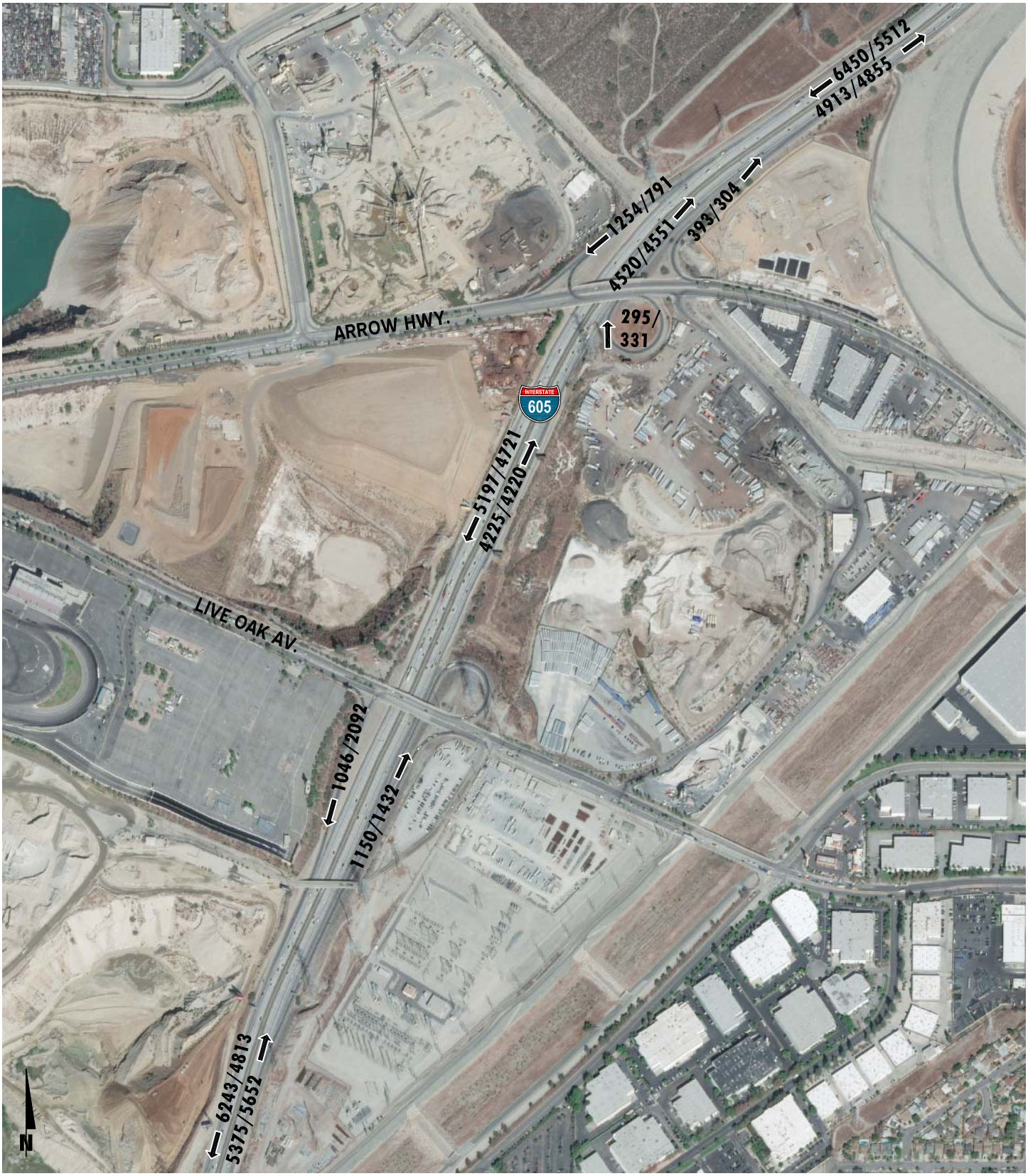
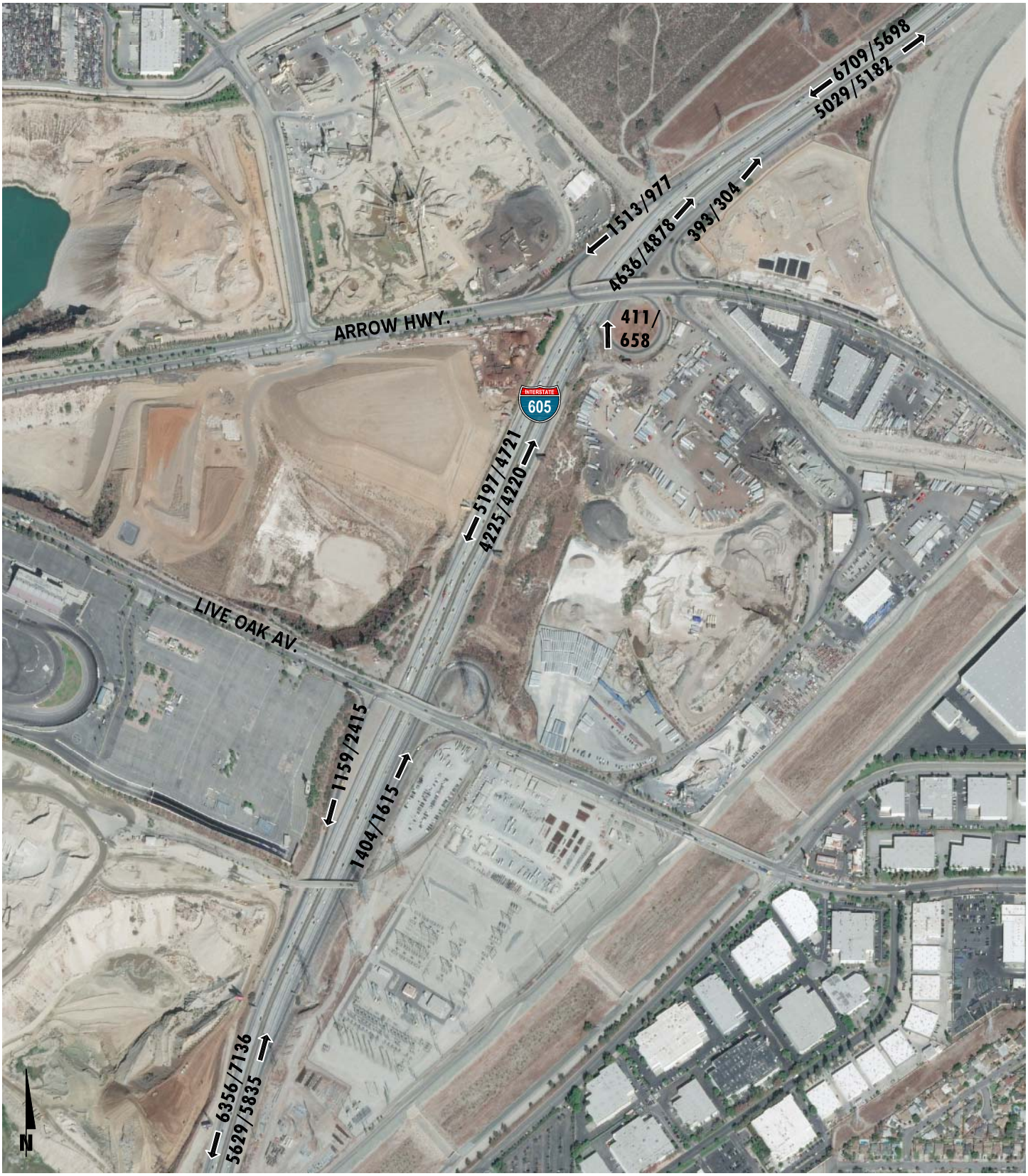


EXHIBIT 6-8: OPENING YEAR CUMULATIVE (2020) WITH PROJECT FREEWAY MAINLINE VOLUMES



6.10 OPENING YEAR CUMULATIVE (2020) IMPACTS

Based on the applicable jurisdiction's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following study area intersections were found to be significantly impacted by the Project for Opening Year Cumulative (2020) traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Speedway Drive & Live Oak Avenue (#7)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)
- Maine Avenue & Arrow Highway (#30)

The determination of significant impacts is shown on Table 6-6.

6.11 OPENING YEAR CUMULATIVE RECOMMENDED IMPROVEMENTS

6.11.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative traffic deficiencies is presented in Table 6-7. It is recommended that the Project Applicant participate in the funding of off-site improvements that are needed to serve cumulative traffic conditions through the payment of City of Irwindale DIF (if the improvements are included in the DIF program) or on a fair share basis (if the improvements are not included in a pre-existing fee program). The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented. In conjunction with Mitigation Measures 1.1 through 9.1 identified previously for E+P traffic conditions, the following additional improvements are recommended to improve the impacted intersection's LOS back to pre-project conditions, or better, for Opening Year Cumulative traffic conditions:

Mitigation Measure 4.2 – Live Oak Avenue & Arrow Highway (West) (#4)

- Contribute fair share towards restriping a 3rd eastbound through lane.

Mitigation Measure 10.1 – Speedway Driveway & Live Oak Avenue (#7)

- Contribute fair share towards the installation of a traffic signal.
- Project to restripe a 3rd westbound through lane as part of the site adjacent improvements.

Mitigation Measure 11.1 – Maine Avenue & Arrow Highway (#30)

- Project to restripe a 3rd eastbound through lane.

Table 6-6

Determination of Significant Impacts for Opening Year Cumulative (2020) Conditions

#	Intersection	Traffic Control[2]	2020 Without Project V/C Ratio or Delay[1]		2020 With Project V/C Ratio or Delay[1]		Difference in V/C or Delay		Significant Impact?[3,4]
			AM	PM	AM	PM	AM	PM	
1	Myrtle Av. & Longden Av.	TS	0.81	**0.96**	0.84	**0.98**	--	**0.027**	Yes
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	**0.90**	**0.96**	**0.91**	**0.98**	0.005	**0.026**	Yes
3	Longden Av. & Live Oak Av./Driveway	TS	0.78	**0.97**	0.81	**0.99**	--	**0.028**	Yes
4	Live Oak Av. & Arrow Hwy. (West)	TS	**1.04**	**1.82**	**1.07**	**1.85**	**0.021**	**0.032**	Yes
7	Speedway Dwy. & Live Oak Av.[6]	CSS	68.8	**511.9**	44.7	**985.2**	--	**473.3**	Yes
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	**1.07**	0.86	**1.16**	**1.05**	**0.093**	**0.191**	Yes
23	I-605 NB Off-Ramps & Live Oak Av.	CSS	**370.5**	**211.4**	**767.4**	**444.8**	**396.9**	**233.4**	Yes[5]
26	Rivergrade Rd. & Live Oak Av.	TS	0.72	**1.05**	0.76	**1.08**	--	**0.028**	Yes
27	Stewart Av. & Live Oak Av.	TS	**0.92**	0.84	**0.95**	0.87	**0.025**	--	Yes
29	Arrow Hwy. & Live Oak Av. (East)	TS	0.74	**0.95**	0.75	**0.97**	--	**0.025**	Yes
30	Maine Av. & Arrow Hwy.	TS	0.89	0.46	**0.90**	0.48	0.017	--	Yes

[1] V/C calculated using the TRAFFIX operation analysis software, based on the ICU methodology. Delay based on HCM (6th Edition) methodology.

[2] TS = Traffic Signal; CSS = Cross-Street Stop

[3] Significant impact occurs when V/C is increased by 0.02 or more for either peak hour.

[4] Significant impact occurs when the delay is increased by more than 2 seconds.

[5] Caltrans facility does not have significance threshold. However, Project will contribute to the existing deficiency. As such, impact is cumulatively considerable.

[6] Intersection includes additional 3rd westbound through lane along Project's frontage on Live Oak Avenue for With Project traffic conditions.

Table 6-7

Intersection Analysis for Opening Year Cumulative (2020) Conditions With Improvements

#	Intersection	Traffic Control[4]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		ICU[3] (v/c)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.																					
	- 2020 Without Project	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.809	**0.956**	D	**E**
	- 2020 With Project	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.836	**0.983**	D	**E**
	- With Improvements	TS	1	2	0	1	2	d	1	**2**	**0**	1	2	0	--	--	--	--	0.836	0.851	D	D
2	Myrtle Av./Peck Rd. & Live Oak Av.																					
	- 2020 Without Project	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	**0.904**	**0.955**	**E**	**E**
	- 2020 With Project	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	**0.909**	**0.981**	**E**	**E**
	- With Improvements	TS	1	2	d	**2**	2	d	1	2	1	1	2	0	--	--	--	--	**0.909**	**0.930**	**E**	**E**
3	Longden Av. & Live Oak Av./Driveway																					
	- 2020 Without Project	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	0.784	**0.965**	C	**E**
	- 2020 With Project	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	0.812	**0.993**	D	**E**
	- With Improvements	TS	0	1	0	1	1	1	1	**3**	**0**	1	2	1>>	--	--	--	--	0.812	0.806	D	D
4	Live Oak Av. & Arrow Hwy. (West)																					
	- 2020 Without Project	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**1.044**	**1.816**	**F**	**F**
	- 2020 With Project	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**1.065**	**1.848**	**F**	**F**
	- With Improvements	TS	2	0	1>>	0	0	0	0	**3**	1>>	2	**3**	0	--	--	--	--	0.863	0.781	D	C
7	Speedway Dwy. & Live Oak Av.																					
	- 2020 Without Project	CSS	0	1	0	0	0	0	0	3	0	1	2	0	**68.8**	**>100.0**	**F**	**F**	--	--	--	--
	- 2020 With Project	CSS	0	1	0	0	0	0	0	3	0	1	2	0	**44.7**	**>100.0**	**E**	**F**	--	--	--	--
	- With Improvements	**TS**	1	0	d	0	0	0	0	3	0	1	**3**	0	--	--	--	--	0.116	0.121	A	A
15	Avenida Barbosa/Private Drive A & Arrow Hwy.																					
	- 2020 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.067**	0.857	**F**	D
	- 2020 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.160**	**1.048**	**F**	**F**
	- With Improvements	TS	**1**	**1**	**1**	2	**1**	1	1	**3**	0	**1**	**3**	1	--	--	--	--	0.893	0.879	D	D
23	I-605 NB Off-Ramp & Live Oak Av.																					
	- 2020 Without Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- 2020 With Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- With Improvements	**TS**	0	0	1	0	0	1	0	2	0	0	2	0	0.9	1.0	A	A	--	--	--	--
26	Rivergrade Rd. & Live Oak Av.																					
	- 2020 Without Project	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.720	**1.052**	C	**F**
	- 2020 With Project	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.756	**1.080**	C	**F**
	- With Improvements	TS	1	1	**1>**	1	2	1	1	2	1	1	2	1	--	--	--	--	0.756	**0.999**	C	**E**
27	Stewart Av. & Live Oak Av.																					
	- 2020 Without Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	**0.920**	0.844	**E**	D
	- 2020 With Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	**0.945**	0.866	**E**	D
	- With Improvements	TS	0	1	0	1	1	1	1	2	1	1	**3**	**0**	--	--	--	--	0.770	0.866	C	D
29	Arrow Hwy. & Live Oak Av. (East)																					
	- 2020 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.741	**0.948**	C	**E**
	- 2020 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.753	**0.973**	C	**E**
	- With Improvements	TS	0	0	0	2	0	1	1	**3**	0	0	2	1>>	--	--	--	--	0.753	0.855	C	D
30	Maine Av. & Arrow Hwy.																					
	- 2020 Without Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	--	--	--	--	0.885	0.464	D	A
	- 2020 With Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	--	--	--	--	**0.902**	0.478	**E**	A
	- With Improvements	TS	2	0	1	0	0	0	0	**3**	**0**	1	3	0	--	--	--	--	**0.902**	0.478	**E**	A

[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 Lane; 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio. ICU not reported for unsignalized intersections or at Caltrans facilities.

[4] TS = Traffic Signal; CSS = Cross-Street Stop; **TS** = Improvement

[5] Remove the southbound cross-walk (west leg).

Worksheets for Opening Year Cumulative With Project conditions, with improvements, HCM calculation worksheets are provided in Appendix 6.10.

6.11.2 Recommended Improvements to Address Deficiencies on Roadway Segments

With the implementation of the intersection improvements listed above in conjunction with the Project's site adjacent improvements, only the following roadway segments would continue to operate at a deficient LOS for Opening Year Cumulative (2020) With Project traffic conditions (see Table 6-8):

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS E
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS E
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS F
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS E
- Arrow Highway, Rivergrade Road to Live Oak Avenue (#14) – LOS E
- Avenida Barbosa, Alpha Street/Buena Vista Street to Arrow Highway (#16) – LOS E
- Live Oak Avenue, Live Oak Avenue/Arrow Highway to Driveway 2 (#19) – LOS D
- Live Oak Avenue, Driveway 2 to Speedway Driveway (#20) – LOS E
- Live Oak Avenue, Driveway 7 to Private Drive A (#24) – LOS D
- Live Oak Avenue, Private Drive A to Driveway 10 (#25) – LOS D
- Live Oak Avenue, Driveway 10 to I-605 Southbound On-Ramp (#26) – LOS D
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramp (#27) – LOS F
- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Rivergrade Road to Stewart Avenue (#29) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS F

However, additional roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS during the peak hours with the recommended improvements.

6.11.3 Recommended Improvements to Address Deficiencies on Freeway Facilities

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale (or other neighboring jurisdictions) on SHS facilities. As such, no improvements have been recommended to address Opening Year Cumulative deficiencies on the SHS, because there is no feasible mitigation available.

Table 6-8

Roadway Segment Analysis for Opening Year Cumulative (2020) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 Without Project	V/C[2]	LOS[3]	2020 With Project	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	18,878	**0.94**	**E**	19,940	**1.00**	**E**
2	Live Oak Av.	Peck Rd. to Longden Av.	**5D**	**46,700**	26,917	0.58	A	28,035	0.60	B
3		Longden Av. to Live Oak Av.	6D	53,000	46,253	**0.87**	**D**	47,899	**0.90**	**E**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	**6D**	**53,000**	32,633	0.62	B	33,293	0.63	B
5		Dwy. 1 to Dwy. 3	**6D**	**53,000**	32,631	0.62	B	33,221	0.63	B
6		Dwy. 3 to Driveway/Private Drive B	**6D**	**53,000**	32,631	0.62	B	33,344	0.63	B
7		Driveway/Private Drive B to Dwy. 6	**6D**	**53,000**	32,631	0.62	B	33,884	0.64	B
8		Dwy. 6 to Avenida Barbosa/Private Drive A	**6D**	**53,000**	32,631	0.62	B	34,002	0.64	B
9		Avenida Barbosa/Private Drive A to Dwy. 8	**6D**	**53,000**	32,158	0.61	B	37,945	0.72	C
10		Dwy. 8 to Dwy. 9	**6D**	**53,000**	32,158	0.61	B	39,608	0.75	C
11		Dwy. 9 to I-605 SB Off-Ramp	**6D**	**53,000**	32,158	0.61	B	39,609	0.75	C
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	31,213	**1.04**	**F**	36,114	**1.20**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	26,846	**0.89**	**D**	29,198	**0.97**	**E**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	25,978	**0.87**	**D**	27,222	**0.91**	**E**
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	17,839	0.89	D	18,437	**0.92**	**E**
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	**6D**	**53,000**	45,596	**0.86**	**D**	47,207	**0.89**	**D**
20		Dwy. 2 to Speedway Dwy.	**6D**	**53,000**	47,170	**0.89**	**D**	48,688	**0.92**	**E**
21		Speedway Dwy. to Dwy. 4	**6D**	**53,000**	40,779	0.77	C	42,297	0.80	C
22		Dwy. 4 to Dwy. 5	**6D**	**53,000**	40,779	0.77	C	42,306	0.80	C
23		Dwy. 5 to Dwy. 7	**6D**	**53,000**	40,779	0.77	C	42,306	0.80	C
24		Dwy. 7 to Private Drive A	**6D**	**53,000**	40,842	0.77	C	43,016	**0.81**	**D**
25		Private Drive A to Dwy. 10	**6D**	**53,000**	40,751	0.77	C	45,838	**0.86**	**D**
26		Dwy. 10 to I-605 SB On-Ramp	**6D**	**53,000**	40,957	0.77	C	46,390	**0.88**	**D**
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	37,937	**0.94**	**E**	41,686	**1.03**	**F**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	31,969	0.79	C	33,205	**0.82**	**D**
29		Rivergrade Rd. to Stewart Av.	5D	46,700	36,473	0.78	C	37,525	**0.80**	**D**
30		Stewart Av. to Baldwin Park Bl.	**5D**	**46,700**	33,071	0.71	C	33,617	0.72	C
31		Baldwin Park Bl. to Arrow Hwy.	**5D**	**46,700**	30,305	0.65	B	30,343	0.65	B
32		Arrow Hwy. to Maine Av.	**5D**	**46,700**	50,172	**1.07**	**F**	51,452	**1.10**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	8,112	0.41	A	9,220	0.46	A
34		Stewart Av. to Live Oak Av.	4D	20,000	6,346	0.32	A	7,454	0.37	A

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

5D = Improvement

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year conditions are consistent with those shown previously on Exhibit 3-1, with the exception of 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 traffic conditions.

7.2 HORIZON YEAR WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT, AM and PM peak hour volumes which can be expected for Horizon Year Without Project traffic conditions are shown on Exhibit 7-1 and Exhibit 7-2, respectively.

7.3 HORIZON YEAR WITH PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT, AM and PM peak hour volumes which can be expected for Horizon Year With Project traffic conditions are shown on Exhibit 7-3 and Exhibit 7-4, respectively.

7.4 INTERSECTION OPERATIONS ANALYSIS

There are no additional study area intersections that would operate at an unacceptable LOS during the peak hours for Horizon Year (2040) Without Project traffic conditions in addition to those previously identified under Opening Year Cumulative (2020) traffic conditions. Similarly, there are no additional study area intersections that would operate at an unacceptable LOS with the addition of Project traffic in addition to those operating at a deficient LOS under Horizon Year (2040) traffic conditions. Summaries of the peak hour intersection LOS for Horizon Year Without and With Project are shown on Exhibit 7-5 and Exhibit 7-6, respectively.

The intersection operations analysis worksheets for Horizon Year Without and With Project traffic conditions are included in Appendix 7.1 and Appendix 7.2 of this TIA, respectively.

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

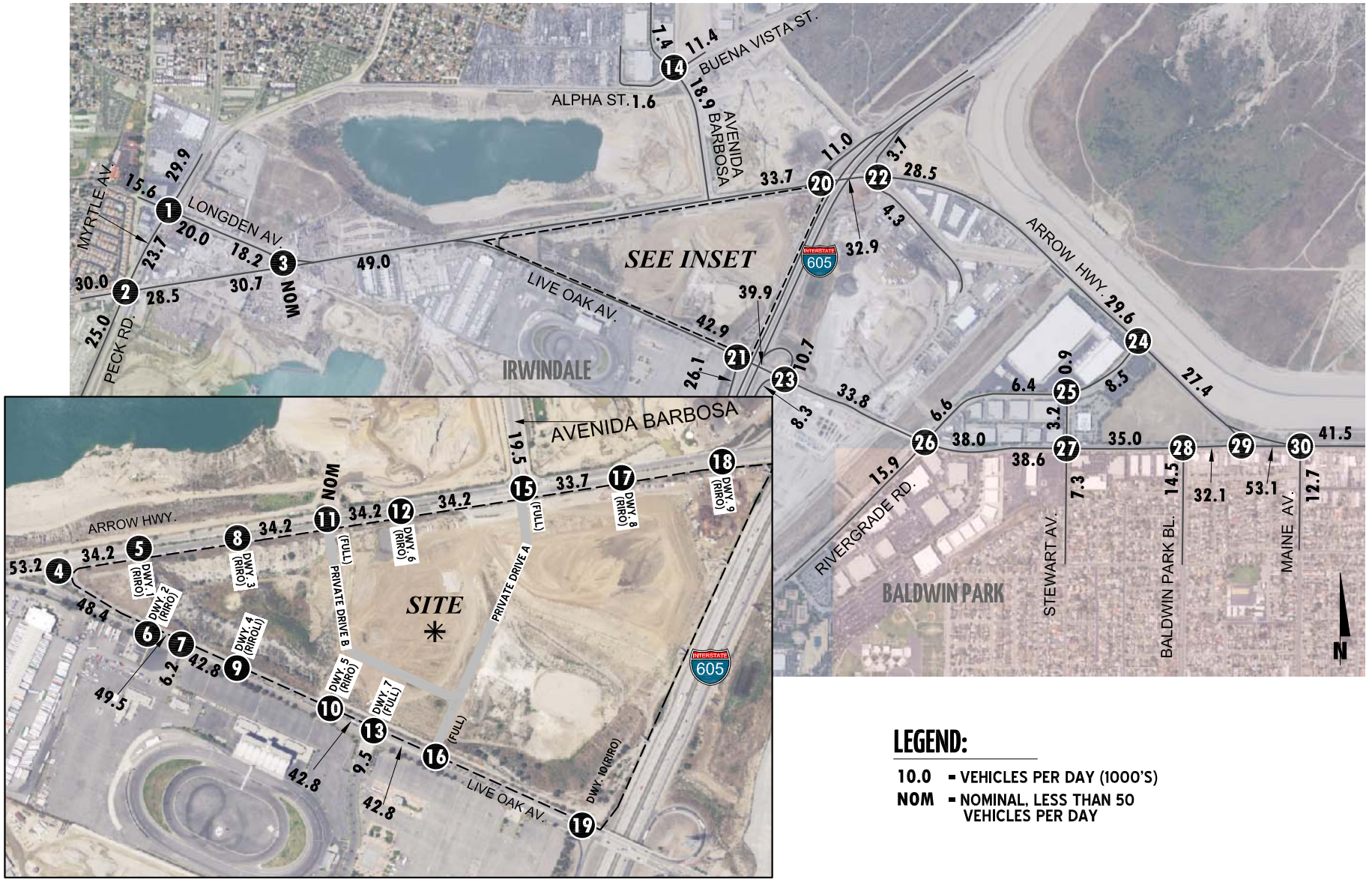
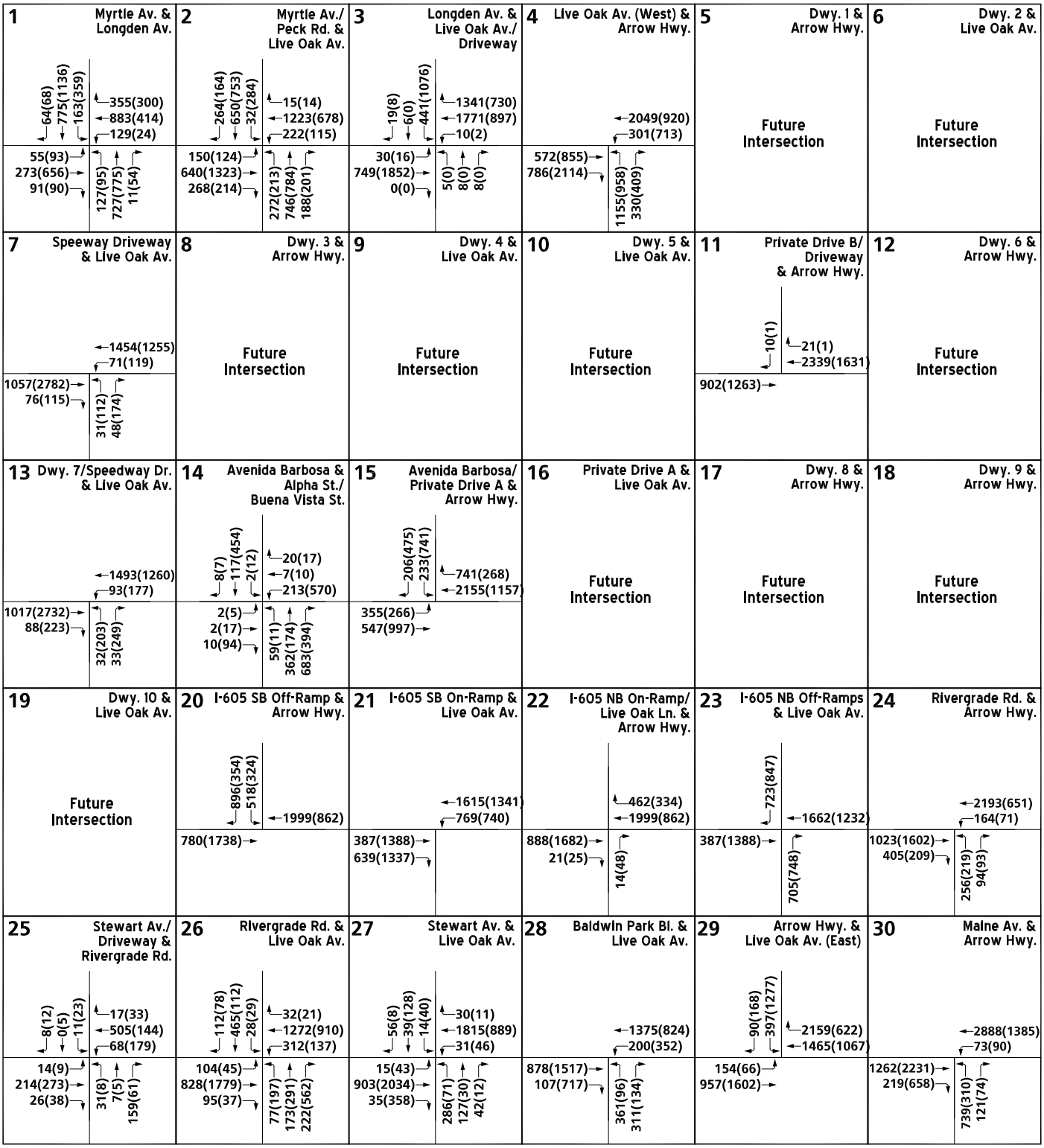


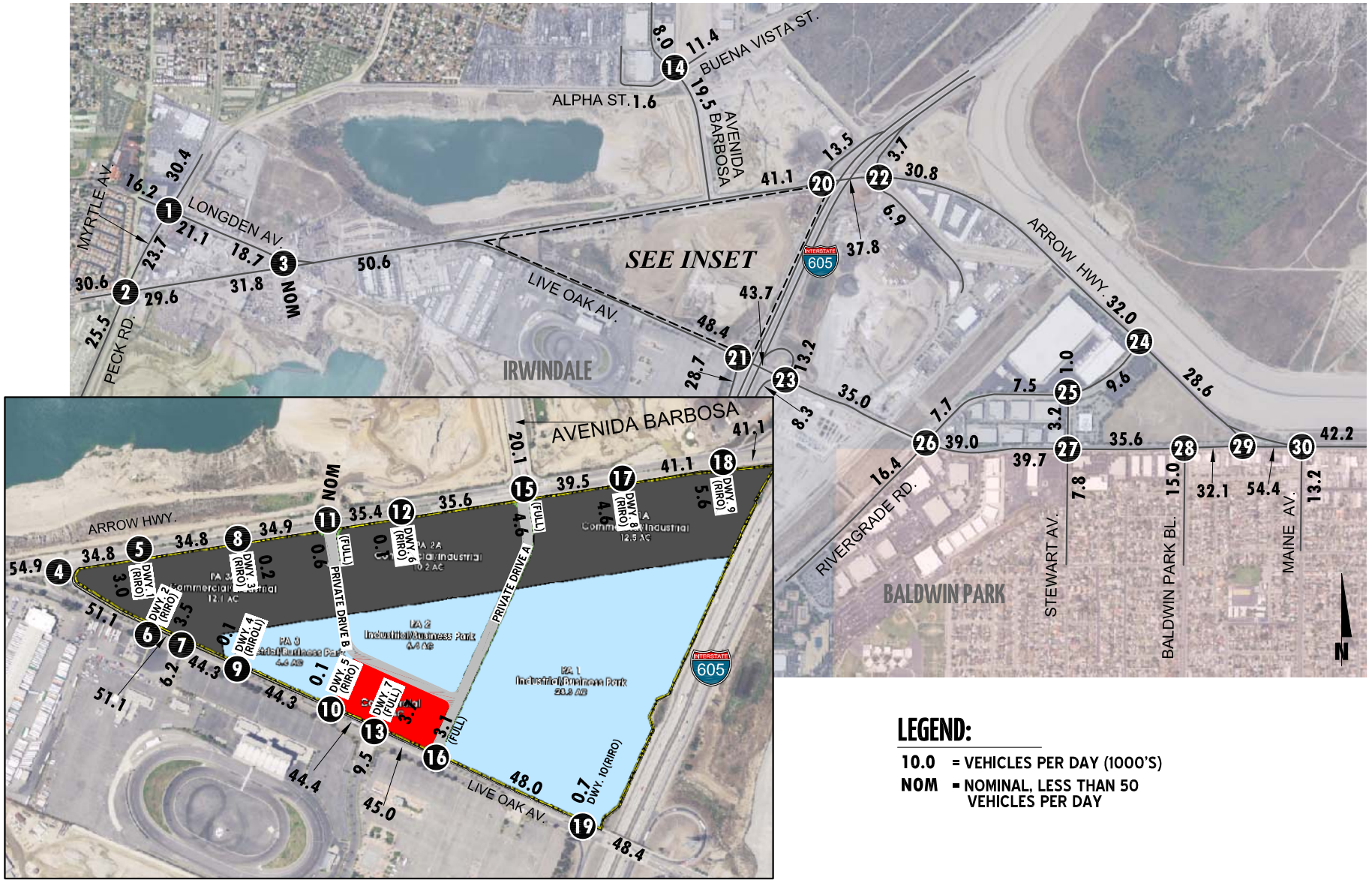
EXHIBIT 7-2: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

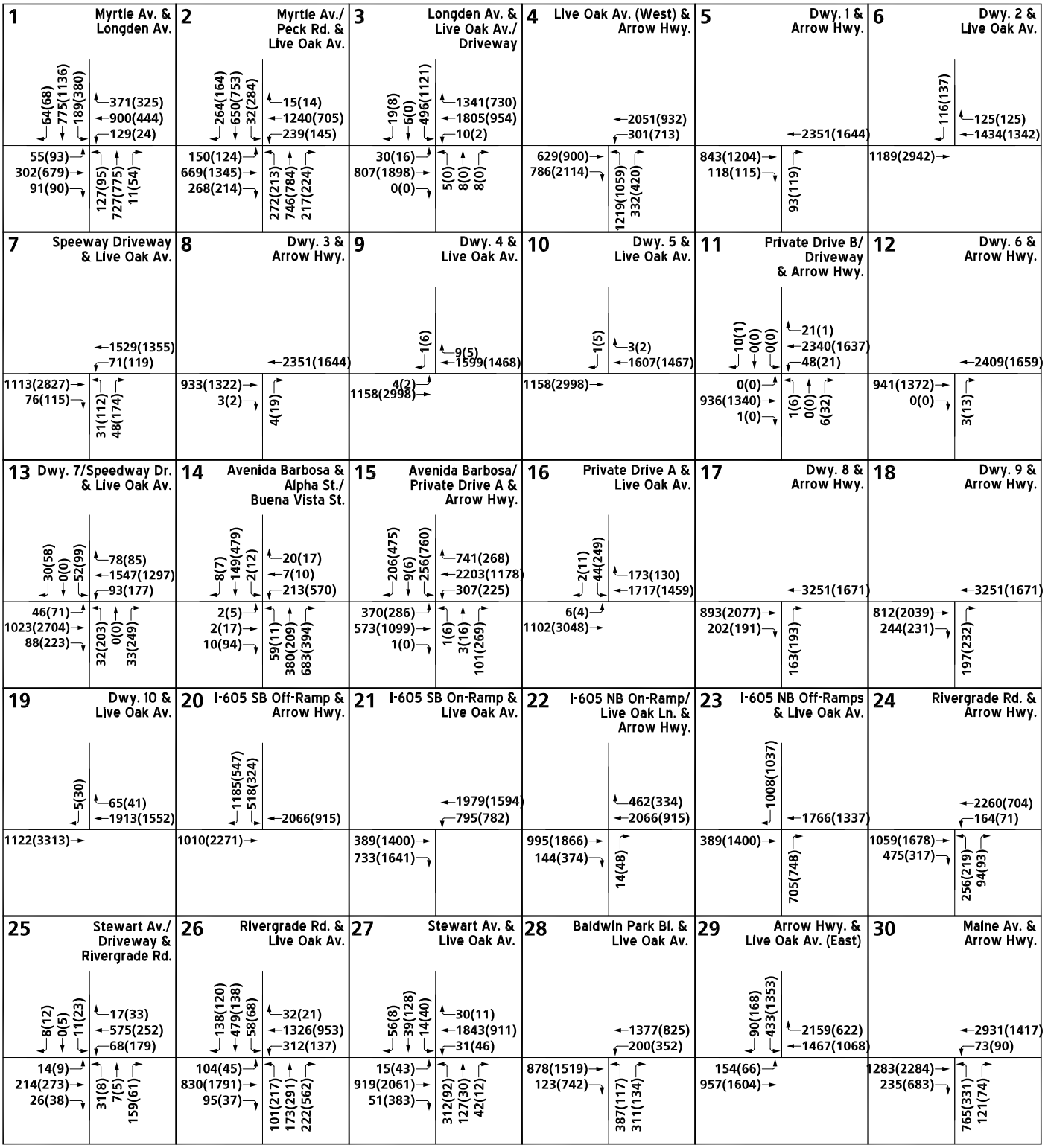
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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



URBAN CROSSROADS

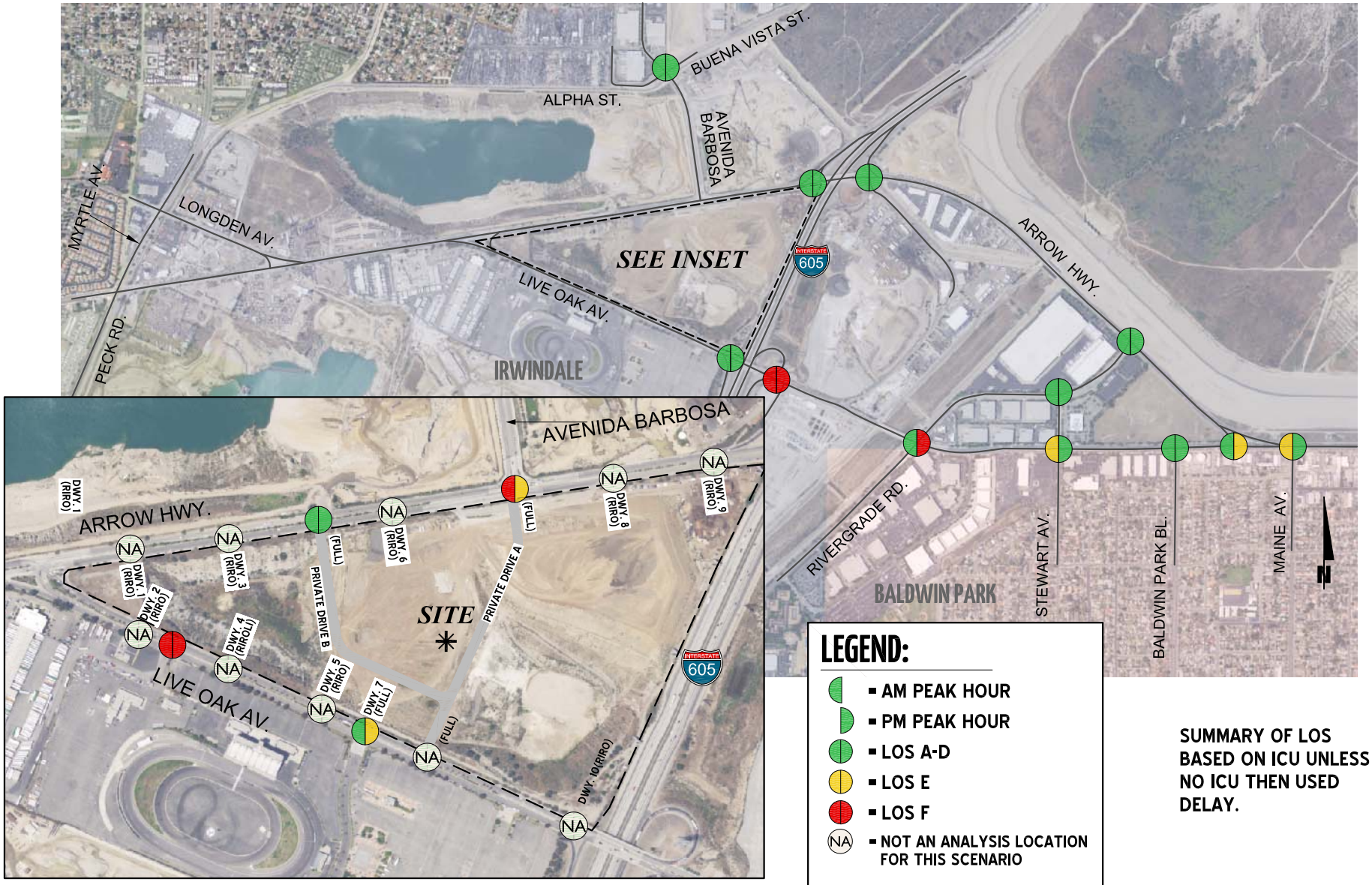
EXHIBIT 7-4: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

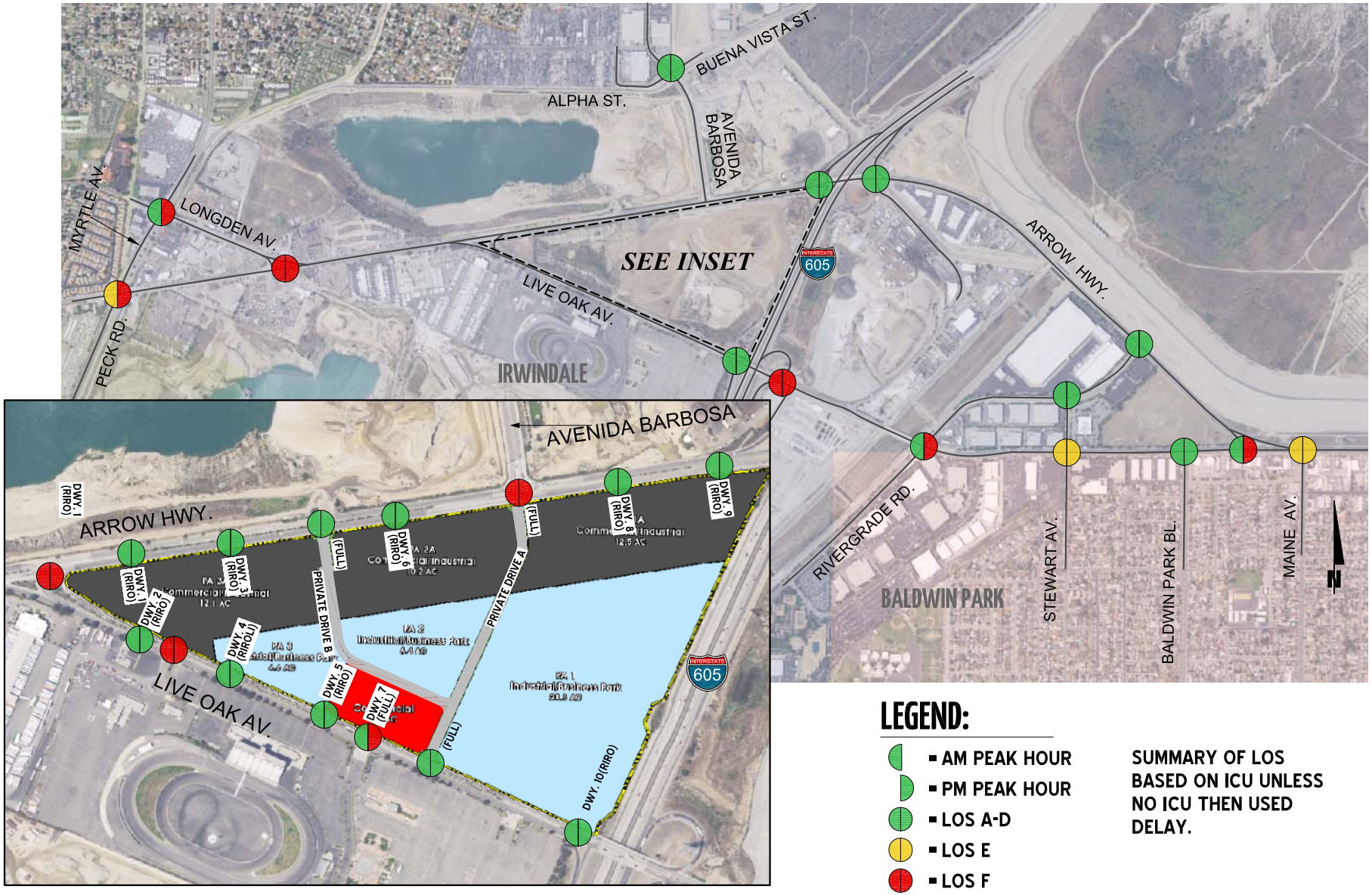
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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



URBAN CROSSROADS

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



LEGEND:

- AM PEAK HOUR
- PM PEAK HOUR
- LOS A-D
- LOS E
- LOS F

SUMMARY OF LOS BASED ON ICU UNLESS NO ICU THEN USED DELAY.

URBAN CROSSROADS

Table 7-1

Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[3]	2040 Without Project								2040 With Project							
			HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service		HCM Delay[1] (secs.)		Level of Service		ICU[2] (v/c)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.	TS	--[6]	--[6]	--[6]	--[6]	0.85	**1.01**	D	**F**	--[6]	--[6]	--[6]	--[6]	0.88	**1.04**	D	**F**
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	**0.95**	**1.01**	**E**	**F**	--[6]	--[6]	--[6]	--[6]	**0.96**	**1.03**	**E**	**F**
3	Longden Av. & Live Oak Av./Driveway	TS	--[6]	--[6]	--[6]	--[6]	**1.24**	**1.02**	**F**	**F**	--[6]	--[6]	--[6]	--[6]	**1.27**	**1.05**	**F**	**F**
4	Live Oak Av. & Arrow Hwy. (West)	TS	--[6]	--[6]	--[6]	--[6]	**1.10**	0.89	**F**	D	--[6]	--[6]	--[6]	--[6]	**1.12**	**0.94**	**F**	**E**
5	Dwy. 1 & Arrow Hwy.	**CSS**	Future Intersection								15.9	23.4	C	C	--[4]	--[4]	--[4]	--[4]
6	Dwy. 2 & Live Oak Av.	**CSS**	Future Intersection								30.3	30.5	D	D	--[4]	--[4]	--[4]	--[4]
7	Speedway Dwy. & Live Oak Av.	CSS	**91.8**	**>100.0**	**F**	**F**	--[4]	--[4]	--[4]	--[4]	**55.0**	**>100.0**	**F**	**F**	--[4]	--[4]	--[4]	--[4]
8	Dwy. 3 & Arrow Hwy.	**CSS**	Future Intersection								13.3	17.0	B	C	--[4]	--[4]	--[4]	--[4]
9	Dwy. 4 & Live Oak Av.	**CSS**	Future Intersection								26.6	22.9	D	C	--[4]	--[4]	--[4]	--[4]
10	Dwy. 5 & Live Oak Av.	**CSS**	Future Intersection								19.2	17.9	C	C	--[4]	--[4]	--[4]	--[4]
11	Driveway/Private Drive B & Arrow Hwy.	CSS	33.8	18.5	D	C	--[4]	--[4]	--[4]	--[4]	33.8	23.3	D	C	--[4]	--[4]	--[4]	--[4]
12	Dwy. 6 & Arrow Hwy.	**CSS**	Future Intersection								13.3	17.2	B	C	--[4]	--[4]	--[4]	--[4]
13	Dwy. 7/Speedway Dr. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.59	**0.98**	A	**E**	--[6]	--[6]	--[6]	--[6]	0.54	**1.07**	A	**F**
14	Avenida Barbosa & Alpha St./Buena Vista St.	TS	--[6]	--[6]	--[6]	--[6]	0.51	0.74	A	C	--[6]	--[6]	--[6]	--[6]	0.54	0.78	A	C
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	**1.12**	**0.93**	**F**	**E**	--[6]	--[6]	--[6]	--[6]	**1.22**	**1.12**	**F**	**F**
16	Private Drive A & Live Oak Av.	**TS**	Future Intersection								--[6]	--[6]	--[6]	--[6]	0.53	0.89	A	D
17	Dwy. 8 & Arrow Hwy.	**CSS**	Future Intersection								11.4	24.9	B	C	--[4]	--[4]	--[4]	--[4]
18	Dwy. 9 & Arrow Hwy.	**CSS**	Future Intersection								11.4	29.0	B	D	--[4]	--[4]	--[4]	--[4]
19	Dwy. 10 & Live Oak Av.	**CSS**	Future Intersection								21.9	18.4	C	C	--[4]	--[4]	--[4]	--[4]
20	I-605 SB Off-Ramp & Arrow Hwy.	TS	33.8	9.3	C	A	--[5]	--[5]	--[5]	--[5]	37.9	10.9	D	B	--[5]	--[5]	--[5]	--[5]
21	I-605 SB On-Ramp & Live Oak Av.	TS	8.1	24.9	A	C	--[5]	--[5]	--[5]	--[5]	9.7	27.6	A	C	--[5]	--[5]	--[5]	--[5]
22	I-605 NB On-Ramp/Live Oak Ln. & Arrow Hwy.	CSS	11.9	19.6	B	C	--[5]	--[5]	--[5]	--[5]	12.6	22.4	B	C	--[5]	--[5]	--[5]	--[5]
23	I-605 NB Off-Ramp & Live Oak Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]	**>100.0**	**>100.0**	**F**	**F**	--[5]	--[5]	--[5]	--[5]
24	Rivergrade Rd. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	0.87	0.71	D	C	--[6]	--[6]	--[6]	--[6]	0.89	0.74	D	C
25	Stewart Av./Driveway & Rivergrade Rd.	TS	--[6]	--[6]	--[6]	--[6]	0.38	0.37	A	A	--[6]	--[6]	--[6]	--[6]	0.40	0.37	A	A
26	Rivergrade Rd. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.75	**1.11**	C	**F**	--[6]	--[6]	--[6]	--[6]	0.79	**1.14**	C	**F**
27	Stewart Av. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	**0.97**	0.89	**E**	D	--[6]	--[6]	--[6]	--[6]	**1.00**	**0.91**	**E**	**E**
28	Baldwin Park Bl. & Live Oak Av.	TS	--[6]	--[6]	--[6]	--[6]	0.72	0.88	C	D	--[6]	--[6]	--[6]	--[6]	0.73	0.88	C	D
29	Arrow Hwy. & Live Oak Av. (East)	TS	--[6]	--[6]	--[6]	--[6]	0.78	**1.00**	C	**E**	--[6]	--[6]	--[6]	--[6]	0.79	**1.02**	C	**F**
30	Maine Av. & Arrow Hwy.	TS	--[6]	--[6]	--[6]	--[6]	**0.93**	0.89	**E**	D	--[6]	--[6]	--[6]	--[6]	**0.95**	**0.92**	**E**	**E**

* **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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio.

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

[4] ICU not reported for intersections without a signal.

[5] ICU not reported for intersections under Caltrans' jurisdiction.

[6] HCM not reported for signalized intersections.

7.5 ROADWAY SEGMENT CAPACITY ANALYSIS

Table 7-2 provides a summary of the Horizon Year (2040) Without Project traffic conditions roadway segment capacity analysis based on the City of Irwindale Roadway Segment Capacity Thresholds. The following study area roadway segments would operate at an unacceptable LOS for Horizon Year (2040) Without Project traffic conditions:

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS F
- Live Oak Avenue, Peck Road to Longden Avenue (#2) – LOS E
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS E
- Arrow Highway, Live Oak Avenue to Driveway 1 (#4) – LOS F
- Arrow Highway, Driveway 1 to Driveway 3 (#5) – LOS F
- Arrow Highway, Driveway 3 to Driveway/Private Drive B (#6) – LOS F
- Arrow Highway, Driveway/Private Drive B to Driveway 6 (#7) – LOS E
- Arrow Highway, Driveway 6 to Avenida Barbosa/Private Drive A (#8) – LOS E
- Arrow Highway, Avenida Barbosa/Private Drive A to Driveway 8 (#9) – LOS F
- Arrow Highway, Driveway 8 to Driveway 9 (#10) – LOS F
- Arrow Highway, Driveway 9 to I-605 Southbound Off-Ramp (#11) – LOS F
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS F
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS E
- Arrow Highway, Rivergrade Road to Live Oak Avenue (#14) – LOS E
- Avenida Barbosa, Alpha Street/Buena Vista Street to Arrow Highway (#16) – LOS E
- Live Oak Avenue, Live Oak Avenue/Arrow Highway to Driveway 2 (#19) – LOS F
- Live Oak Avenue, Driveway 2 to Speedway Driveway (#20) – LOS F
- Live Oak Avenue, Speedway Driveway to Driveway 4 (#21) – LOS E
- Live Oak Avenue, Driveway 4 to Driveway 5 (#22) – LOS E
- Live Oak Avenue, Driveway 5 to Driveway 7 (#23) – LOS E
- Live Oak Avenue, Driveway 7 to Private Drive A (#24) – LOS E
- Live Oak Avenue, Private Drive A to Driveway 10 (#25) – LOS E
- Live Oak Avenue, Driveway 10 to I-605 Southbound On-Ramp (#26) – LOS E
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramp (#27) – LOS E
- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Rivergrade Road to Stewart Avenue (#29) – LOS D
- Live Oak Avenue, Stewart Avenue to Baldwin Park Boulevard (#30) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS F

There are no additional roadway segments that would operate at a deficient LOS with the addition of Project traffic in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

Table 7-2

Roadway Segment Analysis for Horizon Year (2040) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	2040 With Project	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	19,994	**1.00**	**F**	21,056	**1.05**	**F**
2	Live Oak Av.	Peck Rd. to Longden Av.	4D	30,000	28,468	**0.95**	**E**	29,586	**0.99**	**E**
3		Longden Av. to Live Oak Av.	6D	53,000	48,940	**0.92**	**E**	50,586	**0.95**	**E**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	4D	30,000	34,153	**1.14**	**F**	34,813	**1.16**	**F**
5		Dwy. 1 to Dwy. 3	4D	30,000	34,151	**1.14**	**F**	34,741	**1.16**	**F**
6		Dwy. 3 to Driveway/Private Drive B	4D	30,000	34,151	**1.14**	**F**	34,864	**1.16**	**F**
7		Driveway/Private Drive B to Dwy. 6	5D	37,500	34,151	**0.91**	**E**	35,404	**0.94**	**E**
8		Dwy. 6 to Avenida Barbosa/Private Drive A	5D	37,500	34,151	**0.91**	**E**	35,522	**0.95**	**E**
9		Avenida Barbosa/Private Drive A to Dwy. 8	4D	30,000	33,660	**1.12**	**F**	39,447	**1.31**	**F**
10		Dwy. 8 to Dwy. 9	4D	30,000	33,660	**1.12**	**F**	41,110	**1.37**	**F**
11		Dwy. 9 to I-605 SB Off-Ramp	4D	30,000	33,660	**1.12**	**F**	41,111	**1.37**	**F**
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	32,859	**1.10**	**F**	37,760	**1.26**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	28,427	**0.95**	**E**	30,779	**1.03**	**F**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	27,356	**0.91**	**E**	28,600	**0.95**	**E**
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	18,881	**0.94**	**E**	19,479	**0.97**	**E**
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	5D	46,700	47,912	**1.03**	**F**	49,523	**1.06**	**F**
20		Dwy. 2 to Speedway Dwy.	5D	46,700	49,486	**1.06**	**F**	51,004	**1.09**	**F**
21		Speedway Dwy. to Dwy. 4	5D	46,700	42,713	**0.91**	**E**	44,231	**0.95**	**E**
22		Dwy. 4 to Dwy. 5	5D	46,700	42,713	**0.91**	**E**	44,240	**0.95**	**E**
23		Dwy. 5 to Dwy. 7	5D	46,700	42,713	**0.91**	**E**	44,240	**0.95**	**E**
24		Dwy. 7 to Private Drive A	5D	46,700	42,776	**0.92**	**E**	44,950	**0.96**	**E**
25		Private Drive A to Dwy. 10	5D	46,700	42,685	**0.91**	**E**	47,772	**1.02**	**F**
26		Dwy. 10 to I-605 SB On-Ramp	5D	46,700	42,891	**0.92**	**E**	48,324	**1.03**	**F**
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	39,892	**0.99**	**E**	43,641	**1.08**	**F**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	33,762	**0.84**	**D**	34,998	**0.87**	**D**
29		Rivergrade Rd. to Stewart Av.	5D	46,700	38,576	**0.83**	**D**	39,628	**0.85**	**D**
30		Stewart Av. to Baldwin Park Bl.	4D	40,400	34,992	**0.87**	**D**	35,538	**0.88**	**D**
31		Baldwin Park Bl. to Arrow Hwy.	4D	40,400	32,021	0.79	C	32,059	0.79	C
32		Arrow Hwy. to Maine Av.	4D	40,400	53,060	**1.31**	**F**	54,340	**1.35**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	8,462	0.42	A	9,570	0.48	A
34		Stewart Av. to Live Oak Av.	4D	20,000	6,588	0.33	A	7,696	0.38	A

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

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

7.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrant analysis was not performed for Horizon Year (2040) Without Project traffic conditions as there are no additional unsignalized intersections aside from the location previously warranted under Existing (2017) traffic conditions. No additional study area intersections would meet either peak hour volume-based or the planning level traffic signal warrants for Horizon Year (2040) With Project traffic conditions (see Appendix 7.3).

7.7 FREEWAY OFF-RAMP QUEUING ANALYSIS

Ramp queuing analysis findings are presented in Table 7-3 for Horizon Year traffic conditions. As shown on Table 7-3, there are no queuing issues on the study area freeway off-ramps during the peak hours for both Horizon Year Without and With Project traffic conditions. Worksheets for Horizon Year Without and With Project conditions queuing analysis are provided in Appendix 7.4 and Appendix 7.5, respectively.

7.8 BASIC FREEWAY SEGMENT ANALYSIS

Horizon Year Without and With Project mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 7-7 and 7-8 for the I-605 Freeway. As shown on Table 7-4, The freeway mainline segments would operate at an acceptable LOS for Horizon Year (2040) Without Project traffic conditions. However, the addition of Project traffic would result in the following deficient freeway mainline segment:

- I-605 Freeway Southbound, South of Live Oak Avenue (#3) – LOS E PM peak hour only

Horizon Year Without Project basic freeway segment analysis worksheets are provided in Appendix 7.6. Horizon Year With Project basic freeway segment analysis worksheets are provided in Appendix 7.7.

7.9 FREEWAY MERGE/DIVERGE ANALYSIS

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

- I-605 Freeway – Southbound, Off-Ramp at Arrow Highway (#1) – LOS E AM peak hour only
- I-605 Freeway – Southbound, On-Ramp at Live Oak Avenue (#2) – LOS F PM peak hour only
- I-605 Freeway – Northbound, Off-Ramp at Live Oak Avenue (#5) – LOS E AM and PM peak hours

The addition of Project traffic would not result in any additional deficient ramp merge/diverge junctions in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions. Horizon Year Without Project freeway ramp junction operations and weaving analysis worksheets are provided in Appendix 7.8. Horizon Year With Project freeway ramp junction operations analysis worksheets are provided in Appendix 7.9.

Table 7-3

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
I-605 SB Off-Ramp / Arrow Hwy.	SBLT	960	456	261	Yes	Yes	456	269	Yes	Yes
I-605 NB Off-Ramps / Live Oak Av.	NBR	1,920	293	1,030	Yes	Yes	293	1,038	Yes	Yes
	SBR	2,650	1,335	1,198	Yes	Yes	2,353	1,868	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 7-4

Basic Freeway Segment Analysis for Horizon Year (2040) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Without Project				With Project			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-605	SB	North of Arrow Hwy.	4	30.7	24.4	D	C	32.6	25.4	D	C
		Arrow Hwy. to Live Oak Av.	4	23.0	20.4	C	C	23.0	20.4	C	C
		South of Live Oak Av.	4	30.1	32.9	D	D	30.9	**35.5**	D	**E**
	NB	North of Arrow Hwy.	4	22.7	23.3	C	C	23.3	24.9	C	C
		Arrow Hwy. to Live Oak Av.	4	19.2	20.1	C	C	19.2	20.1	C	C
		South of Live Oak Av.	4	25.4	27.8	C	D	26.9	29.0	D	D

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

Table 7-5

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

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Without Project				With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
I-605	SB	Off-Ramp at Arrow Hwy.	4	**30.1**	**E**	24.6	D	**31.7**	**E**	25.7	D
		On-Ramp at Live Oak Av.	4	30.4	D	--[4]	**F**	31.3	D	--[4]	**F**
	NB	On-Ramp at Arrow Hwy.	4	23.2	C	23.5	C	23.8	C	25.2	C
		Loop On-Ramp at Arrow Hwy.	4	21.3	C	22.1	C	21.9	C	23.8	C
		Off-Ramp at Live Oak Av.	4	**26.2**	**E**	**28.4**	**E**	**27.8**	**E**	**29.6**	**E**

* **BOLD** = Unacceptable Level of Service

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

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

[3] LOS = Level of Service

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

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

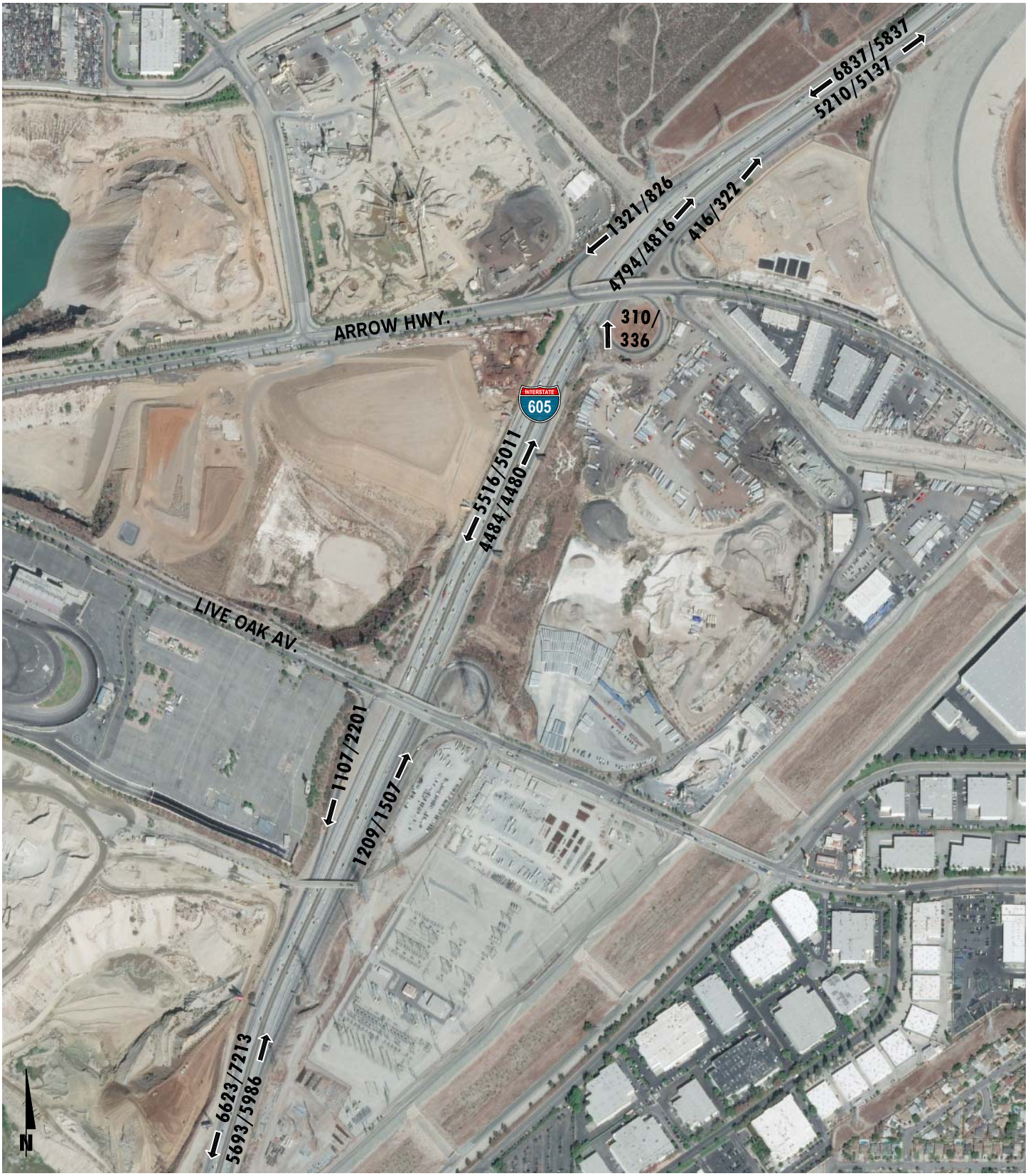
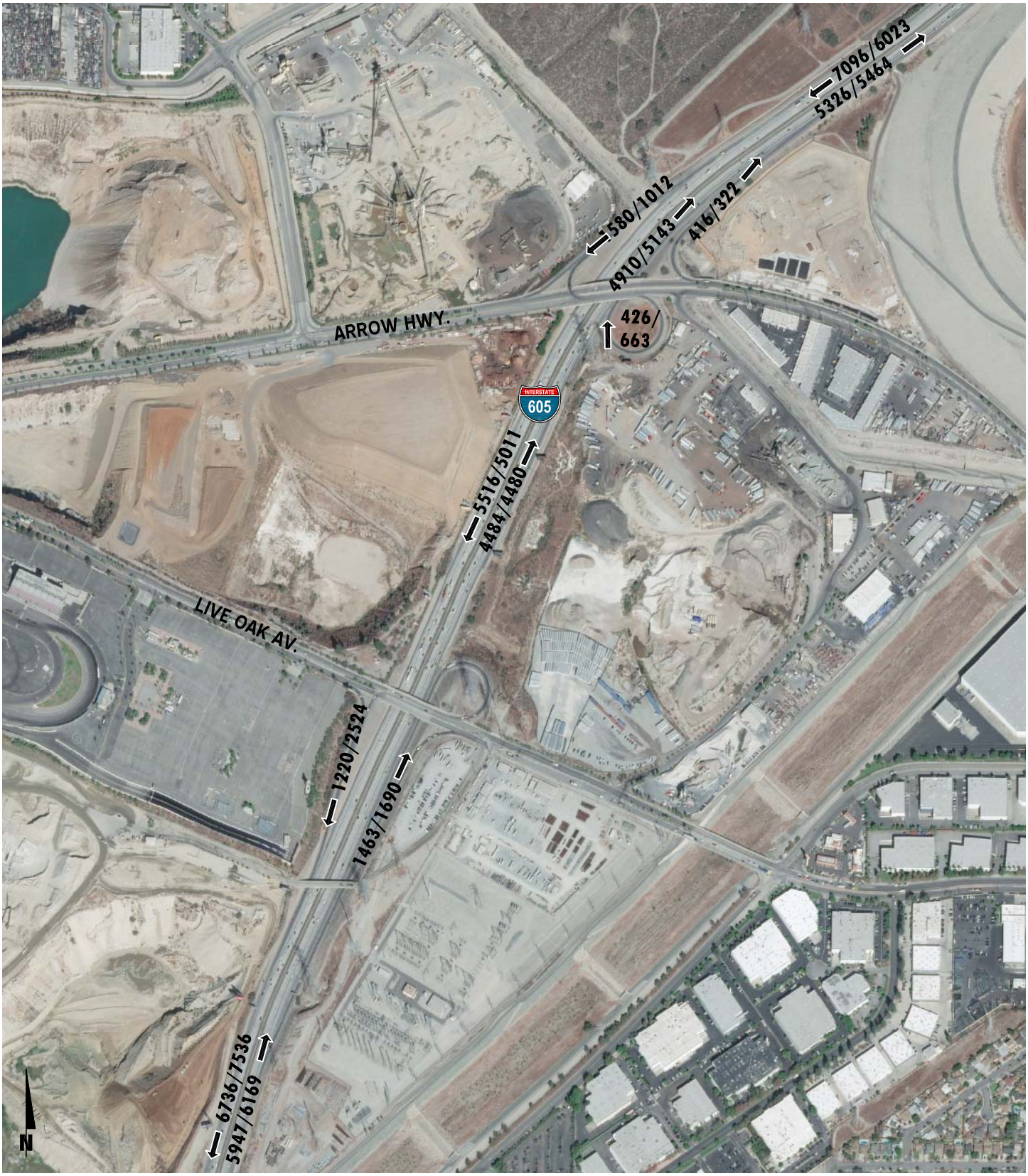


EXHIBIT 7-8: HORIZON YEAR (2040) WITH PROJECT FREEWAY MAINLINE VOLUMES



7.10 HORIZON YEAR (2040) IMPACTS

Based on the applicable jurisdiction's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following study area intersections were found to be significantly impacted by the Project for Horizon Year (2040) traffic conditions:

- Myrtle Avenue & Longden Avenue (#1)
- Myrtle Avenue/Peck Road & Live Oak Avenue (#2)
- Longden Avenue & Live Oak Avenue/Driveway (#3)
- Live Oak Avenue & Arrow Highway (West) (#4)
- Speedway Drive & Live Oak Avenue (#7)
- Driveway 7/Driveway & Live Oak Avenue (#13)
- Avenida Barbosa/Private Drive A & Arrow Highway (#15)
- I-605 Northbound Off-Ramp & Live Oak Avenue (#23)
- Rivergrade Road & Live Oak Avenue (#26)
- Stewart Avenue & Live Oak Avenue (#27)
- Arrow Highway & Live Oak Avenue (East) (#29)
- Maine Avenue & Arrow Highway (#30)

The determination of significant impacts is shown on Table 7-6.

7.11 HORIZON YEAR RECOMMENDED IMPROVEMENTS

7.11.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies discussed below to address Horizon Year traffic deficiencies is presented in Table 7-6. It is recommended that the Project Applicant participate in the funding of off-site improvements that are needed to serve cumulative traffic conditions through the payment of City of Irwindale DIF (if the improvements are included in the DIF program) or on a fair share basis (if the improvements are not included in a pre-existing fee program). The improvements constructed by the Project would result in a less than significant impact. However, the locations where only a fair share contribution has been identified would remain a significant impact until such time the recommended improvement is implemented.

Mitigation Measures 1.1 through 11.1 identified previously for E+P and Opening Year Cumulative (2020) traffic conditions are recommended to improve each impacted intersection's LOS back to pre-project conditions, or better, for Horizon Year (2040) traffic conditions. Worksheets for Horizon Year Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendix 7.10.

Table 7-6

Determination of Significant Impacts for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project V/C Ratio or Delay[1]		2040 With Project V/C Ratio or Delay[1]		Difference in V/C or Delay		Significant Impact?[3,4]
			AM	PM	AM	PM	AM	PM	
1	Myrtle Av. & Longden Av.	TS	0.85	**1.01**	0.88	**1.04**	--	**0.028**	Yes
2	Myrtle Av./Peck Rd. & Live Oak Av.	TS	**0.95**	**1.01**	**0.96**	**1.03**	0.005	**0.025**	Yes
3	Longden Av. & Live Oak Av./Driveway	TS	**1.24**	**1.02**	**1.27**	**1.05**	**0.028**	**0.029**	Yes
4	Live Oak Av. & Arrow Hwy. (West)	TS	**1.10**	0.89	**1.12**	**0.94**	**0.021**	**0.046**	Yes
7	Speedway Dwy. & Live Oak Av.[6]	CSS	**91.8**	**1239.7**	**55.0**	**1330.9**	-36.8	**91.2**	Yes
13	Dwy. 7/Speedway Dr. & Live Oak Av.	TS	0.59	**0.98**	0.54	**1.07**	--	**0.09**	Yes
15	Avenida Barbosa/Private Drive A & Arrow Hwy.	TS	**1.12**	**0.93**	**1.22**	**1.12**	**0.093**	**0.191**	Yes
23	I-605 NB Off-Ramps & Live Oak Av.	CSS	**459.1**	**299.2**	**883.2**	**511.1**	**424.1**	**211.9**	Yes[5]
26	Rivergrade Rd. & Live Oak Av.	TS	0.75	**1.11**	0.79	**1.14**	--	**0.028**	Yes
27	Stewart Av. & Live Oak Av.	TS	**0.97**	0.89	**1.00**	**0.91**	**0.025**	**0.021**	Yes
29	Arrow Hwy. & Live Oak Av. (East)	TS	0.78	**1.00**	0.79	**1.02**	--	**0.024**	Yes
30	Maine Av. & Arrow Hwy.	TS	**0.93**	0.89	**0.95**	**0.92**	0.017	**0.023**	Yes

[1] V/C calculated using the TRAFFIX operation analysis software, based on the ICU methodology. Delay based on HCM (6th Edition) methodology.

[2] TS = Traffic Signal; CSS = Cross-Street Stop

[3] Significant impact occurs when V/C is increased by 0.02 or more for either peak hour.

[4] Significant impact occurs when the delay is increased by more than 2 seconds.

[5] Caltrans facility does not have significance threshold. However, Project will contribute to the existing deficiency. As such, impact is cumulatively considerable.

[6] Intersection includes additional 3rd westbound through lane along Project's frontage on Live Oak Avenue for With Project traffic conditions.

Table 7-7

Intersection Analysis for Horizon Year (2040) Conditions With Improvements

#	Intersection	Traffic Control[4]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		ICU[3] (v/c)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound										
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Myrtle Av. & Longden Av.																					
	- 2040 Without Project	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.854	**1.008**	D	**F**
	- 2040 With Project	TS	1	2	0	1	2	d	1	1	1	1	2	0	--	--	--	--	0.880	**1.036**	D	**F**
	- With Improvements	TS	1	2	0	1	2	d	1	**2**	**0**	1	2	0	--	--	--	--	0.880	0.895	D	D
2	Myrtle Av./Peck Rd. & Live Oak Av.																					
	- 2040 Without Project	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	**0.954**	**1.008**	**E**	**F**
	- 2040 With Project	TS	1	2	d	1	2	d	1	2	1	1	2	0	--	--	--	--	**0.959**	**1.033**	**E**	**F**
	- With Improvements	TS	1	2	d	**2**	2	d	1	2	1	1	2	0	--	--	--	--	**0.959**	**0.979**	**E**	**E**
3	Longden Av. & Live Oak Av./Driveway																					
	- 2040 Without Project	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	**1.244**	**1.016**	**F**	**F**
	- 2040 With Project	TS	0	1	0	1	1	1	1	2	d	1	2	1>>	--	--	--	--	**1.272**	**1.045**	**F**	**F**
	- With Improvements	TS	0	1	0	1	1	1	1	**3**	**0**	1	2	1>>	--	--	--	--	0.853	0.847	D	D
4	Live Oak Av. & Arrow Hwy. (West)																					
	- 2040 Without Project	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**1.101**	**0.889**	**F**	**D**
	- 2040 With Project	TS	2	0	1>>	0	0	0	0	2	1>>	2	2	0	--	--	--	--	**1.122**	**0.935**	**F**	**E**
	- With Improvements	TS	2	0	1>>	0	0	0	0	**3**	1>>	2	**3**	0	--	--	--	--	**0.908**	0.841	**E**	D
7	Speedway Dwy. & Live Oak Av.																					
	- 2040 Without Project	CSS	1	0	d	0	0	0	0	3	0	1	2	0	**91.8**	**>100.0**	**F**	**F**	--	--	--	--
	- 2040 With Project	CSS	1	0	d	0	0	0	0	3	0	1	2	0	**55.0**	**>100.0**	**F**	**F**	--	--	--	--
	- With Improvements	**TS**	1	0	d	0	0	0	0	3	0	1	**3**	0	--	--	--	--	0.449	0.896	A	D
13	Dwy. 7/Speedway Dr. & Live Oak Av.																					
	- 2040 Without Project	TS	2	0	1	0	0	0	0	3	0	1	2	0	--	--	--	--	0.587	**0.982**	A	**E**
	- 2040 With Project	TS	2	0	1	0	**1**	0	0	3	0	1	**3**	0	--	--	--	--	0.539	**1.074**	A	**F**
	- With Improvements	TS	2	0	1	**1**	**1**	0	0	3	**1**	1	**3**	0	--	--	--	--	0.520	**0.991**	A	**E**
15	Avenida Barbosa/Private Drive A & Arrow Hwy.																					
	- 2040 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.124**	**0.925**	**F**	**E**
	- 2040 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	--	--	--	--	**1.217**	**1.116**	**F**	**F**
	- With Improvements	TS	**1**	**1**	**1**	2	**1**	1	**2**	**3**	0	**1**	**3**	**1>**	--	--	--	--	0.818	0.875	D	D
23	I-605 NB Off-Ramp & Live Oak Av.																					
	- 2040 Without Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- 2040 With Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	**>100.0**	**>100.0**	**F**	**F**	--	--	--	--
	- With Improvements	**TS**	0	0	1	0	0	1	0	2	0	0	2	0	1.0	1.0	A	A	--	--	--	--
26	Rivergrade Rd. & Live Oak Av.																					
	- 2040 Without Project	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.747	**1.111**	C	**F**
	- 2040 With Project	TS	1	1	1	1	2	1	1	2	1	1	2	1	--	--	--	--	0.792	**1.139**	C	**F**
	- With Improvements	TS	1	1	**1>**	1	2	1	1	2	1	1	2	1	--	--	--	--	0.792	**1.053**	C	**F**
27	Stewart Av. & Live Oak Av.																					
	- 2040 Without Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	**0.970**	0.889	**E**	D
	- 2040 With Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	--	--	--	--	**0.995**	**0.910**	**E**	**E**
	- With Improvements	TS	0	1	0	1	1	1	1	**3**	**0**	1	**3**	**0**	--	--	--	--	0.809	0.775	D	C
29	Arrow Hwy. & Live Oak Av. (East)																					
	- 2040 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.778	**1.000**	C	**E**
	- 2040 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1>>	--	--	--	--	0.790	**1.024**	C	**F**
	- With Improvements	TS	0	0	0	2	0	1	1	**3**	0	0	2	1>>	--	--	--	--	0.790	0.898	C	D
30	Maine Av. & Arrow Hwy.																					
	- 2040 Without Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	--	--	--	--	**0.933**	0.894	**E**	D
	- 2040 With Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	--	--	--	--	**0.950**	**0.917**	**E**	**E**
	- With Improvements	TS	2	0	1	0	0	0	0	**3**	**0**	1	3	0	--	--	--	--	**0.950**	0.822	**E**	D

[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 Lane; 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] Intersection capacity utilization (ICU) methodology results are presented as a volume-to-capacity ratio. ICU not reported for unsignalized intersections or at Caltrans facilities.

[4] TS = Traffic Signal; CSS = Cross-Street Stop; **TS** = Improvement

7.11.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

With the implementation of the intersection improvements listed above in conjunction with the Project's site adjacent improvements, only the following roadway segments would continue to operate at a deficient LOS for Horizon Year (2040) With Project traffic conditions (see Table 7-8):

- Longden Avenue, Myrtle Avenue to Live Oak Avenue (#1) – LOS F
- Live Oak Avenue, Longden Avenue to Live Oak Avenue (#3) – LOS E
- Arrow Highway, I-605 Southbound Off-Ramp to I-605 Northbound On-Ramp/Live Oak Lane (#12) – LOS F
- Arrow Highway, I-605 Northbound On-Ramp/Live Oak Lane to Rivergrade Road (#13) – LOS F
- Arrow Highway, Rivergrade Road to Live Oak Avenue (#14) – LOS E
- Avenida Barbosa, Alpha Street/Buena Vista Street to Arrow Highway (#16) – LOS E
- Live Oak Avenue, Live Oak Avenue/Arrow Highway to Driveway 2 (#19) – LOS E
- Live Oak Avenue, Driveway 2 to Speedway Driveway (#20) – LOS E
- Live Oak Avenue, Speedway Driveway to Driveway 4 (#21) – LOS D
- Live Oak Avenue, Driveway 4 to Driveway 5 (#22) – LOS D
- Live Oak Avenue, Driveway 5 to Driveway 7 (#23) – LOS D
- Live Oak Avenue, Driveway 7 to Private Drive A (#24) – LOS D
- Live Oak Avenue, Private Drive A to Driveway 10 (#25) – LOS E
- Live Oak Avenue, Driveway 10 to I-605 Southbound On-Ramp (#26) – LOS E
- Live Oak Avenue, I-605 Southbound On-Ramp to I-605 Northbound Off-Ramp (#27) – LOS F
- Live Oak Avenue, I-605 Northbound Off-Ramps to Rivergrade Road (#28) – LOS D
- Live Oak Avenue, Arrow Highway to Maine Avenue (#32) – LOS F

However, additional roadway widening has not been recommended as the adjacent study area intersections would operate at acceptable LOS during the peak hours with the recommended improvements.

7.11.3 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Irwindale (or other neighboring jurisdictions) on SHS facilities. As such, no improvements have been recommended to address Horizon Year deficiencies on the SHS, because there is no feasible mitigation available.

Table 7-8

Roadway Segment Analysis for Horizon Year (2040) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 Without Project	V/C[2]	LOS[3]	2040 With Project	V/C[2]	LOS[3]
1	Longden Av.	Myrtle Av. to Live Oak Av.	4D	20,000	19,994	**1.00**	**F**	21,056	**1.05**	**F**
2	Live Oak Av.	Peck Rd. to Longden Av.	**5D**	**46,700**	28,468	0.61	B	29,586	0.63	B
3		Longden Av. to Live Oak Av.	6D	53,000	48,940	**0.92**	**F**	50,586	**0.95**	**E**
4	Arrow Hwy.	Live Oak Av. to Dwy. 1	**6D**	**53,000**	34,153	0.64	B	34,813	0.66	B
5		Dwy. 1 to Dwy. 3	**6D**	**53,000**	34,151	0.64	B	34,741	0.66	B
6		Dwy. 3 to Driveway/Private Drive B	**6D**	**53,000**	34,151	0.64	B	34,864	0.66	B
7		Driveway/Private Drive B to Dwy. 6	**6D**	**53,000**	34,151	0.64	B	35,404	0.67	B
8		Dwy. 6 to Avenida Barbosa/Private Drive A	**6D**	**53,000**	34,151	0.64	B	35,522	0.67	B
9		Avenida Barbosa/Private Drive A to Dwy. 8	**6D**	**53,000**	33,660	0.64	B	39,447	0.74	C
10		Dwy. 8 to Dwy. 9	**6D**	**53,000**	33,660	0.64	B	41,110	0.78	C
11		Dwy. 9 to I-605 SB Off-Ramp	**6D**	**53,000**	33,660	0.64	B	41,111	0.78	C
12		I-605 SB Off-Ramp to I-605 NB On-Ramp/Live Oak Ln.	4D	30,000	32,859	**1.10**	**F**	37,760	**1.26**	**F**
13		I-605 NB On-Ramp/Live Oak Ln. to Rivergrade Rd.	4D	30,000	28,427	**0.95**	**E**	30,779	**1.03**	**F**
14		Rivergrade Rd. to Live Oak Av.	4D	30,000	27,356	**0.91**	**E**	28,600	**0.95**	**E**
15	Private Drive B	South of Arrow Hwy.	2U	10,000	Future Segment			622	0.06	A
16	Avenida Barbosa	Alpha St./Buena Vista St. to Arrow Hwy.	4D	20,000	18,881	**0.94**	**E**	19,479	**0.97**	**E**
17	Private Drive A	South of Arrow Hwy.	2U	10,000	Future Segment			4,635	0.46	A
18		North of Live Oak Av.	2U	10,000	Future Segment			3,097	0.31	A
19	Live Oak Av.	Live Oak Av./Arrow Hwy. to Dwy. 2	**6D**	**53,000**	47,912	**0.90**	**E**	49,523	**0.93**	**E**
20		Dwy. 2 to Speedway Dwy.	**6D**	**53,000**	49,486	**0.93**	**E**	51,004	**0.96**	**E**
21		Speedway Dwy. to Dwy. 4	**6D**	**53,000**	42,713	**0.81**	**D**	44,231	**0.83**	**D**
22		Dwy. 4 to Dwy. 5	**6D**	**53,000**	42,713	**0.81**	**D**	44,240	**0.83**	**D**
23		Dwy. 5 to Dwy. 7	**6D**	**53,000**	42,713	**0.81**	**D**	44,240	**0.83**	**D**
24		Dwy. 7 to Private Drive A	**6D**	**53,000**	42,776	**0.81**	**D**	44,950	**0.85**	**D**
25		Private Drive A to Dwy. 10	**6D**	**53,000**	42,685	**0.81**	**D**	47,772	**0.90**	**E**
26		Dwy. 10 to I-605 SB On-Ramp	**6D**	**53,000**	42,891	**0.81**	**D**	48,324	**0.91**	**E**
27		I-605 SB On-Ramp to I-605 NB Off-Ramps	4D	40,400	39,892	**0.99**	**E**	43,641	**1.08**	**F**
28		I-605 NB Off-Ramps to Rivergrade Rd.	4D	40,400	33,762	**0.84**	**D**	34,998	**0.87**	**D**
29		Rivergrade Rd. to Stewart Av.	**6D**	**53,000**	38,576	0.73	C	39,628	0.75	C
30		Stewart Av. to Baldwin Park Bl.	**6D**	**53,000**	34,992	0.66	B	35,538	0.67	B
31		Baldwin Park Bl. to Arrow Hwy.	**5D**	**46,700**	32,021	0.69	B	32,059	0.69	B
32		Arrow Hwy. to Maine Av.	**5D**	**46,700**	53,060	**1.14**	**F**	54,340	**1.16**	**F**
33	Rivergrade Rd.	Arrow Hwy. to Stewart Av.	4D	20,000	8,462	0.42	A	9,570	0.48	A
34		Stewart Av. to Live Oak Av.	4D	20,000	6,588	0.33	A	7,696	0.38	A

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

5D = Improvement

[1] These maximum roadway capacities have been obtained from the City of Irwindale General Plan Update (Table 4-10).

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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8 REFERENCES

[1] City of Irwindale, "Policy Guidelines for Traffic Impact Reports," City of Irwindale, August 20, 2004.

[2] California Department of Transportation, "Guide for the Preparation of Traffic Impact Studies," December 2002.

[3] Institute of Transportation Engineers, Trip Generation Manual, 10th Edition ed., 2017.

[4] Los Angeles County Metropolitan Transportation Authority, Congestion Management Program, 2010.

[5] D. a. A. J. Husch, Intersection Capacity Utilization: Evaluation Procedures for Intersections and Interchanges, Albany, California: Trafficware, 2003 Edition.

[6] Transportation Research Board, Highway Capacity Manual (HCM), 6th Edition ed., Washington, D.C.: National Academy of Sciences, 2016.

[7] City of Irwindale, "General Plan Update," Irwindale, June 2008.

[8] California Department of Transportation, "California Manual on Uniform Traffic Control Devices (CAMUTCD)," in *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, 2014, Updated March 9, 2018.

[9] California Department of Transportation, [Online]. Available: http://pems.dot.ca.gov/. [Accessed 29 June 2017].

[10] City of Baldwin Park, "City of Baldwin Park 2020 General Plan," Baldwin Park, Adopted November 20, 2002.

[11] City of Arcadia, Arcadia General Plan Circulation and Infrastructure Element, November 2010.

[12] Institute of Transportation Engineers, Trip Generation Handbook, 3rd Edition ed., September 2017.

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APPENDIX 1.1:

APPROVED SCOPING AGREEMENT

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URBAN CROSSROADS

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

Date: December 20, 2017

Mr. Daniel Co
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

SUBJECT: THE PARK @ LIVE OAK TRAFFIC IMPACT ANALYSIS SCOPING AGREEMENT

Dear Mr. Daniel Co:

The firm of Urban Crossroads, Inc. is pleased to submit this Scoping Agreement for the proposed The Park @ Live Oak development ("Project"), which is located south of Arrow Highway, north of Live Oak Avenue, and west of the I-605 Freeway in the City of Irwindale. It is our understanding that the Project is to consist of 1,098,000 square feet of high-cube warehouse use, 353,400 square feet of warehouse use, 47,000 square feet of business park use, 8,700 square feet of fast-food with drive-through window use, 19,000 square feet of in-line fast-food restaurant use without drive-through window, 22,500 square feet of in-line retail use, 3,000 square foot coffee shop with drive-through window, and a 8 vehicle fueling position gas station with a 2,000 square foot market.

Our goal is to obtain comments from City of Irwindale staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the draft proposed analysis methodology, project trip generation, trip distribution, and project traffic assignment/project trips on the surrounding roadway network, which have been used to establish the draft proposed project study area and analysis locations.

Exhibit 1 depicts the location of the proposed Project in relation to the existing roadway network. For purposes of the traffic analysis it is anticipated that the Project will be evaluated in a single phase with a projected Opening Year of 2020. As indicated on Exhibit 1, access to the Project site is proposed to be provided to Arrow Highway and Live Oak Avenue. Access restrictions are denoted on Exhibit 1.

STUDY AREA

The City of Irwindale's traffic study guidelines have been utilized for the purposes of developing this scoping document. Exhibit 2 identifies the proposed study area intersections based on the aforementioned criteria. Pursuant to the request of City staff, the study area will include 29 study area intersections and 33 study area roadway segments. The roadway segments where the Project is anticipated to contribute 50 or more peak hour trips have been identified as analysis locations.

ANALYSIS SCENARIOS

Consistent with traffic study guidelines adopted by multiple local jurisdictions throughout the County of Los Angeles, peak hour operations at each of the study area intersections and site access driveways will be assessed for the following analysis scenarios using the Intersection Capacity Utilization (ICU) or 2010 Highway Capacity Manual (HCM) methodology (if applicable):

1. Existing (2017) Conditions (Baseline)
2. Existing plus Project (E+P) Conditions
3. Opening Year Cumulative (2020) Without and With Project Conditions
4. Horizon Year (2040) Without and With Project Conditions

Analysis Scenario #1 establishes the baseline for CEQA purposes.

Consistent with recent CEQA case law, Analysis Scenario #2 identifies significant traffic impacts associated with the proposed Project.

Analysis Scenarios #3 and #4 would identify cumulative impacts for Opening Year Cumulative (near-term) and Horizon Year (long-term) traffic conditions. It is assumed that intersection improvements required to address Opening Year Cumulative and Horizon Year traffic impacts will be addressed through either an existing fee program, or through a fair-share contribution.

Peak hour operations and level of service for study area intersections will be evaluated for the following time periods:

- Weekday AM Peak Hour (7AM-9AM)
- Weekday PM Peak Hour (4PM-6PM)

TRIP GENERATION

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017). Table 1 presents the trip generation rates. 20 percent of the high-cube warehouse buildings are assumed to include cold storage use. This is reflected in the trip generation rates presented on Table 1. Table 2 summarizes the proposed Project trip generation in actual vehicles. As shown in Table 2, the Project is estimated to generate a net total of 12,092 trip-ends per day on a typical weekday with approximately 925 AM peak hour trips, and 1,249 PM peak hour trips. Trip generation has also been provided based on passenger car equivalents (PCE). As shown on Table 3, the Project is estimated to generate a net total of 13,257 PCE trip-ends per day on a typical weekday with approximately 977 PCE AM peak hour trips, and 1,307 PCE PM peak hour trips. The PCE trip generation will be utilized for the purposes of this analysis.

TRIP DISTRIBUTION

The Project trip distribution patterns were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system. Trip distribution patterns for the Project are shown by lane use and vehicle type as follows:

- Exhibit 3: Project (Outbound Truck) Trip Distribution
- Exhibit 4: Project (Inbound Truck) Trip Distribution
- Exhibit 5: Project (Outbound Warehouse/Business Park Passenger Car) Trip Distribution
- Exhibit 6: Project (Inbound Warehouse/Business Park Passenger Car) Trip Distribution
- Exhibit 7: Project (Outbound Commercial Retail Passenger Car) Trip Distribution
- Exhibit 8: Project (Inbound Commercial Retail Passenger Car) Trip Distribution

LEVEL OF SERVICE (LOS) CRITERIA

The City of Irwindale Traffic Study Guidelines require that LOS D or better be maintained at all signalized intersections on arterial and collector streets, with no exceptions. For unsignalized intersections, the minimum LOS per the City's General Plan is mid-range LOS D.

CEQA COMPLIANCE AND DOCUMENTATION – INTERSECTIONS

City of Irwindale traffic study guidelines states that a signalized intersection is significantly impacted by Project traffic if:

- When a signalized intersection operates at LOS D or better under existing or future conditions, and the addition of project trips degrades the intersection operations to LOS E or F.
- When a signalized intersection operates at LOS E or better under existing or future baseline conditions, and the addition of the project trips degrades the intersection operations to LOS F or increases the V/C ratio by 0.02 or greater.
- When a signalized intersection operates at LOS F under existing or future baseline conditions, and the addition of more than 50 peak hour project trips increases the V/C ratio by 0.02 or greater.

EXISTING COUNT DATA

New traffic counts were conducted the last week of November 2017 when local schools are operating on a normal bell schedule.

AMBIENT GROWTH

To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2017) conditions of 6.12% (2% per year over 3 years) will be included for Opening Year Cumulative, as well as traffic generated by cumulative projects that could affect the study intersections.

The generalized growth factors provided in 2010 Los Angeles (LA) County Congestion Management Program (CMP) indicates a growth factor of 1.046 for ten years (2010 to 2020) or 0.45% per year for the Regional Statistical Area (RSA) 26 (West Covina) in which the Project is located. As such, the analysis is in excess of the CMP guidelines and consistent with the City's traffic study guidelines.

Horizon Year Without Project traffic conditions will include an ambient traffic growth factor of 12.64% (0.524% / year over 23 years) based on the growth factors provided in LA County CMP for RSA 26. A growth factor of 1.106 was estimated for 25 years (from 2010 to 2035) in LA County CMP, which is equivalent to 0.404% per year growth. This annual growth was compounded over 5 years and added to the 1.106 from the LA County CMP to determine the growth factor for Horizon Year (2040) traffic conditions – 1.1264 or 12.64 percent. Lastly, traffic generated by cumulative projects that could affect the study intersections will also be added on top of the ambient growth.

SPECIAL ISSUES

The following special issue will also be addressed as part of the TIA:

- *Site Access Evaluation:* The turn pocket lengths will be determined through peak hour traffic simulations developed using SimTraffic software in an effort to identify the required storage capacity for turn lanes at each applicable Project driveway.
- *Truck Turn Template:* If applicable, turn templates will be utilized to ensure that the Project driveway can accommodate the turning radius of trucks.
- *Basic Freeway Segment Analysis:* Conduct freeway segment analysis for the following mainline freeway segments based on the currently accepted Highway Capacity Manual (HCM) Basic Freeway Segment Analysis methodology for each analysis scenario for the segments immediately adjacent to the I-605 Freeway at Arrow Highway and Live Oak Avenue.
- *Merge/Diverge Analysis:* Perform Merge/Diverge analysis for the I-605 Freeway Southbound and Northbound, on/off-ramps at Arrow Highway and I-605 Freeway Southbound and Northbound, on/off-ramps at Live Oak Avenue for each analysis scenario.
- *Ramp Queues:* Conduct a ramp queuing analysis at the I-605/Arrow Highway and I-605/Live Oak Avenue off-ramps to identify the storage necessary to accommodate queuing during peak hour traffic flows for each analysis scenario.

- *Traffic Signal Warrants:* All applicable unsignalized intersections will be evaluated to determine if and/or when traffic signals are warranted at all unsignalized intersections.
- *Traffic Index:* Pursuant to discussions with City staff, traffic index analyses will be prepared as a separate document from the traffic study. The traffic index calculations will be prepared for the roadway segments where the Project is anticipated to contribute 50 or more truck trips (actual, non-PCE trips).

OPEN ITEMS – CUMULATIVE DEVELOPMENT PROJECTS

Exhibit 6 and Table 4 provide a list of cumulative development projects. It is requested that the City provide any updated or new cumulative development project information for inclusion in the traffic study.

If you have any questions, please contact me directly at (949) 336-5982.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Senior Associate

EXHIBIT 1: PRELIMINARY SITE PLAN

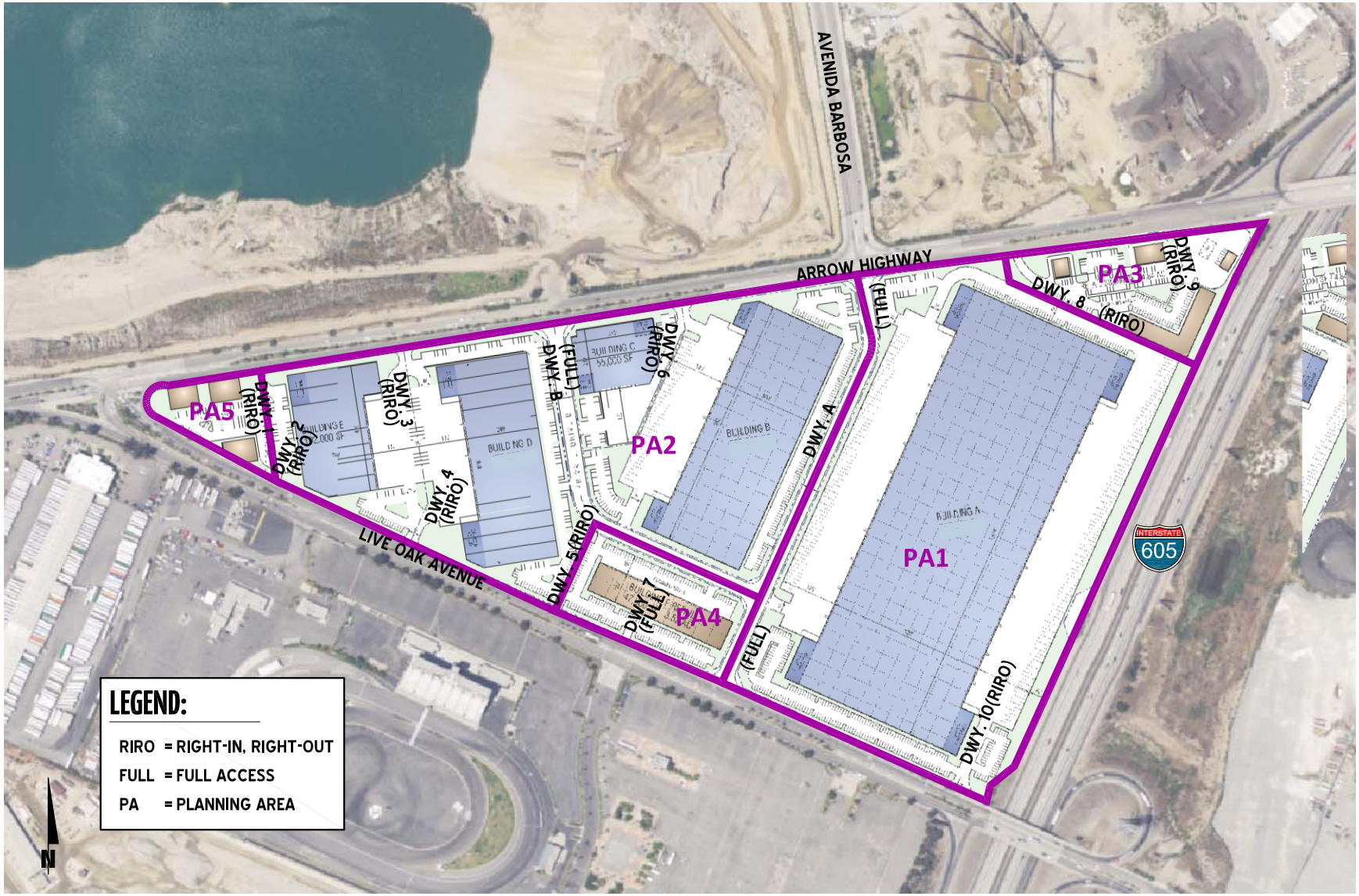


EXHIBIT 2: LOCATION MAP



1.1-7

URBAN CROSSROADS

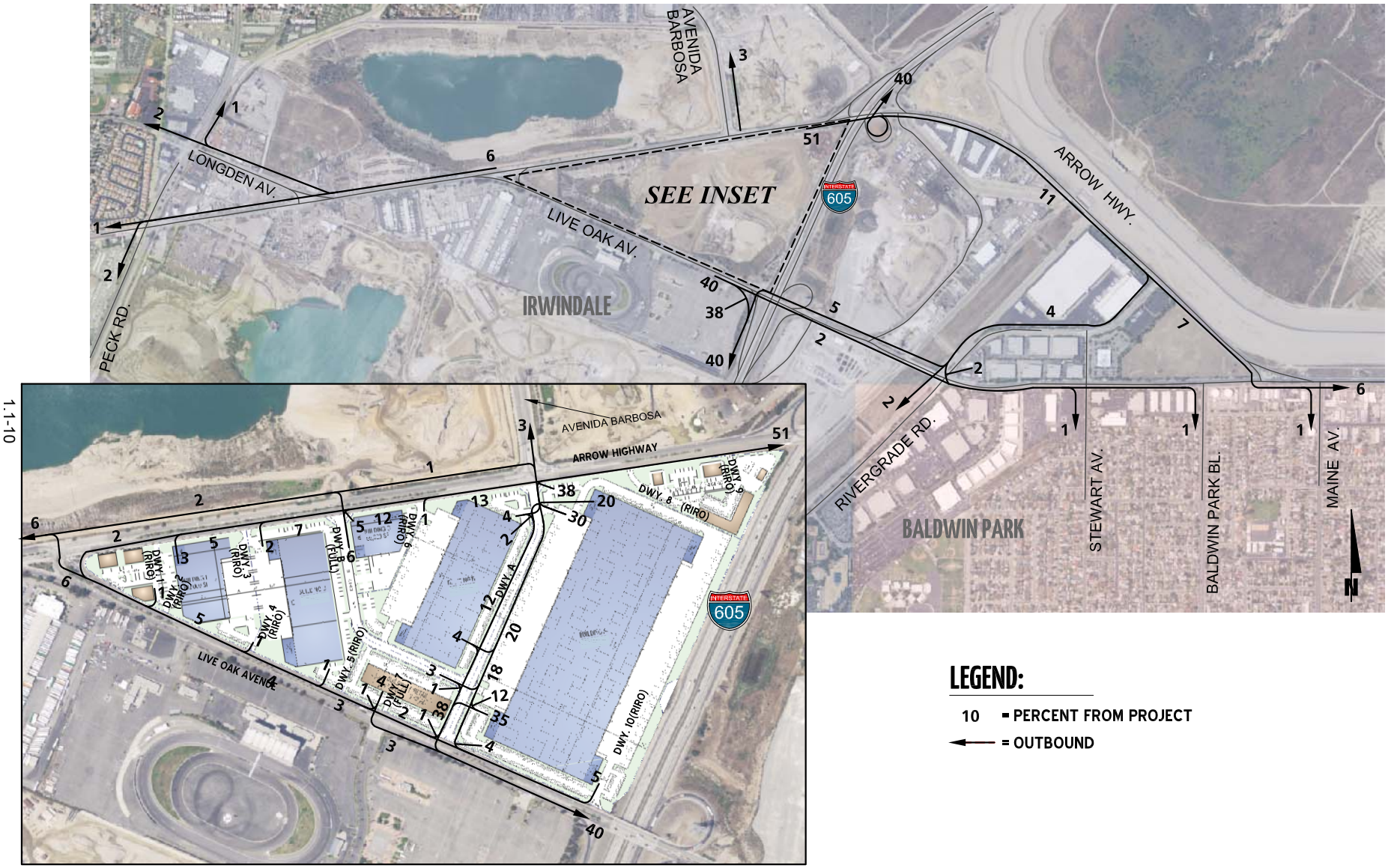
EXHIBIT 3: PROJECT (OUTBOUND TRUCK) TRIP DISTRIBUTION



EXHIBIT 4: PROJECT (INBOUND TRUCK) TRIP DISTRIBUTION

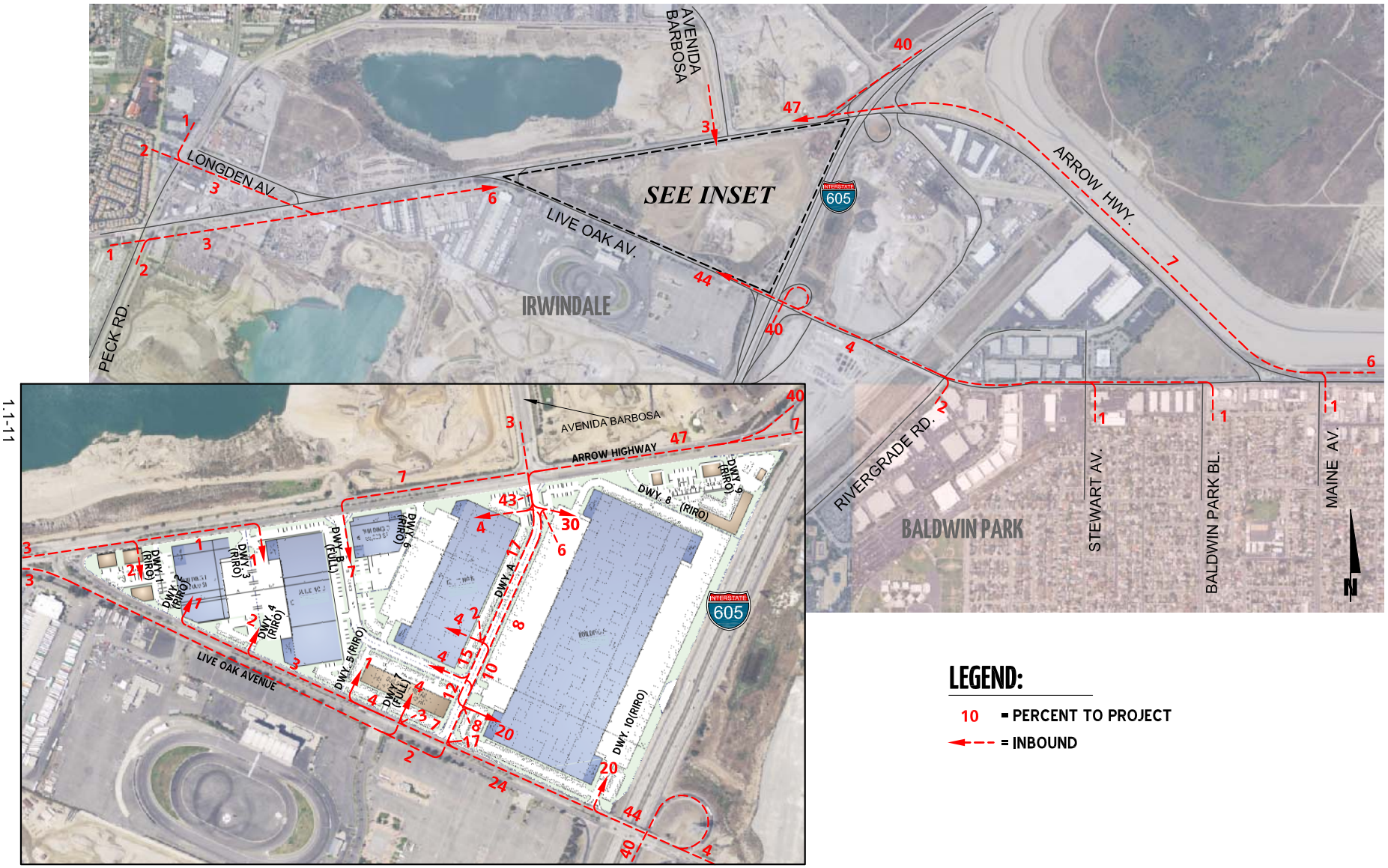


EXHIBIT 5: PROJECT (OUTBOUND WAREHOUSE/BUSINESS PARK PASSENGER CAR) TRIP DISTRIBUTION



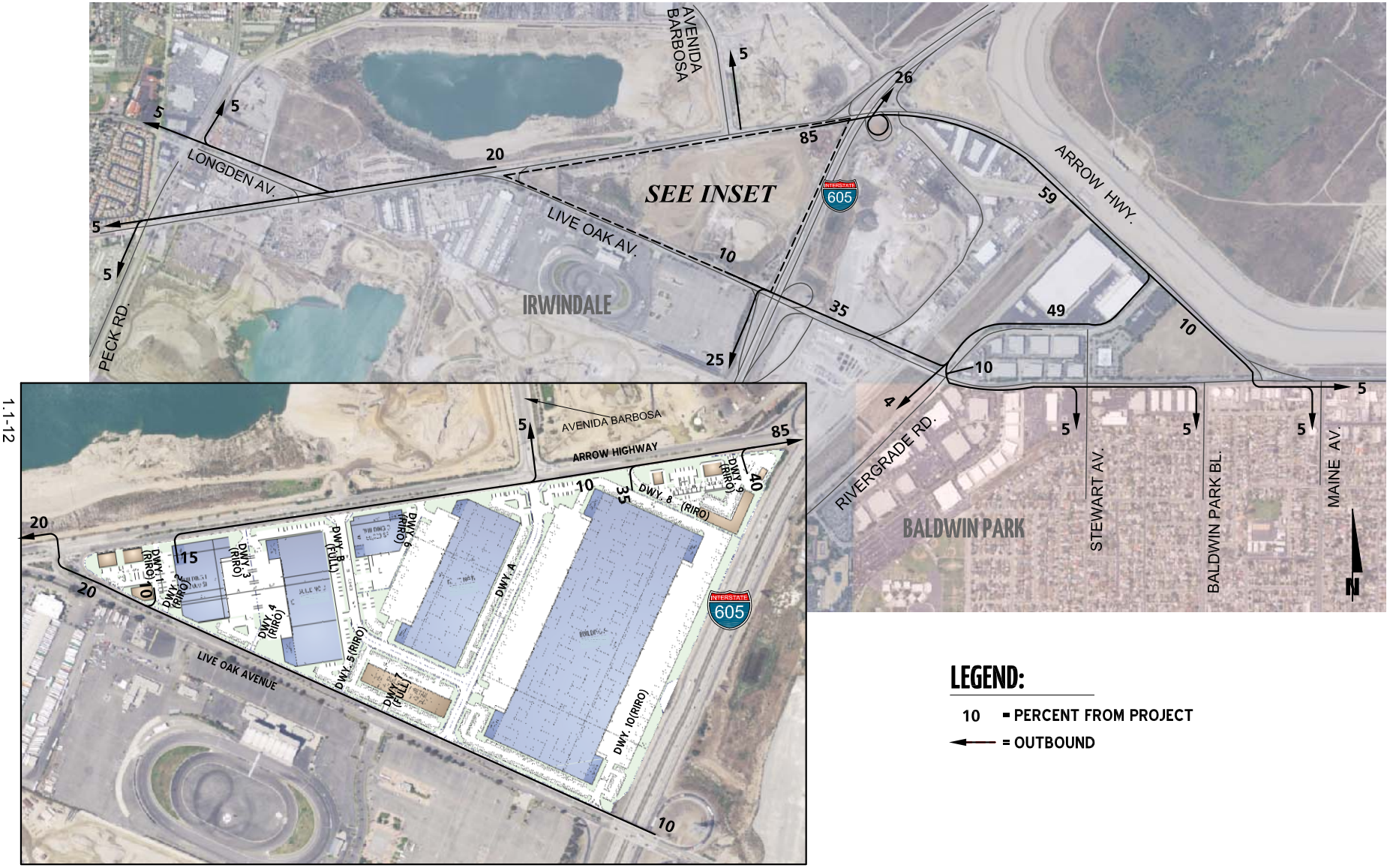
1.1-10

EXHIBIT 6: PROJECT (INBOUND WAREHOUSE/BUSINESS PARK PASSENGER CAR) TRIP DISTRIBUTION



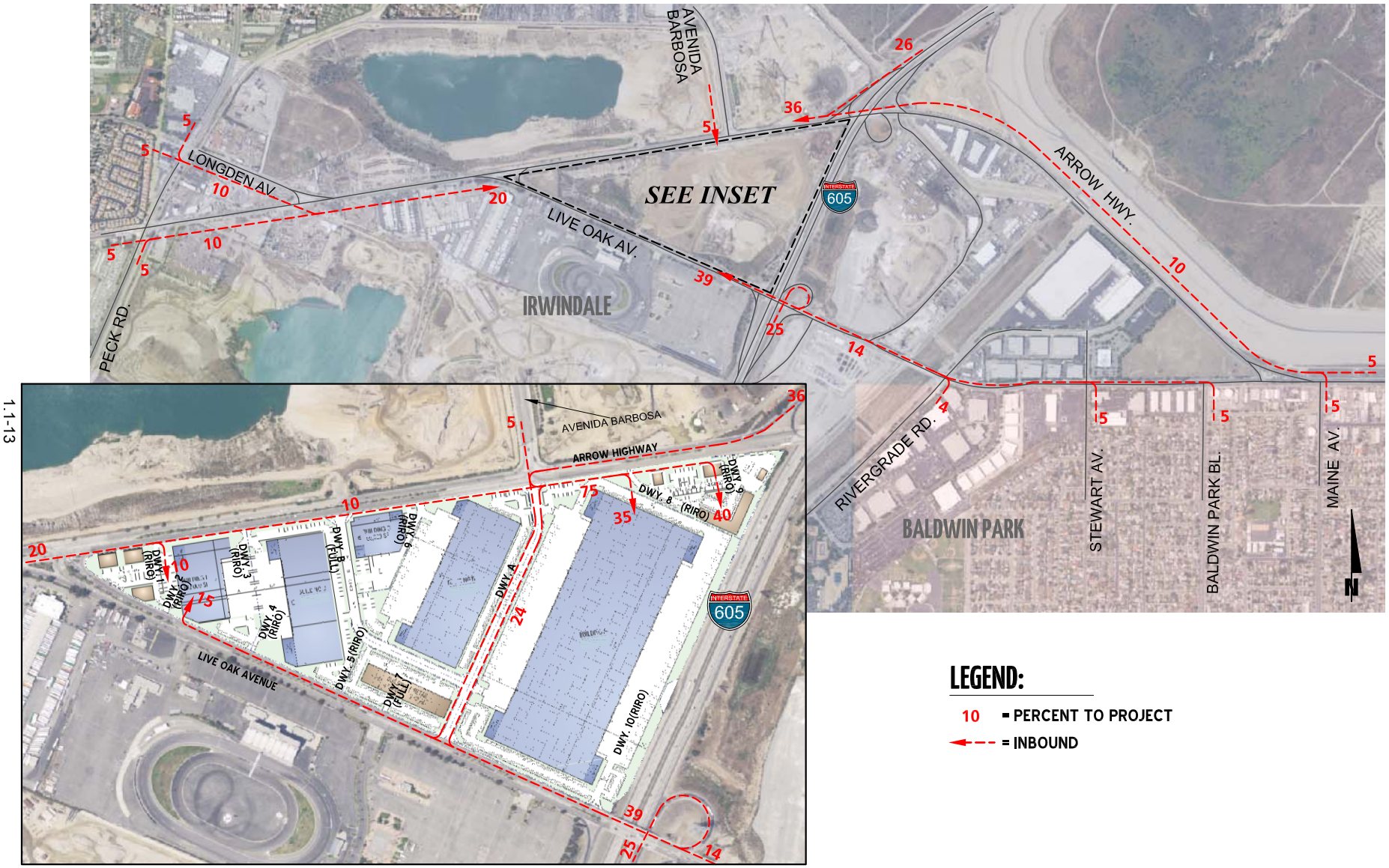
1.1-11

EXHIBIT 7: PROJECT (OUTBOUND COMMERCIAL RETAIL PASSENGER CAR) TRIP DISTRIBUTION



1.1-12

EXHIBIT 8: PROJECT (INBOUND COMMERCIAL RETAIL PASSENGER CAR) TRIP DISTRIBUTION



1.1-13

EXHIBIT 9: CUMULATIVE DEVELOPMENT LOCATION MAP

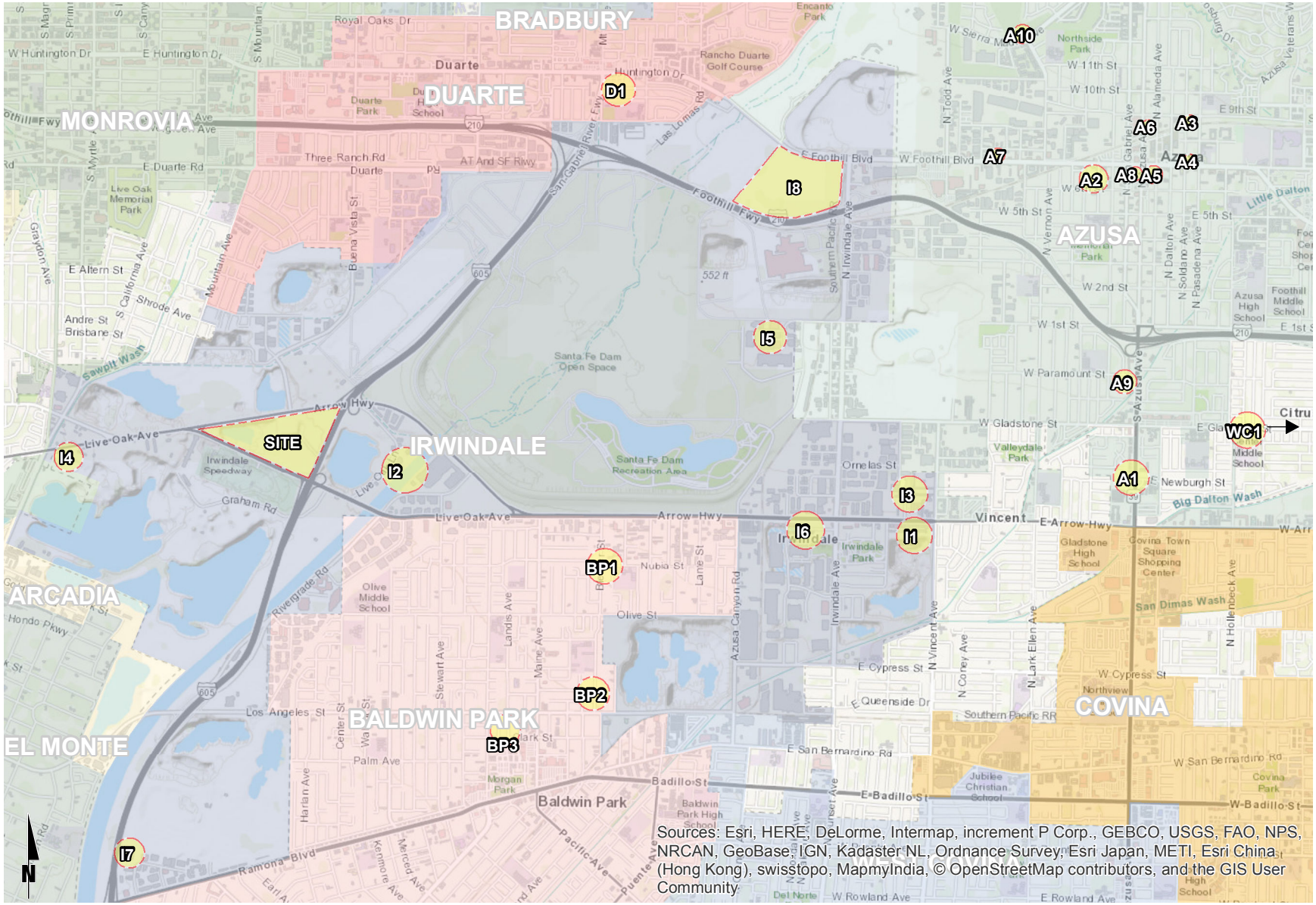


Table 1

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%)			0.004	0.001	0.005	0.002	0.005	0.007	0.058
3-Axle Trucks (4.14%)			0.005	0.002	0.007	0.002	0.006	0.008	0.072
4-Axle+ Trucks (12.52%)			0.016	0.005	0.021	0.006	0.017	0.023	0.218
High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)[4]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.043	0.013	0.055	0.022	0.056	0.078	0.949
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%)			0.003	0.001	0.004	0.001	0.003	0.004	0.075
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%)			0.004	0.001	0.005	0.001	0.003	0.004	0.093
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%)			0.012	0.004	0.015	0.004	0.010	0.014	0.282
High-Cube Fulfillment Center Warehouse[4]	TSF	155	0.454	0.136	0.590	0.384	0.986	1.370	8.180
Passenger Cars (AM-97.2%; PM-98.2%; Daily-91.2%)			0.442	0.132	0.573	0.377	0.969	1.345	7.460
2-Axle Trucks (AM-0.47%; PM-0.30%; Daily-1.47%)			0.002	0.001	0.003	0.001	0.003	0.004	0.120
3-Axle Trucks (AM-0.58%; PM-0.37%; Daily-1.82%)			0.003	0.001	0.003	0.001	0.004	0.005	0.149
4-Axle+ Trucks (AM-1.75%; PM-1.13%; Daily-5.50%)			0.008	0.002	0.010	0.004	0.011	0.015	0.450
High-Cube Cold Storage Warehouse (With Cold Storage)[4]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%)			0.009	0.003	0.012	0.002	0.007	0.009	0.237
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%)			0.003	0.001	0.004	0.001	0.002	0.003	0.075
4-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%)			0.014	0.004	0.018	0.004	0.010	0.014	0.371
Business Park[5]	TSF	770	0.024	0.016	0.040	0.193	0.227	0.420	12.440
Passenger Cars (87.0%)			0.021	0.014	0.035	0.168	0.197	0.365	10.823
2-Axle Trucks (3.2%)			0.001	0.001	0.001	0.006	0.007	0.013	0.399
3-Axle Trucks (2.7%)			0.001	0.000	0.001	0.005	0.006	0.011	0.333
4-Axle+ Trucks (7.1%)			0.002	0.001	0.003	0.014	0.016	0.030	0.883
Retail	TSF	820	0.583	0.357	0.940	1.829	1.981	3.810	37.750
Fast Food w/o Drive Thru	TSF	933	15.060	10.040	25.100	14.170	14.170	28.340	346.230
Fast Food w/ Drive Thru	TSF	934	20.497	19.693	40.190	16.988	15.682	32.670	470.950
Coffee/Donut Shop w/ Drive Thru	TSF	937	45.385	43.605	88.990	21.690	21.690	43.380	820.380
Gasoline Station w/ Market	VFP	945	10.135	10.135	20.270	11.180	11.180	22.360	198.160

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car Equivalent (PCE) Trip Generation Rates[5]									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (80.0%)			0.105	0.031	0.136	0.041	0.111	0.152	1.392
2-Axle Trucks (3.34%) (PCE = 1.5)			0.006	0.002	0.008	0.003	0.008	0.011	0.087
3-Axle Trucks (4.14%) (PCE = 2.0)			0.010	0.004	0.014	0.004	0.012	0.016	0.144
4-Axle+ Trucks (12.52%) (PCE = 3.0)			0.048	0.015	0.063	0.018	0.051	0.069	0.654
High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)[4]	TSF	154	0.062	0.018	0.080	0.028	0.072	0.100	1.400
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.043	0.013	0.055	0.022	0.056	0.078	0.949
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%) (PCE = 1.5)			0.005	0.001	0.006	0.002	0.004	0.005	0.113
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%) (PCE = 2.0)			0.008	0.002	0.010	0.003	0.006	0.009	0.187
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%) (PCE = 3.0)			0.036	0.011	0.046	0.011	0.029	0.041	0.845
High-Cube Fulfillment Center Warehouse[4]	TSF	155	0.454	0.136	0.590	0.384	0.986	1.370	8.180
Passenger Cars (AM-97.2%; PM-98.2%; Daily-91.2%)			0.442	0.132	0.573	0.377	0.969	1.345	7.460
2-Axle Trucks (AM-0.47%; PM-0.30%; Daily-1.47%) (PCE = 1.5)			0.003	0.001	0.004	0.002	0.004	0.006	0.180
3-Axle Trucks (AM-0.58%; PM-0.37%; Daily-1.82%) (PCE = 2.0)			0.005	0.002	0.007	0.003	0.007	0.010	0.298
4-Axle+ Trucks (AM-1.75%; PM-1.13%; Daily-5.50%) (PCE = 3.0)			0.024	0.007	0.031	0.013	0.033	0.046	1.350
High-Cube Cold Storage Warehouse (With Cold Storage)[4]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%) (PCE = 1.5)			0.014	0.004	0.018	0.004	0.010	0.014	0.355
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%) (PCE = 2.0)			0.006	0.002	0.007	0.002	0.004	0.006	0.150
4-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%) (PCE = 3.0)			0.043	0.013	0.055	0.011	0.031	0.042	1.114
Business Park[5]	TSF	770	0.024	0.016	0.040	0.193	0.227	0.420	12.440
Passenger Cars (87.0%)			0.021	0.014	0.035	0.168	0.197	0.365	10.823
2-Axle Trucks (3.2%) (PCE = 1.5)			0.001	0.001	0.002	0.009	0.011	0.020	0.599
3-Axle Trucks (2.7%) (PCE = 2.0)			0.001	0.001	0.002	0.010	0.012	0.022	0.666
4-Axle+ Trucks (7.1%) (PCE = 3.0)			0.005	0.003	0.009	0.041	0.048	0.089	2.649
Retail	TSF	820	0.583	0.357	0.940	1.829	1.981	3.810	37.750
Fast Food w/o Drive Thru	TSF	933	15.060	10.040	25.100	14.170	14.170	28.340	346.230
Fast Food w/ Drive Thru	TSF	934	20.497	19.693	40.190	16.988	15.682	32.670	470.950
Coffee/Donut Shop w/ Drive Thru	TSF	937	45.385	43.605	88.990	21.690	21.690	43.380	820.380
Gasoline Station w/ Market	VFP	945	10.135	10.135	20.270	11.180	11.180	22.360	198.160

[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: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.
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. PCE rates are per SBCTA.

[4] Vehicle Mix Source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE.
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for high-cube warehouse. PCE rates are per SBCTA.

[5] 13% trucks per ITE Trip Generation manual; Truck mix per City of Fontana Truck Trip Generation Study for LU 150, August 2003. PCE rates are per SBCTA.

Table 2

Project Trip Generation Summary (Actual)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 1: High-Cube Fulfillment Center Warehouse	412.500	TSF							
Passenger Cars:			182	54	236	155	400	555	3,077
Truck Trips:									
2-axle:			1	0	1	0	1	1	50
3-axle:			1	0	1	1	2	3	61
4+-axle:			3	1	4	2	5	7	186
- Net Truck Trips			5	1	6	3	8	11	297
Planning Area 1: High-Cube Warehouse (Without Cold Storage)	412.500	TSF							
Passenger Cars:			18	5	23	9	23	32	392
Truck Trips:									
2-axle:			1	0	1	0	1	1	31
3-axle:			2	0	2	1	1	2	38
4+-axle:			5	1	6	2	4	6	116
- Net Truck Trips			8	1	9	3	6	9	185
PLANNING AREA 1 TOTAL NET TRIPS (Actual)[2]			**213**	**61**	**274**	**170**	**437**	**607**	**3,951**
Planning Area 2: High-Cube Warehouse (Without Cold Storage)	218.400	TSF							
Passenger Cars:			9	3	12	5	12	17	207
Truck Trips:									
2-axle:			1	0	1	0	1	1	16
3-axle:			1	0	1	0	1	1	20
4+-axle:			3	1	4	1	2	3	62
- Net Truck Trips			5	1	6	1	4	5	98
Planning Area 2: High-Cube Warehouse (With Cold Storage)	54.600	TSF							
Passenger Cars:			3	1	4	1	4	5	78
Truck Trips:									
2-axle:			0	0	0	0	0	0	13
3-axle:			0	0	0	0	0	0	4
4+-axle:			1	0	1	0	1	1	20
- Net Truck Trips			1	0	1	0	1	1	37
Planning Area 2: Warehouse	353.400	TSF							
Passenger Cars:			37	11	48	14	39	53	492
Truck Trips:									
2-axle:			1	0	1	1	2	3	20
3-axle:			2	1	3	1	2	3	25
4+-axle:			6	2	8	2	6	8	77
- Net Truck Trips			9	3	12	4	10	14	122
PLANNING AREA 2 TOTAL NET TRIPS (Actual)[2]			**64**	**19**	**83**	**25**	**70**	**95**	**1,034**
Planning Area 3: Fast Food With Drive-Thru	8.700	TSF	178	171	349	148	136	284	4,097
Pass-By (49% AM, 50% PM/Daily):			-84	-84	-168	-68	-68	-136	-2,049
Planning Area 3: Fast Food Without Drive-Thru	12.000	TSF	181	120	301	170	170	340	4,155
Pass-By (49% AM, 50% PM/Daily):			-59	-59	-118	-83	-83	-166	-2,078
Planning Area 3: Commercial Retail	12.000	TSF	7	4	11	22	24	46	453
Pass-By (34% PM/Daily):			0	0	0	-7	-7	-14	-154

Table 2

Project Trip Generation Summary (Actual)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 3: Gas Station w/ Market & Carwash	8	VFP	81	81	162	89	89	179	1,585
Pass-By (62% am, 56% PM/Daily):			-50	-50	-100	-50	-50	-100	-888
PLANNING AREA 3 TOTAL NET TRIPS			**254**	**183**	**437**	**221**	**211**	**433**	**5,122**
Planning Area 4: Business Park	47.000	TSF							
Passenger Cars:			1	1	2	8	9	17	509
Truck Trips:									
2-axle:			0	0	0	0	0	0	19
3-axle:			0	0	0	0	0	0	16
4+-axle:			0	0	0	1	1	2	42
- Net Truck Trips			0	0	0	1	1	2	77
PLANNING AREA 4 TOTAL NET TRIPS (Actual)[2]			**1**	**1**	**2**	**9**	**10**	**19**	**586**
Planning Area 5: Coffee Shop	3.000	TSF	136	131	267	65	65	130	2,461
Pass-By (89% AM/PM/Daily):			-116	-116	-232	-58	-58	-116	-2,190
Planning Area 5: Fast Food Without Drive-Thru	7.000	TSF	105	70	176	99	99	198	2,424
Pass-By (49% AM, 50% PM/Daily):			-34	-34	-68	-49	-49	-98	-1,212
Planning Area 5: Commercial Retail	10.500	TSF	6	4	10	19	21	40	396
Pass-By (34% PM/Daily):			0	0	0	-6	-6	-12	-135
PLANNING AREA 5 TOTAL NET TRIPS (Actual)[2]			**98**	**55**	**153**	**70**	**72**	**143**	**1,744**
Total Proposed Project			**630**	**319**	**949**	**495**	**800**	**1,297**	**12,437**

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

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 3

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 1: High-Cube Fulfillment Center Warehouse	412.500	TSF							
Passenger Cars:			182	54	237	155	400	555	3,077
Truck Trips:									
2-axle:			1	0	2	1	2	3	74
3-axle:			2	1	3	1	3	4	123
4+-axle:			10	3	13	5	14	19	557
- Net Truck Trips			13	4	18	7	19	26	754
Planning Area 1: High-Cube Warehouse (Without Cold Storage)	412.500	TSF							
Passenger Cars:			18	5	23	9	23	32	392
Truck Trips:									
2-axle:			2	1	3	1	2	2	47
3-axle:			3	1	4	1	3	4	77
4+-axle:			15	4	19	5	12	17	349
- Net Truck Trips			20	6	26	7	17	23	473
PLANNING AREA 1 TOTAL NET TRIPS (PCE) [2]			**233**	**69**	**304**	**178**	**459**	**636**	**4,696**
Planning Area 2: High-Cube Warehouse (Without Cold Storage)	218.400	TSF							
Passenger Cars:			9	3	12	5	12	17	207
Truck Trips:									
2-axle:			1	0	1	0	1	1	25
3-axle:			2	1	3	1	1	2	41
4+-axle:			8	2	10	2	6	8	185
- Net Truck Trips			11	3	14	3	8	11	251
Planning Area 2: High-Cube Warehouse (With Cold Storage)	54.600	TSF							
Passenger Cars:			3	1	4	1	4	5	78
Truck Trips:									
2-axle:			1	0	1	0	1	1	19
3-axle:			0	0	0	0	0	0	8
4+-axle:			2	1	3	1	2	3	61
- Net Truck Trips			3	1	4	1	3	4	88
Planning Area 2: Warehouse	353.400	TSF							
Passenger Cars:			37	11	48	14	39	53	492
Truck Trips:									
2-axle:			2	1	3	1	3	4	31
3-axle:			4	1	5	1	4	5	51
4+-axle:			17	5	22	6	18	24	231
- Net Truck Trips			23	7	30	8	25	33	313
PLANNING AREA 2 TOTAL NET TRIPS (PCE) [2]			**86**	**26**	**112**	**32**	**91**	**123**	**1,429**
Planning Area 3: Fast Food With Drive-Thru	8.700	TSF	178	171	349	148	136	284	4,097
Pass-By (49% AM, 50% PM/Daily):			-84	-84	-168	-68	-68	-136	-2,049
Planning Area 3: Fast Food Without Drive-Thru	12.000	TSF	181	120	301	170	170	340	4,155
Pass-By (49% AM, 50% PM/Daily):			-59	-59	-118	-83	-83	-166	-2,078
Planning Area 3: Commercial Retail	12.000	TSF	7	4	11	22	24	46	453
Pass-By (34% PM/Daily):			0	0	0	-7	-7	-14	-154

Table 3

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Planning Area 3: Gas Station w/ Market	8	VFP	81	81	162	89	89	178	1,585
Pass-By (62% am, 56% PM/Daily):			-50	-50	-100	-50	-50	-100	-888
PLANNING AREA 3 TOTAL NET TRIPS			**254**	**183**	**437**	**221**	**211**	**432**	**5,122**
Planning Area 4: Business Park	47.000	TSF							
Passenger Cars:			1	1	2	8	9	17	509
Truck Trips:									
2-axle:			0	0	0	0	1	1	28
3-axle:			0	0	0	0	1	1	31
4+-axle:			0	0	0	2	2	4	125
- Net Truck Trips			0	0	0	2	4	6	184
PLANNING AREA 4 TOTAL NET TRIPS (PCE) [2]			**1**	**1**	**2**	**10**	**13**	**23**	**693**
Planning Area 5: Coffee Shop	3.000	TSF	136	131	267	65	65	130	2,461
Pass-By (89% AM/PM/Daily):			-116	-116	-232	-58	-58	-116	-2,190
Planning Area 5: Fast Food Without Drive-Thru	7.000	TSF	105	70	176	99	99	198	2,424
Pass-By (49% AM, 50% PM/Daily):			-34	-34	-68	-49	-49	-98	-1,212
Planning Area 5: Commercial Retail	10.500	TSF	6	4	10	19	21	40	396
Pass-By (34% PM/Daily):			0	0	0	-6	-6	-12	-135
PLANNING AREA 5 TOTAL NET TRIPS (PCE) [2]			**98**	**55**	**153**	**70**	**72**	**143**	**1,744**
Total Proposed Project			**672**	**334**	**1,008**	**511**	**846**	**1,357**	**13,684**

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

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 4

Cumulative Development Land Use Summary

ID	Project Name/Location	Land Use	Quantity[1]
City of Irwindale			
I1	Manning Pit (SWC of Vincent Av. & Arrow Hwy.)	Industrial	545.735 TSF
I2	Nu-Way Pit (13620 Live Oak Lane)	Pilot Flying J Travel Center	15.000 TSF
		New Truck Sales Dealership	3.000 TSF
I3	Panatonni (16203-16233 Arrow Highway)	Industrial	133.800 TSF
I4	Panatonni (242 Live Oak Avenue)	Industrial	85.400 TSF
I5	Ayala Industrial Building (5589 Ayala Avenue)	Industrial	80.000 TSF
I6	Irwindale Med Clinic (15768 Arrow Highway)	Medical Office Building	13.300 SF
	Wendy's Restaurant (15768 Arrow Highway)	Fast-food Restaurant with Drive-Thru	2.300 TSF
I7	Kaiser Medical Office Building (12761 Schabarum Av.)	Medical Office Building	90.000 TSF
I8	Irwindale Reliance II Business Park	Warehouse	1241.44 TSF
		Industrial Park	612.058 TSF
		Commercial Retail	5 TSF
		Fast-Food without Drive-Thru	5 TSF
City of Baldwin Park			
BP1	Warehouse - 5029 Bleecker St.	Warehousing	8.748 TSF
	Residential - 4859 Marion Av.	Single Family Detached Residential	4 DU
	Residential - 4861 Marion Av.		
	Residential - 4819 Lante St.		
	Residential - 4820-28 Fortin Av.		
	Office - 4814 Maine Av.	General Office	6.3 TSF
BP2	Residential - 4503 Park Av. & Residential - 4455 Park Av.	Single Family Detached Residential	2 DU
BP3	Commercial - 4341 Maine Av.	Commercial Retail	4.5 TSF
City of Azusa			
A1	Waste Management Materials Recycling Facility & Transfer Station 501 West Gladstone	125,000 sf processing building with offices to receive, process and transfer up to 3,800 tons per day of solid waste.	3800 Tons/ Day
	Residential - 710 S. Azusa Av.	Condo/Townhomes	81 DU
	Gladstone Mixed Use - 890 Gladstone Street	Apartments	9 DU
		Commercial Retail	4.443 TSF
	Residential - 523-531 Arrow Highway	Condo/Townhomes	28 DU
	Commercial - 880 S. Azusa Av.	Commercial Retail	47.000 TSF
A2	Foothill Transit Intermodal Parking Facility	Parking Facility	250 Spaces
City of West Covina			
WC1	Lowes - 1348 N Azusa Av.	Home Improvement Store	111.348 TSF
	Residential - 436 E Cypress St.	Single Family Detached Residential	1 DU
	Condominiums - Citrus Av. & Italia St.	Condo/Townhomes	37 DU
	Mixed Use Condominiums Citrus Avenue & Italia Street	Commercial Retail	4.366 TSF
		Condo/Townhomes	4 DU
	Mixed-Use Project 1045-1052 West Grondahl St.	Condo/Townhomes	412 DU
		Commercial Retail	20 TSF
	Taco Bell - 301 N. Citrus Av.	Fast Food w/ Drive-Thru	3.445 TSF
	615 N. 3rd St.	Condo/Townhomes	30 DU
	Medical Imaging Center - 1700 West Covina Pkwy.	Medical Office	9.3 TSF
City of Duarte			
D1	Rose Gardens at Santa Teresita 800 Buena Vista Street	Nursing Facility, Assisted Living	229.292 TSF

[1] MTPY = Million Tons per Year; TSF = Thousand Square Feet; DU = Dwelling Unit

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APPENDIX 1.2:

SITE ADJACENT QUEUES

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Intersection: 4: Live Oak Av. & Arrow Hwy.

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	T	T	T	L	L	T	T	T	L	L	R
Maximum Queue (ft)	191	163	176	173	318	379	412	420	452	470	164
Average Queue (ft)	120	87	80	99	109	207	246	249	262	287	8
95th Queue (ft)	178	150	145	153	212	381	414	418	404	419	71
Link Distance (ft)	2305	2305	2305			498	498	498	576	576	576
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				300	300						
Storage Blk Time (%)						2					
Queuing Penalty (veh)						7					

Intersection: 5: Driveway 1 & Arrow Hwy.

Movement	EB	NB
Directions Served	TR	R
Maximum Queue (ft)	4	75
Average Queue (ft)	0	31
95th Queue (ft)	3	55
Link Distance (ft)	498	139
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Live Oak Av. & Driveway 2

Movement	EB	EB	EB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	96	130	146	4	96
Average Queue (ft)	20	25	51	0	44
95th Queue (ft)	68	84	117	3	74
Link Distance (ft)	576	576	576	70	106
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Speedway Dwy. & Live Oak Av.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	81	94	106	100	195	209	197	52	61
Average Queue (ft)	59	67	77	48	84	98	82	15	24
95th Queue (ft)	91	90	98	85	150	164	154	42	51
Link Distance (ft)	70	70	70		317	317	317	170	170
Upstream Blk Time (%)	6	7	13						
Queuing Penalty (veh)	22	29	53						
Storage Bay Dist (ft)				150					
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 8: Driveway 3 & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	29
Average Queue (ft)	2
95th Queue (ft)	14
Link Distance (ft)	68
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Live Oak Av. & Driveway 4

Movement	EB	SB
Directions Served	L	R
Maximum Queue (ft)	35	18
Average Queue (ft)	3	1
95th Queue (ft)	19	10
Link Distance (ft)		87
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Live Oak Av. & Driveway 5

Movement	EB	EB	EB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	6	27	65	23
Average Queue (ft)	1	2	5	1
95th Queue (ft)	8	16	33	10
Link Distance (ft)	463	463	463	66
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Private Drive B/Driveway & Arrow Hwy.

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	60	31	43
Average Queue (ft)	17	6	9
95th Queue (ft)	46	25	33
Link Distance (ft)		483	273
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Driveway 6 & Arrow Hwy.

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	98	92	30
Average Queue (ft)	3	3	4
95th Queue (ft)	69	65	20
Link Distance (ft)	491	491	243
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Driveway /Driveway 7 & Live Oak Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	L	TR	LTR
Maximum Queue (ft)	96	143	159	165	137	191	184	185	66	32	48	107
Average Queue (ft)	41	51	72	94	82	55	48	47	25	10	19	63
95th Queue (ft)	82	123	145	173	134	137	125	127	59	30	42	109
Link Distance (ft)		147	147	147		294	294	294	533	533	533	92
Upstream Blk Time (%)		0	1	2								4
Queuing Penalty (veh)		2	3	8								0
Storage Bay Dist (ft)	200				295							
Storage Blk Time (%)		0										
Queuing Penalty (veh)		0										

Intersection: 15: Private Drive A/Avenida Barbosa & Arrow Hwy.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	T	T	T	R	L	T
Maximum Queue (ft)	261	268	125	204	310	349	444	447	426	280	5	32
Average Queue (ft)	119	119	43	80	134	153	280	266	233	128	0	4
95th Queue (ft)	205	214	98	158	242	322	422	415	383	222	4	21
Link Distance (ft)			491	491	491		429	429	429	429		463
Upstream Blk Time (%)					0		1	1	0			
Queuing Penalty (veh)					0		9	6	3			
Storage Bay Dist (ft)	340	340				300					300	
Storage Blk Time (%)	0	0				0	7					
Queuing Penalty (veh)	0	0				0	22					

Intersection: 15: Private Drive A/Avenida Barbosa & Arrow Hwy.

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	82	189	230	36	193
Average Queue (ft)	42	79	139	6	80
95th Queue (ft)	69	174	210	24	147
Link Distance (ft)	463		1554	1554	1554
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		310			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Live Oak Av. & Private Drive A

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	38	75	81	99	195	200	203	86	30
Average Queue (ft)	7	18	21	28	84	63	79	42	2
95th Queue (ft)	28	58	62	75	161	148	159	81	15
Link Distance (ft)		294	294	294	770	770	770	288	288
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	100								
Storage Blk Time (%)		0							
Queuing Penalty (veh)		0							

Intersection: 17: Driveway 8 & Arrow Hwy.

Movement	WB	WB	WB	NB
Directions Served	T	T	T	R
Maximum Queue (ft)	147	124	91	43
Average Queue (ft)	14	10	6	3
95th Queue (ft)	87	73	65	20
Link Distance (ft)	499	499	499	183
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Driveway 9 & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	106
Average Queue (ft)	47
95th Queue (ft)	83
Link Distance (ft)	164
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Live Oak Av. & Driveway 10

Movement	SB
Directions Served	R
Maximum Queue (ft)	28
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	196
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 165

Intersection: 4: Live Oak Av. & Arrow Hwy.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	T	R	R	L	L	T	T	T	L	L
Maximum Queue (ft)	276	320	298	401	431	318	328	293	218	237	444	450
Average Queue (ft)	187	174	144	192	139	215	199	86	107	109	265	282
95th Queue (ft)	248	253	229	381	396	308	317	236	203	202	409	419
Link Distance (ft)	2305	2305	2305	2305	2305			498	498	498	576	576
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)						300	300					
Storage Blk Time (%)						1	2					
Queuing Penalty (veh)						4	7					

Intersection: 4: Live Oak Av. & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	259
Average Queue (ft)	31
95th Queue (ft)	158
Link Distance (ft)	576
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Driveway 1 & Arrow Hwy.

Movement	EB	EB	NB
Directions Served	T	TR	R
Maximum Queue (ft)	7	11	88
Average Queue (ft)	0	0	40
95th Queue (ft)	5	5	71
Link Distance (ft)	498	498	139
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Live Oak Av. & Driveway 2

Movement	EB	EB	EB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	538	645	678	110
Average Queue (ft)	288	335	352	51
95th Queue (ft)	505	615	624	88
Link Distance (ft)	576	576	576	106
Upstream Blk Time (%)	0	2	2	1
Queuing Penalty (veh)	1	20	20	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Speedway Dwy. & Live Oak Av.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	99	100	112	186	220	194	222	150	180
Average Queue (ft)	77	80	82	94	64	75	68	77	101
95th Queue (ft)	91	94	100	169	154	151	154	133	171
Link Distance (ft)	70	70	70		317	317	317	170	170
Upstream Blk Time (%)	26	30	31					0	3
Queuing Penalty (veh)	258	293	305					0	0
Storage Bay Dist (ft)				150					
Storage Blk Time (%)				5	0				
Queuing Penalty (veh)				24	0				

Intersection: 8: Driveway 3 & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	43
Average Queue (ft)	12
95th Queue (ft)	37
Link Distance (ft)	68
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Live Oak Av. & Driveway 4

Movement	EB	EB	EB	EB	SB
Directions Served	L	T	T	T	R
Maximum Queue (ft)	19	272	301	286	30
Average Queue (ft)	2	79	107	112	6
95th Queue (ft)	13	252	301	309	26
Link Distance (ft)		317	317	317	87
Upstream Blk Time (%)		0	0	1	
Queuing Penalty (veh)		0	2	6	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		6			
Queuing Penalty (veh)		0			

Intersection: 10: Live Oak Av. & Driveway 5

Movement	EB	EB	EB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	483	486	480	10	33
Average Queue (ft)	374	393	402	0	5
95th Queue (ft)	575	577	572	5	23
Link Distance (ft)	463	463	463	147	66
Upstream Blk Time (%)	5	6	8		0
Queuing Penalty (veh)	51	65	78		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Private Drive B/Driveway & Arrow Hwy.

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	43	58	12
Average Queue (ft)	11	27	0
95th Queue (ft)	34	56	6
Link Distance (ft)		483	273
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Driveway 6 & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	40
Average Queue (ft)	11
95th Queue (ft)	36
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: Driveway /Driveway 7 & Live Oak Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	L	TR	LTR
Maximum Queue (ft)	146	185	190	173	237	235	217	196	175	167	229	107
Average Queue (ft)	66	158	162	160	144	79	66	60	87	63	107	81
95th Queue (ft)	140	173	176	169	220	192	161	141	150	129	190	127
Link Distance (ft)		147	147	147		294	294	294	533	533	533	92
Upstream Blk Time (%)	0	30	32	32	0	0						20
Queuing Penalty (veh)	0	297	323	321	0	0						0
Storage Bay Dist (ft)	200				295							
Storage Blk Time (%)	0	30			0	0						
Queuing Penalty (veh)	2	21			0	0						

Intersection: 15: Private Drive A/Avenida Barbosa & Arrow Hwy.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	TR	L	T	T	T	R	L	T
Maximum Queue (ft)	157	169	273	312	372	348	423	402	302	90	36	53
Average Queue (ft)	87	97	155	192	222	208	288	248	164	36	7	15
95th Queue (ft)	145	150	250	289	327	351	399	364	271	70	26	43
Link Distance (ft)			491	491	491		429	429	429	429		463
Upstream Blk Time (%)							1	0				
Queuing Penalty (veh)							3	0				
Storage Bay Dist (ft)	340	340				300					300	
Storage Blk Time (%)						2	6					
Queuing Penalty (veh)						7	14					

Intersection: 15: Private Drive A/Avenida Barbosa & Arrow Hwy.

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	223	365	409	22	275
Average Queue (ft)	108	229	267	3	136
95th Queue (ft)	182	348	381	15	234
Link Distance (ft)	463		1554	1554	1554
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		310			
Storage Blk Time (%)		1	5		
Queuing Penalty (veh)		3	18		

Intersection: 16: Live Oak Av. & Private Drive A

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	38	266	287	300	217	185	213	290	31
Average Queue (ft)	4	177	209	219	131	93	109	164	8
95th Queue (ft)	22	244	278	293	200	166	187	268	30
Link Distance (ft)		294	294	294	770	770	770	288	288
Upstream Blk Time (%)		0	0	0				1	
Queuing Penalty (veh)		1	1	3				0	
Storage Bay Dist (ft)	100								
Storage Blk Time (%)		19							
Queuing Penalty (veh)		1							

Intersection: 17: Driveway 8 & Arrow Hwy.

Movement	EB	WB	WB	NB
Directions Served	T	T	T	R
Maximum Queue (ft)	4	73	52	106
Average Queue (ft)	0	5	2	19
95th Queue (ft)	3	43	29	64
Link Distance (ft)	429	499	499	183
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Driveway 9 & Arrow Hwy.

Movement	NB
Directions Served	R
Maximum Queue (ft)	179
Average Queue (ft)	100
95th Queue (ft)	179
Link Distance (ft)	164
Upstream Blk Time (%)	3
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 19: Live Oak Av. & Driveway 10

Movement	SB
Directions Served	R
Maximum Queue (ft)	38
Average Queue (ft)	17
95th Queue (ft)	42
Link Distance (ft)	196
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 2148

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – NOVEMBER 2017

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Counts Unlimited
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(951) 268-6268

City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

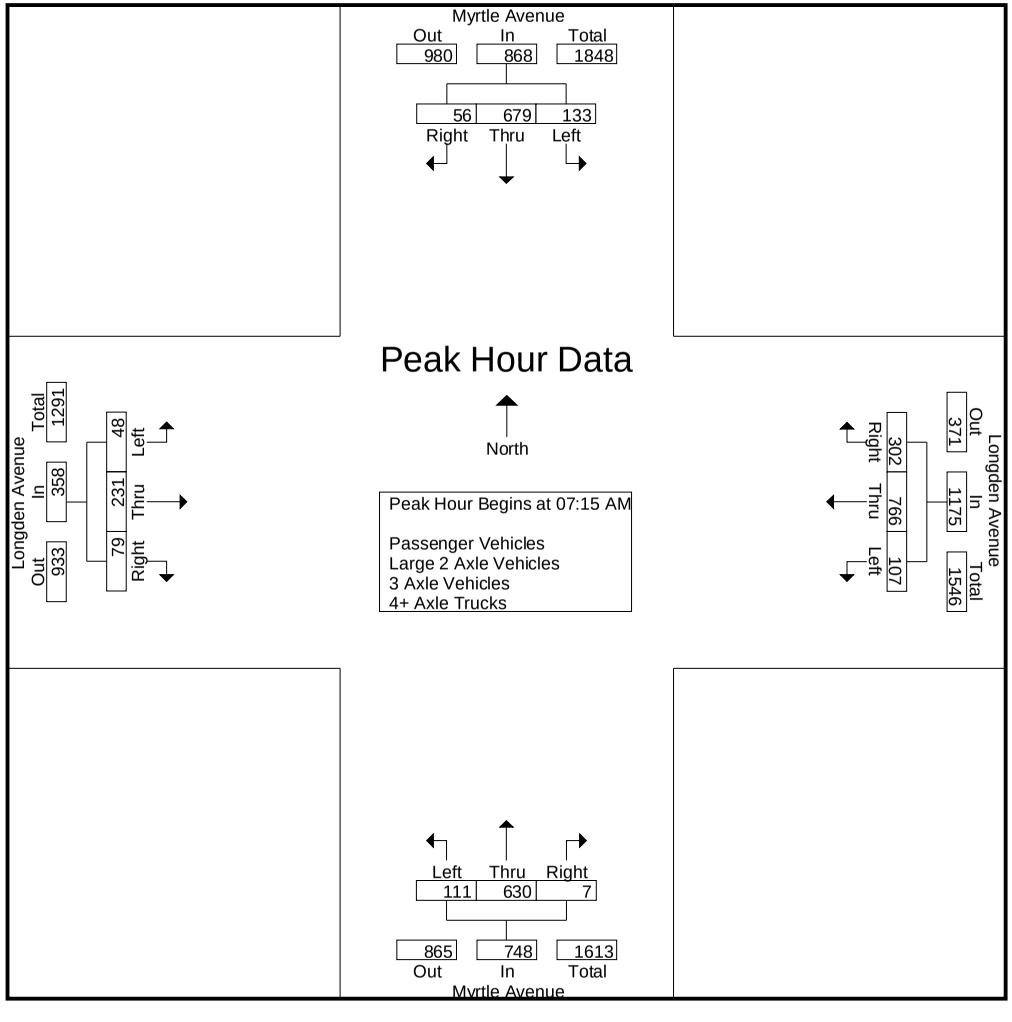
	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	31	110	10	3	151	6	213	69	12	288	11	87	3	2	101	10	47	20	10	77	27	617	644
07:15 AM	33	176	5	3	214	17	187	62	9	266	19	145	2	1	166	9	51	12	5	72	18	718	736
07:30 AM	33	166	9	3	208	35	218	81	6	334	21	141	2	1	164	10	54	15	7	79	17	785	802
07:45 AM	34	173	27	9	234	22	173	72	15	267	38	187	1	0	226	7	48	20	13	75	37	802	839
Total	131	625	51	18	807	80	791	284	42	1155	89	560	8	4	657	36	200	67	35	303	99	2922	3021
08:00 AM	33	164	15	3	212	33	188	87	17	308	33	157	2	0	192	22	78	32	17	132	37	844	881
08:15 AM	31	158	8	3	197	15	146	60	3	221	23	140	3	2	166	16	62	16	13	94	21	678	699
08:30 AM	43	134	9	0	186	23	162	82	19	267	11	109	3	1	123	17	67	22	9	106	29	682	711
08:45 AM	34	140	14	3	188	9	113	66	21	188	8	125	3	1	136	19	47	12	9	78	34	590	624
Total	141	596	46	9	783	80	609	295	60	984	75	531	11	4	617	74	254	82	48	410	121	2794	2915
Grand Total	272	1221	97	27	1590	160	1400	579	102	2139	164	1091	19	8	1274	110	454	149	83	713	220	5716	5936
Apprch %	17.1	76.8	6.1			7.5	65.5	27.1			12.9	85.6	1.5			15.4	63.7	20.9					
Total %	4.8	21.4	1.7		27.8	2.8	24.5	10.1		37.4	2.9	19.1	0.3		22.3	1.9	7.9	2.6		12.5	3.7	96.3	
Passenger Vehicles	257	1186	93		1562	128	1350	533		2107	155	1040	9		1206	104	432	142		758	0	0	5633
% Passenger Vehicles	94.5	97.1	95.9	96.3	96.6	80	96.4	92.1	94.1	94	94.5	95.3	47.4	25	94.1	94.5	95.2	95.3	96.4	95.2	0	0	94.9
Large 2 Axle Vehicles	9	31	4		45	4	47	36		92	9	49	7		69	6	14	7		30	0	0	236
% Large 2 Axle Vehicles	3.3	2.5	4.1	3.7	2.8	2.5	3.4	6.2	4.9	4.1	5.5	4.5	36.8	50	5.4	5.5	3.1	4.7	3.6	3.8	0	0	4
3 Axle Vehicles	3	0	0		3	26	3	6		36	0	2	3		7	0	7	0		7	0	0	53
% 3 Axle Vehicles	1.1	0	0	0	0.2	16.2	0.2	1	1	1.6	0	0.2	15.8	25	0.5	0	1.5	0	0	0.9	0	0	0.9
4+ Axle Trucks	3	4	0		7	2	0	4		6	0	0	0		0	0	1	0		1	0	0	14
% 4+ Axle Trucks	1.1	0.3	0	0	0.4	1.2	0	0.7	0	0.3	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.2

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	33	**176**	5	214	17	187	62	266	19	145	**2**	166	9	51	12	72	718
07:30 AM	33	166	9	208	**35**	**218**	81	**334**	21	141	2	164	10	54	15	79	785
07:45 AM	**34**	173	**27**	**234**	22	173	72	267	**38**	**187**	1	**226**	7	48	20	75	802
08:00 AM	33	164	15	212	33	188	**87**	308	33	157	2	192	**22**	**78**	**32**	**132**	**844**
Total Volume	133	679	56	868	107	766	302	1175	111	630	7	748	48	231	79	358	3149
% App. Total	15.3	78.2	6.5		9.1	65.2	25.7		14.8	84.2	0.9		13.4	64.5	22.1		
PHF	.978	.964	.519	.927	.764	.878	.868	.879	.730	.842	.875	.827	.545	.740	.617	.678	.933

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City of Irwindale
N/S: Myrtle Avenue
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City of Irwindale
N/S: Myrtle Avenue
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Page No : 3

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				08:00 AM				
+0 mins.	33	**176**	5	214	17	187	62	266	19	145	**2**	166	**22**	**78**	**32**	**132**	
+15 mins.	33	166	9	208	**35**	**218**	81	**334**	21	141	2	164	16	62	16	94	
+30 mins.	**34**	173	**27**	**234**	22	173	72	267	**38**	**187**	1	**226**	17	67	22	106	
+45 mins.	33	164	15	212	33	188	**87**	308	33	157	2	192	19	47	12	78	
Total Volume	133	679	56	868	107	766	302	1175	111	630	7	748	74	254	82	410	
% App. Total	15.3	78.2	6.5		9.1	65.2	25.7		14.8	84.2	0.9		18	62	20		
PHF	.978	.964	.519	.927	.764	.878	.868	.879	.730	.842	.875	.827	.841	.814	.641	.777	

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Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	29	105	8	3	142	4	202	61	11	267	8	85	1	0	94	9	41	18	8	68	22	571	593
07:15 AM	32	172	4	2	208	15	176	57	8	248	17	137	2	1	156	9	49	11	5	69	16	681	697
07:30 AM	32	165	9	3	206	32	206	77	6	315	21	136	1	0	158	9	52	15	7	76	16	755	771
07:45 AM	32	173	27	9	232	21	170	67	14	258	36	179	0	0	215	7	48	18	13	73	36	778	814
Total	125	615	48	17	788	72	754	262	39	1088	82	537	4	1	623	34	190	62	33	286	90	2785	2875
08:00 AM	32	159	15	3	206	31	185	83	16	299	33	151	0	0	184	21	76	31	17	128	36	817	853
08:15 AM	28	155	8	3	191	12	144	54	3	210	22	134	2	1	158	16	57	16	13	89	20	648	668
08:30 AM	40	125	9	0	174	8	155	74	18	237	10	98	1	0	109	15	66	22	9	103	27	623	650
08:45 AM	32	132	13	3	177	5	112	60	20	177	8	120	2	0	130	18	43	11	8	72	31	556	587
Total	132	571	45	9	748	56	596	271	57	923	73	503	5	1	581	70	242	80	47	392	114	2644	2758
Grand Total	257	1186	93	26	1536	128	1350	533	96	2011	155	1040	9	2	1204	104	432	142	80	678	204	5429	5633
Apprch %	16.7	77.2	6.1			6.4	67.1	26.5			12.9	86.4	0.7			15.3	63.7	20.9					
Total %	4.7	21.8	1.7		28.3	2.4	24.9	9.8		37	2.9	19.2	0.2		22.2	1.9	8	2.6		12.5	3.6	96.4	

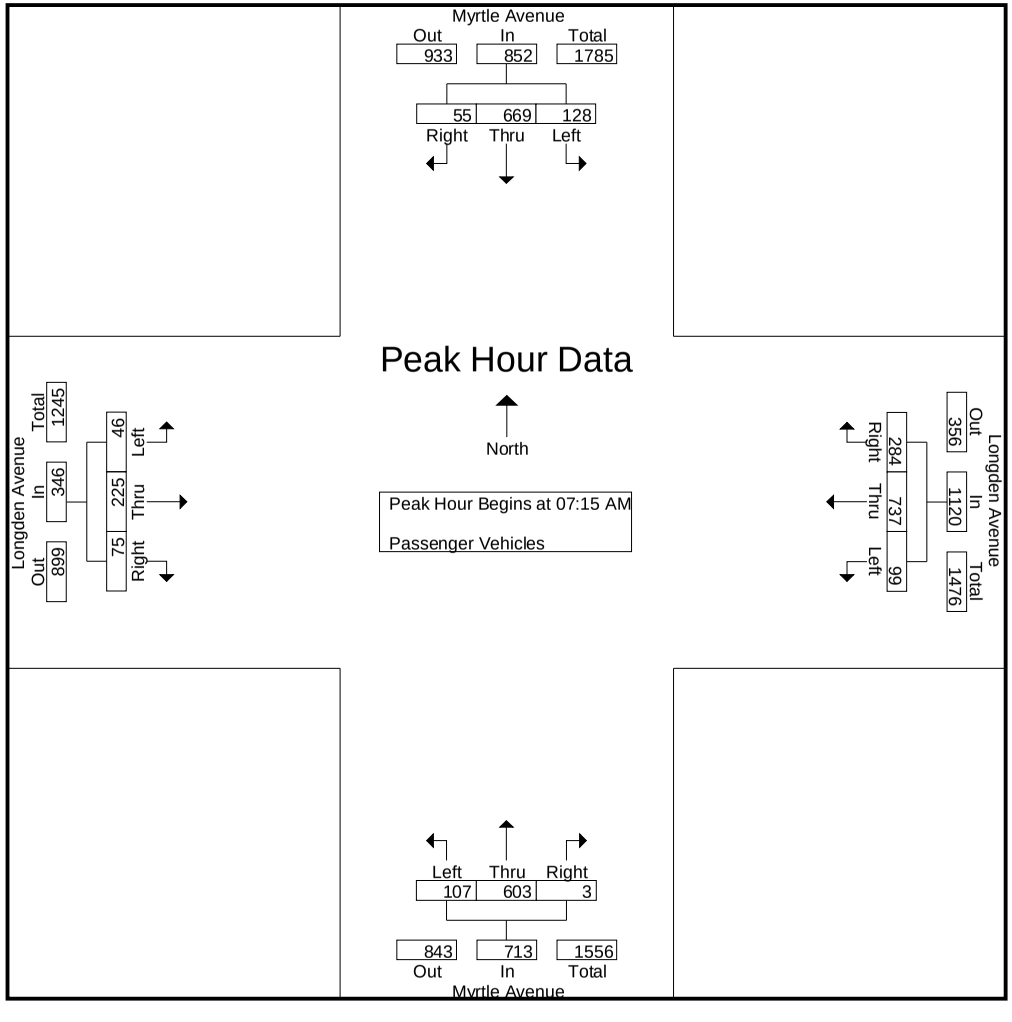
3.1-4

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**32**	172	4	208	15	176	57	248	17	137	**2**	156	9	49	11	69	681
07:30 AM	32	165	9	206	**32**	**206**	77	**315**	21	136	1	158	9	52	15	76	755
07:45 AM	32	**173**	**27**	**232**	21	170	67	258	**36**	**179**	0	**215**	7	48	18	73	778
08:00 AM	32	159	15	206	31	185	**83**	299	33	151	0	184	**21**	**76**	**31**	**128**	**817**
Total Volume	128	669	55	852	99	737	284	1120	107	603	3	713	46	225	75	346	3031
% App. Total	15	78.5	6.5		8.8	65.8	25.4		15	84.6	0.4		13.3	65	21.7		
PHF	1.00	.967	.509	.918	.773	.894	.855	.889	.743	.842	.375	.829	.548	.740	.605	.676	.927

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City of Irwindale
N/S: Myrtle Avenue
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Weather: Clear

File Name : 02_IRW_ My LD AM
Site Code : 05117783
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	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	**32**	172	4	208	15	176	57	248	17	137	**2**	156	9	49	11	69	
+15 mins.	32	165	9	206	**32**	**206**	77	**315**	21	136	1	158	9	52	15	76	
+30 mins.	32	**173**	**27**	**232**	21	170	67	258	**36**	**179**	0	**215**	7	48	18	73	
+45 mins.	32	159	15	206	31	185	**83**	299	33	151	0	184	**21**	**76**	**31**	**128**	
Total Volume	128	669	55	852	99	737	284	1120	107	603	3	713	46	225	75	346	
% App. Total	15	78.5	6.5		8.8	65.8	25.4		15	84.6	0.4		13.3	65	21.7		
PHF	1.000	.967	.509	.918	.773	.894	.855	.889	.743	.842	.375	.829	.548	.740	.605	.676	

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Groups Printed- Large 2 Axle Vehicles

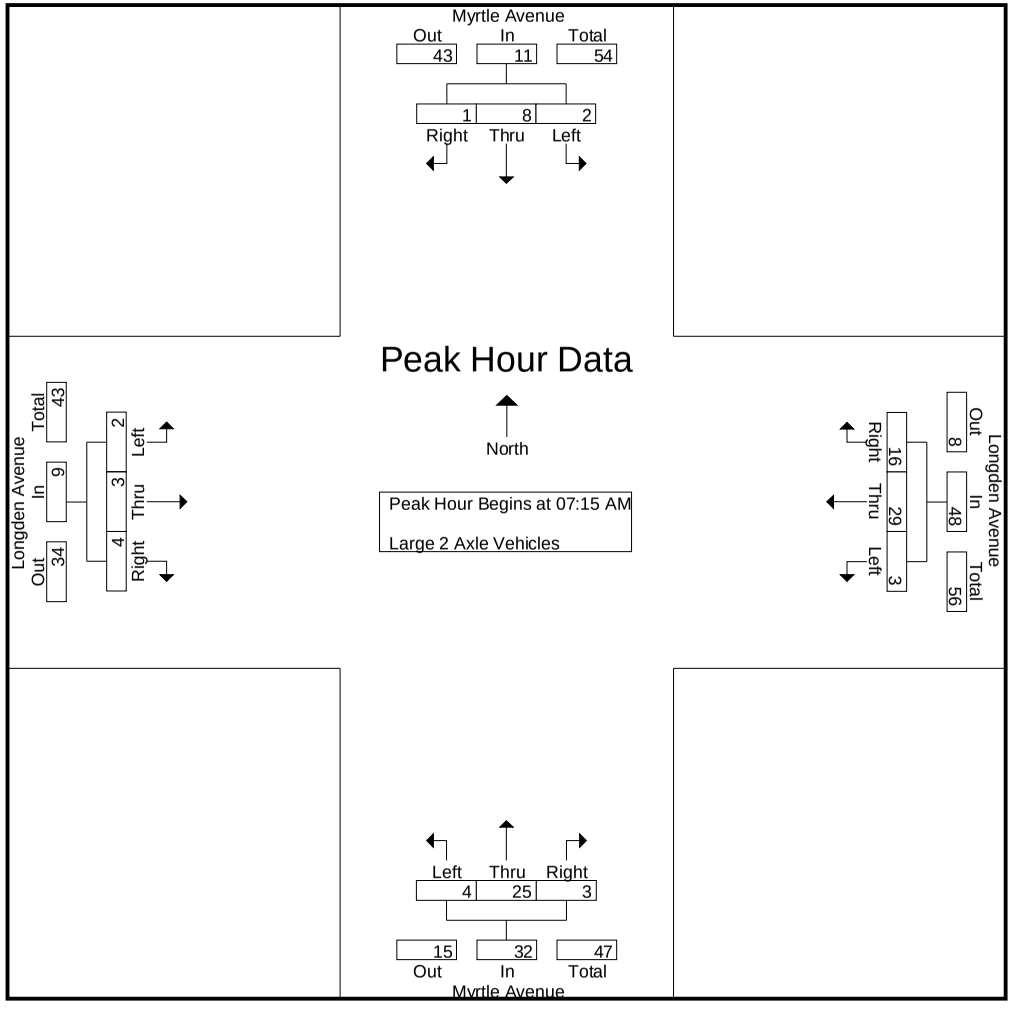
	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	5	2	0	8	0	11	5	1	16	3	2	2	2	7	1	2	2	2	5	5	36	41
07:15 AM	0	3	1	1	4	1	11	3	0	15	2	7	0	0	9	0	0	1	0	1	1	29	30
07:30 AM	0	1	0	0	1	1	12	4	0	17	0	5	1	1	6	1	1	0	0	2	1	26	27
07:45 AM	1	0	0	0	1	1	3	5	1	9	2	8	1	0	11	0	0	2	0	2	1	23	24
Total	2	9	3	1	14	3	37	17	2	57	7	22	4	3	33	2	3	5	2	10	8	114	122
08:00 AM	1	4	0	0	5	0	3	4	1	7	0	5	1	0	6	1	2	1	0	4	1	22	23
08:15 AM	3	1	0	0	4	0	1	6	0	7	1	6	0	0	7	0	4	0	0	4	0	22	22
08:30 AM	2	9	0	0	11	0	5	4	1	9	1	11	1	0	13	2	1	0	0	3	1	36	37
08:45 AM	1	8	1	0	10	1	1	5	1	7	0	5	1	1	6	1	4	1	1	6	3	29	32
Total	7	22	1	0	30	1	10	19	3	30	2	27	3	1	32	4	11	2	1	17	5	109	114
Grand Total	9	31	4	1	44	4	47	36	5	87	9	49	7	4	65	6	14	7	3	27	13	223	236
Apprch %	20.5	70.5	9.1			4.6	54	41.4			13.8	75.4	10.8			22.2	51.9	25.9					
Total %	4	13.9	1.8		19.7	1.8	21.1	16.1		39	4	22	3.1		29.1	2.7	6.3	3.1		12.1	5.5	94.5	

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	**1**	4	**1**	11	3	15	**2**	7	0	9	0	0	1	1	**29**
07:30 AM	0	1	0	1	1	**12**	4	**17**	0	5	**1**	6	**1**	1	0	2	26
07:45 AM	**1**	0	0	1	1	3	**5**	9	2	**8**	1	**11**	0	0	**2**	2	23
08:00 AM	1	**4**	0	**5**	0	3	4	7	0	5	1	6	1	**2**	1	**4**	22
Total Volume	2	8	1	11	3	29	16	48	4	25	3	32	2	3	4	9	100
% App. Total	18.2	72.7	9.1		6.2	60.4	33.3		12.5	78.1	9.4		22.2	33.3	44.4		
PHF	.500	.500	.250	.550	.750	.604	.800	.706	.500	.781	.750	.727	.500	.375	.500	.563	.862

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	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	3	**1**	4	**1**	11	3	15	**2**	7	0	9	0	0	1	1	
+15 mins.	0	1	0	1	1	**12**	4	**17**	0	5	**1**	6	**1**	1	0	2	
+30 mins.	**1**	0	0	1	1	3	**5**	9	2	**8**	1	**11**	0	0	**2**	2	
+45 mins.	1	**4**	0	**5**	0	3	4	7	0	5	1	6	1	**2**	1	**4**	
Total Volume	2	8	1	11	3	29	16	48	4	25	3	32	2	3	4	9	
% App. Total	18.2	72.7	9.1		6.2	60.4	33.3		12.5	78.1	9.4		22.2	33.3	44.4		
PHF	.500	.500	.250	.550	.750	.604	.800	.706	.500	.781	.750	.727	.500	.375	.500	.563	

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Groups Printed- 3 Axle Vehicles

	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	4	0	0	4	0	6	6
07:15 AM	1	0	0	0	1	1	0	2	1	3	0	1	0	0	1	0	2	0	0	2	1	7	8
07:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	3	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	3	0	3	1	6	0	1	0	0	1	0	7	0	0	7	1	16	17
08:00 AM	0	0	0	0	0	2	0	0	0	2	0	1	1	0	2	0	0	0	0	0	0	4	4
08:15 AM	0	0	0	0	0	3	1	0	0	4	0	0	1	1	1	0	0	0	0	0	1	5	6
08:30 AM	0	0	0	0	0	15	2	2	0	19	0	0	1	1	1	0	0	0	0	0	1	20	21
08:45 AM	1	0	0	0	1	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	5	5
Total	1	0	0	0	1	23	3	3	0	29	0	1	3	2	4	0	0	0	0	0	2	34	36
Grand Total	3	0	0	0	3	26	3	6	1	35	0	2	3	2	5	0	7	0	0	7	3	50	53
Apprch %	100	0	0			74.3	8.6	17.1			0	40	60			0	100	0					
Total %	6	0	0		6	52	6	12		70	0	4	6		10	0	14	0		14	5.7	94.3	

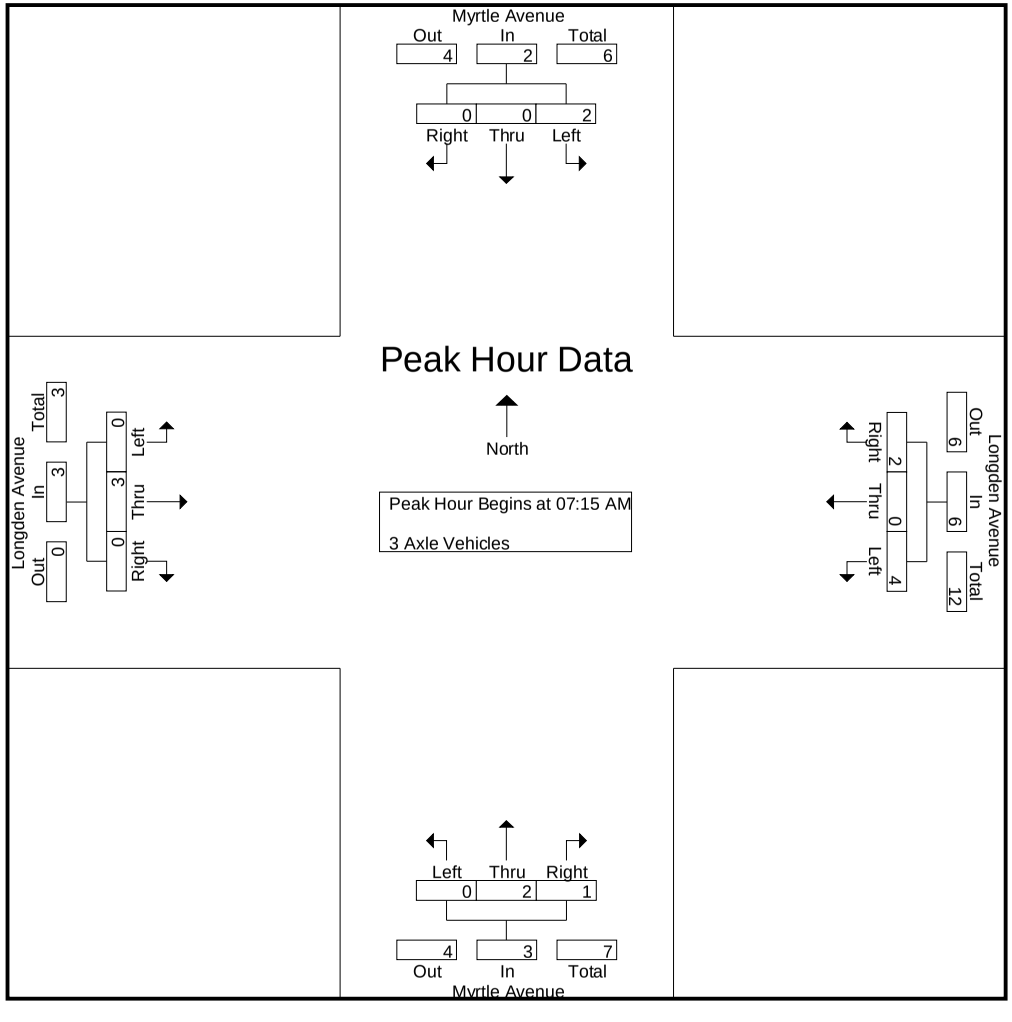
3.1-10

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	0	**1**	1	0	**2**	**3**	0	**1**	0	1	0	**2**	0	**2**	**7**
07:30 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	**2**	0	0	2	0	1	**1**	**2**	0	0	0	0	4
Total Volume	2	0	0	2	4	0	2	6	0	2	1	3	0	3	0	3	14
% App. Total	100	0	0		66.7	0	33.3		0	66.7	33.3		0	100	0		
PHF	.500	.000	.000	.500	.500	.000	.250	.500	.000	.500	.250	.375	.000	.375	.000	.375	.500

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City of Irwindale
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	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	**1**	0	0	**1**	1	0	**2**	**3**	0	**1**	0	1	0	**2**	0	**2**	
+15 mins.	1	0	0	1	1	0	0	1	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	**2**	0	0	2	0	1	**1**	**2**	0	0	0	0	
Total Volume	2	0	0	2	4	0	2	6	0	2	1	3	0	3	0	3	
% App. Total	100	0	0		66.7	0	33.3		0	66.7	33.3		0	100	0		
PHF	.500	.000	.000	.500	.500	.000	.250	.500	.000	.500	.250	.375	.000	.375	.000	.375	

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Groups Printed- 4+ Axle Trucks

	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	4	4
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	2	1	0	0	3	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	7	7
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
08:30 AM	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	0	0	4	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	0	7	7
Grand Total	3	4	0	0	7	2	0	4	0	6	0	0	0	0	0	0	1	0	0	1	0	14	14
Apprch %	42.9	57.1	0			33.3	0	66.7			0	0	0			0	100	0					
Total %	21.4	28.6	0		50	14.3	0	28.6		42.9	0	0	0		0	0	7.1	0		7.1	0	100	

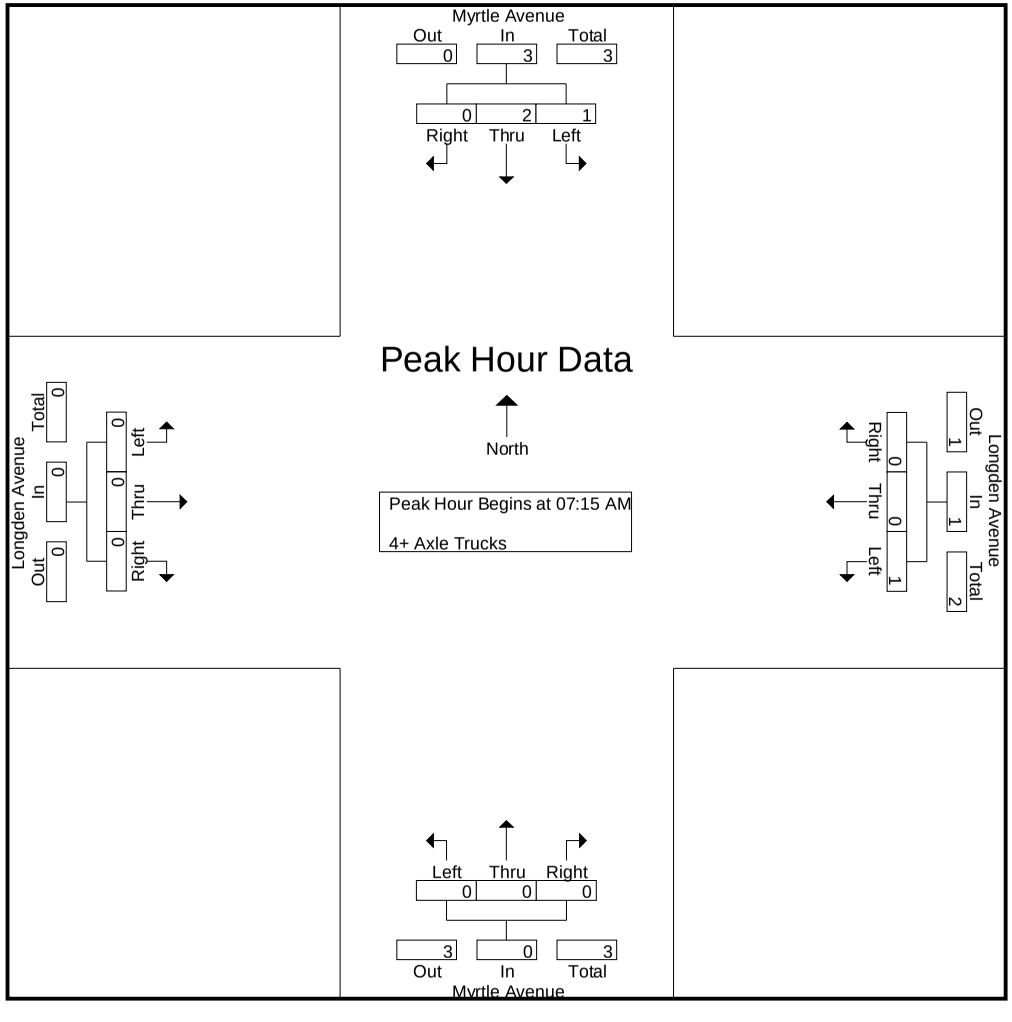
3.1-13

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
07:30 AM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1
07:45 AM	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	2	0	3	1	0	0	1	0	0	0	0	0	0	0	0	4
% App. Total	33.3	66.7	0		100	0	0		0	0	0		0	0	0		
PHF	.250	.500	.000	.750	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	1.00

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	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	
+30 mins.	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	1	2	0	3	1	0	0	1	0	0	0	0	0	0	0	0	
% App. Total	33.3	66.7	0		100	0	0		0	0	0		0	0	0		
PHF	.250	.500	.000	.750	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

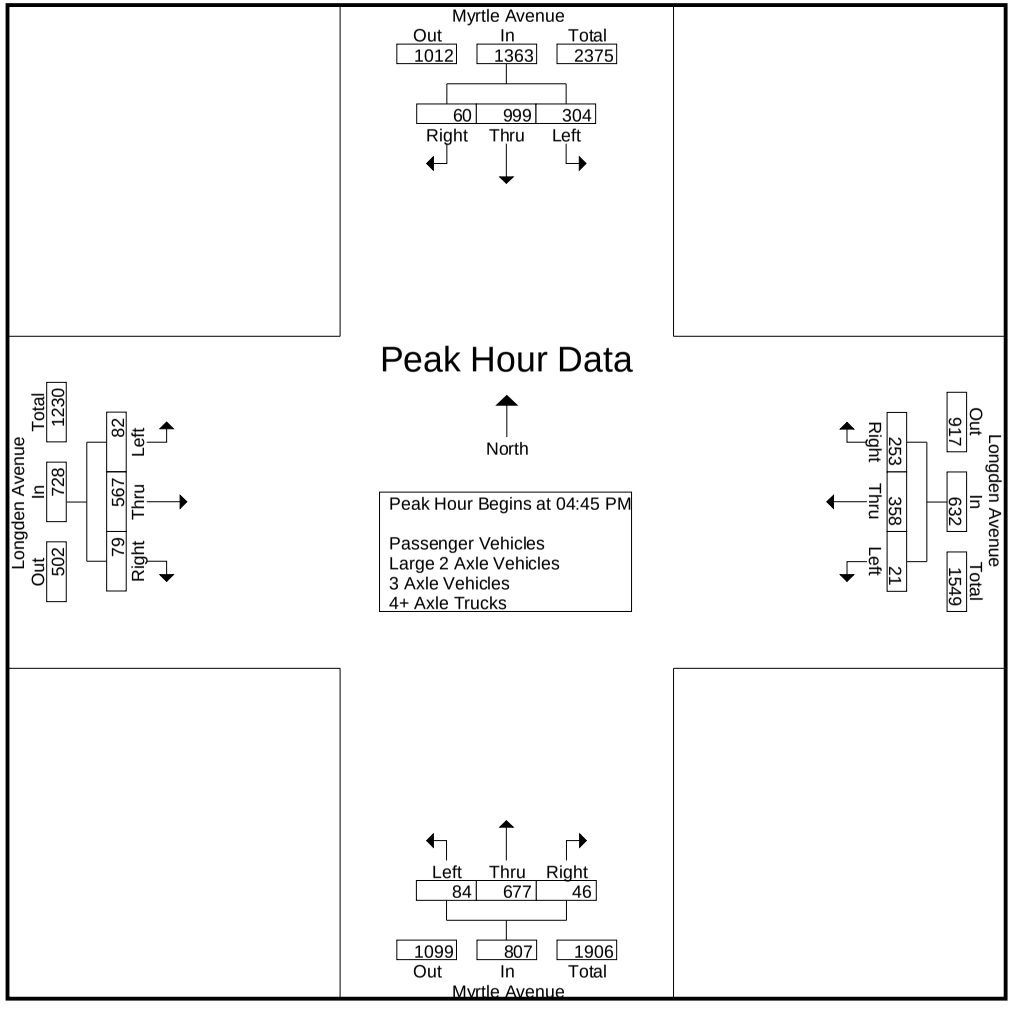
	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	77	170	17	7	264	8	71	60	10	139	15	154	10	4	179	27	127	14	7	168	28	750	778
04:15 PM	83	220	11	3	314	7	79	51	6	137	17	159	2	1	178	20	131	15	9	166	19	795	814
04:30 PM	75	198	9	2	282	6	86	65	20	157	17	160	4	3	181	14	144	16	7	174	32	794	826
04:45 PM	85	263	15	6	363	1	72	60	8	133	22	156	6	2	184	16	149	13	9	178	25	858	883
Total	320	851	52	18	1223	22	308	236	44	566	71	629	22	10	722	77	551	58	32	686	104	3197	3301
05:00 PM	57	264	11	2	332	6	89	67	10	162	20	178	19	8	217	15	144	22	10	181	30	892	922
05:15 PM	90	252	14	6	356	4	102	62	15	168	27	162	11	4	200	23	138	24	14	185	39	909	948
05:30 PM	72	220	20	11	312	10	95	64	17	169	15	181	10	1	206	28	136	20	11	184	40	871	911
05:45 PM	75	232	12	5	319	7	114	59	32	180	15	128	6	2	149	15	131	8	6	154	45	802	847
Total	294	968	57	24	1319	27	400	252	74	679	77	649	46	15	772	81	549	74	41	704	154	3474	3628
Grand Total	614	1819	109	42	2542	49	708	488	118	1245	148	1278	68	25	1494	158	1100	132	73	1390	258	6671	6929
Apprch %	24.2	71.6	4.3			3.9	56.9	39.2			9.9	85.5	4.6			11.4	79.1	9.5					
Total %	9.2	27.3	1.6		38.1	0.7	10.6	7.3		18.7	2.2	19.2	1		22.4	2.4	16.5	2		20.8	3.7	96.3	
Passenger Vehicles	593	1785	105		2524	46	698	468		1327	145	1252	57		1476	157	1064	130		1422	0	0	6749
% Passenger Vehicles	96.6	98.1	96.3	97.6	97.7	93.9	98.6	95.9	97.5	97.4	98	98	83.8	88	97.2	99.4	96.7	98.5	97.3	97.2	0	0	97.4
Large 2 Axle Vehicles	18	30	4		53	1	10	17		30	2	23	10		37	1	33	2		38	0	0	158
% Large 2 Axle Vehicles	2.9	1.6	3.7	2.4	2.1	2	1.4	3.5	1.7	2.2	1.4	1.8	14.7	8	2.4	0.6	3	1.5	2.7	2.6	0	0	2.3
3 Axle Vehicles	2	4	0		6	2	0	1		4	1	2	1		5	0	3	0		3	0	0	18
% 3 Axle Vehicles	0.3	0.2	0	0	0.2	4.1	0	0.2	0.8	0.3	0.7	0.2	1.5	4	0.3	0	0.3	0	0	0.2	0	0	0.3
4+ Axle Trucks	1	0	0		1	0	0	2		2	0	1	0		1	0	0	0		0	0	0	4
% 4+ Axle Trucks	0.2	0	0	0	0	0	0	0.4	0	0.1	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0.1

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	85	263	15	**363**	1	72	60	133	22	156	6	184	16	**149**	13	178	858
05:00 PM	57	**264**	11	332	6	89	**67**	162	20	178	**19**	**217**	15	144	22	181	892
05:15 PM	**90**	252	14	356	4	**102**	62	168	**27**	162	11	200	23	138	**24**	**185**	**909**
05:30 PM	72	220	**20**	312	**10**	95	64	**169**	15	**181**	10	206	**28**	136	20	184	871
Total Volume	304	999	60	1363	21	358	253	632	84	677	46	807	82	567	79	728	3530
% App. Total	22.3	73.3	4.4		3.3	56.6	40		10.4	83.9	5.7		11.3	77.9	10.9		
PHF	.844	.946	.750	.939	.525	.877	.944	.935	.778	.935	.605	.930	.732	.951	.823	.984	.971

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	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				04:45 PM				04:45 PM				
+0 mins.	85	263	15	**363**	6	89	**67**	162	22	156	6	184	16	**149**	13	178	
+15 mins.	57	**264**	11	332	4	102	62	168	20	178	**19**	**217**	15	144	22	181	
+30 mins.	**90**	252	14	356	**10**	95	64	169	**27**	162	11	200	23	138	**24**	**185**	
+45 mins.	72	220	**20**	312	7	**114**	59	**180**	15	**181**	10	206	**28**	136	20	184	
Total Volume	304	999	60	1363	27	400	252	679	84	677	46	807	82	567	79	728	
% App. Total	22.3	73.3	4.4		4	58.9	37.1		10.4	83.9	5.7		11.3	77.9	10.9		
PHF	.844	.946	.750	.939	.675	.877	.940	.943	.778	.935	.605	.930	.732	.951	.823	.984	

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Groups Printed- Passenger Vehicles

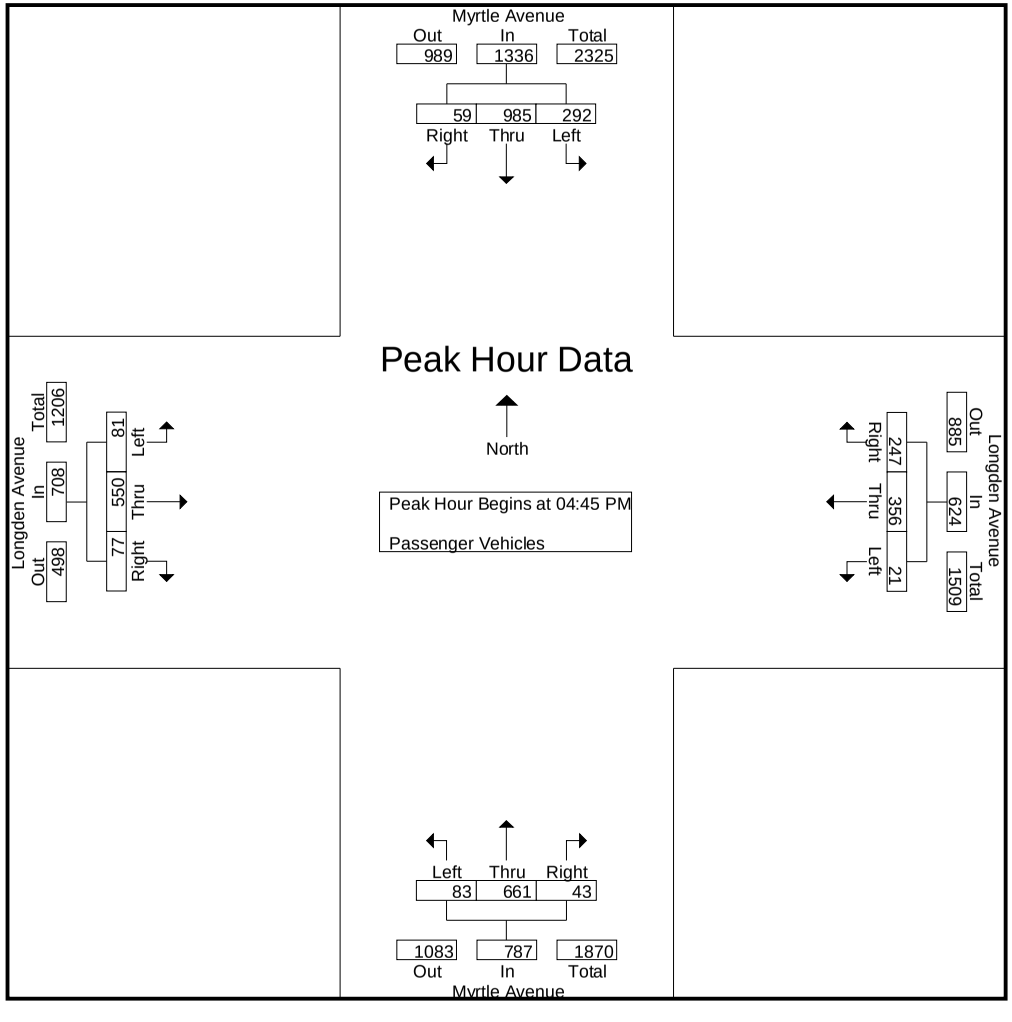
	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	74	169	17	7	260	8	69	54	10	131	13	153	4	2	170	27	123	14	7	164	26	725	751
04:15 PM	81	212	8	2	301	4	76	46	6	126	17	157	1	1	175	20	123	15	9	158	18	760	778
04:30 PM	73	197	9	2	279	6	84	64	20	154	17	155	3	2	175	14	137	16	7	167	31	775	806
04:45 PM	81	260	15	6	356	1	72	58	8	131	22	153	5	2	180	16	144	13	9	173	25	840	865
Total	309	838	49	17	1196	19	301	222	44	542	69	618	13	7	700	77	527	58	32	662	100	3100	3200
05:00 PM	52	258	11	2	321	6	89	66	10	161	20	174	17	8	211	15	137	21	9	173	29	866	895
05:15 PM	90	249	14	6	353	4	100	60	14	164	26	158	11	4	195	23	134	23	13	180	37	892	929
05:30 PM	69	218	19	11	306	10	95	63	17	168	15	176	10	1	201	27	135	20	11	182	40	857	897
05:45 PM	73	222	12	5	307	7	113	57	30	177	15	126	6	2	147	15	131	8	6	154	43	785	828
Total	284	947	56	24	1287	27	397	246	71	670	76	634	44	15	754	80	537	72	39	689	149	3400	3549
Grand Total	593	1785	105	41	2483	46	698	468	115	1212	145	1252	57	22	1454	157	1064	130	71	1351	249	6500	6749
Apprch %	23.9	71.9	4.2			3.8	57.6	38.6			10	86.1	3.9			11.6	78.8	9.6					
Total %	9.1	27.5	1.6		38.2	0.7	10.7	7.2		18.6	2.2	19.3	0.9		22.4	2.4	16.4	2		20.8	3.7	96.3	

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	81	**260**	15	**356**	1	72	58	131	22	153	5	180	16	**144**	13	173	840
05:00 PM	52	258	11	321	6	89	**66**	161	20	174	**17**	**211**	15	137	21	173	866
05:15 PM	**90**	249	14	353	4	**100**	60	164	**26**	158	11	195	23	134	**23**	180	**892**
05:30 PM	69	218	**19**	306	**10**	95	63	**168**	15	**176**	10	201	**27**	135	20	**182**	857
Total Volume	292	985	59	1336	21	356	247	624	83	661	43	787	81	550	77	708	3455
% App. Total	21.9	73.7	4.4		3.4	57.1	39.6		10.5	84	5.5		11.4	77.7	10.9		
PHF	.811	.947	.776	.938	.525	.890	.936	.929	.798	.939	.632	.932	.750	.955	.837	.973	.968

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	81	**260**	15	**356**	1	72	58	131	22	153	5	180	16	**144**	13	173	
+15 mins.	52	258	11	321	6	89	**66**	161	20	174	**17**	**211**	15	137	21	173	
+30 mins.	**90**	249	14	353	4	**100**	60	164	**26**	158	11	195	23	134	**23**	180	
+45 mins.	69	218	**19**	306	**10**	95	63	**168**	15	**176**	10	201	**27**	135	20	**182**	
Total Volume	292	985	59	1336	21	356	247	624	83	661	43	787	81	550	77	708	
% App. Total	21.9	73.7	4.4		3.4	57.1	39.6		10.5	84	5.5		11.4	77.7	10.9		
PHF	.811	.947	.776	.938	.525	.890	.936	.929	.798	.939	.632	.932	.750	.955	.837	.973	

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	1	0	0	4	0	2	5	0	7	1	1	5	1	7	0	3	0	0	3	1	21	22
04:15 PM	2	8	3	1	13	1	3	5	0	9	0	2	1	0	3	0	8	0	0	8	1	33	34
04:30 PM	2	1	0	0	3	0	2	1	0	3	0	5	1	1	6	0	5	0	0	5	1	17	18
04:45 PM	4	1	0	0	5	0	0	2	0	2	0	3	1	0	4	0	5	0	0	5	0	16	16
Total	11	11	3	1	25	1	7	13	0	21	1	11	8	2	20	0	21	0	0	21	3	87	90
05:00 PM	2	6	0	0	8	0	0	0	0	0	0	2	2	0	4	0	7	1	1	8	1	20	21
05:15 PM	0	2	0	0	2	0	2	1	0	3	1	4	0	0	5	0	4	1	1	5	1	15	16
05:30 PM	3	2	1	0	6	0	0	1	0	1	0	4	0	0	4	1	1	0	0	2	0	13	13
05:45 PM	2	9	0	0	11	0	1	2	2	3	0	2	0	0	2	0	0	0	0	0	2	16	18
Total	7	19	1	0	27	0	3	4	2	7	1	12	2	0	15	1	12	2	2	15	4	64	68
Grand Total	18	30	4	1	52	1	10	17	2	28	2	23	10	2	35	1	33	2	2	36	7	151	158
Apprch %	34.6	57.7	7.7			3.6	35.7	60.7			5.7	65.7	28.6			2.8	91.7	5.6					
Total %	11.9	19.9	2.6		34.4	0.7	6.6	11.3		18.5	1.3	15.2	6.6		23.2	0.7	21.9	1.3		23.8	4.4	95.6	

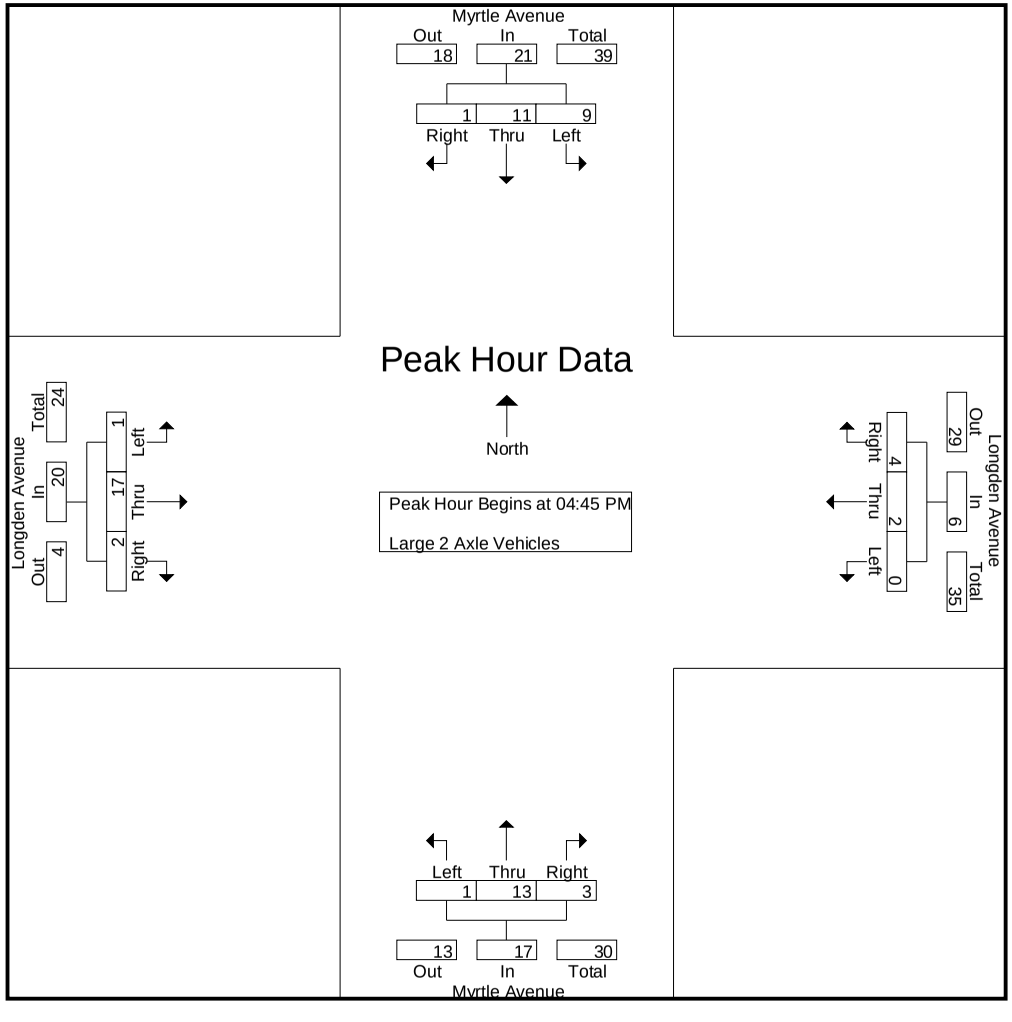
3.1-22

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	1	0	5	0	0	**2**	2	0	3	1	4	0	5	0	5	16
05:00 PM	2	**6**	0	**8**	0	0	0	0	0	2	**2**	4	0	**7**	**1**	**8**	**20**
05:15 PM	0	2	0	2	0	**2**	1	**3**	**1**	**4**	0	**5**	0	4	1	5	15
05:30 PM	3	2	**1**	6	0	0	1	1	0	4	0	4	**1**	1	0	2	13
Total Volume	9	11	1	21	0	2	4	6	1	13	3	17	1	17	2	20	64
% App. Total	42.9	52.4	4.8		0	33.3	66.7		5.9	76.5	17.6		5	85	10		
PHF	.563	.458	.250	.656	.000	.250	.500	.500	.250	.813	.375	.850	.250	.607	.500	.625	.800

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**4**	1	0	5	0	0	**2**	2	0	3	1	4	0	5	0	5	
+15 mins.	2	**6**	0	**8**	0	0	0	0	0	2	**2**	4	0	**7**	**1**	**8**	
+30 mins.	0	2	0	2	0	**2**	1	**3**	**1**	**4**	0	**5**	0	4	1	5	
+45 mins.	3	2	**1**	6	0	0	1	1	0	4	0	4	**1**	1	0	2	
Total Volume	9	11	1	21	0	2	4	6	1	13	3	17	1	17	2	20	
% App. Total	42.9	52.4	4.8		0	33.3	66.7		5.9	76.5	17.6		5	85	10		
PHF	.563	.458	.250	.656	.000	.250	.500	.500	.250	.813	.375	.850	.250	.607	.500	.625	

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	1	0	0	1	1	3	4
04:15 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	2	0	0	2	2	0	0	0	2	1	0	1	1	2	0	3	0	0	3	1	9	10
05:00 PM	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	3
05:15 PM	0	1	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	2	2	0	0	4	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	1	7	8
Grand Total	2	4	0	0	6	2	0	1	1	3	1	2	1	1	4	0	3	0	0	3	2	16	18
Apprch %	33.3	66.7	0			66.7	0	33.3			25	50	25			0	100	0					
Total %	12.5	25	0		37.5	12.5	0	6.2		18.8	6.2	12.5	6.2		25	0	18.8	0		18.8	11.1	88.9	

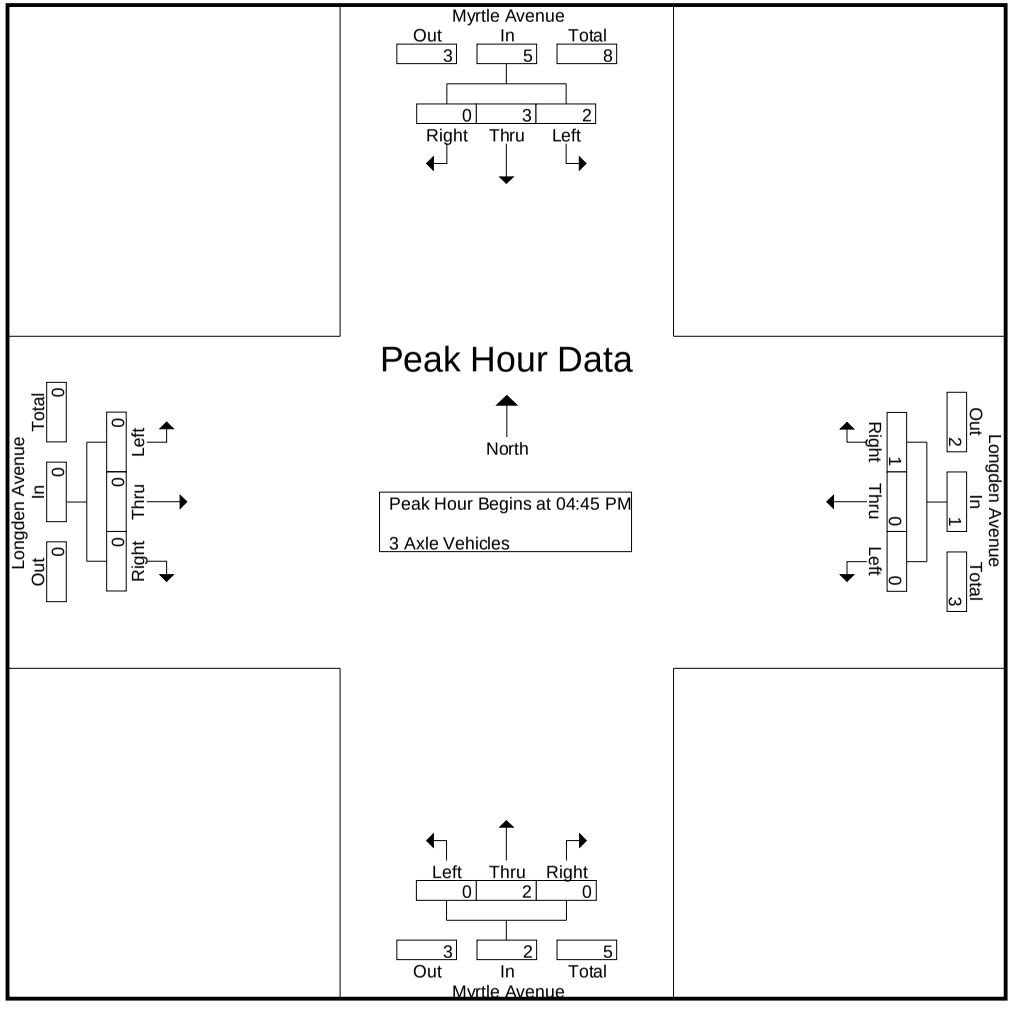
3.1-25

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	**2**	0	0	2	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**3**
05:15 PM	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	2	3	0	5	0	0	1	1	0	2	0	2	0	0	0	0	8
% App. Total	40	60	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.375	.000	.625	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.667

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	**2**	0	0	2	0	0	0	0	0	**1**	0	**1**	0	0	0	0	
+30 mins.	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
Total Volume	2	3	0	5	0	0	1	1	0	2	0	2	0	0	0	0	
% App. Total	40	60	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.375	.000	.625	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
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Page No : 1

Groups Printed- 4+ Axle Trucks

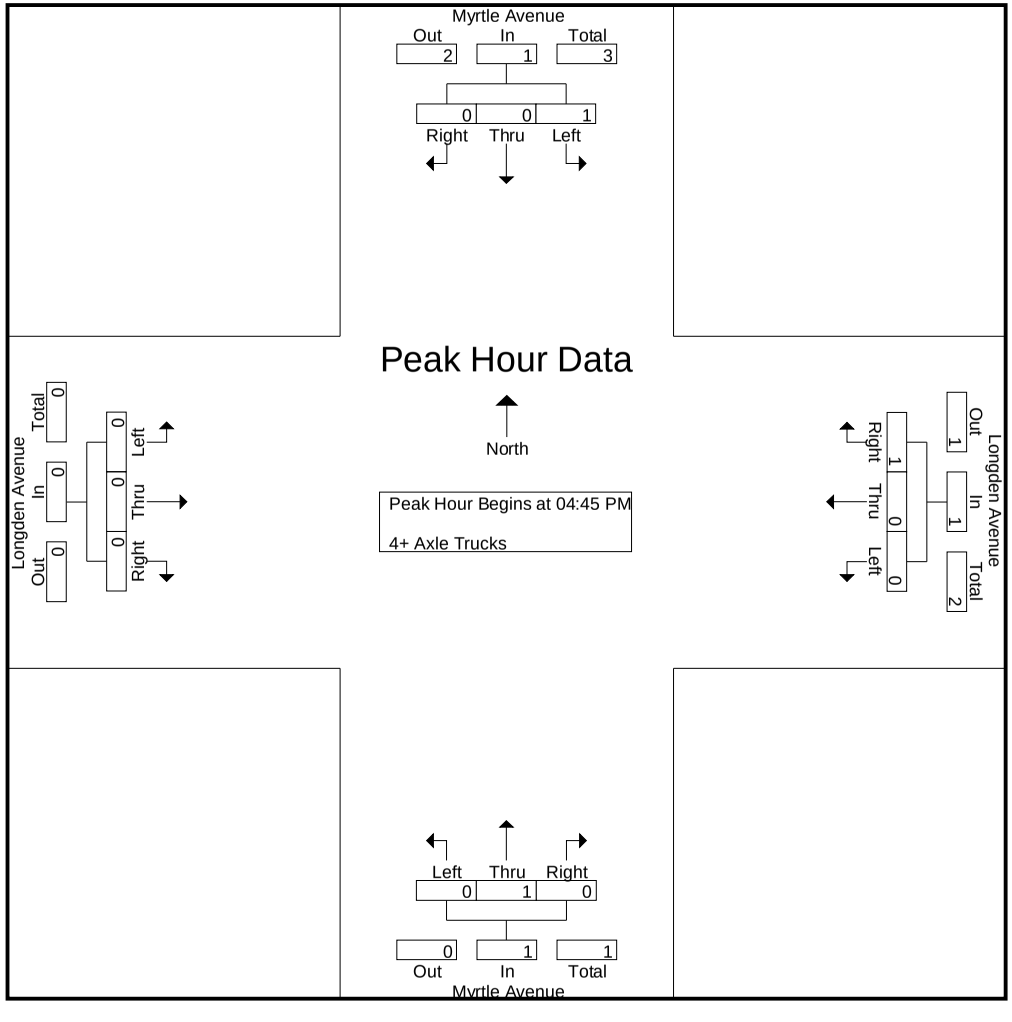
	Myrtle Avenue Southbound					Longden Avenue Westbound					Myrtle Avenue Northbound					Longden Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	3	3
Grand Total	1	0	0	0	1	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	4	4
Apprch %	100	0	0			0	0	100			0	100	0			0	0	0					
Total %	25	0	0		25	0	0	50		50	0	25	0		25	0	0	0		0	0	100	

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	**1**	0	0	**1**	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	**3**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
% App. Total	100	0	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.250

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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue
Weather: Clear

File Name : 02_IRW_ My LD PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Longden Avenue Westbound				Myrtle Avenue Northbound				Longden Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	**1**	0	0	**1**	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	
% App. Total	100	0	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	

Location: Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Myrtle Avenue	East Leg Longden Avenue	South Leg Myrtle Avenue	West Leg Longden Avenue	TOTAL
7:00 AM	1	0	2	3	6
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	3	0	3
8:15 AM	0	0	2	0	2
8:30 AM	0	0	0	1	1
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	1	0	7	5	13

	North Leg Myrtle Avenue	East Leg Longden Avenue	South Leg Myrtle Avenue	West Leg Longden Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	1	2	3
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	1	2
5:00 PM	0	0	0	2	2
5:15 PM	0	0	1	1	2
5:30 PM	0	0	1	2	3
5:45 PM	0	0	1	1	2
TOTAL VOLUMES:	0	0	6	9	15

Location: Irwindale
N/S: Myrtle Avenue
E/W: Longden Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Myrtle Avenue	East Leg Longden Avenue	South Leg Myrtle Avenue	West Leg Longden Avenue	TOTAL
7:00 AM	0	1	1	2	4
7:15 AM	0	0	1	0	1
7:30 AM	0	0	1	1	2
7:45 AM	0	0	0	1	1
8:00 AM	0	0	4	0	4
8:15 AM	0	1	0	0	1
8:30 AM	1	0	0	1	2
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	1	2	7	6	16

	North Leg Myrtle Avenue	East Leg Longden Avenue	South Leg Myrtle Avenue	West Leg Longden Avenue	TOTAL
4:00 PM	1	1	0	1	3
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	1	0	0	0	1
5:00 PM	0	0	1	1	2
5:15 PM	1	0	1	1	3
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	3	2	2	5	12

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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

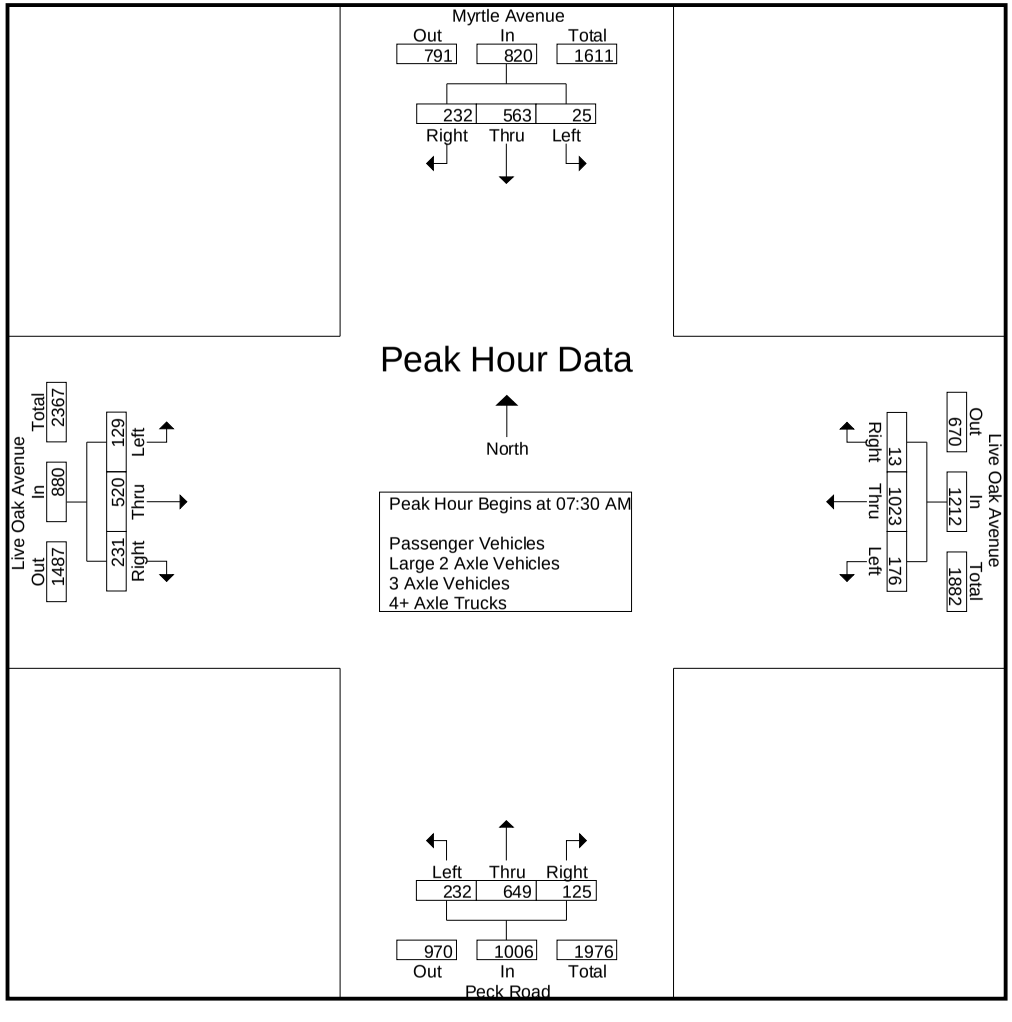
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	13	102	25	10	140	35	304	10	6	349	31	106	21	10	158	9	82	16	0	107	26	754	780
07:15 AM	4	128	45	15	177	19	286	5	0	310	43	128	20	10	191	22	110	38	1	170	26	848	874
07:30 AM	4	150	79	15	233	35	274	5	3	314	74	171	24	10	269	22	125	50	0	197	28	1013	1041
07:45 AM	6	116	65	28	187	39	276	4	0	319	58	176	37	12	271	40	130	44	0	214	40	991	1031
Total	27	496	214	68	737	128	1140	24	9	1292	206	581	102	42	889	93	447	148	1	688	120	3606	3726
08:00 AM	8	157	43	7	208	53	265	2	0	320	58	165	34	9	257	37	114	63	2	214	18	999	1017
08:15 AM	7	140	45	15	192	49	208	2	1	259	42	137	30	11	209	30	151	74	0	255	27	915	942
08:30 AM	11	135	30	10	176	23	168	2	1	193	32	89	22	5	143	23	105	45	0	173	16	685	701
08:45 AM	10	97	19	10	126	35	174	3	2	212	30	112	20	8	162	23	150	37	0	210	20	710	730
Total	36	529	137	42	702	160	815	9	4	984	162	503	106	33	771	113	520	219	2	852	81	3309	3390
Grand Total	63	1025	351	110	1439	288	1955	33	13	2276	368	1084	208	75	1660	206	967	367	3	1540	201	6915	7116
Apprch %	4.4	71.2	24.4			12.7	85.9	1.4			22.2	65.3	12.5			13.4	62.8	23.8					
Total %	0.9	14.8	5.1		20.8	4.2	28.3	0.5		32.9	5.3	15.7	3		24	3	14	5.3		22.3	2.8	97.2	
Passenger Vehicles	51	980	345		1484	268	1849	28		2157	347	1046	157		1601	192	929	344		1468	0	0	6710
% Passenger Vehicles	81	95.6	98.3	98.2	95.8	93.1	94.6	84.8	92.3	94.2	94.3	96.5	75.5	68	92.3	93.2	96.1	93.7	100	95.1	0	0	94.3
Large 2 Axle Vehicles	10	19	2		32	13	50	4		68	19	36	19		79	11	25	19		55	0	0	234
% Large 2 Axle Vehicles	15.9	1.9	0.6	0.9	2.1	4.5	2.6	12.1	7.7	3	5.2	3.3	9.1	6.7	4.6	5.3	2.6	5.2	0	3.6	0	0	3.3
3 Axle Vehicles	1	23	3		28	6	41	1		48	1	2	30		51	3	11	2		16	0	0	143
% 3 Axle Vehicles	1.6	2.2	0.9	0.9	1.8	2.1	2.1	3	0	2.1	0.3	0.2	14.4	24	2.9	1.5	1.1	0.5	0	1	0	0	2
4+ Axle Trucks	1	3	1		5	1	15	0		16	1	0	2		4	0	2	2		4	0	0	29
% 4+ Axle Trucks	1.6	0.3	0.3	0	0.3	0.3	0.8	0	0	0.7	0.3	0	1	1.3	0.2	0	0.2	0.5	0	0.3	0	0	0.4

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	150	**79**	**233**	35	274	**5**	314	**74**	171	24	269	22	125	50	197	**1013**
07:45 AM	6	116	65	187	39	**276**	4	319	58	**176**	**37**	**271**	**40**	130	44	214	991
08:00 AM	**8**	**157**	43	208	**53**	265	2	**320**	58	165	34	257	37	114	63	214	999
08:15 AM	7	140	45	192	49	208	2	259	42	137	30	209	30	**151**	**74**	**255**	915
Total Volume	25	563	232	820	176	1023	13	1212	232	649	125	1006	129	520	231	880	3918
% App. Total	3	68.7	28.3		14.5	84.4	1.1		23.1	64.5	12.4		14.7	59.1	26.2		
PHF	.781	.896	.734	.880	.830	.927	.650	.947	.784	.922	.845	.928	.806	.861	.780	.863	.967

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File Name : 01_IRW_ My Lo AM
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City of Irwindale
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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:00 AM				07:30 AM				07:30 AM				
+0 mins.	4	150	**79**	**233**	35	**304**	**10**	**349**	**74**	171	24	269	22	125	50	197	
+15 mins.	6	116	65	187	19	286	5	310	58	**176**	**37**	**271**	**40**	130	44	214	
+30 mins.	**8**	**157**	43	208	35	274	5	314	58	165	34	257	37	114	63	214	
+45 mins.	7	140	45	192	**39**	276	4	319	42	137	30	209	30	**151**	**74**	**255**	
Total Volume	25	563	232	820	128	1140	24	1292	232	649	125	1006	129	520	231	880	
% App. Total	3	68.7	28.3		9.9	88.2	1.9		23.1	64.5	12.4		14.7	59.1	26.2		
PHF	.781	.896	.734	.880	.821	.938	.600	.926	.784	.922	.845	.928	.806	.861	.780	.863	

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City of Irwindale
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Groups Printed- Passenger Vehicles

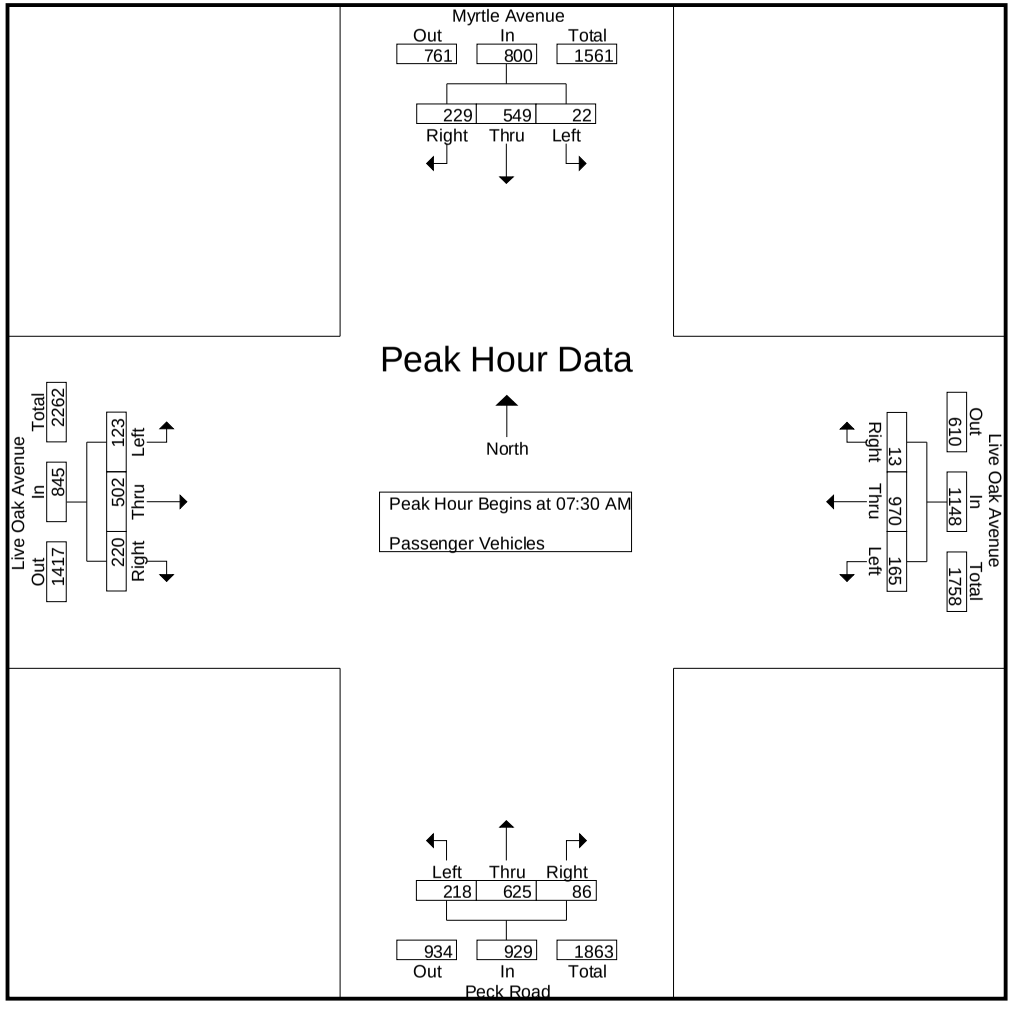
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	13	99	23	9	135	33	292	6	5	331	30	105	18	9	153	7	80	15	0	102	23	721	744
07:15 AM	3	125	44	14	172	17	267	4	0	288	40	124	18	10	182	21	107	37	1	165	25	807	832
07:30 AM	3	148	78	15	229	33	259	5	3	297	72	164	20	8	256	22	123	50	0	195	26	977	1003
07:45 AM	6	114	64	28	184	35	259	4	0	298	56	171	30	8	257	38	126	40	0	204	36	943	979
Total	25	486	209	66	720	118	1077	19	8	1214	198	564	86	35	848	88	436	142	1	666	110	3448	3558
08:00 AM	7	152	42	7	201	51	254	2	0	307	51	156	22	2	229	36	112	60	2	208	11	945	956
08:15 AM	6	135	45	15	186	46	198	2	1	246	39	134	14	3	187	27	141	70	0	238	19	857	876
08:30 AM	7	116	30	10	153	22	158	2	1	182	30	84	15	3	129	20	101	39	0	160	14	624	638
08:45 AM	6	91	19	10	116	31	162	3	2	196	29	108	20	8	157	21	139	33	0	193	20	662	682
Total	26	494	136	42	656	150	772	9	4	931	149	482	71	16	702	104	493	202	2	799	64	3088	3152
Grand Total	51	980	345	108	1376	268	1849	28	12	2145	347	1046	157	51	1550	192	929	344	3	1465	174	6536	6710
Apprch %	3.7	71.2	25.1			12.5	86.2	1.3			22.4	67.5	10.1			13.1	63.4	23.5					
Total %	0.8	15	5.3		21.1	4.1	28.3	0.4		32.8	5.3	16	2.4		23.7	2.9	14.2	5.3		22.4	2.6	97.4	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	148	**78**	**229**	33	**259**	**5**	297	**72**	164	20	256	22	123	50	195	**977**
07:45 AM	6	114	64	184	35	259	4	298	56	**171**	**30**	**257**	**38**	126	40	204	943
08:00 AM	**7**	**152**	42	201	**51**	254	2	**307**	51	156	22	229	36	112	60	208	945
08:15 AM	6	135	45	186	46	198	2	246	39	134	14	187	27	**141**	**70**	**238**	857
Total Volume	22	549	229	800	165	970	13	1148	218	625	86	929	123	502	220	845	3722
% App. Total	2.8	68.6	28.6		14.4	84.5	1.1		23.5	67.3	9.3		14.6	59.4	26		
PHF	.786	.903	.734	.873	.809	.936	.650	.935	.757	.914	.717	.904	.809	.890	.786	.888	.952

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City of Irwindale
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City of Irwindale
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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	3	148	**78**	**229**	33	**259**	**5**	297	**72**	164	20	256	22	123	50	195	
+15 mins.	6	114	64	184	35	259	4	298	56	**171**	**30**	**257**	**38**	126	40	204	
+30 mins.	**7**	**152**	42	201	**51**	254	2	**307**	51	156	22	229	36	112	60	208	
+45 mins.	6	135	45	186	46	198	2	246	39	134	14	187	27	**141**	**70**	**238**	
Total Volume	22	549	229	800	165	970	13	1148	218	625	86	929	123	502	220	845	
% App. Total	2.8	68.6	28.6		14.4	84.5	1.1		23.5	67.3	9.3		14.6	59.4	26		
PHF	.786	.903	.734	.873	.809	.936	.650	.935	.757	.914	.717	.904	.809	.890	.786	.888	

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Groups Printed- Large 2 Axle Vehicles

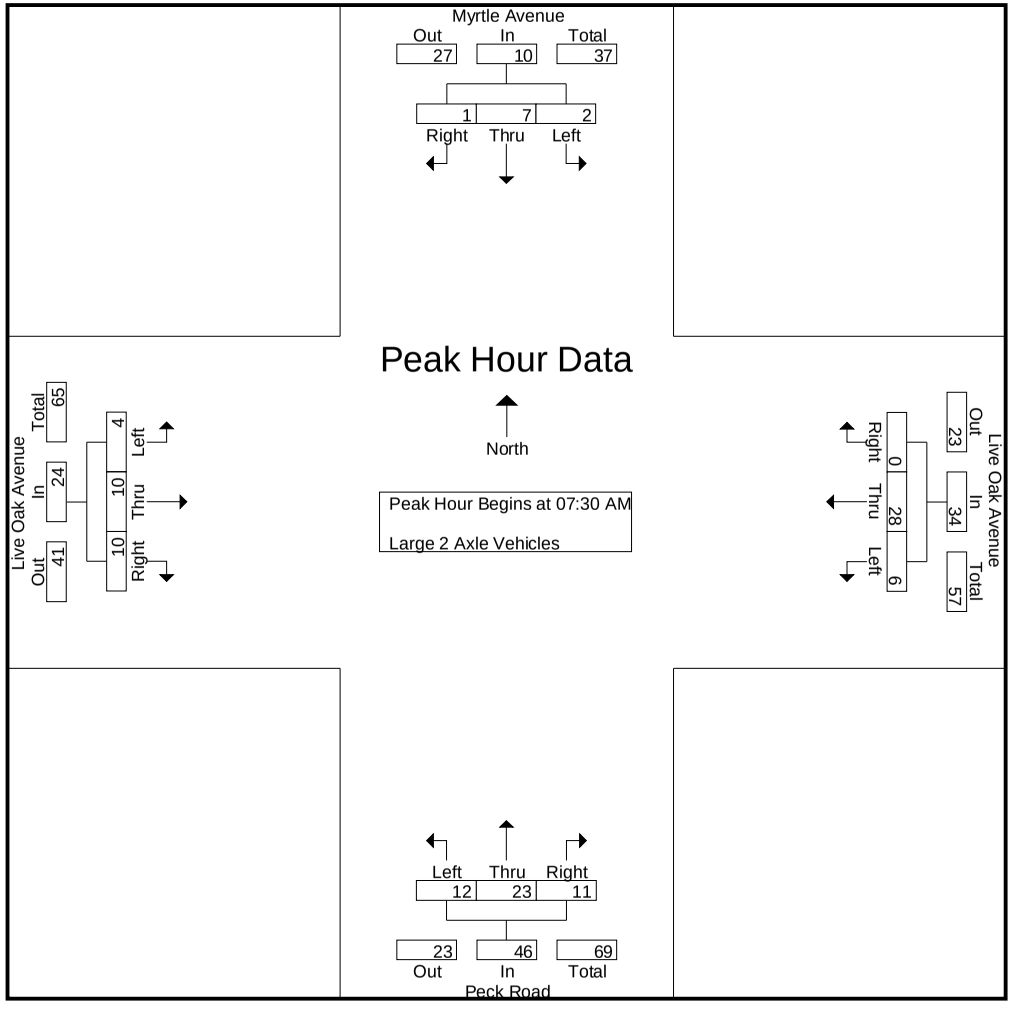
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	1	1	4	1	3	3	1	7	1	1	2	0	4	2	2	1	0	5	2	20	22
07:15 AM	1	2	0	0	3	2	10	1	0	13	3	3	2	0	8	1	3	1	0	5	0	29	29
07:30 AM	1	2	0	0	3	1	7	0	0	8	2	7	3	2	12	0	1	0	0	1	2	24	26
07:45 AM	0	2	1	0	3	3	11	0	0	14	2	5	4	3	11	2	3	3	0	8	3	36	39
Total	2	9	2	1	13	7	31	4	1	42	8	16	11	5	35	5	9	5	0	19	7	109	116
08:00 AM	1	2	0	0	3	0	6	0	0	6	5	8	1	0	14	0	1	3	0	4	0	27	27
08:15 AM	0	1	0	0	1	2	4	0	0	6	3	3	3	0	9	2	5	4	0	11	0	27	27
08:30 AM	3	4	0	0	7	1	4	0	0	5	2	5	4	0	11	2	3	3	0	8	0	31	31
08:45 AM	4	3	0	0	7	3	5	0	0	8	1	4	0	0	5	2	7	4	0	13	0	33	33
Total	8	10	0	0	18	6	19	0	0	25	11	20	8	0	39	6	16	14	0	36	0	118	118
Grand Total	10	19	2	1	31	13	50	4	1	67	19	36	19	5	74	11	25	19	0	55	7	227	234
Apprch %	32.3	61.3	6.5			19.4	74.6	6			25.7	48.6	25.7			20	45.5	34.5					
Total %	4.4	8.4	0.9		13.7	5.7	22	1.8		29.5	8.4	15.9	8.4		32.6	4.8	11	8.4		24.2	3	97	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	**2**	0	**3**	1	7	0	8	2	7	3	12	0	1	0	1	24
07:45 AM	0	2	**1**	3	**3**	**11**	0	**14**	2	5	**4**	11	**2**	3	3	8	**36**
08:00 AM	1	2	0	3	0	6	0	6	**5**	**8**	1	**14**	0	1	3	4	27
08:15 AM	0	1	0	1	2	4	0	6	3	3	3	9	2	**5**	**4**	**11**	27
Total Volume	2	7	1	10	6	28	0	34	12	23	11	46	4	10	10	24	114
% App. Total	20	70	10		17.6	82.4	0		26.1	50	23.9		16.7	41.7	41.7		
PHF	.500	.875	.250	.833	.500	.636	.000	.607	.600	.719	.688	.821	.500	.500	.625	.545	.792

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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	**1**	**2**	0	**3**	1	7	0	8	2	7	3	12	0	1	0	1	
+15 mins.	0	2	**1**	3	**3**	**11**	0	**14**	2	5	**4**	11	**2**	3	3	8	
+30 mins.	1	2	0	3	0	6	0	6	**5**	**8**	1	**14**	0	1	3	4	
+45 mins.	0	1	0	1	2	4	0	6	3	3	3	9	2	**5**	**4**	**11**	
Total Volume	2	7	1	10	6	28	0	34	12	23	11	46	4	10	10	24	
% App. Total	20	70	10		17.6	82.4	0		26.1	50	23.9		16.7	41.7	41.7		
PHF	.500	.875	.250	.833	.500	.636	.000	.607	.600	.719	.688	.821	.500	.500	.625	.545	

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Groups Printed- 3 Axle Vehicles

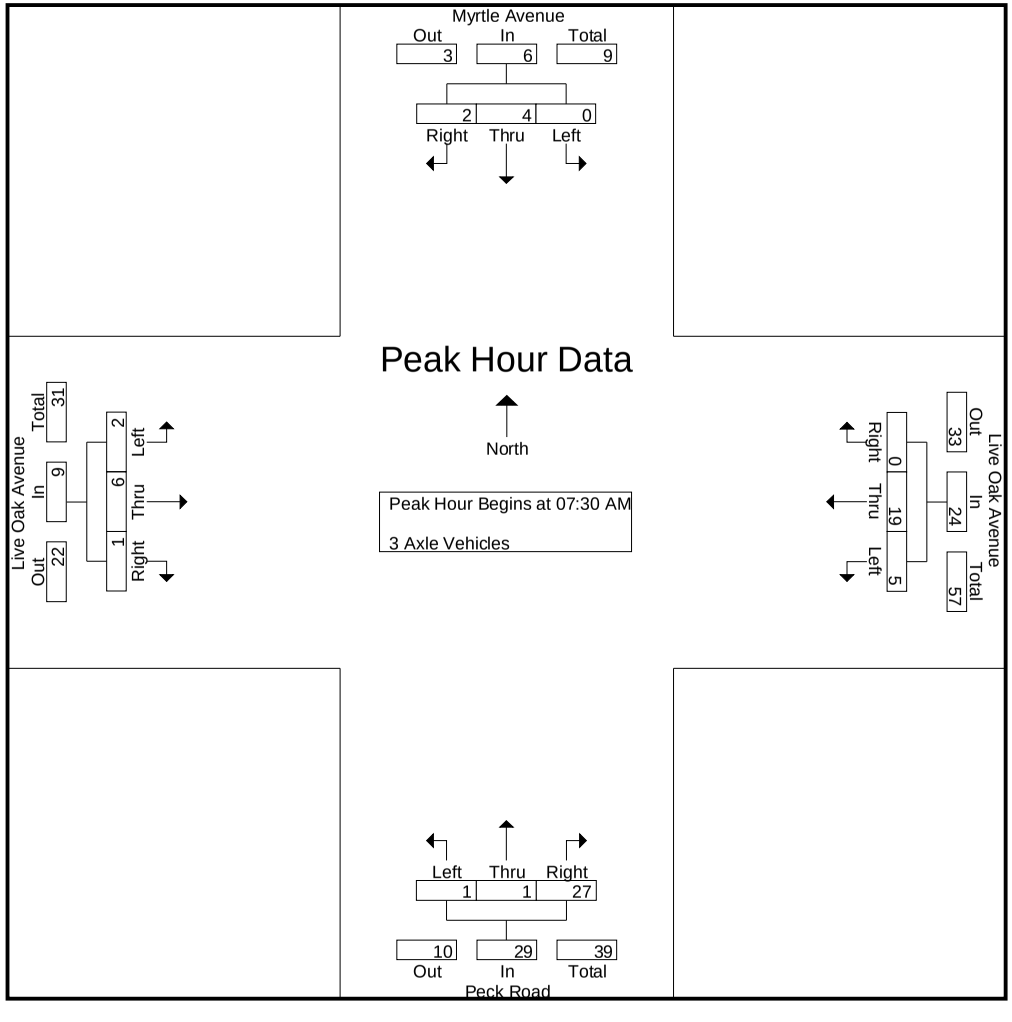
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	0	0	0	0	0	0	10	10
07:15 AM	0	1	1	1	2	0	7	0	0	7	0	1	0	0	1	0	0	0	0	0	1	10	11
07:30 AM	0	0	1	0	1	1	5	0	0	6	0	0	1	0	1	0	0	0	0	0	0	8	8
07:45 AM	0	0	0	0	0	1	4	0	0	5	0	0	2	1	2	0	1	1	0	2	1	9	10
Total	0	1	2	1	3	2	25	1	0	28	0	1	3	1	4	0	1	1	0	2	2	37	39
08:00 AM	0	1	1	0	2	2	4	0	0	6	1	1	11	7	13	1	1	0	0	2	7	23	30
08:15 AM	0	3	0	0	3	1	6	0	0	7	0	0	13	8	13	1	4	0	0	5	8	28	36
08:30 AM	1	15	0	0	16	0	3	0	0	3	0	0	3	2	3	1	1	1	0	3	2	25	27
08:45 AM	0	3	0	0	3	1	3	0	0	4	0	0	0	0	0	0	4	0	0	4	0	11	11
Total	1	22	1	0	24	4	16	0	0	20	1	1	27	17	29	3	10	1	0	14	17	87	104
Grand Total	1	23	3	1	27	6	41	1	0	48	1	2	30	18	33	3	11	2	0	16	19	124	143
Apprch %	3.7	85.2	11.1			12.5	85.4	2.1			3	6.1	90.9			18.8	68.8	12.5					
Total %	0.8	18.5	2.4		21.8	4.8	33.1	0.8		38.7	0.8	1.6	24.2		26.6	2.4	8.9	1.6		12.9	13.3	86.7	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	**1**	1	1	5	0	6	0	0	1	1	0	0	0	0	8
07:45 AM	0	0	0	0	1	4	0	5	0	0	2	2	0	1	**1**	2	9
08:00 AM	0	1	1	2	**2**	4	0	6	**1**	**1**	11	**13**	**1**	1	0	2	23
08:15 AM	0	**3**	0	**3**	1	**6**	0	**7**	0	0	**13**	13	1	**4**	0	**5**	**28**
Total Volume	0	4	2	6	5	19	0	24	1	1	27	29	2	6	1	9	68
% App. Total	0	66.7	33.3		20.8	79.2	0		3.4	3.4	93.1		22.2	66.7	11.1		
PHF	.000	.333	.500	.500	.625	.792	.000	.857	.250	.250	.519	.558	.500	.375	.250	.450	.607

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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	0	**1**	1	1	5	0	6	0	0	1	1	0	0	0	0	
+15 mins.	0	0	0	0	1	4	0	5	0	0	2	2	0	1	**1**	2	
+30 mins.	0	1	1	2	**2**	4	0	6	**1**	**1**	11	**13**	**1**	1	0	2	
+45 mins.	0	**3**	0	**3**	1	**6**	0	**7**	0	0	**13**	13	1	**4**	0	**5**	
Total Volume	0	4	2	6	5	19	0	24	1	1	27	29	2	6	1	9	
% App. Total	0	66.7	33.3		20.8	79.2	0		3.4	3.4	93.1		22.2	66.7	11.1		
PHF	.000	.333	.500	.500	.625	.792	.000	.857	.250	.250	.519	.558	.500	.375	.250	.450	

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Groups Printed- 4+ Axle Trucks

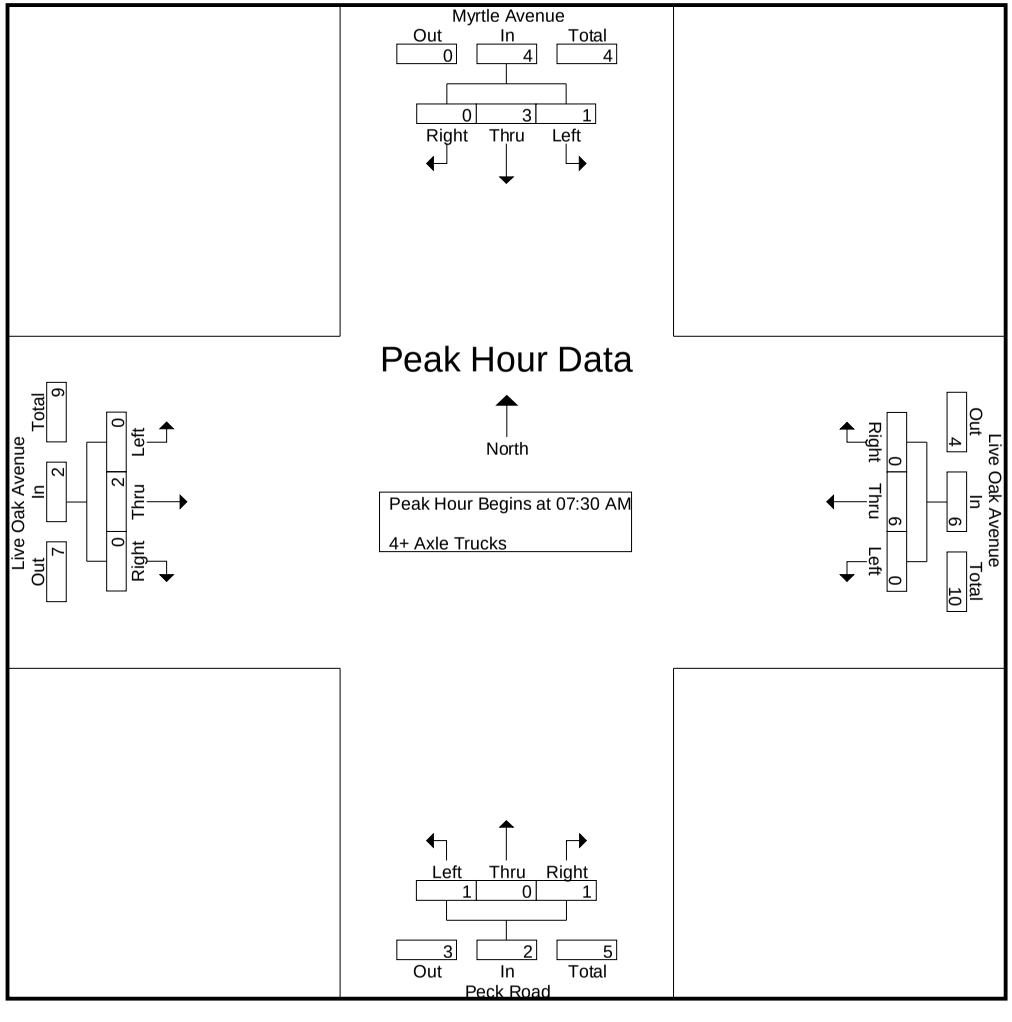
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	3	4
07:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
07:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	3	3
Total	0	0	1	0	1	1	7	0	0	8	0	0	2	1	2	0	1	0	0	1	1	12	13
08:00 AM	0	2	0	0	2	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	4	4
08:15 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
08:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	0	5	5
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	4
Total	1	3	0	0	4	0	8	0	0	8	1	0	0	0	1	0	1	2	0	3	0	16	16
Grand Total	1	3	1	0	5	1	15	0	0	16	1	0	2	1	3	0	2	2	0	4	1	28	29
Apprch %	20	60	20			6.2	93.8	0			33.3	0	66.7			0	50	50					
Total %	3.6	10.7	3.6		17.9	3.6	53.6	0		57.1	3.6	0	7.1		10.7	0	7.1	7.1		14.3	3.4	96.6	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**1**	0	**1**	**4**
07:45 AM	0	0	0	0	0	2	0	2	0	0	**1**	**1**	0	0	0	0	3
08:00 AM	0	**2**	0	**2**	0	1	0	1	**1**	0	0	1	0	0	0	0	4
08:15 AM	**1**	1	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Total Volume	1	3	0	4	0	6	0	6	1	0	1	2	0	2	0	2	14
% App. Total	25	75	0		0	100	0		50	0	50		0	100	0		
PHF	.250	.375	.000	.500	.000	.500	.000	.500	.250	.000	.250	.500	.000	.500	.000	.500	.875

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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**1**	0	**1**	
+15 mins.	0	0	0	0	0	2	0	2	0	0	**1**	**1**	0	0	0	0	
+30 mins.	0	**2**	0	**2**	0	1	0	1	**1**	0	0	1	0	0	0	0	
+45 mins.	**1**	1	0	2	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume	1	3	0	4	0	6	0	6	1	0	1	2	0	2	0	2	
% App. Total	25	75	0		0	100	0		50	0	50		0	100	0		
PHF	.250	.375	.000	.500	.000	.500	.000	.500	.250	.000	.250	.500	.000	.500	.000	.500	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

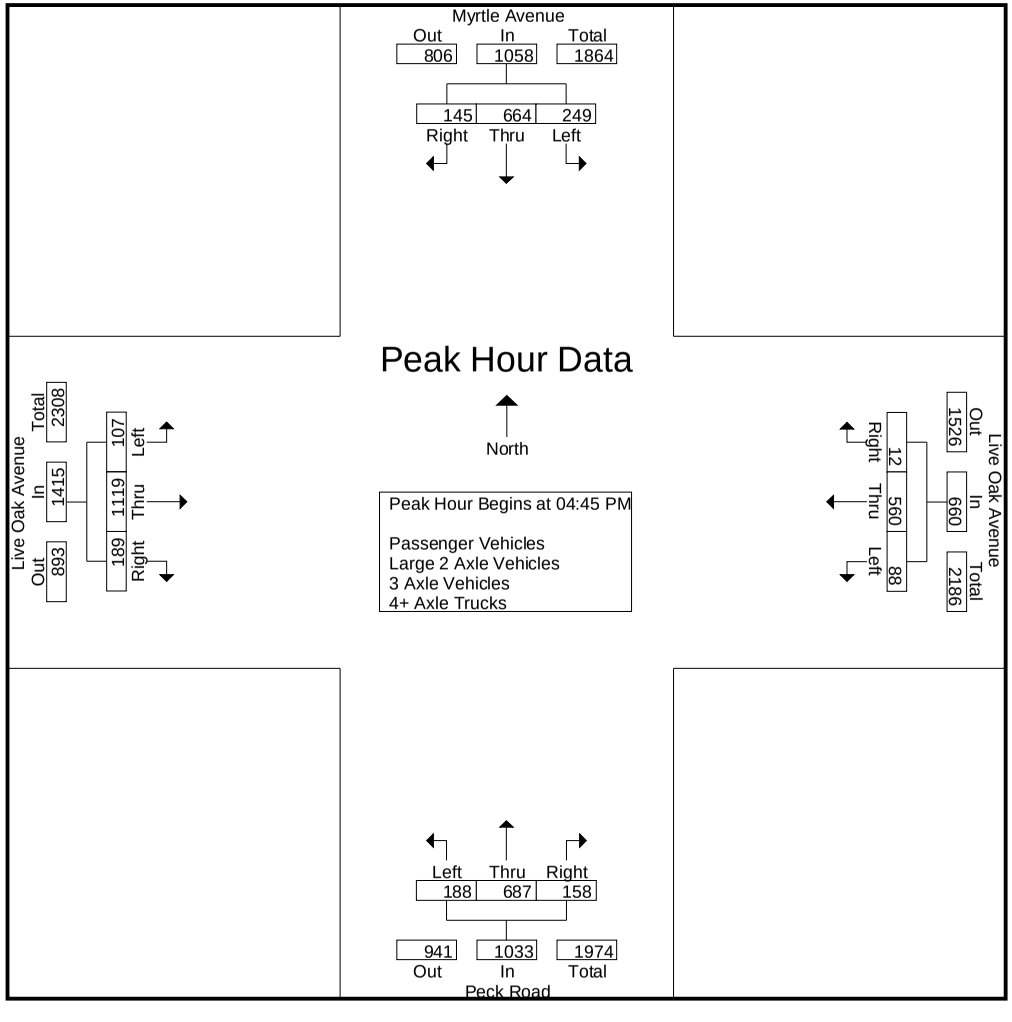
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	41	120	27	8	188	22	128	8	5	158	27	136	36	20	199	48	215	40	1	303	34	848	882
04:15 PM	50	141	34	16	225	25	105	1	0	131	40	156	43	17	239	13	221	36	3	270	36	865	901
04:30 PM	47	130	30	14	207	17	105	5	4	127	38	160	57	12	255	24	298	36	0	358	30	947	977
04:45 PM	60	165	29	15	254	23	106	4	3	133	41	171	49	9	261	30	269	46	0	345	27	993	1020
Total	198	556	120	53	874	87	444	18	12	549	146	623	185	58	954	115	1003	158	4	1276	127	3653	3780
05:00 PM	69	174	30	16	273	24	156	3	3	183	56	164	40	8	260	18	286	56	0	360	27	1076	1103
05:15 PM	57	176	46	20	279	27	160	3	3	190	42	195	40	9	277	32	290	38	0	360	32	1106	1138
05:30 PM	63	149	40	16	252	14	138	2	1	154	49	157	29	9	235	27	274	49	0	350	26	991	1017
05:45 PM	54	122	42	29	218	27	132	4	1	163	42	115	40	14	197	46	277	51	2	374	46	952	998
Total	243	621	158	81	1022	92	586	12	8	690	189	631	149	40	969	123	1127	194	2	1444	131	4125	4256
Grand Total	441	1177	278	134	1896	179	1030	30	20	1239	335	1254	334	98	1923	238	2130	352	6	2720	258	7778	8036
Apprch %	23.3	62.1	14.7			14.4	83.1	2.4			17.4	65.2	17.4			8.8	78.3	12.9					
Total %	5.7	15.1	3.6		24.4	2.3	13.2	0.4		15.9	4.3	16.1	4.3		24.7	3.1	27.4	4.5		35	3.2	96.8	
Passenger Vehicles	428	1158	275		1993	159	1010	27		1213	333	1235	315		1975	223	2054	344		2627	0	0	7808
% Passenger Vehicles	97.1	98.4	98.9	98.5	98.2	88.8	98.1	90	85	96.3	99.4	98.5	94.3	93.9	97.7	93.7	96.4	97.7	100	96.4	0	0	97.2
Large 2 Axle Vehicles	13	15	3		33	14	17	2		35	2	16	12		32	14	45	8		67	0	0	167
% Large 2 Axle Vehicles	2.9	1.3	1.1	1.5	1.6	7.8	1.7	6.7	10	2.8	0.6	1.3	3.6	2	1.6	5.9	2.1	2.3	0	2.5	0	0	2.1
3 Axle Vehicles	0	4	0		4	5	1	0		6	0	2	6		12	1	27	0		28	0	0	50
% 3 Axle Vehicles	0	0.3	0	0	0.2	2.8	0.1	0	0	0.5	0	0.2	1.8	4.1	0.6	0.4	1.3	0	0	1	0	0	0.6
4+ Axle Trucks	0	0	0		0	1	2	1		5	0	1	1		2	0	4	0		4	0	0	11
% 4+ Axle Trucks	0	0	0	0	0	0.6	0.2	3.3	5	0.4	0	0.1	0.3	0	0.1	0	0.2	0	0	0.1	0	0	0.1

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	60	165	29	254	23	106	**4**	133	41	171	**49**	261	30	269	46	345	993
05:00 PM	**69**	174	30	273	24	156	3	183	**56**	164	40	260	18	286	**56**	**360**	1076
05:15 PM	57	**176**	**46**	**279**	**27**	**160**	3	**190**	42	**195**	40	**277**	**32**	**290**	38	360	**1106**
05:30 PM	63	149	40	252	14	138	2	154	49	157	29	235	27	274	49	350	991
Total Volume	249	664	145	1058	88	560	12	660	188	687	158	1033	107	1119	189	1415	4166
% App. Total	23.5	62.8	13.7		13.3	84.8	1.8		18.2	66.5	15.3		7.6	79.1	13.4		
PHF	.902	.943	.788	.948	.815	.875	.750	.868	.839	.881	.806	.932	.836	.965	.844	.983	.942

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	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				04:30 PM				05:00 PM				
+0 mins.	60	165	29	254	24	156	3	183	38	160	**57**	255	18	286	**56**	360	
+15 mins.	**69**	174	30	273	**27**	**160**	3	**190**	41	171	49	261	32	**290**	38	360	
+30 mins.	57	**176**	**46**	**279**	14	138	2	154	**56**	164	40	260	27	274	49	350	
+45 mins.	63	149	40	252	27	132	**4**	163	42	**195**	40	**277**	**46**	277	51	**374**	
Total Volume	249	664	145	1058	92	586	12	690	177	690	186	1053	123	1127	194	1444	
% App. Total	23.5	62.8	13.7		13.3	84.9	1.7		16.8	65.5	17.7		8.5	78	13.4		
PHF	.902	.943	.788	.948	.852	.916	.750	.908	.790	.885	.816	.950	.668	.972	.866	.965	

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Groups Printed- Passenger Vehicles

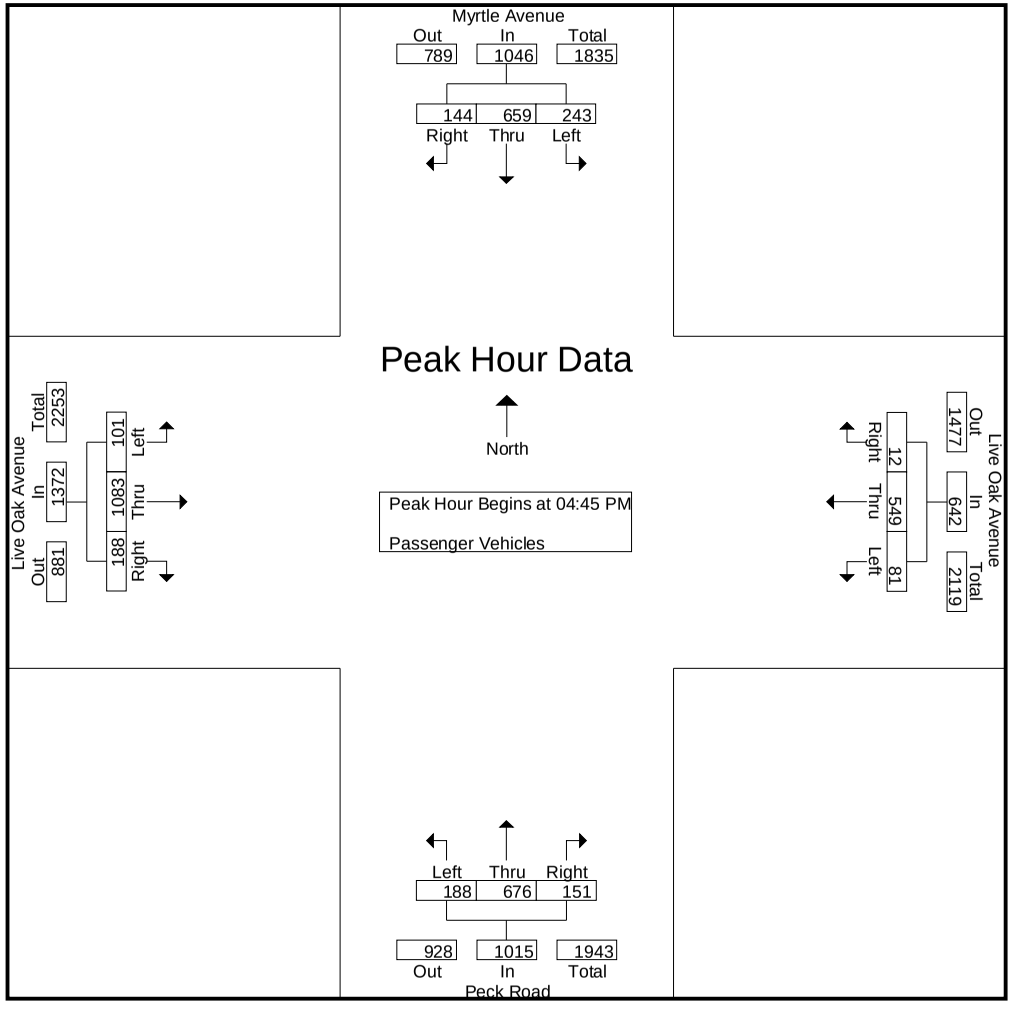
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	41	119	27	8	187	20	127	7	4	154	27	134	31	16	192	42	205	40	1	287	29	820	849
04:15 PM	44	136	34	16	214	19	102	1	0	122	38	156	39	16	233	13	215	33	3	261	35	830	865
04:30 PM	47	130	29	14	206	15	102	4	3	121	38	154	54	12	246	23	283	33	0	339	29	912	941
04:45 PM	60	163	29	15	252	22	105	4	3	131	41	171	46	8	258	26	251	46	0	323	26	964	990
Total	192	548	119	53	859	76	436	16	10	528	144	615	170	52	929	104	954	152	4	1210	119	3526	3645
05:00 PM	66	173	29	15	268	21	151	3	3	175	56	160	38	8	254	18	278	55	0	351	26	1048	1074
05:15 PM	54	175	46	20	275	25	157	3	3	185	42	193	40	9	275	31	287	38	0	356	32	1091	1123
05:30 PM	63	148	40	16	251	13	136	2	1	151	49	152	27	9	228	26	267	49	0	342	26	972	998
05:45 PM	53	114	41	28	208	24	130	3	0	157	42	115	40	14	197	44	268	50	2	362	44	924	968
Total	236	610	156	79	1002	83	574	11	7	668	189	620	145	40	954	119	1100	192	2	1411	128	4035	4163
Grand Total	428	1158	275	132	1861	159	1010	27	17	1196	333	1235	315	92	1883	223	2054	344	6	2621	247	7561	7808
Apprch %	23	62.2	14.8			13.3	84.4	2.3			17.7	65.6	16.7			8.5	78.4	13.1					
Total %	5.7	15.3	3.6		24.6	2.1	13.4	0.4		15.8	4.4	16.3	4.2		24.9	2.9	27.2	4.5		34.7	3.2	96.8	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	60	163	29	252	22	105	**4**	131	41	171	**46**	258	26	251	46	323	964
05:00 PM	**66**	173	29	268	21	151	3	175	**56**	160	38	254	18	278	**55**	351	1048
05:15 PM	54	**175**	**46**	**275**	**25**	**157**	3	**185**	42	**193**	40	**275**	**31**	**287**	38	**356**	**1091**
05:30 PM	63	148	40	251	13	136	2	151	49	152	27	228	26	267	49	342	972
Total Volume	243	659	144	1046	81	549	12	642	188	676	151	1015	101	1083	188	1372	4075
% App. Total	23.2	63	13.8		12.6	85.5	1.9		18.5	66.6	14.9		7.4	78.9	13.7		
PHF	.920	.941	.783	.951	.810	.874	.750	.868	.839	.876	.821	.923	.815	.943	.855	.963	.934

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

City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	60	163	29	252	22	105	**4**	131	41	171	**46**	258	26	251	46	323	
+15 mins.	**66**	173	29	268	21	151	3	175	**56**	160	38	254	18	278	**55**	351	
+30 mins.	54	**175**	**46**	**275**	**25**	**157**	3	**185**	42	**193**	40	**275**	**31**	**287**	38	**356**	
+45 mins.	63	148	40	251	13	136	2	151	49	152	27	228	26	267	49	342	
Total Volume	243	659	144	1046	81	549	12	642	188	676	151	1015	101	1083	188	1372	
% App. Total	23.2	63	13.8		12.6	85.5	1.9		18.5	66.6	14.9		7.4	78.9	13.7		
PHF	.920	.941	.783	.951	.810	.874	.750	.868	.839	.876	.821	.923	.815	.943	.855	.963	

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

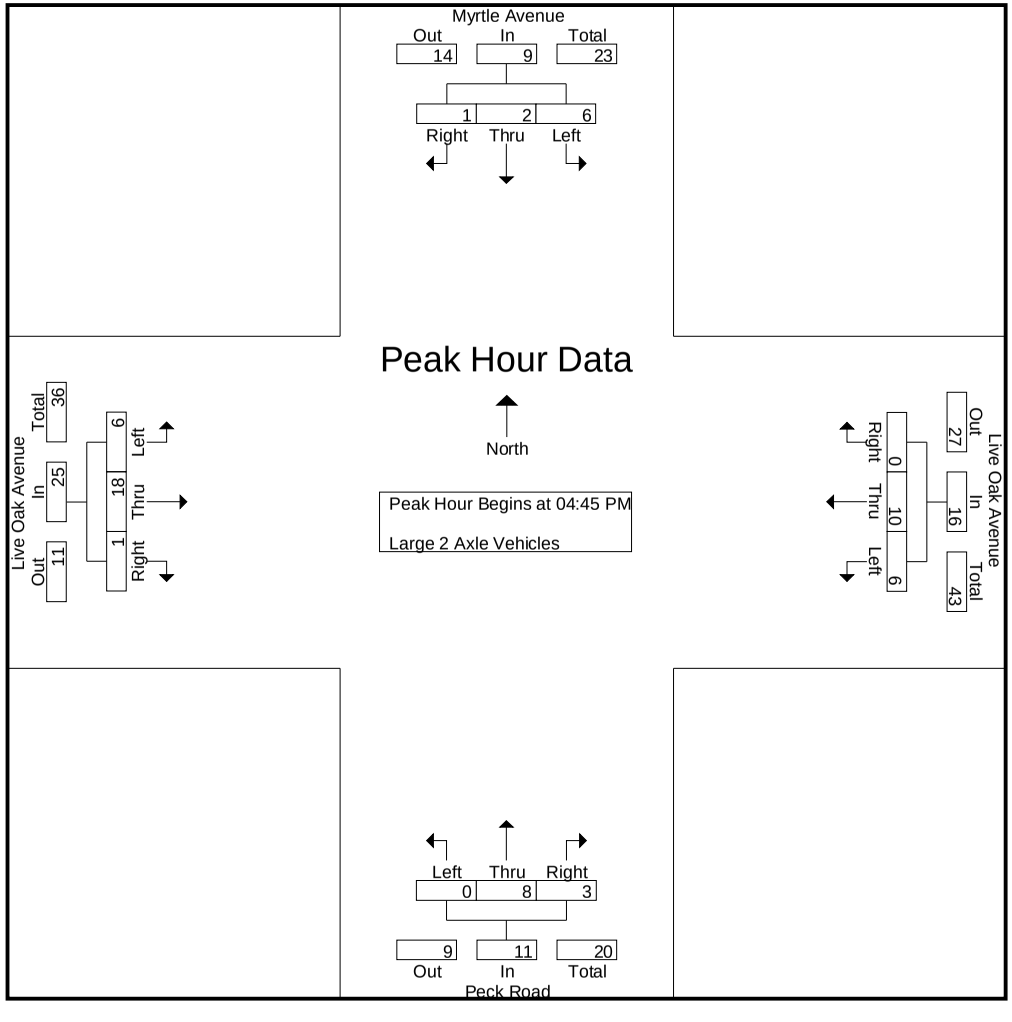
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	2	1	1	1	4	0	2	3	2	5	5	8	0	0	13	3	23	26
04:15 PM	6	5	0	0	11	2	2	0	0	4	2	0	3	0	5	0	5	3	0	8	0	28	28
04:30 PM	0	0	1	0	1	2	3	0	0	5	0	6	3	0	9	1	8	3	0	12	0	27	27
04:45 PM	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	4	6	0	0	10	0	13	13
Total	6	6	1	0	13	7	7	1	1	15	2	8	10	2	20	10	27	6	0	43	3	91	94
05:00 PM	3	1	1	1	5	3	4	0	0	7	0	2	1	0	3	0	4	1	0	5	1	20	21
05:15 PM	3	0	0	0	3	1	3	0	0	4	0	2	0	0	2	1	2	0	0	3	0	12	12
05:30 PM	0	1	0	0	1	1	2	0	0	3	0	4	1	0	5	1	6	0	0	7	0	16	16
05:45 PM	1	7	1	1	9	2	1	1	1	4	0	0	0	0	0	2	6	1	0	9	2	22	24
Total	7	9	2	2	18	7	10	1	1	18	0	8	2	0	10	4	18	2	0	24	3	70	73
Grand Total	13	15	3	2	31	14	17	2	2	33	2	16	12	2	30	14	45	8	0	67	6	161	167
Apprch %	41.9	48.4	9.7			42.4	51.5	6.1			6.7	53.3	40			20.9	67.2	11.9					
Total %	8.1	9.3	1.9		19.3	8.7	10.6	1.2		20.5	1.2	9.9	7.5		18.6	8.7	28	5		41.6	3.6	96.4	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	1	1	0	2	0	0	**1**	1	**4**	**6**	0	**10**	13
05:00 PM	**3**	**1**	**1**	**5**	**3**	**4**	0	**7**	0	2	1	3	0	4	**1**	5	**20**
05:15 PM	3	0	0	3	1	3	0	4	0	2	0	2	1	2	0	3	12
05:30 PM	0	1	0	1	1	2	0	3	0	**4**	1	**5**	1	6	0	7	16
Total Volume	6	2	1	9	6	10	0	16	0	8	3	11	6	18	1	25	61
% App. Total	66.7	22.2	11.1		37.5	62.5	0		0	72.7	27.3		24	72	4		
PHF	.500	.500	.250	.450	.500	.625	.000	.571	.000	.500	.750	.550	.375	.750	.250	.625	.763

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

City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Counts Unlimited
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(951) 268-6268

City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	1	1	0	2	0	0	**1**	1	**4**	**6**	0	**10**	
+15 mins.	**3**	**1**	**1**	**5**	**3**	**4**	0	**7**	0	2	1	3	0	4	**1**	5	
+30 mins.	3	0	0	3	1	3	0	4	0	2	0	2	1	2	0	3	
+45 mins.	0	1	0	1	1	2	0	3	0	**4**	1	**5**	1	6	0	7	
Total Volume	6	2	1	9	6	10	0	16	0	8	3	11	6	18	1	25	
% App. Total	66.7	22.2	11.1		37.5	62.5	0		0	72.7	27.3		24	72	4		
PHF	.500	.500	.250	.450	.500	.625	.000	.571	.000	.500	.750	.550	.375	.750	.250	.625	

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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

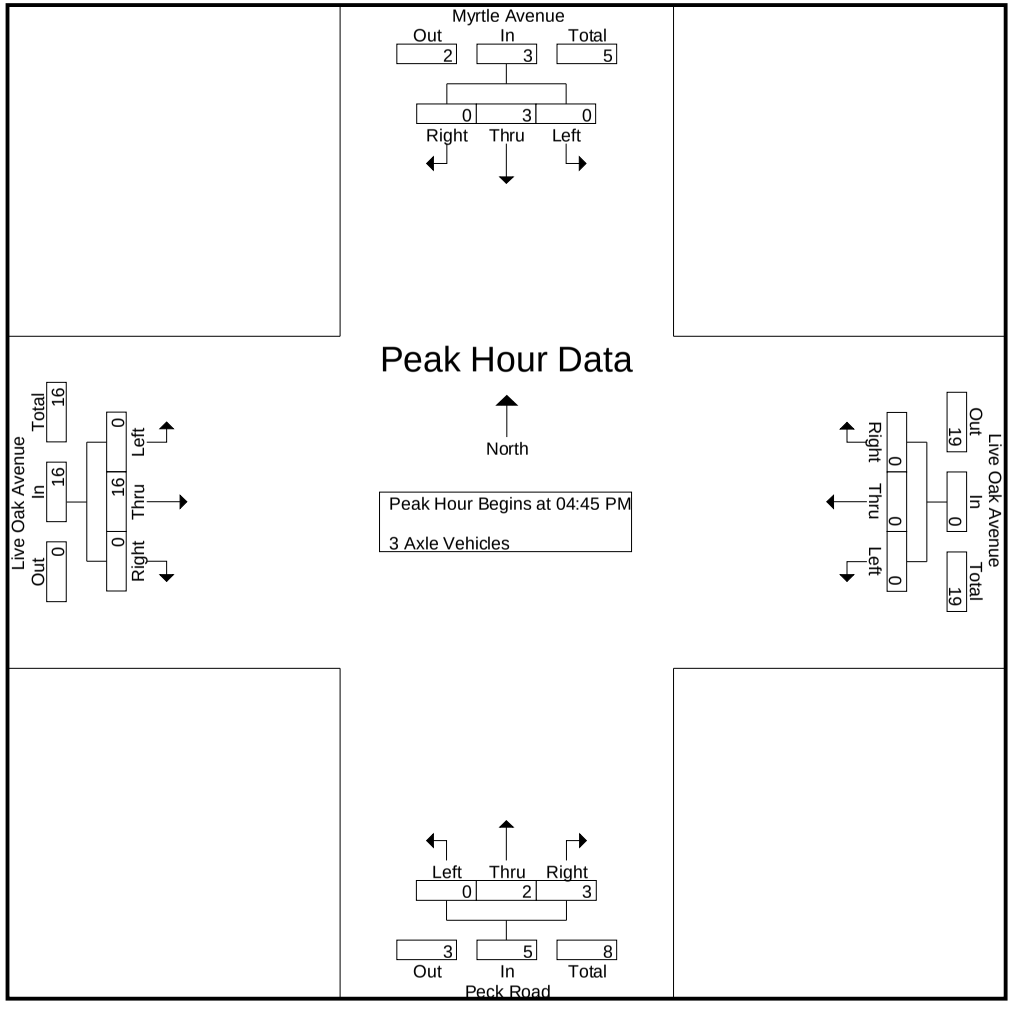
	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	0	0	2	2	4	6
04:15 PM	0	0	0	0	0	4	1	0	0	5	0	0	1	1	1	0	1	0	0	1	1	7	8
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	6	6
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	2	1	2	0	12	0	0	12	1	16	17
Total	0	2	0	0	2	4	1	0	0	5	0	0	5	4	5	1	20	0	0	21	4	33	37
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	3	0	0	3	0	5	5
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2	2
05:45 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	0	5	5
Total	0	2	0	0	2	1	0	0	0	1	0	2	1	0	3	0	7	0	0	7	0	13	13
Grand Total	0	4	0	0	4	5	1	0	0	6	0	2	6	4	8	1	27	0	0	28	4	46	50
Apprch %	0	100	0			83.3	16.7	0			0	25	75			3.6	96.4	0					
Total %	0	8.7	0		8.7	10.9	2.2	0		13	0	4.3	13		17.4	2.2	58.7	0		60.9	8	92	

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**2**	0	**2**	0	0	0	0	0	0	**2**	**2**	0	**12**	0	**12**	**16**
05:00 PM	0	0	0	0	0	0	0	0	0	**1**	1	2	0	3	0	3	5
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total Volume	0	3	0	3	0	0	0	0	0	2	3	5	0	16	0	16	24
% App. Total	0	100	0		0	0	0		0	40	60		0	100	0		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.500	.375	.625	.000	.333	.000	.333	.375

Counts Unlimited
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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	0	**2**	**2**	0	**12**	0	**12**	
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	1	2	0	3	0	3	
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	
Total Volume	0	3	0	3	0	0	0	0	0	2	3	5	0	16	0	16	
% App. Total	0	100	0		0	0	0		0	40	60		0	100	0		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.500	.375	.625	.000	.333	.000	.333	

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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

	Myrtle Avenue Southbound					Live Oak Avenue Westbound					Peck Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	1	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	2	0	0	2	1	3	4
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	3	3
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	2	0	0	3	0	1	1	0	2	0	2	0	0	2	0	7	7
Grand Total	0	0	0	0	0	1	2	1	1	4	0	1	1	0	2	0	4	0	0	4	1	10	11
Apprch %	0	0	0			25	50	25			0	50	50			0	100	0					
Total %	0	0	0		0	10	20	10		40	0	10	10		20	0	40	0		40	9.1	90.9	

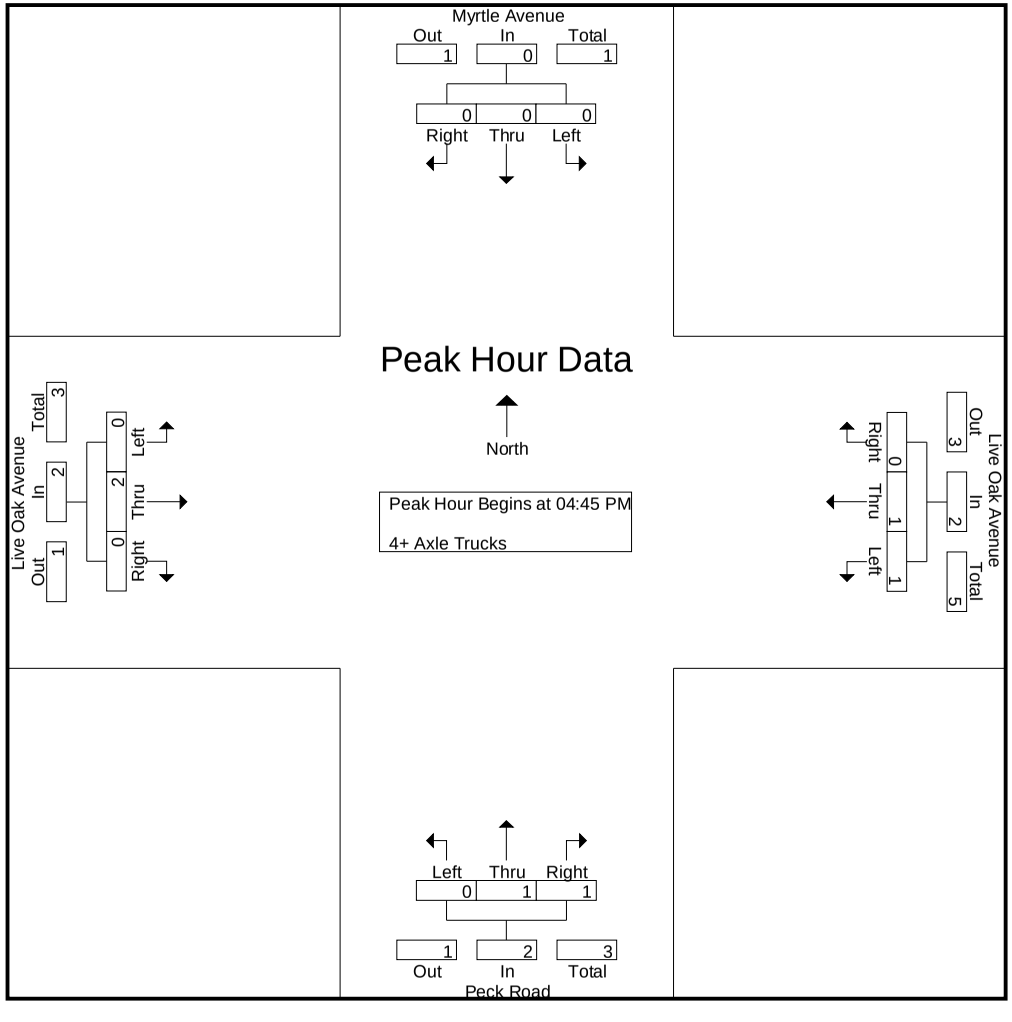
3.1-60

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	**1**	0	**1**	0	**1**	0	**1**	0	**1**	0	**1**	**3**
05:15 PM	0	0	0	0	**1**	0	0	1	0	0	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	1
Total Volume	0	0	0	0	1	1	0	2	0	1	1	2	0	2	0	2	6
% App. Total	0	0	0		50	50	0		0	50	50		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.250	.250	.500	.000	.500	.000	.500	.500

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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 01_IRW_ My Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Myrtle Avenue Southbound				Live Oak Avenue Westbound				Peck Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	**1**	0	**1**	0	**1**	0	**1**	
+30 mins.	0	0	0	0	**1**	0	0	1	0	0	0	0	0	1	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	
Total Volume	0	0	0	0	1	1	0	2	0	1	1	2	0	2	0	2	
% App. Total	0	0	0		50	50	0		0	50	50		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.250	.250	.500	.000	.500	.000	.500	

Location: Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Myrtle Avenue	East Leg Live Oak Avenue	South Leg Peck Road	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Myrtle Avenue	East Leg Live Oak Avenue	South Leg Peck Road	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

Location: Irwindale
N/S: Myrtle Avenue/Peck Road
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Myrtle Avenue	East Leg Live Oak Avenue	South Leg Peck Road	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Myrtle Avenue	East Leg Live Oak Avenue	South Leg Peck Road	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

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(951) 268-6268

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Corona, CA 92878
(951) 268-6268

City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

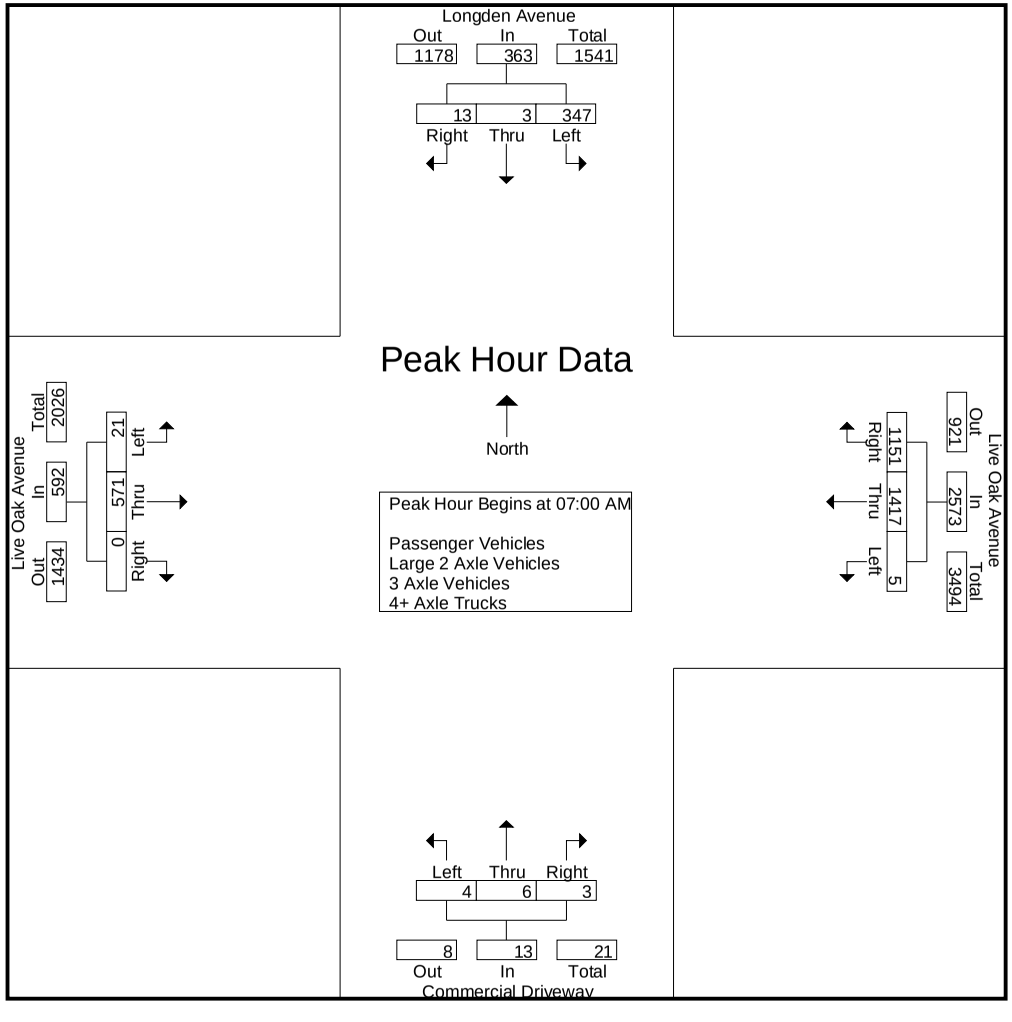
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	69	2	3	2	74	2	389	281	0	672	2	4	0	0	6	5	106	0	0	111	2	863	865
07:15 AM	100	0	5	3	105	1	344	287	0	632	2	1	2	0	5	3	130	0	0	133	3	875	878
07:30 AM	92	1	1	0	94	0	347	296	0	643	0	1	1	0	2	8	170	0	0	178	0	917	917
07:45 AM	86	0	4	1	90	2	337	287	0	626	0	0	0	0	0	5	165	0	0	170	1	886	887
Total	347	3	13	6	363	5	1417	1151	0	2573	4	6	3	0	13	21	571	0	0	592	6	3541	3547
08:00 AM	115	0	1	1	116	4	283	234	0	521	0	1	2	0	3	4	157	0	0	161	1	801	802
08:15 AM	93	0	2	1	95	1	245	248	0	494	2	0	2	0	4	7	159	0	0	166	1	759	760
08:30 AM	111	0	2	1	113	3	209	205	0	417	0	0	2	0	2	17	172	1	0	190	1	722	723
08:45 AM	84	1	5	1	90	2	222	184	0	408	0	1	1	0	2	7	165	1	0	173	1	673	674
Total	403	1	10	4	414	10	959	871	0	1840	2	2	7	0	11	35	653	2	0	690	4	2955	2959
Grand Total	750	4	23	10	777	15	2376	2022	0	4413	6	8	10	0	24	56	1224	2	0	1282	10	6496	6506
Apprch %	96.5	0.5	3			0.3	53.8	45.8			25	33.3	41.7			4.4	95.5	0.2					
Total %	11.5	0.1	0.4		12	0.2	36.6	31.1		67.9	0.1	0.1	0.2		0.4	0.9	18.8	0		19.7	0.2	99.8	
Passenger Vehicles	691	3	11		710	8	2231	1945		4184	5	6	2		13	25	1106	1		1132	0	0	6039
% Passenger Vehicles	92.1	75	47.8	50	90.2	53.3	93.9	96.2	0	94.8	83.3	75	20	0	54.2	44.6	90.4	50	0	88.3	0	0	92.8
Large 2 Axle Vehicles	24	0	8		35	1	65	42		108	1	2	3		6	7	66	1		74	0	0	223
% Large 2 Axle Vehicles	3.2	0	34.8	30	4.4	6.7	2.7	2.1	0	2.4	16.7	25	30	0	25	12.5	5.4	50	0	5.8	0	0	3.4
3 Axle Vehicles	20	0	4		26	0	53	23		76	0	0	0		0	22	31	0		53	0	0	155
% 3 Axle Vehicles	2.7	0	17.4	20	3.3	0	2.2	1.1	0	1.7	0	0	0	0	0	39.3	2.5	0	0	4.1	0	0	2.4
4+ Axle Trucks	15	1	0		16	6	27	12		45	0	0	5		5	2	21	0		23	0	0	89
% 4+ Axle Trucks	2	25	0	0	2	40	1.1	0.6	0	1	0	0	50	0	20.8	3.6	1.7	0	0	1.8	0	0	1.4

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	69	**2**	3	74	**2**	**389**	281	**672**	**2**	**4**	0	**6**	5	106	0	111	863
07:15 AM	**100**	0	**5**	**105**	1	344	287	632	2	1	**2**	5	3	130	0	133	875
07:30 AM	92	1	1	94	0	347	**296**	643	0	1	1	2	**8**	**170**	0	**178**	**917**
07:45 AM	86	0	4	90	2	337	287	626	0	0	0	0	5	165	0	170	886
Total Volume	347	3	13	363	5	1417	1151	2573	4	6	3	13	21	571	0	592	3541
% App. Total	95.6	0.8	3.6		0.2	55.1	44.7		30.8	46.2	23.1		3.5	96.5	0		
PHF	.868	.375	.650	.864	.625	.911	.972	.957	.500	.375	.375	.542	.656	.840	.000	.831	.965

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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:00 AM				07:00 AM				08:00 AM				
+0 mins.	86	0	**4**	90	**2**	**389**	281	**672**	**2**	**4**	0	**6**	4	157	0	161	
+15 mins.	**115**	0	1	**116**	1	344	287	632	2	1	**2**	5	7	159	0	166	
+30 mins.	93	0	2	95	0	347	**296**	643	0	1	1	2	**17**	**172**	**1**	**190**	
+45 mins.	111	0	2	113	2	337	287	626	0	0	0	0	7	165	1	173	
Total Volume	405	0	9	414	5	1417	1151	2573	4	6	3	13	35	653	2	690	
% App. Total	97.8	0	2.2		0.2	55.1	44.7		30.8	46.2	23.1		5.1	94.6	0.3		
PHF	.880	.000	.563	.892	.625	.911	.972	.957	.500	.375	.375	.542	.515	.949	.500	.908	

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City of Irwindale
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Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

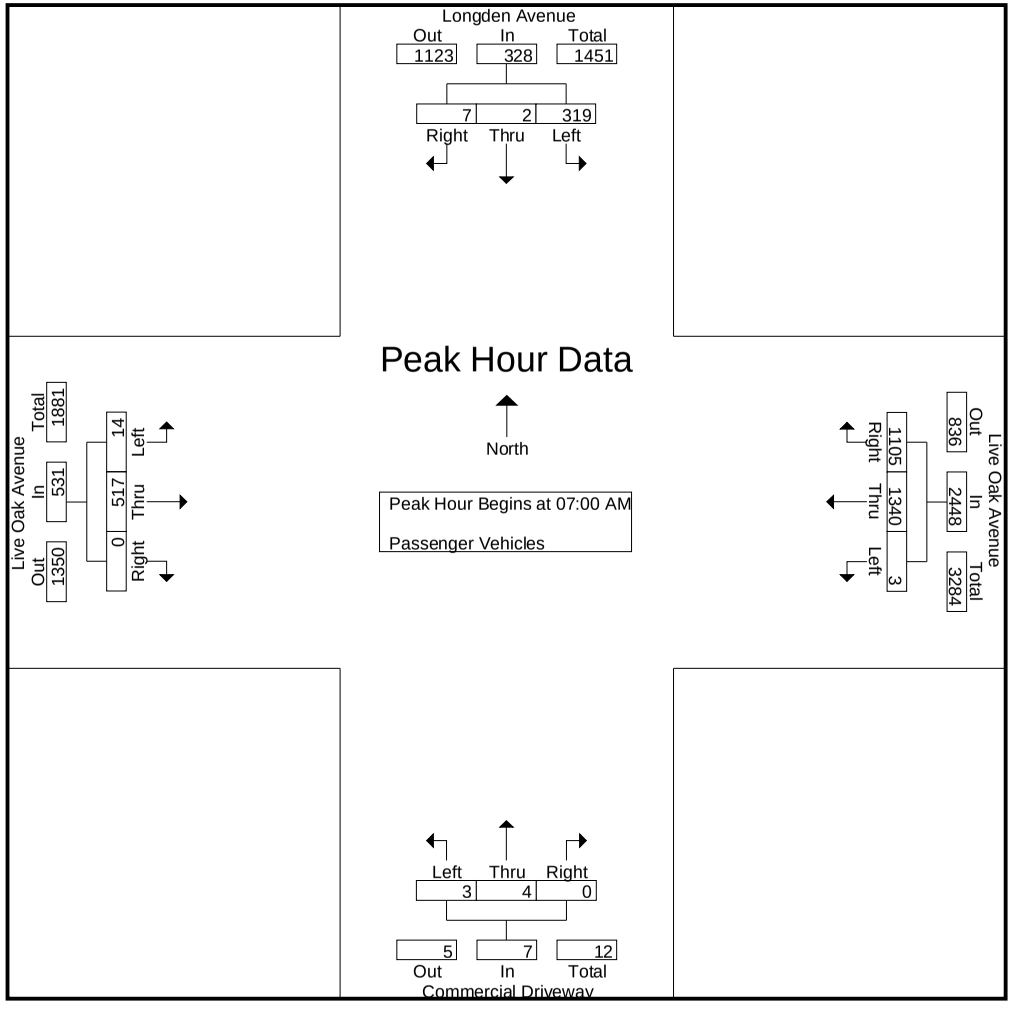
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	61	1	2	2	64	1	373	262	0	636	1	2	0	0	3	3	94	0	0	97	2	800	802
07:15 AM	91	0	2	1	93	1	324	276	0	601	2	1	0	0	3	2	120	0	0	122	1	819	820
07:30 AM	87	1	0	0	88	0	327	287	0	614	0	1	0	0	1	6	153	0	0	159	0	862	862
07:45 AM	80	0	3	1	83	1	316	280	0	597	0	0	0	0	0	3	150	0	0	153	1	833	834
Total	319	2	7	4	328	3	1340	1105	0	2448	3	4	0	0	7	14	517	0	0	531	4	3314	3318
08:00 AM	112	0	0	0	112	2	268	228	0	498	0	1	0	0	1	4	146	0	0	150	0	761	761
08:15 AM	82	0	1	0	83	1	224	243	0	468	2	0	0	0	2	2	141	0	0	143	0	696	696
08:30 AM	105	0	0	0	105	2	197	195	0	394	0	0	1	0	1	2	158	0	0	160	0	660	660
08:45 AM	73	1	3	1	77	0	202	174	0	376	0	1	1	0	2	3	144	1	0	148	1	603	604
Total	372	1	4	1	377	5	891	840	0	1736	2	2	2	0	6	11	589	1	0	601	1	2720	2721
Grand Total	691	3	11	5	705	8	2231	1945	0	4184	5	6	2	0	13	25	1106	1	0	1132	5	6034	6039
Apprch %	98	0.4	1.6			0.2	53.3	46.5			38.5	46.2	15.4			2.2	97.7	0.1					
Total %	11.5	0	0.2		11.7	0.1	37	32.2		69.3	0.1	0.1	0		0.2	0.4	18.3	0		18.8	0.1	99.9	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	61	**1**	2	64	**1**	**373**	262	**636**	1	**2**	0	**3**	3	94	0	97	800
07:15 AM	**91**	0	2	**93**	1	324	276	601	**2**	1	0	3	2	120	0	122	819
07:30 AM	87	1	0	88	0	327	**287**	614	0	1	0	1	**6**	**153**	0	**159**	**862**
07:45 AM	80	0	**3**	83	1	316	280	597	0	0	0	0	3	150	0	153	833
Total Volume	319	2	7	328	3	1340	1105	2448	3	4	0	7	14	517	0	531	3314
% App. Total	97.3	0.6	2.1		0.1	54.7	45.1		42.9	57.1	0		2.6	97.4	0		
PHF	.876	.500	.583	.882	.750	.898	.963	.962	.375	.500	.000	.583	.583	.845	.000	.835	.961

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E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	61	**1**	2	64	**1**	**373**	262	**636**	1	**2**	0	**3**	3	94	0	97	
+15 mins.	**91**	0	2	**93**	1	324	276	601	**2**	1	0	3	2	120	0	122	
+30 mins.	87	1	0	88	0	327	**287**	614	0	1	0	1	**6**	**153**	0	**159**	
+45 mins.	80	0	**3**	83	1	316	280	597	0	0	0	0	3	150	0	153	
Total Volume	319	2	7	328	3	1340	1105	2448	3	4	0	7	14	517	0	531	
% App. Total	97.3	0.6	2.1		0.1	54.7	45.1		42.9	57.1	0		2.6	97.4	0		
PHF	.876	.500	.583	.882	.750	.898	.963	.962	.375	.500	.000	.583	.583	.845	.000	.835	

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City of Irwindale
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File Name : 03_IRW_ LD Lo AM
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Groups Printed- Large 2 Axle Vehicles

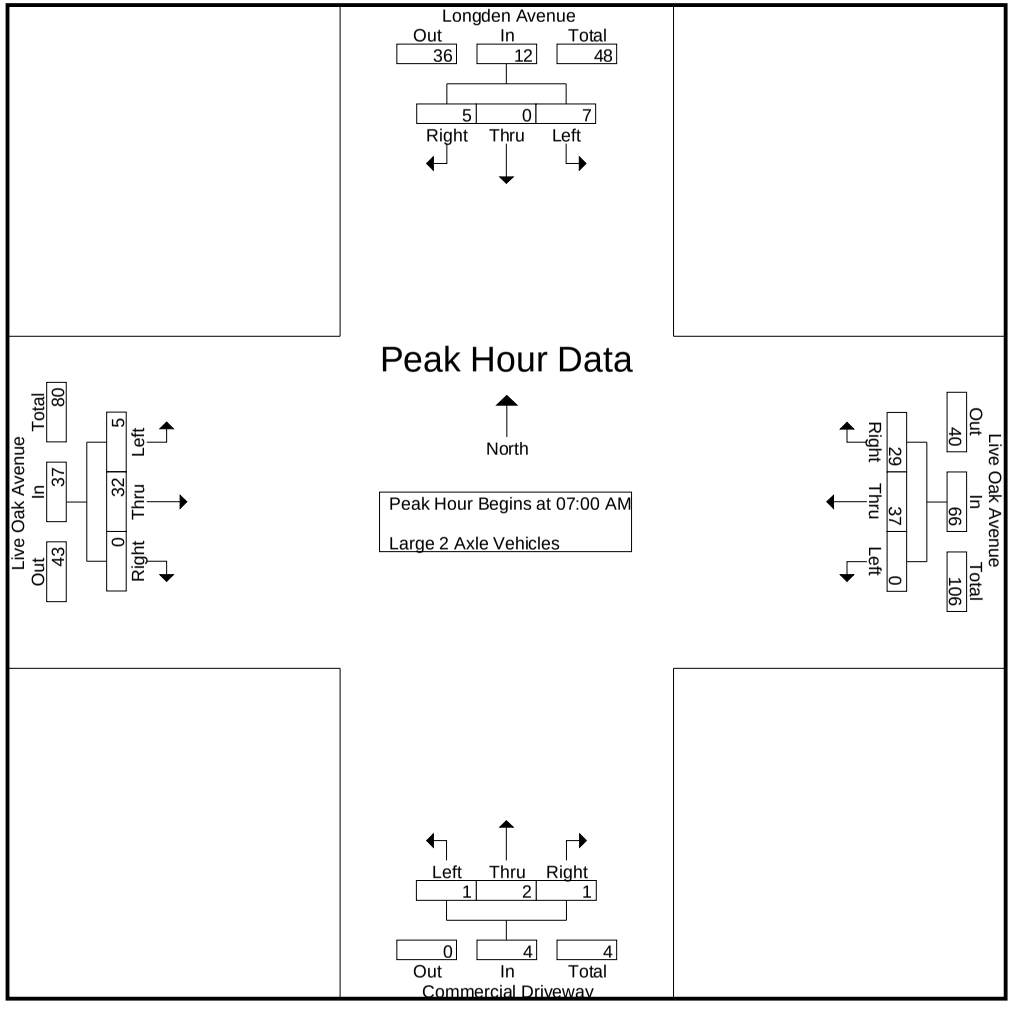
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	1	0	2	0	5	9	0	14	1	2	0	0	3	1	7	0	0	8	0	27	27
07:15 AM	2	0	2	1	4	0	10	8	0	18	0	0	1	0	1	1	6	0	0	7	1	30	31
07:30 AM	1	0	1	0	2	0	8	8	0	16	0	0	0	0	0	2	9	0	0	11	0	29	29
07:45 AM	3	0	1	0	4	0	14	4	0	18	0	0	0	0	0	1	10	0	0	11	0	33	33
Total	7	0	5	1	12	0	37	29	0	66	1	2	1	0	4	5	32	0	0	37	1	119	120
08:00 AM	1	0	1	1	2	1	5	2	0	8	0	0	1	0	1	0	8	0	0	8	1	19	20
08:15 AM	7	0	0	0	7	0	9	3	0	12	0	0	1	0	1	0	9	0	0	9	0	29	29
08:30 AM	4	0	1	1	5	0	6	4	0	10	0	0	0	0	0	0	8	1	0	9	1	24	25
08:45 AM	5	0	1	0	6	0	8	4	0	12	0	0	0	0	0	2	9	0	0	11	0	29	29
Total	17	0	3	2	20	1	28	13	0	42	0	0	2	0	2	2	34	1	0	37	2	101	103
Grand Total	24	0	8	3	32	1	65	42	0	108	1	2	3	0	6	7	66	1	0	74	3	220	223
Apprch %	75	0	25			0.9	60.2	38.9			16.7	33.3	50			9.5	89.2	1.4					
Total %	10.9	0	3.6		14.5	0.5	29.5	19.1		49.1	0.5	0.9	1.4		2.7	3.2	30	0.5		33.6	1.3	98.7	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	1	2	0	5	**9**	14	**1**	**2**	0	**3**	1	7	0	8	27
07:15 AM	2	0	**2**	**4**	0	10	8	**18**	0	0	**1**	1	1	6	0	7	30
07:30 AM	1	0	1	2	0	8	8	16	0	0	0	0	**2**	9	0	**11**	29
07:45 AM	**3**	0	1	4	0	**14**	4	18	0	0	0	0	1	**10**	0	11	**33**
Total Volume	7	0	5	12	0	37	29	66	1	2	1	4	5	32	0	37	119
% App. Total	58.3	0	41.7		0	56.1	43.9		25	50	25		13.5	86.5	0		
PHF	.583	.000	.625	.750	.000	.661	.806	.917	.250	.250	.250	.333	.625	.800	.000	.841	.902

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N/S: Longden Avenue
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File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	0	1	2	0	5	**9**	14	**1**	**2**	0	**3**	1	7	0	8	
+15 mins.	2	0	**2**	**4**	0	10	8	**18**	0	0	**1**	1	1	6	0	7	
+30 mins.	1	0	1	2	0	8	8	16	0	0	0	0	**2**	9	0	**11**	
+45 mins.	**3**	0	1	4	0	**14**	4	18	0	0	0	0	1	**10**	0	11	
Total Volume	7	0	5	12	0	37	29	66	1	2	1	4	5	32	0	37	
% App. Total	58.3	0	41.7		0	56.1	43.9		25	50	25		13.5	86.5	0		
PHF	.583	.000	.625	.750	.000	.661	.806	.917	.250	.250	.250	.333	.625	.800	.000	.841	

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Groups Printed- 3 Axle Vehicles

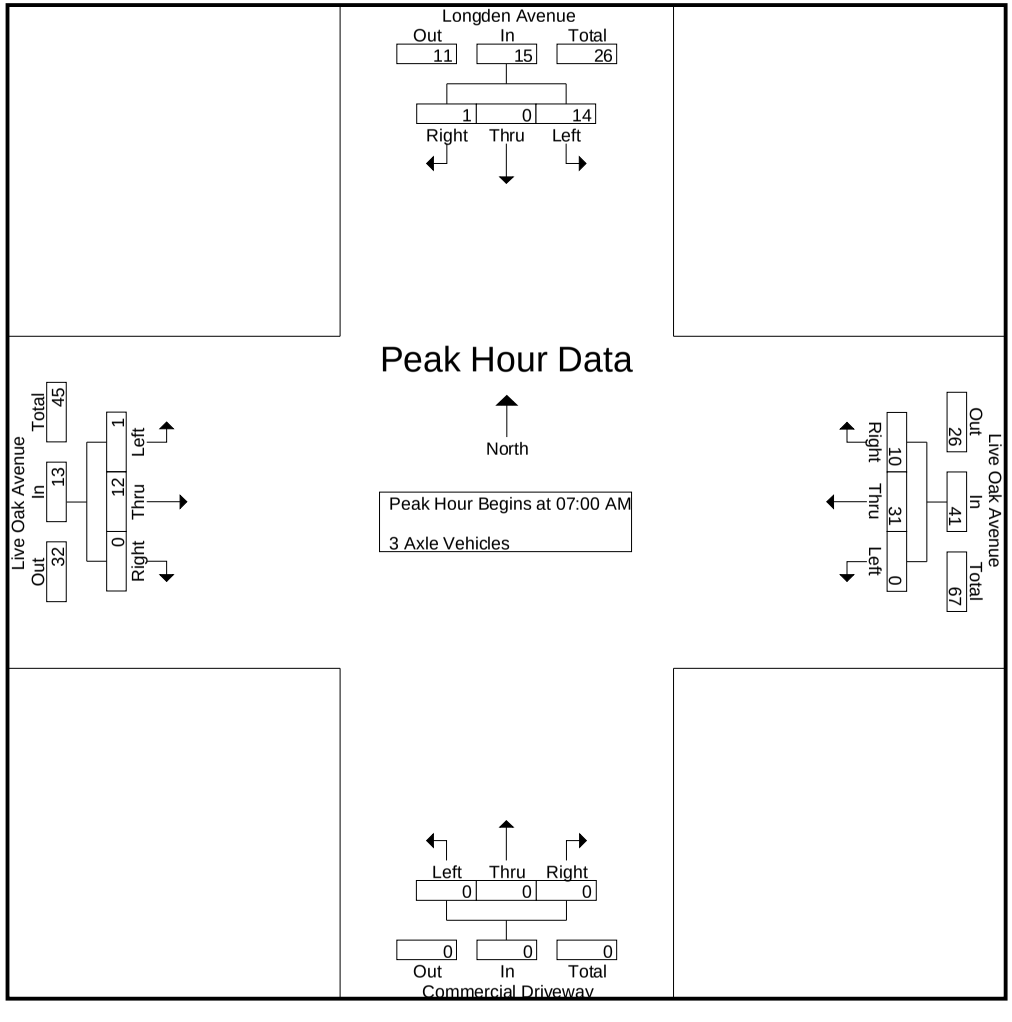
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	0	0	0	5	0	10	6	0	16	0	0	0	0	0	0	3	0	0	3	0	24	24
07:15 AM	4	0	1	1	5	0	8	2	0	10	0	0	0	0	0	0	3	0	0	3	1	18	19
07:30 AM	3	0	0	0	3	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	13	13
07:45 AM	2	0	0	0	2	0	6	2	0	8	0	0	0	0	0	1	3	0	0	4	0	14	14
Total	14	0	1	1	15	0	31	10	0	41	0	0	0	0	0	1	12	0	0	13	1	69	70
08:00 AM	1	0	0	0	1	0	8	2	0	10	0	0	0	0	0	0	2	0	0	2	0	13	13
08:15 AM	1	0	1	1	2	0	7	2	0	9	0	0	0	0	0	5	5	0	0	10	1	21	22
08:30 AM	1	0	1	0	2	0	2	4	0	6	0	0	0	0	0	14	4	0	0	18	0	26	26
08:45 AM	3	0	1	0	4	0	5	5	0	10	0	0	0	0	0	2	8	0	0	10	0	24	24
Total	6	0	3	1	9	0	22	13	0	35	0	0	0	0	0	21	19	0	0	40	1	84	85
Grand Total	20	0	4	2	24	0	53	23	0	76	0	0	0	0	0	22	31	0	0	53	2	153	155
Apprch %	83.3	0	16.7			0	69.7	30.3			0	0	0			41.5	58.5	0					
Total %	13.1	0	2.6		15.7	0	34.6	15		49.7	0	0	0		0	14.4	20.3	0		34.6	1.3	98.7	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**5**	0	0	**5**	0	**10**	**6**	**16**	0	0	0	0	0	**3**	0	3	**24**
07:15 AM	4	0	**1**	5	0	8	2	10	0	0	0	0	0	3	0	3	18
07:30 AM	3	0	0	3	0	7	0	7	0	0	0	0	0	3	0	3	13
07:45 AM	2	0	0	2	0	6	2	8	0	0	0	0	**1**	3	0	**4**	14
Total Volume	14	0	1	15	0	31	10	41	0	0	0	0	1	12	0	13	69
% App. Total	93.3	0	6.7		0	75.6	24.4		0	0	0		7.7	92.3	0		
PHF	.700	.000	.250	.750	.000	.775	.417	.641	.000	.000	.000	.000	.250	1.00	.000	.813	.719

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Weather: Clear

File Name : 03_IRW_ LD Lo AM
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**5**	0	0	**5**	0	**10**	**6**	**16**	0	0	0	0	0	**3**	0	3	
+15 mins.	4	0	**1**	5	0	8	2	10	0	0	0	0	0	3	0	3	
+30 mins.	3	0	0	3	0	7	0	7	0	0	0	0	0	3	0	3	
+45 mins.	2	0	0	2	0	6	2	8	0	0	0	0	**1**	3	0	**4**	
Total Volume	14	0	1	15	0	31	10	41	0	0	0	0	1	12	0	13	
% App. Total	93.3	0	6.7		0	75.6	24.4		0	0	0		7.7	92.3	0		
PHF	.700	.000	.250	.750	.000	.775	.417	.641	.000	.000	.000	.000	.250	1.000	.000	.813	

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City of Irwindale
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Weather: Clear

File Name : 03_IRW_ LD Lo AM
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Groups Printed- 4+ Axle Trucks

	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	1	0	0	3	1	1	4	0	6	0	0	0	0	0	1	2	0	0	3	0	12	12
07:15 AM	3	0	0	0	3	0	2	1	0	3	0	0	1	0	1	0	1	0	0	1	0	8	8
07:30 AM	1	0	0	0	1	0	5	1	0	6	0	0	1	0	1	0	5	0	0	5	0	13	13
07:45 AM	1	0	0	0	1	1	1	1	0	3	0	0	0	0	0	0	2	0	0	2	0	6	6
Total	7	1	0	0	8	2	9	7	0	18	0	0	2	0	2	1	10	0	0	11	0	39	39
08:00 AM	1	0	0	0	1	1	2	2	0	5	0	0	1	0	1	0	1	0	0	1	0	8	8
08:15 AM	3	0	0	0	3	0	5	0	0	5	0	0	1	0	1	0	4	0	0	4	0	13	13
08:30 AM	1	0	0	0	1	1	4	2	0	7	0	0	1	0	1	1	2	0	0	3	0	12	12
08:45 AM	3	0	0	0	3	2	7	1	0	10	0	0	0	0	0	0	4	0	0	4	0	17	17
Total	8	0	0	0	8	4	18	5	0	27	0	0	3	0	3	1	11	0	0	12	0	50	50
Grand Total	15	1	0	0	16	6	27	12	0	45	0	0	5	0	5	2	21	0	0	23	0	89	89
Apprch %	93.8	6.2	0			13.3	60	26.7			0	0	100			8.7	91.3	0					
Total %	16.9	1.1	0		18	6.7	30.3	13.5		50.6	0	0	5.6		5.6	2.2	23.6	0		25.8	0	100	

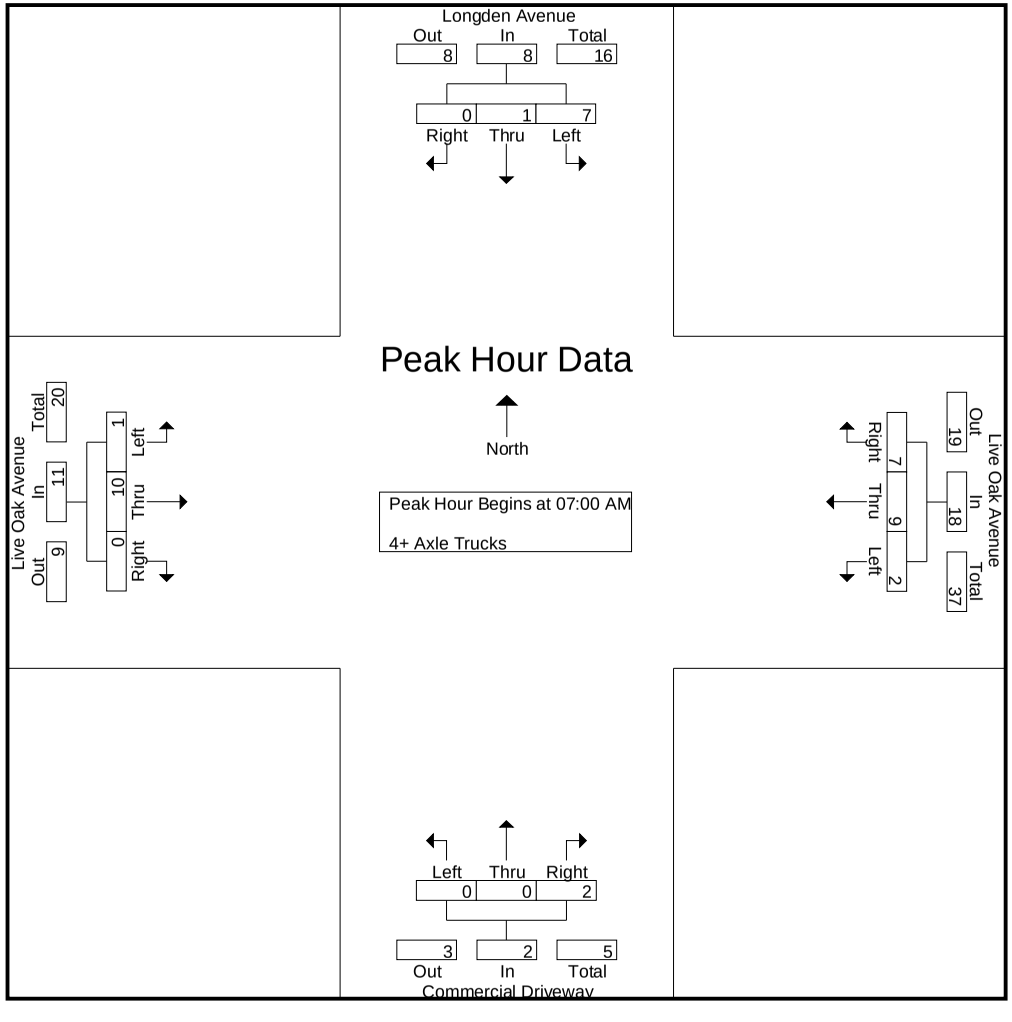
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	**1**	0	**3**	**1**	1	**4**	**6**	0	0	0	0	**1**	2	0	3	12
07:15 AM	**3**	0	0	3	0	2	1	3	0	0	**1**	**1**	0	1	0	1	8
07:30 AM	1	0	0	1	0	**5**	1	6	0	0	1	1	0	**5**	0	**5**	**13**
07:45 AM	1	0	0	1	1	1	1	3	0	0	0	0	0	2	0	2	6
Total Volume	7	1	0	8	2	9	7	18	0	0	2	2	1	10	0	11	39
% App. Total	87.5	12.5	0		11.1	50	38.9		0	0	100		9.1	90.9	0		
PHF	.583	.250	.000	.667	.500	.450	.438	.750	.000	.000	.500	.500	.250	.500	.000	.550	.750

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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	2	**1**	0	**3**	**1**	1	**4**	**6**	0	0	0	0	**1**	2	0	3	
+15 mins.	**3**	0	0	3	0	2	1	3	0	0	**1**	**1**	0	1	0	1	
+30 mins.	1	0	0	1	0	**5**	1	6	0	0	1	1	0	**5**	0	**5**	
+45 mins.	1	0	0	1	1	1	1	3	0	0	0	0	0	2	0	2	
Total Volume	7	1	0	8	2	9	7	18	0	0	2	2	1	10	0	11	
% App. Total	87.5	12.5	0		11.1	50	38.9		0	0	100		9.1	90.9	0		
PHF	.583	.250	.000	.667	.500	.450	.438	.750	.000	.000	.500	.500	.250	.500	.000	.550	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

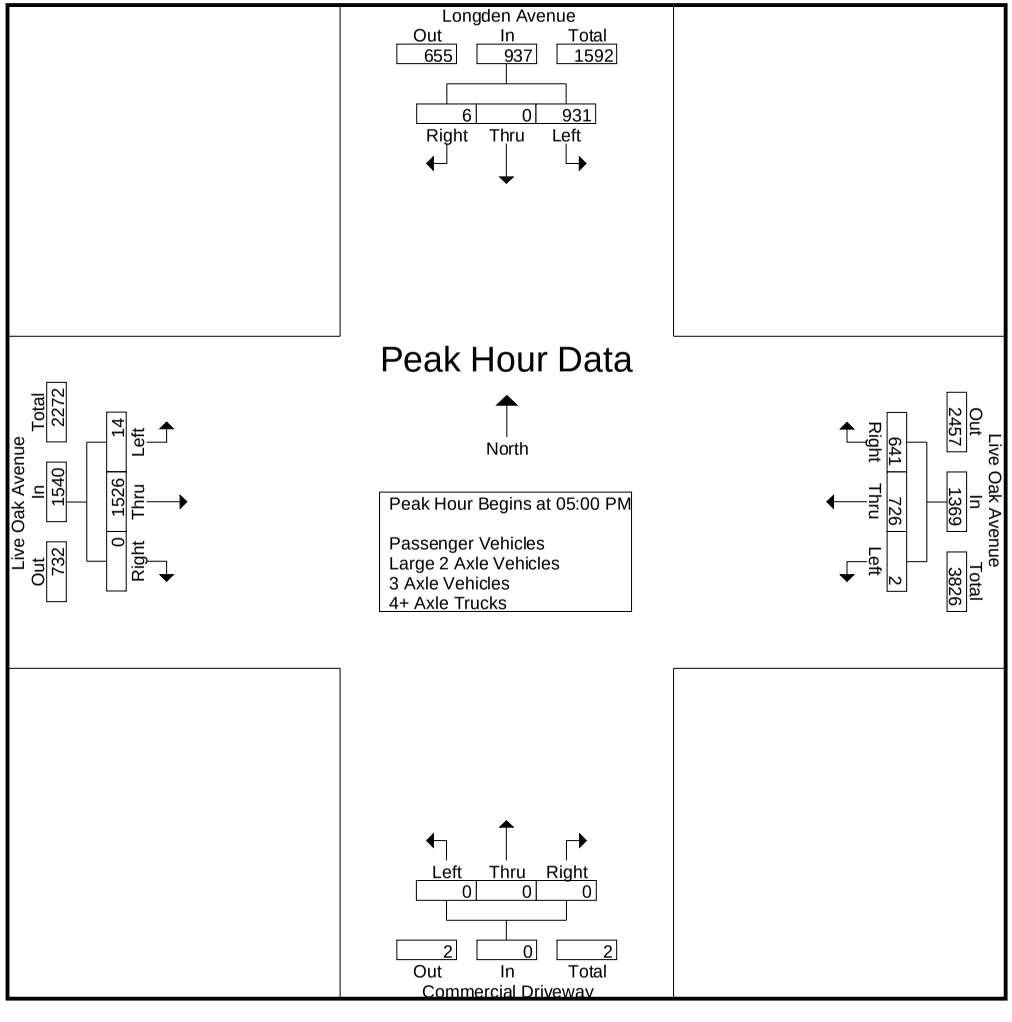
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	220	0	0	0	220	0	131	120	0	251	2	0	0	0	2	1	272	1	0	274	0	747	747
04:15 PM	224	0	2	1	226	1	138	132	0	271	1	1	1	1	3	0	315	1	0	316	2	816	818
04:30 PM	229	0	2	1	231	1	122	136	0	259	0	0	0	0	0	3	409	0	0	412	1	902	903
04:45 PM	227	0	0	0	227	1	150	149	1	300	0	0	0	0	0	2	408	0	0	410	1	937	938
Total	900	0	4	2	904	3	541	537	1	1081	3	1	1	1	5	6	1404	2	0	1412	4	3402	3406
05:00 PM	209	0	3	0	212	1	174	142	0	317	0	0	0	0	0	4	368	0	0	372	0	901	901
05:15 PM	262	0	1	0	263	1	194	158	0	353	0	0	0	0	0	3	396	0	0	399	0	1015	1015
05:30 PM	235	0	2	0	237	0	183	161	0	344	0	0	0	0	0	3	390	0	0	393	0	974	974
05:45 PM	225	0	0	0	225	0	175	180	0	355	0	0	0	0	0	4	372	0	0	376	0	956	956
Total	931	0	6	0	937	2	726	641	0	1369	0	0	0	0	0	14	1526	0	0	1540	0	3846	3846
Grand Total	1831	0	10	2	1841	5	1267	1178	1	2450	3	1	1	1	5	20	2930	2	0	2952	4	7248	7252
Apprch %	99.5	0	0.5			0.2	51.7	48.1			60	20	20			0.7	99.3	0.1					
Total %	25.3	0	0.1		25.4	0.1	17.5	16.3		33.8	0	0	0		0.1	0.3	40.4	0		40.7	0.1	99.9	
Passenger Vehicles	1786	0	5		1792	5	1218	1151		2375	3	1	1		6	18	2832	2		2852	0	0	7025
% Passenger Vehicles	97.5	0	50	50	97.2	100	96.1	97.7	100	96.9	100	100	100	100	100	90	96.7	100	0	96.6	0	0	96.9
Large 2 Axle Vehicles	39	0	5		45	0	31	20		51	0	0	0		0	1	68	0		69	0	0	165
% Large 2 Axle Vehicles	2.1	0	50	50	2.4	0	2.4	1.7	0	2.1	0	0	0	0	0	5	2.3	0	0	2.3	0	0	2.3
3 Axle Vehicles	5	0	0		5	0	7	7		14	0	0	0		0	0	25	0		25	0	0	44
% 3 Axle Vehicles	0.3	0	0	0	0.3	0	0.6	0.6	0	0.6	0	0	0	0	0	0	0.9	0	0	0.8	0	0	0.6
4+ Axle Trucks	1	0	0		1	0	11	0		11	0	0	0		0	1	5	0		6	0	0	18
% 4+ Axle Trucks	0.1	0	0	0	0.1	0	0.9	0	0	0.4	0	0	0	0	0	5	0.2	0	0	0.2	0	0	0.2

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	209	0	**3**	212	**1**	174	142	317	0	0	0	0	**4**	368	0	372	901
05:15 PM	**262**	0	1	**263**	1	**194**	158	353	0	0	0	0	3	**396**	0	**399**	**1015**
05:30 PM	235	0	2	237	0	183	161	344	0	0	0	0	3	390	0	393	974
05:45 PM	225	0	0	225	0	175	**180**	**355**	0	0	0	0	4	372	0	376	956
Total Volume	931	0	6	937	2	726	641	1369	0	0	0	0	14	1526	0	1540	3846
% App. Total	99.4	0	0.6		0.1	53	46.8		0	0	0		0.9	99.1	0		
PHF	.888	.000	.500	.891	.500	.936	.890	.964	.000	.000	.000	.000	.875	.963	.000	.965	.947

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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				04:00 PM				04:30 PM				
+0 mins.	227	0	0	227	**1**	174	142	317	**2**	0	0	2	3	**409**	0	**412**	
+15 mins.	209	0	**3**	212	1	**194**	158	353	1	**1**	**1**	**3**	2	408	0	410	
+30 mins.	**262**	0	1	**263**	0	183	161	344	0	0	0	0	**4**	368	0	372	
+45 mins.	235	0	2	237	0	175	**180**	**355**	0	0	0	0	3	396	0	399	
Total Volume	933	0	6	939	2	726	641	1369	3	1	1	5	12	1581	0	1593	
% App. Total	99.4	0	0.6		0.1	53	46.8		60	20	20		0.8	99.2	0		
PHF	.890	.000	.500	.893	.500	.936	.890	.964	.375	.250	.250	.417	.750	.966	.000	.967	

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Groups Printed- Passenger Vehicles

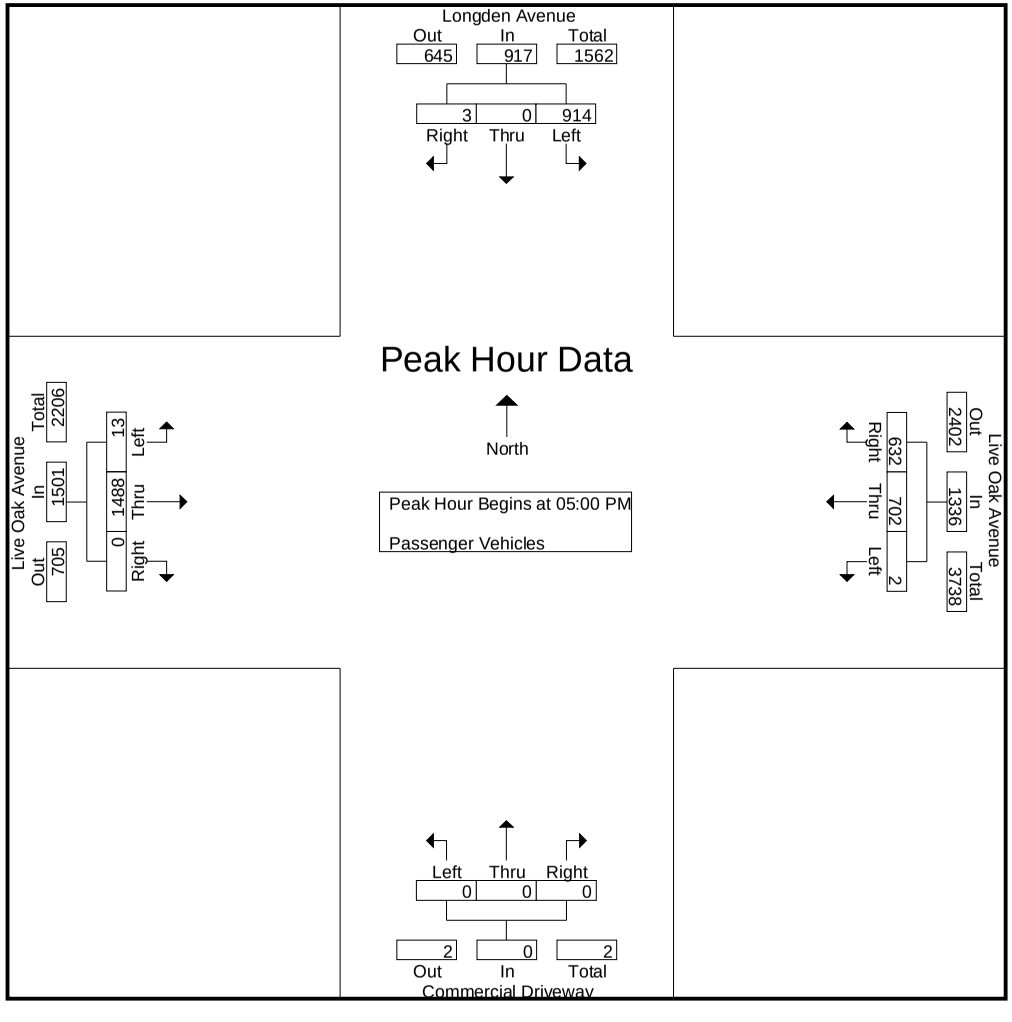
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	213	0	0	0	213	0	125	113	0	238	2	0	0	0	2	1	260	1	0	262	0	715	715
04:15 PM	216	0	1	0	217	1	127	126	0	254	1	1	1	1	3	0	304	1	0	305	1	779	780
04:30 PM	222	0	1	1	223	1	116	132	0	249	0	0	0	0	0	2	392	0	0	394	1	866	867
04:45 PM	221	0	0	0	221	1	148	148	1	297	0	0	0	0	0	2	388	0	0	390	1	908	909
Total	872	0	2	1	874	3	516	519	1	1038	3	1	1	1	5	5	1344	2	0	1351	3	3268	3271
05:00 PM	204	0	1	0	205	1	166	139	0	306	0	0	0	0	0	4	357	0	0	361	0	872	872
05:15 PM	257	0	1	0	258	1	189	155	0	345	0	0	0	0	0	3	389	0	0	392	0	995	995
05:30 PM	230	0	1	0	231	0	176	160	0	336	0	0	0	0	0	3	379	0	0	382	0	949	949
05:45 PM	223	0	0	0	223	0	171	178	0	349	0	0	0	0	0	3	363	0	0	366	0	938	938
Total	914	0	3	0	917	2	702	632	0	1336	0	0	0	0	0	13	1488	0	0	1501	0	3754	3754
Grand Total	1786	0	5	1	1791	5	1218	1151	1	2374	3	1	1	1	5	18	2832	2	0	2852	3	7022	7025
Apprch %	99.7	0	0.3			0.2	51.3	48.5			60	20	20			0.6	99.3	0.1					
Total %	25.4	0	0.1		25.5	0.1	17.3	16.4		33.8	0	0	0		0.1	0.3	40.3	0		40.6	0	100	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	204	0	**1**	205	**1**	166	139	306	0	0	0	0	**4**	357	0	361	872
05:15 PM	**257**	0	1	**258**	1	**189**	155	345	0	0	0	0	3	**389**	0	**392**	**995**
05:30 PM	230	0	1	231	0	176	160	336	0	0	0	0	3	379	0	382	949
05:45 PM	223	0	0	223	0	171	**178**	**349**	0	0	0	0	3	363	0	366	938
Total Volume	914	0	3	917	2	702	632	1336	0	0	0	0	13	1488	0	1501	3754
% App. Total	99.7	0	0.3		0.1	52.5	47.3		0	0	0		0.9	99.1	0		
PHF	.889	.000	.750	.889	.500	.929	.888	.957	.000	.000	.000	.000	.813	.956	.000	.957	.943

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N/S: Longden Avenue
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	204	0	**1**	205	**1**	166	139	306	0	0	0	0	**4**	357	0	361	
+15 mins.	**257**	0	1	**258**	1	**189**	155	345	0	0	0	0	3	**389**	0	**392**	
+30 mins.	230	0	1	231	0	176	160	336	0	0	0	0	3	379	0	382	
+45 mins.	223	0	0	223	0	171	**178**	**349**	0	0	0	0	3	363	0	366	
Total Volume	914	0	3	917	2	702	632	1336	0	0	0	0	13	1488	0	1501	
% App. Total	99.7	0	0.3		0.1	52.5	47.3		0	0	0		0.9	99.1	0		
PHF	.889	.000	.750	.889	.500	.929	.888	.957	.000	.000	.000	.000	.813	.956	.000	.957	

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Groups Printed- Large 2 Axle Vehicles

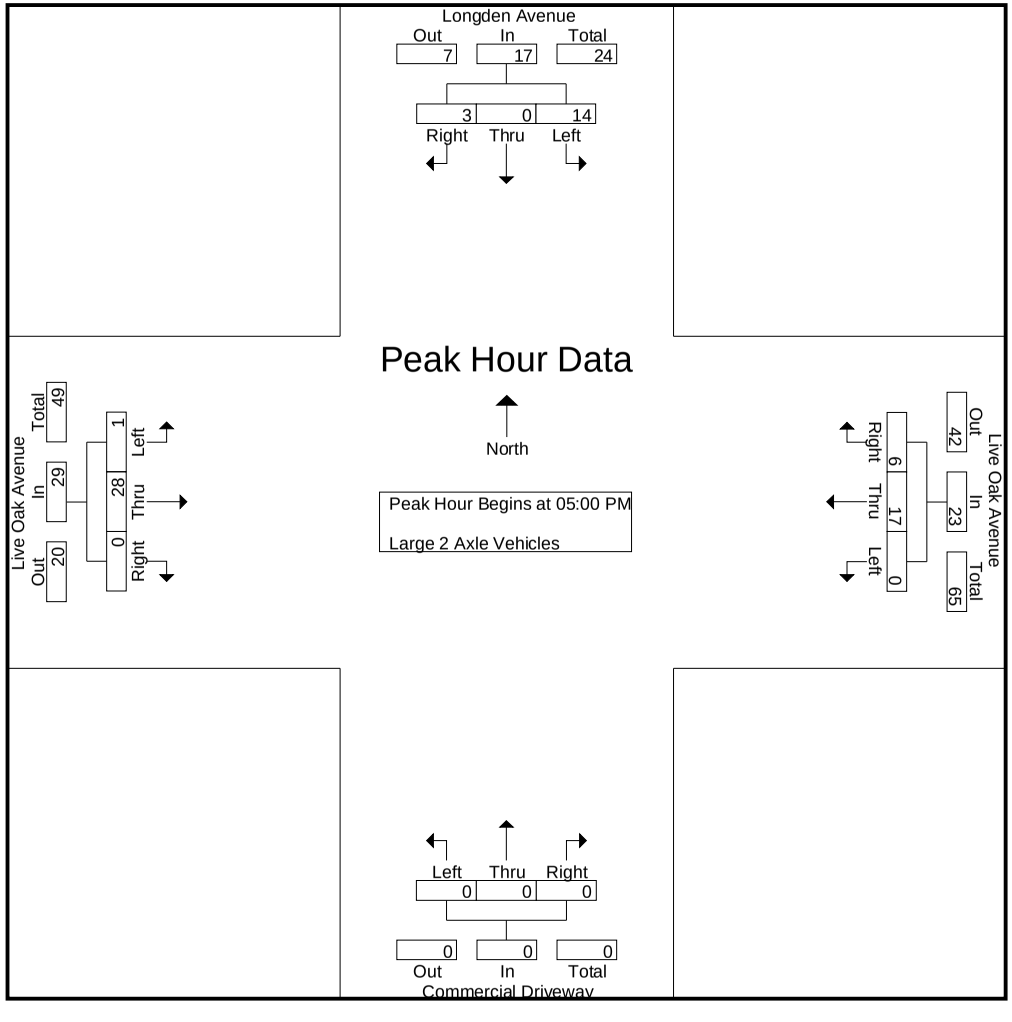
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	0	0	0	6	0	4	6	0	10	0	0	0	0	0	0	10	0	0	10	0	26	26
04:15 PM	8	0	1	1	9	0	4	4	0	8	0	0	0	0	0	0	10	0	0	10	1	27	28
04:30 PM	5	0	1	0	6	0	4	3	0	7	0	0	0	0	0	0	11	0	0	11	0	24	24
04:45 PM	6	0	0	0	6	0	2	1	0	3	0	0	0	0	0	0	9	0	0	9	0	18	18
Total	25	0	2	1	27	0	14	14	0	28	0	0	0	0	0	0	40	0	0	40	1	95	96
05:00 PM	3	0	2	0	5	0	5	1	0	6	0	0	0	0	0	0	8	0	0	8	0	19	19
05:15 PM	4	0	0	0	4	0	3	2	0	5	0	0	0	0	0	0	5	0	0	5	0	14	14
05:30 PM	5	0	1	0	6	0	6	1	0	7	0	0	0	0	0	0	9	0	0	9	0	22	22
05:45 PM	2	0	0	0	2	0	3	2	0	5	0	0	0	0	0	1	6	0	0	7	0	14	14
Total	14	0	3	0	17	0	17	6	0	23	0	0	0	0	0	1	28	0	0	29	0	69	69
Grand Total	39	0	5	1	44	0	31	20	0	51	0	0	0	0	0	1	68	0	0	69	1	164	165
Apprch %	88.6	0	11.4			0	60.8	39.2			0	0	0			1.4	98.6	0					
Total %	23.8	0	3		26.8	0	18.9	12.2		31.1	0	0	0		0	0.6	41.5	0		42.1	0.6	99.4	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	0	**2**	5	0	5	1	6	0	0	0	0	0	8	0	8	19
05:15 PM	4	0	0	4	0	3	**2**	5	0	0	0	0	0	5	0	5	14
05:30 PM	**5**	0	1	**6**	0	**6**	1	**7**	0	0	0	0	0	**9**	0	**9**	**22**
05:45 PM	2	0	0	2	0	3	2	5	0	0	0	0	**1**	6	0	7	14
Total Volume	14	0	3	17	0	17	6	23	0	0	0	0	1	28	0	29	69
% App. Total	82.4	0	17.6		0	73.9	26.1		0	0	0		3.4	96.6	0		
PHF	.700	.000	.375	.708	.000	.708	.750	.821	.000	.000	.000	.000	.250	.778	.000	.806	.784

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
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Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	3	0	**2**	5	0	5	1	6	0	0	0	0	0	8	0	8	
+15 mins.	4	0	0	4	0	3	**2**	5	0	0	0	0	0	5	0	5	
+30 mins.	**5**	0	1	**6**	0	**6**	1	**7**	0	0	0	0	0	**9**	0	**9**	
+45 mins.	2	0	0	2	0	3	2	5	0	0	0	0	**1**	6	0	7	
Total Volume	14	0	3	17	0	17	6	23	0	0	0	0	1	28	0	29	
% App. Total	82.4	0	17.6		0	73.9	26.1		0	0	0		3.4	96.6	0		
PHF	.700	.000	.375	.708	.000	.708	.750	.821	.000	.000	.000	.000	.250	.778	.000	.806	

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

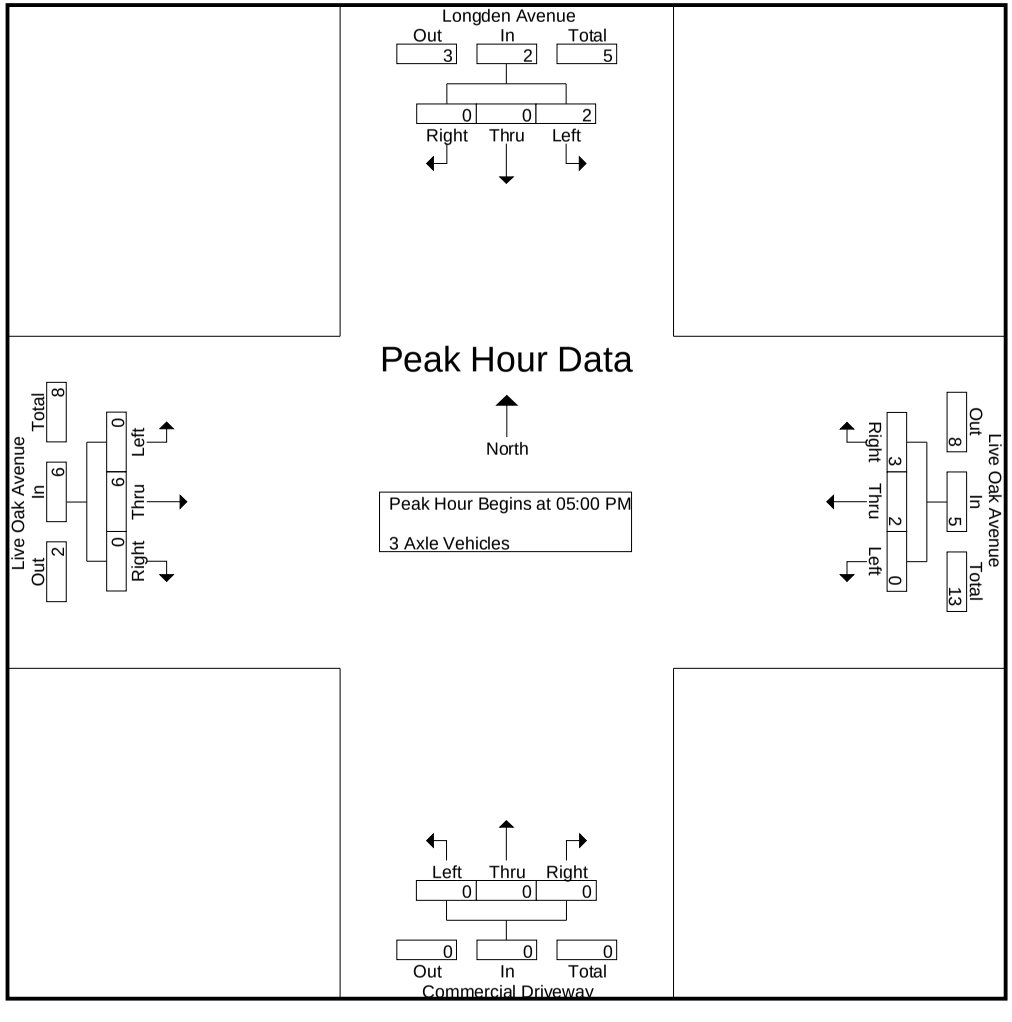
	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	0	5	5
04:15 PM	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	0	1	0	0	1	0	7	7
04:30 PM	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	5	0	0	5	0	8	8
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	11	11
Total	3	0	0	0	3	0	5	4	0	9	0	0	0	0	0	0	19	0	0	19	0	31	31
05:00 PM	1	0	0	0	1	0	1	2	0	3	0	0	0	0	0	0	3	0	0	3	0	7	7
05:15 PM	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
Total	2	0	0	0	2	0	2	3	0	5	0	0	0	0	0	0	6	0	0	6	0	13	13
Grand Total	5	0	0	0	5	0	7	7	0	14	0	0	0	0	0	0	25	0	0	25	0	44	44
Apprch %	100	0	0			0	50	50			0	0	0			0	100	0					
Total %	11.4	0	0		11.4	0	15.9	15.9		31.8	0	0	0		0	0	56.8	0		56.8	0	100	

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**1**	0	0	**1**	0	**1**	**2**	**3**	0	0	0	0	0	**3**	0	**3**	**7**
05:15 PM	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	2	0	0	2	0	2	3	5	0	0	0	0	0	6	0	6	13
% App. Total	100	0	0		0	40	60		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.000	.500	.375	.417	.000	.000	.000	.000	.000	.500	.000	.500	.464

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	**1**	0	0	**1**	0	**1**	**2**	**3**	0	0	0	0	0	**3**	0	**3**	
+15 mins.	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Total Volume	2	0	0	2	0	2	3	5	0	0	0	0	0	6	0	6	
% App. Total	100	0	0		0	40	60		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.000	.500	.375	.417	.000	.000	.000	.000	.000	.500	.000	.500	

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

	Longden Avenue Southbound					Live Oak Avenue Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
04:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	4	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	1	1	0	0	2	0	8	8
05:00 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	10	10
Grand Total	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	1	5	0	0	6	0	18	18
Apprch %	100	0	0			0	100	0			0	0	0			16.7	83.3	0					
Total %	5.6	0	0		5.6	0	61.1	0		61.1	0	0	0		0	5.6	27.8	0		33.3	0	100	

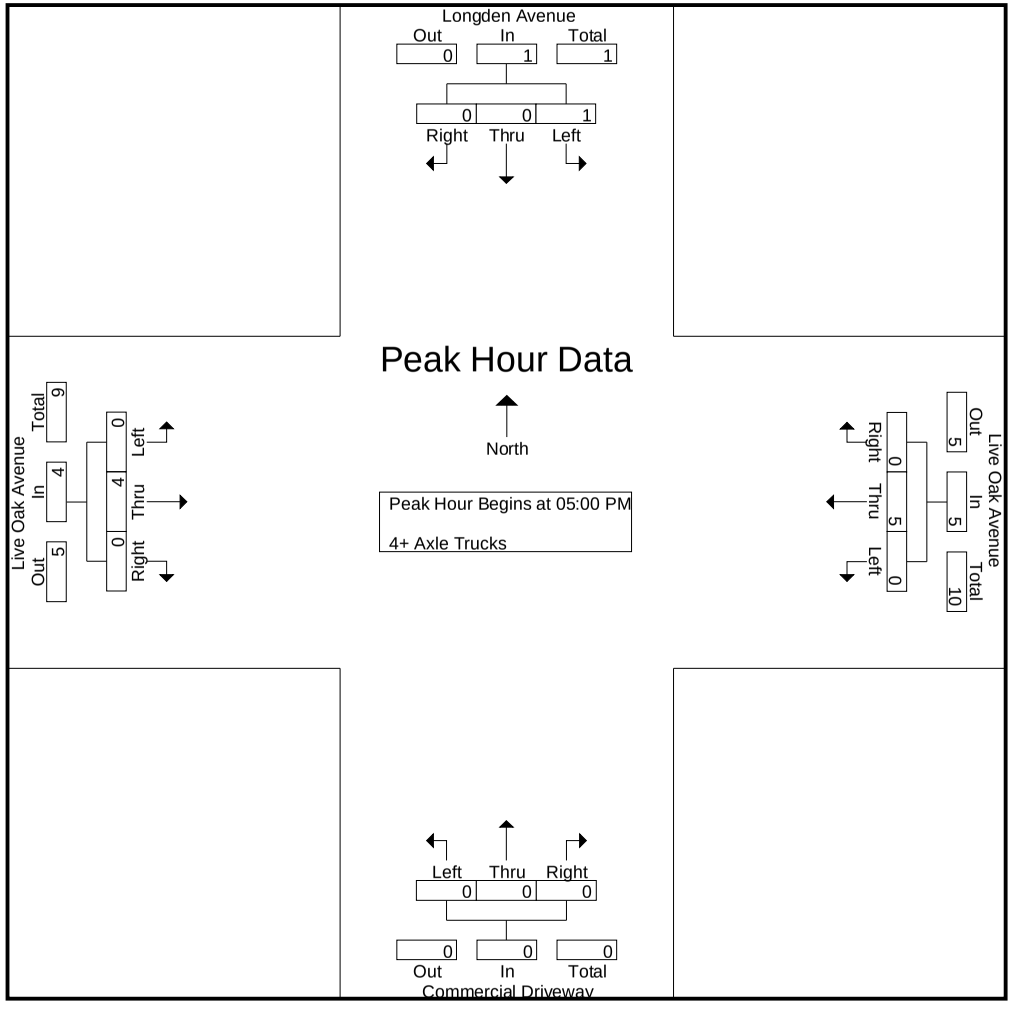
3.1-92

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**1**	0	0	**1**	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**3**
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**	3
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total Volume	1	0	0	1	0	5	0	5	0	0	0	0	0	4	0	4	10
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.500	.000	.500	.833

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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 03_IRW_ LD Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Longden Avenue Southbound				Live Oak Avenue Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	**1**	0	0	**1**	0	**2**	0	**2**	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
Total Volume	1	0	0	1	0	5	0	5	0	0	0	0	0	4	0	4	
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	.500	.000	.500	

Location: Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Longden Avenue	East Leg Live Oak Avenue	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
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	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Longden Avenue	East Leg Live Oak Avenue	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
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	1	1	0	0	2
TOTAL VOLUMES:	1	1	0	0	2

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Location: Irwindale
N/S: Longden Avenue
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Longden Avenue	East Leg Live Oak Avenue	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
7:00 AM	1	1	0	0	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	1	1
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	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	1	1	4

	North Leg Longden Avenue	East Leg Live Oak Avenue	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	0	0	1	0	1
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 VOLUMES:	0	0	2	0	2

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

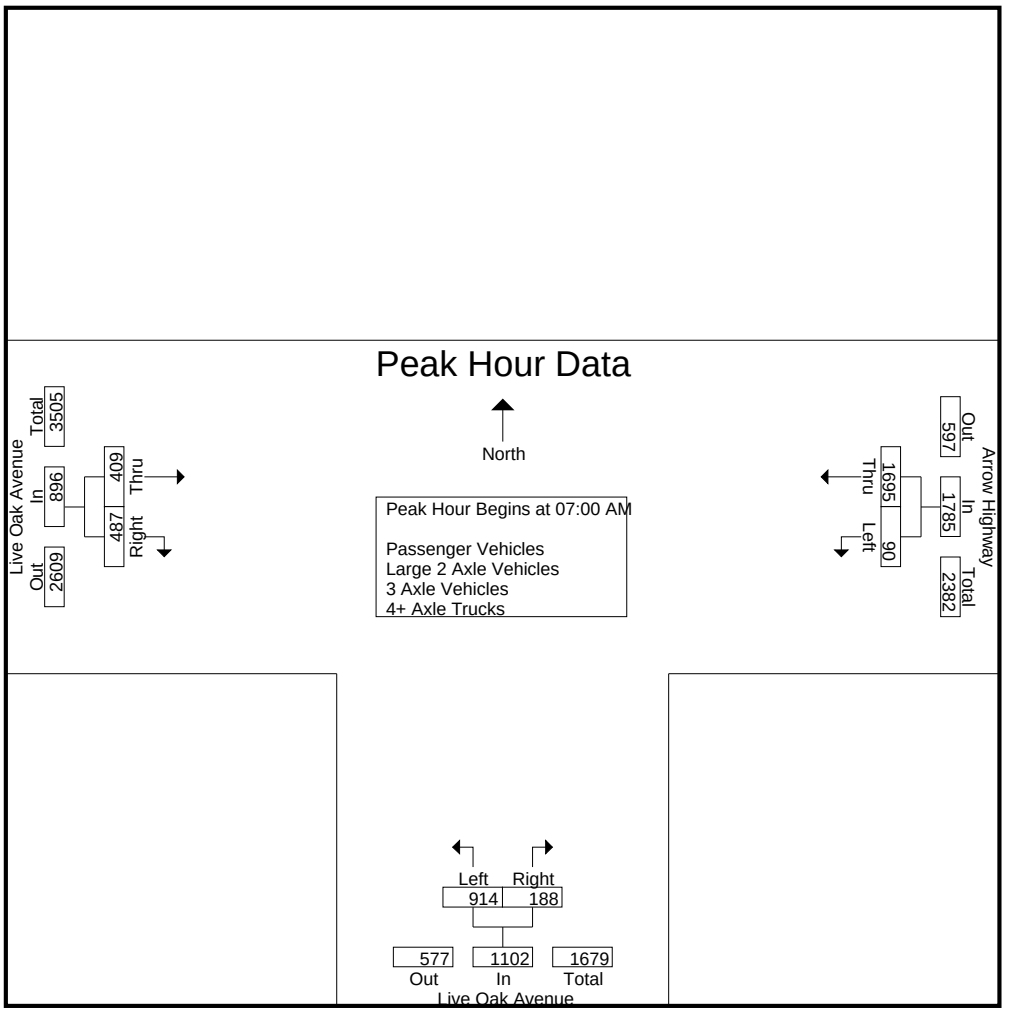
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	25	444	0	469	256	38	20	294	75	120	0	195	20	958	978
07:15 AM	32	469	0	501	231	40	25	271	86	120	0	206	25	978	1003
07:30 AM	15	422	0	437	208	52	33	260	112	134	0	246	33	943	976
07:45 AM	18	360	0	378	219	58	34	277	136	113	0	249	34	904	938
Total	90	1695	0	1785	914	188	112	1102	409	487	0	896	112	3783	3895
08:00 AM	27	293	0	320	229	57	33	286	109	158	0	267	33	873	906
08:15 AM	25	265	0	290	231	51	28	282	111	145	0	256	28	828	856
08:30 AM	23	237	0	260	170	41	23	211	114	151	0	265	23	736	759
08:45 AM	39	215	0	254	188	44	23	232	100	147	0	247	23	733	756
Total	114	1010	0	1124	818	193	107	1011	434	601	0	1035	107	3170	3277
Grand Total	204	2705	0	2909	1732	381	219	2113	843	1088	0	1931	219	6953	7172
Apprch %	7	93			82	18			43.7	56.3					
Total %	2.9	38.9		41.8	24.9	5.5		30.4	12.1	15.6		27.8	3.1	96.9	
Passenger Vehicles	151	2579		2730	1603	314		2092	744	953		1697	0	0	6519
% Passenger Vehicles	74	95.3	0	93.8	92.6	82.4	79.9	89.7	88.3	87.6	0	87.9	0	0	90.9
Large 2 Axle Vehicles	3	57		60	68	13		90	42	51		93	0	0	243
% Large 2 Axle Vehicles	1.5	2.1	0	2.1	3.9	3.4	4.1	3.9	5	4.7	0	4.8	0	0	3.4
3 Axle Vehicles	13	41		54	33	16		59	27	55		82	0	0	195
% 3 Axle Vehicles	6.4	1.5	0	1.9	1.9	4.2	4.6	2.5	3.2	5.1	0	4.2	0	0	2.7
4+ Axle Trucks	37	28		65	28	38		91	30	29		59	0	0	215
% 4+ Axle Trucks	18.1	1	0	2.2	1.6	10	11.4	3.9	3.6	2.7	0	3.1	0	0	3

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	25	444	469	**256**	38	**294**	75	120	195	958
07:15 AM	**32**	**469**	**501**	231	40	271	86	120	206	**978**
07:30 AM	15	422	437	208	52	260	112	**134**	246	943
07:45 AM	18	360	378	219	**58**	277	**136**	113	**249**	904
Total Volume	90	1695	1785	914	188	1102	409	487	896	3783
% App. Total	5	95		82.9	17.1		45.6	54.4		
PHF	.703	.904	.891	.893	.810	.937	.752	.909	.900	.967

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:45 AM		
+0 mins.	25	444	469	208	52	260	**136**	113	249
+15 mins.	**32**	**469**	**501**	219	**58**	277	109	**158**	**267**
+30 mins.	15	422	437	229	57	**286**	111	145	256
+45 mins.	18	360	378	**231**	51	282	114	151	265
Total Volume	90	1695	1785	887	218	1105	470	567	1037
% App. Total	5	95		80.3	19.7		45.3	54.7	
PHF	.703	.904	.891	.960	.940	.966	.864	.897	.971

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

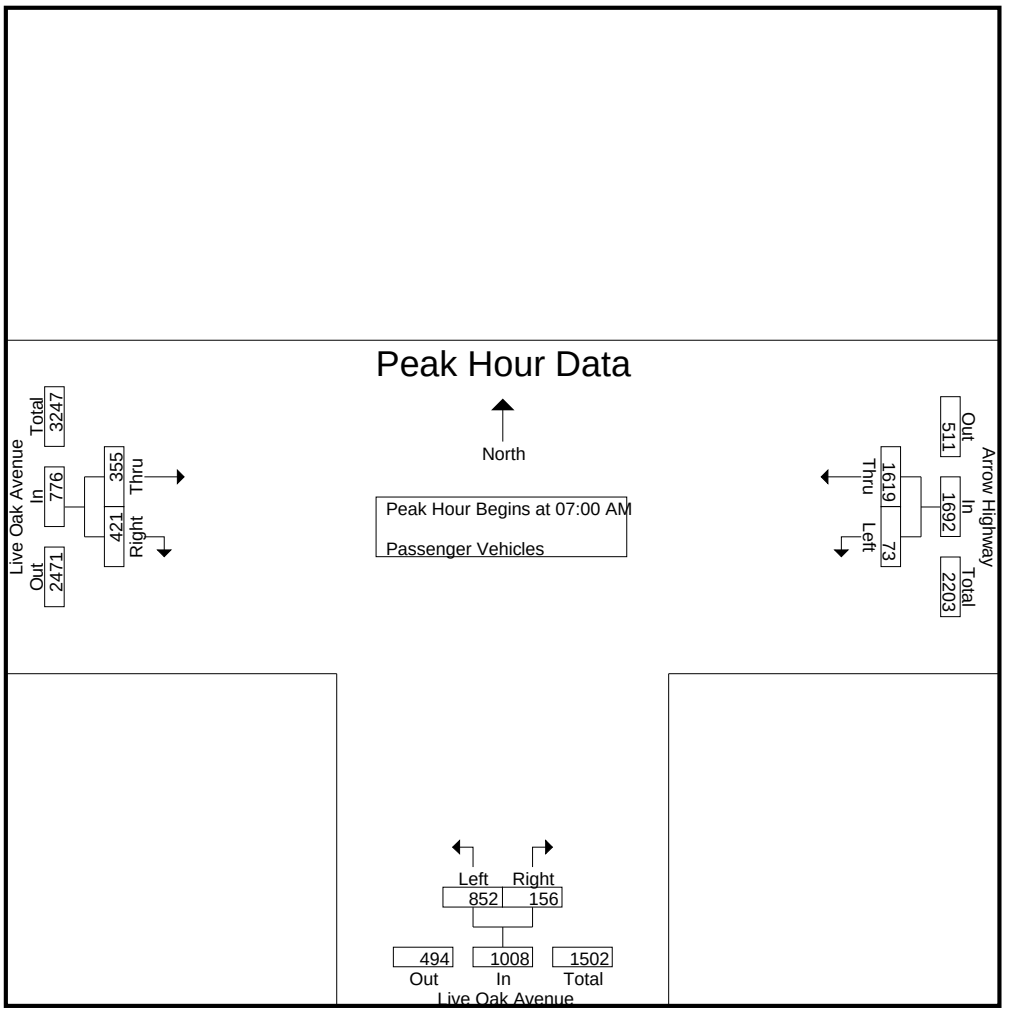
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	23	423	0	446	244	31	17	275	58	102	0	160	17	881	898
07:15 AM	25	450	0	475	213	33	21	246	78	103	0	181	21	902	923
07:30 AM	13	403	0	416	194	42	25	236	94	118	0	212	25	864	889
07:45 AM	12	343	0	355	201	50	28	251	125	98	0	223	28	829	857
Total	73	1619	0	1692	852	156	91	1008	355	421	0	776	91	3476	3567
08:00 AM	19	284	0	303	214	49	28	263	101	144	0	245	28	811	839
08:15 AM	19	252	0	271	212	44	23	256	98	127	0	225	23	752	775
08:30 AM	18	224	0	242	153	29	14	182	102	136	0	238	14	662	676
08:45 AM	22	200	0	222	172	36	19	208	88	125	0	213	19	643	662
Total	78	960	0	1038	751	158	84	909	389	532	0	921	84	2868	2952
Grand Total	151	2579	0	2730	1603	314	175	1917	744	953	0	1697	175	6344	6519
Apprch %	5.5	94.5			83.6	16.4			43.8	56.2					
Total %	2.4	40.7		43	25.3	4.9		30.2	11.7	15		26.7	2.7	97.3	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	23	423	446	**244**	31	**275**	58	102	160	881
07:15 AM	**25**	**450**	**475**	213	33	246	78	103	181	**902**
07:30 AM	13	403	416	194	42	236	94	**118**	212	864
07:45 AM	12	343	355	201	**50**	251	**125**	98	**223**	829
Total Volume	73	1619	1692	852	156	1008	355	421	776	3476
% App. Total	4.3	95.7		84.5	15.5		45.7	54.3		
PHF	.730	.899	.891	.873	.780	.916	.710	.892	.870	.963

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	23	423	446	**244**	31	**275**	58	102	160
+15 mins.	**25**	**450**	**475**	213	33	246	78	103	181
+30 mins.	13	403	416	194	42	236	94	**118**	212
+45 mins.	12	343	355	201	**50**	251	**125**	98	**223**
Total Volume	73	1619	1692	852	156	1008	355	421	776
% App. Total	4.3	95.7		84.5	15.5		45.7	54.3	
PHF	.730	.899	.891	.873	.780	.916	.710	.892	.870

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
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Groups Printed- Large 2 Axle Vehicles

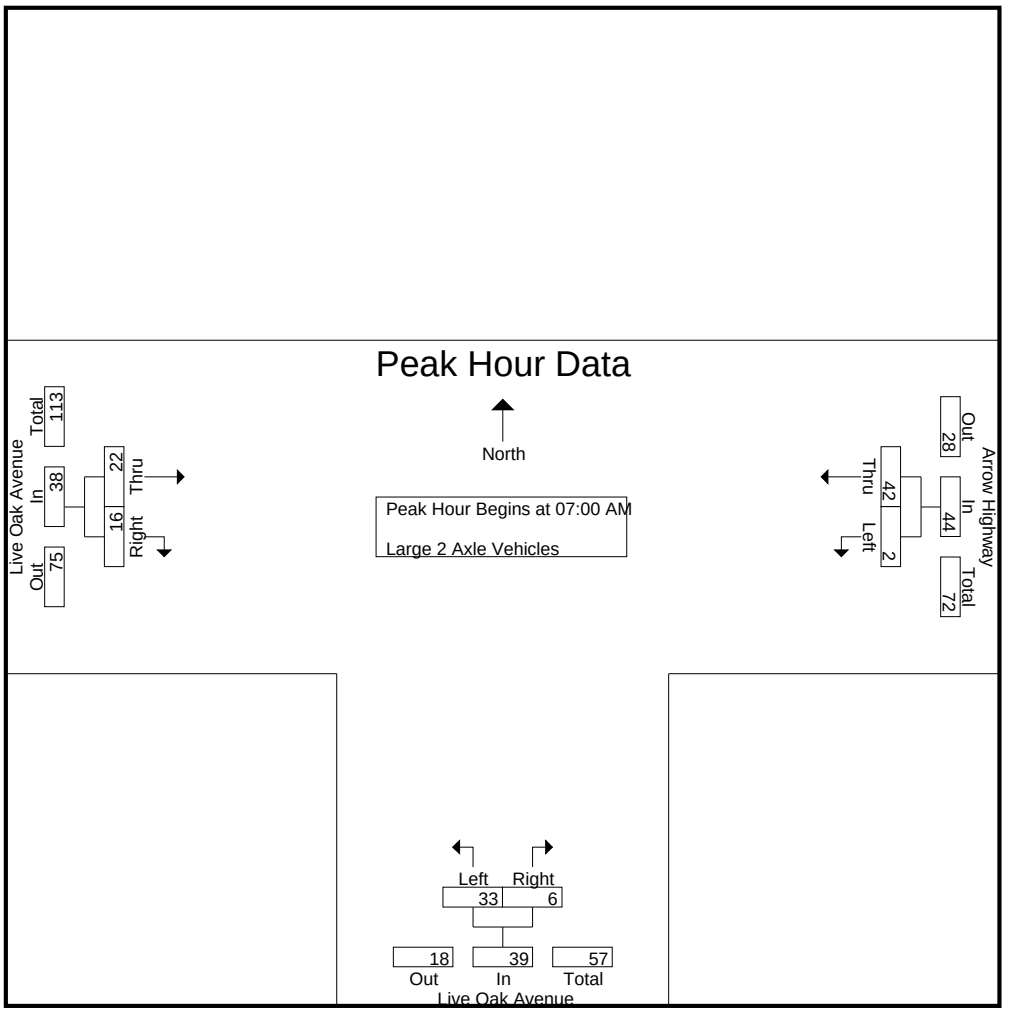
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	8	0	8	4	1	0	5	9	2	0	11	0	24	24
07:15 AM	1	13	0	14	10	0	0	10	2	4	0	6	0	30	30
07:30 AM	0	11	0	11	7	0	0	7	6	5	0	11	0	29	29
07:45 AM	1	10	0	11	12	5	4	17	5	5	0	10	4	38	42
Total	2	42	0	44	33	6	4	39	22	16	0	38	4	121	125
08:00 AM	0	3	0	3	6	3	2	9	5	6	0	11	2	23	25
08:15 AM	0	4	0	4	13	2	2	15	6	8	0	14	2	33	35
08:30 AM	0	4	0	4	10	1	1	11	4	9	0	13	1	28	29
08:45 AM	1	4	0	5	6	1	0	7	5	12	0	17	0	29	29
Total	1	15	0	16	35	7	5	42	20	35	0	55	5	113	118
Grand Total	3	57	0	60	68	13	9	81	42	51	0	93	9	234	243
Apprch %	5	95			84	16			45.2	54.8					
Total %	1.3	24.4		25.6	29.1	5.6		34.6	17.9	21.8		39.7	3.7	96.3	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	8	8	4	1	5	**9**	2	**11**	24
07:15 AM	**1**	**13**	**14**	10	0	10	2	4	6	30
07:30 AM	0	11	11	7	0	7	6	**5**	11	29
07:45 AM	1	10	11	**12**	**5**	**17**	5	5	10	**38**
Total Volume	2	42	44	33	6	39	22	16	38	121
% App. Total	4.5	95.5		84.6	15.4		57.9	42.1		
PHF	.500	.808	.786	.688	.300	.574	.611	.800	.864	.796

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	8	8	4	1	5	**9**	2	**11**
+15 mins.	**1**	**13**	**14**	10	0	10	2	4	6
+30 mins.	0	11	11	7	0	7	6	**5**	11
+45 mins.	1	10	11	**12**	**5**	**17**	5	5	10
Total Volume	2	42	44	33	6	39	22	16	38
% App. Total	4.5	95.5		84.6	15.4		57.9	42.1	
PHF	.500	.808	.786	.688	.300	.574	.611	.800	.864

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
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Groups Printed- 3 Axle Vehicles

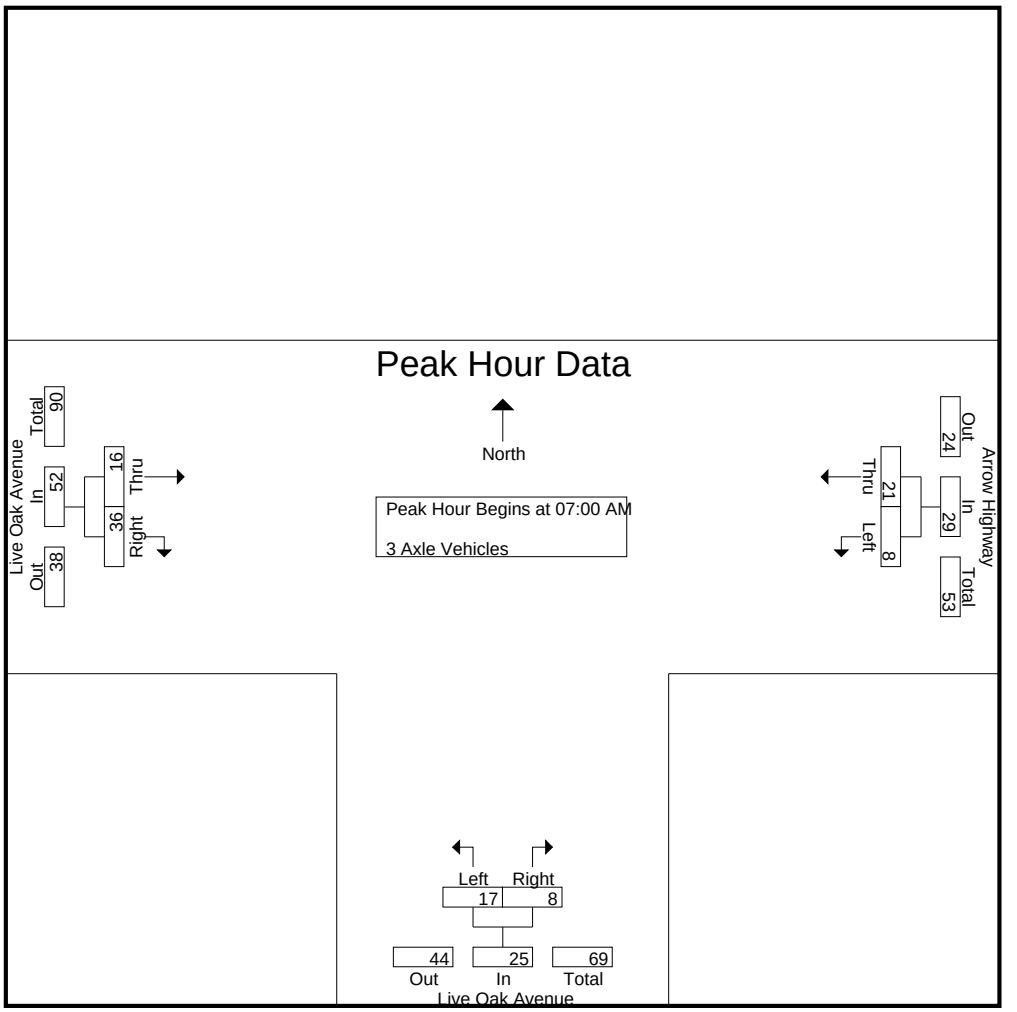
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	6	0	7	5	2	0	7	5	12	0	17	0	31	31
07:15 AM	4	6	0	10	5	2	1	7	4	10	0	14	1	31	32
07:30 AM	2	5	0	7	2	4	3	6	4	7	0	11	3	24	27
07:45 AM	1	4	0	5	5	0	0	5	3	7	0	10	0	20	20
Total	8	21	0	29	17	8	4	25	16	36	0	52	4	106	110
08:00 AM	1	5	0	6	4	2	2	6	0	6	0	6	2	18	20
08:15 AM	1	6	0	7	5	2	1	7	4	4	0	8	1	22	23
08:30 AM	0	4	0	4	2	2	2	4	4	3	0	7	2	15	17
08:45 AM	3	5	0	8	5	2	1	7	3	6	0	9	1	24	25
Total	5	20	0	25	16	8	6	24	11	19	0	30	6	79	85
Grand Total	13	41	0	54	33	16	10	49	27	55	0	82	10	185	195
Apprch %	24.1	75.9			67.3	32.7			32.9	67.1					
Total %	7	22.2		29.2	17.8	8.6		26.5	14.6	29.7		44.3	5.1	94.9	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**6**	7	**5**	2	**7**	**5**	**12**	**17**	**31**
07:15 AM	**4**	6	**10**	5	2	7	4	10	14	31
07:30 AM	2	5	7	2	**4**	6	4	7	11	24
07:45 AM	1	4	5	5	0	5	3	7	10	20
Total Volume	8	21	29	17	8	25	16	36	52	106
% App. Total	27.6	72.4		68	32		30.8	69.2		
PHF	.500	.875	.725	.850	.500	.893	.800	.750	.765	.855

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	**6**	7	**5**	2	**7**	**5**	**12**	**17**
+15 mins.	**4**	6	**10**	5	2	7	4	10	14
+30 mins.	2	5	7	2	**4**	6	4	7	11
+45 mins.	1	4	5	5	0	5	3	7	10
Total Volume	8	21	29	17	8	25	16	36	52
% App. Total	27.6	72.4		68	32		30.8	69.2	
PHF	.500	.875	.725	.850	.500	.893	.800	.750	.765

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 4+ Axle Trucks

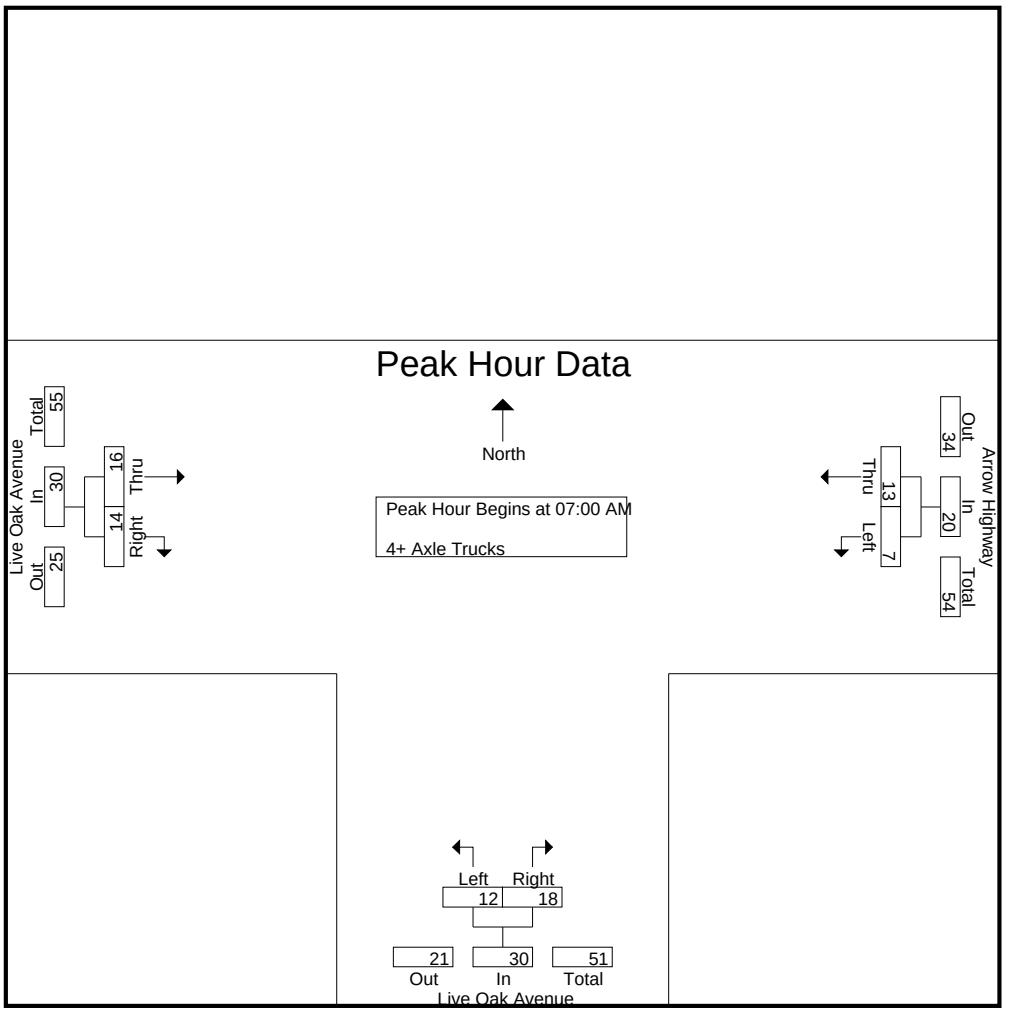
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	7	0	8	3	4	3	7	3	4	0	7	3	22	25
07:15 AM	2	0	0	2	3	5	3	8	2	3	0	5	3	15	18
07:30 AM	0	3	0	3	5	6	5	11	8	4	0	12	5	26	31
07:45 AM	4	3	0	7	1	3	2	4	3	3	0	6	2	17	19
Total	7	13	0	20	12	18	13	30	16	14	0	30	13	80	93
08:00 AM	7	1	0	8	5	3	1	8	3	2	0	5	1	21	22
08:15 AM	5	3	0	8	1	3	2	4	3	6	0	9	2	21	23
08:30 AM	5	5	0	10	5	9	6	14	4	3	0	7	6	31	37
08:45 AM	13	6	0	19	5	5	3	10	4	4	0	8	3	37	40
Total	30	15	0	45	16	20	12	36	14	15	0	29	12	110	122
Grand Total	37	28	0	65	28	38	25	66	30	29	0	59	25	190	215
Apprch %	56.9	43.1			42.4	57.6			50.8	49.2					
Total %	19.5	14.7		34.2	14.7	20		34.7	15.8	15.3		31.1	11.6	88.4	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**7**	**8**	3	4	7	3	**4**	7	22
07:15 AM	2	0	2	3	5	8	2	3	5	15
07:30 AM	0	3	3	**5**	**6**	**11**	**8**	4	**12**	**26**
07:45 AM	**4**	3	7	1	3	4	3	3	6	17
Total Volume	7	13	20	12	18	30	16	14	30	80
% App. Total	35	65		40	60		53.3	46.7		
PHF	.438	.464	.625	.600	.750	.682	.500	.875	.625	.769

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	**7**	**8**	3	4	7	3	**4**	7
+15 mins.	2	0	2	3	5	8	2	3	5
+30 mins.	0	3	3	**5**	**6**	**11**	**8**	4	**12**
+45 mins.	**4**	3	7	1	3	4	3	3	6
Total Volume	7	13	20	12	18	30	16	14	30
% App. Total	35	65		40	60		53.3	46.7	
PHF	.438	.464	.625	.600	.750	.682	.500	.875	.625

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

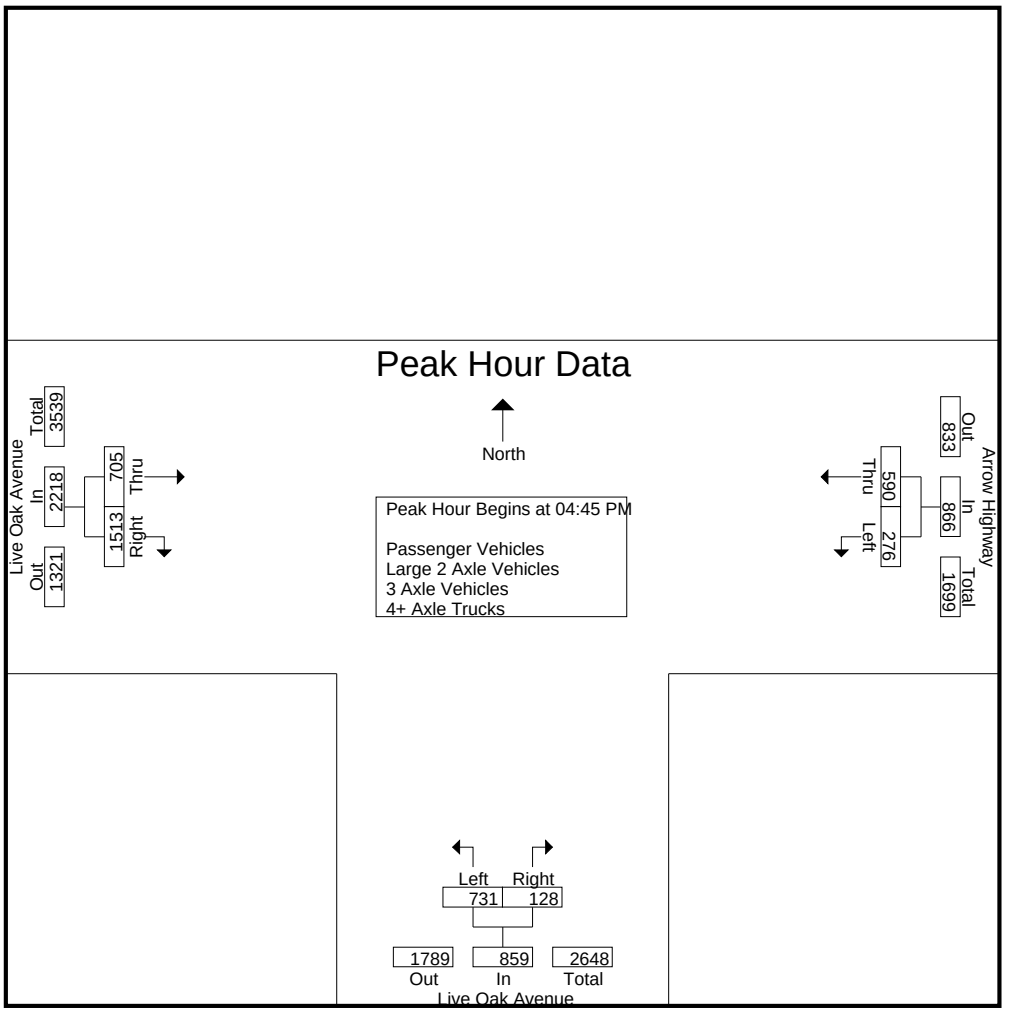
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	40	107	0	147	156	46	24	202	125	346	0	471	24	820	844
04:15 PM	46	115	0	161	165	41	26	206	160	322	0	482	26	849	875
04:30 PM	58	117	0	175	150	39	18	189	208	374	0	582	18	946	964
04:45 PM	64	142	0	206	157	30	16	187	179	418	0	597	16	990	1006
Total	208	481	0	689	628	156	84	784	672	1460	0	2132	84	3605	3689
05:00 PM	70	139	0	209	180	37	22	217	176	366	0	542	22	968	990
05:15 PM	70	156	0	226	210	36	17	246	171	358	0	529	17	1001	1018
05:30 PM	72	153	0	225	184	25	17	209	179	371	0	550	17	984	1001
05:45 PM	61	151	0	212	213	24	18	237	197	320	0	517	18	966	984
Total	273	599	0	872	787	122	74	909	723	1415	0	2138	74	3919	3993
Grand Total	481	1080	0	1561	1415	278	158	1693	1395	2875	0	4270	158	7524	7682
Apprch %	30.8	69.2			83.6	16.4			32.7	67.3					
Total %	6.4	14.4		20.7	18.8	3.7		22.5	18.5	38.2		56.8	2.1	97.9	
Passenger Vehicles	452	1028		1480	1340	244		1728	1358	2793		4151	0	0	7359
% Passenger Vehicles	94	95.2	0	94.8	94.7	87.8	91.1	93.4	97.3	97.1	0	97.2	0	0	95.8
Large 2 Axle Vehicles	11	29		40	41	10		54	26	49		75	0	0	169
% Large 2 Axle Vehicles	2.3	2.7	0	2.6	2.9	3.6	1.9	2.9	1.9	1.7	0	1.8	0	0	2.2
3 Axle Vehicles	1	8		9	17	8		30	4	29		33	0	0	72
% 3 Axle Vehicles	0.2	0.7	0	0.6	1.2	2.9	3.2	1.6	0.3	1	0	0.8	0	0	0.9
4+ Axle Trucks	17	15		32	17	16		39	7	4		11	0	0	82
% 4+ Axle Trucks	3.5	1.4	0	2	1.2	5.8	3.8	2.1	0.5	0.1	0	0.3	0	0	1.1

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	64	142	206	157	30	187	**179**	**418**	**597**	990
05:00 PM	70	139	209	180	**37**	217	176	366	542	968
05:15 PM	70	**156**	**226**	**210**	36	**246**	171	358	529	**1001**
05:30 PM	**72**	153	225	184	25	209	179	371	550	984
Total Volume	276	590	866	731	128	859	705	1513	2218	3943
% App. Total	31.9	68.1		85.1	14.9		31.8	68.2		
PHF	.958	.946	.958	.870	.865	.873	.985	.905	.929	.985

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

City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:30 PM		
+0 mins.	70	139	209	180	**37**	217	**208**	374	582
+15 mins.	70	**156**	**226**	210	36	**246**	179	**418**	**597**
+30 mins.	**72**	153	225	184	25	209	176	366	542
+45 mins.	61	151	212	**213**	24	237	171	358	529
Total Volume	273	599	872	787	122	909	734	1516	2250
% App. Total	31.3	68.7		86.6	13.4		32.6	67.4	
PHF	.948	.960	.965	.924	.824	.924	.882	.907	.942

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

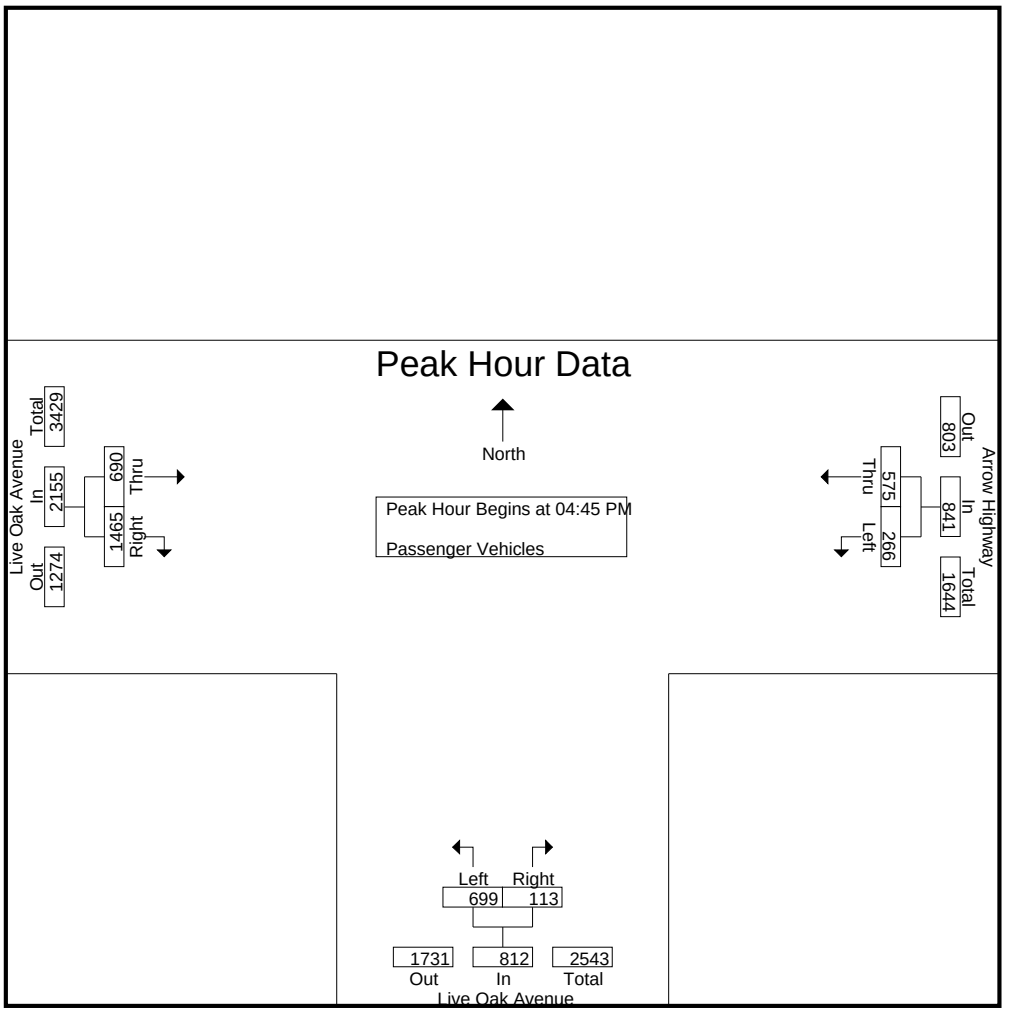
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	34	100	0	134	143	36	20	179	122	335	0	457	20	770	790
04:15 PM	42	101	0	143	148	35	24	183	153	315	0	468	24	794	818
04:30 PM	50	104	0	154	143	36	17	179	202	364	0	566	17	899	916
04:45 PM	61	139	0	200	152	28	15	180	172	397	0	569	15	949	964
Total	187	444	0	631	586	135	76	721	649	1411	0	2060	76	3412	3488
05:00 PM	67	135	0	202	167	31	19	198	171	358	0	529	19	929	948
05:15 PM	68	152	0	220	203	32	15	235	170	348	0	518	15	973	988
05:30 PM	70	149	0	219	177	22	16	199	177	362	0	539	16	957	973
05:45 PM	60	148	0	208	207	24	18	231	191	314	0	505	18	944	962
Total	265	584	0	849	754	109	68	863	709	1382	0	2091	68	3803	3871
Grand Total	452	1028	0	1480	1340	244	144	1584	1358	2793	0	4151	144	7215	7359
Apprch %	30.5	69.5			84.6	15.4			32.7	67.3					
Total %	6.3	14.2		20.5	18.6	3.4		22	18.8	38.7		57.5	2	98	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	61	139	200	152	28	180	172	**397**	**569**	949
05:00 PM	67	135	202	167	31	198	171	358	529	929
05:15 PM	68	**152**	**220**	**203**	**32**	**235**	170	348	518	**973**
05:30 PM	**70**	149	219	177	22	199	**177**	362	539	957
Total Volume	266	575	841	699	113	812	690	1465	2155	3808
% App. Total	31.6	68.4		86.1	13.9		32	68		
PHF	.950	.946	.956	.861	.883	.864	.975	.923	.947	.978

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	61	139	200	152	28	180	172	**397**	**569**
+15 mins.	67	135	202	167	31	198	171	358	529
+30 mins.	68	**152**	**220**	**203**	**32**	**235**	170	348	518
+45 mins.	**70**	149	219	177	22	199	**177**	362	539
Total Volume	266	575	841	699	113	812	690	1465	2155
% App. Total	31.6	68.4		86.1	13.9		32	68	
PHF	.950	.946	.956	.861	.883	.864	.975	.923	.947

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Large 2 Axle Vehicles

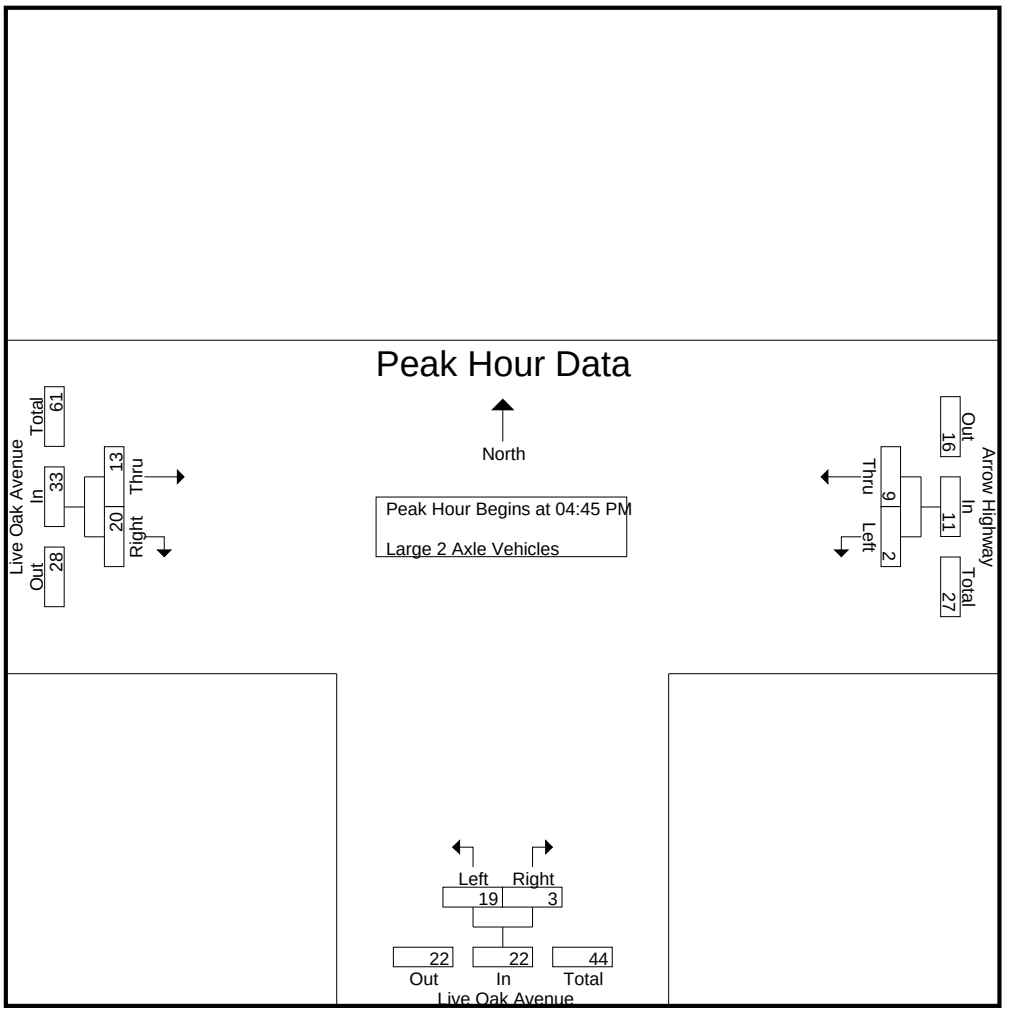
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	5	0	6	8	3	1	11	3	10	0	13	1	30	31
04:15 PM	3	7	0	10	8	2	0	10	4	7	0	11	0	31	31
04:30 PM	5	7	0	12	2	2	1	4	2	6	0	8	1	24	25
04:45 PM	0	2	0	2	3	0	0	3	5	10	0	15	0	20	20
Total	9	21	0	30	21	7	2	28	14	33	0	47	2	105	107
05:00 PM	1	1	0	2	7	2	1	9	5	3	0	8	1	19	20
05:15 PM	1	2	0	3	5	1	0	6	1	3	0	4	0	13	13
05:30 PM	0	4	0	4	4	0	0	4	2	4	0	6	0	14	14
05:45 PM	0	1	0	1	4	0	0	4	4	6	0	10	0	15	15
Total	2	8	0	10	20	3	1	23	12	16	0	28	1	61	62
Grand Total	11	29	0	40	41	10	3	51	26	49	0	75	3	166	169
Apprch %	27.5	72.5			80.4	19.6			34.7	65.3					
Total %	6.6	17.5		24.1	24.7	6		30.7	15.7	29.5		45.2	1.8	98.2	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	2	2	3	0	3	**5**	**10**	**15**	**20**
05:00 PM	**1**	1	2	**7**	**2**	**9**	5	3	8	19
05:15 PM	1	2	3	5	1	6	1	3	4	13
05:30 PM	0	**4**	**4**	4	0	4	2	4	6	14
Total Volume	2	9	11	19	3	22	13	20	33	66
% App. Total	18.2	81.8		86.4	13.6		39.4	60.6		
PHF	.500	.563	.688	.679	.375	.611	.650	.500	.550	.825

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	2	2	3	0	3	**5**	**10**	**15**
+15 mins.	**1**	1	2	**7**	**2**	**9**	5	3	8
+30 mins.	1	2	3	5	1	6	1	3	4
+45 mins.	0	**4**	**4**	4	0	4	2	4	6
Total Volume	2	9	11	19	3	22	13	20	33
% App. Total	18.2	81.8		86.4	13.6		39.4	60.6	
PHF	.500	.563	.688	.679	.375	.611	.650	.500	.550

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

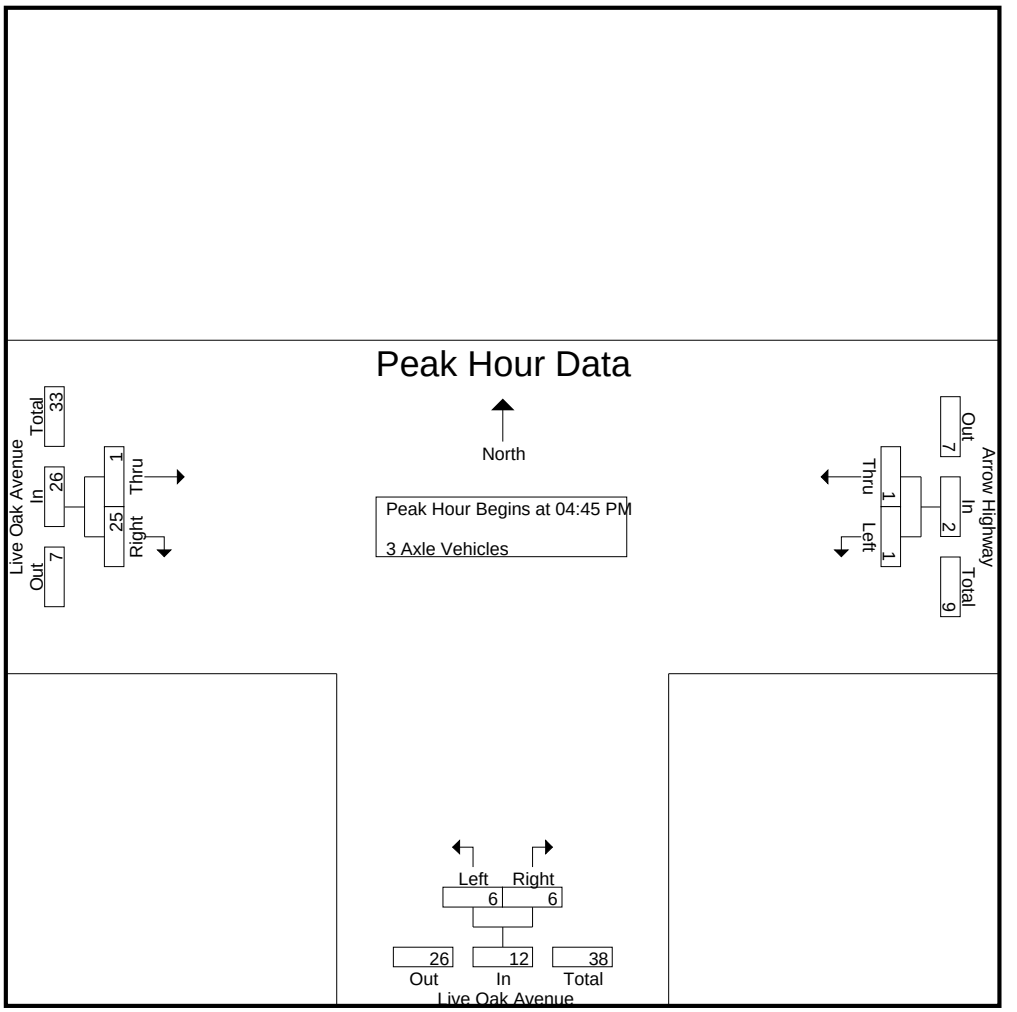
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	3	0	0	3	0	1	0	1	0	4	4
04:15 PM	0	4	0	4	5	2	1	7	1	0	0	1	1	12	13
04:30 PM	0	2	0	2	3	0	0	3	1	3	0	4	0	9	9
04:45 PM	0	0	0	0	1	2	1	3	1	10	0	11	1	14	15
Total	0	6	0	6	12	4	2	16	3	14	0	17	2	39	41
05:00 PM	0	0	0	0	4	1	1	5	0	3	0	3	1	8	9
05:15 PM	1	1	0	2	0	2	2	2	0	7	0	7	2	11	13
05:30 PM	0	0	0	0	1	1	0	2	0	5	0	5	0	7	7
05:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
Total	1	2	0	3	5	4	3	9	1	15	0	16	3	28	31
Grand Total	1	8	0	9	17	8	5	25	4	29	0	33	5	67	72
Apprch %	11.1	88.9			68	32			12.1	87.9					
Total %	1.5	11.9		13.4	25.4	11.9		37.3	6	43.3		49.3	6.9	93.1	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	1	**2**	3	**1**	**10**	**11**	**14**
05:00 PM	0	0	0	**4**	1	**5**	0	3	3	8
05:15 PM	**1**	**1**	**2**	0	2	2	0	7	7	11
05:30 PM	0	0	0	1	1	2	0	5	5	7
Total Volume	1	1	2	6	6	12	1	25	26	40
% App. Total	50	50		50	50		3.8	96.2		
PHF	.250	.250	.250	.375	.750	.600	.250	.625	.591	.714

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	1	**2**	3	**1**	**10**	**11**
+15 mins.	0	0	0	**4**	1	**5**	0	3	3
+30 mins.	**1**	**1**	**2**	0	2	2	0	7	7
+45 mins.	0	0	0	1	1	2	0	5	5
Total Volume	1	1	2	6	6	12	1	25	26
% App. Total	50	50		50	50		3.8	96.2	
PHF	.250	.250	.250	.375	.750	.600	.250	.625	.591

Counts Unlimited
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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

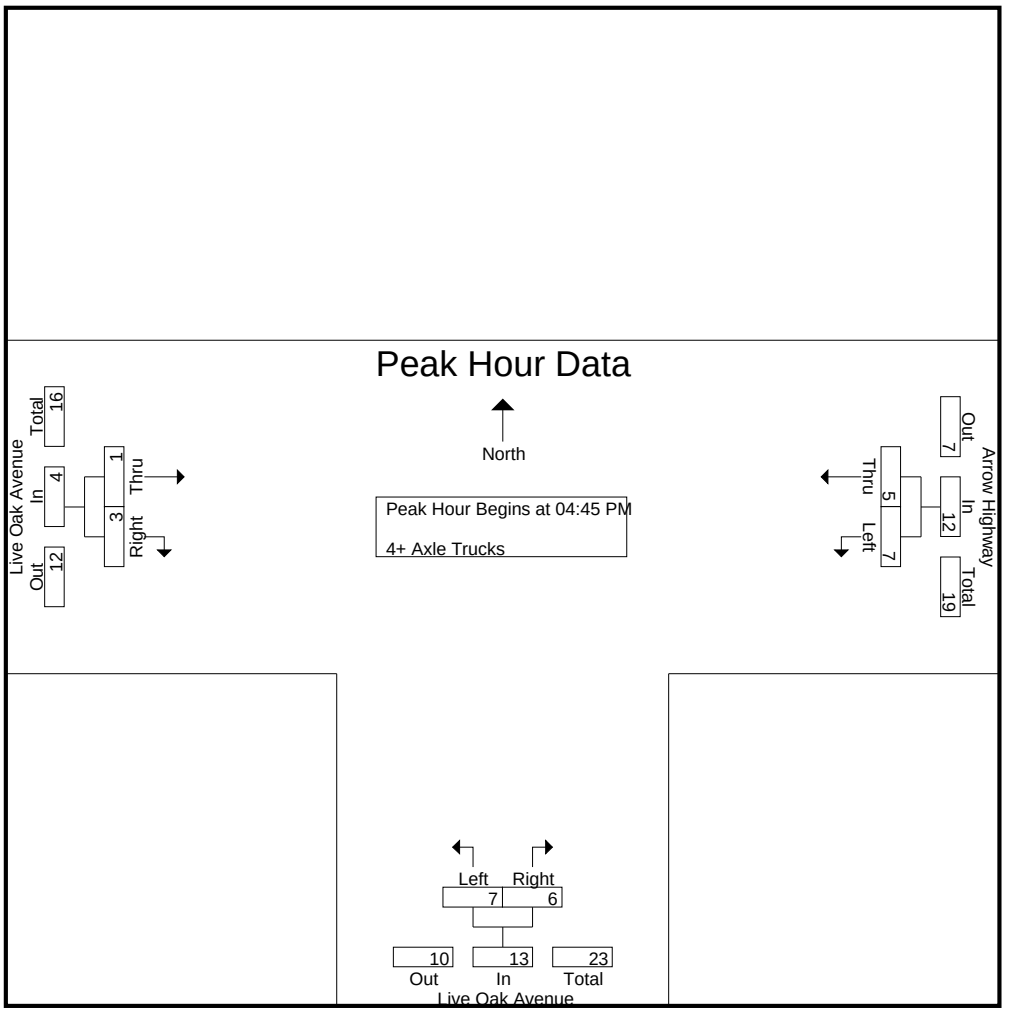
	Arrow Highway Westbound				Live Oak Avenue Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	2	0	7	2	7	3	9	0	0	0	0	3	16	19
04:15 PM	1	3	0	4	4	2	1	6	2	0	0	2	1	12	13
04:30 PM	3	4	0	7	2	1	0	3	3	1	0	4	0	14	14
04:45 PM	3	1	0	4	1	0	0	1	1	1	0	2	0	7	7
Total	12	10	0	22	9	10	4	19	6	2	0	8	4	49	53
05:00 PM	2	3	0	5	2	3	1	5	0	2	0	2	1	12	13
05:15 PM	0	1	0	1	2	1	0	3	0	0	0	0	0	4	4
05:30 PM	2	0	0	2	2	2	1	4	0	0	0	0	1	6	7
05:45 PM	1	1	0	2	2	0	0	2	1	0	0	1	0	5	5
Total	5	5	0	10	8	6	2	14	1	2	0	3	2	27	29
Grand Total	17	15	0	32	17	16	6	33	7	4	0	11	6	76	82
Apprch %	53.1	46.9			51.5	48.5			63.6	36.4					
Total %	22.4	19.7		42.1	22.4	21.1		43.4	9.2	5.3		14.5	7.3	92.7	

	Arrow Highway Westbound			Live Oak Avenue Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**3**	1	4	1	0	1	**1**	1	**2**	7
05:00 PM	2	**3**	**5**	**2**	**3**	**5**	0	**2**	2	**12**
05:15 PM	0	1	1	2	1	3	0	0	0	4
05:30 PM	2	0	2	2	2	4	0	0	0	6
Total Volume	7	5	12	7	6	13	1	3	4	29
% App. Total	58.3	41.7		53.8	46.2		25	75		
PHF	.583	.417	.600	.875	.500	.650	.250	.375	.500	.604

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City of Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 04_IRW_ Lo Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**3**	1	4	1	0	1	**1**	1	**2**
+15 mins.	2	**3**	**5**	**2**	**3**	**5**	0	**2**	2
+30 mins.	0	1	1	2	1	3	0	0	0
+45 mins.	2	0	2	2	2	4	0	0	0
Total Volume	7	5	12	7	6	13	1	3	4
% App. Total	58.3	41.7		53.8	46.2		25	75	
PHF	.583	.417	.600	.875	.500	.650	.250	.375	.500

Location: Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Arrow Highway	South Leg Live Oak Avenue	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Arrow Highway	South Leg Live Oak Avenue	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

Location: Irwindale
N/S: Live Oak Avenue
E/W: Live Oak Avenue/Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Arrow Highway	South Leg Live Oak Avenue	West Leg Live Oak Avenue	TOTAL
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	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Dead End	East Leg Arrow Highway	South Leg Live Oak Avenue	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	1	0	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	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

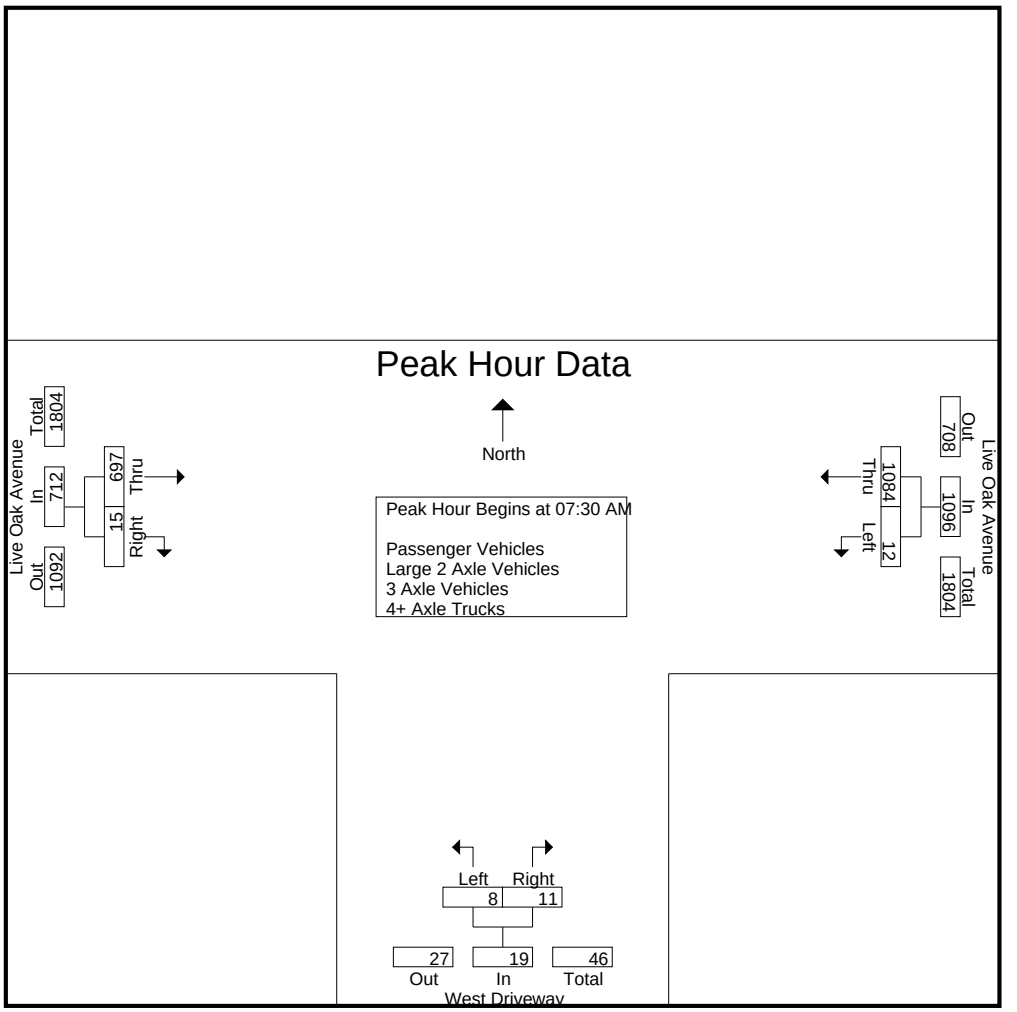
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	7	279	0	286	6	9	0	15	140	6	0	146	0	447	447
07:15 AM	1	276	0	277	3	10	0	13	165	4	0	169	0	459	459
07:30 AM	3	263	0	266	2	6	0	8	159	2	0	161	0	435	435
07:45 AM	1	286	0	287	2	1	0	3	163	3	0	166	0	456	456
Total	12	1104	0	1116	13	26	0	39	627	15	0	642	0	1797	1797
08:00 AM	6	267	0	273	2	2	0	4	189	3	0	192	0	469	469
08:15 AM	2	268	0	270	2	2	0	4	186	7	0	193	0	467	467
08:30 AM	3	241	0	244	1	5	0	6	179	5	0	184	0	434	434
08:45 AM	8	210	0	218	4	6	0	10	203	11	0	214	0	442	442
Total	19	986	0	1005	9	15	0	24	757	26	0	783	0	1812	1812
Grand Total	31	2090	0	2121	22	41	0	63	1384	41	0	1425	0	3609	3609
Apprch %	1.5	98.5			34.9	65.1			97.1	2.9					
Total %	0.9	57.9		58.8	0.6	1.1		1.7	38.3	1.1		39.5	0	100	
Passenger Vehicles	8	1910		1918	8	8		16	1226	12		1238	0	0	3172
% Passenger Vehicles	25.8	91.4	0	90.4	36.4	19.5	0	25.4	88.6	29.3	0	86.9	0	0	87.9
Large 2 Axle Vehicles	5	74		79	5	5		10	55	8		63	0	0	152
% Large 2 Axle Vehicles	16.1	3.5	0	3.7	22.7	12.2	0	15.9	4	19.5	0	4.4	0	0	4.2
3 Axle Vehicles	4	46		50	5	3		8	46	7		53	0	0	111
% 3 Axle Vehicles	12.9	2.2	0	2.4	22.7	7.3	0	12.7	3.3	17.1	0	3.7	0	0	3.1
4+ Axle Trucks	14	60		74	4	25		29	57	14		71	0	0	174
% 4+ Axle Trucks	45.2	2.9	0	3.5	18.2	61	0	46	4.1	34.1	0	5	0	0	4.8

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	263	266	**2**	**6**	**8**	159	2	161	435
07:45 AM	1	**286**	**287**	2	1	3	163	3	166	456
08:00 AM	**6**	267	273	2	2	4	**189**	3	192	**469**
08:15 AM	2	268	270	2	2	4	186	**7**	**193**	467
Total Volume	12	1084	1096	8	11	19	697	15	712	1827
% App. Total	1.1	98.9		42.1	57.9		97.9	2.1		
PHF	.500	.948	.955	1.00	.458	.594	.922	.536	.922	.974

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

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

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	**7**	279	286	**6**	9	**15**	189	3	192
+15 mins.	1	276	277	3	**10**	13	186	7	193
+30 mins.	3	263	266	2	6	8	179	5	184
+45 mins.	1	**286**	**287**	2	1	3	**203**	**11**	**214**
Total Volume	12	1104	1116	13	26	39	757	26	783
% App. Total	1.1	98.9		33.3	66.7		96.7	3.3	
PHF	.429	.965	.972	.542	.650	.650	.932	.591	.915

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo AM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

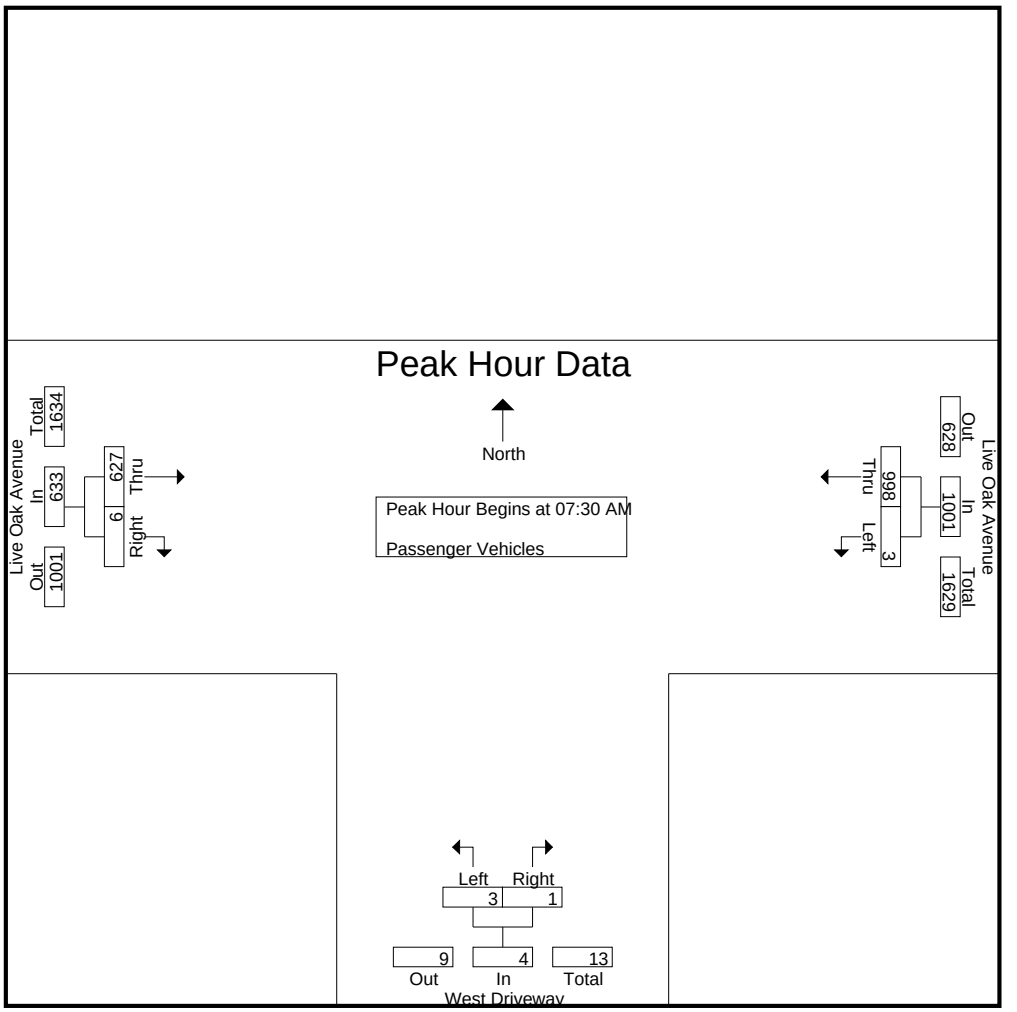
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	263	0	266	2	2	0	4	124	1	0	125	0	395	395
07:15 AM	1	248	0	249	1	4	0	5	140	2	0	142	0	396	396
07:30 AM	1	240	0	241	2	1	0	3	145	1	0	146	0	390	390
07:45 AM	0	262	0	262	1	0	0	1	146	1	0	147	0	410	410
Total	5	1013	0	1018	6	7	0	13	555	5	0	560	0	1591	1591
08:00 AM	1	245	0	246	0	0	0	0	170	1	0	171	0	417	417
08:15 AM	1	251	0	252	0	0	0	0	166	3	0	169	0	421	421
08:30 AM	1	212	0	213	1	1	0	2	162	1	0	163	0	378	378
08:45 AM	0	189	0	189	1	0	0	1	173	2	0	175	0	365	365
Total	3	897	0	900	2	1	0	3	671	7	0	678	0	1581	1581
Grand Total	8	1910	0	1918	8	8	0	16	1226	12	0	1238	0	3172	3172
Apprch %	0.4	99.6			50	50			99	1					
Total %	0.3	60.2		60.5	0.3	0.3		0.5	38.7	0.4		39	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**1**	240	241	**2**	**1**	**3**	145	1	146	390
07:45 AM	0	**262**	**262**	1	0	1	146	1	147	410
08:00 AM	1	245	246	0	0	0	**170**	1	**171**	417
08:15 AM	1	251	252	0	0	0	166	**3**	169	**421**
Total Volume	3	998	1001	3	1	4	627	6	633	1638
% App. Total	0.3	99.7		75	25		99.1	0.9		
PHF	.750	.952	.955	.375	.250	.333	.922	.500	.925	.973

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

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Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	**1**	240	241	**2**	**1**	**3**	145	1	146
+15 mins.	0	**262**	**262**	1	0	1	146	1	147
+30 mins.	1	245	246	0	0	0	**170**	1	**171**
+45 mins.	1	251	252	0	0	0	166	**3**	169
Total Volume	3	998	1001	3	1	4	627	6	633
% App. Total	0.3	99.7		75	25		99.1	0.9	
PHF	.750	.952	.955	.375	.250	.333	.922	.500	.925

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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo AM
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Groups Printed- Large 2 Axle Vehicles

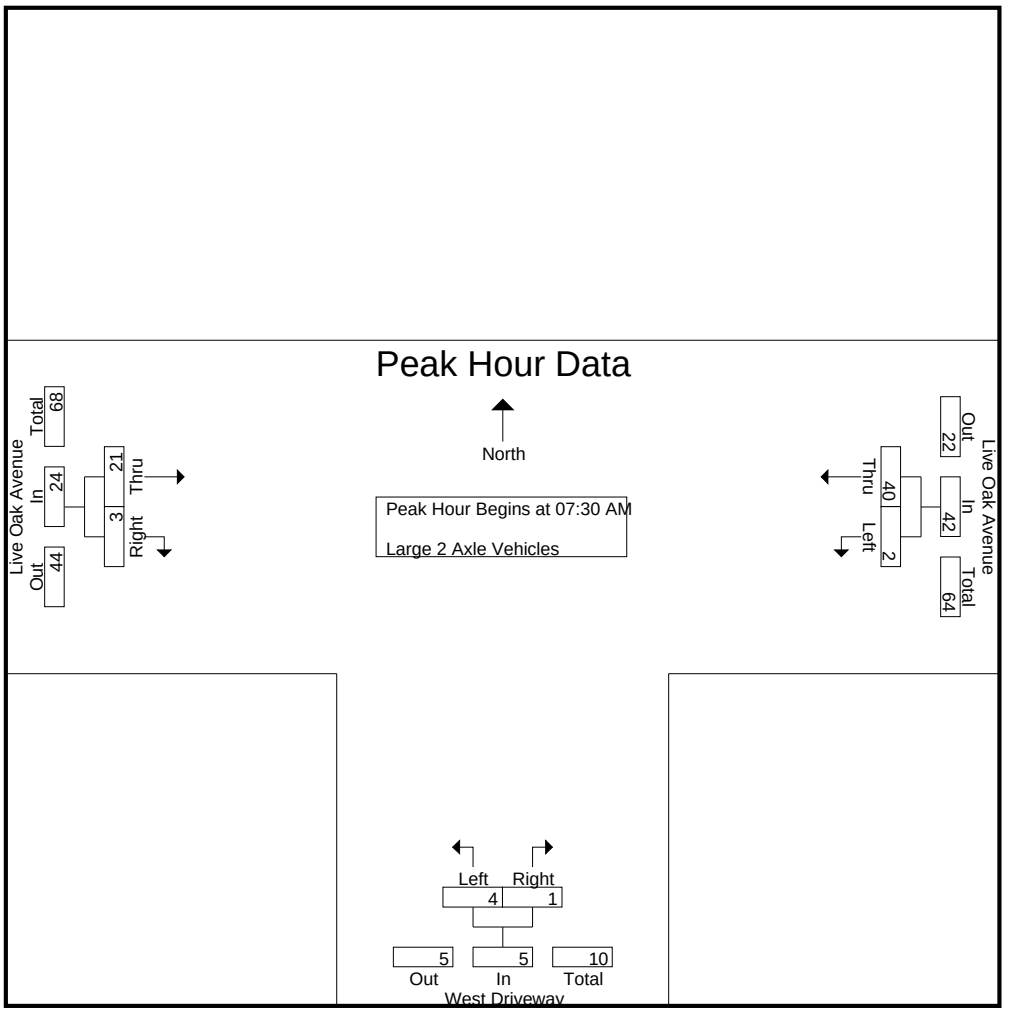
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	4	0	4	1	0	0	1	6	0	0	6	0	11	11
07:15 AM	0	12	0	12	0	0	0	0	9	0	0	9	0	21	21
07:30 AM	1	9	0	10	0	0	0	0	4	1	0	5	0	15	15
07:45 AM	1	16	0	17	1	1	0	2	6	1	0	7	0	26	26
Total	2	41	0	43	2	1	0	3	25	2	0	27	0	73	73
08:00 AM	0	6	0	6	2	0	0	2	4	1	0	5	0	13	13
08:15 AM	0	9	0	9	1	0	0	1	7	0	0	7	0	17	17
08:30 AM	0	11	0	11	0	1	0	1	9	3	0	12	0	24	24
08:45 AM	3	7	0	10	0	3	0	3	10	2	0	12	0	25	25
Total	3	33	0	36	3	4	0	7	30	6	0	36	0	79	79
Grand Total	5	74	0	79	5	5	0	10	55	8	0	63	0	152	152
Apprch %	6.3	93.7			50	50			87.3	12.7					
Total %	3.3	48.7		52	3.3	3.3		6.6	36.2	5.3		41.4	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**1**	9	10	0	0	0	4	**1**	5	15
07:45 AM	1	**16**	**17**	1	**1**	**2**	6	1	**7**	**26**
08:00 AM	0	6	6	**2**	0	2	4	1	5	13
08:15 AM	0	9	9	1	0	1	**7**	0	7	17
Total Volume	2	40	42	4	1	5	21	3	24	71
% App. Total	4.8	95.2		80	20		87.5	12.5		
PHF	.500	.625	.618	.500	.250	.625	.750	.750	.857	.683

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City of Irwindale
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	**1**	9	10	0	0	0	4	**1**	5
+15 mins.	1	**16**	**17**	1	**1**	**2**	6	1	**7**
+30 mins.	0	6	6	**2**	0	2	4	1	5
+45 mins.	0	9	9	1	0	1	**7**	0	7
Total Volume	2	40	42	4	1	5	21	3	24
% App. Total	4.8	95.2		80	20		87.5	12.5	
PHF	.500	.625	.618	.500	.250	.625	.750	.750	.857

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City of Irwindale
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Weather: Clear

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Groups Printed- 3 Axle Vehicles

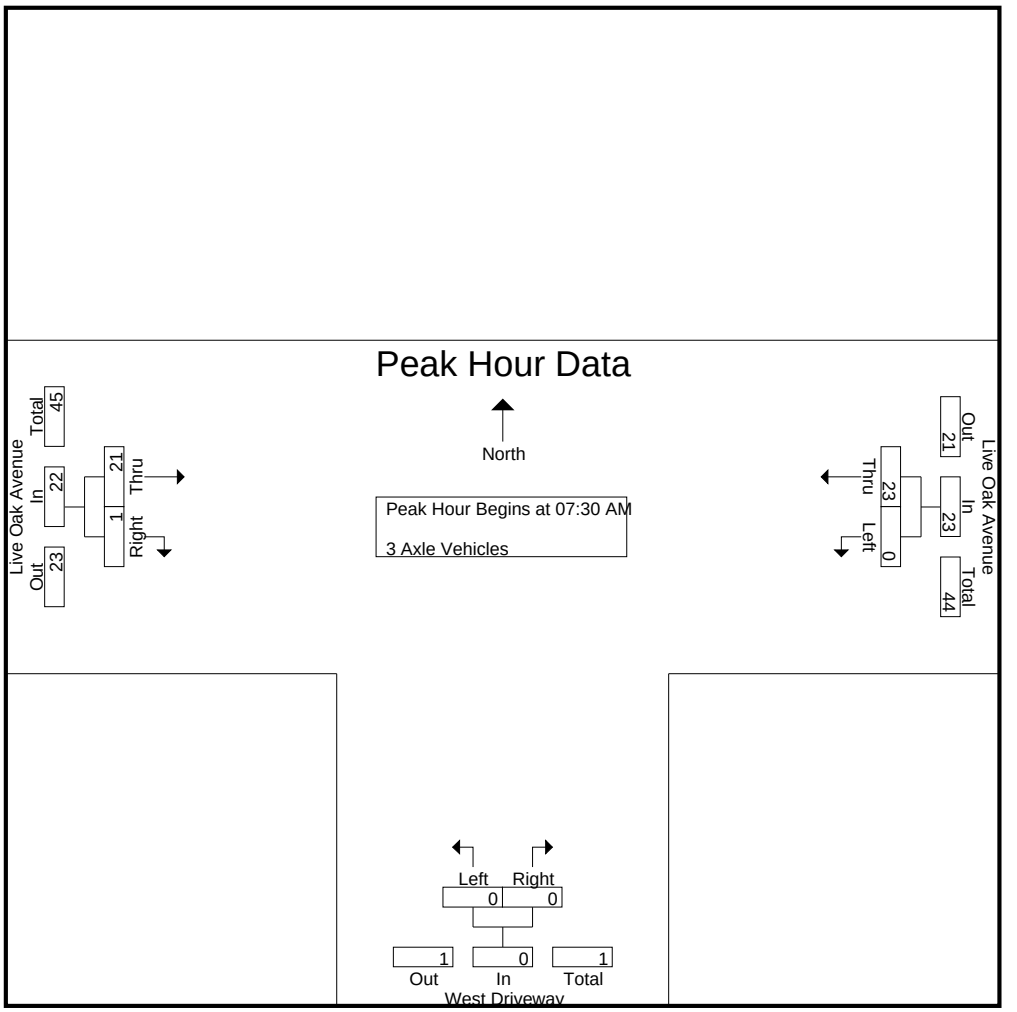
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	9	0	12	1	1	0	2	7	3	0	10	0	24	24
07:15 AM	0	6	0	6	2	0	0	2	10	1	0	11	0	19	19
07:30 AM	0	5	0	5	0	0	0	0	6	0	0	6	0	11	11
07:45 AM	0	4	0	4	0	0	0	0	5	0	0	5	0	9	9
Total	3	24	0	27	3	1	0	4	28	4	0	32	0	63	63
08:00 AM	0	8	0	8	0	0	0	0	5	0	0	5	0	13	13
08:15 AM	0	6	0	6	0	0	0	0	5	1	0	6	0	12	12
08:30 AM	0	4	0	4	0	1	0	1	1	0	0	1	0	6	6
08:45 AM	1	4	0	5	2	1	0	3	7	2	0	9	0	17	17
Total	1	22	0	23	2	2	0	4	18	3	0	21	0	48	48
Grand Total	4	46	0	50	5	3	0	8	46	7	0	53	0	111	111
Apprch %	8	92			62.5	37.5			86.8	13.2					
Total %	3.6	41.4		45	4.5	2.7		7.2	41.4	6.3		47.7	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	5	5	0	0	0	**6**	0	**6**	11
07:45 AM	0	4	4	0	0	0	5	0	5	9
08:00 AM	0	**8**	**8**	0	0	0	5	0	5	**13**
08:15 AM	0	6	6	0	0	0	5	**1**	6	12
Total Volume	0	23	23	0	0	0	21	1	22	45
% App. Total	0	100		0	0		95.5	4.5		
PHF	.000	.719	.719	.000	.000	.000	.875	.250	.917	.865

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City of Irwindale
N/S: West Driveway
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Weather: Clear

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	5	5	0	0	0	**6**	0	**6**
+15 mins.	0	4	4	0	0	0	5	0	5
+30 mins.	0	**8**	**8**	0	0	0	5	0	5
+45 mins.	0	6	6	0	0	0	5	**1**	6
Total Volume	0	23	23	0	0	0	21	1	22
% App. Total	0	100		0	0		95.5	4.5	
PHF	.000	.719	.719	.000	.000	.000	.875	.250	.917

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

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Groups Printed- 4+ Axle Trucks

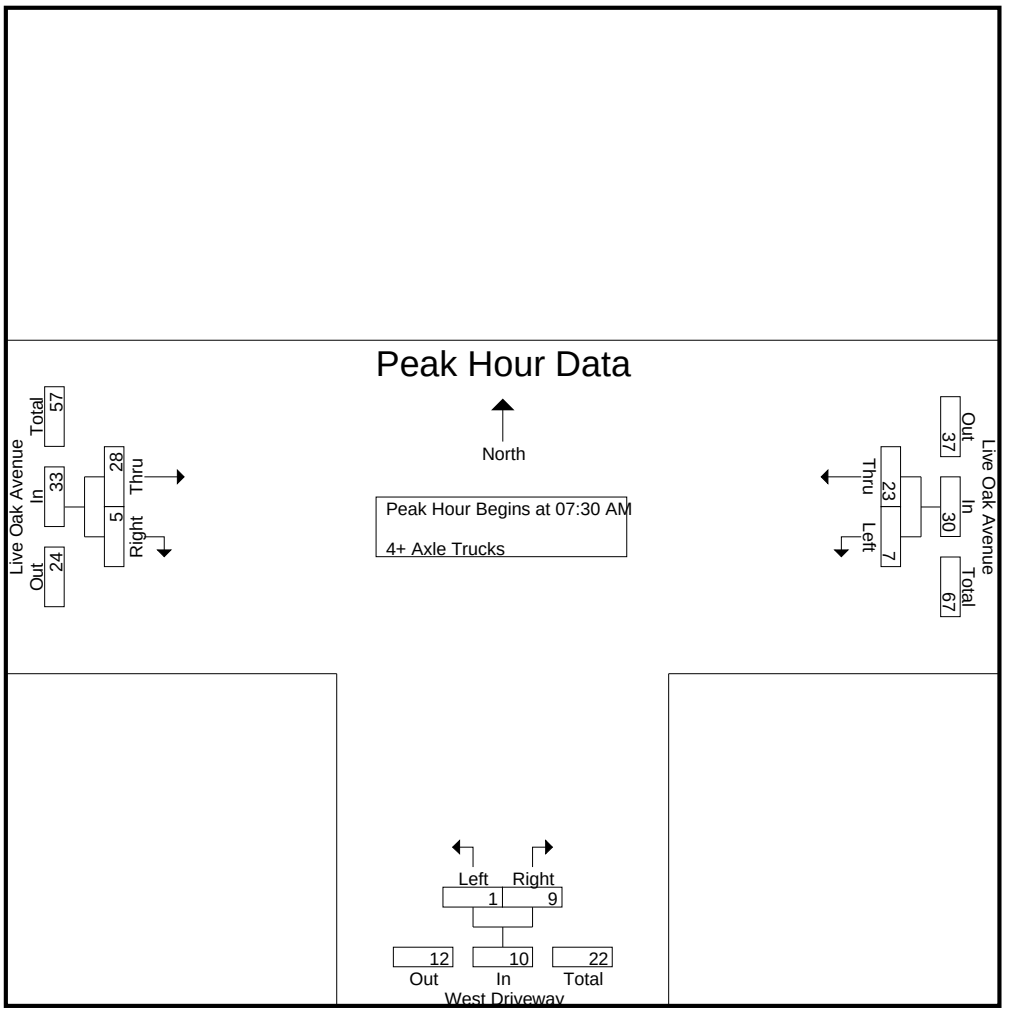
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	3	0	4	2	6	0	8	3	2	0	5	0	17	17
07:15 AM	0	10	0	10	0	6	0	6	6	1	0	7	0	23	23
07:30 AM	1	9	0	10	0	5	0	5	4	0	0	4	0	19	19
07:45 AM	0	4	0	4	0	0	0	0	6	1	0	7	0	11	11
Total	2	26	0	28	2	17	0	19	19	4	0	23	0	70	70
08:00 AM	5	8	0	13	0	2	0	2	10	1	0	11	0	26	26
08:15 AM	1	2	0	3	1	2	0	3	8	3	0	11	0	17	17
08:30 AM	2	14	0	16	0	2	0	2	7	1	0	8	0	26	26
08:45 AM	4	10	0	14	1	2	0	3	13	5	0	18	0	35	35
Total	12	34	0	46	2	8	0	10	38	10	0	48	0	104	104
Grand Total	14	60	0	74	4	25	0	29	57	14	0	71	0	174	174
Apprch %	18.9	81.1			13.8	86.2			80.3	19.7					
Total %	8	34.5		42.5	2.3	14.4		16.7	32.8	8		40.8	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	**9**	10	0	**5**	**5**	4	0	4	19
07:45 AM	0	4	4	0	0	0	6	1	7	11
08:00 AM	**5**	8	**13**	0	2	2	**10**	1	**11**	**26**
08:15 AM	1	2	3	**1**	2	3	8	**3**	11	17
Total Volume	7	23	30	1	9	10	28	5	33	73
% App. Total	23.3	76.7		10	90		84.8	15.2		
PHF	.350	.639	.577	.250	.450	.500	.700	.417	.750	.702

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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	1	**9**	10	0	**5**	**5**	4	0	4
+15 mins.	0	4	4	0	0	0	6	1	7
+30 mins.	**5**	8	**13**	0	2	2	**10**	1	**11**
+45 mins.	1	2	3	**1**	2	3	8	**3**	11
Total Volume	7	23	30	1	9	10	28	5	33
% App. Total	23.3	76.7		10	90		84.8	15.2	
PHF	.350	.639	.577	.250	.450	.500	.700	.417	.750

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City of Irwindale
N/S: West Driveway
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Weather: Clear

File Name : 05_IRW_ W dw Lo PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

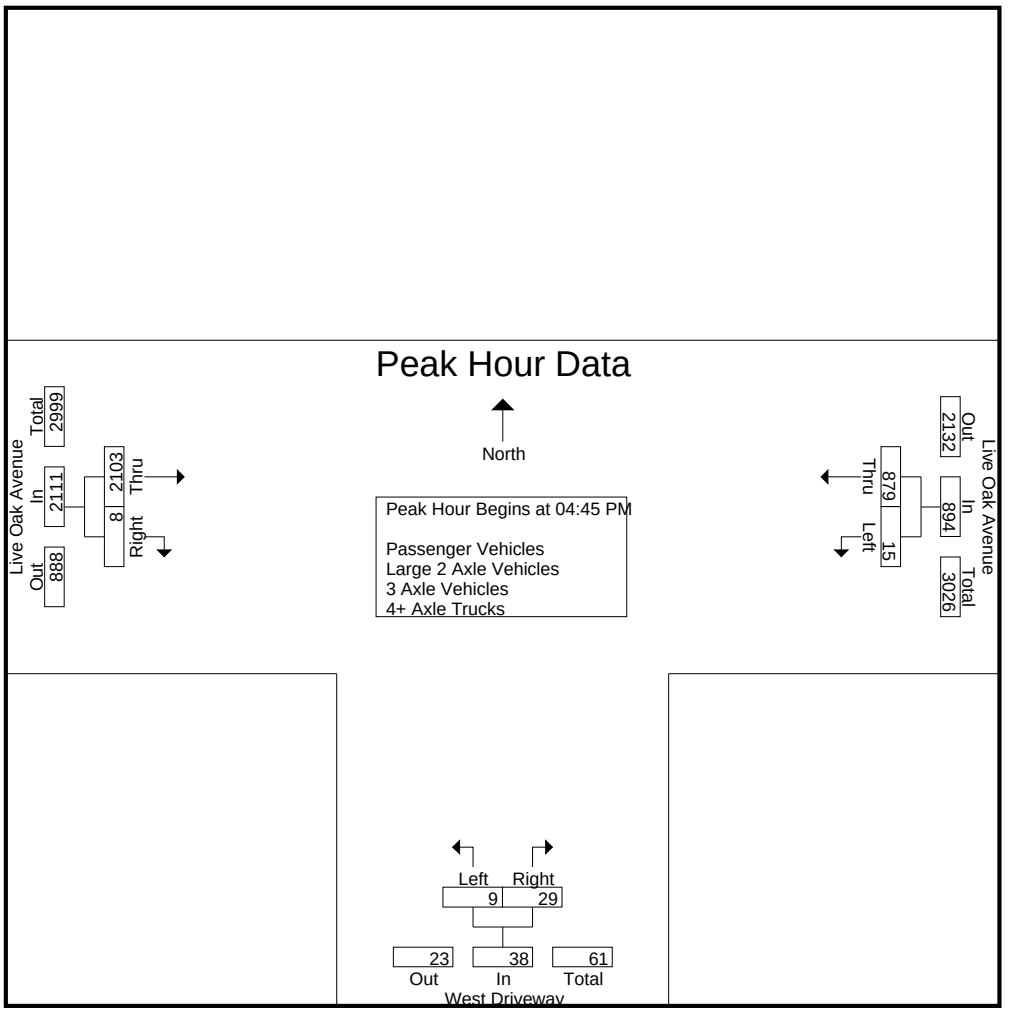
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	12	203	0	215	3	9	0	12	419	4	0	423	0	650	650
04:15 PM	8	192	0	200	4	8	0	12	428	1	0	429	0	641	641
04:30 PM	6	185	0	191	1	7	0	8	499	2	0	501	0	700	700
04:45 PM	4	200	0	204	2	8	0	10	533	1	0	534	0	748	748
Total	30	780	0	810	10	32	0	42	1879	8	0	1887	0	2739	2739
05:00 PM	3	229	0	232	3	12	0	15	488	2	0	490	0	737	737
05:15 PM	5	234	0	239	3	5	0	8	546	1	0	547	0	794	794
05:30 PM	3	216	0	219	1	4	0	5	536	4	0	540	0	764	764
05:45 PM	6	229	0	235	0	4	0	4	475	2	0	477	0	716	716
Total	17	908	0	925	7	25	0	32	2045	9	0	2054	0	3011	3011
Grand Total	47	1688	0	1735	17	57	0	74	3924	17	0	3941	0	5750	5750
Apprch %	2.7	97.3			23	77			99.6	0.4					
Total %	0.8	29.4		30.2	0.3	1		1.3	68.2	0.3		68.5	0	100	
Passenger Vehicles	9	1606		1615	3	17		20	3798	5		3803	0	0	5438
% Passenger Vehicles	19.1	95.1	0	93.1	17.6	29.8	0	27	96.8	29.4	0	96.5	0	0	94.6
Large 2 Axle Vehicles	2	42		44	1	6		7	84	4		88	0	0	139
% Large 2 Axle Vehicles	4.3	2.5	0	2.5	5.9	10.5	0	9.5	2.1	23.5	0	2.2	0	0	2.4
3 Axle Vehicles	2	19		21	9	17		26	27	0		27	0	0	74
% 3 Axle Vehicles	4.3	1.1	0	1.2	52.9	29.8	0	35.1	0.7	0	0	0.7	0	0	1.3
4+ Axle Trucks	34	21		55	4	17		21	15	8		23	0	0	99
% 4+ Axle Trucks	72.3	1.2	0	3.2	23.5	29.8	0	28.4	0.4	47.1	0	0.6	0	0	1.7

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	4	200	204	2	8	10	533	1	534	748
05:00 PM	3	229	232	**3**	**12**	**15**	488	2	490	737
05:15 PM	**5**	**234**	**239**	3	5	8	**546**	1	**547**	**794**
05:30 PM	3	216	219	1	4	5	536	**4**	540	764
Total Volume	15	879	894	9	29	38	2103	8	2111	3043
% App. Total	1.7	98.3		23.7	76.3		99.6	0.4		
PHF	.750	.939	.935	.750	.604	.633	.963	.500	.965	.958

Counts Unlimited
PO Box 1178
Corona, CA 92878
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:15 PM			04:45 PM		
+0 mins.	3	229	232	**4**	8	12	533	1	534
+15 mins.	5	**234**	**239**	1	7	8	488	2	490
+30 mins.	3	216	219	2	8	10	**546**	1	**547**
+45 mins.	**6**	229	235	3	**12**	**15**	536	**4**	540
Total Volume	17	908	925	10	35	45	2103	8	2111
% App. Total	1.8	98.2		22.2	77.8		99.6	0.4	
PHF	.708	.970	.968	.625	.729	.750	.963	.500	.965

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

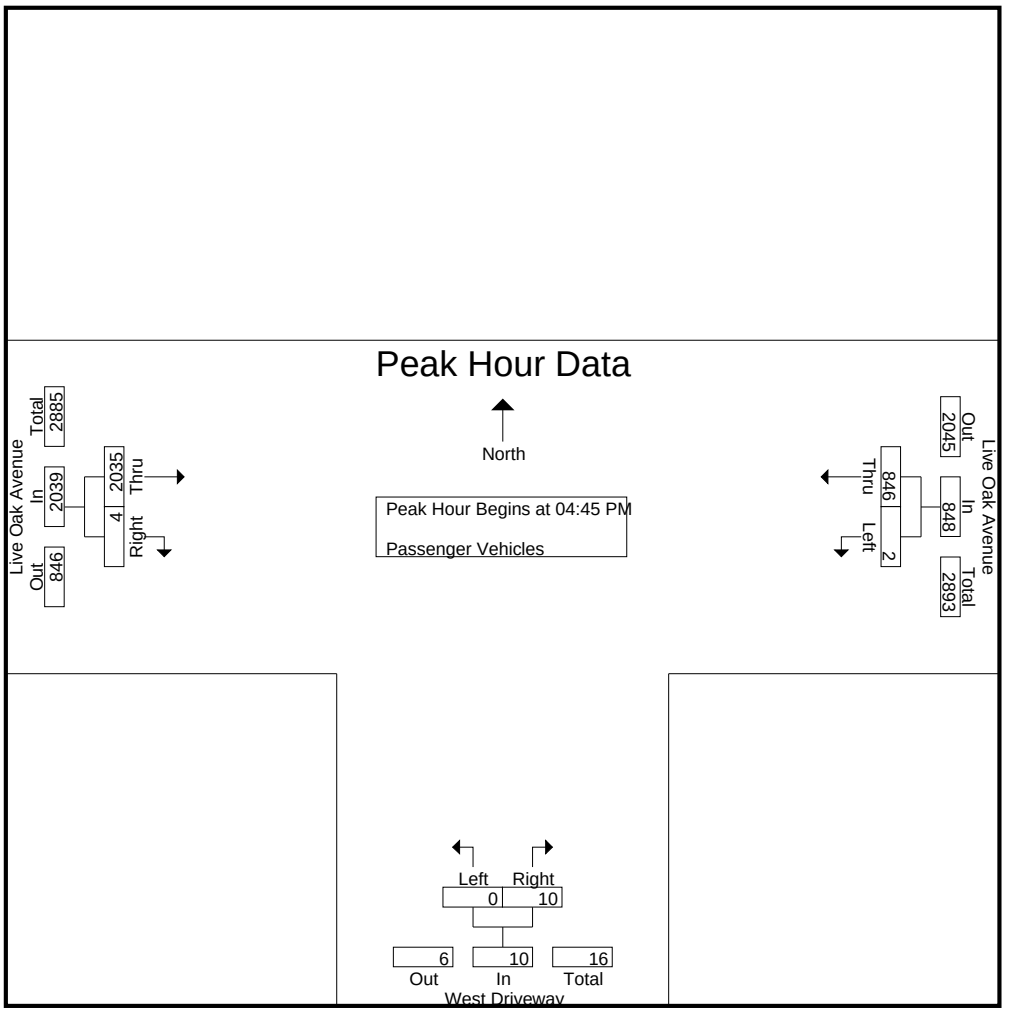
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	184	0	188	1	1	0	2	406	1	0	407	0	597	597
04:15 PM	0	176	0	176	2	3	0	5	418	0	0	418	0	599	599
04:30 PM	2	179	0	181	0	2	0	2	474	0	0	474	0	657	657
04:45 PM	0	193	0	193	0	3	0	3	507	1	0	508	0	704	704
Total	6	732	0	738	3	9	0	12	1805	2	0	1807	0	2557	2557
05:00 PM	0	219	0	219	0	3	0	3	472	0	0	472	0	694	694
05:15 PM	1	225	0	226	0	1	0	1	532	1	0	533	0	760	760
05:30 PM	1	209	0	210	0	3	0	3	524	2	0	526	0	739	739
05:45 PM	1	221	0	222	0	1	0	1	465	0	0	465	0	688	688
Total	3	874	0	877	0	8	0	8	1993	3	0	1996	0	2881	2881
Grand Total	9	1606	0	1615	3	17	0	20	3798	5	0	3803	0	5438	5438
Apprch %	0.6	99.4			15	85			99.9	0.1					
Total %	0.2	29.5		29.7	0.1	0.3		0.4	69.8	0.1		69.9	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	193	193	0	**3**	**3**	507	1	508	704
05:00 PM	0	219	219	0	3	3	472	0	472	694
05:15 PM	**1**	**225**	**226**	0	1	1	**532**	1	**533**	**760**
05:30 PM	1	209	210	0	3	3	524	**2**	526	739
Total Volume	2	846	848	0	10	10	2035	4	2039	2897
% App. Total	0.2	99.8		0	100		99.8	0.2		
PHF	.500	.940	.938	.000	.833	.833	.956	.500	.956	.953

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	193	193	0	**3**	**3**	507	1	508
+15 mins.	0	219	219	0	3	3	472	0	472
+30 mins.	**1**	**225**	**226**	0	1	1	**532**	1	**533**
+45 mins.	1	209	210	0	3	3	524	**2**	526
Total Volume	2	846	848	0	10	10	2035	4	2039
% App. Total	0.2	99.8		0	100		99.8	0.2	
PHF	.500	.940	.938	.000	.833	.833	.956	.500	.956

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

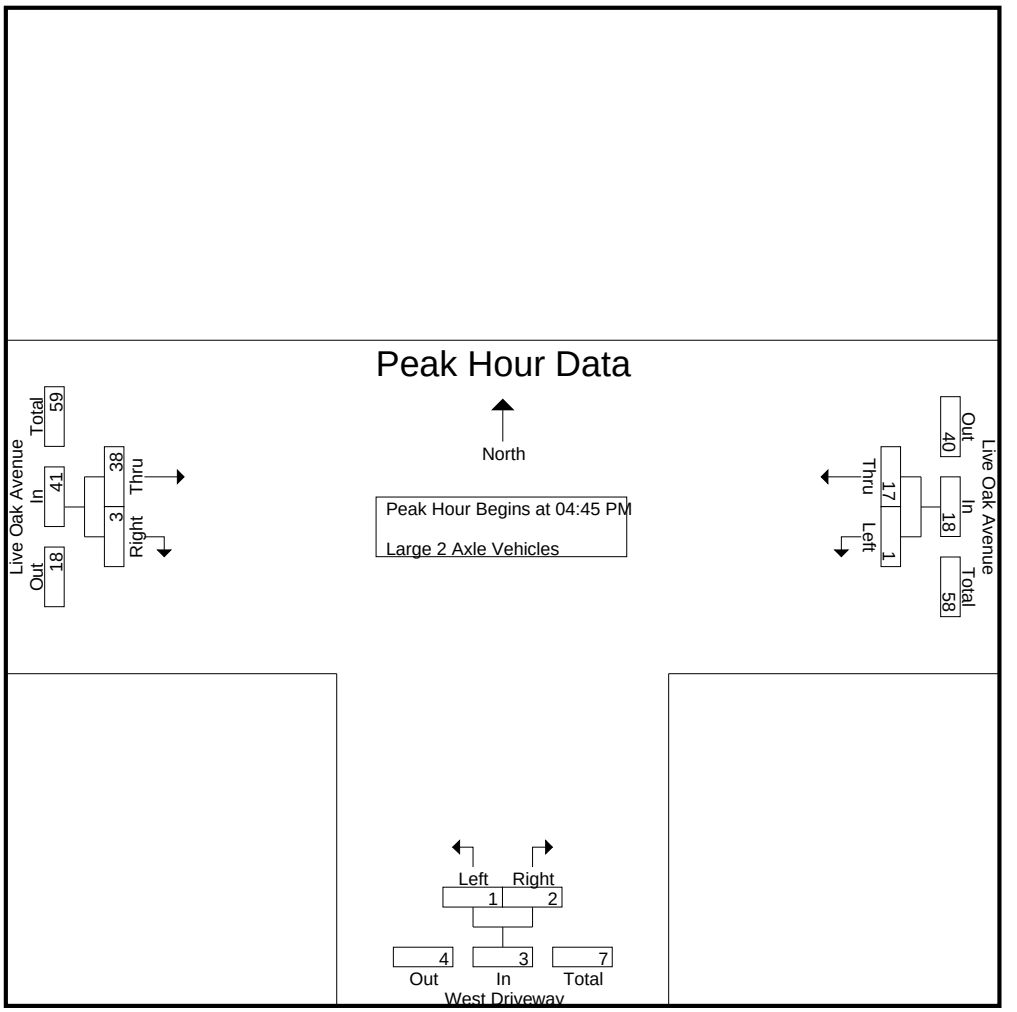
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	10	0	10	0	2	0	2	9	0	0	9	0	21	21
04:15 PM	1	7	0	8	0	1	0	1	10	0	0	10	0	19	19
04:30 PM	0	2	0	2	0	0	0	0	20	0	0	20	0	22	22
04:45 PM	0	2	0	2	0	1	0	1	10	0	0	10	0	13	13
Total	1	21	0	22	0	4	0	4	49	0	0	49	0	75	75
05:00 PM	0	5	0	5	1	1	0	2	7	2	0	9	0	16	16
05:15 PM	1	7	0	8	0	0	0	0	11	0	0	11	0	19	19
05:30 PM	0	3	0	3	0	0	0	0	10	1	0	11	0	14	14
05:45 PM	0	6	0	6	0	1	0	1	7	1	0	8	0	15	15
Total	1	21	0	22	1	2	0	3	35	4	0	39	0	64	64
Grand Total	2	42	0	44	1	6	0	7	84	4	0	88	0	139	139
Apprch %	4.5	95.5			14.3	85.7			95.5	4.5					
Total %	1.4	30.2		31.7	0.7	4.3		5	60.4	2.9		63.3	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	2	2	0	**1**	1	10	0	10	13
05:00 PM	0	5	5	**1**	1	**2**	7	**2**	9	16
05:15 PM	**1**	**7**	**8**	0	0	0	**11**	0	**11**	**19**
05:30 PM	0	3	3	0	0	0	10	1	11	14
Total Volume	1	17	18	1	2	3	38	3	41	62
% App. Total	5.6	94.4		33.3	66.7		92.7	7.3		
PHF	.250	.607	.563	.250	.500	.375	.864	.375	.932	.816

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	2	2	0	**1**	1	10	0	10
+15 mins.	0	5	5	**1**	1	**2**	7	**2**	9
+30 mins.	**1**	**7**	**8**	0	0	0	**11**	0	**11**
+45 mins.	0	3	3	0	0	0	10	1	11
Total Volume	1	17	18	1	2	3	38	3	41
% App. Total	5.6	94.4		33.3	66.7		92.7	7.3	
PHF	.250	.607	.563	.250	.500	.375	.864	.375	.932

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

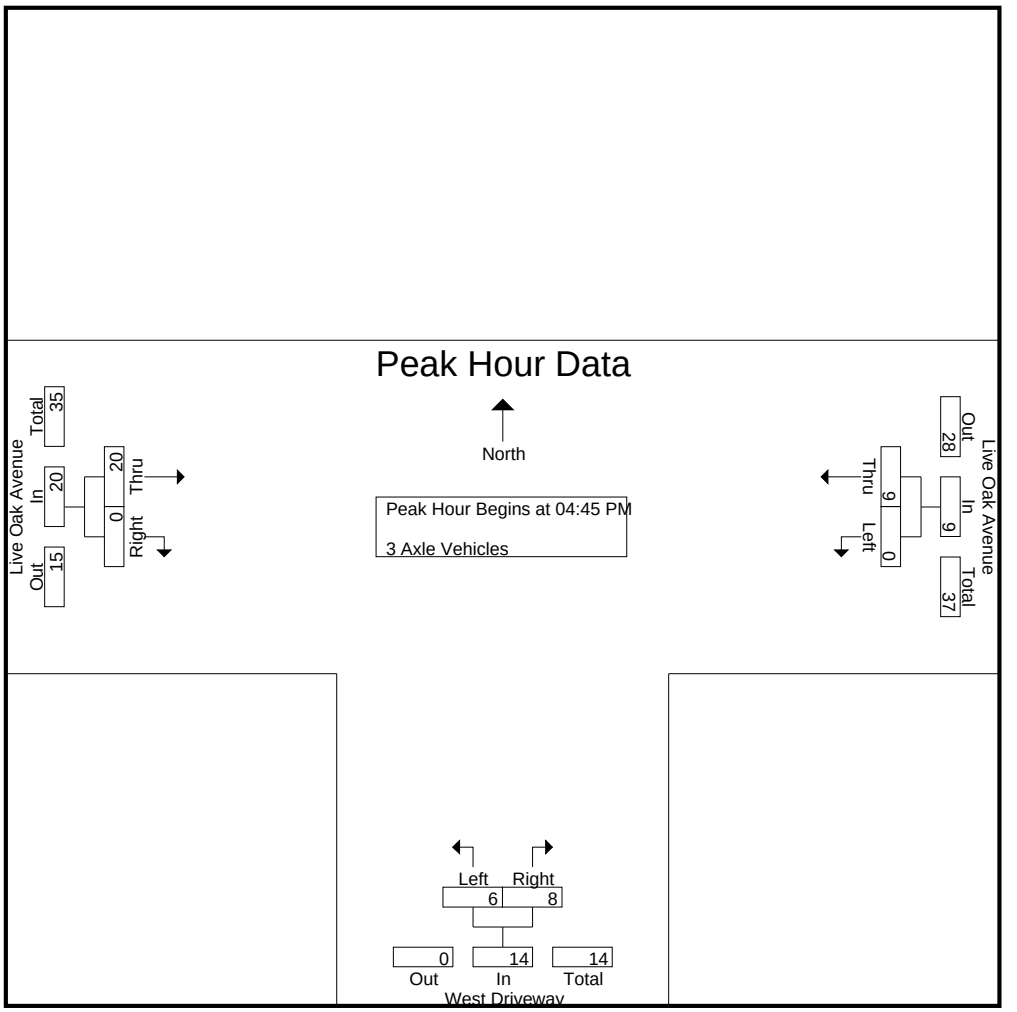
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	5	0	5	0	3	0	3	2	0	0	2	0	10	10
04:15 PM	0	4	0	4	2	1	0	3	0	0	0	0	0	7	7
04:30 PM	0	1	0	1	1	3	0	4	3	0	0	3	0	8	8
04:45 PM	0	4	0	4	2	1	0	3	11	0	0	11	0	18	18
Total	0	14	0	14	5	8	0	13	16	0	0	16	0	43	43
05:00 PM	0	3	0	3	1	4	0	5	5	0	0	5	0	13	13
05:15 PM	0	1	0	1	2	3	0	5	2	0	0	2	0	8	8
05:30 PM	0	1	0	1	1	0	0	1	2	0	0	2	0	4	4
05:45 PM	2	0	0	2	0	2	0	2	2	0	0	2	0	6	6
Total	2	5	0	7	4	9	0	13	11	0	0	11	0	31	31
Grand Total	2	19	0	21	9	17	0	26	27	0	0	27	0	74	74
Apprch %	9.5	90.5			34.6	65.4			100	0					
Total %	2.7	25.7		28.4	12.2	23		35.1	36.5	0		36.5	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**4**	**4**	**2**	1	3	**11**	0	**11**	**18**
05:00 PM	0	3	3	1	**4**	**5**	5	0	5	13
05:15 PM	0	1	1	2	3	5	2	0	2	8
05:30 PM	0	1	1	1	0	1	2	0	2	4
Total Volume	0	9	9	6	8	14	20	0	20	43
% App. Total	0	100		42.9	57.1		100	0		
PHF	.000	.563	.563	.750	.500	.700	.455	.000	.455	.597

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**4**	**4**	**2**	1	3	**11**	0	**11**
+15 mins.	0	3	3	1	**4**	**5**	5	0	5
+30 mins.	0	1	1	2	3	5	2	0	2
+45 mins.	0	1	1	1	0	1	2	0	2
Total Volume	0	9	9	6	8	14	20	0	20
% App. Total	0	100		42.9	57.1		100	0	
PHF	.000	.563	.563	.750	.500	.700	.455	.000	.455

Counts Unlimited
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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

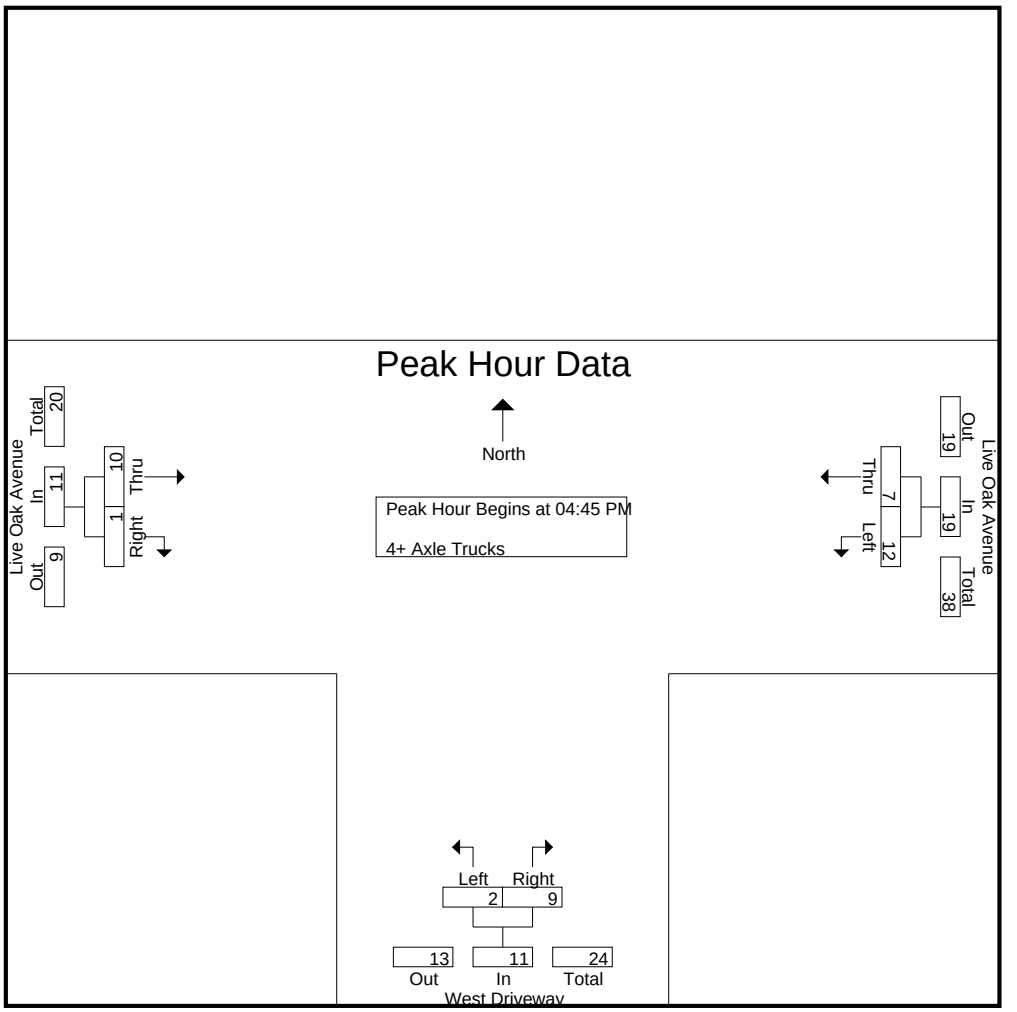
	Live Oak Avenue Westbound				West Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	8	4	0	12	2	3	0	5	2	3	0	5	0	22	22
04:15 PM	7	5	0	12	0	3	0	3	0	1	0	1	0	16	16
04:30 PM	4	3	0	7	0	2	0	2	2	2	0	4	0	13	13
04:45 PM	4	1	0	5	0	3	0	3	5	0	0	5	0	13	13
Total	23	13	0	36	2	11	0	13	9	6	0	15	0	64	64
05:00 PM	3	2	0	5	1	4	0	5	4	0	0	4	0	14	14
05:15 PM	3	1	0	4	1	1	0	2	1	0	0	1	0	7	7
05:30 PM	2	3	0	5	0	1	0	1	0	1	0	1	0	7	7
05:45 PM	3	2	0	5	0	0	0	0	1	1	0	2	0	7	7
Total	11	8	0	19	2	6	0	8	6	2	0	8	0	35	35
Grand Total	34	21	0	55	4	17	0	21	15	8	0	23	0	99	99
Apprch %	61.8	38.2			19	81			65.2	34.8					
Total %	34.3	21.2		55.6	4	17.2		21.2	15.2	8.1		23.2	0	100	

	Live Oak Avenue Westbound			West Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**4**	1	**5**	0	3	3	**5**	0	**5**	13
05:00 PM	3	2	5	**1**	**4**	**5**	4	0	4	**14**
05:15 PM	3	1	4	1	1	2	1	0	1	7
05:30 PM	2	**3**	5	0	1	1	0	**1**	1	7
Total Volume	12	7	19	2	9	11	10	1	11	41
% App. Total	63.2	36.8		18.2	81.8		90.9	9.1		
PHF	.750	.583	.950	.500	.563	.550	.500	.250	.550	.732

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City of Irwindale
N/S: West Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 05_IRW_ W dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**4**	1	**5**	0	3	3	**5**	0	**5**
+15 mins.	3	2	5	**1**	**4**	**5**	4	0	4
+30 mins.	3	1	4	1	1	2	1	0	1
+45 mins.	2	**3**	5	0	1	1	0	**1**	1
Total Volume	12	7	19	2	9	11	10	1	11
% App. Total	63.2	36.8		18.2	81.8		90.9	9.1	
PHF	.750	.583	.950	.500	.563	.550	.500	.250	.550

Location: Irwindale
N/S: West Driveway
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Live Oak Avenue	South Leg West Driveway	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Live Oak Avenue	South Leg West Driveway	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: West Driveway
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Live Oak Avenue	South Leg West Driveway	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	3	0	3
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	5	0	6

	North Leg Dead End	East Leg Live Oak Avenue	South Leg West Driveway	West Leg Live Oak Avenue	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
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 VOLUMES:	1	0	1	0	2

Counts Unlimited
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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

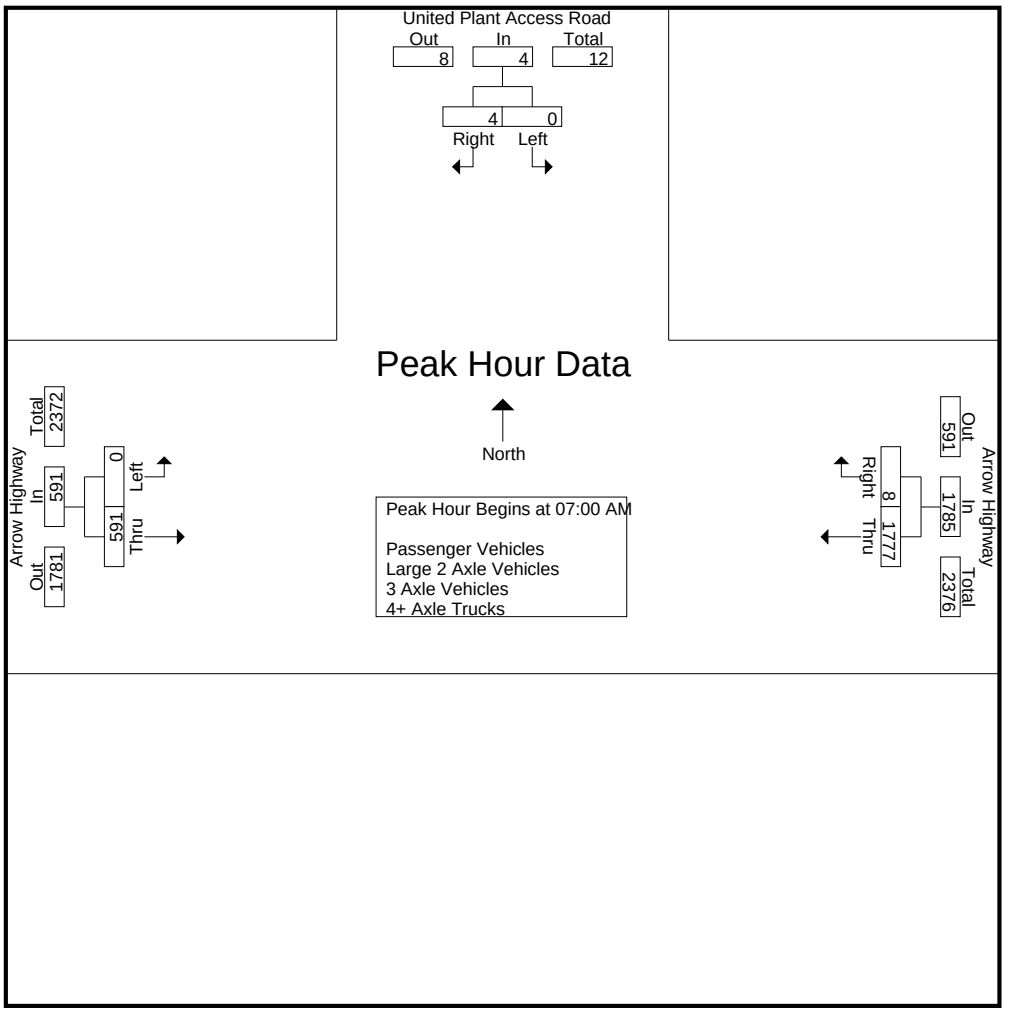
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	476	1	0	477	0	106	0	106	0	584	584
07:15 AM	0	1	0	1	507	1	0	508	0	135	0	135	0	644	644
07:30 AM	0	0	0	0	429	3	0	432	0	172	0	172	0	604	604
07:45 AM	0	2	0	2	365	3	0	368	0	178	0	178	0	548	548
Total	0	4	0	4	1777	8	0	1785	0	591	0	591	0	2380	2380
08:00 AM	0	2	0	2	314	4	0	318	0	161	0	161	0	481	481
08:15 AM	0	3	0	3	316	3	0	319	0	172	0	172	0	494	494
08:30 AM	0	0	0	0	257	9	0	266	0	142	0	142	0	408	408
08:45 AM	0	9	0	9	264	7	0	271	0	155	0	155	0	435	435
Total	0	14	0	14	1151	23	0	1174	0	630	0	630	0	1818	1818
Grand Total	0	18	0	18	2928	31	0	2959	0	1221	0	1221	0	4198	4198
Apprch %	0	100			99	1			0	100					
Total %	0	0.4		0.4	69.7	0.7		70.5	0	29.1		29.1	0	100	
Passenger Vehicles	0	3		3	2772	5		2777	0	1059		1059	0	0	3839
% Passenger Vehicles	0	16.7	0	16.7	94.7	16.1	0	93.8	0	86.7	0	86.7	0	0	91.4
Large 2 Axle Vehicles	0	0		0	54	0		54	0	54		54	0	0	108
% Large 2 Axle Vehicles	0	0	0	0	1.8	0	0	1.8	0	4.4	0	4.4	0	0	2.6
3 Axle Vehicles	0	5		5	48	8		56	0	44		44	0	0	105
% 3 Axle Vehicles	0	27.8	0	27.8	1.6	25.8	0	1.9	0	3.6	0	3.6	0	0	2.5
4+ Axle Trucks	0	10		10	54	18		72	0	64		64	0	0	146
% 4+ Axle Trucks	0	55.6	0	55.6	1.8	58.1	0	2.4	0	5.2	0	5.2	0	0	3.5

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	476	1	477	0	106	106	584
07:15 AM	0	1	1	**507**	1	**508**	0	135	135	**644**
07:30 AM	0	0	0	429	**3**	432	0	172	172	604
07:45 AM	0	**2**	**2**	365	3	368	0	**178**	**178**	548
Total Volume	0	4	4	1777	8	1785	0	591	591	2380
% App. Total	0	100		99.6	0.4		0	100		
PHF	.000	.500	.500	.876	.667	.878	.000	.830	.830	.924

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City of Irwindale
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E/W: Arrow Highway
Weather: Clear

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

	08:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	2	2	476	1	477	0	172	172
+15 mins.	0	3	3	**507**	1	**508**	0	**178**	**178**
+30 mins.	0	0	0	429	**3**	432	0	161	161
+45 mins.	0	**9**	**9**	365	3	368	0	172	172
Total Volume	0	14	14	1777	8	1785	0	683	683
% App. Total	0	100		99.6	0.4		0	100	
PHF	.000	.389	.389	.876	.667	.878	.000	.959	.959

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar AM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

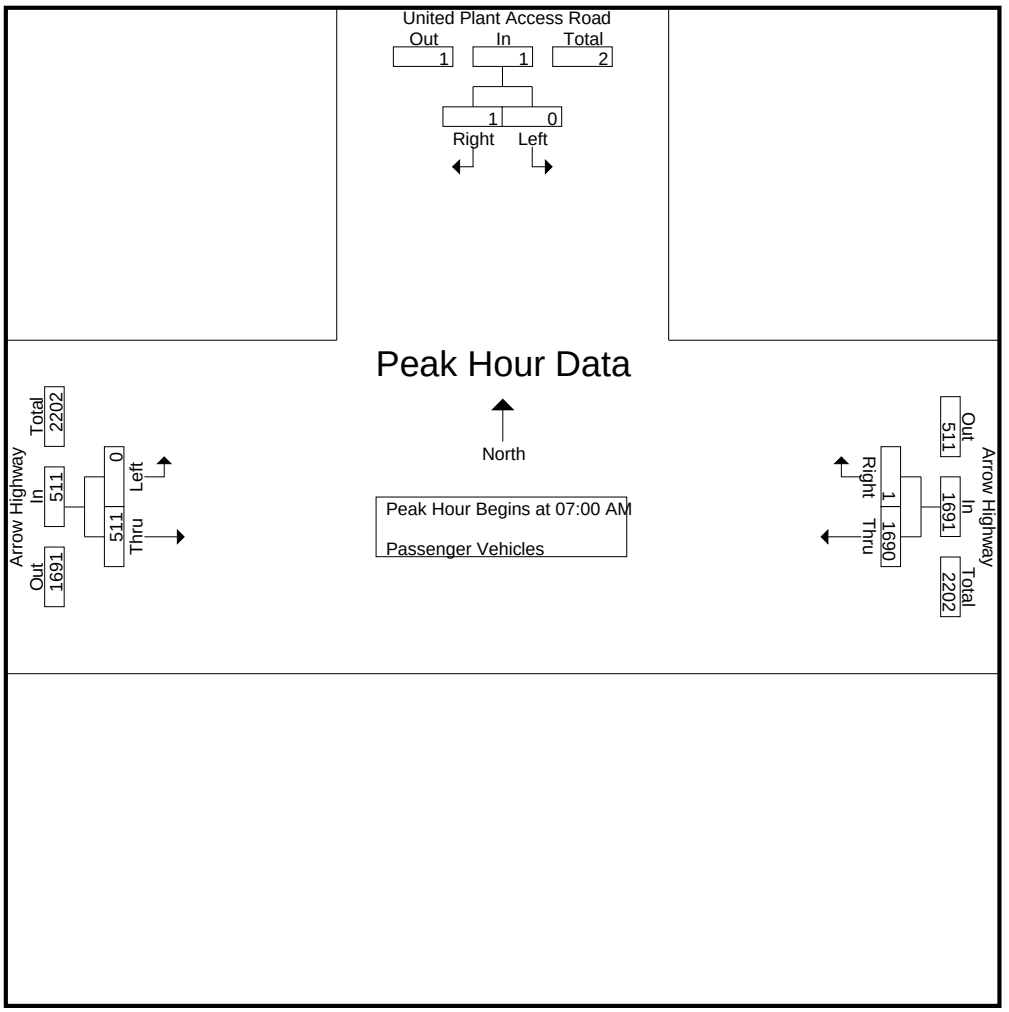
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	452	0	0	452	0	82	0	82	0	535	535
07:15 AM	0	0	0	0	484	0	0	484	0	123	0	123	0	607	607
07:30 AM	0	0	0	0	411	0	0	411	0	145	0	145	0	556	556
07:45 AM	0	0	0	0	343	1	0	344	0	161	0	161	0	505	505
Total	0	1	0	1	1690	1	0	1691	0	511	0	511	0	2203	2203
08:00 AM	0	1	0	1	304	1	0	305	0	145	0	145	0	451	451
08:15 AM	0	0	0	0	299	0	0	299	0	150	0	150	0	449	449
08:30 AM	0	0	0	0	239	1	0	240	0	120	0	120	0	360	360
08:45 AM	0	1	0	1	240	2	0	242	0	133	0	133	0	376	376
Total	0	2	0	2	1082	4	0	1086	0	548	0	548	0	1636	1636
Grand Total	0	3	0	3	2772	5	0	2777	0	1059	0	1059	0	3839	3839
Apprch %	0	100			99.8	0.2			0	100					
Total %	0	0.1		0.1	72.2	0.1		72.3	0	27.6		27.6	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	452	0	452	0	82	82	535
07:15 AM	0	0	0	**484**	0	**484**	0	123	123	**607**
07:30 AM	0	0	0	411	0	411	0	145	145	556
07:45 AM	0	0	0	343	**1**	344	0	**161**	**161**	505
Total Volume	0	1	1	1690	1	1691	0	511	511	2203
% App. Total	0	100		99.9	0.1		0	100		
PHF	.000	.250	.250	.873	.250	.873	.000	.793	.793	.907

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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	452	0	452	0	82	82
+15 mins.	0	0	0	**484**	0	**484**	0	123	123
+30 mins.	0	0	0	411	0	411	0	145	145
+45 mins.	0	0	0	343	**1**	344	0	**161**	**161**
Total Volume	0	1	1	1690	1	1691	0	511	511
% App. Total	0	100		99.9	0.1		0	100	
PHF	.000	.250	.250	.873	.250	.873	.000	.793	.793

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar AM
Site Code : 05117783
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Groups Printed- Large 2 Axle Vehicles

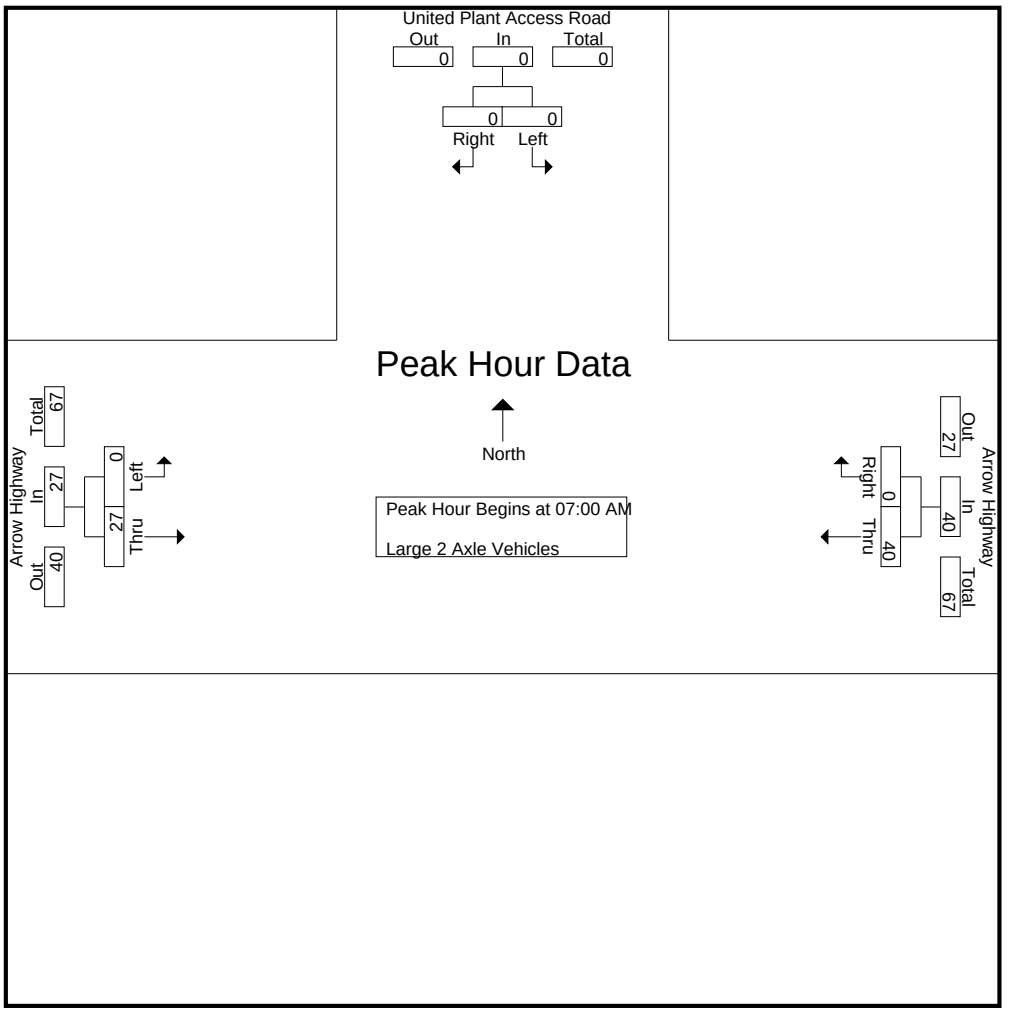
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	11	0	0	11	0	9	0	9	0	20	20
07:15 AM	0	0	0	0	14	0	0	14	0	2	0	2	0	16	16
07:30 AM	0	0	0	0	7	0	0	7	0	7	0	7	0	14	14
07:45 AM	0	0	0	0	8	0	0	8	0	9	0	9	0	17	17
Total	0	0	0	0	40	0	0	40	0	27	0	27	0	67	67
08:00 AM	0	0	0	0	2	0	0	2	0	8	0	8	0	10	10
08:15 AM	0	0	0	0	4	0	0	4	0	9	0	9	0	13	13
08:30 AM	0	0	0	0	4	0	0	4	0	3	0	3	0	7	7
08:45 AM	0	0	0	0	4	0	0	4	0	7	0	7	0	11	11
Total	0	0	0	0	14	0	0	14	0	27	0	27	0	41	41
Grand Total	0	0	0	0	54	0	0	54	0	54	0	54	0	108	108
Apprch %	0	0			100	0			0	100					
Total %	0	0		0	50	0		50	0	50		50	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	11	0	11	0	**9**	**9**	**20**
07:15 AM	0	0	0	**14**	0	**14**	0	2	2	16
07:30 AM	0	0	0	7	0	7	0	7	7	14
07:45 AM	0	0	0	8	0	8	0	9	9	17
Total Volume	0	0	0	40	0	40	0	27	27	67
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.714	.000	.714	.000	.750	.750	.838

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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	11	0	11	0	**9**	**9**
+15 mins.	0	0	0	**14**	0	**14**	0	2	2
+30 mins.	0	0	0	7	0	7	0	7	7
+45 mins.	0	0	0	8	0	8	0	9	9
Total Volume	0	0	0	40	0	40	0	27	27
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.714	.000	.714	.000	.750	.750

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City of Irwindale
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Weather: Clear

File Name : 14_IRW_Ac Ar AM
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Groups Printed- 3 Axle Vehicles

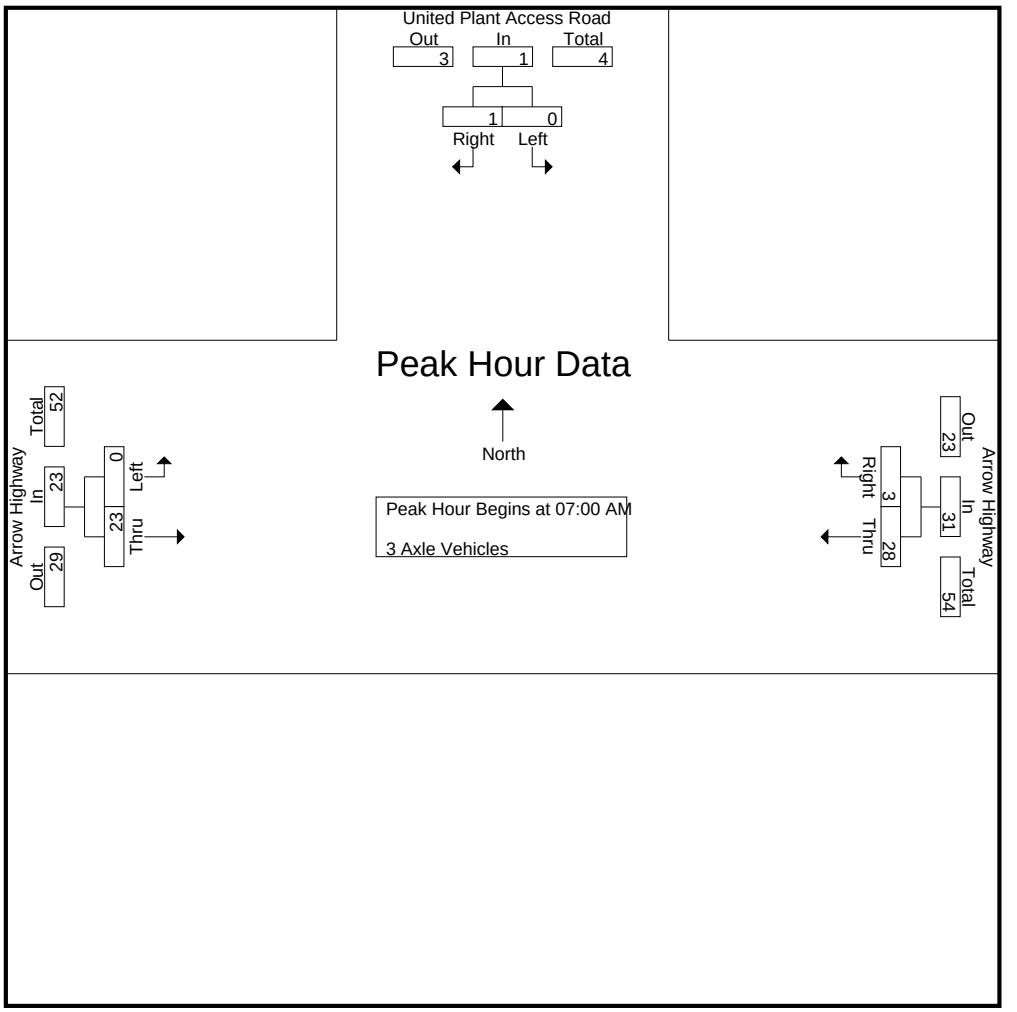
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	7	1	0	8	0	7	0	7	0	15	15
07:15 AM	0	1	0	1	8	1	0	9	0	6	0	6	0	16	16
07:30 AM	0	0	0	0	8	1	0	9	0	7	0	7	0	16	16
07:45 AM	0	0	0	0	5	0	0	5	0	3	0	3	0	8	8
Total	0	1	0	1	28	3	0	31	0	23	0	23	0	55	55
08:00 AM	0	1	0	1	4	1	0	5	0	2	0	2	0	8	8
08:15 AM	0	1	0	1	7	0	0	7	0	8	0	8	0	16	16
08:30 AM	0	0	0	0	3	2	0	5	0	6	0	6	0	11	11
08:45 AM	0	2	0	2	6	2	0	8	0	5	0	5	0	15	15
Total	0	4	0	4	20	5	0	25	0	21	0	21	0	50	50
Grand Total	0	5	0	5	48	8	0	56	0	44	0	44	0	105	105
Apprch %	0	100			85.7	14.3			0	100					
Total %	0	4.8		4.8	45.7	7.6		53.3	0	41.9		41.9	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	7	**1**	8	0	**7**	**7**	15
07:15 AM	0	**1**	**1**	**8**	1	**9**	0	6	6	**16**
07:30 AM	0	0	0	8	1	9	0	7	7	16
07:45 AM	0	0	0	5	0	5	0	3	3	8
Total Volume	0	1	1	28	3	31	0	23	23	55
% App. Total	0	100		90.3	9.7		0	100		
PHF	.000	.250	.250	.875	.750	.861	.000	.821	.821	.859

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City of Irwindale
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File Name : 14_IRW_Ac Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	7	**1**	8	0	**7**	**7**
+15 mins.	0	**1**	**1**	**8**	1	**9**	0	6	6
+30 mins.	0	0	0	8	1	9	0	7	7
+45 mins.	0	0	0	5	0	5	0	3	3
Total Volume	0	1	1	28	3	31	0	23	23
% App. Total	0	100		90.3	9.7		0	100	
PHF	.000	.250	.250	.875	.750	.861	.000	.821	.821

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar AM
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Groups Printed- 4+ Axle Trucks

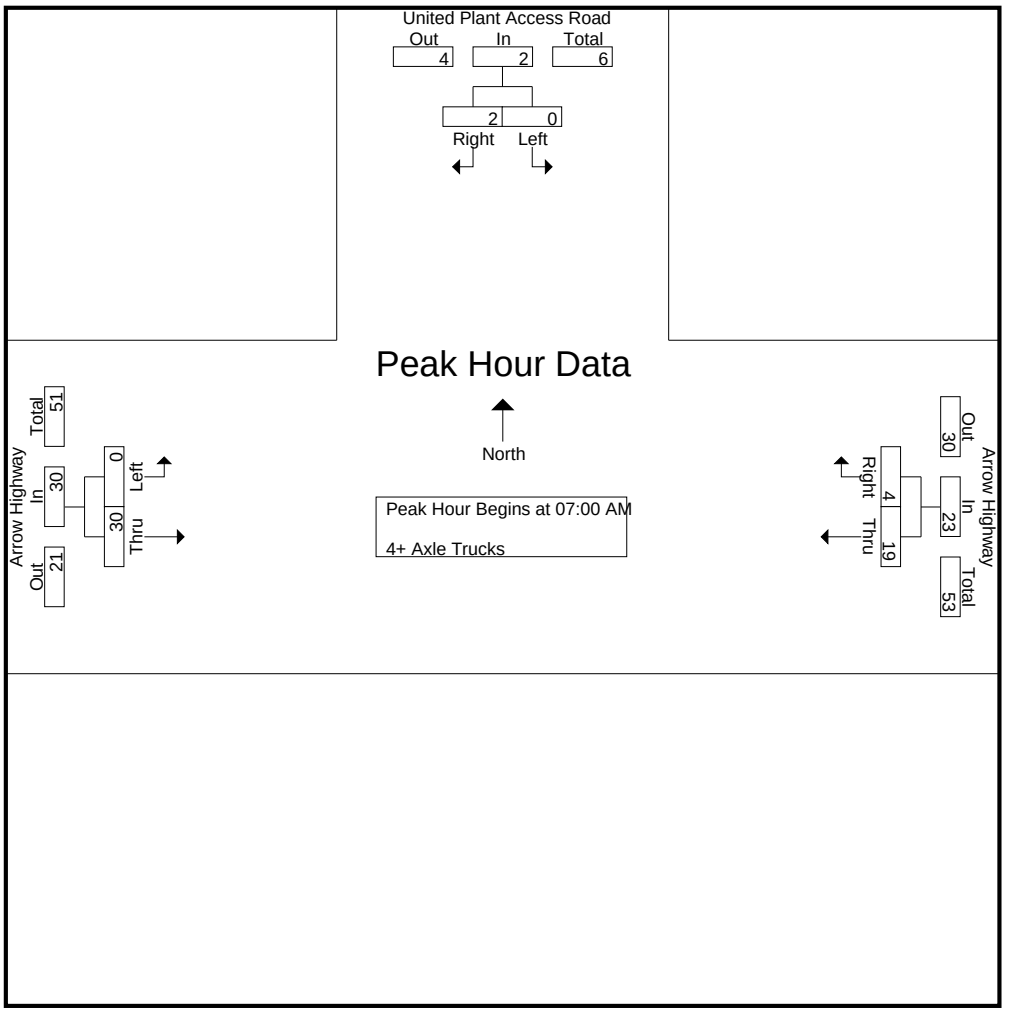
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	6	0	0	6	0	8	0	8	0	14	14
07:15 AM	0	0	0	0	1	0	0	1	0	4	0	4	0	5	5
07:30 AM	0	0	0	0	3	2	0	5	0	13	0	13	0	18	18
07:45 AM	0	2	0	2	9	2	0	11	0	5	0	5	0	18	18
Total	0	2	0	2	19	4	0	23	0	30	0	30	0	55	55
08:00 AM	0	0	0	0	4	2	0	6	0	6	0	6	0	12	12
08:15 AM	0	2	0	2	6	3	0	9	0	5	0	5	0	16	16
08:30 AM	0	0	0	0	11	6	0	17	0	13	0	13	0	30	30
08:45 AM	0	6	0	6	14	3	0	17	0	10	0	10	0	33	33
Total	0	8	0	8	35	14	0	49	0	34	0	34	0	91	91
Grand Total	0	10	0	10	54	18	0	72	0	64	0	64	0	146	146
Apprch %	0	100			75	25			0	100					
Total %	0	6.8		6.8	37	12.3		49.3	0	43.8		43.8	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	6	0	6	0	8	8	14
07:15 AM	0	0	0	1	0	1	0	4	4	5
07:30 AM	0	0	0	3	**2**	5	0	**13**	**13**	**18**
07:45 AM	0	**2**	**2**	**9**	2	**11**	0	5	5	18
Total Volume	0	2	2	19	4	23	0	30	30	55
% App. Total	0	100		82.6	17.4		0	100		
PHF	.000	.250	.250	.528	.500	.523	.000	.577	.577	.764

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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	6	0	6	0	8	8
+15 mins.	0	0	0	1	0	1	0	4	4
+30 mins.	0	0	0	3	**2**	5	0	**13**	**13**
+45 mins.	0	**2**	**2**	**9**	2	**11**	0	5	5
Total Volume	0	2	2	19	4	23	0	30	30
% App. Total	0	100		82.6	17.4		0	100	
PHF	.000	.250	.250	.528	.500	.523	.000	.577	.577

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

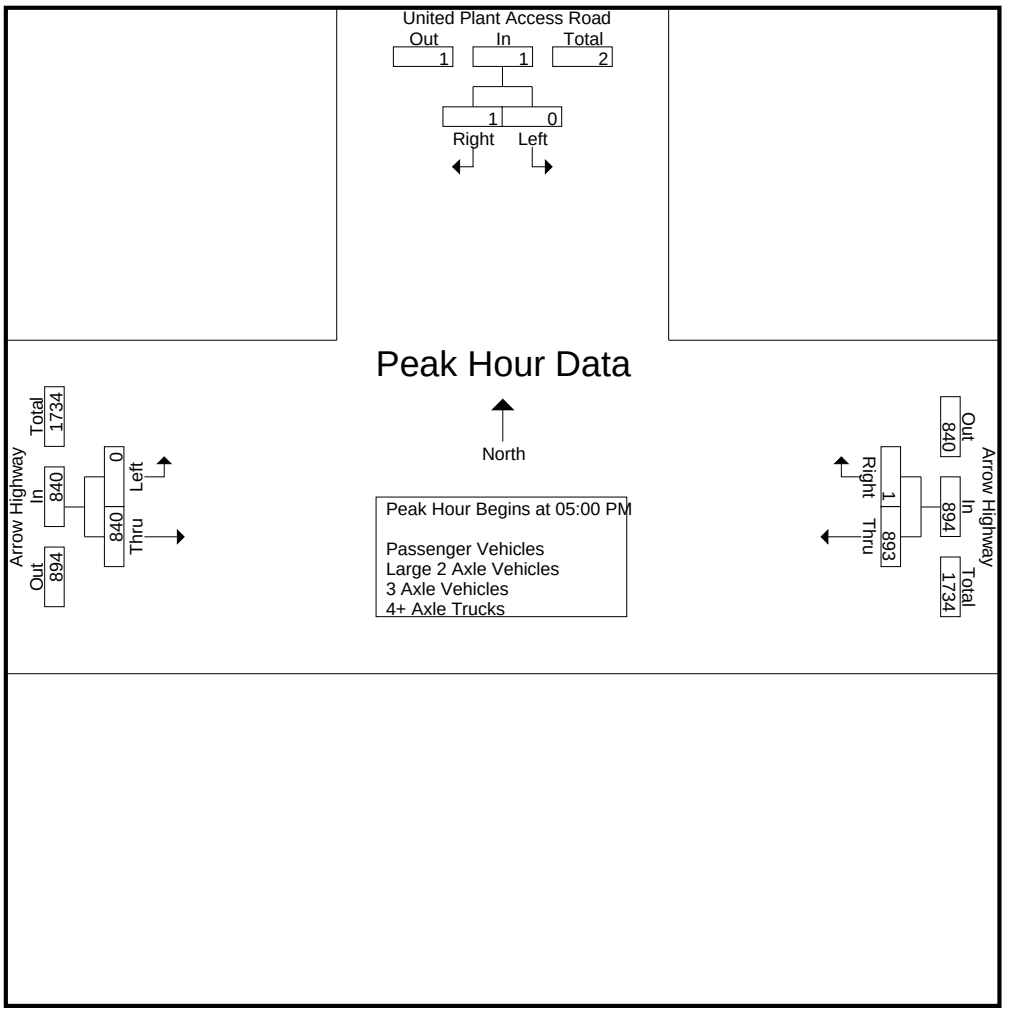
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	1	141	0	0	141	0	168	0	168	0	310	310
04:15 PM	0	1	0	1	172	0	0	172	0	206	0	206	0	379	379
04:30 PM	0	1	0	1	182	0	0	182	0	237	0	237	0	420	420
04:45 PM	0	0	0	0	194	0	0	194	0	211	0	211	0	405	405
Total	0	3	0	3	689	0	0	689	0	822	0	822	0	1514	1514
05:00 PM	0	1	0	1	219	1	0	220	0	197	0	197	0	418	418
05:15 PM	0	0	0	0	232	0	0	232	0	216	0	216	0	448	448
05:30 PM	0	0	0	0	229	0	0	229	0	203	0	203	0	432	432
05:45 PM	0	0	0	0	213	0	0	213	0	224	0	224	0	437	437
Total	0	1	0	1	893	1	0	894	0	840	0	840	0	1735	1735
Grand Total	0	4	0	4	1582	1	0	1583	0	1662	0	1662	0	3249	3249
Apprch %	0	100			99.9	0.1			0	100					
Total %	0	0.1		0.1	48.7	0		48.7	0	51.2		51.2	0	100	
Passenger Vehicles	0	4		4	1505	1		1506	0	1597		1597	0	0	3107
% Passenger Vehicles	0	100	0	100	95.1	100	0	95.1	0	96.1	0	96.1	0	0	95.6
Large 2 Axle Vehicles	0	0		0	37	0		37	0	34		34	0	0	71
% Large 2 Axle Vehicles	0	0	0	0	2.3	0	0	2.3	0	2	0	2	0	0	2.2
3 Axle Vehicles	0	0		0	9	0		9	0	12		12	0	0	21
% 3 Axle Vehicles	0	0	0	0	0.6	0	0	0.6	0	0.7	0	0.7	0	0	0.6
4+ Axle Trucks	0	0		0	31	0		31	0	19		19	0	0	50
% 4+ Axle Trucks	0	0	0	0	2	0	0	2	0	1.1	0	1.1	0	0	1.5

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**1**	**1**	219	**1**	220	0	197	197	418
05:15 PM	0	0	0	**232**	0	**232**	0	216	216	**448**
05:30 PM	0	0	0	229	0	229	0	203	203	432
05:45 PM	0	0	0	213	0	213	0	**224**	**224**	437
Total Volume	0	1	1	893	1	894	0	840	840	1735
% App. Total	0	100		99.9	0.1		0	100		
PHF	.000	.250	.250	.962	.250	.963	.000	.938	.938	.968

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City of Irwindale
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E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			04:30 PM		
+0 mins.	0	**1**	**1**	219	**1**	220	0	**237**	**237**
+15 mins.	0	1	1	**232**	0	**232**	0	211	211
+30 mins.	0	1	1	229	0	229	0	197	197
+45 mins.	0	0	0	213	0	213	0	216	216
Total Volume	0	3	3	893	1	894	0	861	861
% App. Total	0	100		99.9	0.1		0	100	
PHF	.000	.750	.750	.962	.250	.963	.000	.908	.908

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

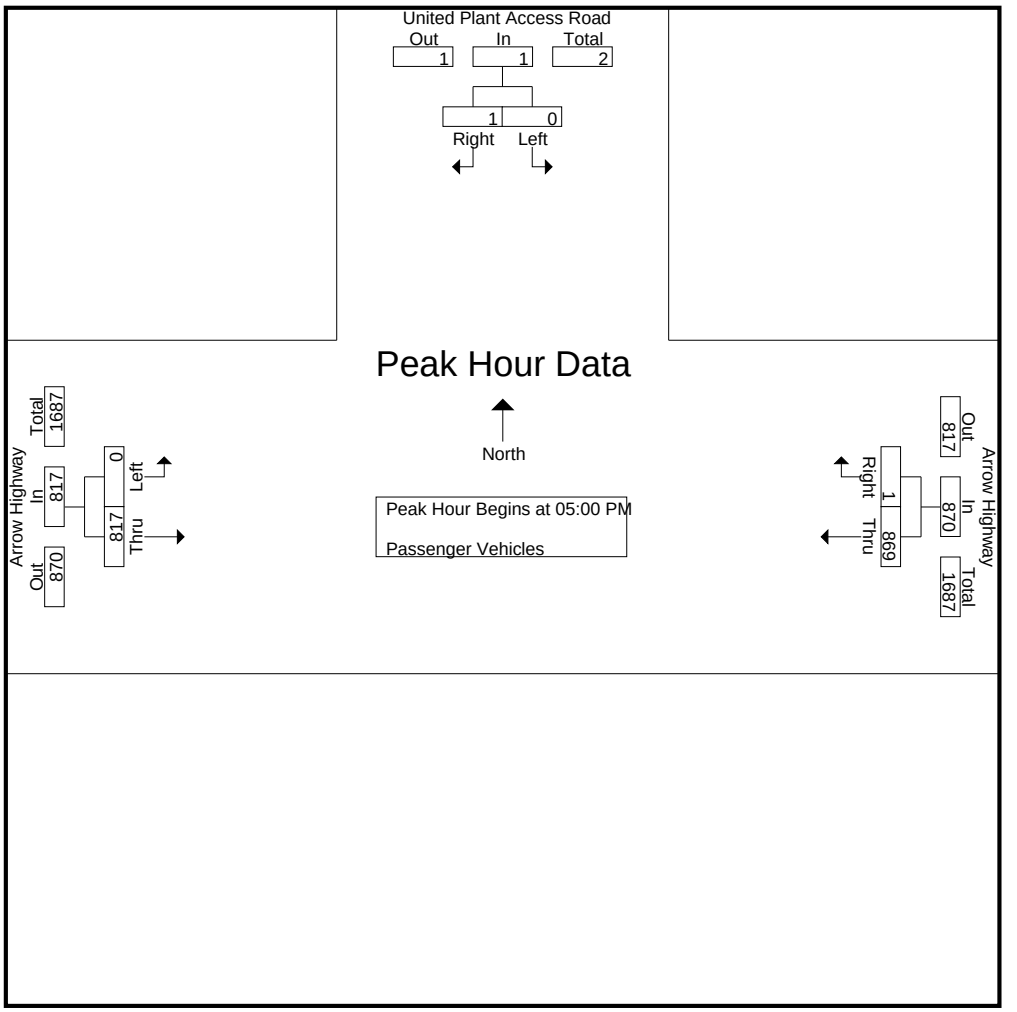
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	1	129	0	0	129	0	159	0	159	0	289	289
04:15 PM	0	1	0	1	154	0	0	154	0	193	0	193	0	348	348
04:30 PM	0	1	0	1	165	0	0	165	0	228	0	228	0	394	394
04:45 PM	0	0	0	0	188	0	0	188	0	200	0	200	0	388	388
Total	0	3	0	3	636	0	0	636	0	780	0	780	0	1419	1419
05:00 PM	0	1	0	1	213	1	0	214	0	192	0	192	0	407	407
05:15 PM	0	0	0	0	226	0	0	226	0	211	0	211	0	437	437
05:30 PM	0	0	0	0	221	0	0	221	0	198	0	198	0	419	419
05:45 PM	0	0	0	0	209	0	0	209	0	216	0	216	0	425	425
Total	0	1	0	1	869	1	0	870	0	817	0	817	0	1688	1688
Grand Total	0	4	0	4	1505	1	0	1506	0	1597	0	1597	0	3107	3107
Apprch %	0	100			99.9	0.1			0	100					
Total %	0	0.1		0.1	48.4	0		48.5	0	51.4		51.4	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**1**	**1**	213	**1**	214	0	192	192	407
05:15 PM	0	0	0	**226**	0	**226**	0	211	211	**437**
05:30 PM	0	0	0	221	0	221	0	198	198	419
05:45 PM	0	0	0	209	0	209	0	**216**	**216**	425
Total Volume	0	1	1	869	1	870	0	817	817	1688
% App. Total	0	100		99.9	0.1		0	100		
PHF	.000	.250	.250	.961	.250	.962	.000	.946	.946	.966

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	**1**	**1**	213	**1**	214	0	192	192
+15 mins.	0	0	0	**226**	0	**226**	0	211	211
+30 mins.	0	0	0	221	0	221	0	198	198
+45 mins.	0	0	0	209	0	209	0	**216**	**216**
Total Volume	0	1	1	869	1	870	0	817	817
% App. Total	0	100		99.9	0.1		0	100	
PHF	.000	.250	.250	.961	.250	.962	.000	.946	.946

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

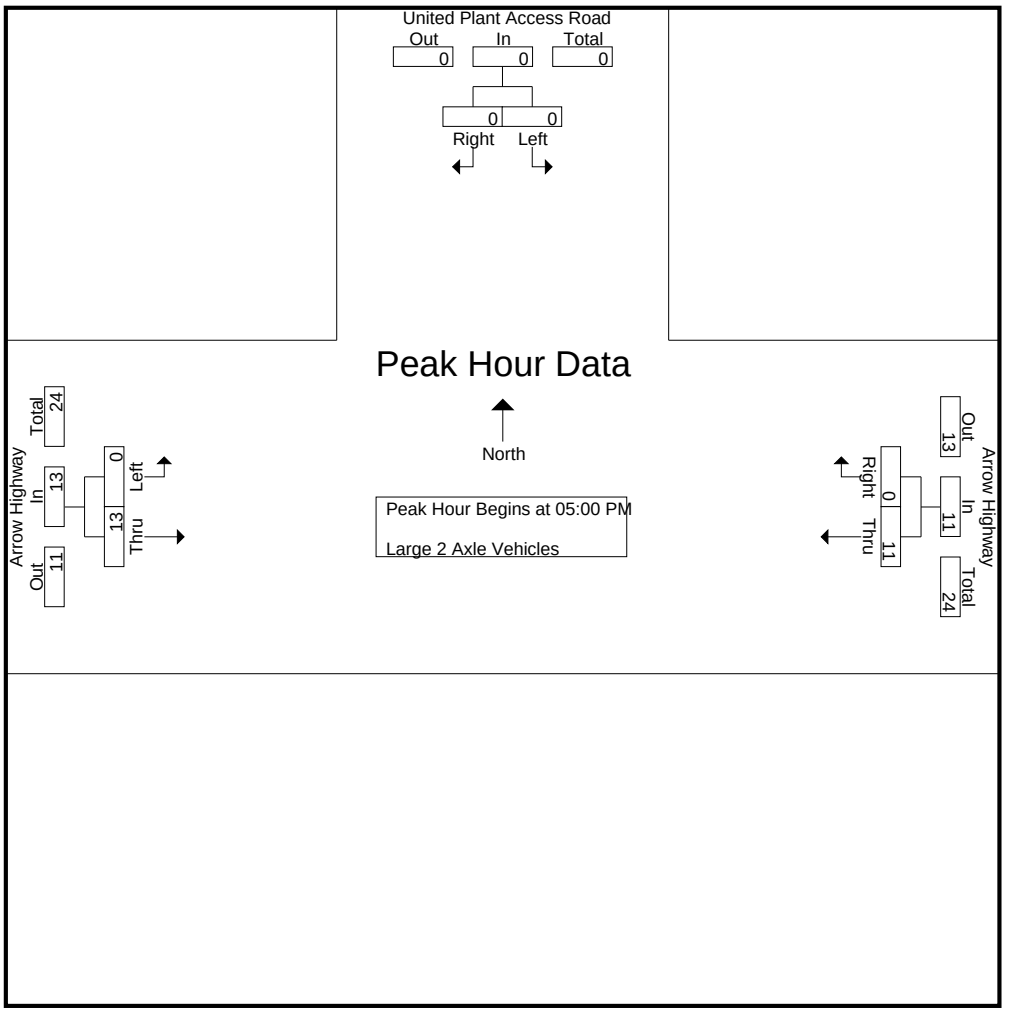
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	5	0	0	5	0	5	0	5	0	10	10
04:15 PM	0	0	0	0	9	0	0	9	0	7	0	7	0	16	16
04:30 PM	0	0	0	0	9	0	0	9	0	4	0	4	0	13	13
04:45 PM	0	0	0	0	3	0	0	3	0	5	0	5	0	8	8
Total	0	0	0	0	26	0	0	26	0	21	0	21	0	47	47
05:00 PM	0	0	0	0	1	0	0	1	0	3	0	3	0	4	4
05:15 PM	0	0	0	0	3	0	0	3	0	2	0	2	0	5	5
05:30 PM	0	0	0	0	5	0	0	5	0	3	0	3	0	8	8
05:45 PM	0	0	0	0	2	0	0	2	0	5	0	5	0	7	7
Total	0	0	0	0	11	0	0	11	0	13	0	13	0	24	24
Grand Total	0	0	0	0	37	0	0	37	0	34	0	34	0	71	71
Apprch %	0	0			100	0			0	100					
Total %	0	0		0	52.1	0		52.1	0	47.9		47.9	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	1	0	1	0	3	3	4
05:15 PM	0	0	0	3	0	3	0	2	2	5
05:30 PM	0	0	0	**5**	0	**5**	0	3	3	**8**
05:45 PM	0	0	0	2	0	2	0	**5**	**5**	7
Total Volume	0	0	0	11	0	11	0	13	13	24
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.550	.000	.550	.000	.650	.650	.750

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	0	1	0	3	3
+15 mins.	0	0	0	3	0	3	0	2	2
+30 mins.	0	0	0	**5**	0	**5**	0	3	3
+45 mins.	0	0	0	2	0	2	0	**5**	**5**
Total Volume	0	0	0	11	0	11	0	13	13
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.550	.000	.550	.000	.650	.650

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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

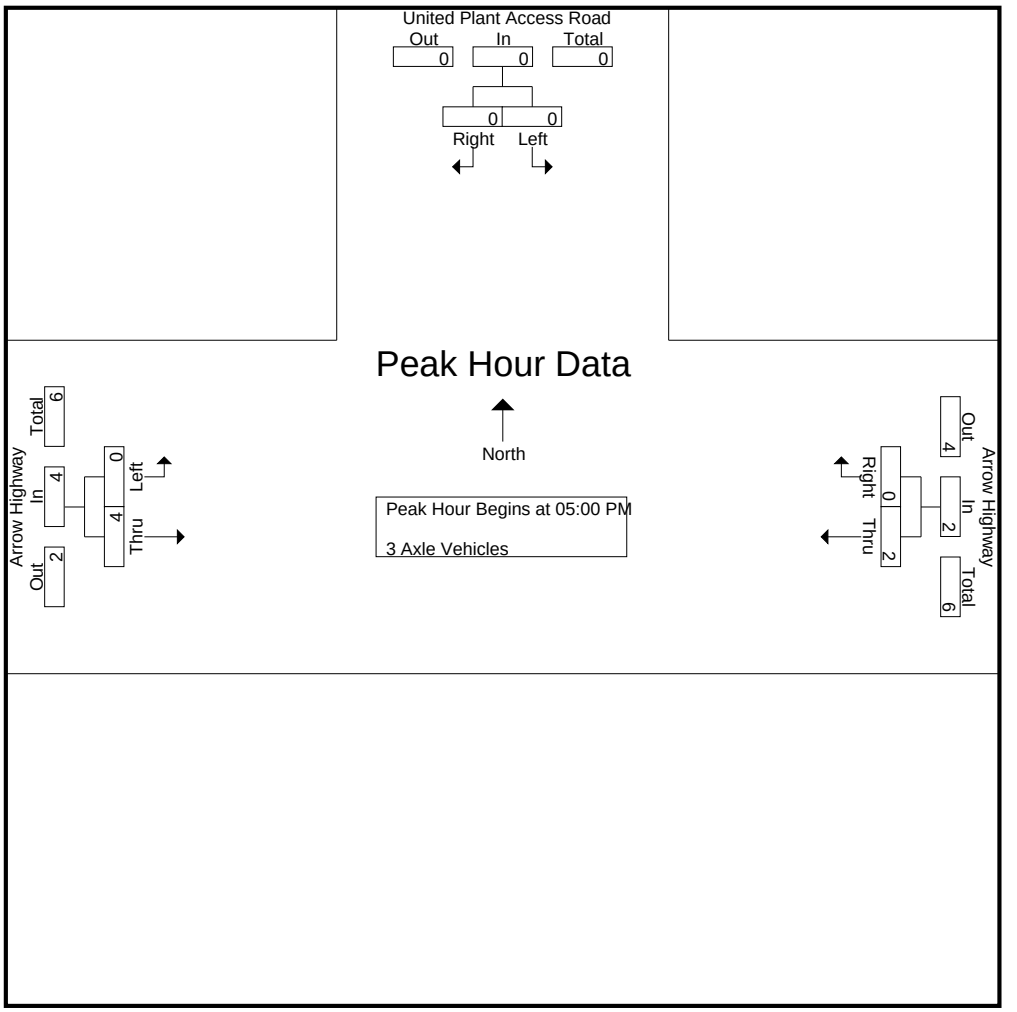
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2
04:15 PM	0	0	0	0	4	0	0	4	0	3	0	3	0	7	7
04:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	4	4
Total	0	0	0	0	7	0	0	7	0	8	0	8	0	15	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	0	3	3
05:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
Total	0	0	0	0	2	0	0	2	0	4	0	4	0	6	6
Grand Total	0	0	0	0	9	0	0	9	0	12	0	12	0	21	21
Apprch %	0	0			100	0			0	100					
Total %	0	0		0	42.9	0		42.9	0	57.1		57.1	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	**1**	0	**1**	0	**2**	**2**	**3**
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	2	0	2	0	4	4	6
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500	.500

Counts Unlimited
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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	**1**	0	**1**	0	**2**	**2**
+30 mins.	0	0	0	1	0	1	0	1	1
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	2	0	2	0	4	4
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500

Counts Unlimited
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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

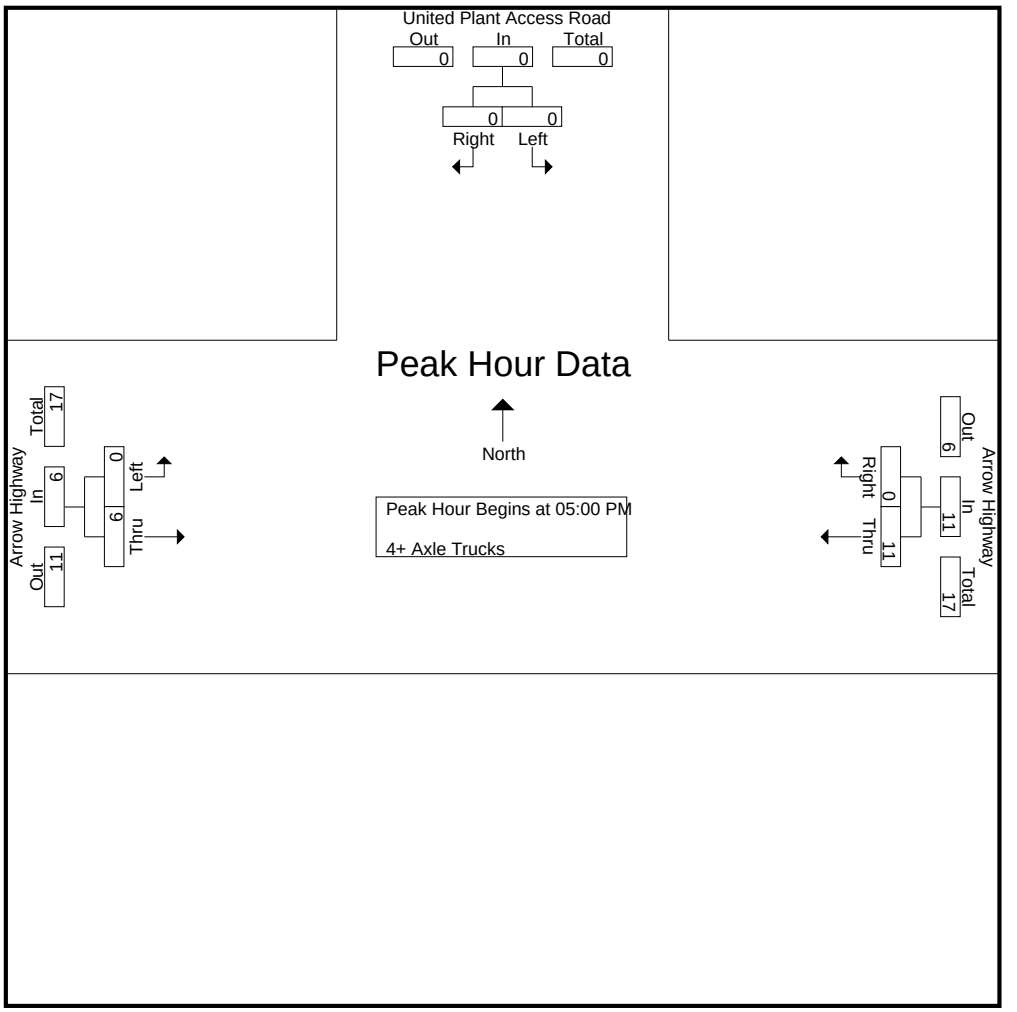
	United Plant Access Road Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	5	0	0	5	0	4	0	4	0	9	9
04:15 PM	0	0	0	0	5	0	0	5	0	3	0	3	0	8	8
04:30 PM	0	0	0	0	7	0	0	7	0	4	0	4	0	11	11
04:45 PM	0	0	0	0	3	0	0	3	0	2	0	2	0	5	5
Total	0	0	0	0	20	0	0	20	0	13	0	13	0	33	33
05:00 PM	0	0	0	0	5	0	0	5	0	2	0	2	0	7	7
05:15 PM	0	0	0	0	2	0	0	2	0	1	0	1	0	3	3
05:30 PM	0	0	0	0	2	0	0	2	0	1	0	1	0	3	3
05:45 PM	0	0	0	0	2	0	0	2	0	2	0	2	0	4	4
Total	0	0	0	0	11	0	0	11	0	6	0	6	0	17	17
Grand Total	0	0	0	0	31	0	0	31	0	19	0	19	0	50	50
Apprch %	0	0			100	0			0	100					
Total %	0	0		0	62	0		62	0	38		38	0	100	

	United Plant Access Road Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	**5**	0	**5**	0	**2**	**2**	**7**
05:15 PM	0	0	0	2	0	2	0	1	1	3
05:30 PM	0	0	0	2	0	2	0	1	1	3
05:45 PM	0	0	0	2	0	2	0	2	2	4
Total Volume	0	0	0	11	0	11	0	6	6	17
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.550	.000	.550	.000	.750	.750	.607

Counts Unlimited
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City of Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway
Weather: Clear

File Name : 14_IRW_Ac Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	**5**	0	**5**	0	**2**	**2**
+15 mins.	0	0	0	2	0	2	0	1	1
+30 mins.	0	0	0	2	0	2	0	1	1
+45 mins.	0	0	0	2	0	2	0	2	2
Total Volume	0	0	0	11	0	11	0	6	6
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.550	.000	.550	.000	.750	.750

Location: Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg United Plant Access Road	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg United Plant Access Road	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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 VOLUMES:	0	0	0	0	0

Counts Unlimited
P.O. Box 1178
Corona, CA 92878
(951) 268-6268

Location: Irwindale
N/S: United Plant Access Road
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg United Plant Access Road	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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	1	0	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg United Plant Access Road	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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	1	0	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

Counts Unlimited
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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

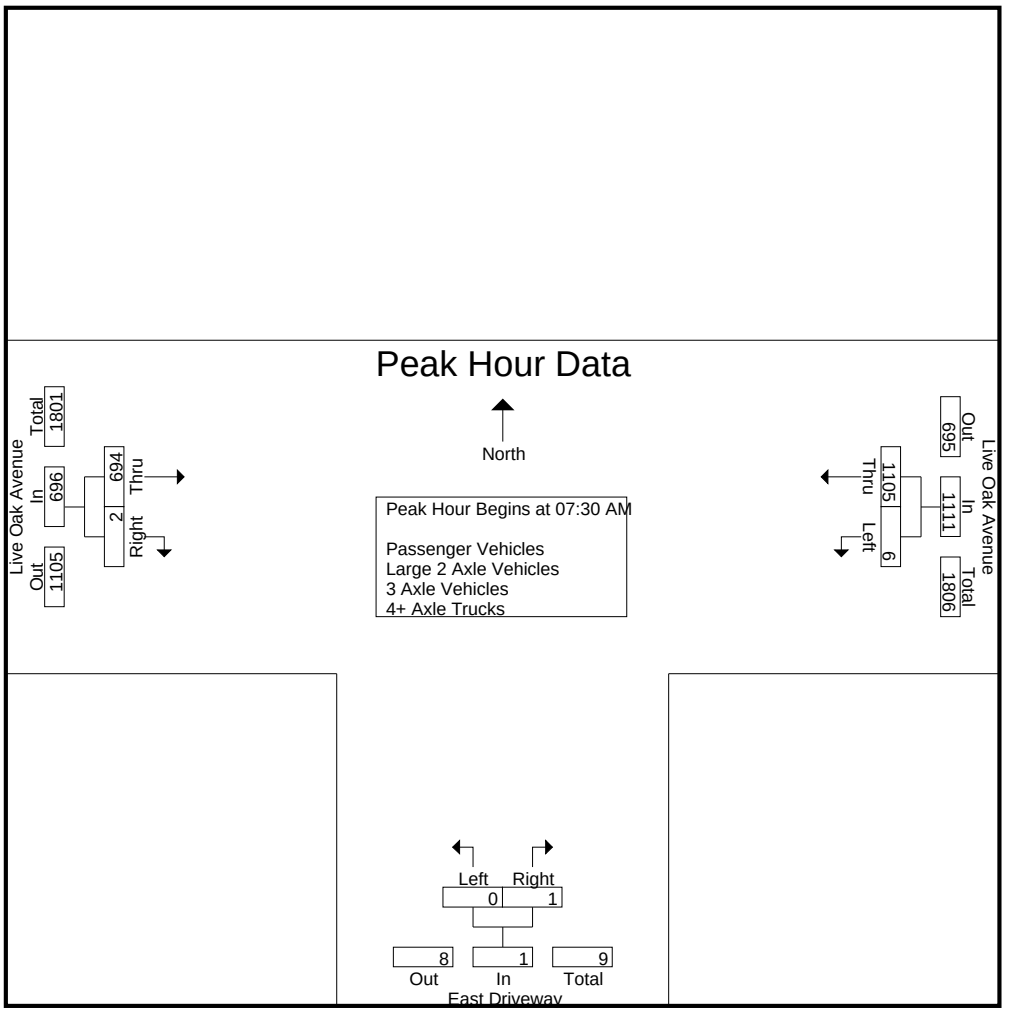
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	289	0	291	1	0	0	1	147	0	0	147	0	439	439
07:15 AM	3	279	0	282	0	1	1	1	165	0	0	165	1	448	449
07:30 AM	1	264	0	265	0	1	1	1	162	0	0	162	1	428	429
07:45 AM	1	295	0	296	0	0	0	0	160	0	0	160	0	456	456
Total	7	1127	0	1134	1	2	2	3	634	0	0	634	2	1771	1773
08:00 AM	3	280	0	283	0	0	0	0	189	2	0	191	0	474	474
08:15 AM	1	266	0	267	0	0	0	0	183	0	0	183	0	450	450
08:30 AM	1	237	0	238	1	0	0	1	178	1	0	179	0	418	418
08:45 AM	2	222	0	224	1	0	0	1	201	2	0	203	0	428	428
Total	7	1005	0	1012	2	0	0	2	751	5	0	756	0	1770	1770
Grand Total	14	2132	0	2146	3	2	2	5	1385	5	0	1390	2	3541	3543
Apprch %	0.7	99.3			60	40			99.6	0.4					
Total %	0.4	60.2		60.6	0.1	0.1		0.1	39.1	0.1		39.3	0.1	99.9	
Passenger Vehicles	13	1936		1949	3	1		5	1190	5		1195	0	0	3149
% Passenger Vehicles	92.9	90.8	0	90.8	100	50	50	71.4	85.9	100	0	86	0	0	88.9
Large 2 Axle Vehicles	1	74		75	0	1		2	54	0		54	0	0	131
% Large 2 Axle Vehicles	7.1	3.5	0	3.5	0	50	50	28.6	3.9	0	0	3.9	0	0	3.7
3 Axle Vehicles	0	47		47	0	0		0	58	0		58	0	0	105
% 3 Axle Vehicles	0	2.2	0	2.2	0	0	0	0	4.2	0	0	4.2	0	0	3
4+ Axle Trucks	0	75		75	0	0		0	83	0		83	0	0	158
% 4+ Axle Trucks	0	3.5	0	3.5	0	0	0	0	6	0	0	6	0	0	4.5

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	264	265	0	**1**	**1**	162	0	162	428
07:45 AM	1	**295**	**296**	0	0	0	160	0	160	456
08:00 AM	**3**	280	283	0	0	0	**189**	**2**	**191**	**474**
08:15 AM	1	266	267	0	0	0	183	0	183	450
Total Volume	6	1105	1111	0	1	1	694	2	696	1808
% App. Total	0.5	99.5		0	100		99.7	0.3		
PHF	.500	.936	.938	.000	.250	.250	.918	.250	.911	.954

Counts Unlimited
PO Box 1178
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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	2	289	291	**1**	0	**1**	189	**2**	191
+15 mins.	**3**	279	282	0	**1**	1	183	0	183
+30 mins.	1	264	265	0	1	1	178	1	179
+45 mins.	1	**295**	**296**	0	0	0	**201**	2	**203**
Total Volume	7	1127	1134	1	2	3	751	5	756
% App. Total	0.6	99.4		33.3	66.7		99.3	0.7	
PHF	.583	.955	.958	.250	.500	.750	.934	.625	.931

Counts Unlimited
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(951) 268-6268

City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

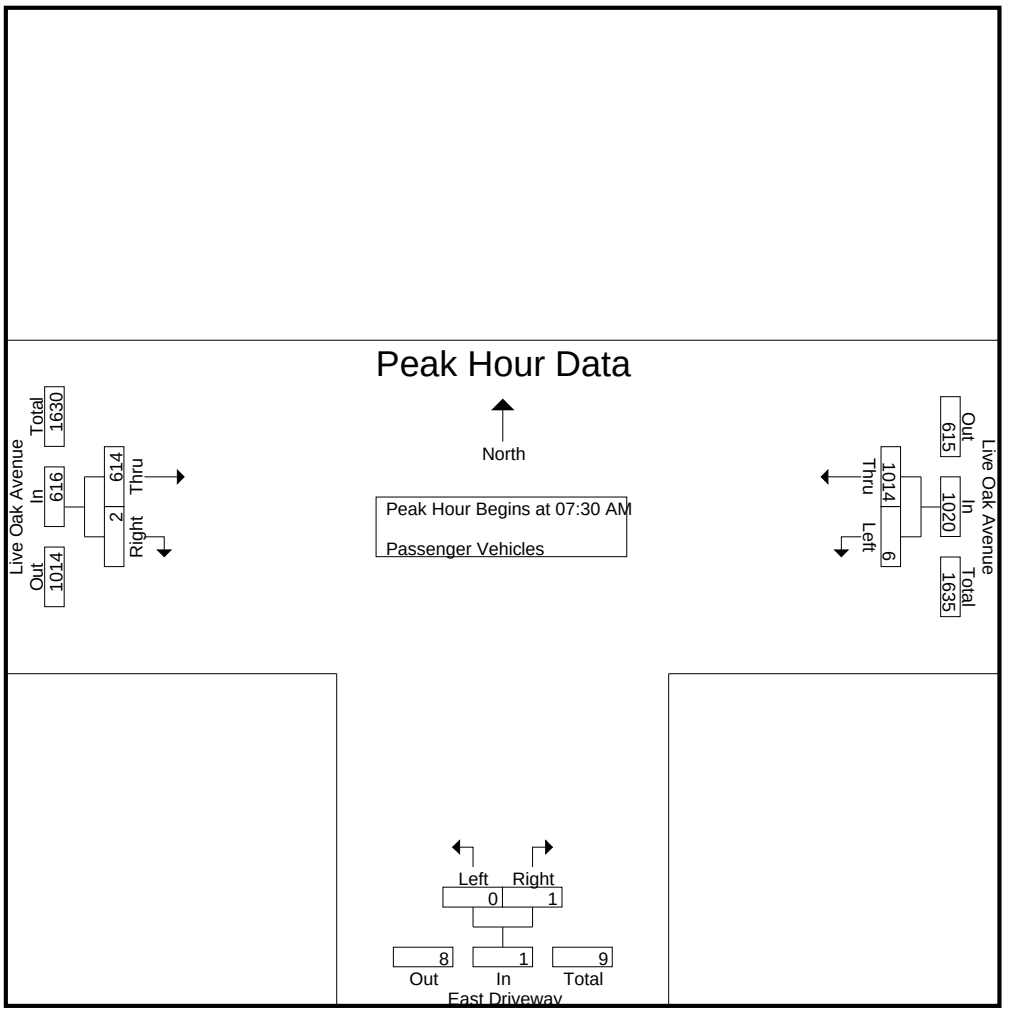
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	272	0	274	1	0	0	1	122	0	0	122	0	397	397
07:15 AM	2	250	0	252	0	0	0	0	134	0	0	134	0	386	386
07:30 AM	1	241	0	242	0	1	1	1	144	0	0	144	1	387	388
07:45 AM	1	273	0	274	0	0	0	0	142	0	0	142	0	416	416
Total	6	1036	0	1042	1	1	1	2	542	0	0	542	1	1586	1587
08:00 AM	3	252	0	255	0	0	0	0	167	2	0	169	0	424	424
08:15 AM	1	248	0	249	0	0	0	0	161	0	0	161	0	410	410
08:30 AM	1	208	0	209	1	0	0	1	155	1	0	156	0	366	366
08:45 AM	2	192	0	194	1	0	0	1	165	2	0	167	0	362	362
Total	7	900	0	907	2	0	0	2	648	5	0	653	0	1562	1562
Grand Total	13	1936	0	1949	3	1	1	4	1190	5	0	1195	1	3148	3149
Apprch %	0.7	99.3			75	25			99.6	0.4					
Total %	0.4	61.5		61.9	0.1	0		0.1	37.8	0.2		38	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	241	242	0	**1**	**1**	144	0	144	387
07:45 AM	1	**273**	**274**	0	0	0	142	0	142	416
08:00 AM	**3**	252	255	0	0	0	**167**	**2**	**169**	**424**
08:15 AM	1	248	249	0	0	0	161	0	161	410
Total Volume	6	1014	1020	0	1	1	614	2	616	1637
% App. Total	0.6	99.4		0	100		99.7	0.3		
PHF	.500	.929	.931	.000	.250	.250	.919	.250	.911	.965

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	1	241	242	0	**1**	**1**	144	0	144
+15 mins.	1	**273**	**274**	0	0	0	142	0	142
+30 mins.	**3**	252	255	0	0	0	**167**	**2**	**169**
+45 mins.	1	248	249	0	0	0	161	0	161
Total Volume	6	1014	1020	0	1	1	614	2	616
% App. Total	0.6	99.4		0	100		99.7	0.3	
PHF	.500	.929	.931	.000	.250	.250	.919	.250	.911

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Large 2 Axle Vehicles

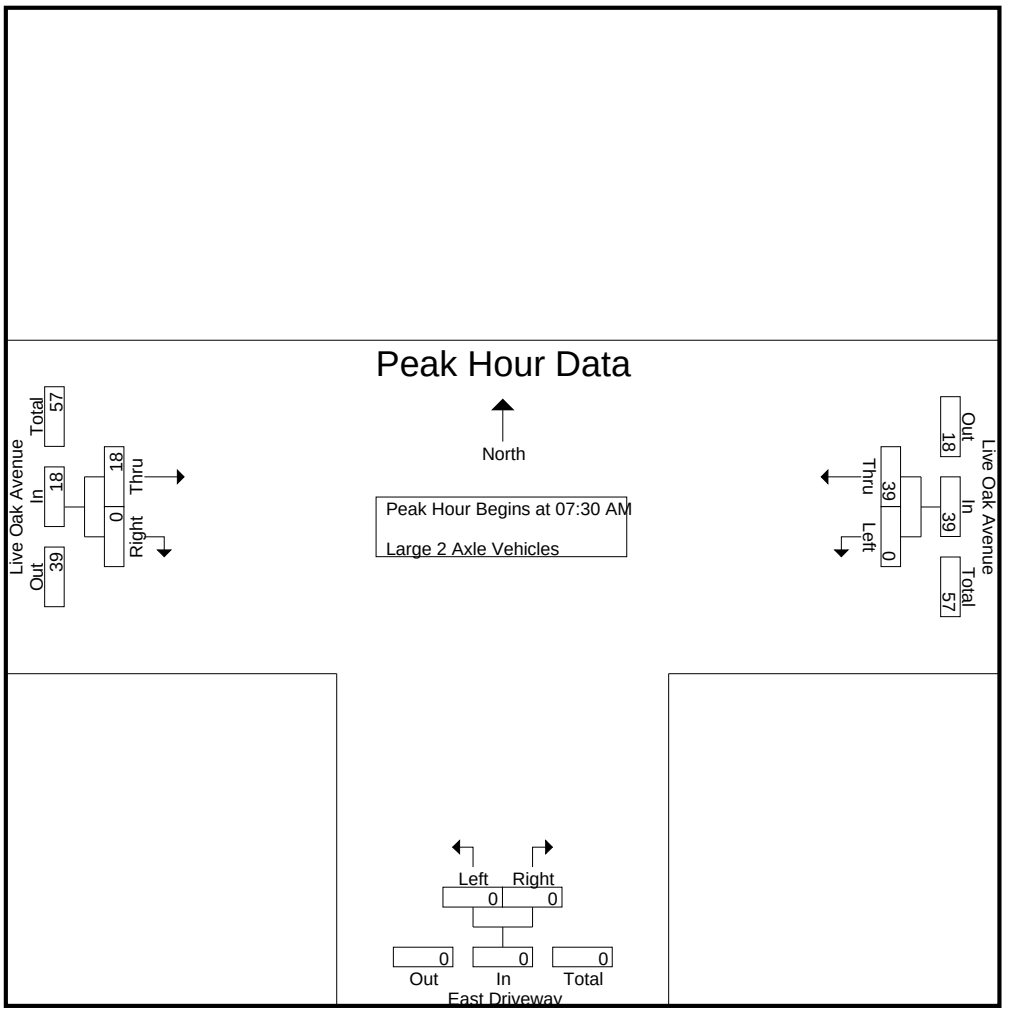
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	0	3	0	0	0	0	5	0	0	5	0	8	8
07:15 AM	1	12	0	13	0	1	1	1	8	0	0	8	1	22	23
07:30 AM	0	9	0	9	0	0	0	0	0	0	0	0	0	9	9
07:45 AM	0	14	0	14	0	0	0	0	6	0	0	6	0	20	20
Total	1	38	0	39	0	1	1	1	19	0	0	19	1	59	60
08:00 AM	0	6	0	6	0	0	0	0	4	0	0	4	0	10	10
08:15 AM	0	10	0	10	0	0	0	0	8	0	0	8	0	18	18
08:30 AM	0	9	0	9	0	0	0	0	10	0	0	10	0	19	19
08:45 AM	0	11	0	11	0	0	0	0	13	0	0	13	0	24	24
Total	0	36	0	36	0	0	0	0	35	0	0	35	0	71	71
Grand Total	1	74	0	75	0	1	1	1	54	0	0	54	1	130	131
Apprch %	1.3	98.7			0	100			100	0					
Total %	0.8	56.9		57.7	0	0.8		0.8	41.5	0		41.5	0.8	99.2	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	9	9	0	0	0	0	0	0	9
07:45 AM	0	**14**	**14**	0	0	0	6	0	6	**20**
08:00 AM	0	6	6	0	0	0	4	0	4	10
08:15 AM	0	10	10	0	0	0	**8**	0	**8**	18
Total Volume	0	39	39	0	0	0	18	0	18	57
% App. Total	0	100		0	0		100	0		
PHF	.000	.696	.696	.000	.000	.000	.563	.000	.563	.713

Counts Unlimited
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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	9	9	0	0	0	0	0	0
+15 mins.	0	**14**	**14**	0	0	0	6	0	6
+30 mins.	0	6	6	0	0	0	4	0	4
+45 mins.	0	10	10	0	0	0	**8**	0	**8**
Total Volume	0	39	39	0	0	0	18	0	18
% App. Total	0	100		0	0		100	0	
PHF	.000	.696	.696	.000	.000	.000	.563	.000	.563

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
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Groups Printed- 3 Axle Vehicles

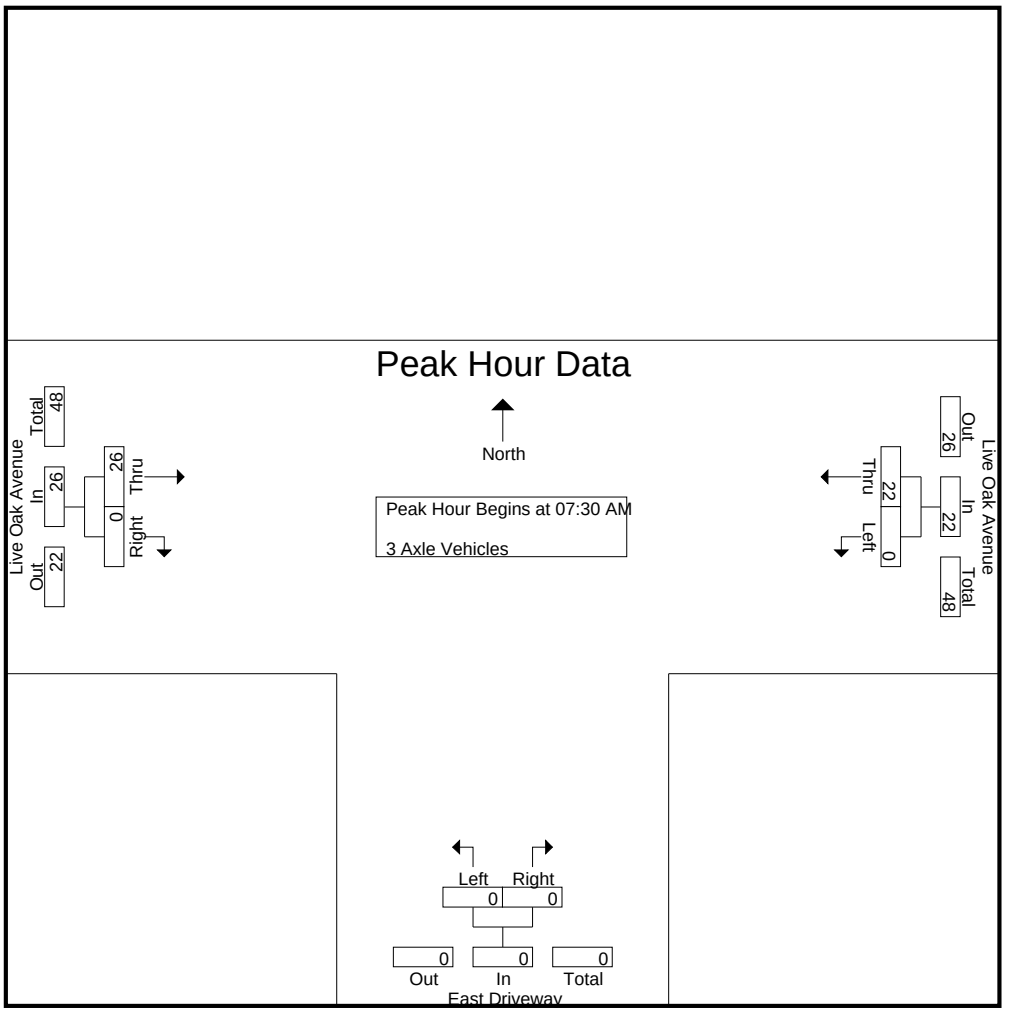
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	10	0	10	0	0	0	0	11	0	0	11	0	21	21
07:15 AM	0	6	0	6	0	0	0	0	11	0	0	11	0	17	17
07:30 AM	0	5	0	5	0	0	0	0	9	0	0	9	0	14	14
07:45 AM	0	4	0	4	0	0	0	0	6	0	0	6	0	10	10
Total	0	25	0	25	0	0	0	0	37	0	0	37	0	62	62
08:00 AM	0	7	0	7	0	0	0	0	6	0	0	6	0	13	13
08:15 AM	0	6	0	6	0	0	0	0	5	0	0	5	0	11	11
08:30 AM	0	4	0	4	0	0	0	0	2	0	0	2	0	6	6
08:45 AM	0	5	0	5	0	0	0	0	8	0	0	8	0	13	13
Total	0	22	0	22	0	0	0	0	21	0	0	21	0	43	43
Grand Total	0	47	0	47	0	0	0	0	58	0	0	58	0	105	105
Apprch %	0	100			0	0			100	0					
Total %	0	44.8		44.8	0	0		0	55.2	0		55.2	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	5	5	0	0	0	**9**	0	**9**	**14**
07:45 AM	0	4	4	0	0	0	6	0	6	10
08:00 AM	0	**7**	**7**	0	0	0	6	0	6	13
08:15 AM	0	6	6	0	0	0	5	0	5	11
Total Volume	0	22	22	0	0	0	26	0	26	48
% App. Total	0	100		0	0		100	0		
PHF	.000	.786	.786	.000	.000	.000	.722	.000	.722	.857

Counts Unlimited
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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	5	5	0	0	0	**9**	0	**9**
+15 mins.	0	4	4	0	0	0	6	0	6
+30 mins.	0	**7**	**7**	0	0	0	6	0	6
+45 mins.	0	6	6	0	0	0	5	0	5
Total Volume	0	22	22	0	0	0	26	0	26
% App. Total	0	100		0	0		100	0	
PHF	.000	.786	.786	.000	.000	.000	.722	.000	.722

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
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Groups Printed- 4+ Axle Trucks

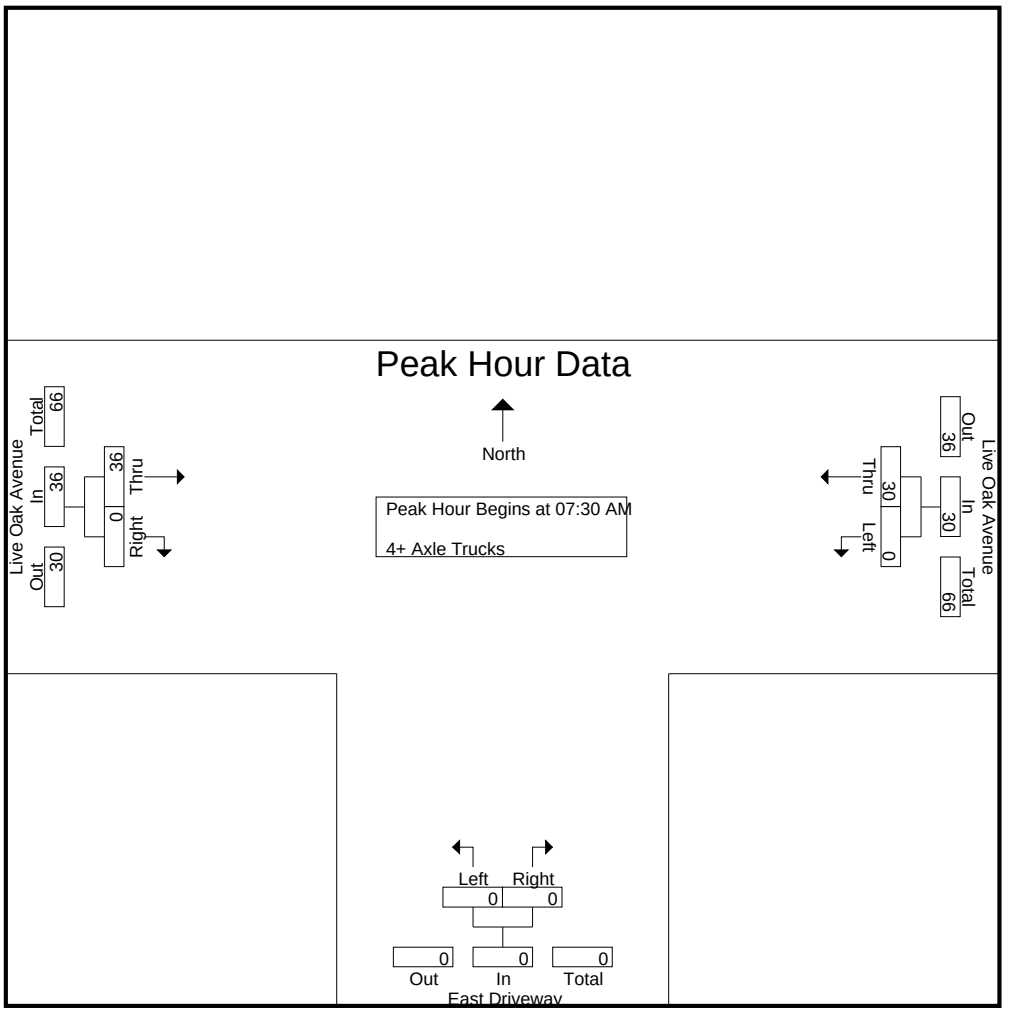
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	4	0	4	0	0	0	0	9	0	0	9	0	13	13
07:15 AM	0	11	0	11	0	0	0	0	12	0	0	12	0	23	23
07:30 AM	0	9	0	9	0	0	0	0	9	0	0	9	0	18	18
07:45 AM	0	4	0	4	0	0	0	0	6	0	0	6	0	10	10
Total	0	28	0	28	0	0	0	0	36	0	0	36	0	64	64
08:00 AM	0	15	0	15	0	0	0	0	12	0	0	12	0	27	27
08:15 AM	0	2	0	2	0	0	0	0	9	0	0	9	0	11	11
08:30 AM	0	16	0	16	0	0	0	0	11	0	0	11	0	27	27
08:45 AM	0	14	0	14	0	0	0	0	15	0	0	15	0	29	29
Total	0	47	0	47	0	0	0	0	47	0	0	47	0	94	94
Grand Total	0	75	0	75	0	0	0	0	83	0	0	83	0	158	158
Apprch %	0	100			0	0			100	0					
Total %	0	47.5		47.5	0	0		0	52.5	0		52.5	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	9	9	0	0	0	9	0	9	18
07:45 AM	0	4	4	0	0	0	6	0	6	10
08:00 AM	0	**15**	**15**	0	0	0	**12**	0	**12**	**27**
08:15 AM	0	2	2	0	0	0	9	0	9	11
Total Volume	0	30	30	0	0	0	36	0	36	66
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.750	.000	.750	.611

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo AM
Site Code : 05117783
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	9	9	0	0	0	9	0	9
+15 mins.	0	4	4	0	0	0	6	0	6
+30 mins.	0	**15**	**15**	0	0	0	**12**	0	**12**
+45 mins.	0	2	2	0	0	0	9	0	9
Total Volume	0	30	30	0	0	0	36	0	36
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.750	.000	.750

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

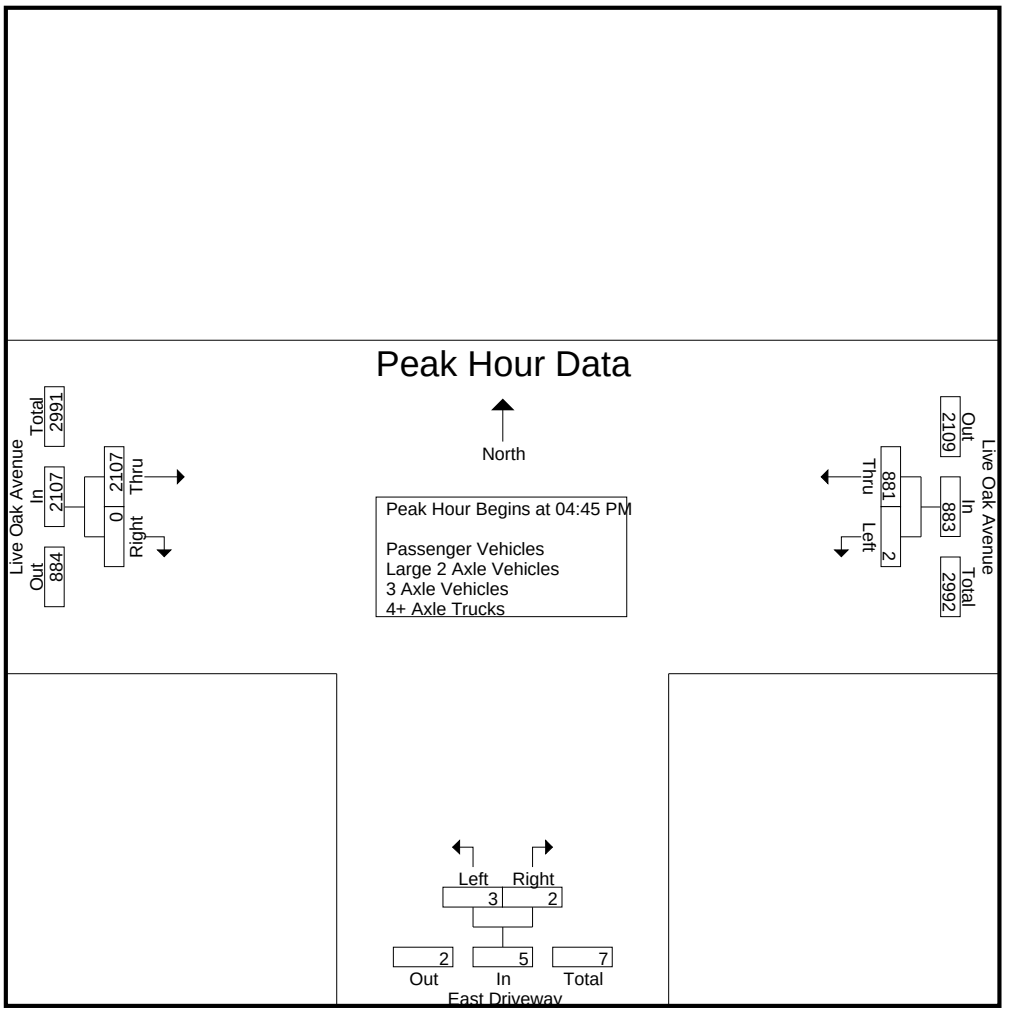
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	211	0	211	1	0	0	1	412	1	0	413	0	625	625
04:15 PM	0	202	0	202	1	0	0	1	424	0	0	424	0	627	627
04:30 PM	1	194	0	195	1	0	0	1	502	2	1	504	1	700	701
04:45 PM	1	206	0	207	0	0	0	0	545	0	0	545	0	752	752
Total	2	813	0	815	3	0	0	3	1883	3	1	1886	1	2704	2705
05:00 PM	0	230	0	230	1	1	1	2	506	0	0	506	1	738	739
05:15 PM	0	234	0	234	0	1	1	1	538	0	0	538	1	773	774
05:30 PM	1	211	0	212	2	0	0	2	518	0	0	518	0	732	732
05:45 PM	2	233	0	235	0	1	1	1	476	1	0	477	1	713	714
Total	3	908	0	911	3	3	3	6	2038	1	0	2039	3	2956	2959
Grand Total	5	1721	0	1726	6	3	3	9	3921	4	1	3925	4	5660	5664
Apprch %	0.3	99.7			66.7	33.3			99.9	0.1					
Total %	0.1	30.4		30.5	0.1	0.1		0.2	69.3	0.1		69.3	0.1	99.9	
Passenger Vehicles	5	1605		1610	4	3		10	3756	3		3760	0	0	5380
% Passenger Vehicles	100	93.3	0	93.3	66.7	100	100	83.3	95.8	75	100	95.8	0	0	95
Large 2 Axle Vehicles	0	41		41	1	0		1	96	0		96	0	0	138
% Large 2 Axle Vehicles	0	2.4	0	2.4	16.7	0	0	8.3	2.4	0	0	2.4	0	0	2.4
3 Axle Vehicles	0	20		20	1	0		1	38	1		39	0	0	60
% 3 Axle Vehicles	0	1.2	0	1.2	16.7	0	0	8.3	1	25	0	1	0	0	1.1
4+ Axle Trucks	0	55		55	0	0		0	31	0		31	0	0	86
% 4+ Axle Trucks	0	3.2	0	3.2	0	0	0	0	0.8	0	0	0.8	0	0	1.5

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**1**	206	207	0	0	0	**545**	0	**545**	752
05:00 PM	0	230	230	1	**1**	**2**	506	0	506	738
05:15 PM	0	**234**	**234**	0	1	1	538	0	538	**773**
05:30 PM	1	211	212	**2**	0	2	518	0	518	732
Total Volume	2	881	883	3	2	5	2107	0	2107	2995
% App. Total	0.2	99.8		60	40		100	0		
PHF	.500	.941	.943	.375	.500	.625	.967	.000	.967	.969

Counts Unlimited
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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:45 PM		
+0 mins.	0	230	230	1	**1**	**2**	**545**	0	**545**
+15 mins.	0	**234**	234	0	1	1	506	0	506
+30 mins.	1	211	212	**2**	0	2	538	0	538
+45 mins.	**2**	233	**235**	0	1	1	518	0	518
Total Volume	3	908	911	3	3	6	2107	0	2107
% App. Total	0.3	99.7		50	50		100	0	
PHF	.375	.970	.969	.375	.750	.750	.967	.000	.967

Counts Unlimited
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City of Irwindale
N/S: East Driveway
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Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

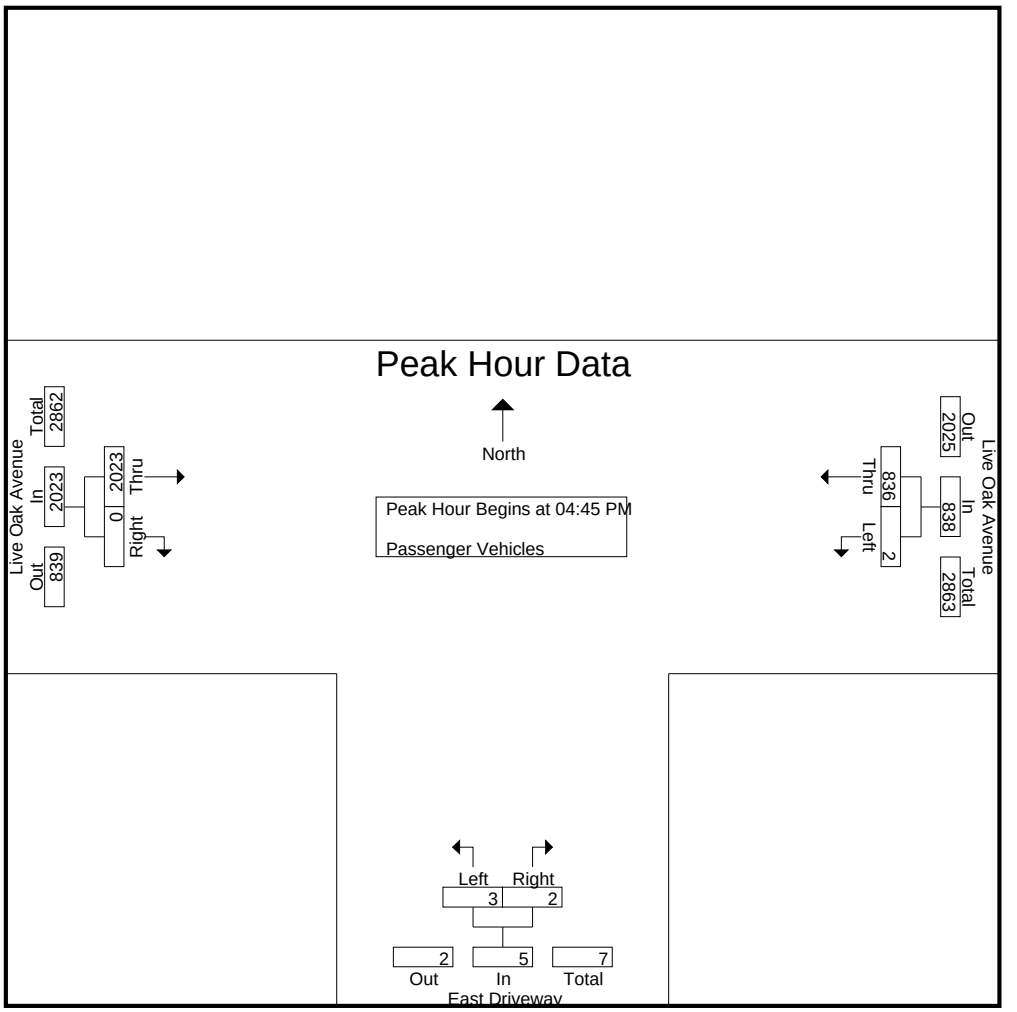
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	186	0	186	0	0	0	0	389	1	0	390	0	576	576
04:15 PM	0	177	0	177	1	0	0	1	407	0	0	407	0	585	585
04:30 PM	1	181	0	182	0	0	0	0	473	1	1	474	1	656	657
04:45 PM	1	195	0	196	0	0	0	0	514	0	0	514	0	710	710
Total	2	739	0	741	1	0	0	1	1783	2	1	1785	1	2527	2528
05:00 PM	0	216	0	216	1	1	1	2	480	0	0	480	1	698	699
05:15 PM	0	223	0	223	0	1	1	1	523	0	0	523	1	747	748
05:30 PM	1	202	0	203	2	0	0	2	506	0	0	506	0	711	711
05:45 PM	2	225	0	227	0	1	1	1	464	1	0	465	1	693	694
Total	3	866	0	869	3	3	3	6	1973	1	0	1974	3	2849	2852
Grand Total	5	1605	0	1610	4	3	3	7	3756	3	1	3759	4	5376	5380
Apprch %	0.3	99.7			57.1	42.9			99.9	0.1					
Total %	0.1	29.9		29.9	0.1	0.1		0.1	69.9	0.1		69.9	0.1	99.9	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**1**	195	196	0	0	0	514	0	514	710
05:00 PM	0	216	216	1	**1**	**2**	480	0	480	698
05:15 PM	0	**223**	**223**	0	1	1	**523**	0	**523**	**747**
05:30 PM	1	202	203	**2**	0	2	506	0	506	711
Total Volume	2	836	838	3	2	5	2023	0	2023	2866
% App. Total	0.2	99.8		60	40		100	0		
PHF	.500	.937	.939	.375	.500	.625	.967	.000	.967	.959

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**1**	195	196	0	0	0	514	0	514
+15 mins.	0	216	216	1	**1**	**2**	480	0	480
+30 mins.	0	**223**	**223**	0	1	1	**523**	0	**523**
+45 mins.	1	202	203	**2**	0	2	506	0	506
Total Volume	2	836	838	3	2	5	2023	0	2023
% App. Total	0.2	99.8		60	40		100	0	
PHF	.500	.937	.939	.375	.500	.625	.967	.000	.967

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

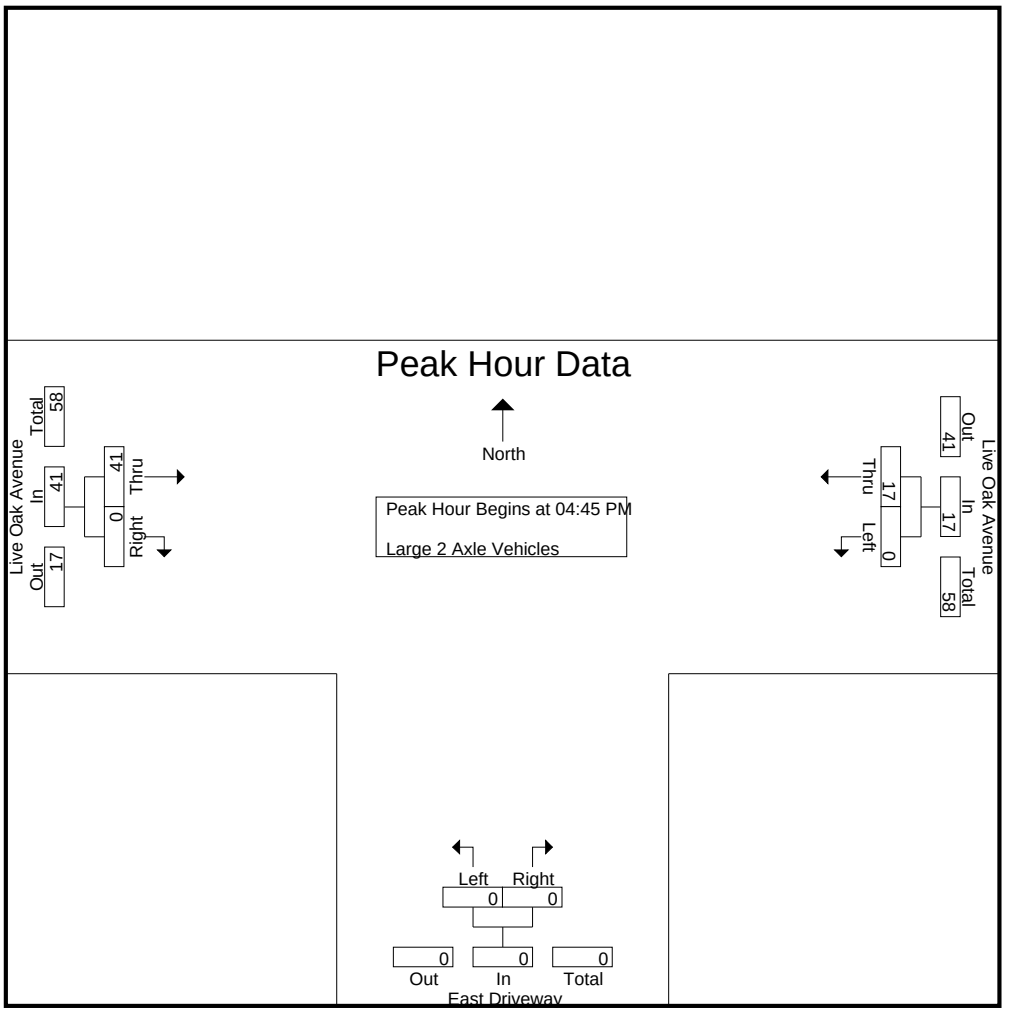
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	9	0	9	1	0	0	1	14	0	0	14	0	24	24
04:15 PM	0	9	0	9	0	0	0	0	13	0	0	13	0	22	22
04:30 PM	0	3	0	3	0	0	0	0	20	0	0	20	0	23	23
04:45 PM	0	2	0	2	0	0	0	0	12	0	0	12	0	14	14
Total	0	23	0	23	1	0	0	1	59	0	0	59	0	83	83
05:00 PM	0	7	0	7	0	0	0	0	11	0	0	11	0	18	18
05:15 PM	0	5	0	5	0	0	0	0	8	0	0	8	0	13	13
05:30 PM	0	3	0	3	0	0	0	0	10	0	0	10	0	13	13
05:45 PM	0	3	0	3	0	0	0	0	8	0	0	8	0	11	11
Total	0	18	0	18	0	0	0	0	37	0	0	37	0	55	55
Grand Total	0	41	0	41	1	0	0	1	96	0	0	96	0	138	138
Apprch %	0	100			100	0			100	0					
Total %	0	29.7		29.7	0.7	0		0.7	69.6	0		69.6	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	2	2	0	0	0	**12**	0	**12**	14
05:00 PM	0	**7**	**7**	0	0	0	11	0	11	**18**
05:15 PM	0	5	5	0	0	0	8	0	8	13
05:30 PM	0	3	3	0	0	0	10	0	10	13
Total Volume	0	17	17	0	0	0	41	0	41	58
% App. Total	0	100		0	0		100	0		
PHF	.000	.607	.607	.000	.000	.000	.854	.000	.854	.806

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	2	2	0	0	0	**12**	0	**12**
+15 mins.	0	**7**	**7**	0	0	0	11	0	11
+30 mins.	0	5	5	0	0	0	8	0	8
+45 mins.	0	3	3	0	0	0	10	0	10
Total Volume	0	17	17	0	0	0	41	0	41
% App. Total	0	100		0	0		100	0	
PHF	.000	.607	.607	.000	.000	.000	.854	.000	.854

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

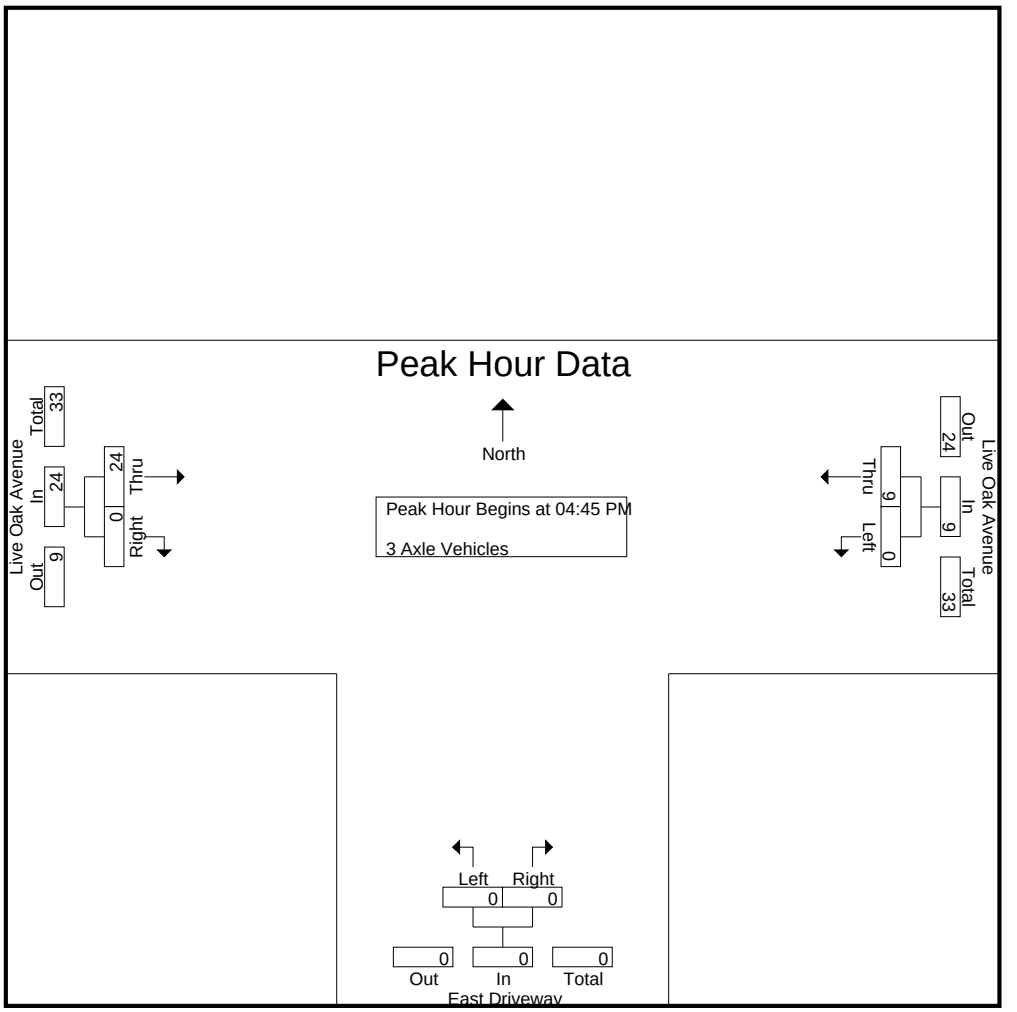
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	5	0	5	0	0	0	0	5	0	0	5	0	10	10
04:15 PM	0	5	0	5	0	0	0	0	1	0	0	1	0	6	6
04:30 PM	0	0	0	0	1	0	0	1	6	1	0	7	0	8	8
04:45 PM	0	4	0	4	0	0	0	0	12	0	0	12	0	16	16
Total	0	14	0	14	1	0	0	1	24	1	0	25	0	40	40
05:00 PM	0	2	0	2	0	0	0	0	6	0	0	6	0	8	8
05:15 PM	0	2	0	2	0	0	0	0	5	0	0	5	0	7	7
05:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
05:45 PM	0	1	0	1	0	0	0	0	2	0	0	2	0	3	3
Total	0	6	0	6	0	0	0	0	14	0	0	14	0	20	20
Grand Total	0	20	0	20	1	0	0	1	38	1	0	39	0	60	60
Apprch %	0	100			100	0			97.4	2.6					
Total %	0	33.3		33.3	1.7	0		1.7	63.3	1.7		65	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**4**	**4**	0	0	0	**12**	0	**12**	**16**
05:00 PM	0	2	2	0	0	0	6	0	6	8
05:15 PM	0	2	2	0	0	0	5	0	5	7
05:30 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	9	9	0	0	0	24	0	24	33
% App. Total	0	100		0	0		100	0		
PHF	.000	.563	.563	.000	.000	.000	.500	.000	.500	.516

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**4**	**4**	0	0	0	**12**	0	**12**
+15 mins.	0	2	2	0	0	0	6	0	6
+30 mins.	0	2	2	0	0	0	5	0	5
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	9	9	0	0	0	24	0	24
% App. Total	0	100		0	0		100	0	
PHF	.000	.563	.563	.000	.000	.000	.500	.000	.500

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
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Groups Printed- 4+ Axle Trucks

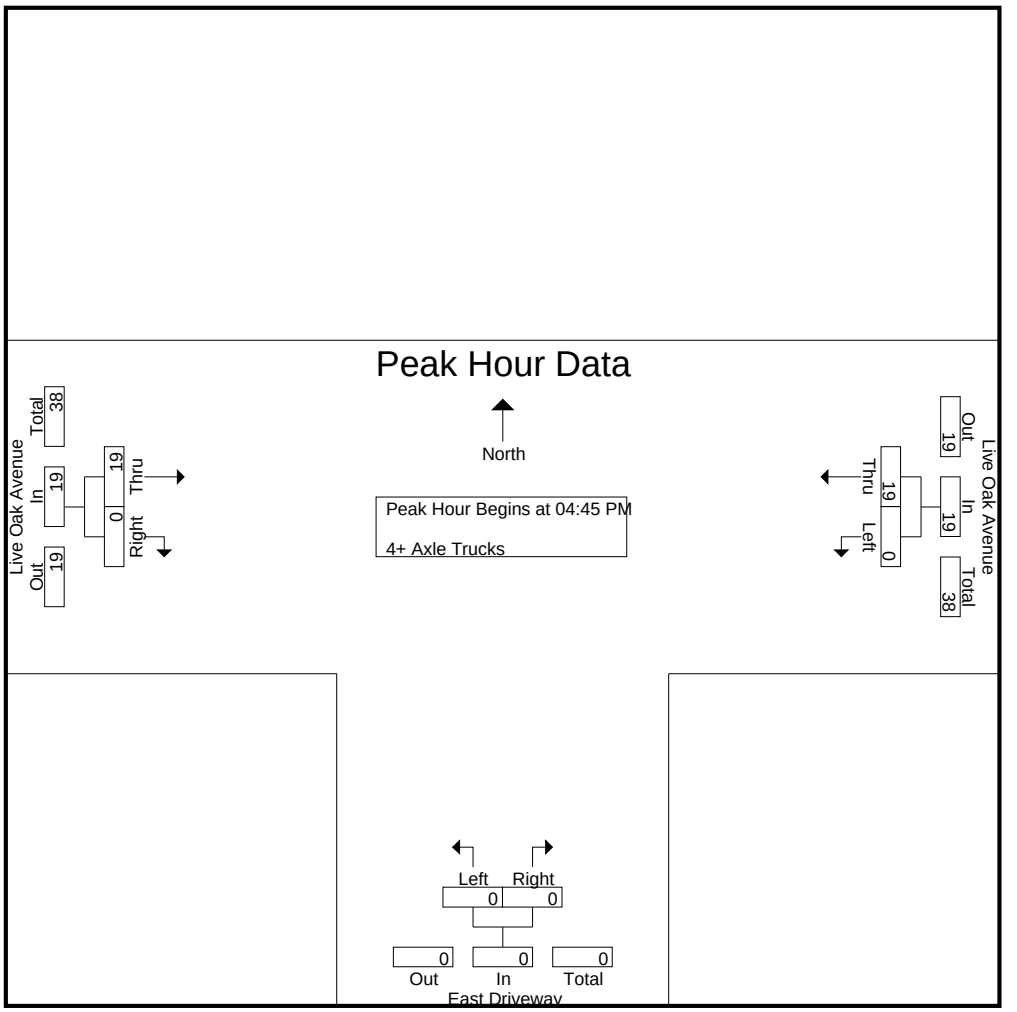
	Live Oak Avenue Westbound				East Driveway Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	11	0	11	0	0	0	0	4	0	0	4	0	15	15
04:15 PM	0	11	0	11	0	0	0	0	3	0	0	3	0	14	14
04:30 PM	0	10	0	10	0	0	0	0	3	0	0	3	0	13	13
04:45 PM	0	5	0	5	0	0	0	0	7	0	0	7	0	12	12
Total	0	37	0	37	0	0	0	0	17	0	0	17	0	54	54
05:00 PM	0	5	0	5	0	0	0	0	9	0	0	9	0	14	14
05:15 PM	0	4	0	4	0	0	0	0	2	0	0	2	0	6	6
05:30 PM	0	5	0	5	0	0	0	0	1	0	0	1	0	6	6
05:45 PM	0	4	0	4	0	0	0	0	2	0	0	2	0	6	6
Total	0	18	0	18	0	0	0	0	14	0	0	14	0	32	32
Grand Total	0	55	0	55	0	0	0	0	31	0	0	31	0	86	86
Apprch %	0	100			0	0			100	0					
Total %	0	64		64	0	0		0	36	0		36	0	100	

	Live Oak Avenue Westbound			East Driveway Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**5**	**5**	0	0	0	7	0	7	12
05:00 PM	0	5	5	0	0	0	**9**	0	**9**	**14**
05:15 PM	0	4	4	0	0	0	2	0	2	6
05:30 PM	0	5	5	0	0	0	1	0	1	6
Total Volume	0	19	19	0	0	0	19	0	19	38
% App. Total	0	100		0	0		100	0		
PHF	.000	.950	.950	.000	.000	.000	.528	.000	.528	.679

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City of Irwindale
N/S: East Driveway
E/W: Live Oak Avenue
Weather: Clear

File Name : 06_IRW_ E dw Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**5**	**5**	0	0	0	7	0	7
+15 mins.	0	5	5	0	0	0	**9**	0	**9**
+30 mins.	0	4	4	0	0	0	2	0	2
+45 mins.	0	5	5	0	0	0	1	0	1
Total Volume	0	19	19	0	0	0	19	0	19
% App. Total	0	100		0	0		100	0	
PHF	.000	.950	.950	.000	.000	.000	.528	.000	.528

Location: Irwindale
N/S: East Driveway
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Live Oak Avenue	South Leg East Driveway	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Live Oak Avenue	South Leg East Driveway	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

Location: Irwindale
N/S: East Driveway
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Live Oak Avenue	South Leg East Driveway	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	3	0	3
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	5	0	6

	North Leg Dead End	East Leg Live Oak Avenue	South Leg East Driveway	West Leg Live Oak Avenue	TOTAL
4:00 PM	1	0	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	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 VOLUMES:	1	0	0	0	1

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB Al AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

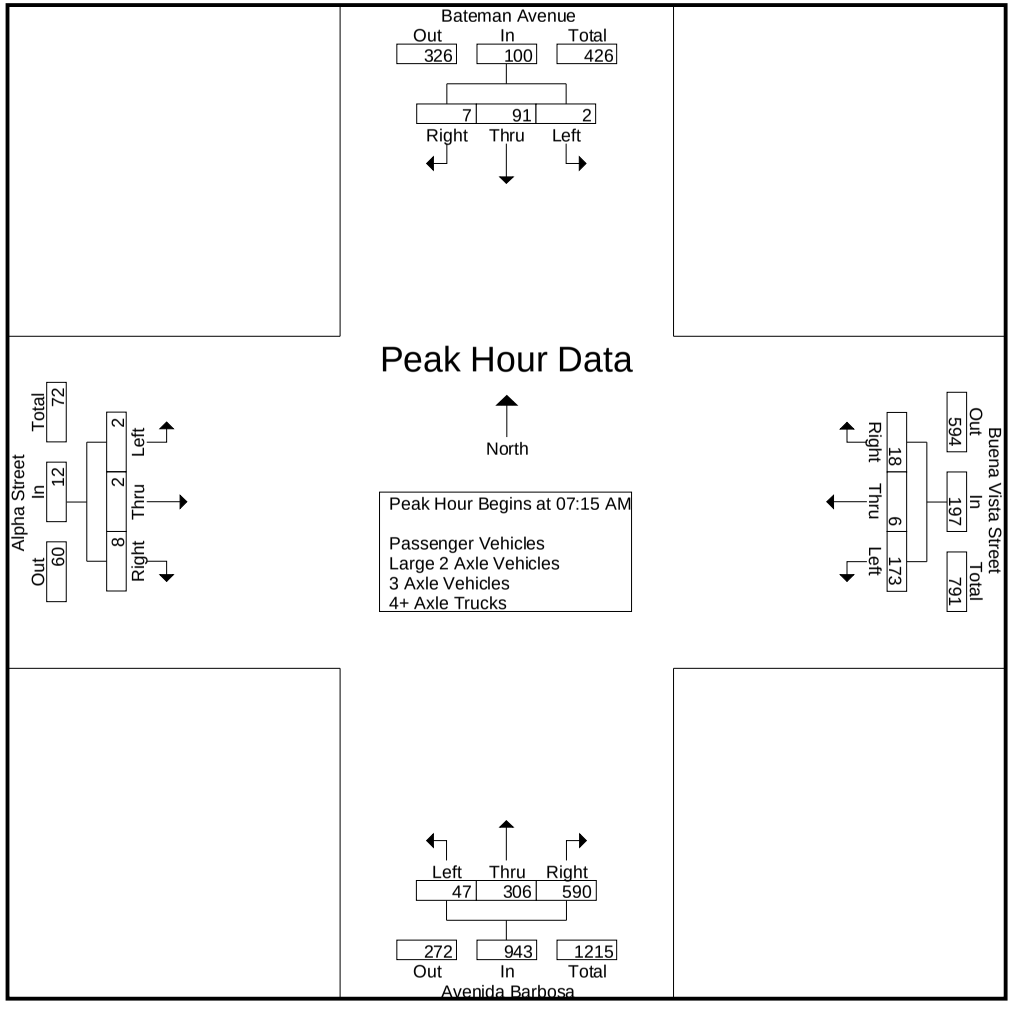
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	26	0	0	27	46	1	1	1	48	7	39	88	26	134	0	0	1	1	1	28	210	238
07:15 AM	0	23	0	0	23	32	1	3	0	36	4	64	139	39	207	2	0	3	2	5	41	271	312
07:30 AM	2	21	2	1	25	39	1	5	2	45	5	98	132	29	235	0	1	1	1	2	33	307	340
07:45 AM	0	31	2	0	33	49	2	3	2	54	16	79	181	50	276	0	1	1	1	2	53	365	418
Total	3	101	4	1	108	166	5	12	5	183	32	280	540	144	852	2	2	6	5	10	155	1153	1308
08:00 AM	0	16	3	2	19	53	2	7	4	62	22	65	138	38	225	0	0	3	2	3	46	309	355
08:15 AM	0	21	1	0	22	39	2	3	3	44	11	38	128	23	177	1	1	8	4	10	30	253	283
08:30 AM	2	15	1	1	18	47	5	2	0	54	10	44	99	38	153	1	1	2	2	4	41	229	270
08:45 AM	0	24	0	0	24	50	2	1	1	53	10	31	98	41	139	0	4	3	2	7	44	223	267
Total	2	76	5	3	83	189	11	13	8	213	53	178	463	140	694	2	6	16	10	24	161	1014	1175
Grand Total	5	177	9	4	191	355	16	25	13	396	85	458	1003	284	1546	4	8	22	15	34	316	2167	2483
Apprch %	2.6	92.7	4.7			89.6	4	6.3			5.5	29.6	64.9			11.8	23.5	64.7					
Total %	0.2	8.2	0.4		8.8	16.4	0.7	1.2		18.3	3.9	21.1	46.3		71.3	0.2	0.4	1		1.6	12.7	87.3	
Passenger Vehicles	5	170	9		188	333	16	24		385	78	441	973		1768	4	7	17		40	0	0	2381
% Passenger Vehicles	100	96	100	100	96.4	93.8	100	96	92.3	94.1	91.8	96.3	97	97.2	96.6	100	87.5	77.3	80	81.6	0	0	95.9
Large 2 Axle Vehicles	0	4	0		4	14	0	0		14	5	13	18		40	0	1	4		8	0	0	66
% Large 2 Axle Vehicles	0	2.3	0	0	2.1	3.9	0	0	0	3.4	5.9	2.8	1.8	1.4	2.2	0	12.5	18.2	20	16.3	0	0	2.7
3 Axle Vehicles	0	2	0		2	4	0	0		4	0	1	5		8	0	0	0		0	0	0	14
% 3 Axle Vehicles	0	1.1	0	0	1	1.1	0	0	0	1	0	0.2	0.5	0.7	0.4	0	0	0	0	0	0	0	0.6
4+ Axle Trucks	0	1	0		1	4	0	1		6	2	3	7		14	0	0	1		1	0	0	22
% 4+ Axle Trucks	0	0.6	0	0	0.5	1.1	0	4	7.7	1.5	2.4	0.7	0.7	0.7	0.8	0	0	4.5	0	2	0	0	0.9

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	23	0	23	32	1	3	36	4	64	139	207	**2**	0	**3**	**5**	271
07:30 AM	**2**	21	2	25	39	1	5	45	5	**98**	132	235	0	**1**	1	2	307
07:45 AM	0	**31**	2	**33**	49	**2**	3	54	16	79	**181**	**276**	0	1	1	2	**365**
08:00 AM	0	16	**3**	19	**53**	2	**7**	**62**	**22**	65	138	225	0	0	3	3	309
Total Volume	2	91	7	100	173	6	18	197	47	306	590	943	2	2	8	12	1252
% App. Total	2	91	7		87.8	3	9.1		5	32.4	62.6		16.7	16.7	66.7		
PHF	.250	.734	.583	.758	.816	.750	.643	.794	.534	.781	.815	.854	.250	.500	.667	.600	.858

Counts Unlimited
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(951) 268-6268

City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:45 AM				07:15 AM				08:00 AM				
+0 mins.	1	26	0	27	49	2	3	54	4	64	139	207	0	0	3	3	
+15 mins.	0	23	0	23	**53**	2	**7**	**62**	5	**98**	132	235	**1**	1	**8**	**10**	
+30 mins.	**2**	21	**2**	25	39	2	3	44	16	79	**181**	**276**	1	1	2	4	
+45 mins.	0	**31**	2	**33**	47	**5**	2	54	**22**	65	138	225	0	**4**	3	7	
Total Volume	3	101	4	108	188	11	15	214	47	306	590	943	2	6	16	24	
% App. Total	2.8	93.5	3.7		87.9	5.1	7		5	32.4	62.6		8.3	25	66.7		
PHF	.375	.815	.500	.818	.887	.550	.536	.863	.534	.781	.815	.854	.500	.375	.500	.600	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB Al AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

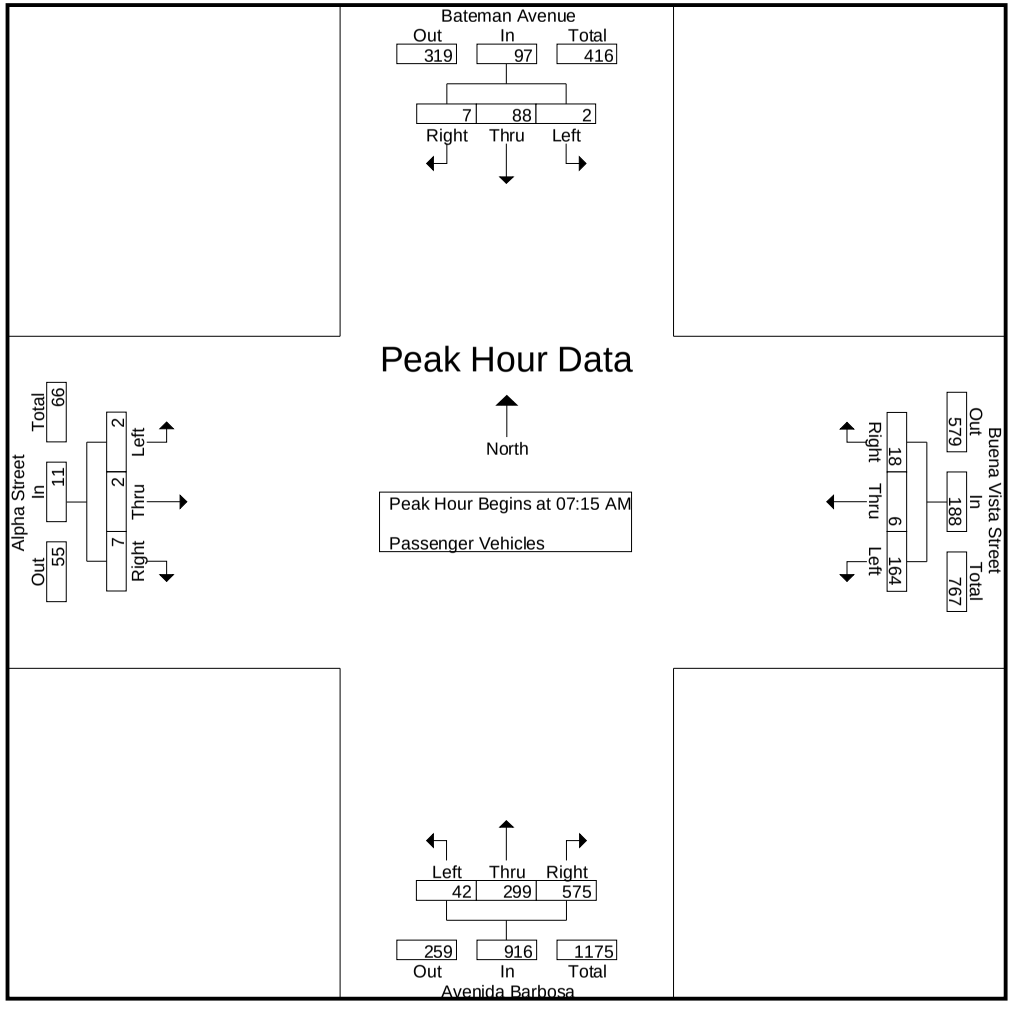
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	26	0	0	27	42	1	1	1	44	6	36	85	24	127	0	0	1	1	1	26	199	225
07:15 AM	0	23	0	0	23	31	1	3	0	35	3	61	135	38	199	2	0	2	1	4	39	261	300
07:30 AM	2	20	2	1	24	38	1	5	2	44	5	96	129	28	230	0	1	1	1	2	32	300	332
07:45 AM	0	30	2	0	32	46	2	3	2	51	15	79	176	50	270	0	1	1	1	2	53	355	408
Total	3	99	4	1	106	157	5	12	5	174	29	272	525	140	826	2	2	5	4	9	150	1115	1265
08:00 AM	0	15	3	2	18	49	2	7	4	58	19	63	135	37	217	0	0	3	2	3	45	296	341
08:15 AM	0	17	1	0	18	37	2	2	2	41	11	38	126	23	175	1	1	6	3	8	28	242	270
08:30 AM	2	15	1	1	18	45	5	2	0	52	9	39	93	37	141	1	1	1	1	3	39	214	253
08:45 AM	0	24	0	0	24	45	2	1	1	48	10	29	94	39	133	0	3	2	2	5	42	210	252
Total	2	71	5	3	78	176	11	12	7	199	49	169	448	136	666	2	5	12	8	19	154	962	1116
Grand Total	5	170	9	4	184	333	16	24	12	373	78	441	973	276	1492	4	7	17	12	28	304	2077	2381
Apprch %	2.7	92.4	4.9			89.3	4.3	6.4			5.2	29.6	65.2			14.3	25	60.7					
Total %	0.2	8.2	0.4		8.9	16	0.8	1.2		18	3.8	21.2	46.8		71.8	0.2	0.3	0.8		1.3	12.8	87.2	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	23	0	23	31	1	3	35	3	61	135	199	**2**	0	2	**4**	261
07:30 AM	**2**	20	2	24	38	1	5	44	5	**96**	129	230	0	**1**	1	2	300
07:45 AM	0	**30**	2	**32**	46	**2**	3	51	15	79	**176**	**270**	0	1	1	2	**355**
08:00 AM	0	15	**3**	18	**49**	2	**7**	**58**	**19**	63	135	217	0	0	**3**	3	296
Total Volume	2	88	7	97	164	6	18	188	42	299	575	916	2	2	7	11	1212
% App. Total	2.1	90.7	7.2		87.2	3.2	9.6		4.6	32.6	62.8		18.2	18.2	63.6		
PHF	.250	.733	.583	.758	.837	.750	.643	.810	.553	.779	.817	.848	.250	.500	.583	.688	.854

Counts Unlimited
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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	23	0	23	31	1	3	35	3	61	135	199	**2**	0	2	**4**	
+15 mins.	**2**	20	2	24	38	1	5	44	5	**96**	129	230	0	**1**	1	2	
+30 mins.	0	**30**	2	**32**	46	**2**	3	51	15	79	**176**	**270**	0	1	1	2	
+45 mins.	0	15	**3**	18	**49**	2	**7**	**58**	**19**	63	135	217	0	0	**3**	3	
Total Volume	2	88	7	97	164	6	18	188	42	299	575	916	2	2	7	11	
% App. Total	2.1	90.7	7.2		87.2	3.2	9.6		4.6	32.6	62.8		18.2	18.2	63.6		
PHF	.250	.733	.583	.758	.837	.750	.643	.810	.553	.779	.817	.848	.250	.500	.583	.688	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB Al AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

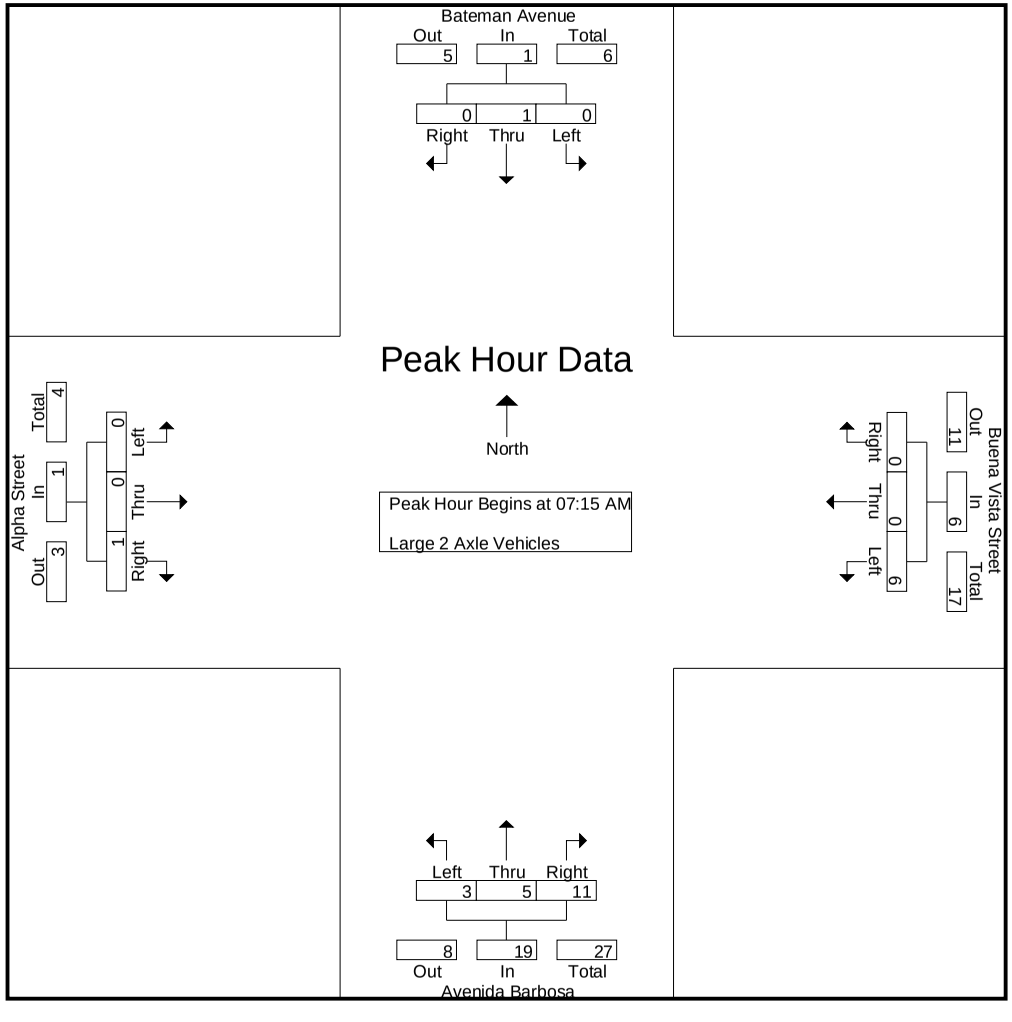
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	3	0	0	0	3	1	2	3	2	6	0	0	0	0	0	2	9	11
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	3	1	5	0	0	1	1	1	2	6	8
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	1	2	1	3	0	0	0	0	0	1	4	5
07:45 AM	0	0	0	0	0	2	0	0	0	2	0	0	4	0	4	0	0	0	0	0	0	6	6
Total	0	0	0	0	0	6	0	0	0	6	1	5	12	4	18	0	0	1	1	1	5	25	30
08:00 AM	0	1	0	0	1	3	0	0	0	3	3	2	2	0	7	0	0	0	0	0	0	11	11
08:15 AM	0	3	0	0	3	2	0	0	0	2	0	0	0	0	0	0	0	2	1	2	1	7	8
08:30 AM	0	0	0	0	0	1	0	0	0	1	1	4	2	0	7	0	0	1	1	1	1	9	10
08:45 AM	0	0	0	0	0	2	0	0	0	2	0	2	2	0	4	0	1	0	0	1	0	7	7
Total	0	4	0	0	4	8	0	0	0	8	4	8	6	0	18	0	1	3	2	4	2	34	36
Grand Total	0	4	0	0	4	14	0	0	0	14	5	13	18	4	36	0	1	4	3	5	7	59	66
Apprch %	0	100	0			100	0	0			13.9	36.1	50			0	20	80					
Total %	0	6.8	0		6.8	23.7	0	0		23.7	8.5	22	30.5		61	0	1.7	6.8		8.5	10.6	89.4	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	**2**	3	5	0	0	**1**	**1**	6
07:30 AM	0	0	0	0	1	0	0	1	0	1	2	3	0	0	0	0	4
07:45 AM	0	0	0	0	2	0	0	2	0	0	**4**	4	0	0	0	0	6
08:00 AM	0	**1**	0	**1**	**3**	0	0	**3**	**3**	2	2	**7**	0	0	0	0	**11**
Total Volume	0	1	0	1	6	0	0	6	3	5	11	19	0	0	1	1	27
% App. Total	0	100	0		100	0	0		15.8	26.3	57.9		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.000	.500	.250	.625	.688	.679	.000	.000	.250	.250	.614

Counts Unlimited
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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	**2**	3	5	0	0	**1**	**1**	
+15 mins.	0	0	0	0	1	0	0	1	0	1	2	3	0	0	0	0	
+30 mins.	0	0	0	0	2	0	0	2	0	0	**4**	4	0	0	0	0	
+45 mins.	0	**1**	0	**1**	**3**	0	0	**3**	**3**	2	2	**7**	0	0	0	0	
Total Volume	0	1	0	1	6	0	0	6	3	5	11	19	0	0	1	1	
% App. Total	0	100	0		100	0	0		15.8	26.3	57.9		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.000	.500	.250	.625	.688	.679	.000	.000	.250	.250	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

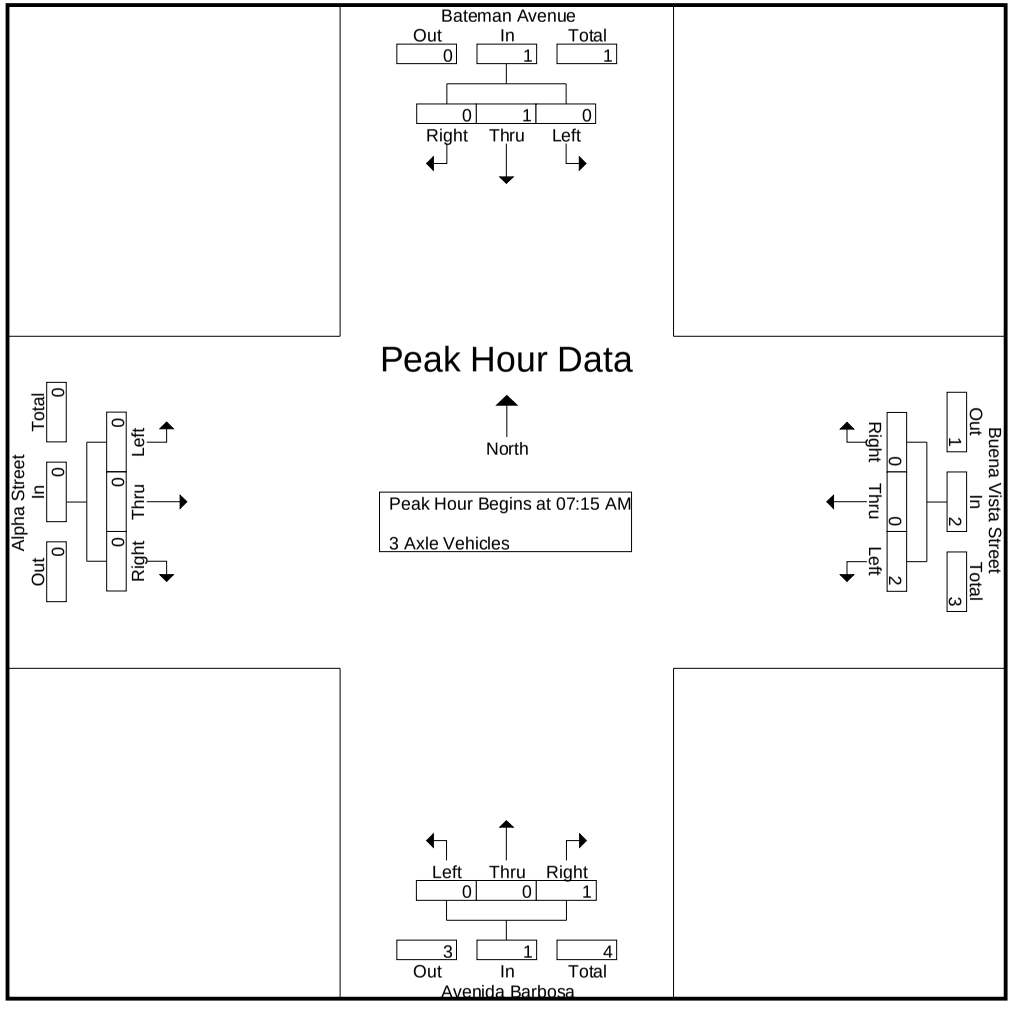
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	2	3
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	1	0	0	0	1	0	1	2	0	3	0	0	0	0	0	0	4	4
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	2	3
Total	0	1	0	0	1	3	0	0	0	3	0	1	5	2	6	0	0	0	0	0	2	10	12
Grand Total	0	2	0	0	2	4	0	0	0	4	0	1	5	2	6	0	0	0	0	0	2	12	14
Apprch %	0	100	0			100	0	0			0	16.7	83.3			0	0	0					
Total %	0	16.7	0		16.7	33.3	0	0		33.3	0	8.3	41.7		50	0	0	0		0	14.3	85.7	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	1	0	0	1	0	0	**1**	**1**	0	0	0	0	**2**
Total Volume	0	1	0	1	2	0	0	2	0	0	1	1	0	0	0	0	4
% App. Total	0	100	0		100	0	0		0	0	100		0	0	0		
PHF	.000	.250	.000	.250	.500	.000	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.500

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB Al AM
Site Code : 05117783
Start Date : 11/28/2017
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	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	1	0	0	1	0	0	**1**	**1**	0	0	0	0	
Total Volume	0	1	0	1	2	0	0	2	0	0	1	1	0	0	0	0	
% App. Total	0	100	0		100	0	0		0	0	100		0	0	0		
PHF	.000	.250	.000	.250	.500	.000	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB Al AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

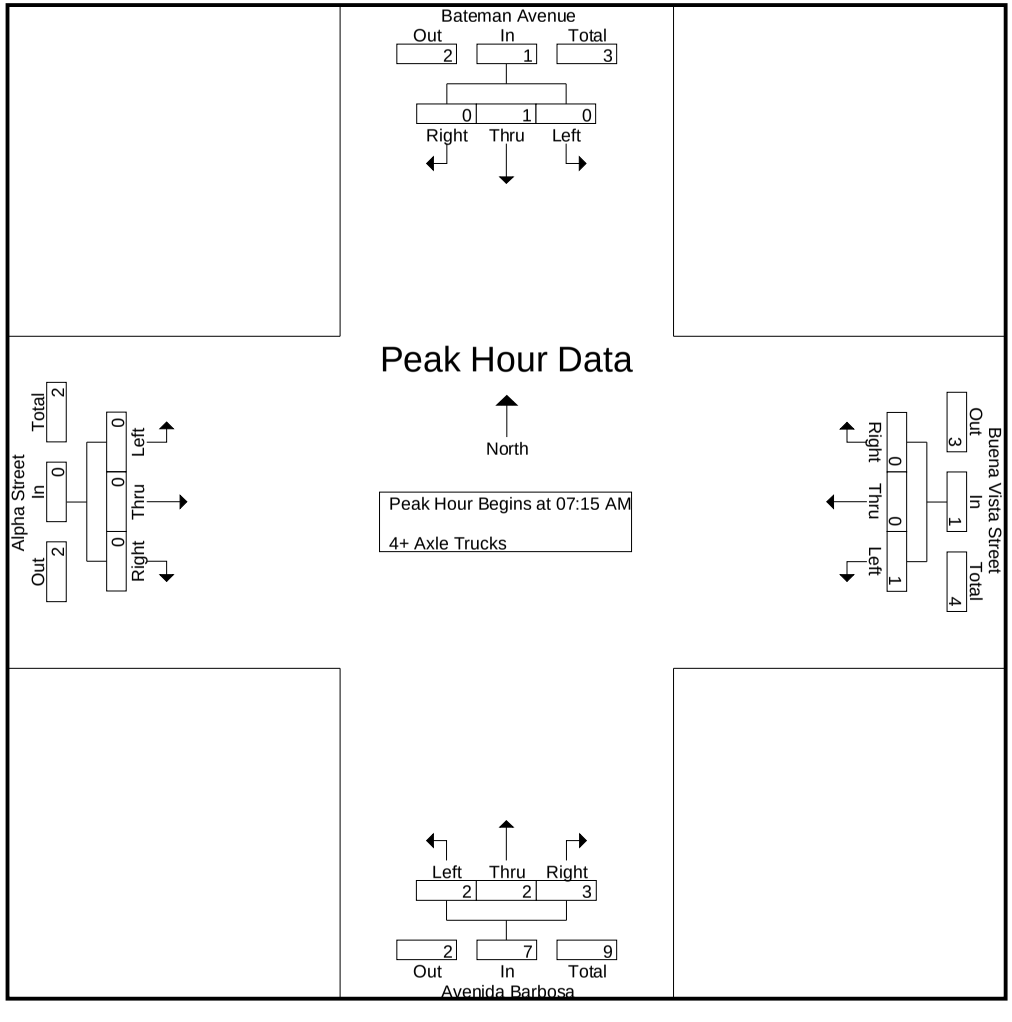
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	3	3
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	3	3
07:45 AM	0	0	0	0	0	1	0	0	0	1	1	0	1	0	2	0	0	0	0	0	0	3	3
Total	0	1	0	0	1	2	0	0	0	2	2	3	3	0	8	0	0	0	0	0	0	11	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	1	2	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	1	2	3
08:45 AM	0	0	0	0	0	2	0	0	0	2	0	0	1	1	1	0	0	1	0	1	1	4	5
Total	0	0	0	0	0	2	0	1	1	3	0	0	4	2	4	0	0	1	0	1	3	8	11
Grand Total	0	1	0	0	1	4	0	1	1	5	2	3	7	2	12	0	0	1	0	1	3	19	22
Apprch %	0	100	0			80	0	20			16.7	25	58.3			0	0	100					
Total %	0	5.3	0		5.3	21.1	0	5.3		26.3	10.5	15.8	36.8		63.2	0	0	5.3		5.3	13.6	86.4	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	**1**	**1**	**1**	**3**	0	0	0	0	**3**
07:30 AM	0	**1**	0	**1**	0	0	0	0	0	1	1	2	0	0	0	0	3
07:45 AM	0	0	0	0	**1**	0	0	**1**	1	0	1	2	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	0	0	1	2	2	3	7	0	0	0	0	9
% App. Total	0	100	0		100	0	0		28.6	28.6	42.9		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.500	.500	.750	.583	.000	.000	.000	.000	.750

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File Name : 20_IRW_AB AI AM
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	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	0	0	0	0	0	0	**1**	**1**	**1**	**3**	0	0	0	0	
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	1	1	2	0	0	0	0	
+30 mins.	0	0	0	0	**1**	0	0	**1**	1	0	1	2	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	1	1	0	0	1	2	2	3	7	0	0	0	0	
% App. Total	0	100	0		100	0	0		28.6	28.6	42.9		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.500	.500	.750	.583	.000	.000	.000	.000	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

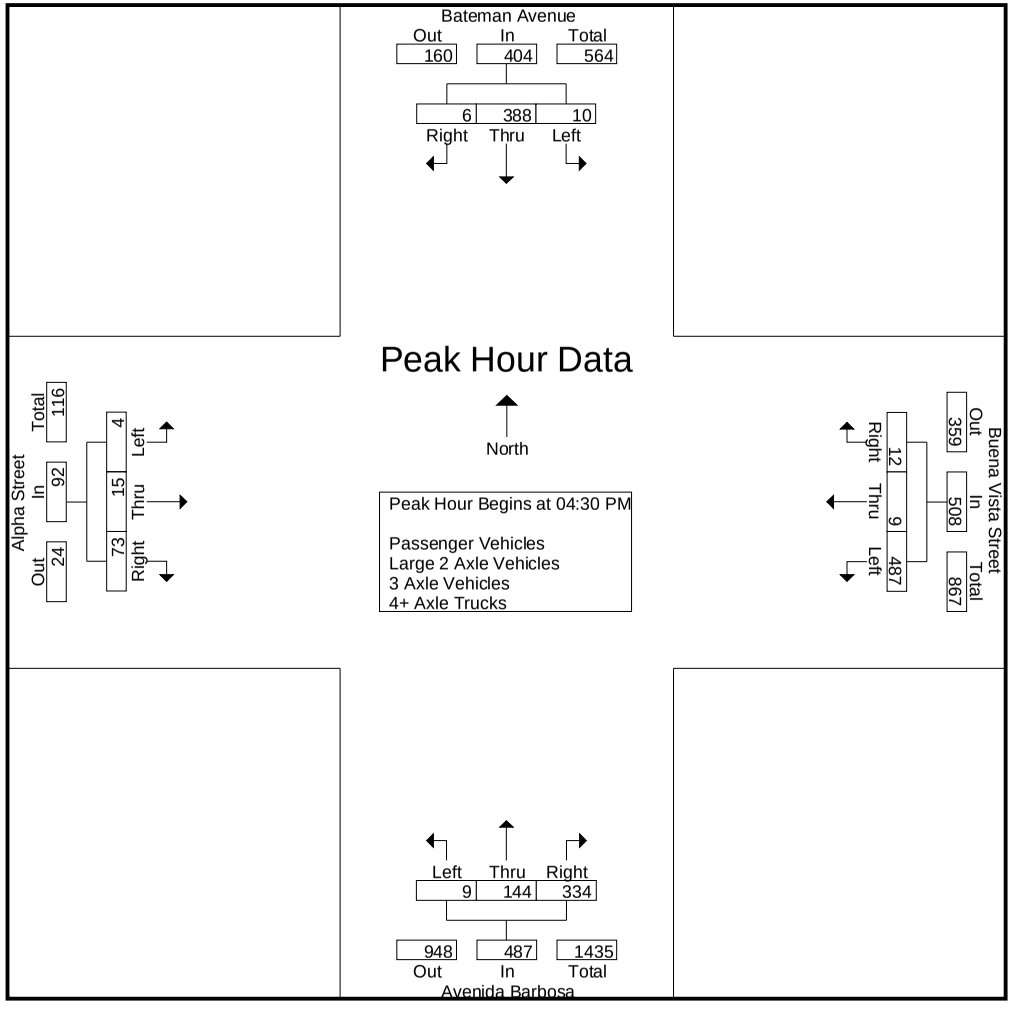
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	70	1	0	75	79	4	2	1	85	4	27	74	47	105	0	3	12	4	15	52	280	332
04:15 PM	5	62	0	0	67	89	4	7	4	100	11	40	70	43	121	0	2	7	1	9	48	297	345
04:30 PM	3	91	2	0	96	104	2	2	2	108	6	37	91	51	134	0	3	12	5	15	58	353	411
04:45 PM	3	89	1	0	93	107	2	3	0	112	1	37	86	47	124	0	2	24	10	26	57	355	412
Total	15	312	4	0	331	379	12	14	7	405	22	141	321	188	484	0	10	55	20	65	215	1285	1500
05:00 PM	1	119	2	0	122	132	4	3	2	139	1	35	80	43	116	2	7	25	11	34	56	411	467
05:15 PM	3	89	1	0	93	144	1	4	0	149	1	35	77	14	113	2	3	12	5	17	19	372	391
05:30 PM	3	103	0	0	106	126	5	3	1	134	0	28	61	17	89	0	7	11	3	18	21	347	368
05:45 PM	2	59	2	2	63	128	4	4	0	136	0	33	56	22	89	0	0	6	0	6	24	294	318
Total	9	370	5	2	384	530	14	14	3	558	2	131	274	96	407	4	17	54	19	75	120	1424	1544
Grand Total	24	682	9	2	715	909	26	28	10	963	24	272	595	284	891	4	27	109	39	140	335	2709	3044
Apprch %	3.4	95.4	1.3			94.4	2.7	2.9			2.7	30.5	66.8			2.9	19.3	77.9					
Total %	0.9	25.2	0.3		26.4	33.6	1	1		35.5	0.9	10	22		32.9	0.1	1	4		5.2	11	89	
Passenger Vehicles	21	661	9		693	890	23	24		945	17	268	578		1141	4	26	99		166	0	0	2945
% Passenger Vehicles	87.5	96.9	100	100	96.7	97.9	88.5	85.7	80	97.1	70.8	98.5	97.1	97.9	97.1	100	96.3	90.8	94.9	92.7	0	0	96.7
Large 2 Axle Vehicles	3	15	0		18	13	3	2		20	3	2	13		24	0	1	4		5	0	0	67
% Large 2 Axle Vehicles	12.5	2.2	0	0	2.5	1.4	11.5	7.1	20	2.1	12.5	0.7	2.2	2.1	2	0	3.7	3.7	0	2.8	0	0	2.2
3 Axle Vehicles	0	3	0		3	3	0	1		4	2	1	2		5	0	0	3		4	0	0	16
% 3 Axle Vehicles	0	0.4	0	0	0.4	0.3	0	3.6	0	0.4	8.3	0.4	0.3	0	0.4	0	0	2.8	2.6	2.2	0	0	0.5
4+ Axle Trucks	0	3	0		3	3	0	1		4	2	1	2		5	0	0	3		4	0	0	16
% 4+ Axle Trucks	0	0.4	0	0	0.4	0.3	0	3.6	0	0.4	8.3	0.4	0.3	0	0.4	0	0	2.8	2.6	2.2	0	0	0.5

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**3**	91	**2**	96	104	2	2	108	**6**	**37**	**91**	**134**	0	3	12	15	353
04:45 PM	3	89	1	93	107	2	3	112	1	37	86	124	0	2	24	26	355
05:00 PM	1	**119**	2	**122**	132	**4**	3	139	1	35	80	116	**2**	**7**	**25**	**34**	**411**
05:15 PM	3	89	1	93	**144**	1	**4**	**149**	1	35	77	113	2	3	12	17	372
Total Volume	10	388	6	404	487	9	12	508	9	144	334	487	4	15	73	92	1491
% App. Total	2.5	96	1.5		95.9	1.8	2.4		1.8	29.6	68.6		4.3	16.3	79.3		
PHF	.833	.815	.750	.828	.845	.563	.750	.852	.375	.973	.918	.909	.500	.536	.730	.676	.907

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	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				04:15 PM				04:45 PM				
+0 mins.	**3**	89	1	93	132	4	3	139	**11**	**40**	70	121	0	2	24	26	
+15 mins.	1	**119**	**2**	**122**	**144**	1	**4**	**149**	6	37	**91**	**134**	**2**	**7**	**25**	**34**	
+30 mins.	3	89	1	93	126	**5**	3	134	1	37	86	124	2	3	12	17	
+45 mins.	3	103	0	106	128	4	4	136	1	35	80	116	0	7	11	18	
Total Volume	10	400	4	414	530	14	14	558	19	149	327	495	4	19	72	95	
% App. Total	2.4	96.6	1		95	2.5	2.5		3.8	30.1	66.1		4.2	20	75.8		
PHF	.833	.840	.500	.848	.920	.700	.875	.936	.432	.931	.898	.924	.500	.679	.720	.699	

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Groups Printed- Passenger Vehicles

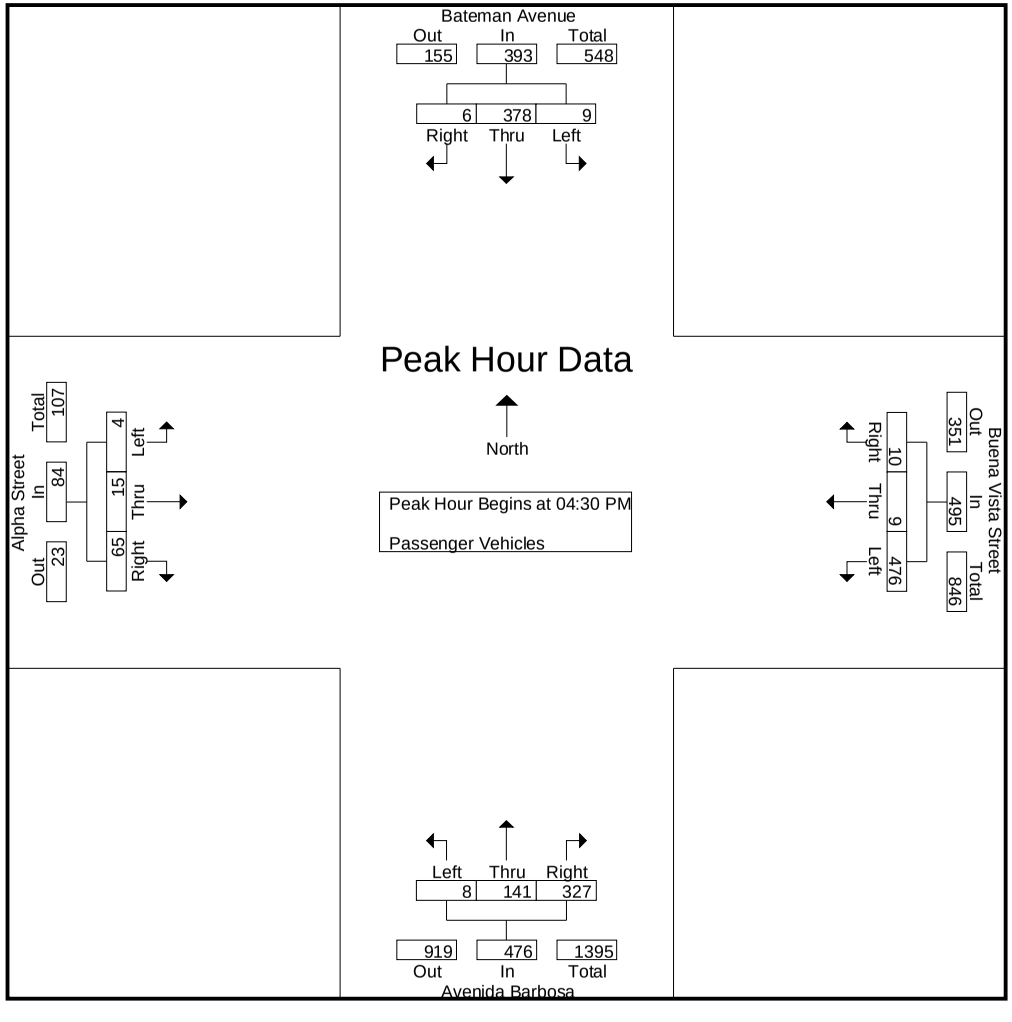
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	65	1	0	70	78	3	2	1	83	2	26	73	46	101	0	3	12	4	15	51	269	320
04:15 PM	3	58	0	0	61	84	3	5	2	92	7	40	65	41	112	0	1	5	1	6	44	271	315
04:30 PM	2	87	2	0	91	98	2	2	2	102	5	35	89	51	129	0	3	10	5	13	58	335	393
04:45 PM	3	85	1	0	89	107	2	3	0	112	1	37	84	46	122	0	2	23	10	25	56	348	404
Total	12	295	4	0	311	367	10	12	5	389	15	138	311	184	464	0	9	50	20	59	209	1223	1432
05:00 PM	1	117	2	0	120	129	4	3	2	136	1	34	79	42	114	2	7	21	9	30	53	400	453
05:15 PM	3	89	1	0	93	142	1	2	0	145	1	35	75	14	111	2	3	11	5	16	19	365	384
05:30 PM	3	101	0	0	104	126	4	3	1	133	0	28	60	17	88	0	7	11	3	18	21	343	364
05:45 PM	2	59	2	2	63	126	4	4	0	134	0	33	53	21	86	0	0	6	0	6	23	289	312
Total	9	366	5	2	380	523	13	12	3	548	2	130	267	94	399	4	17	49	17	70	116	1397	1513
Grand Total	21	661	9	2	691	890	23	24	8	937	17	268	578	278	863	4	26	99	37	129	325	2620	2945
Apprch %	3	95.7	1.3			95	2.5	2.6			2	31.1	67			3.1	20.2	76.7					
Total %	0.8	25.2	0.3		26.4	34	0.9	0.9		35.8	0.6	10.2	22.1		32.9	0.2	1	3.8		4.9	11	89	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	87	**2**	91	98	2	2	102	**5**	35	**89**	**129**	0	3	10	13	335
04:45 PM	**3**	85	1	89	107	2	**3**	112	1	**37**	84	122	0	2	**23**	25	348
05:00 PM	1	**117**	2	**120**	129	**4**	3	136	1	34	79	114	**2**	**7**	21	**30**	**400**
05:15 PM	3	89	1	93	**142**	1	2	**145**	1	35	75	111	2	3	11	16	365
Total Volume	9	378	6	393	476	9	10	495	8	141	327	476	4	15	65	84	1448
% App. Total	2.3	96.2	1.5		96.2	1.8	2		1.7	29.6	68.7		4.8	17.9	77.4		
PHF	.750	.808	.750	.819	.838	.563	.833	.853	.400	.953	.919	.922	.500	.536	.707	.700	.905

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	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	2	87	**2**	91	98	2	2	102	**5**	35	**89**	**129**	0	3	10	13	
+15 mins.	**3**	85	1	89	107	2	**3**	112	1	**37**	84	122	0	2	**23**	25	
+30 mins.	1	**117**	2	**120**	129	**4**	3	136	1	34	79	114	**2**	**7**	21	**30**	
+45 mins.	3	89	1	93	**142**	1	2	**145**	1	35	75	111	2	3	11	16	
Total Volume	9	378	6	393	476	9	10	495	8	141	327	476	4	15	65	84	
% App. Total	2.3	96.2	1.5		96.2	1.8	2		1.7	29.6	68.7		4.8	17.9	77.4		
PHF	.750	.808	.750	.819	.838	.563	.833	.853	.400	.953	.919	.922	.500	.536	.707	.700	

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Groups Printed- Large 2 Axle Vehicles

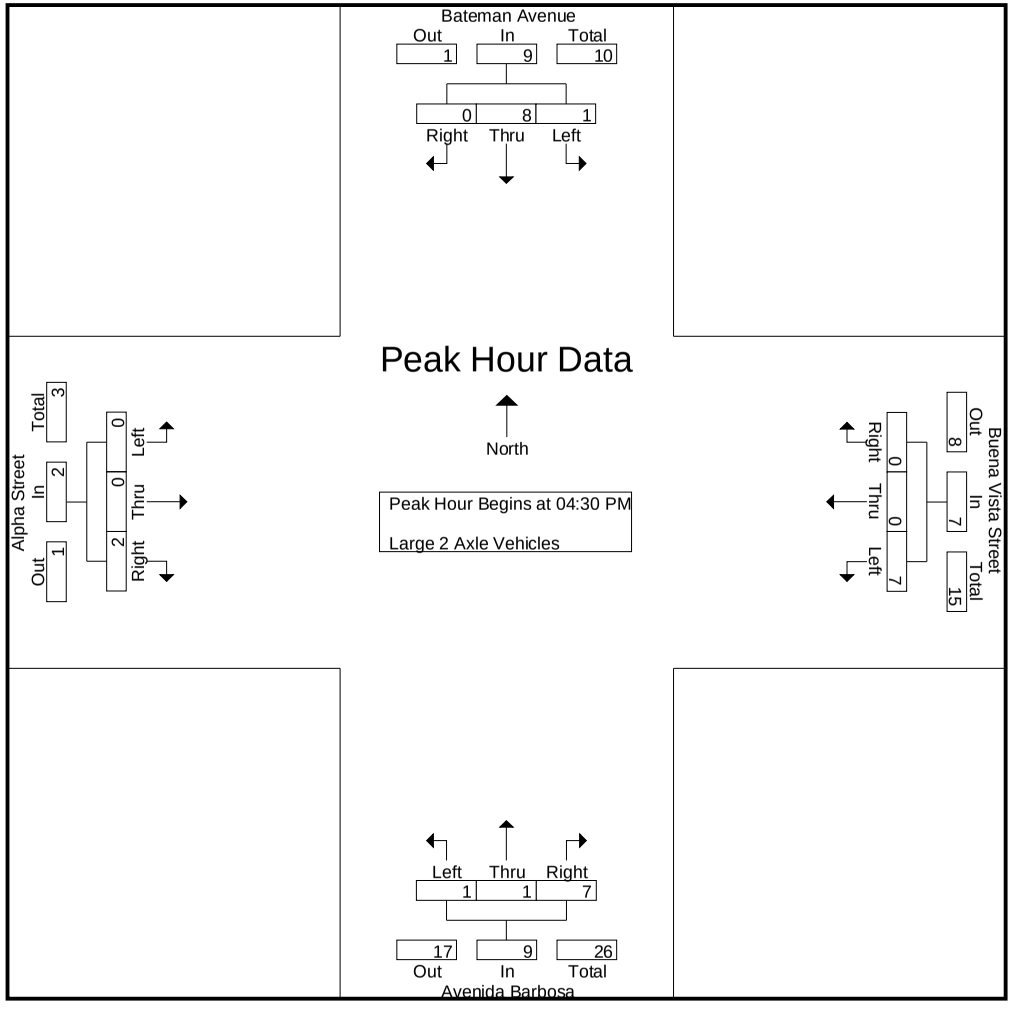
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	0	3	1	1	0	0	2	0	1	1	1	2	0	0	0	0	0	1	7	8
04:15 PM	2	4	0	0	6	3	1	2	2	6	2	0	3	2	5	0	1	2	0	3	4	20	24
04:30 PM	1	4	0	0	5	4	0	0	0	4	1	0	2	0	3	0	0	0	0	0	0	12	12
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	2	1	2	0	0	1	0	1	1	5	6
Total	3	13	0	0	16	8	2	2	2	12	3	1	8	4	12	0	1	3	0	4	6	44	50
05:00 PM	0	2	0	0	2	1	0	0	0	1	0	1	1	1	2	0	0	0	0	0	1	5	6
05:15 PM	0	0	0	0	0	2	0	0	0	2	0	0	2	0	2	0	0	1	0	1	0	5	5
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	2	0	0	0	2	0	0	1	1	1	0	0	0	0	0	1	3	4
Total	0	2	0	0	2	5	1	0	0	6	0	1	5	2	6	0	0	1	0	1	2	15	17
Grand Total	3	15	0	0	18	13	3	2	2	18	3	2	13	6	18	0	1	4	0	5	8	59	67
Apprch %	16.7	83.3	0			72.2	16.7	11.1			16.7	11.1	72.2			0	20	80					
Total %	5.1	25.4	0		30.5	22	5.1	3.4		30.5	5.1	3.4	22		30.5	0	1.7	6.8		8.5	11.9	88.1	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	**4**	0	**5**	**4**	0	0	**4**	**1**	0	**2**	**3**	0	0	0	0	**12**
04:45 PM	0	2	0	2	0	0	0	0	0	0	2	2	0	0	**1**	**1**	5
05:00 PM	0	2	0	2	1	0	0	1	0	**1**	1	2	0	0	0	0	5
05:15 PM	0	0	0	0	2	0	0	2	0	0	2	2	0	0	1	1	5
Total Volume	1	8	0	9	7	0	0	7	1	1	7	9	0	0	2	2	27
% App. Total	11.1	88.9	0		100	0	0		11.1	11.1	77.8		0	0	100		
PHF	.250	.500	.000	.450	.438	.000	.000	.438	.250	.250	.875	.750	.000	.000	.500	.500	.563

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**1**	**4**	0	**5**	**4**	0	0	**4**	**1**	0	**2**	**3**	0	0	0	0	
+15 mins.	0	2	0	2	0	0	0	0	0	0	2	2	0	0	**1**	**1**	
+30 mins.	0	2	0	2	1	0	0	1	0	**1**	1	2	0	0	0	0	
+45 mins.	0	0	0	0	2	0	0	2	0	0	2	2	0	0	1	1	
Total Volume	1	8	0	9	7	0	0	7	1	1	7	9	0	0	2	2	
% App. Total	11.1	88.9	0		100	0	0		11.1	11.1	77.8		0	0	100		
PHF	.250	.500	.000	.450	.438	.000	.000	.438	.250	.250	.875	.750	.000	.000	.500	.500	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

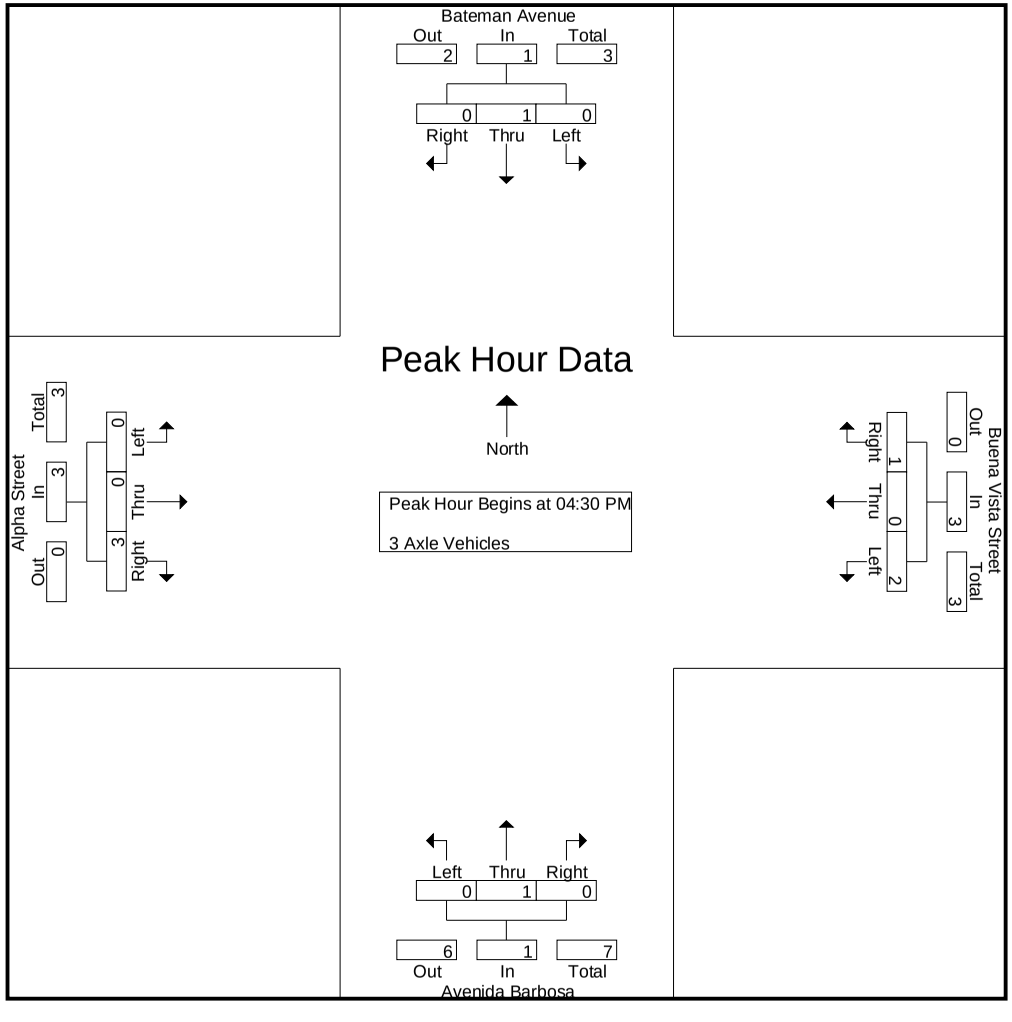
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	2
04:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	1	0	2	0	0	0	0	0	0	3	3
04:30 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	3	3
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	2	0	0	2	2	0	0	0	2	2	1	1	0	4	0	0	1	0	1	0	9	9
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	1	2	1	3	4
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1
Total	0	1	0	0	1	1	0	1	0	2	0	0	1	0	1	0	0	2	1	2	1	6	7
Grand Total	0	3	0	0	3	3	0	1	0	4	2	1	2	0	5	0	0	3	1	3	1	15	16
Apprch %	0	100	0			75	0	25			40	20	40			0	0	100					
Total %	0	20	0		20	20	0	6.7		26.7	13.3	6.7	13.3		33.3	0	0	20		20	6.2	93.8	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**1**	0	0	**1**	0	**1**	0	**1**	0	0	1	1	**3**
04:45 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**	**2**	3
05:15 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	2	0	1	3	0	1	0	1	0	0	3	3	8
% App. Total	0	100	0		66.7	0	33.3		0	100	0		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.250	.750	.000	.250	.000	.250	.000	.000	.375	.375	.667

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
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Site Code : 05117783
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	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	**1**	0	**1**	0	0	1	1	
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**	**2**	
+45 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	1	2	0	1	3	0	1	0	1	0	0	3	3	
% App. Total	0	100	0		66.7	0	33.3		0	100	0		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.250	.750	.000	.250	.000	.250	.000	.000	.375	.375	

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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

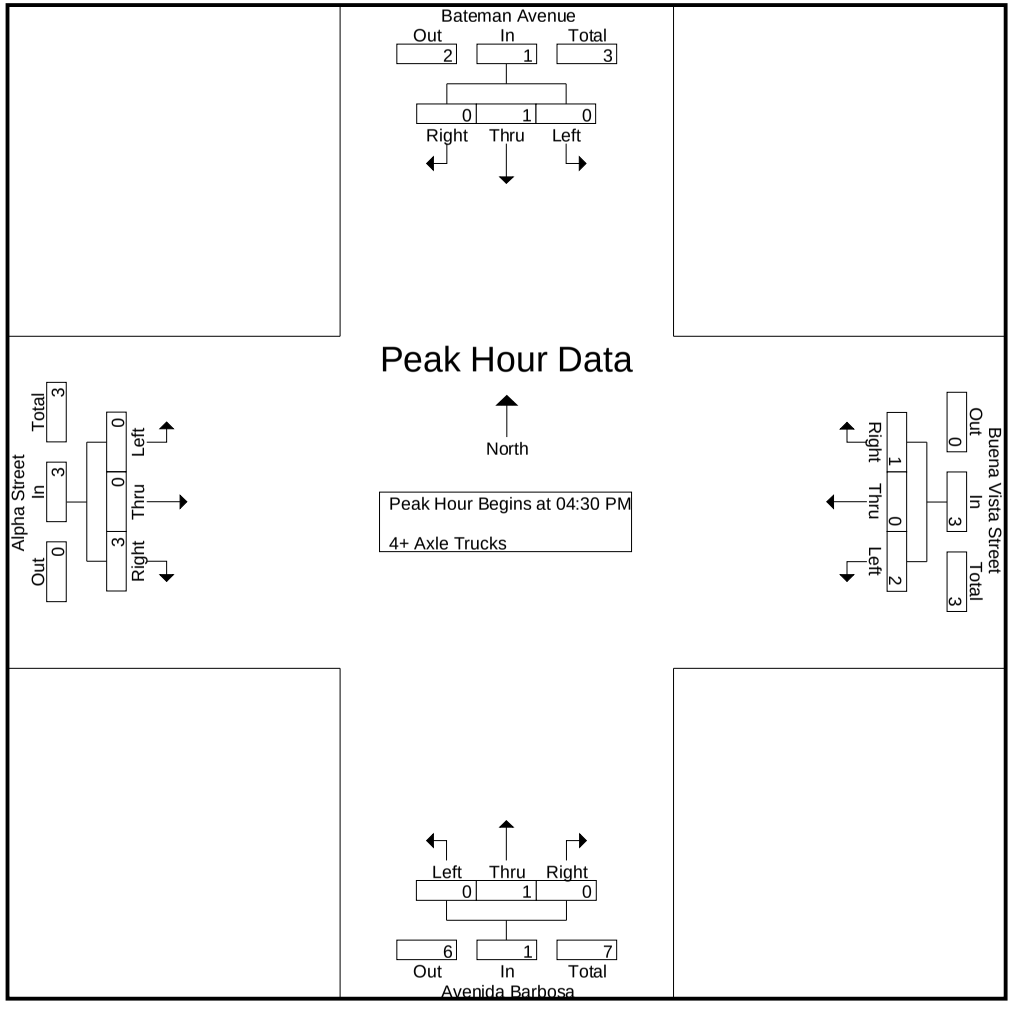
	Bateman Avenue Southbound					Buena Vista Street Westbound					Avenida Barbosa Northbound					Alpha Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	2
04:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	1	0	2	0	0	0	0	0	0	3	3
04:30 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	3	3
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	2	0	0	2	2	0	0	0	2	2	1	1	0	4	0	0	1	0	1	0	9	9
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	1	2	1	3	4
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1
Total	0	1	0	0	1	1	0	1	0	2	0	0	1	0	1	0	0	2	1	2	1	6	7
Grand Total	0	3	0	0	3	3	0	1	0	4	2	1	2	0	5	0	0	3	1	3	1	15	16
Apprch %	0	100	0			75	0	25			40	20	40			0	0	100					
Total %	0	20	0		20	20	0	6.7		26.7	13.3	6.7	13.3		33.3	0	0	20		20	6.2	93.8	

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**1**	0	0	**1**	0	**1**	0	**1**	0	0	1	1	**3**
04:45 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**	**2**	3
05:15 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	2	0	1	3	0	1	0	1	0	0	3	3	8
% App. Total	0	100	0		66.7	0	33.3		0	100	0		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.250	.750	.000	.250	.000	.250	.000	.000	.375	.375	.667

Counts Unlimited
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(951) 268-6268

City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street
Weather: Clear

File Name : 20_IRW_AB AI PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Bateman Avenue Southbound				Buena Vista Street Westbound				Avenida Barbosa Northbound				Alpha Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	**1**	0	**1**	0	0	1	1	
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**	**2**	
+45 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	1	2	0	1	3	0	1	0	1	0	0	3	3	
% App. Total	0	100	0		66.7	0	33.3		0	100	0		0	0	100		
PHF	.000	.250	.000	.250	.500	.000	.250	.750	.000	.250	.000	.250	.000	.000	.375	.375	

Location: Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Bateman Avenue	East Leg Buena Vista Street	South Leg Avenida Barbosa	West Leg Alpha Street	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	2	0	0	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
TOTAL VOLUMES:	2	0	0	0	2

	North Leg Bateman Avenue	East Leg Buena Vista Street	South Leg Avenida Barbosa	West Leg Alpha Street	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: Bateman Ave/Avenida Barbosa
E/W: Alpha Street/Buena Vista Street

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Bateman Avenue	East Leg Buena Vista Street	South Leg Avenida Barbosa	West Leg Alpha Street	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1
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
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Bateman Avenue	East Leg Buena Vista Street	South Leg Avenida Barbosa	West Leg Alpha Street	TOTAL
4:00 PM	0	0	0	2	2
4:15 PM	0	0	0	3	3
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	1	1
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 VOLUMES:	0	0	0	6	6

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

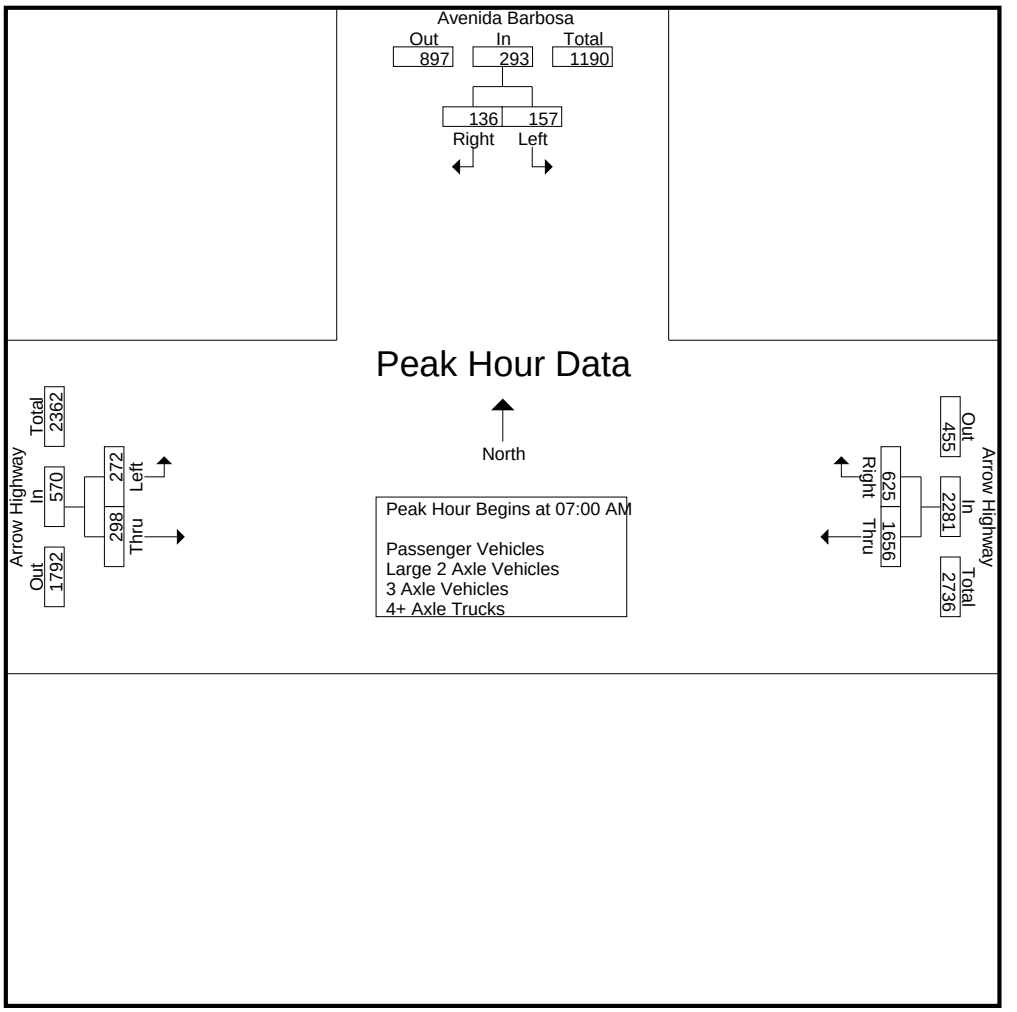
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	28	36	8	64	459	99	14	558	47	59	0	106	22	728	750
07:15 AM	33	43	14	76	444	160	12	604	56	55	0	111	26	791	817
07:30 AM	33	26	8	59	440	177	18	617	71	98	0	169	26	845	871
07:45 AM	63	31	10	94	313	189	24	502	98	86	0	184	34	780	814
Total	157	136	40	293	1656	625	68	2281	272	298	0	570	108	3144	3252
08:00 AM	42	40	20	82	291	147	14	438	84	78	0	162	34	682	716
08:15 AM	37	35	18	72	273	108	14	381	75	88	0	163	32	616	648
08:30 AM	29	36	17	65	223	92	11	315	70	80	0	150	28	530	558
08:45 AM	43	44	18	87	243	79	9	322	71	75	0	146	27	555	582
Total	151	155	73	306	1030	426	48	1456	300	321	0	621	121	2383	2504
Grand Total	308	291	113	599	2686	1051	116	3737	572	619	0	1191	229	5527	5756
Apprch %	51.4	48.6			71.9	28.1			48	52					
Total %	5.6	5.3		10.8	48.6	19		67.6	10.3	11.2		21.5	4	96	
Passenger Vehicles	280	234		612	2562	1012		3687	518	536		1054	0	0	5353
% Passenger Vehicles	90.9	80.4	86.7	86	95.4	96.3	97.4	95.7	90.6	86.6	0	88.5	0	0	93
Large 2 Axle Vehicles	16	7		25	46	15		61	13	33		46	0	0	132
% Large 2 Axle Vehicles	5.2	2.4	1.8	3.5	1.7	1.4	0	1.6	2.3	5.3	0	3.9	0	0	2.3
3 Axle Vehicles	8	28		47	29	11		42	13	17		30	0	0	119
% 3 Axle Vehicles	2.6	9.6	9.7	6.6	1.1	1	1.7	1.1	2.3	2.7	0	2.5	0	0	2.1
4+ Axle Trucks	4	22		28	49	13		63	28	33		61	0	0	152
% 4+ Axle Trucks	1.3	7.6	1.8	3.9	1.8	1.2	0.9	1.6	4.9	5.3	0	5.1	0	0	2.6

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	28	36	64	**459**	99	558	47	59	106	728
07:15 AM	33	**43**	76	444	160	604	56	55	111	791
07:30 AM	33	26	59	440	177	**617**	71	**98**	169	**845**
07:45 AM	**63**	31	**94**	313	**189**	502	**98**	86	**184**	780
Total Volume	157	136	293	1656	625	2281	272	298	570	3144
% App. Total	53.6	46.4		72.6	27.4		47.7	52.3		
PHF	.623	.791	.779	.902	.827	.924	.694	.760	.774	.930

Counts Unlimited
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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	07:45 AM			07:00 AM			07:30 AM		
+0 mins.	**63**	31	**94**	**459**	99	558	71	**98**	169
+15 mins.	42	**40**	82	444	160	604	**98**	86	**184**
+30 mins.	37	35	72	440	177	**617**	84	78	162
+45 mins.	29	36	65	313	**189**	502	75	88	163
Total Volume	171	142	313	1656	625	2281	328	350	678
% App. Total	54.6	45.4		72.6	27.4		48.4	51.6	
PHF	.679	.888	.832	.902	.827	.924	.837	.893	.921

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

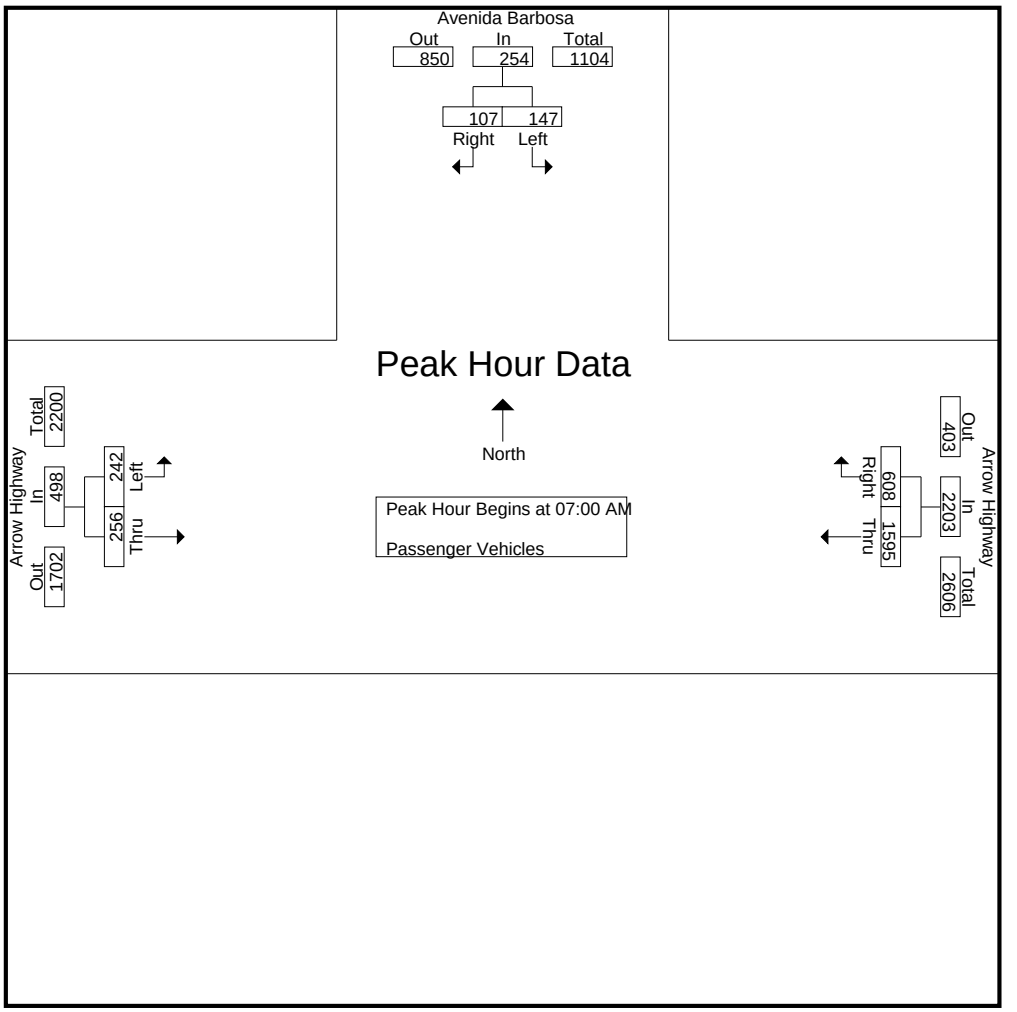
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	25	32	8	57	439	93	13	532	42	47	0	89	21	678	699
07:15 AM	30	36	12	66	429	156	12	585	47	48	0	95	24	746	770
07:30 AM	31	19	5	50	424	173	18	597	63	84	0	147	23	794	817
07:45 AM	61	20	7	81	303	186	23	489	90	77	0	167	30	737	767
Total	147	107	32	254	1595	608	66	2203	242	256	0	498	98	2955	3053
08:00 AM	37	30	18	67	283	141	13	424	80	70	0	150	31	641	672
08:15 AM	32	32	15	64	256	104	14	360	71	76	0	147	29	571	600
08:30 AM	26	29	17	55	207	86	11	293	59	70	0	129	28	477	505
08:45 AM	38	36	16	74	221	73	9	294	66	64	0	130	25	498	523
Total	133	127	66	260	967	404	47	1371	276	280	0	556	113	2187	2300
Grand Total	280	234	98	514	2562	1012	113	3574	518	536	0	1054	211	5142	5353
Apprch %	54.5	45.5			71.7	28.3			49.1	50.9					
Total %	5.4	4.6		10	49.8	19.7		69.5	10.1	10.4		20.5	3.9	96.1	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	25	32	57	**439**	93	532	42	47	89	678
07:15 AM	30	**36**	66	429	156	585	47	48	95	746
07:30 AM	31	19	50	424	173	**597**	63	**84**	147	**794**
07:45 AM	**61**	20	**81**	303	**186**	489	**90**	77	**167**	737
Total Volume	147	107	254	1595	608	2203	242	256	498	2955
% App. Total	57.9	42.1		72.4	27.6		48.6	51.4		
PHF	.602	.743	.784	.908	.817	.923	.672	.762	.746	.930

Counts Unlimited
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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	25	32	57	**439**	93	532	42	47	89
+15 mins.	30	**36**	66	429	156	585	47	48	95
+30 mins.	31	19	50	424	173	**597**	63	**84**	147
+45 mins.	**61**	20	**81**	303	**186**	489	**90**	77	**167**
Total Volume	147	107	254	1595	608	2203	242	256	498
% App. Total	57.9	42.1		72.4	27.6		48.6	51.4	
PHF	.602	.743	.784	.908	.817	.923	.672	.762	.746

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Large 2 Axle Vehicles

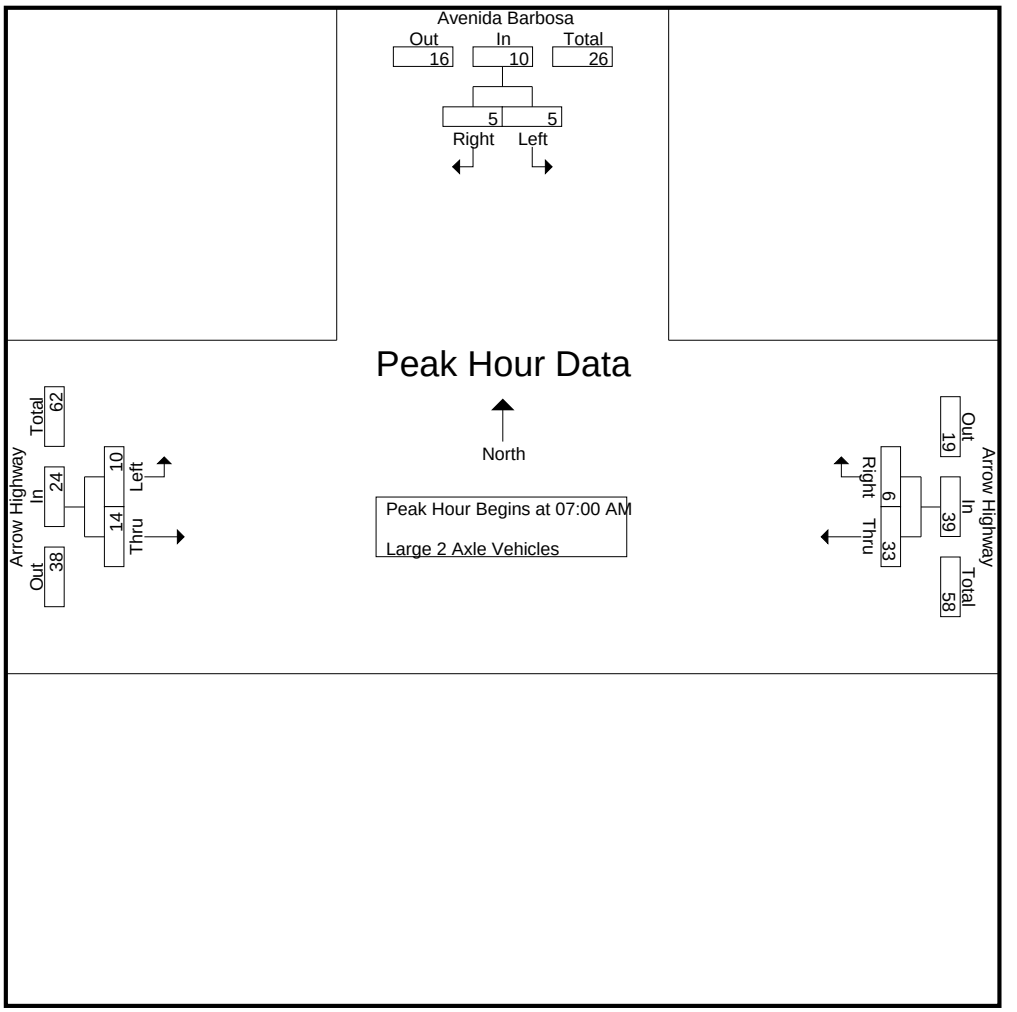
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	1	0	4	7	3	0	10	3	6	0	9	0	23	23
07:15 AM	0	1	1	1	11	2	0	13	1	1	0	2	1	16	17
07:30 AM	1	2	1	3	8	1	0	9	2	4	0	6	1	18	19
07:45 AM	1	1	0	2	7	0	0	7	4	3	0	7	0	16	16
Total	5	5	2	10	33	6	0	39	10	14	0	24	2	73	75
08:00 AM	3	1	0	4	1	2	0	3	2	4	0	6	0	13	13
08:15 AM	5	0	0	5	4	1	0	5	0	6	0	6	0	16	16
08:30 AM	1	1	0	2	3	2	0	5	1	4	0	5	0	12	12
08:45 AM	2	0	0	2	5	4	0	9	0	5	0	5	0	16	16
Total	11	2	0	13	13	9	0	22	3	19	0	22	0	57	57
Grand Total	16	7	2	23	46	15	0	61	13	33	0	46	2	130	132
Apprch %	69.6	30.4			75.4	24.6			28.3	71.7					
Total %	12.3	5.4		17.7	35.4	11.5		46.9	10	25.4		35.4	1.5	98.5	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**3**	1	**4**	7	**3**	10	3	**6**	**9**	**23**
07:15 AM	0	1	1	**11**	2	**13**	1	1	2	16
07:30 AM	1	**2**	3	8	1	9	2	4	6	18
07:45 AM	1	1	2	7	0	7	**4**	3	7	16
Total Volume	5	5	10	33	6	39	10	14	24	73
% App. Total	50	50		84.6	15.4		41.7	58.3		
PHF	.417	.625	.625	.750	.500	.750	.625	.583	.667	.793

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**3**	1	**4**	7	**3**	10	3	**6**	**9**
+15 mins.	0	1	1	**11**	2	**13**	1	1	2
+30 mins.	1	**2**	3	8	1	9	2	4	6
+45 mins.	1	1	2	7	0	7	**4**	3	7
Total Volume	5	5	10	33	6	39	10	14	24
% App. Total	50	50		84.6	15.4		41.7	58.3	
PHF	.417	.625	.625	.750	.500	.750	.625	.583	.667

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

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Groups Printed- 3 Axle Vehicles

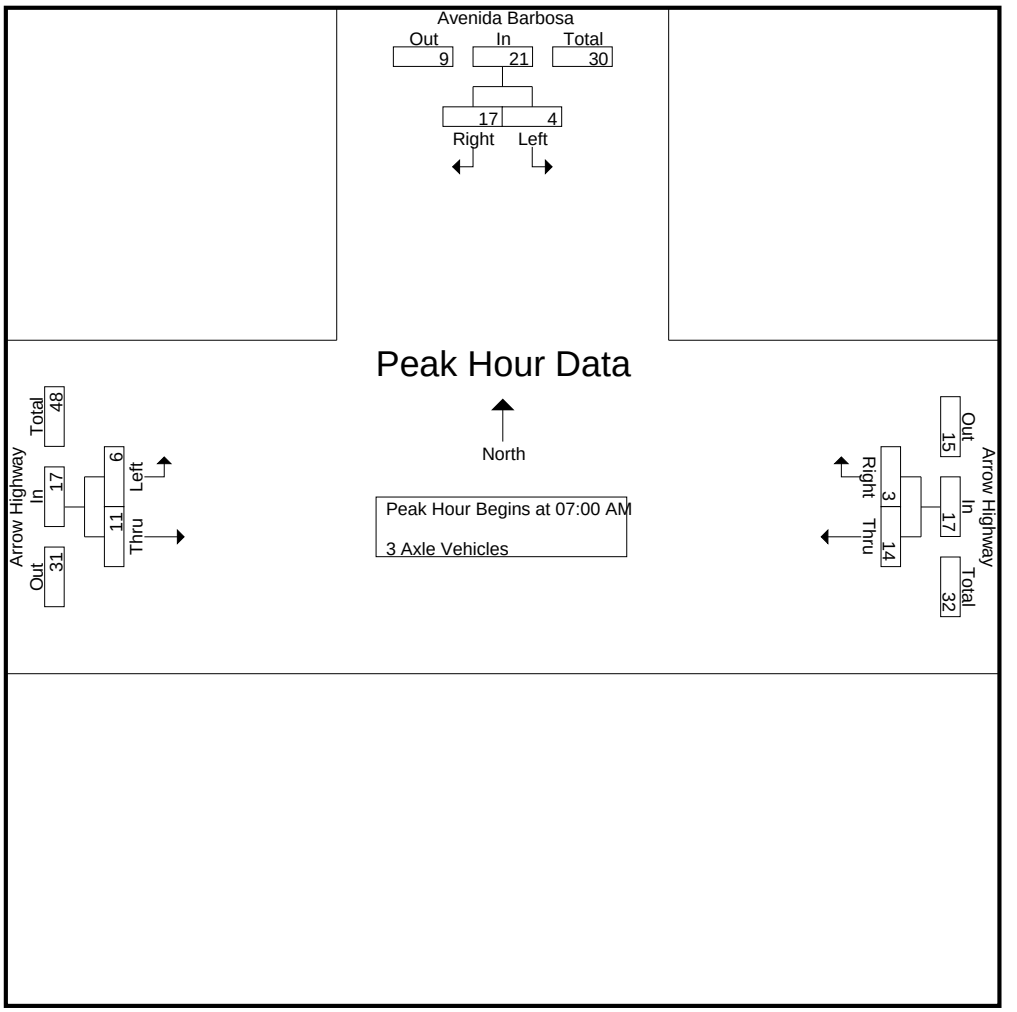
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	2	7	2	1	9	2	2	0	4	1	15	16
07:15 AM	3	5	1	8	4	1	0	5	3	3	0	6	1	19	20
07:30 AM	0	5	2	5	3	0	0	3	1	3	0	4	2	12	14
07:45 AM	1	5	3	6	0	0	0	0	0	3	0	3	3	9	12
Total	4	17	6	21	14	3	1	17	6	11	0	17	7	55	62
08:00 AM	1	4	2	5	2	3	1	5	0	1	0	1	3	11	14
08:15 AM	0	3	3	3	4	2	0	6	2	2	0	4	3	13	16
08:30 AM	2	1	0	3	4	2	0	6	3	1	0	4	0	13	13
08:45 AM	1	3	0	4	5	1	0	6	2	2	0	4	0	14	14
Total	4	11	5	15	15	8	1	23	7	6	0	13	6	51	57
Grand Total	8	28	11	36	29	11	2	40	13	17	0	30	13	106	119
Apprch %	22.2	77.8			72.5	27.5			43.3	56.7					
Total %	7.5	26.4		34	27.4	10.4		37.7	12.3	16		28.3	10.9	89.1	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	**7**	**2**	**9**	2	2	4	15
07:15 AM	**3**	**5**	**8**	4	1	5	**3**	**3**	**6**	**19**
07:30 AM	0	5	5	3	0	3	1	3	4	12
07:45 AM	1	5	6	0	0	0	0	3	3	9
Total Volume	4	17	21	14	3	17	6	11	17	55
% App. Total	19	81		82.4	17.6		35.3	64.7		
PHF	.333	.850	.656	.500	.375	.472	.500	.917	.708	.724

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City of Irwindale
N/S: Avenida Barbosa
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Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	**7**	**2**	**9**	2	2	4
+15 mins.	**3**	**5**	**8**	4	1	5	**3**	**3**	**6**
+30 mins.	0	5	5	3	0	3	1	3	4
+45 mins.	1	5	6	0	0	0	0	3	3
Total Volume	4	17	21	14	3	17	6	11	17
% App. Total	19	81		82.4	17.6		35.3	64.7	
PHF	.333	.850	.656	.500	.375	.472	.500	.917	.708

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
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Groups Printed- 4+ Axle Trucks

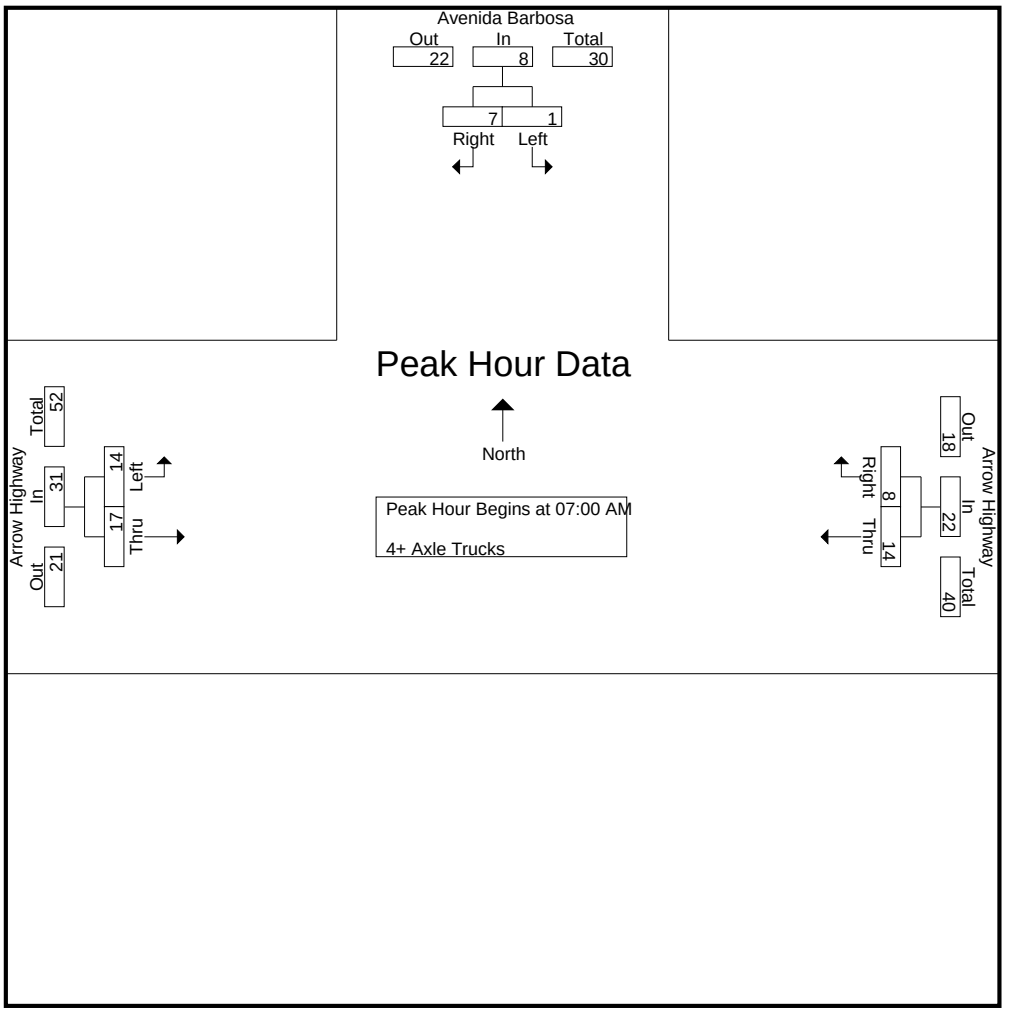
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	6	1	0	7	0	4	0	4	0	12	12
07:15 AM	0	1	0	1	0	1	0	1	5	3	0	8	0	10	10
07:30 AM	1	0	0	1	5	3	0	8	5	7	0	12	0	21	21
07:45 AM	0	5	0	5	3	3	1	6	4	3	0	7	1	18	19
Total	1	7	0	8	14	8	1	22	14	17	0	31	1	61	62
08:00 AM	1	5	0	6	5	1	0	6	2	3	0	5	0	17	17
08:15 AM	0	0	0	0	9	1	0	10	2	4	0	6	0	16	16
08:30 AM	0	5	0	5	9	2	0	11	7	5	0	12	0	28	28
08:45 AM	2	5	2	7	12	1	0	13	3	4	0	7	2	27	29
Total	3	15	2	18	35	5	0	40	14	16	0	30	2	88	90
Grand Total	4	22	2	26	49	13	1	62	28	33	0	61	3	149	152
Apprch %	15.4	84.6			79	21			45.9	54.1					
Total %	2.7	14.8		17.4	32.9	8.7		41.6	18.8	22.1		40.9	2	98	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	**6**	1	7	0	4	4	12
07:15 AM	0	1	1	0	1	1	**5**	3	8	10
07:30 AM	**1**	0	1	5	**3**	**8**	5	**7**	**12**	**21**
07:45 AM	0	**5**	**5**	3	3	6	4	3	7	18
Total Volume	1	7	8	14	8	22	14	17	31	61
% App. Total	12.5	87.5		63.6	36.4		45.2	54.8		
PHF	.250	.350	.400	.583	.667	.688	.700	.607	.646	.726

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	**6**	1	7	0	4	4
+15 mins.	0	1	1	0	1	1	**5**	3	8
+30 mins.	**1**	0	1	5	**3**	**8**	5	**7**	**12**
+45 mins.	0	**5**	**5**	3	3	6	4	3	7
Total Volume	1	7	8	14	8	22	14	17	31
% App. Total	12.5	87.5		63.6	36.4		45.2	54.8	
PHF	.250	.350	.400	.583	.667	.688	.700	.607	.646

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

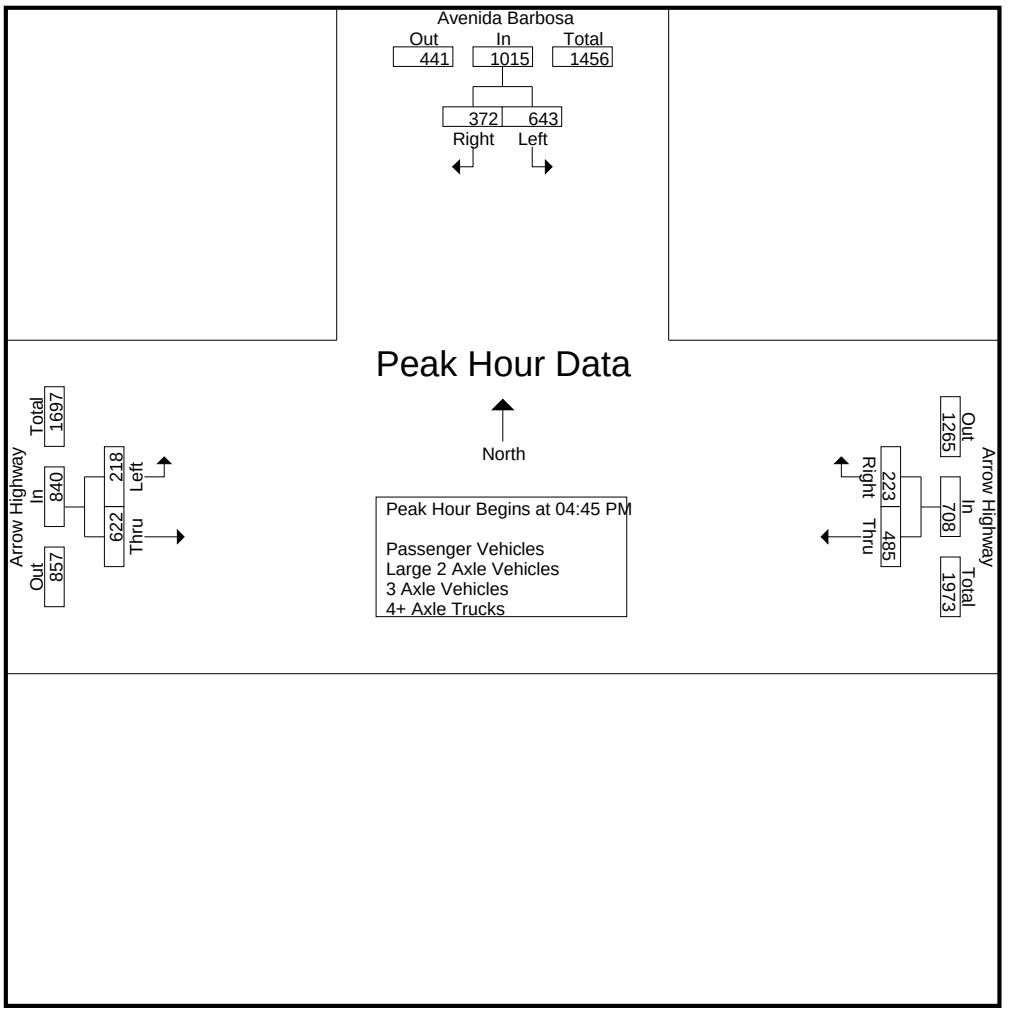
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	119	47	28	166	94	40	3	134	57	107	0	164	31	464	495
04:15 PM	89	60	34	149	102	65	14	167	48	158	0	206	48	522	570
04:30 PM	116	79	32	195	111	59	9	170	79	153	0	232	41	597	638
04:45 PM	157	73	17	230	120	62	17	182	54	162	0	216	34	628	662
Total	481	259	111	740	427	226	43	653	238	580	0	818	154	2211	2365
05:00 PM	156	104	42	260	116	53	24	169	61	147	0	208	66	637	703
05:15 PM	169	97	39	266	124	56	22	180	67	149	0	216	61	662	723
05:30 PM	161	98	34	259	125	52	13	177	36	164	0	200	47	636	683
05:45 PM	110	87	39	197	121	44	13	165	46	170	0	216	52	578	630
Total	596	386	154	982	486	205	72	691	210	630	0	840	226	2513	2739
Grand Total	1077	645	265	1722	913	431	115	1344	448	1210	0	1658	380	4724	5104
Apprch %	62.5	37.5			67.9	32.1			27	73					
Total %	22.8	13.7		36.5	19.3	9.1		28.5	9.5	25.6		35.1	7.4	92.6	
Passenger Vehicles	1049	629		1938	852	417		1383	430	1166		1596	0	0	4917
% Passenger Vehicles	97.4	97.5	98.1	97.5	93.3	96.8	99.1	94.8	96	96.4	0	96.3	0	0	96.3
Large 2 Axle Vehicles	23	7		32	30	9		40	8	24		32	0	0	104
% Large 2 Axle Vehicles	2.1	1.1	0.8	1.6	3.3	2.1	0.9	2.7	1.8	2	0	1.9	0	0	2
3 Axle Vehicles	1	1		3	8	1		9	3	11		14	0	0	26
% 3 Axle Vehicles	0.1	0.2	0.4	0.2	0.9	0.2	0	0.6	0.7	0.9	0	0.8	0	0	0.5
4+ Axle Trucks	4	8		14	23	4		27	7	9		16	0	0	57
% 4+ Axle Trucks	0.4	1.2	0.8	0.7	2.5	0.9	0	1.9	1.6	0.7	0	1	0	0	1.1

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	157	73	230	120	**62**	**182**	54	162	**216**	628
05:00 PM	156	**104**	260	116	53	169	61	147	208	637
05:15 PM	**169**	97	**266**	124	56	180	**67**	149	216	**662**
05:30 PM	161	98	259	**125**	52	177	36	**164**	200	636
Total Volume	643	372	1015	485	223	708	218	622	840	2563
% App. Total	63.3	36.7		68.5	31.5		26	74		
PHF	.951	.894	.954	.970	.899	.973	.813	.948	.972	.968

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar PM
Site Code : 05117783
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:30 PM		
+0 mins.	157	73	230	120	**62**	**182**	**79**	153	**232**
+15 mins.	156	**104**	260	116	53	169	54	**162**	216
+30 mins.	**169**	97	**266**	124	56	180	61	147	208
+45 mins.	161	98	259	**125**	52	177	67	149	216
Total Volume	643	372	1015	485	223	708	261	611	872
% App. Total	63.3	36.7		68.5	31.5		29.9	70.1	
PHF	.951	.894	.954	.970	.899	.973	.826	.943	.940

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City of Irwindale
N/S: Avenida Barbosa
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Weather: Clear

File Name : 15_IRW_AB Ar PM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

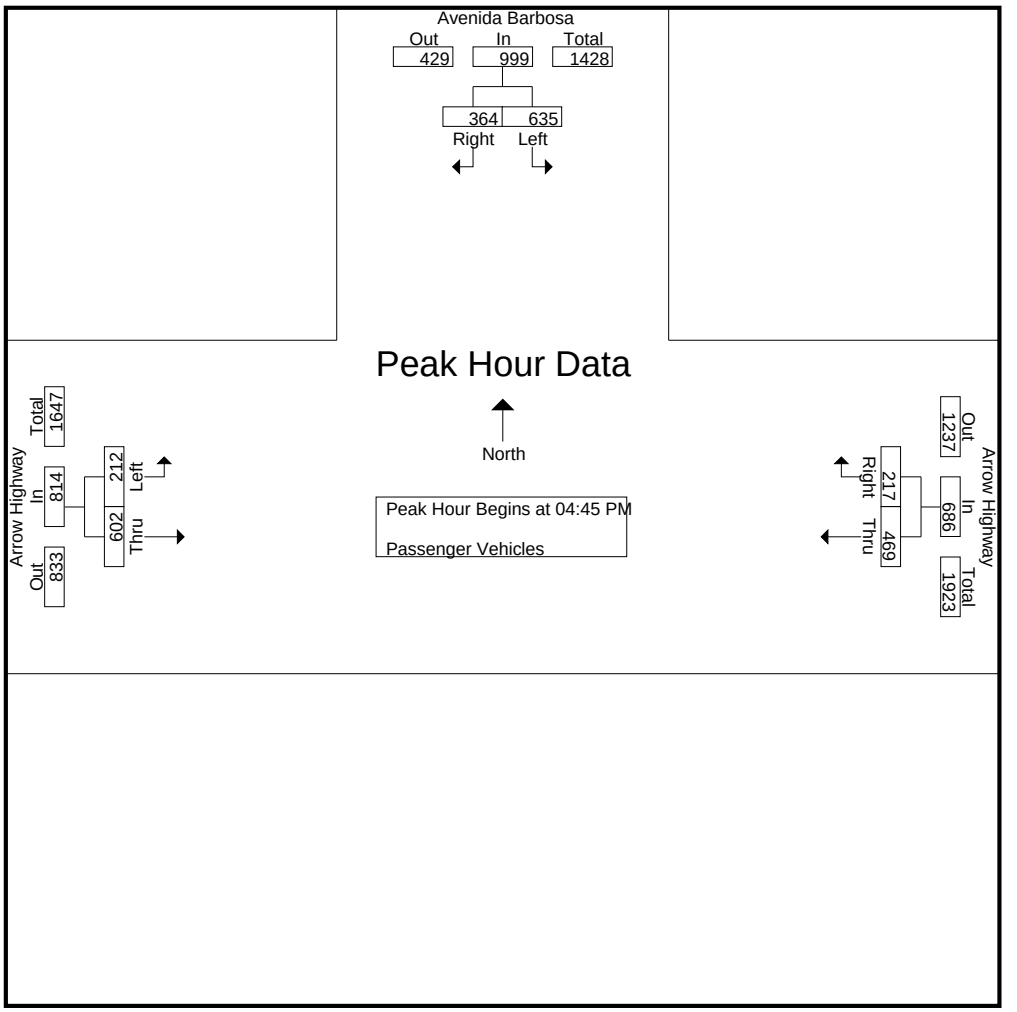
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	113	45	27	158	83	39	3	122	51	103	0	154	30	434	464
04:15 PM	82	56	32	138	90	62	14	152	44	149	0	193	46	483	529
04:30 PM	111	77	32	188	94	57	9	151	77	148	0	225	41	564	605
04:45 PM	155	70	16	225	117	61	17	178	53	157	0	210	33	613	646
Total	461	248	107	709	384	219	43	603	225	557	0	782	150	2094	2244
05:00 PM	152	101	41	253	113	49	24	162	60	138	0	198	65	613	678
05:15 PM	169	95	39	264	120	55	22	175	65	146	0	211	61	650	711
05:30 PM	159	98	34	257	119	52	13	171	34	161	0	195	47	623	670
05:45 PM	108	87	39	195	116	42	12	158	46	164	0	210	51	563	614
Total	588	381	153	969	468	198	71	666	205	609	0	814	224	2449	2673
Grand Total	1049	629	260	1678	852	417	114	1269	430	1166	0	1596	374	4543	4917
Apprch %	62.5	37.5			67.1	32.9			26.9	73.1					
Total %	23.1	13.8		36.9	18.8	9.2		27.9	9.5	25.7		35.1	7.6	92.4	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	155	70	225	117	**61**	**178**	53	157	210	613
05:00 PM	152	**101**	253	113	49	162	60	138	198	613
05:15 PM	**169**	95	**264**	**120**	55	175	**65**	146	**211**	**650**
05:30 PM	159	98	257	119	52	171	34	**161**	195	623
Total Volume	635	364	999	469	217	686	212	602	814	2499
% App. Total	63.6	36.4		68.4	31.6		26	74		
PHF	.939	.901	.946	.977	.889	.963	.815	.935	.964	.961

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	155	70	225	117	**61**	**178**	53	157	210
+15 mins.	152	**101**	253	113	49	162	60	138	198
+30 mins.	**169**	95	**264**	**120**	55	175	**65**	146	**211**
+45 mins.	159	98	257	119	52	171	34	**161**	195
Total Volume	635	364	999	469	217	686	212	602	814
% App. Total	63.6	36.4		68.4	31.6		26	74	
PHF	.939	.901	.946	.977	.889	.963	.815	.935	.964

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar PM
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Groups Printed- Large 2 Axle Vehicles

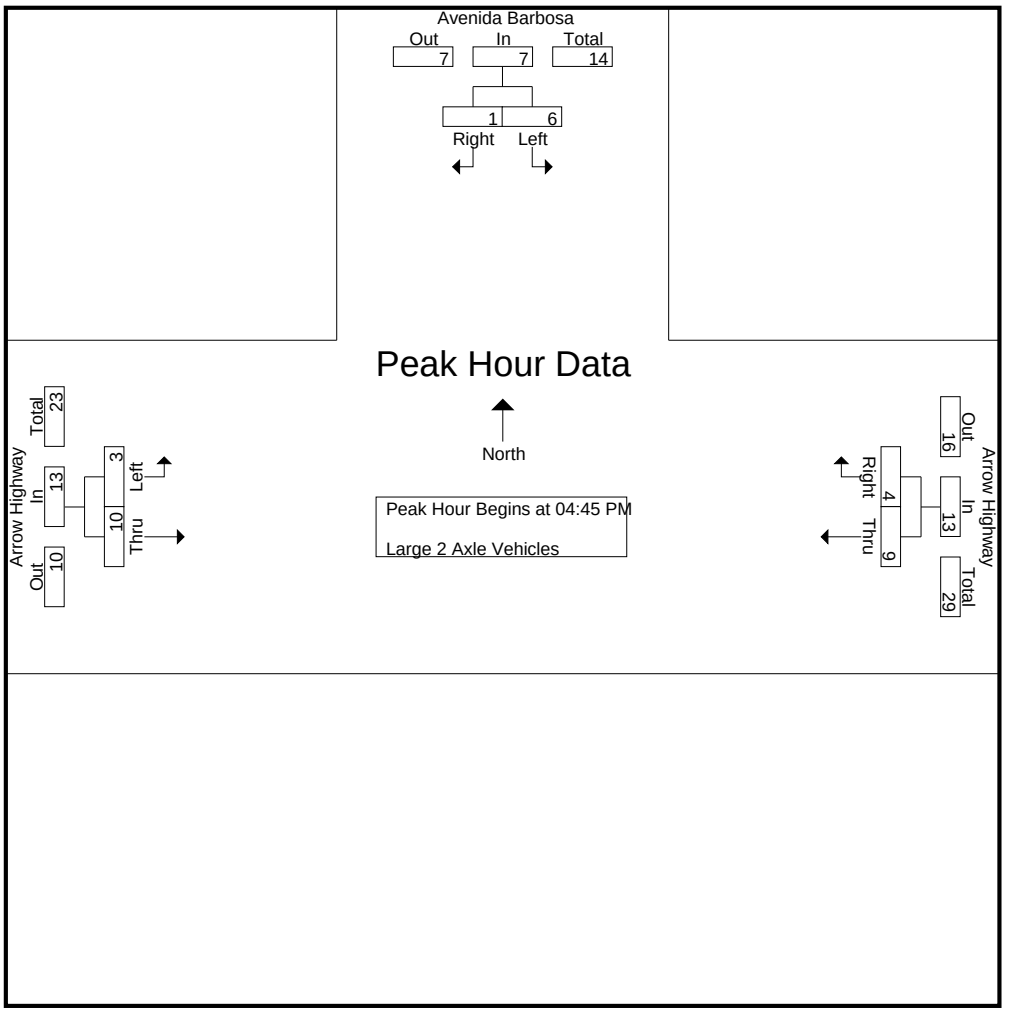
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	1	1	6	5	1	0	6	2	2	0	4	1	16	17
04:15 PM	6	3	1	9	5	2	0	7	2	6	0	8	1	24	25
04:30 PM	4	2	0	6	9	1	0	10	1	2	0	3	0	19	19
04:45 PM	2	0	0	2	3	1	0	4	0	2	0	2	0	8	8
Total	17	6	2	23	22	5	0	27	5	12	0	17	2	67	69
05:00 PM	3	0	0	3	1	3	0	4	0	6	0	6	0	13	13
05:15 PM	0	1	0	1	2	0	0	2	2	0	0	2	0	5	5
05:30 PM	1	0	0	1	3	0	0	3	1	2	0	3	0	7	7
05:45 PM	2	0	0	2	2	1	1	3	0	4	0	4	1	9	10
Total	6	1	0	7	8	4	1	12	3	12	0	15	1	34	35
Grand Total	23	7	2	30	30	9	1	39	8	24	0	32	3	101	104
Apprch %	76.7	23.3			76.9	23.1			25	75					
Total %	22.8	6.9		29.7	29.7	8.9		38.6	7.9	23.8		31.7	2.9	97.1	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	2	0	2	**3**	1	**4**	0	2	2	8
05:00 PM	**3**	0	**3**	1	**3**	4	0	**6**	**6**	**13**
05:15 PM	0	**1**	1	2	0	2	**2**	0	2	5
05:30 PM	1	0	1	3	0	3	1	2	3	7
Total Volume	6	1	7	9	4	13	3	10	13	33
% App. Total	85.7	14.3		69.2	30.8		23.1	76.9		
PHF	.500	.250	.583	.750	.333	.813	.375	.417	.542	.635

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

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Site Code : 05117783
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	2	0	2	**3**	1	**4**	0	2	2
+15 mins.	**3**	0	**3**	1	**3**	4	0	**6**	**6**
+30 mins.	0	**1**	1	2	0	2	**2**	0	2
+45 mins.	1	0	1	3	0	3	1	2	3
Total Volume	6	1	7	9	4	13	3	10	13
% App. Total	85.7	14.3		69.2	30.8		23.1	76.9	
PHF	.500	.250	.583	.750	.333	.813	.375	.417	.542

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar PM
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Groups Printed- 3 Axle Vehicles

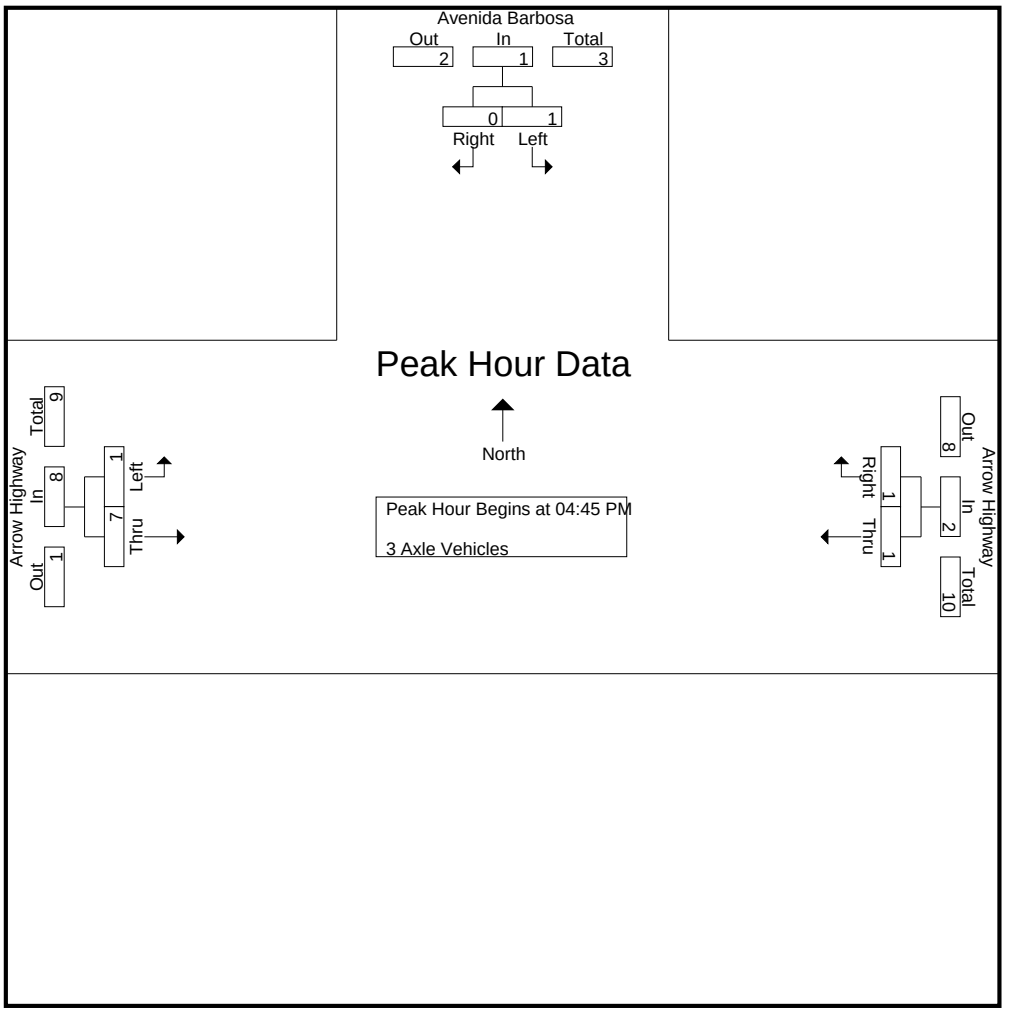
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	2	0	0	2	1	1	0	2	0	4	4
04:15 PM	0	1	1	1	3	0	0	3	1	2	0	3	1	7	8
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	1	2	0	3	0	3	3
Total	0	1	1	1	6	0	0	6	3	5	0	8	1	15	16
05:00 PM	1	0	0	1	0	1	0	1	0	2	0	2	0	4	4
05:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	0	3	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
05:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	2	2
Total	1	0	0	1	2	1	0	3	0	6	0	6	0	10	10
Grand Total	1	1	1	2	8	1	0	9	3	11	0	14	1	25	26
Apprch %	50	50			88.9	11.1			21.4	78.6					
Total %	4	4		8	32	4		36	12	44		56	3.8	96.2	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	**1**	**2**	**3**	3
05:00 PM	**1**	0	**1**	0	**1**	**1**	0	2	2	**4**
05:15 PM	0	0	0	**1**	0	1	0	2	2	3
05:30 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	1	0	1	1	1	2	1	7	8	11
% App. Total	100	0		50	50		12.5	87.5		
PHF	.250	.000	.250	.250	.250	.500	.250	.875	.667	.688

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City of Irwindale
N/S: Avenida Barbosa
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Weather: Clear

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	**1**	**2**	**3**
+15 mins.	**1**	0	**1**	0	**1**	**1**	0	2	2
+30 mins.	0	0	0	**1**	0	1	0	2	2
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	1	0	1	1	1	2	1	7	8
% App. Total	100	0		50	50		12.5	87.5	
PHF	.250	.000	.250	.250	.250	.500	.250	.875	.667

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

File Name : 15_IRW_AB Ar PM
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Groups Printed- 4+ Axle Trucks

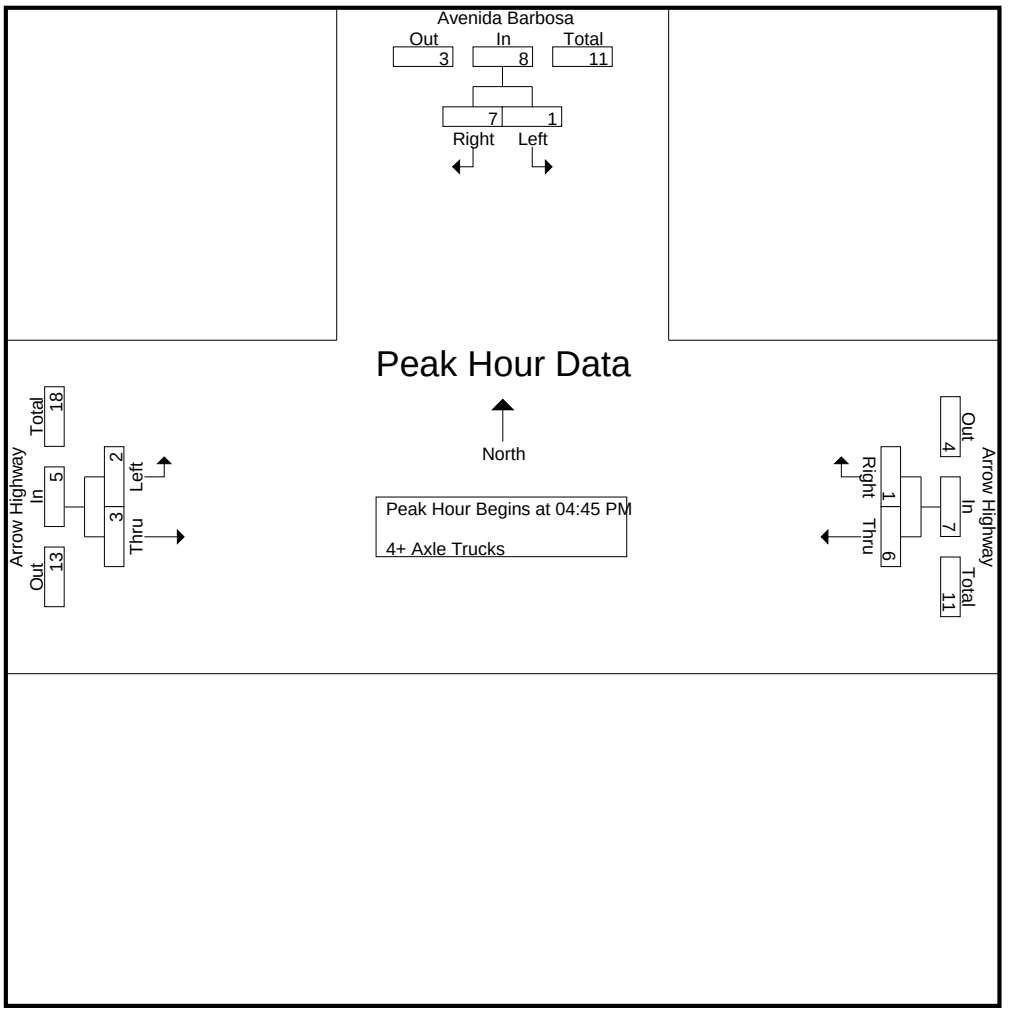
	Avenida Barbosa Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	0	2	4	0	0	4	3	1	0	4	0	10	10
04:15 PM	1	0	0	1	4	1	0	5	1	1	0	2	0	8	8
04:30 PM	1	0	0	1	7	1	0	8	1	3	0	4	0	13	13
04:45 PM	0	3	1	3	0	0	0	0	0	1	0	1	1	4	5
Total	3	4	1	7	15	2	0	17	5	6	0	11	1	35	36
05:00 PM	0	3	1	3	2	0	0	2	1	1	0	2	1	7	8
05:15 PM	0	1	0	1	1	1	0	2	0	1	0	1	0	4	4
05:30 PM	1	0	0	1	3	0	0	3	1	0	0	1	0	5	5
05:45 PM	0	0	0	0	2	1	0	3	0	1	0	1	0	4	4
Total	1	4	1	5	8	2	0	10	2	3	0	5	1	20	21
Grand Total	4	8	2	12	23	4	0	27	7	9	0	16	2	55	57
Apprch %	33.3	66.7			85.2	14.8			43.8	56.2					
Total %	7.3	14.5		21.8	41.8	7.3		49.1	12.7	16.4		29.1	3.5	96.5	

	Avenida Barbosa Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**3**	**3**	0	0	0	0	**1**	1	4
05:00 PM	0	3	3	2	0	2	**1**	1	**2**	**7**
05:15 PM	0	1	1	1	**1**	2	0	1	1	4
05:30 PM	**1**	0	1	**3**	0	**3**	1	0	1	5
Total Volume	1	7	8	6	1	7	2	3	5	20
% App. Total	12.5	87.5		85.7	14.3		40	60		
PHF	.250	.583	.667	.500	.250	.583	.500	.750	.625	.714

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City of Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway
Weather: Clear

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**3**	**3**	0	0	0	0	**1**	1
+15 mins.	0	3	3	2	0	2	**1**	1	**2**
+30 mins.	0	1	1	1	**1**	2	0	1	1
+45 mins.	**1**	0	1	**3**	0	**3**	1	0	1
Total Volume	1	7	8	6	1	7	2	3	5
% App. Total	12.5	87.5		85.7	14.3		40	60	
PHF	.250	.583	.667	.500	.250	.583	.500	.750	.625

Location: Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Avenida Barbosa	East Leg Arrow Highway	South Leg Dead End	West Leg Avenida Barbosa	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Avenida Barbosa	East Leg Arrow Highway	South Leg Dead End	West Leg Avenida Barbosa	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: Avenida Barbosa
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Avenida Barbosa	East Leg Arrow Highway	South Leg Dead End	West Leg Avenida Barbosa	TOTAL
7:00 AM	1	0	0	0	1
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	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	0	2

	North Leg Avenida Barbosa	East Leg Arrow Highway	South Leg Dead End	West Leg Avenida Barbosa	TOTAL
4:00 PM	0	0	0	1	1
4:15 PM	0	0	3	2	5
4:30 PM	0	0	1	1	2
4:45 PM	1	0	0	0	1
5:00 PM	0	0	1	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
TOTAL VOLUMES:	2	0	5	4	11

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

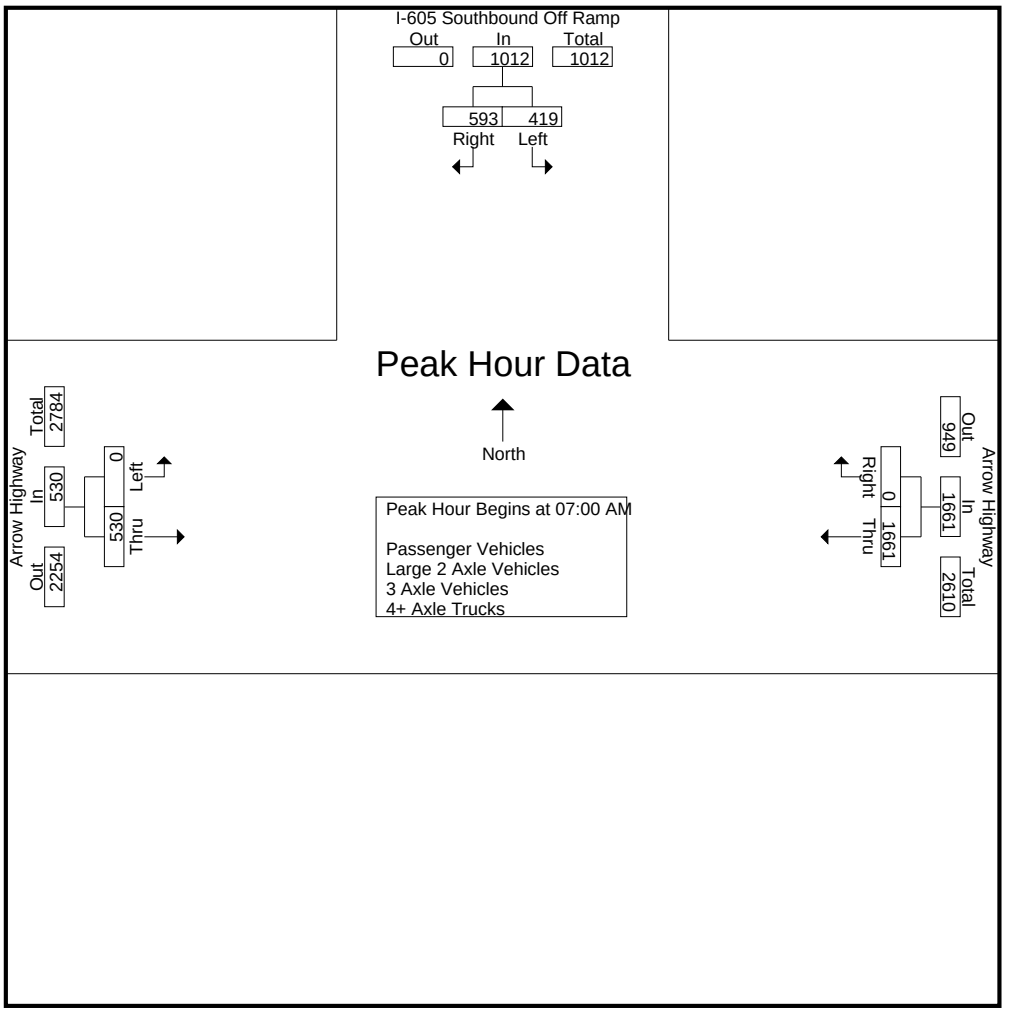
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	91	113	0	204	475	0	0	475	0	91	0	91	0	770	770
07:15 AM	75	142	0	217	464	0	0	464	0	122	0	122	0	803	803
07:30 AM	96	174	0	270	403	0	0	403	0	155	0	155	0	828	828
07:45 AM	157	164	0	321	319	0	0	319	0	162	0	162	0	802	802
Total	419	593	0	1012	1661	0	0	1661	0	530	0	530	0	3203	3203
08:00 AM	162	130	0	292	292	0	0	292	0	142	0	142	0	726	726
08:15 AM	125	136	0	261	280	0	0	280	0	110	0	110	0	651	651
08:30 AM	92	117	0	209	218	0	0	218	0	143	0	143	0	570	570
08:45 AM	89	128	0	217	174	0	0	174	0	109	0	109	0	500	500
Total	468	511	0	979	964	0	0	964	0	504	0	504	0	2447	2447
Grand Total	887	1104	0	1991	2625	0	0	2625	0	1034	0	1034	0	5650	5650
Apprch %	44.6	55.4			100	0			0	100					
Total %	15.7	19.5		35.2	46.5	0		46.5	0	18.3		18.3	0	100	
Passenger Vehicles	836	1022		1858	2509	0		2509	0	842		842	0	0	5209
% Passenger Vehicles	94.3	92.6	0	93.3	95.6	0	0	95.6	0	81.4	0	81.4	0	0	92.2
Large 2 Axle Vehicles	25	22		47	69	0		69	0	85		85	0	0	201
% Large 2 Axle Vehicles	2.8	2	0	2.4	2.6	0	0	2.6	0	8.2	0	8.2	0	0	3.6
3 Axle Vehicles	5	17		22	23	0		23	0	61		61	0	0	106
% 3 Axle Vehicles	0.6	1.5	0	1.1	0.9	0	0	0.9	0	5.9	0	5.9	0	0	1.9
4+ Axle Trucks	21	43		64	24	0		24	0	46		46	0	0	134
% 4+ Axle Trucks	2.4	3.9	0	3.2	0.9	0	0	0.9	0	4.4	0	4.4	0	0	2.4

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	91	113	204	**475**	0	**475**	0	91	91	770
07:15 AM	75	142	217	464	0	464	0	122	122	803
07:30 AM	96	**174**	270	403	0	403	0	155	155	**828**
07:45 AM	**157**	164	**321**	319	0	319	0	**162**	**162**	802
Total Volume	419	593	1012	1661	0	1661	0	530	530	3203
% App. Total	41.4	58.6		100	0		0	100		
PHF	.667	.852	.788	.874	.000	.874	.000	.818	.818	.967

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

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Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:15 AM		
+0 mins.	96	**174**	270	**475**	0	**475**	0	122	122
+15 mins.	157	164	**321**	464	0	464	0	155	155
+30 mins.	**162**	130	292	403	0	403	0	**162**	**162**
+45 mins.	125	136	261	319	0	319	0	142	142
Total Volume	540	604	1144	1661	0	1661	0	581	581
% App. Total	47.2	52.8		100	0		0	100	
PHF	.833	.868	.891	.874	.000	.874	.000	.897	.897

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

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Groups Printed- Passenger Vehicles

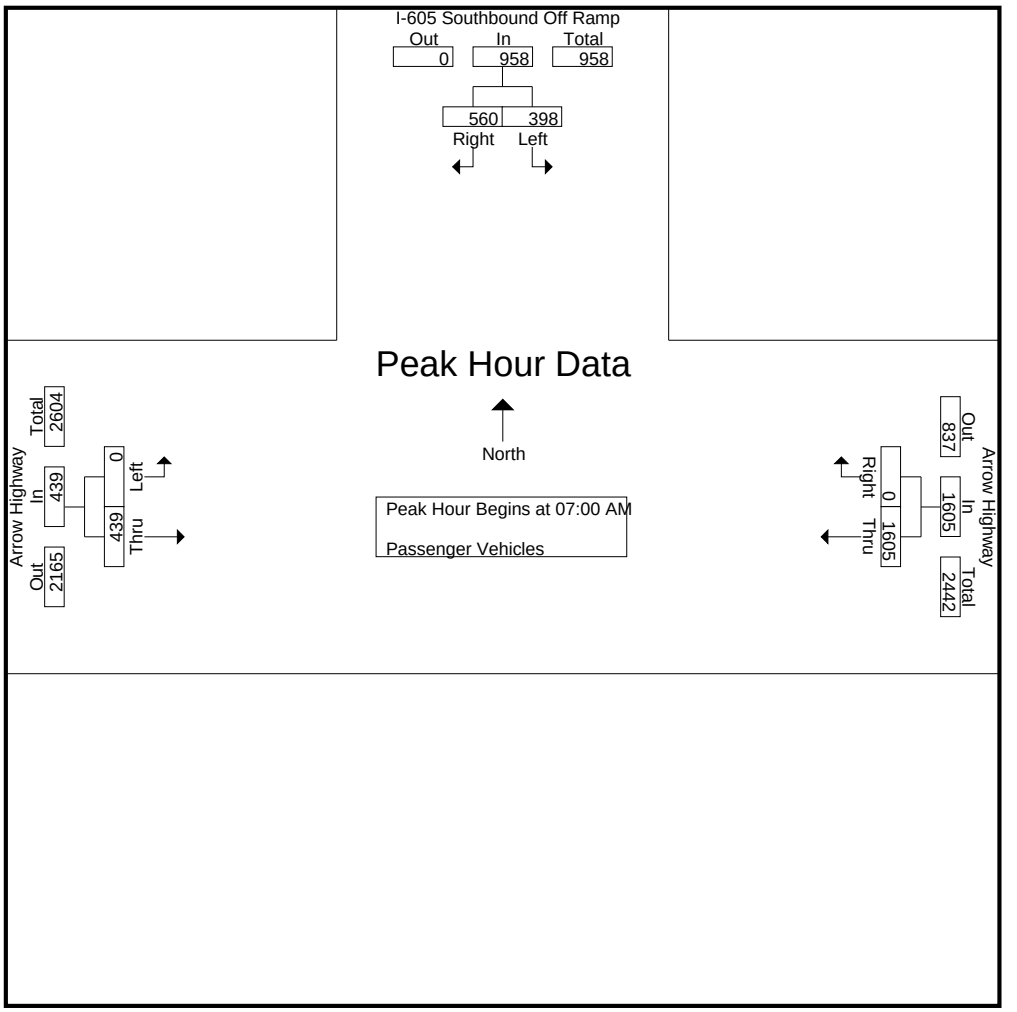
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	89	100	0	189	454	0	0	454	0	68	0	68	0	711	711
07:15 AM	68	134	0	202	447	0	0	447	0	99	0	99	0	748	748
07:30 AM	90	171	0	261	396	0	0	396	0	137	0	137	0	794	794
07:45 AM	151	155	0	306	308	0	0	308	0	135	0	135	0	749	749
Total	398	560	0	958	1605	0	0	1605	0	439	0	439	0	3002	3002
08:00 AM	155	122	0	277	278	0	0	278	0	118	0	118	0	673	673
08:15 AM	116	121	0	237	263	0	0	263	0	90	0	90	0	590	590
08:30 AM	87	111	0	198	203	0	0	203	0	108	0	108	0	509	509
08:45 AM	80	108	0	188	160	0	0	160	0	87	0	87	0	435	435
Total	438	462	0	900	904	0	0	904	0	403	0	403	0	2207	2207
Grand Total	836	1022	0	1858	2509	0	0	2509	0	842	0	842	0	5209	5209
Apprch %	45	55			100	0			0	100					
Total %	16	19.6		35.7	48.2	0		48.2	0	16.2		16.2	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	89	100	189	**454**	0	**454**	0	68	68	711
07:15 AM	68	134	202	447	0	447	0	99	99	748
07:30 AM	90	**171**	261	396	0	396	0	**137**	**137**	**794**
07:45 AM	**151**	155	**306**	308	0	308	0	135	135	749
Total Volume	398	560	958	1605	0	1605	0	439	439	3002
% App. Total	41.5	58.5		100	0		0	100		
PHF	.659	.819	.783	.884	.000	.884	.000	.801	.801	.945

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

City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	89	100	189	**454**	0	**454**	0	68	68
+15 mins.	68	134	202	447	0	447	0	99	99
+30 mins.	90	**171**	261	396	0	396	0	**137**	**137**
+45 mins.	**151**	155	**306**	308	0	308	0	135	135
Total Volume	398	560	958	1605	0	1605	0	439	439
% App. Total	41.5	58.5		100	0		0	100	
PHF	.659	.819	.783	.884	.000	.884	.000	.801	.801

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

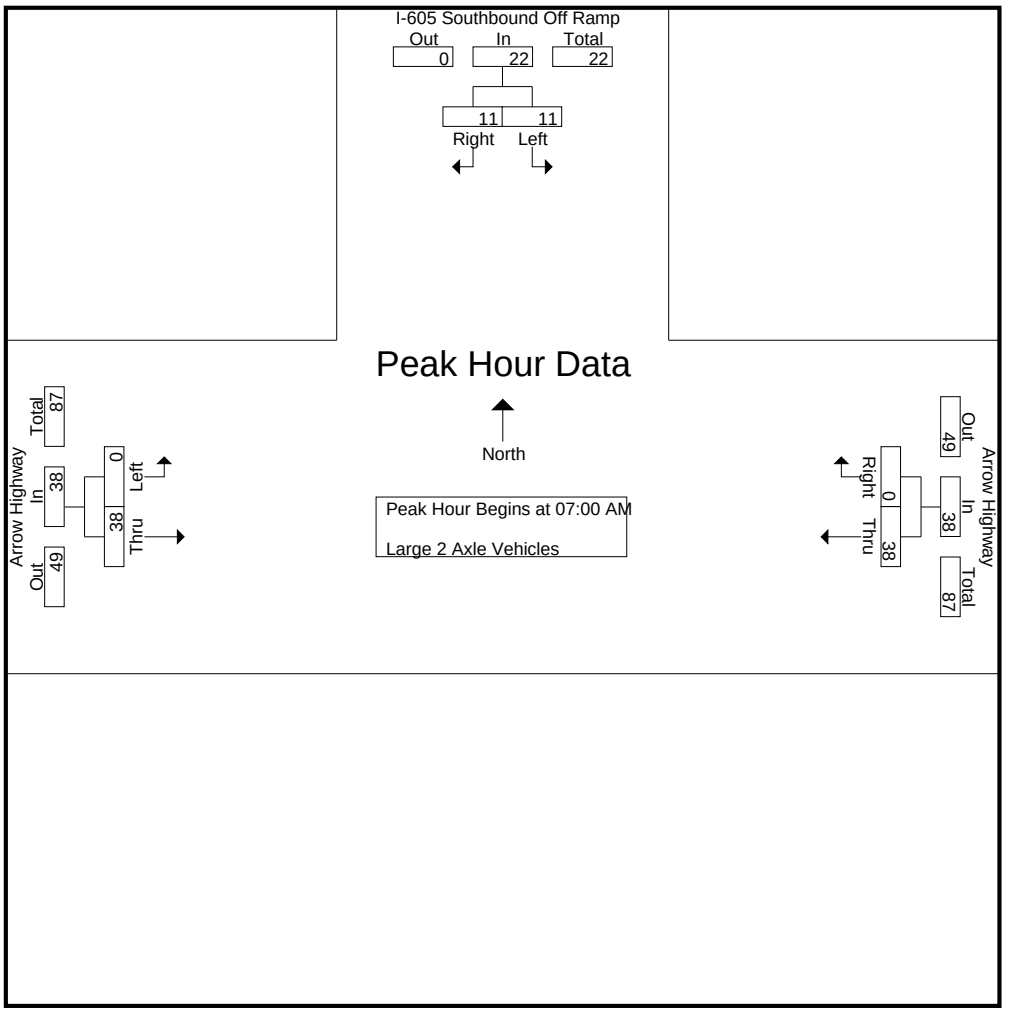
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	5	0	6	13	0	0	13	0	10	0	10	0	29	29
07:15 AM	4	3	0	7	11	0	0	11	0	7	0	7	0	25	25
07:30 AM	2	1	0	3	5	0	0	5	0	10	0	10	0	18	18
07:45 AM	4	2	0	6	9	0	0	9	0	11	0	11	0	26	26
Total	11	11	0	22	38	0	0	38	0	38	0	38	0	98	98
08:00 AM	3	2	0	5	8	0	0	8	0	12	0	12	0	25	25
08:15 AM	5	1	0	6	10	0	0	10	0	13	0	13	0	29	29
08:30 AM	3	3	0	6	7	0	0	7	0	13	0	13	0	26	26
08:45 AM	3	5	0	8	6	0	0	6	0	9	0	9	0	23	23
Total	14	11	0	25	31	0	0	31	0	47	0	47	0	103	103
Grand Total	25	22	0	47	69	0	0	69	0	85	0	85	0	201	201
Apprch %	53.2	46.8			100	0			0	100					
Total %	12.4	10.9		23.4	34.3	0		34.3	0	42.3		42.3	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**5**	6	**13**	0	**13**	0	10	10	**29**
07:15 AM	**4**	3	**7**	11	0	11	0	7	7	25
07:30 AM	2	1	3	5	0	5	0	10	10	18
07:45 AM	4	2	6	9	0	9	0	**11**	**11**	26
Total Volume	11	11	22	38	0	38	0	38	38	98
% App. Total	50	50		100	0		0	100		
PHF	.688	.550	.786	.731	.000	.731	.000	.864	.864	.845

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	**5**	6	**13**	0	**13**	0	10	10
+15 mins.	**4**	3	**7**	11	0	11	0	7	7
+30 mins.	2	1	3	5	0	5	0	10	10
+45 mins.	4	2	6	9	0	9	0	**11**	**11**
Total Volume	11	11	22	38	0	38	0	38	38
% App. Total	50	50		100	0		0	100	
PHF	.688	.550	.786	.731	.000	.731	.000	.864	.864

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

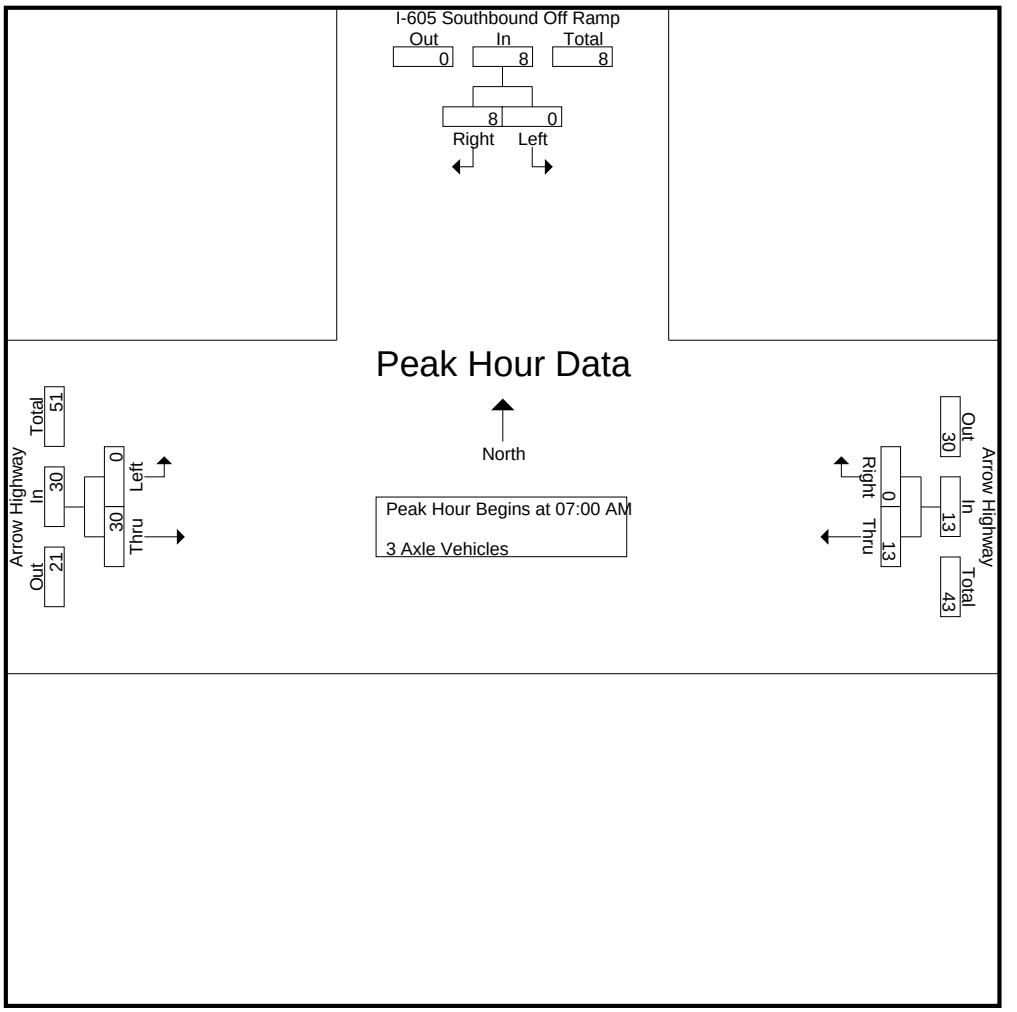
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	0	3	6	0	0	6	0	9	0	9	0	18	18
07:15 AM	0	2	0	2	5	0	0	5	0	12	0	12	0	19	19
07:30 AM	0	1	0	1	1	0	0	1	0	3	0	3	0	5	5
07:45 AM	0	2	0	2	1	0	0	1	0	6	0	6	0	9	9
Total	0	8	0	8	13	0	0	13	0	30	0	30	0	51	51
08:00 AM	0	1	0	1	4	0	0	4	0	7	0	7	0	12	12
08:15 AM	1	3	0	4	2	0	0	2	0	4	0	4	0	10	10
08:30 AM	2	0	0	2	1	0	0	1	0	12	0	12	0	15	15
08:45 AM	2	5	0	7	3	0	0	3	0	8	0	8	0	18	18
Total	5	9	0	14	10	0	0	10	0	31	0	31	0	55	55
Grand Total	5	17	0	22	23	0	0	23	0	61	0	61	0	106	106
Apprch %	22.7	77.3			100	0			0	100					
Total %	4.7	16		20.8	21.7	0		21.7	0	57.5		57.5	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**3**	**3**	**6**	0	**6**	0	9	9	18
07:15 AM	0	2	2	5	0	5	0	**12**	**12**	**19**
07:30 AM	0	1	1	1	0	1	0	3	3	5
07:45 AM	0	2	2	1	0	1	0	6	6	9
Total Volume	0	8	8	13	0	13	0	30	30	51
% App. Total	0	100		100	0		0	100		
PHF	.000	.667	.667	.542	.000	.542	.000	.625	.625	.671

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**3**	**3**	**6**	0	**6**	0	9	9
+15 mins.	0	2	2	5	0	5	0	**12**	**12**
+30 mins.	0	1	1	1	0	1	0	3	3
+45 mins.	0	2	2	1	0	1	0	6	6
Total Volume	0	8	8	13	0	13	0	30	30
% App. Total	0	100		100	0		0	100	
PHF	.000	.667	.667	.542	.000	.542	.000	.625	.625

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 4+ Axle Trucks

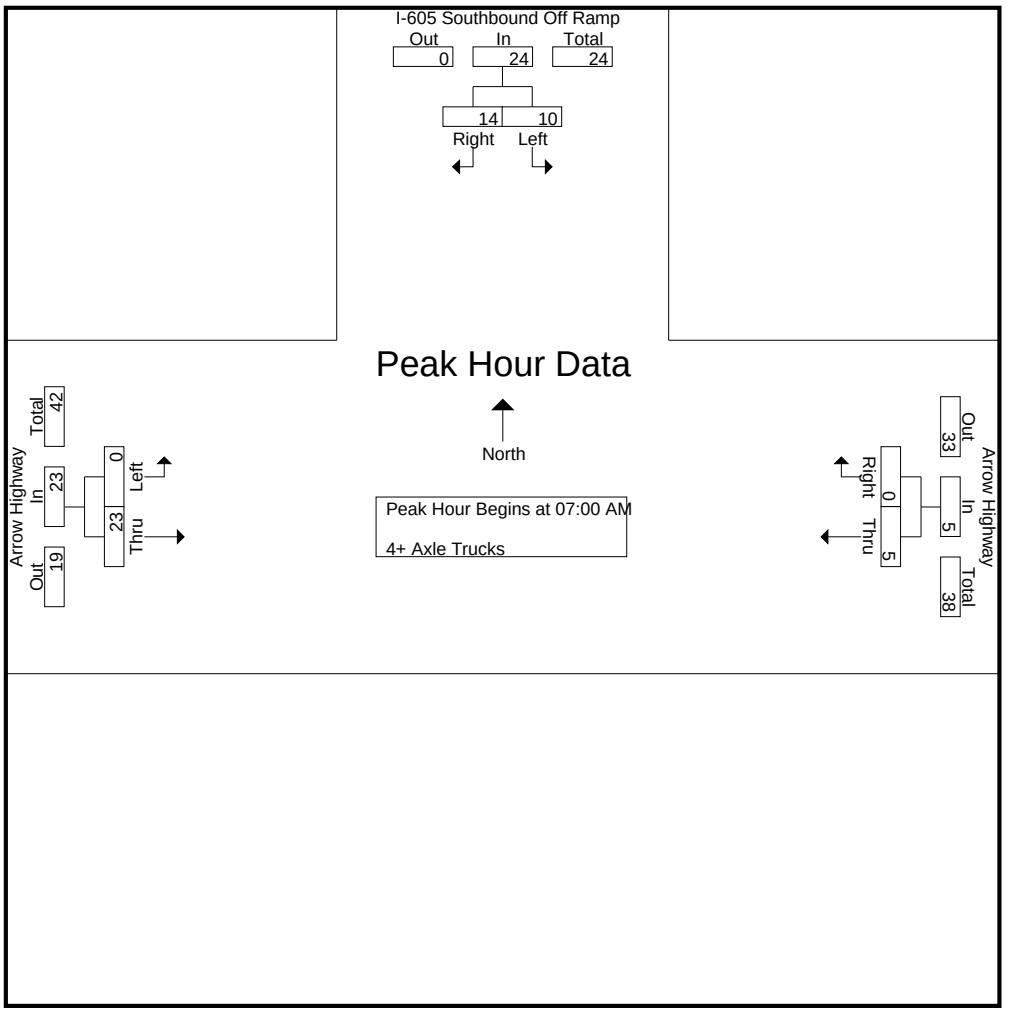
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	5	0	6	2	0	0	2	0	4	0	4	0	12	12
07:15 AM	3	3	0	6	1	0	0	1	0	4	0	4	0	11	11
07:30 AM	4	1	0	5	1	0	0	1	0	5	0	5	0	11	11
07:45 AM	2	5	0	7	1	0	0	1	0	10	0	10	0	18	18
Total	10	14	0	24	5	0	0	5	0	23	0	23	0	52	52
08:00 AM	4	5	0	9	2	0	0	2	0	5	0	5	0	16	16
08:15 AM	3	11	0	14	5	0	0	5	0	3	0	3	0	22	22
08:30 AM	0	3	0	3	7	0	0	7	0	10	0	10	0	20	20
08:45 AM	4	10	0	14	5	0	0	5	0	5	0	5	0	24	24
Total	11	29	0	40	19	0	0	19	0	23	0	23	0	82	82
Grand Total	21	43	0	64	24	0	0	24	0	46	0	46	0	134	134
Apprch %	32.8	67.2			100	0			0	100					
Total %	15.7	32.1		47.8	17.9	0		17.9	0	34.3		34.3	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**5**	6	**2**	0	**2**	0	4	4	12
07:15 AM	3	3	6	1	0	1	0	4	4	11
07:30 AM	**4**	1	5	1	0	1	0	5	5	11
07:45 AM	2	5	**7**	1	0	1	0	**10**	**10**	**18**
Total Volume	10	14	24	5	0	5	0	23	23	52
% App. Total	41.7	58.3		100	0		0	100		
PHF	.625	.700	.857	.625	.000	.625	.000	.575	.575	.722

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	**5**	6	**2**	0	**2**	0	4	4
+15 mins.	3	3	6	1	0	1	0	4	4
+30 mins.	**4**	1	5	1	0	1	0	5	5
+45 mins.	2	5	**7**	1	0	1	0	**10**	**10**
Total Volume	10	14	24	5	0	5	0	23	23
% App. Total	41.7	58.3		100	0		0	100	
PHF	.625	.700	.857	.625	.000	.625	.000	.575	.575

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

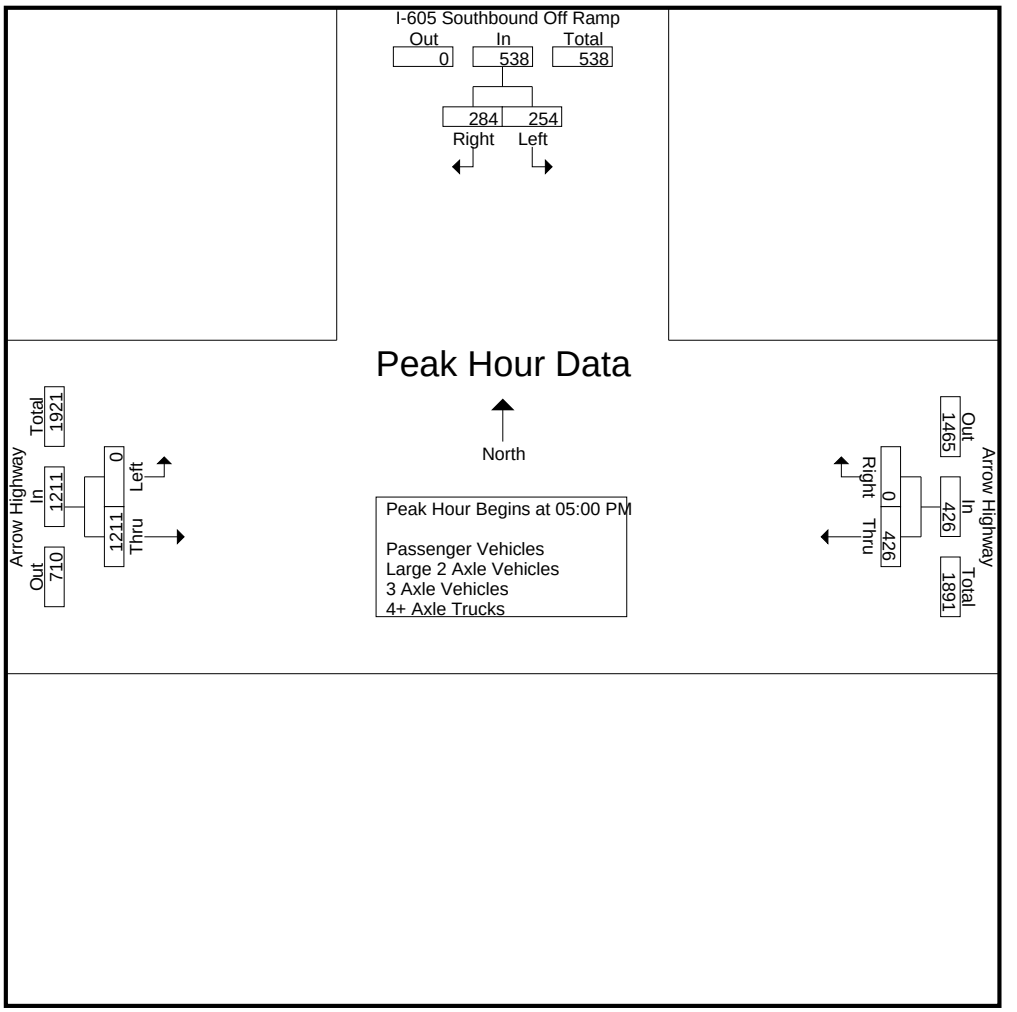
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	65	52	0	117	112	0	0	112	0	260	0	260	0	489	489
04:15 PM	59	61	0	120	102	0	0	102	0	235	0	235	0	457	457
04:30 PM	54	63	0	117	111	0	0	111	0	263	0	263	0	491	491
04:45 PM	60	69	0	129	94	0	0	94	0	283	0	283	0	506	506
Total	238	245	0	483	419	0	0	419	0	1041	0	1041	0	1943	1943
05:00 PM	65	63	0	128	105	0	0	105	0	282	0	282	0	515	515
05:15 PM	68	70	0	138	114	0	0	114	0	316	0	316	0	568	568
05:30 PM	58	80	0	138	106	0	0	106	0	317	0	317	0	561	561
05:45 PM	63	71	0	134	101	0	0	101	0	296	0	296	0	531	531
Total	254	284	0	538	426	0	0	426	0	1211	0	1211	0	2175	2175
Grand Total	492	529	0	1021	845	0	0	845	0	2252	0	2252	0	4118	4118
Apprch %	48.2	51.8			100	0			0	100					
Total %	11.9	12.8		24.8	20.5	0		20.5	0	54.7		54.7	0	100	
Passenger Vehicles	455	473		928	823	0		823	0	2181		2181	0	0	3932
% Passenger Vehicles	92.5	89.4	0	90.9	97.4	0	0	97.4	0	96.8	0	96.8	0	0	95.5
Large 2 Axle Vehicles	17	22		39	14	0		14	0	46		46	0	0	99
% Large 2 Axle Vehicles	3.5	4.2	0	3.8	1.7	0	0	1.7	0	2	0	2	0	0	2.4
3 Axle Vehicles	6	10		16	3	0		3	0	12		12	0	0	31
% 3 Axle Vehicles	1.2	1.9	0	1.6	0.4	0	0	0.4	0	0.5	0	0.5	0	0	0.8
4+ Axle Trucks	14	24		38	5	0		5	0	13		13	0	0	56
% 4+ Axle Trucks	2.8	4.5	0	3.7	0.6	0	0	0.6	0	0.6	0	0.6	0	0	1.4

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	65	63	128	105	0	105	0	282	282	515
05:15 PM	**68**	70	**138**	**114**	0	**114**	0	316	316	**568**
05:30 PM	58	**80**	138	106	0	106	0	**317**	**317**	561
05:45 PM	63	71	134	101	0	101	0	296	296	531
Total Volume	254	284	538	426	0	426	0	1211	1211	2175
% App. Total	47.2	52.8		100	0		0	100		
PHF	.934	.888	.975	.934	.000	.934	.000	.955	.955	.957

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	65	63	128	105	0	105	0	282	282
+15 mins.	**68**	70	**138**	**114**	0	**114**	0	316	316
+30 mins.	58	**80**	138	106	0	106	0	**317**	**317**
+45 mins.	63	71	134	101	0	101	0	296	296
Total Volume	254	284	538	426	0	426	0	1211	1211
% App. Total	47.2	52.8		100	0		0	100	
PHF	.934	.888	.975	.934	.000	.934	.000	.955	.955

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

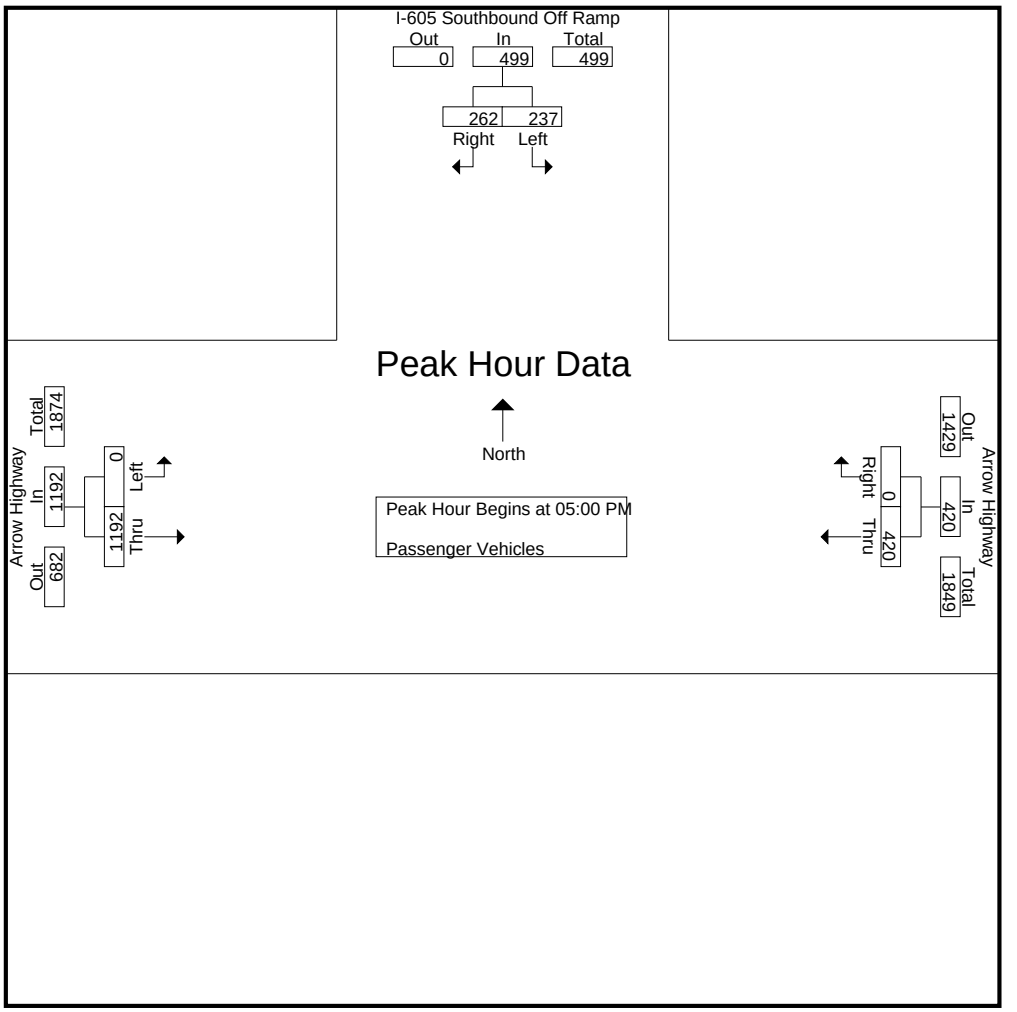
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	59	44	0	103	107	0	0	107	0	244	0	244	0	454	454
04:15 PM	54	52	0	106	98	0	0	98	0	221	0	221	0	425	425
04:30 PM	49	54	0	103	106	0	0	106	0	246	0	246	0	455	455
04:45 PM	56	61	0	117	92	0	0	92	0	278	0	278	0	487	487
Total	218	211	0	429	403	0	0	403	0	989	0	989	0	1821	1821
05:00 PM	59	56	0	115	104	0	0	104	0	277	0	277	0	496	496
05:15 PM	64	66	0	130	112	0	0	112	0	312	0	312	0	554	554
05:30 PM	53	78	0	131	104	0	0	104	0	313	0	313	0	548	548
05:45 PM	61	62	0	123	100	0	0	100	0	290	0	290	0	513	513
Total	237	262	0	499	420	0	0	420	0	1192	0	1192	0	2111	2111
Grand Total	455	473	0	928	823	0	0	823	0	2181	0	2181	0	3932	3932
Apprch %	49	51			100	0			0	100					
Total %	11.6	12		23.6	20.9	0		20.9	0	55.5		55.5	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	59	56	115	104	0	104	0	277	277	496
05:15 PM	**64**	66	130	**112**	0	**112**	0	312	312	**554**
05:30 PM	53	**78**	**131**	104	0	104	0	**313**	**313**	548
05:45 PM	61	62	123	100	0	100	0	290	290	513
Total Volume	237	262	499	420	0	420	0	1192	1192	2111
% App. Total	47.5	52.5		100	0		0	100		
PHF	.926	.840	.952	.938	.000	.938	.000	.952	.952	.953

Counts Unlimited
PO Box 1178
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	59	56	115	104	0	104	0	277	277
+15 mins.	**64**	66	130	**112**	0	**112**	0	312	312
+30 mins.	53	**78**	**131**	104	0	104	0	**313**	**313**
+45 mins.	61	62	123	100	0	100	0	290	290
Total Volume	237	262	499	420	0	420	0	1192	1192
% App. Total	47.5	52.5		100	0		0	100	
PHF	.926	.840	.952	.938	.000	.938	.000	.952	.952

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

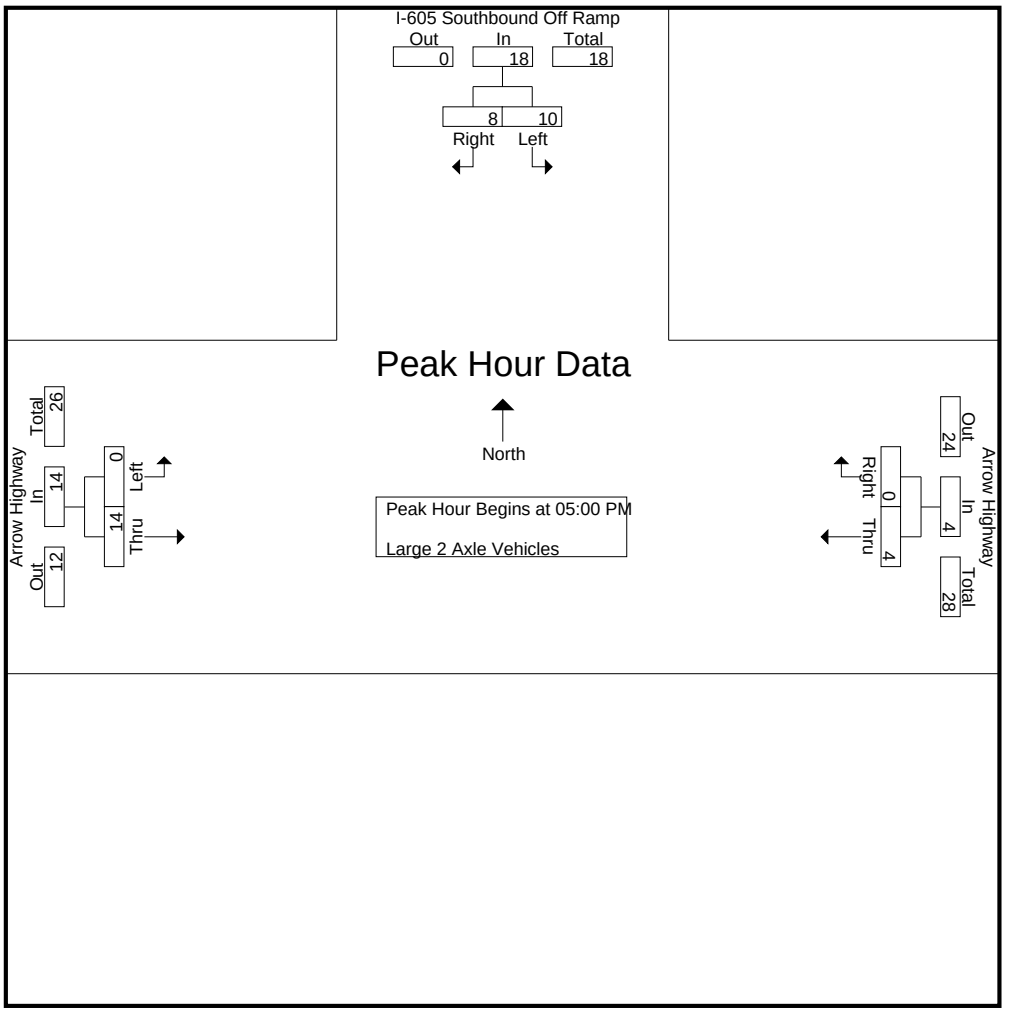
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	4	0	5	1	0	0	1	0	9	0	9	0	15	15
04:15 PM	2	5	0	7	3	0	0	3	0	10	0	10	0	20	20
04:30 PM	3	1	0	4	5	0	0	5	0	10	0	10	0	19	19
04:45 PM	1	4	0	5	1	0	0	1	0	3	0	3	0	9	9
Total	7	14	0	21	10	0	0	10	0	32	0	32	0	63	63
05:00 PM	3	2	0	5	0	0	0	0	0	4	0	4	0	9	9
05:15 PM	2	1	0	3	1	0	0	1	0	3	0	3	0	7	7
05:30 PM	5	1	0	6	2	0	0	2	0	4	0	4	0	12	12
05:45 PM	0	4	0	4	1	0	0	1	0	3	0	3	0	8	8
Total	10	8	0	18	4	0	0	4	0	14	0	14	0	36	36
Grand Total	17	22	0	39	14	0	0	14	0	46	0	46	0	99	99
Apprch %	43.6	56.4			100	0			0	100					
Total %	17.2	22.2		39.4	14.1	0		14.1	0	46.5		46.5	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	3	2	5	0	0	0	0	**4**	**4**	9
05:15 PM	2	1	3	1	0	1	0	3	3	7
05:30 PM	**5**	1	**6**	**2**	0	**2**	0	4	4	**12**
05:45 PM	0	**4**	4	1	0	1	0	3	3	8
Total Volume	10	8	18	4	0	4	0	14	14	36
% App. Total	55.6	44.4		100	0		0	100		
PHF	.500	.500	.750	.500	.000	.500	.000	.875	.875	.750

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	3	2	5	0	0	0	0	**4**	**4**
+15 mins.	2	1	3	1	0	1	0	3	3
+30 mins.	**5**	1	**6**	**2**	0	**2**	0	4	4
+45 mins.	0	**4**	4	1	0	1	0	3	3
Total Volume	10	8	18	4	0	4	0	14	14
% App. Total	55.6	44.4		100	0		0	100	
PHF	.500	.500	.750	.500	.000	.500	.000	.875	.875

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

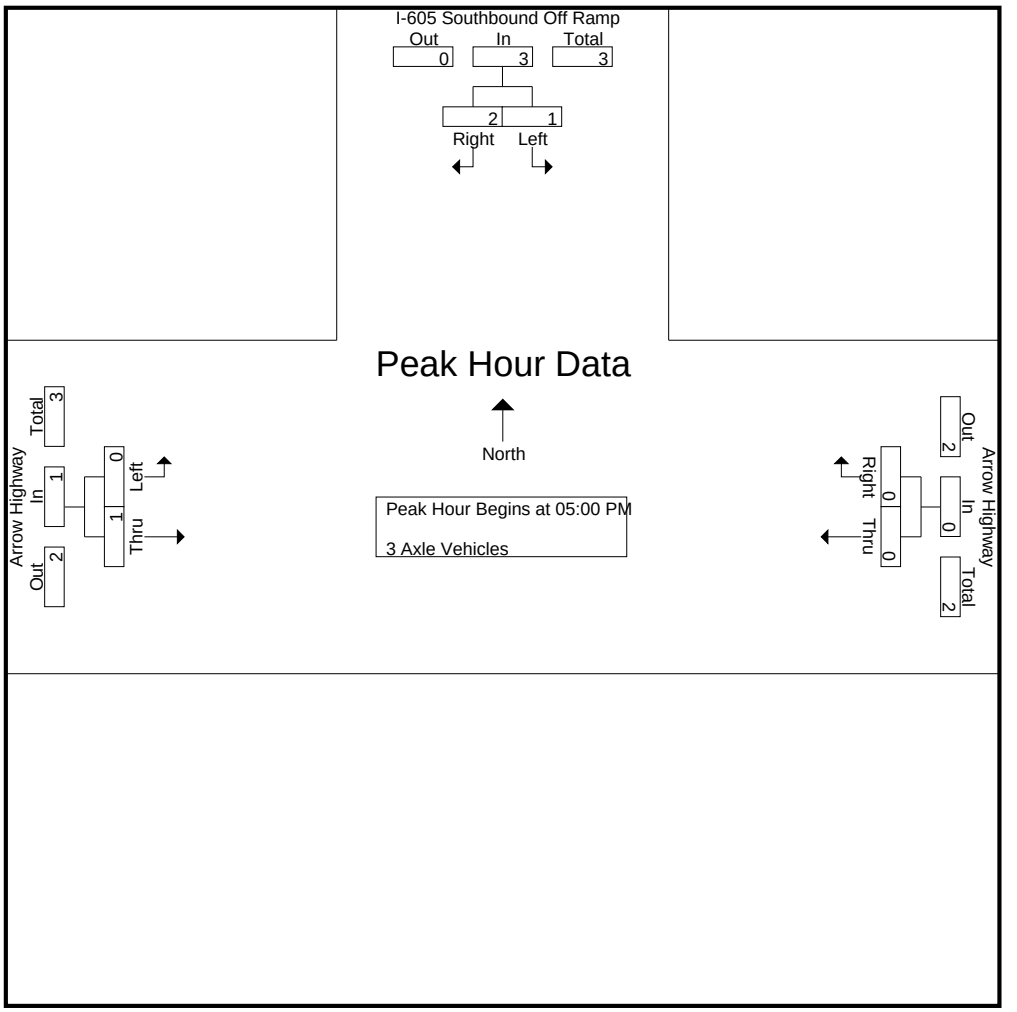
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	1	0	3	1	0	0	1	0	4	0	4	0	8	8
04:15 PM	1	2	0	3	1	0	0	1	0	3	0	3	0	7	7
04:30 PM	1	3	0	4	0	0	0	0	0	4	0	4	0	8	8
04:45 PM	1	2	0	3	1	0	0	1	0	0	0	0	0	4	4
Total	5	8	0	13	3	0	0	3	0	11	0	11	0	27	27
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
Total	1	2	0	3	0	0	0	0	0	1	0	1	0	4	4
Grand Total	6	10	0	16	3	0	0	3	0	12	0	12	0	31	31
Apprch %	37.5	62.5			100	0			0	100					
Total %	19.4	32.3		51.6	9.7	0		9.7	0	38.7		38.7	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**1**	**1**	0	0	0	0	0	0	1
05:15 PM	**1**	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	1	0	0	0	0	**1**	**1**	**2**
Total Volume	1	2	3	0	0	0	0	1	1	4
% App. Total	33.3	66.7		0	0		0	100		
PHF	.250	.500	.750	.000	.000	.000	.000	.250	.250	.500

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	**1**	**1**	0	0	0	0	0	0
+15 mins.	**1**	0	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	**1**	**1**
Total Volume	1	2	3	0	0	0	0	1	1
% App. Total	33.3	66.7		0	0		0	100	
PHF	.250	.500	.750	.000	.000	.000	.000	.250	.250

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

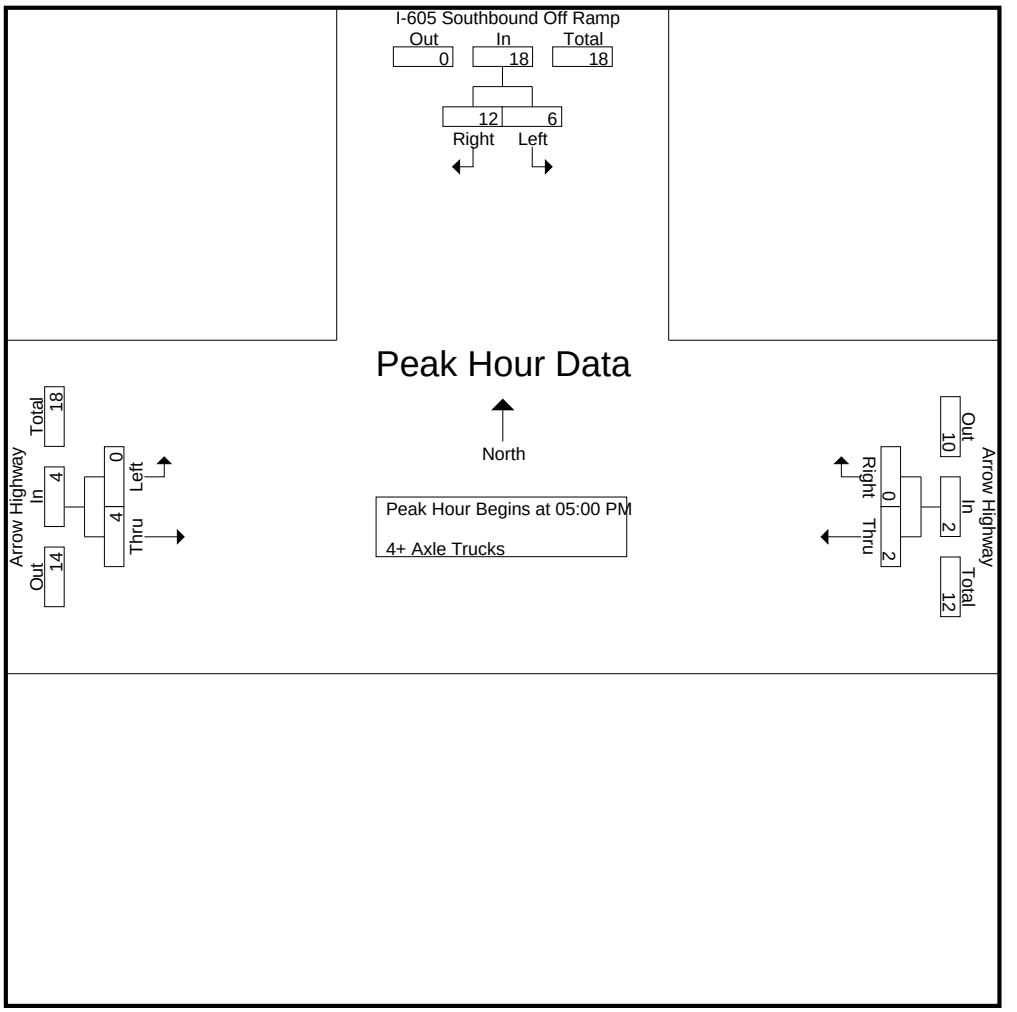
	I-605 Southbound Off Ramp Southbound				Arrow Highway Westbound				Arrow Highway Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	3	0	6	3	0	0	3	0	3	0	3	0	12	12
04:15 PM	2	2	0	4	0	0	0	0	0	1	0	1	0	5	5
04:30 PM	1	5	0	6	0	0	0	0	0	3	0	3	0	9	9
04:45 PM	2	2	0	4	0	0	0	0	0	2	0	2	0	6	6
Total	8	12	0	20	3	0	0	3	0	9	0	9	0	32	32
05:00 PM	3	4	0	7	1	0	0	1	0	1	0	1	0	9	9
05:15 PM	1	3	0	4	1	0	0	1	0	1	0	1	0	6	6
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	2	4	0	6	0	0	0	0	0	2	0	2	0	8	8
Total	6	12	0	18	2	0	0	2	0	4	0	4	0	24	24
Grand Total	14	24	0	38	5	0	0	5	0	13	0	13	0	56	56
Apprch %	36.8	63.2			100	0			0	100					
Total %	25	42.9		67.9	8.9	0		8.9	0	23.2		23.2	0	100	

	I-605 Southbound Off Ramp Southbound			Arrow Highway Westbound			Arrow Highway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**3**	**4**	**7**	**1**	0	**1**	0	1	1	**9**
05:15 PM	1	3	4	1	0	1	0	1	1	6
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	2	4	6	0	0	0	0	**2**	**2**	8
Total Volume	6	12	18	2	0	2	0	4	4	24
% App. Total	33.3	66.7		100	0		0	100		
PHF	.500	.750	.643	.500	.000	.500	.000	.500	.500	.667

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City of Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway
Weather: Clear

File Name : 16_IRW_605S Off Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	**3**	**4**	**7**	**1**	0	**1**	0	1	1
+15 mins.	1	3	4	1	0	1	0	1	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	2	4	6	0	0	0	0	**2**	**2**
Total Volume	6	12	18	2	0	2	0	4	4
% App. Total	33.3	66.7		100	0		0	100	
PHF	.500	.750	.643	.500	.000	.500	.000	.500	.500

Location: Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg I-605 SB Off Ramp	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-605 SB Off Ramp	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: I-605 Southbound Off Ramp
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg I-605 SB Off Ramp	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
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	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg I-605 SB Off Ramp	East Leg Arrow Highway	South Leg Dead End	West Leg Arrow Highway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	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	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	0	2

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

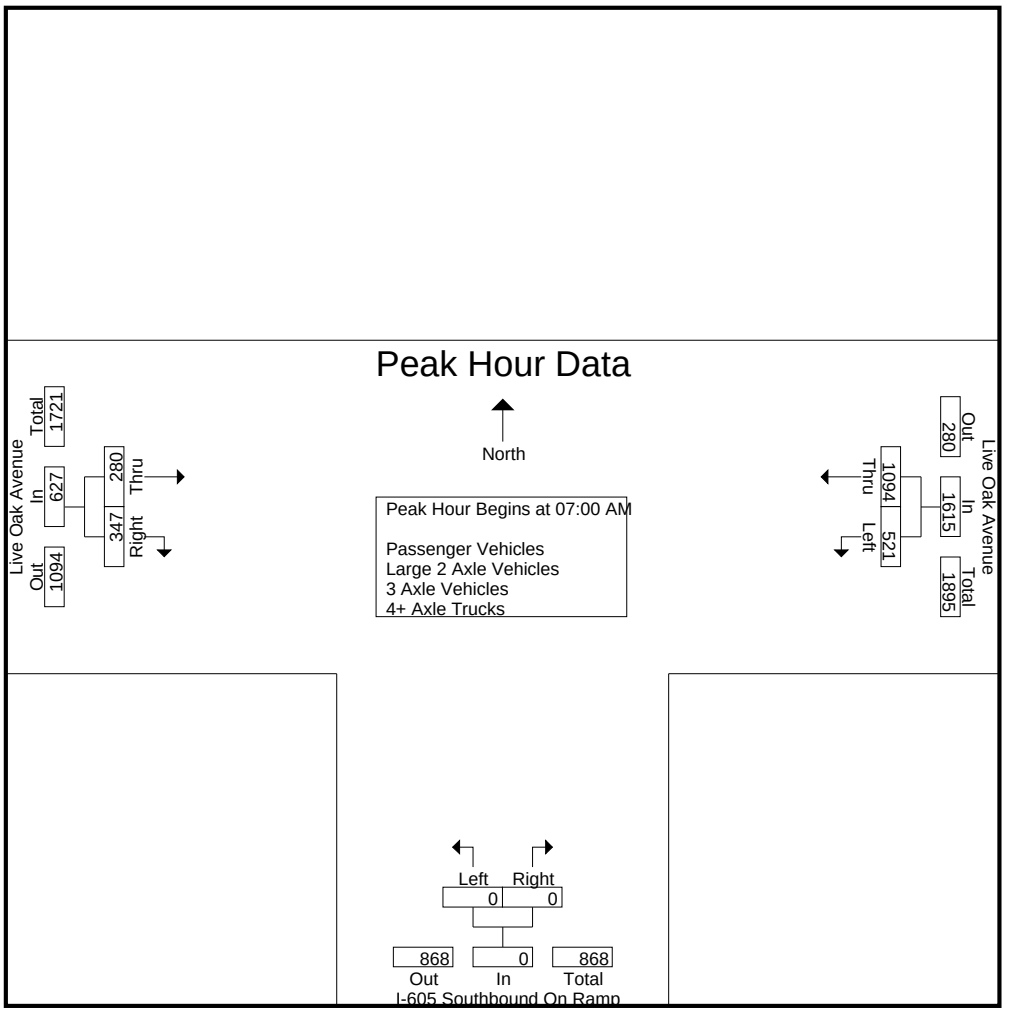
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	159	283	0	442	0	0	0	0	64	85	0	149	0	591	591
07:15 AM	117	277	0	394	0	0	0	0	53	114	0	167	0	561	561
07:30 AM	115	256	0	371	0	0	0	0	68	84	0	152	0	523	523
07:45 AM	130	278	0	408	0	0	0	0	95	64	0	159	0	567	567
Total	521	1094	0	1615	0	0	0	0	280	347	0	627	0	2242	2242
08:00 AM	106	260	0	366	0	0	0	0	89	90	0	179	0	545	545
08:15 AM	86	260	0	346	0	0	0	0	96	86	0	182	0	528	528
08:30 AM	96	227	0	323	0	0	0	0	85	97	0	182	0	505	505
08:45 AM	118	211	0	329	0	0	0	0	76	116	0	192	0	521	521
Total	406	958	0	1364	0	0	0	0	346	389	0	735	0	2099	2099
Grand Total	927	2052	0	2979	0	0	0	0	626	736	0	1362	0	4341	4341
Apprch %	31.1	68.9			0	0			46	54					
Total %	21.4	47.3		68.6	0	0		0	14.4	17		31.4	0	100	
Passenger Vehicles	674	1836		2510	0	0		0	583	586		1169	0	0	3679
% Passenger Vehicles	72.7	89.5	0	84.3	0	0	0	0	93.1	79.6	0	85.8	0	0	84.8
Large 2 Axle Vehicles	70	92		162	0	0		0	26	40		66	0	0	228
% Large 2 Axle Vehicles	7.6	4.5	0	5.4	0	0	0	0	4.2	5.4	0	4.8	0	0	5.3
3 Axle Vehicles	65	48		113	0	0		0	6	42		48	0	0	161
% 3 Axle Vehicles	7	2.3	0	3.8	0	0	0	0	1	5.7	0	3.5	0	0	3.7
4+ Axle Trucks	118	76		194	0	0		0	11	68		79	0	0	273
% 4+ Axle Trucks	12.7	3.7	0	6.5	0	0	0	0	1.8	9.2	0	5.8	0	0	6.3

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**159**	**283**	**442**	0	0	0	64	85	149	**591**
07:15 AM	117	277	394	0	0	0	53	**114**	**167**	561
07:30 AM	115	256	371	0	0	0	68	84	152	523
07:45 AM	130	278	408	0	0	0	**95**	64	159	567
Total Volume	521	1094	1615	0	0	0	280	347	627	2242
% App. Total	32.3	67.7		0	0		44.7	55.3		
PHF	.819	.966	.913	.000	.000	.000	.737	.761	.939	.948

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	**159**	**283**	**442**	0	0	0	89	90	179
+15 mins.	117	277	394	0	0	0	**96**	86	182
+30 mins.	115	256	371	0	0	0	85	97	182
+45 mins.	130	278	408	0	0	0	76	**116**	**192**
Total Volume	521	1094	1615	0	0	0	346	389	735
% App. Total	32.3	67.7		0	0		47.1	52.9	
PHF	.819	.966	.913	.000	.000	.000	.901	.838	.957

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

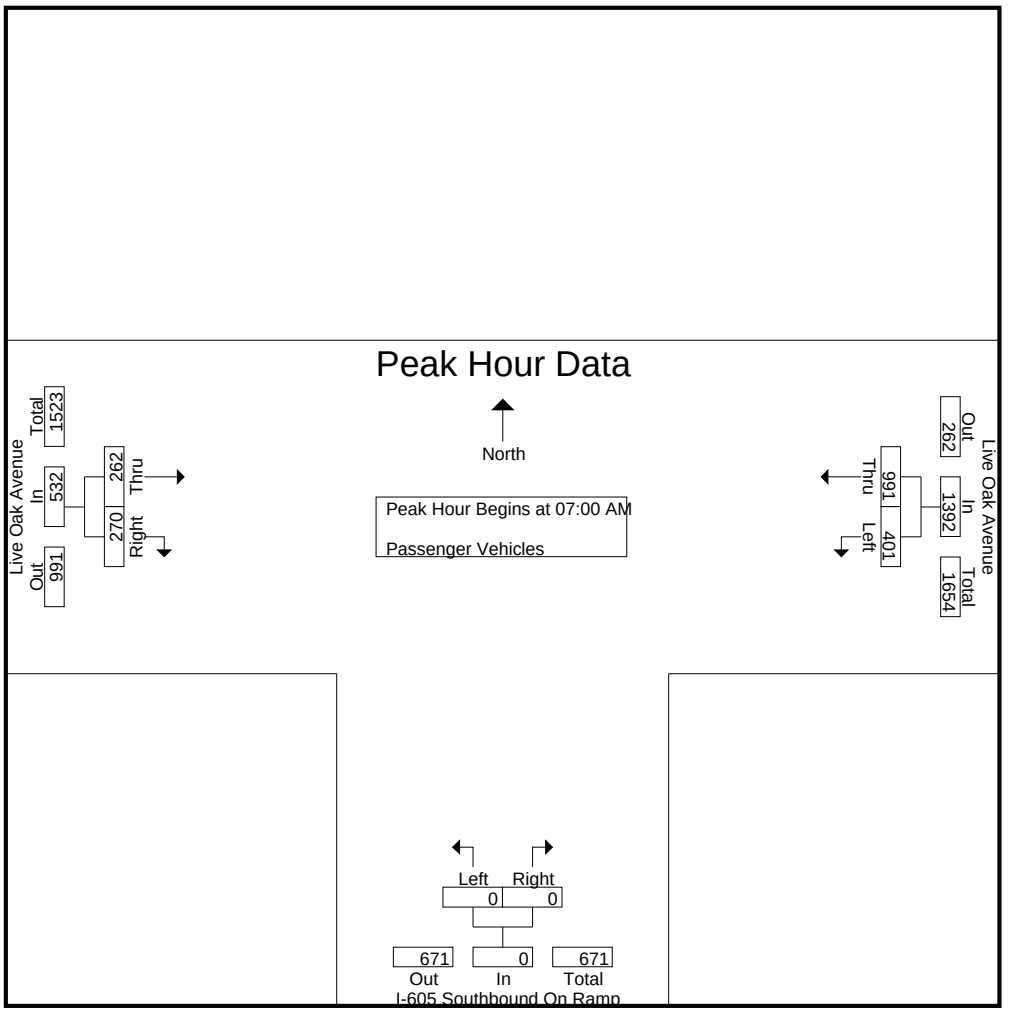
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	127	262	0	389	0	0	0	0	59	64	0	123	0	512	512
07:15 AM	91	246	0	337	0	0	0	0	47	93	0	140	0	477	477
07:30 AM	88	230	0	318	0	0	0	0	65	63	0	128	0	446	446
07:45 AM	95	253	0	348	0	0	0	0	91	50	0	141	0	489	489
Total	401	991	0	1392	0	0	0	0	262	270	0	532	0	1924	1924
08:00 AM	78	233	0	311	0	0	0	0	83	73	0	156	0	467	467
08:15 AM	62	235	0	297	0	0	0	0	87	74	0	161	0	458	458
08:30 AM	55	197	0	252	0	0	0	0	81	77	0	158	0	410	410
08:45 AM	78	180	0	258	0	0	0	0	70	92	0	162	0	420	420
Total	273	845	0	1118	0	0	0	0	321	316	0	637	0	1755	1755
Grand Total	674	1836	0	2510	0	0	0	0	583	586	0	1169	0	3679	3679
Apprch %	26.9	73.1			0	0			49.9	50.1					
Total %	18.3	49.9		68.2	0	0		0	15.8	15.9		31.8	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**127**	**262**	**389**	0	0	0	59	64	123	**512**
07:15 AM	91	246	337	0	0	0	47	**93**	140	477
07:30 AM	88	230	318	0	0	0	65	63	128	446
07:45 AM	95	253	348	0	0	0	**91**	50	**141**	489
Total Volume	401	991	1392	0	0	0	262	270	532	1924
% App. Total	28.8	71.2		0	0		49.2	50.8		
PHF	.789	.946	.895	.000	.000	.000	.720	.726	.943	.939

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**127**	**262**	**389**	0	0	0	59	64	123
+15 mins.	91	246	337	0	0	0	47	**93**	140
+30 mins.	88	230	318	0	0	0	65	63	128
+45 mins.	95	253	348	0	0	0	**91**	50	**141**
Total Volume	401	991	1392	0	0	0	262	270	532
% App. Total	28.8	71.2		0	0		49.2	50.8	
PHF	.789	.946	.895	.000	.000	.000	.720	.726	.943

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

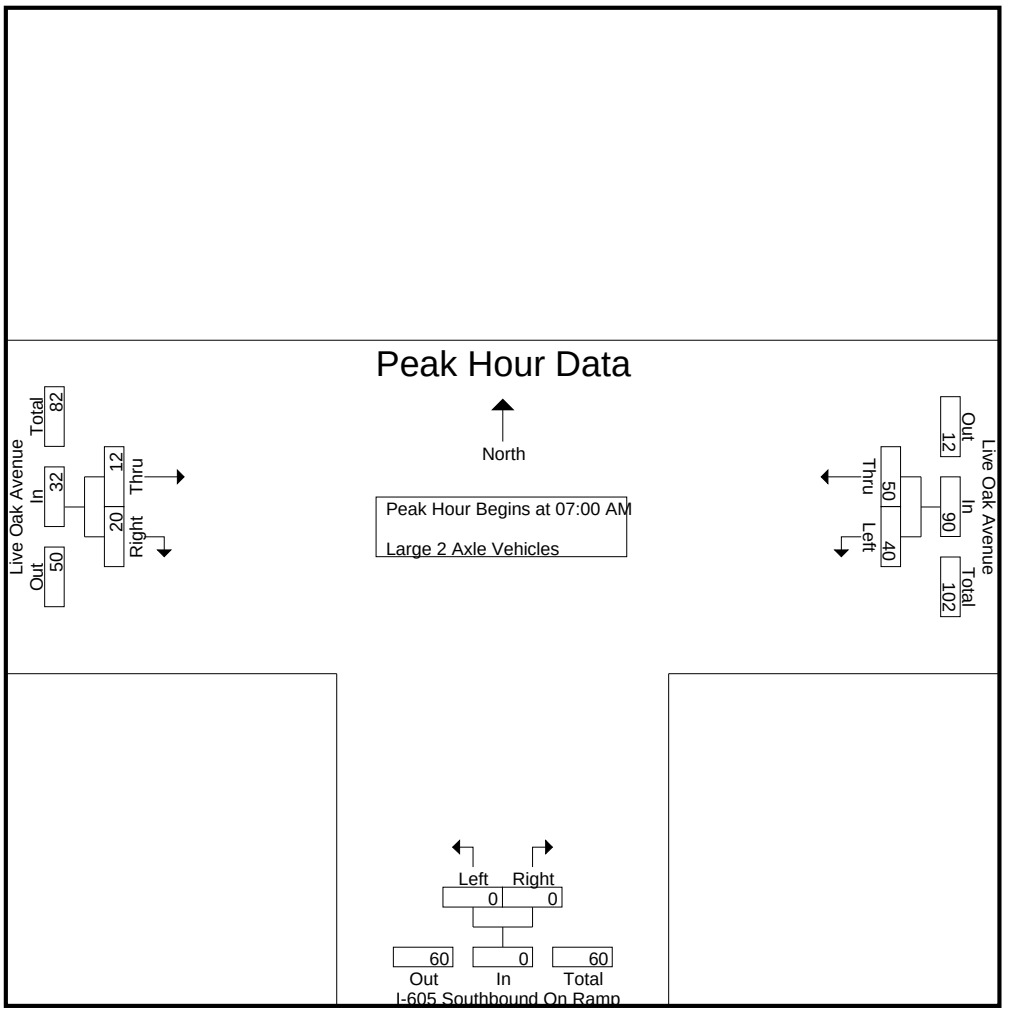
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	11	5	0	16	0	0	0	0	4	6	0	10	0	26	26
07:15 AM	6	16	0	22	0	0	0	0	4	4	0	8	0	30	30
07:30 AM	12	12	0	24	0	0	0	0	1	4	0	5	0	29	29
07:45 AM	11	17	0	28	0	0	0	0	3	6	0	9	0	37	37
Total	40	50	0	90	0	0	0	0	12	20	0	32	0	122	122
08:00 AM	5	6	0	11	0	0	0	0	3	3	0	6	0	17	17
08:15 AM	7	14	0	21	0	0	0	0	6	2	0	8	0	29	29
08:30 AM	7	11	0	18	0	0	0	0	1	8	0	9	0	27	27
08:45 AM	11	11	0	22	0	0	0	0	4	7	0	11	0	33	33
Total	30	42	0	72	0	0	0	0	14	20	0	34	0	106	106
Grand Total	70	92	0	162	0	0	0	0	26	40	0	66	0	228	228
Apprch %	43.2	56.8			0	0			39.4	60.6					
Total %	30.7	40.4		71.1	0	0		0	11.4	17.5		28.9	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	11	5	16	0	0	0	**4**	**6**	**10**	26
07:15 AM	6	16	22	0	0	0	4	4	8	30
07:30 AM	**12**	12	24	0	0	0	1	4	5	29
07:45 AM	11	**17**	**28**	0	0	0	3	6	9	**37**
Total Volume	40	50	90	0	0	0	12	20	32	122
% App. Total	44.4	55.6		0	0		37.5	62.5		
PHF	.833	.735	.804	.000	.000	.000	.750	.833	.800	.824

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	11	5	16	0	0	0	**4**	**6**	**10**
+15 mins.	6	16	22	0	0	0	4	4	8
+30 mins.	**12**	12	24	0	0	0	1	4	5
+45 mins.	11	**17**	**28**	0	0	0	3	6	9
Total Volume	40	50	90	0	0	0	12	20	32
% App. Total	44.4	55.6		0	0		37.5	62.5	
PHF	.833	.735	.804	.000	.000	.000	.750	.833	.800

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
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Groups Printed- 3 Axle Vehicles

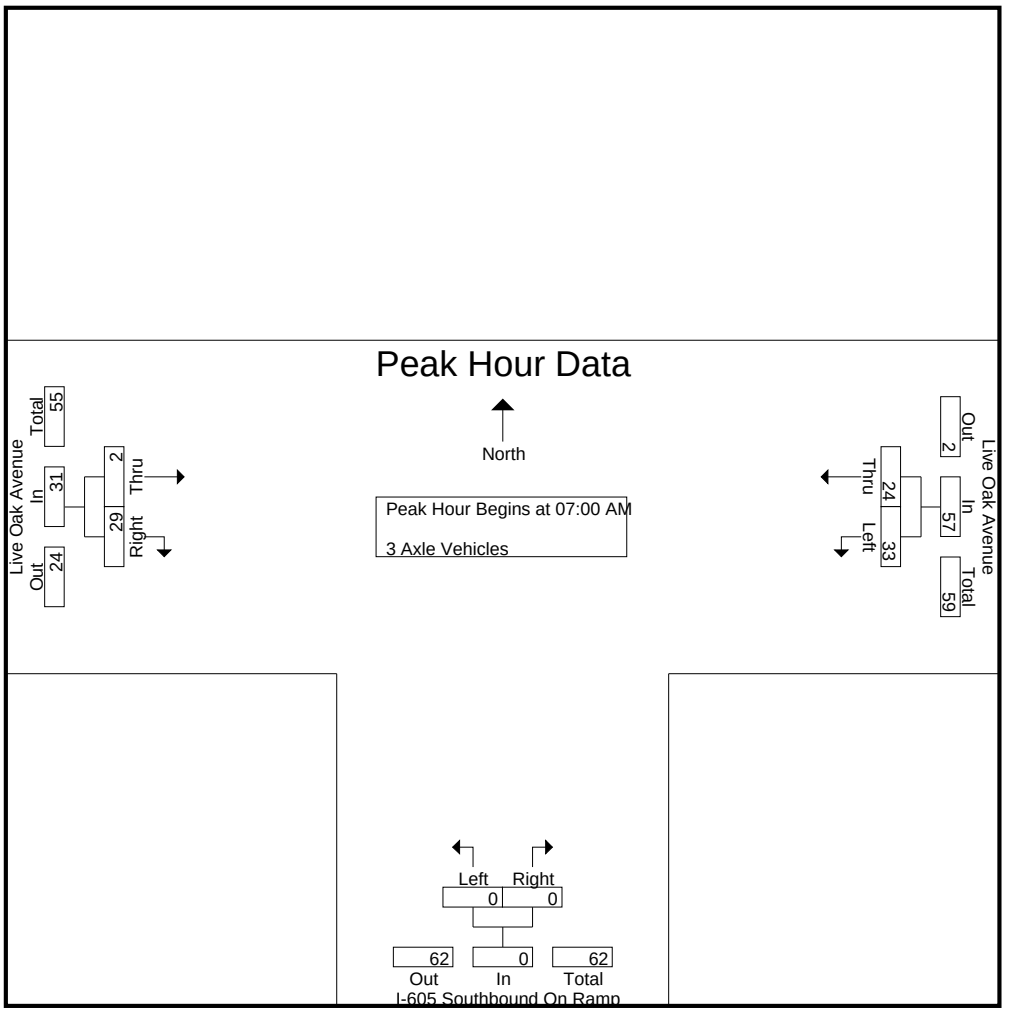
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	12	11	0	23	0	0	0	0	0	8	0	8	0	31	31
07:15 AM	7	5	0	12	0	0	0	0	0	7	0	7	0	19	19
07:30 AM	2	4	0	6	0	0	0	0	2	9	0	11	0	17	17
07:45 AM	12	4	0	16	0	0	0	0	0	5	0	5	0	21	21
Total	33	24	0	57	0	0	0	0	2	29	0	31	0	88	88
08:00 AM	4	7	0	11	0	0	0	0	1	3	0	4	0	15	15
08:15 AM	7	7	0	14	0	0	0	0	2	2	0	4	0	18	18
08:30 AM	12	4	0	16	0	0	0	0	1	2	0	3	0	19	19
08:45 AM	9	6	0	15	0	0	0	0	0	6	0	6	0	21	21
Total	32	24	0	56	0	0	0	0	4	13	0	17	0	73	73
Grand Total	65	48	0	113	0	0	0	0	6	42	0	48	0	161	161
Apprch %	57.5	42.5			0	0			12.5	87.5					
Total %	40.4	29.8		70.2	0	0		0	3.7	26.1		29.8	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**12**	**11**	**23**	0	0	0	0	8	8	**31**
07:15 AM	7	5	12	0	0	0	0	7	7	19
07:30 AM	2	4	6	0	0	0	**2**	**9**	**11**	17
07:45 AM	12	4	16	0	0	0	0	5	5	21
Total Volume	33	24	57	0	0	0	2	29	31	88
% App. Total	57.9	42.1		0	0		6.5	93.5		
PHF	.688	.545	.620	.000	.000	.000	.250	.806	.705	.710

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**12**	**11**	**23**	0	0	0	0	8	8
+15 mins.	7	5	12	0	0	0	0	7	7
+30 mins.	2	4	6	0	0	0	**2**	**9**	**11**
+45 mins.	12	4	16	0	0	0	0	5	5
Total Volume	33	24	57	0	0	0	2	29	31
% App. Total	57.9	42.1		0	0		6.5	93.5	
PHF	.688	.545	.620	.000	.000	.000	.250	.806	.705

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 4+ Axle Trucks

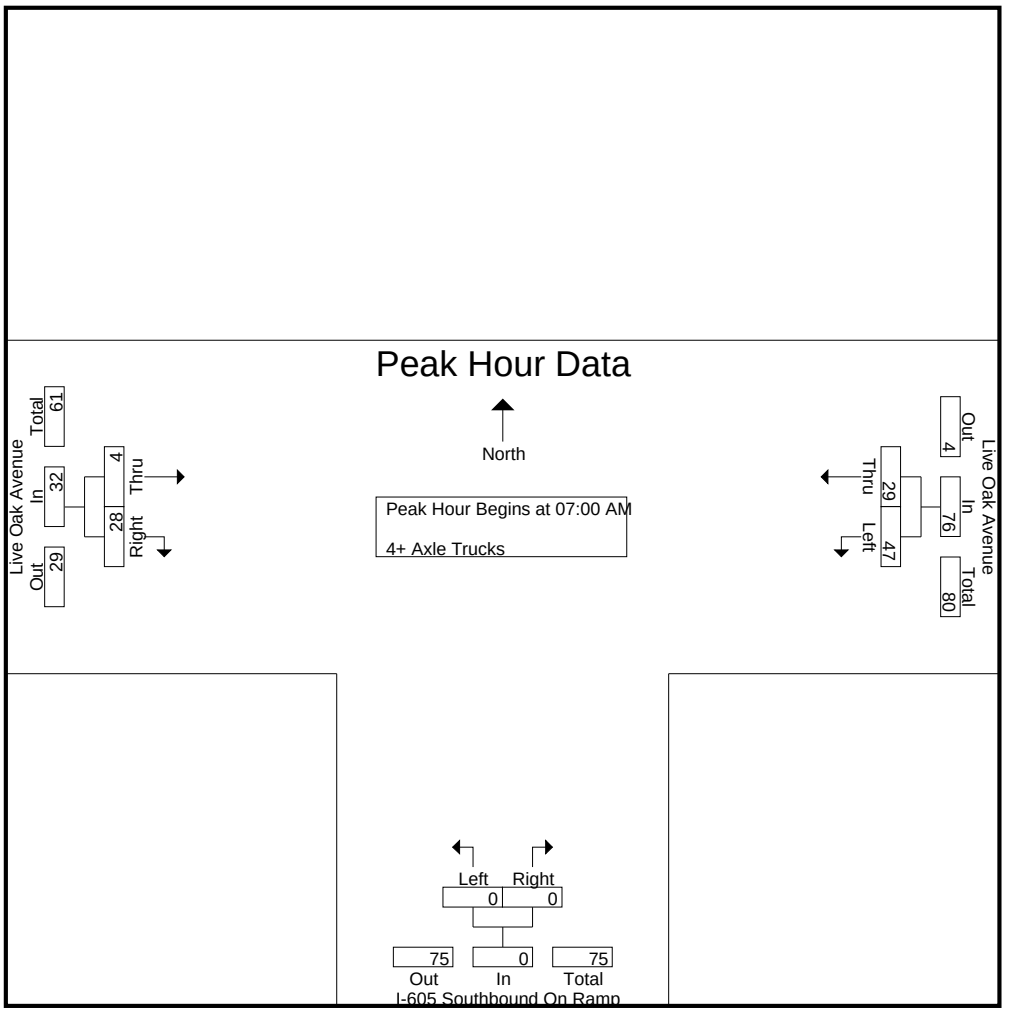
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	9	5	0	14	0	0	0	0	1	7	0	8	0	22	22
07:15 AM	13	10	0	23	0	0	0	0	2	10	0	12	0	35	35
07:30 AM	13	10	0	23	0	0	0	0	0	8	0	8	0	31	31
07:45 AM	12	4	0	16	0	0	0	0	1	3	0	4	0	20	20
Total	47	29	0	76	0	0	0	0	4	28	0	32	0	108	108
08:00 AM	19	14	0	33	0	0	0	0	2	11	0	13	0	46	46
08:15 AM	10	4	0	14	0	0	0	0	1	8	0	9	0	23	23
08:30 AM	22	15	0	37	0	0	0	0	2	10	0	12	0	49	49
08:45 AM	20	14	0	34	0	0	0	0	2	11	0	13	0	47	47
Total	71	47	0	118	0	0	0	0	7	40	0	47	0	165	165
Grand Total	118	76	0	194	0	0	0	0	11	68	0	79	0	273	273
Apprch %	60.8	39.2			0	0			13.9	86.1					
Total %	43.2	27.8		71.1	0	0		0	4	24.9		28.9	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	9	5	14	0	0	0	1	7	8	22
07:15 AM	**13**	**10**	**23**	0	0	0	**2**	**10**	**12**	**35**
07:30 AM	13	10	23	0	0	0	0	8	8	31
07:45 AM	12	4	16	0	0	0	1	3	4	20
Total Volume	47	29	76	0	0	0	4	28	32	108
% App. Total	61.8	38.2		0	0		12.5	87.5		
PHF	.904	.725	.826	.000	.000	.000	.500	.700	.667	.771

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	9	5	14	0	0	0	1	7	8
+15 mins.	**13**	**10**	**23**	0	0	0	**2**	**10**	**12**
+30 mins.	13	10	23	0	0	0	0	8	8
+45 mins.	12	4	16	0	0	0	1	3	4
Total Volume	47	29	76	0	0	0	4	28	32
% App. Total	61.8	38.2		0	0		12.5	87.5	
PHF	.904	.725	.826	.000	.000	.000	.500	.700	.667

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

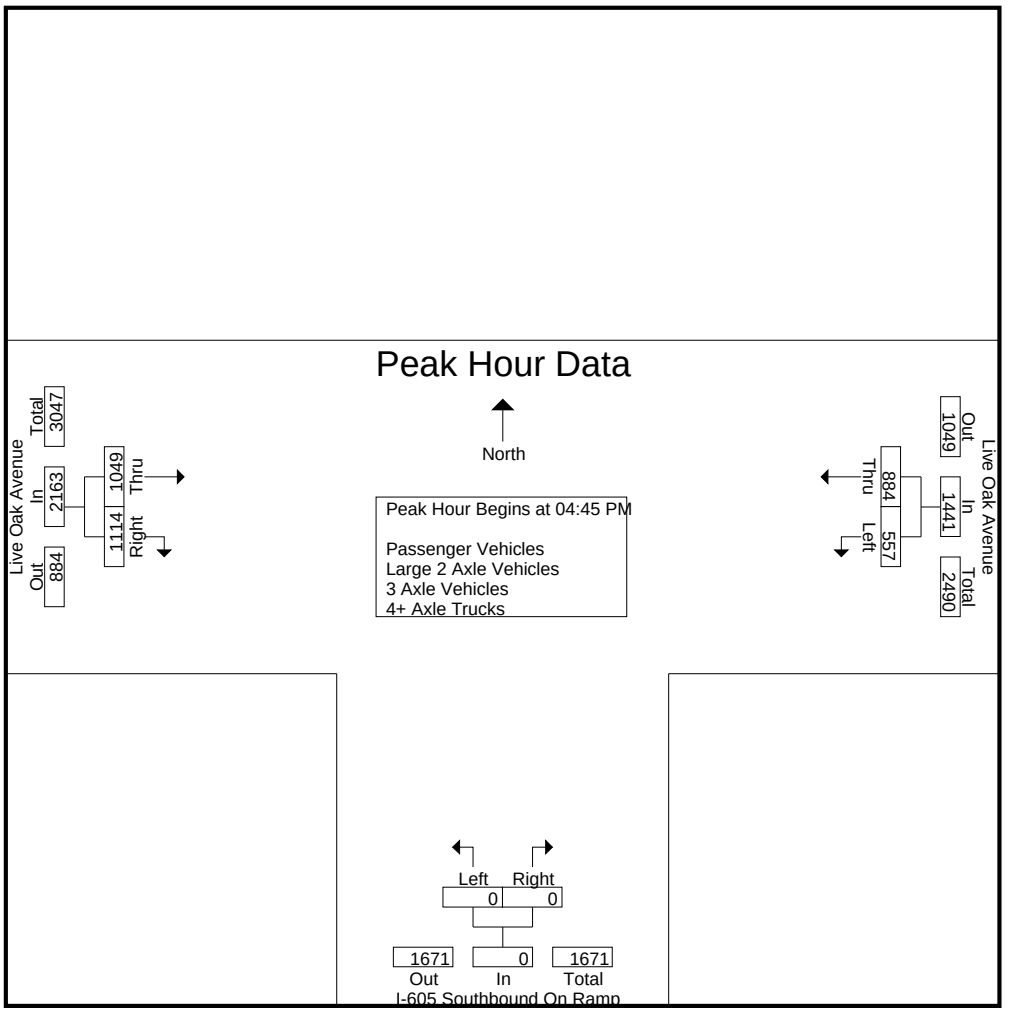
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	147	212	0	359	0	0	0	0	180	227	0	407	0	766	766
04:15 PM	124	195	0	319	0	0	0	0	205	227	0	432	0	751	751
04:30 PM	126	193	0	319	0	0	0	0	221	276	0	497	0	816	816
04:45 PM	146	200	0	346	0	0	0	0	262	293	0	555	0	901	901
Total	543	800	0	1343	0	0	0	0	868	1023	0	1891	0	3234	3234
05:00 PM	142	232	0	374	0	0	0	0	252	254	0	506	0	880	880
05:15 PM	145	234	0	379	0	0	0	0	263	297	0	560	0	939	939
05:30 PM	124	218	0	342	0	0	0	0	272	270	0	542	0	884	884
05:45 PM	102	229	0	331	0	0	0	0	209	273	0	482	0	813	813
Total	513	913	0	1426	0	0	0	0	996	1094	0	2090	0	3516	3516
Grand Total	1056	1713	0	2769	0	0	0	0	1864	2117	0	3981	0	6750	6750
Apprch %	38.1	61.9			0	0			46.8	53.2					
Total %	15.6	25.4		41	0	0		0	27.6	31.4		59	0	100	
Passenger Vehicles	974	1589		2563	0	0		0	1784	2020		3804	0	0	6367
% Passenger Vehicles	92.2	92.8	0	92.6	0	0	0	0	95.7	95.4	0	95.6	0	0	94.3
Large 2 Axle Vehicles	27	49		76	0	0		0	58	52		110	0	0	186
% Large 2 Axle Vehicles	2.6	2.9	0	2.7	0	0	0	0	3.1	2.5	0	2.8	0	0	2.8
3 Axle Vehicles	18	21		39	0	0		0	17	22		39	0	0	78
% 3 Axle Vehicles	1.7	1.2	0	1.4	0	0	0	0	0.9	1	0	1	0	0	1.2
4+ Axle Trucks	37	54		91	0	0		0	5	23		28	0	0	119
% 4+ Axle Trucks	3.5	3.2	0	3.3	0	0	0	0	0.3	1.1	0	0.7	0	0	1.8

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**146**	200	346	0	0	0	262	293	555	901
05:00 PM	142	232	374	0	0	0	252	254	506	880
05:15 PM	145	**234**	**379**	0	0	0	263	**297**	**560**	**939**
05:30 PM	124	218	342	0	0	0	**272**	270	542	884
Total Volume	557	884	1441	0	0	0	1049	1114	2163	3604
% App. Total	38.7	61.3		0	0		48.5	51.5		
PHF	.954	.944	.951	.000	.000	.000	.964	.938	.966	.960

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:45 PM		
+0 mins.	**146**	200	346	0	0	0	262	293	555
+15 mins.	142	232	374	0	0	0	252	254	506
+30 mins.	145	**234**	**379**	0	0	0	263	**297**	**560**
+45 mins.	124	218	342	0	0	0	**272**	270	542
Total Volume	557	884	1441	0	0	0	1049	1114	2163
% App. Total	38.7	61.3		0	0		48.5	51.5	
PHF	.954	.944	.951	.000	.000	.000	.964	.938	.966

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

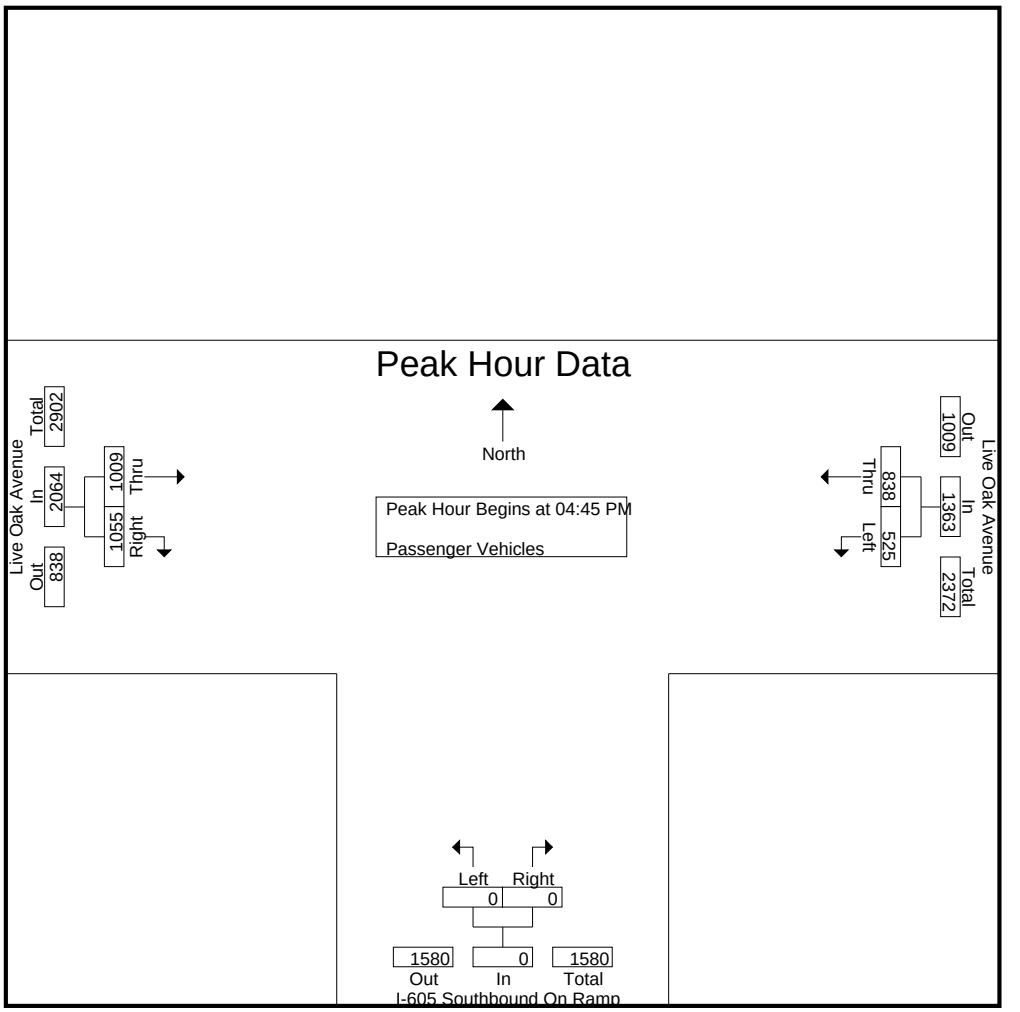
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	130	182	0	312	0	0	0	0	167	215	0	382	0	694	694
04:15 PM	109	170	0	279	0	0	0	0	193	217	0	410	0	689	689
04:30 PM	115	180	0	295	0	0	0	0	208	262	0	470	0	765	765
04:45 PM	134	191	0	325	0	0	0	0	249	271	0	520	0	845	845
Total	488	723	0	1211	0	0	0	0	817	965	0	1782	0	2993	2993
05:00 PM	134	217	0	351	0	0	0	0	247	239	0	486	0	837	837
05:15 PM	138	221	0	359	0	0	0	0	250	283	0	533	0	892	892
05:30 PM	119	209	0	328	0	0	0	0	263	262	0	525	0	853	853
05:45 PM	95	219	0	314	0	0	0	0	207	271	0	478	0	792	792
Total	486	866	0	1352	0	0	0	0	967	1055	0	2022	0	3374	3374
Grand Total	974	1589	0	2563	0	0	0	0	1784	2020	0	3804	0	6367	6367
Apprch %	38	62			0	0			46.9	53.1					
Total %	15.3	25		40.3	0	0		0	28	31.7		59.7	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	134	191	325	0	0	0	249	271	520	845
05:00 PM	134	217	351	0	0	0	247	239	486	837
05:15 PM	**138**	**221**	**359**	0	0	0	250	**283**	**533**	**892**
05:30 PM	119	209	328	0	0	0	**263**	262	525	853
Total Volume	525	838	1363	0	0	0	1009	1055	2064	3427
% App. Total	38.5	61.5		0	0		48.9	51.1		
PHF	.951	.948	.949	.000	.000	.000	.959	.932	.968	.960

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	134	191	325	0	0	0	249	271	520
+15 mins.	134	217	351	0	0	0	247	239	486
+30 mins.	**138**	**221**	**359**	0	0	0	250	**283**	**533**
+45 mins.	119	209	328	0	0	0	**263**	262	525
Total Volume	525	838	1363	0	0	0	1009	1055	2064
% App. Total	38.5	61.5		0	0		48.9	51.1	
PHF	.951	.948	.949	.000	.000	.000	.959	.932	.968

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
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Page No : 1

Groups Printed- Large 2 Axle Vehicles

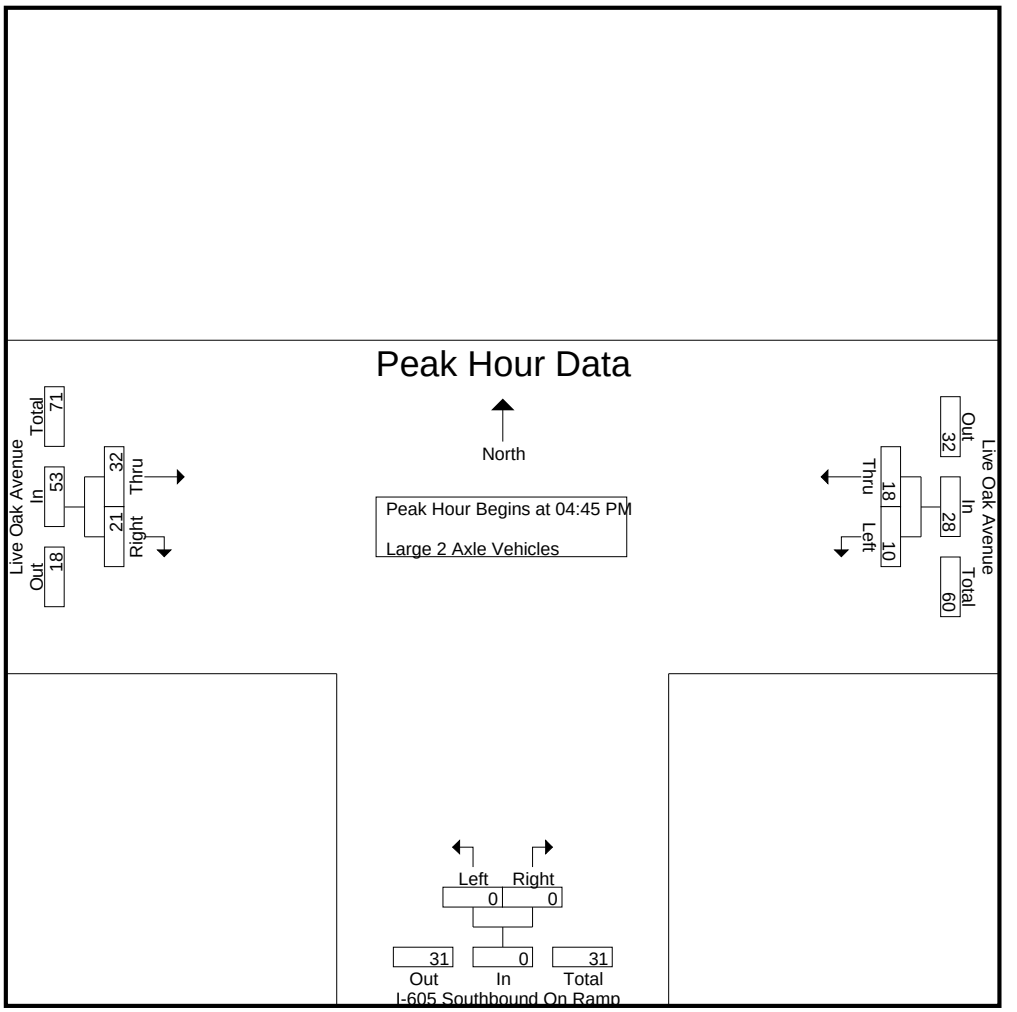
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	14	0	19	0	0	0	0	9	8	0	17	0	36	36
04:15 PM	4	8	0	12	0	0	0	0	7	9	0	16	0	28	28
04:30 PM	5	4	0	9	0	0	0	0	9	12	0	21	0	30	30
04:45 PM	1	2	0	3	0	0	0	0	9	6	0	15	0	18	18
Total	15	28	0	43	0	0	0	0	34	35	0	69	0	112	112
05:00 PM	3	5	0	8	0	0	0	0	5	5	0	10	0	18	18
05:15 PM	4	8	0	12	0	0	0	0	9	5	0	14	0	26	26
05:30 PM	2	3	0	5	0	0	0	0	9	5	0	14	0	19	19
05:45 PM	3	5	0	8	0	0	0	0	1	2	0	3	0	11	11
Total	12	21	0	33	0	0	0	0	24	17	0	41	0	74	74
Grand Total	27	49	0	76	0	0	0	0	58	52	0	110	0	186	186
Apprch %	35.5	64.5			0	0			52.7	47.3					
Total %	14.5	26.3		40.9	0	0		0	31.2	28		59.1	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	1	2	3	0	0	0	**9**	**6**	**15**	18
05:00 PM	3	5	8	0	0	0	5	5	10	18
05:15 PM	**4**	**8**	**12**	0	0	0	9	5	14	**26**
05:30 PM	2	3	5	0	0	0	9	5	14	19
Total Volume	10	18	28	0	0	0	32	21	53	81
% App. Total	35.7	64.3		0	0		60.4	39.6		
PHF	.625	.563	.583	.000	.000	.000	.889	.875	.883	.779

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	1	2	3	0	0	0	**9**	**6**	**15**
+15 mins.	3	5	8	0	0	0	5	5	10
+30 mins.	**4**	**8**	**12**	0	0	0	9	5	14
+45 mins.	2	3	5	0	0	0	9	5	14
Total Volume	10	18	28	0	0	0	32	21	53
% App. Total	35.7	64.3		0	0		60.4	39.6	
PHF	.625	.563	.583	.000	.000	.000	.889	.875	.883

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

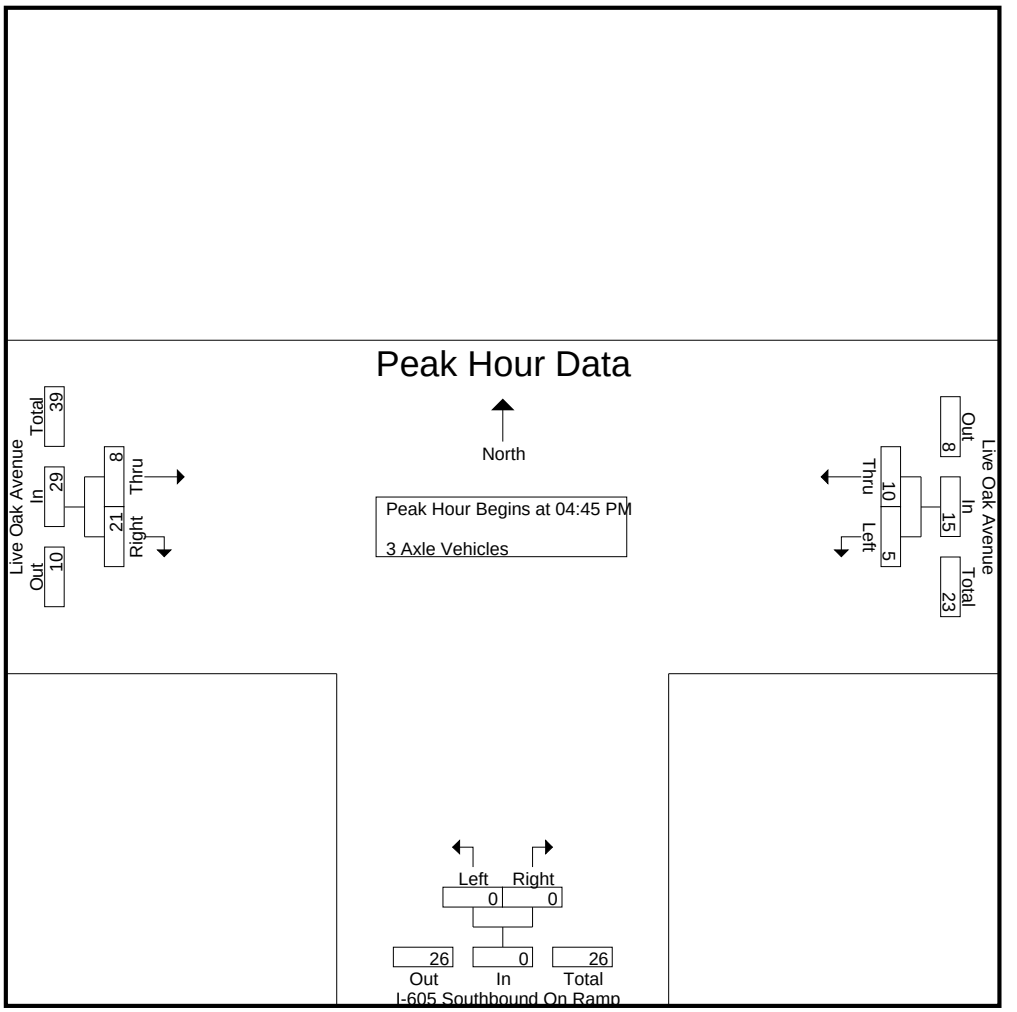
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	5	0	8	0	0	0	0	3	0	0	3	0	11	11
04:15 PM	6	5	0	11	0	0	0	0	3	0	0	3	0	14	14
04:30 PM	1	0	0	1	0	0	0	0	2	1	0	3	0	4	4
04:45 PM	1	3	0	4	0	0	0	0	4	10	0	14	0	18	18
Total	11	13	0	24	0	0	0	0	12	11	0	23	0	47	47
05:00 PM	1	5	0	6	0	0	0	0	0	4	0	4	0	10	10
05:15 PM	3	1	0	4	0	0	0	0	4	5	0	9	0	13	13
05:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	3	3
05:45 PM	3	1	0	4	0	0	0	0	1	0	0	1	0	5	5
Total	7	8	0	15	0	0	0	0	5	11	0	16	0	31	31
Grand Total	18	21	0	39	0	0	0	0	17	22	0	39	0	78	78
Apprch %	46.2	53.8			0	0			43.6	56.4					
Total %	23.1	26.9		50	0	0		0	21.8	28.2		50	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	1	3	4	0	0	0	**4**	**10**	**14**	**18**
05:00 PM	1	**5**	**6**	0	0	0	0	4	4	10
05:15 PM	**3**	1	4	0	0	0	4	5	9	13
05:30 PM	0	1	1	0	0	0	0	2	2	3
Total Volume	5	10	15	0	0	0	8	21	29	44
% App. Total	33.3	66.7		0	0		27.6	72.4		
PHF	.417	.500	.625	.000	.000	.000	.500	.525	.518	.611

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	1	3	4	0	0	0	**4**	**10**	**14**
+15 mins.	1	**5**	**6**	0	0	0	0	4	4
+30 mins.	**3**	1	4	0	0	0	4	5	9
+45 mins.	0	1	1	0	0	0	0	2	2
Total Volume	5	10	15	0	0	0	8	21	29
% App. Total	33.3	66.7		0	0		27.6	72.4	
PHF	.417	.500	.625	.000	.000	.000	.500	.525	.518

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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 4+ Axle Trucks

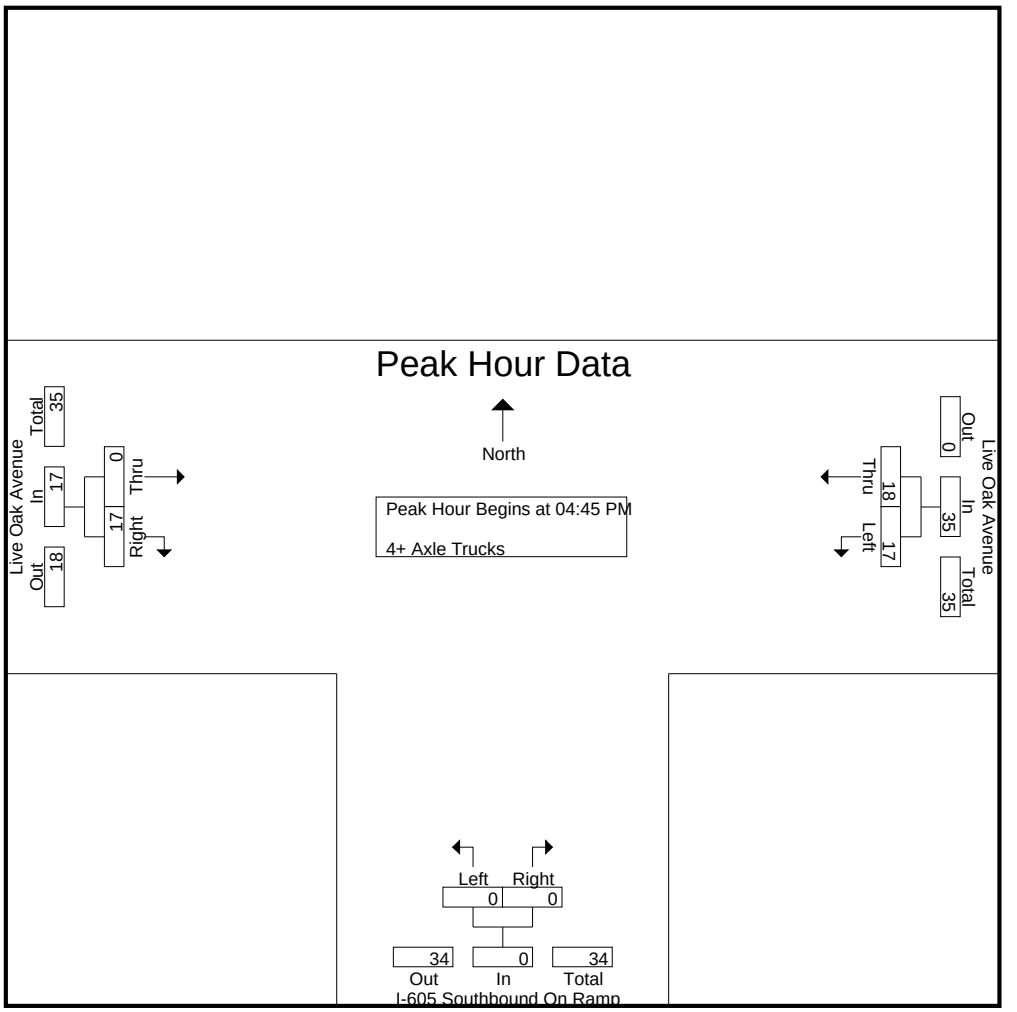
	Live Oak Avenue Westbound				I-605 Southbound On Ramp Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	9	11	0	20	0	0	0	0	1	4	0	5	0	25	25
04:15 PM	5	12	0	17	0	0	0	0	2	1	0	3	0	20	20
04:30 PM	5	9	0	14	0	0	0	0	2	1	0	3	0	17	17
04:45 PM	10	4	0	14	0	0	0	0	0	6	0	6	0	20	20
Total	29	36	0	65	0	0	0	0	5	12	0	17	0	82	82
05:00 PM	4	5	0	9	0	0	0	0	0	6	0	6	0	15	15
05:15 PM	0	4	0	4	0	0	0	0	0	4	0	4	0	8	8
05:30 PM	3	5	0	8	0	0	0	0	0	1	0	1	0	9	9
05:45 PM	1	4	0	5	0	0	0	0	0	0	0	0	0	5	5
Total	8	18	0	26	0	0	0	0	0	11	0	11	0	37	37
Grand Total	37	54	0	91	0	0	0	0	5	23	0	28	0	119	119
Apprch %	40.7	59.3			0	0			17.9	82.1					
Total %	31.1	45.4		76.5	0	0		0	4.2	19.3		23.5	0	100	

	Live Oak Avenue Westbound			I-605 Southbound On Ramp Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**10**	4	**14**	0	0	0	0	**6**	**6**	**20**
05:00 PM	4	**5**	9	0	0	0	0	6	6	15
05:15 PM	0	4	4	0	0	0	0	4	4	8
05:30 PM	3	5	8	0	0	0	0	1	1	9
Total Volume	17	18	35	0	0	0	0	17	17	52
% App. Total	48.6	51.4		0	0		0	100		
PHF	.425	.900	.625	.000	.000	.000	.000	.708	.708	.650

Counts Unlimited
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City of Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue
Weather: Clear

File Name : 07_IRW_605S On Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**10**	4	**14**	0	0	0	0	**6**	**6**
+15 mins.	4	**5**	9	0	0	0	0	6	6
+30 mins.	0	4	4	0	0	0	0	4	4
+45 mins.	3	5	8	0	0	0	0	1	1
Total Volume	17	18	35	0	0	0	0	17	17
% App. Total	48.6	51.4		0	0		0	100	
PHF	.425	.900	.625	.000	.000	.000	.000	.708	.708

Location: Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Live Oak Avenue	South Leg I-605 SB On Ramp	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Live Oak Avenue	South Leg I-605 SB On Ramp	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

Location: Irwindale
N/S: I-605 Southbound On Ramp
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Live Oak Avenue	South Leg I-605 SB On Ramp	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	3	0	3
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	5	0	6

	North Leg Dead End	East Leg Live Oak Avenue	South Leg I-605 SB On Ramp	West Leg Live Oak Avenue	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
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 VOLUMES:	1	0	1	0	2

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

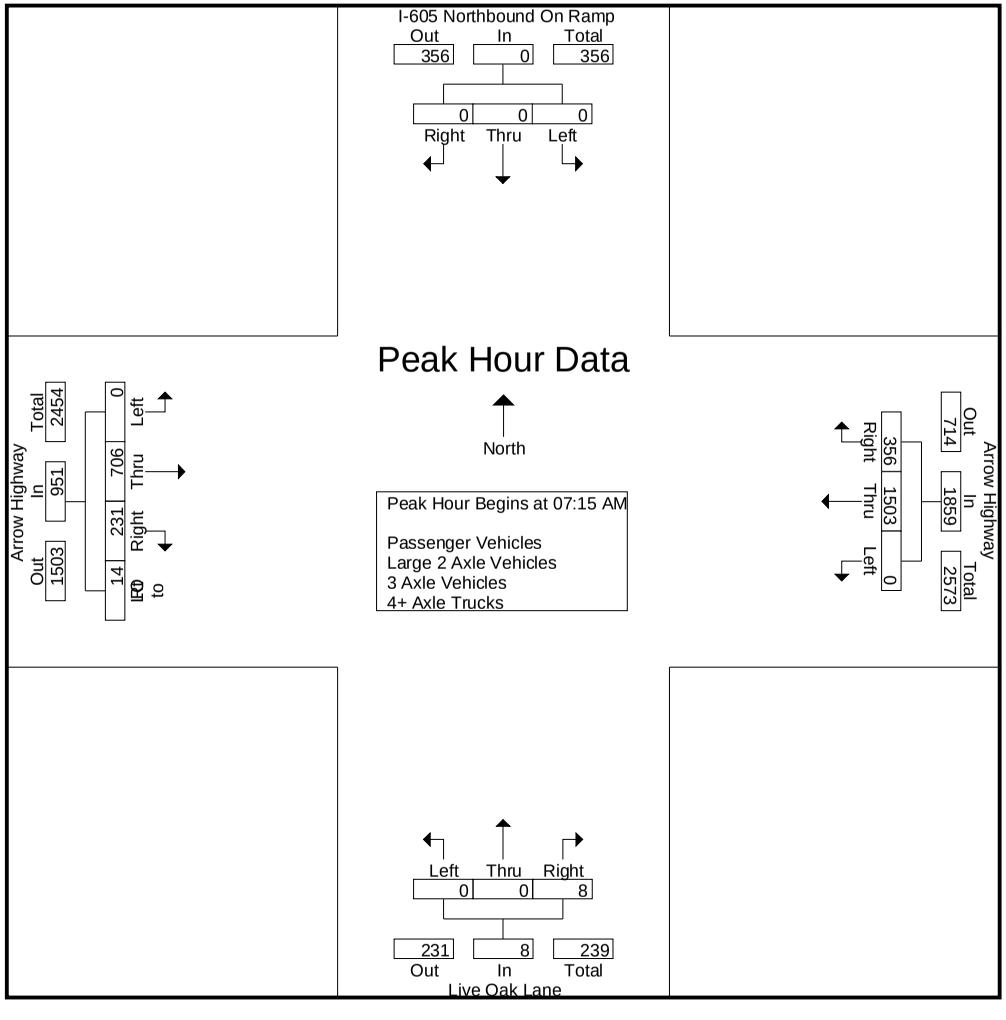
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	381	63	0	444	0	0	5	0	5	0	104	38	4	146	0	595	595
07:15 AM	0	0	0	0	0	0	440	78	0	518	0	0	1	0	1	0	132	42	6	180	0	699	699
07:30 AM	0	0	0	0	0	0	417	100	0	517	0	0	4	0	4	0	170	71	2	243	0	764	764
07:45 AM	0	0	0	0	0	0	346	90	0	436	0	0	2	0	2	0	214	65	2	281	0	719	719
Total	0	0	0	0	0	0	1584	331	0	1915	0	0	12	0	12	0	620	216	14	850	0	2777	2777
08:00 AM	0	0	0	0	0	0	300	88	0	388	0	0	1	0	1	0	190	53	4	247	0	636	636
08:15 AM	0	0	0	0	0	0	241	63	0	304	0	0	1	0	1	0	177	60	2	239	0	544	544
08:30 AM	0	0	0	0	0	0	230	74	0	304	0	0	2	0	2	0	130	59	4	193	0	499	499
08:45 AM	0	0	0	0	0	0	199	68	0	267	0	0	1	0	1	0	140	52	1	193	0	461	461
Total	0	0	0	0	0	0	970	293	0	1263	0	0	5	0	5	0	637	224	11	872	0	2140	2140
Grand Total	0	0	0	0	0	0	2554	624	0	3178	0	0	17	0	17	0	1257	440	25	1722	0	4917	4917
Apprch %	0	0	0			0	80.4	19.6			0	0	100			0	73	25.6	1.5				
Total %	0	0	0		0	0	51.9	12.7		64.6	0	0	0.3		0.3	0	25.6	8.9	0.5	35	0	100	
Passenger Vehicles	0	0	0		0	0	2461	553		3014	0	0	6		6	0	1180	349	12	1541	0	0	4561
% Passenger Vehicles	0	0	0	0	0	0	96.4	88.6	0	94.8	0	0	35.3	0	35.3	0	93.9	79.3	48	89.5	0	0	92.8
Large 2 Axle Vehicles	0	0	0		0	0	49	41		90	0	0	9		9	0	38	30	2	70	0	0	169
% Large 2 Axle Vehicles	0	0	0	0	0	0	1.9	6.6	0	2.8	0	0	52.9	0	52.9	0	3	6.8	8	4.1	0	0	3.4
3 Axle Vehicles	0	0	0		0	0	16	6		22	0	0	1		1	0	22	22	6	50	0	0	73
% 3 Axle Vehicles	0	0	0	0	0	0	0.6	1	0	0.7	0	0	5.9	0	5.9	0	1.8	5	24	2.9	0	0	1.5
4+ Axle Trucks	0	0	0		0	0	28	24		52	0	0	1		1	0	17	39	5	61	0	0	114
% 4+ Axle Trucks	0	0	0	0	0	0	1.1	3.8	0	1.6	0	0	5.9	0	5.9	0	1.4	8.9	20	3.5	0	0	2.3

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	**440**	78	**518**	0	0	1	1	0	132	42	**6**	180	699
07:30 AM	0	0	0	0	0	417	**100**	517	0	0	**4**	**4**	0	170	**71**	2	243	**764**
07:45 AM	0	0	0	0	0	346	90	436	0	0	2	2	0	**214**	65	2	**281**	719
08:00 AM	0	0	0	0	0	300	88	388	0	0	1	1	0	190	53	4	247	636
Total Volume	0	0	0	0	0	1503	356	1859	0	0	8	8	0	706	231	14	951	2818
% App. Total	0	0	0		0	80.8	19.2		0	0	100		0	74.2	24.3	1.5		
PHF	.000	.000	.000	.000	.000	.854	.890	.897	.000	.000	.500	.500	.000	.825	.813	.583	.846	.922

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:00 AM				07:00 AM				07:00 AM				07:30 AM					
+0 mins.	0	0	0	0	0	381	63	444	0	0	**5**	**5**	0	170	**71**	2	243	
+15 mins.	0	0	0	0	0	**440**	78	**518**	0	0	1	1	0	**214**	65	2	**281**	
+30 mins.	0	0	0	0	0	417	**100**	517	0	0	4	4	0	190	53	**4**	247	
+45 mins.	0	0	0	0	0	346	90	436	0	0	2	2	0	177	60	2	239	
Total Volume	0	0	0	0	0	1584	331	1915	0	0	12	12	0	751	249	10	1010	
% App. Total	0	0	0		0	82.7	17.3		0	0	100		0	74.4	24.7	1		
PHF	.000	.000	.000	.000	.000	.900	.828	.924	.000	.000	.600	.600	.000	.877	.877	.625	.899	

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

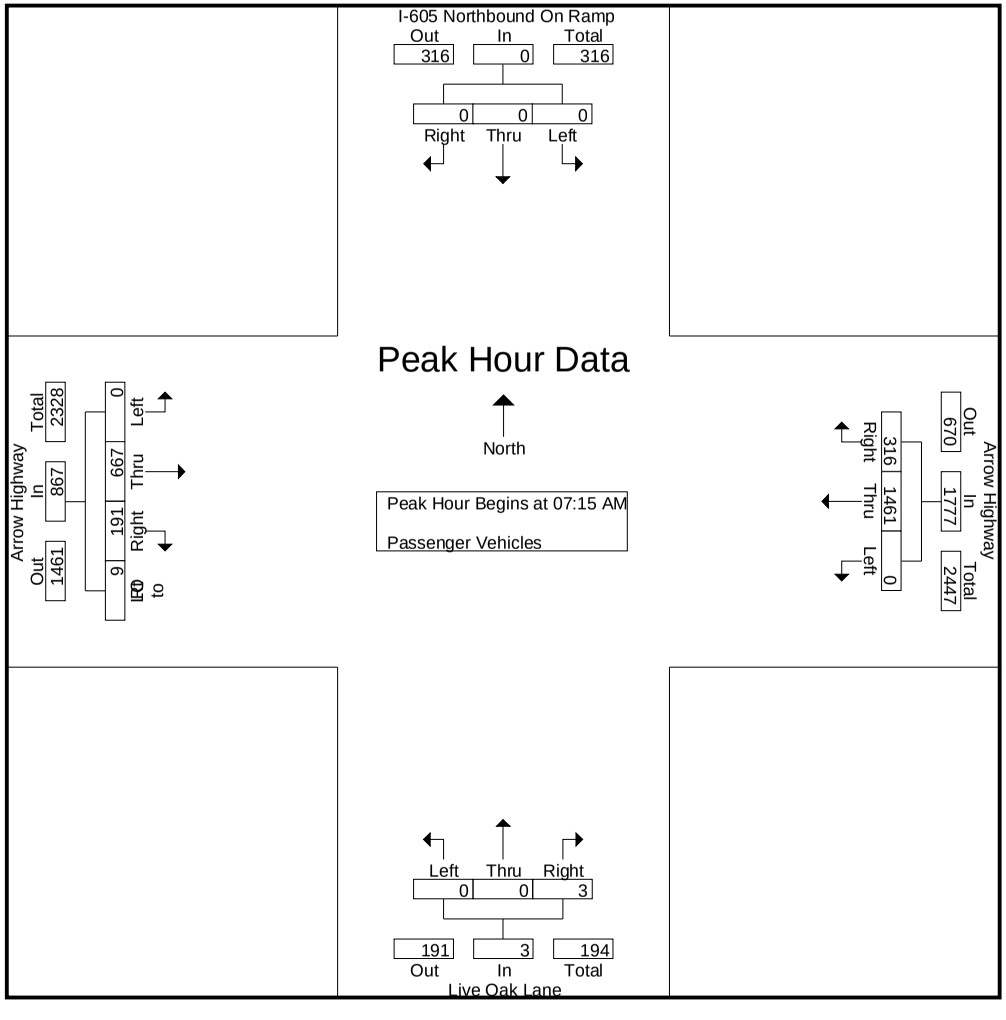
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	365	59	0	424	0	0	2	0	2	0	95	23	1	119	0	545	545
07:15 AM	0	0	0	0	0	0	421	71	0	492	0	0	0	0	0	0	122	34	2	158	0	650	650
07:30 AM	0	0	0	0	0	0	405	90	0	495	0	0	1	0	1	0	167	55	1	223	0	719	719
07:45 AM	0	0	0	0	0	0	340	79	0	419	0	0	2	0	2	0	200	57	2	259	0	680	680
Total	0	0	0	0	0	0	1531	299	0	1830	0	0	5	0	5	0	584	169	6	759	0	2594	2594
08:00 AM	0	0	0	0	0	0	295	76	0	371	0	0	0	0	0	0	178	45	4	227	0	598	598
08:15 AM	0	0	0	0	0	0	233	55	0	288	0	0	0	0	0	0	163	48	0	211	0	499	499
08:30 AM	0	0	0	0	0	0	215	64	0	279	0	0	0	0	0	0	125	47	1	173	0	452	452
08:45 AM	0	0	0	0	0	0	187	59	0	246	0	0	1	0	1	0	130	40	1	171	0	418	418
Total	0	0	0	0	0	0	930	254	0	1184	0	0	1	0	1	0	596	180	6	782	0	1967	1967
Grand Total	0	0	0	0	0	0	2461	553	0	3014	0	0	6	0	6	0	1180	349	12	1541	0	4561	4561
Apprch %	0	0	0			0	81.7	18.3			0	0	100			0	76.6	22.6	0.8				
Total %	0	0	0		0	0	54	12.1		66.1	0	0	0.1		0.1	0	25.9	7.7	0.3	33.8	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	**421**	71	492	0	0	0	0	0	122	34	2	158	650
07:30 AM	0	0	0	0	0	405	**90**	**495**	0	0	1	1	0	167	55	1	223	**719**
07:45 AM	0	0	0	0	0	340	79	419	0	0	**2**	**2**	0	**200**	**57**	2	**259**	680
08:00 AM	0	0	0	0	0	295	76	371	0	0	0	0	0	178	45	**4**	227	598
Total Volume	0	0	0	0	0	1461	316	1777	0	0	3	3	0	667	191	9	867	2647
% App. Total	0	0	0		0	82.2	17.8		0	0	100		0	76.9	22	1		
PHF	.000	.000	.000	.000	.000	.868	.878	.897	.000	.000	.375	.375	.000	.834	.838	.563	.837	.920

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:15 AM				07:15 AM				07:15 AM				07:15 AM					
+0 mins.	0	0	0	0	0	**421**	71	492	0	0	0	0	0	122	34	2	158	
+15 mins.	0	0	0	0	0	405	**90**	**495**	0	0	1	1	0	167	55	1	223	
+30 mins.	0	0	0	0	0	340	79	419	0	0	**2**	**2**	0	**200**	**57**	2	**259**	
+45 mins.	0	0	0	0	0	295	76	371	0	0	0	0	0	178	45	**4**	227	
Total Volume	0	0	0	0	0	1461	316	1777	0	0	3	3	0	667	191	9	867	
% App. Total	0	0	0		0	82.2	17.8		0	0	100		0	76.9	22	1		
PHF	.000	.000	.000	.000	.000	.868	.878	.897	.000	.000	.375	.375	.000	.834	.838	.563	.837	

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

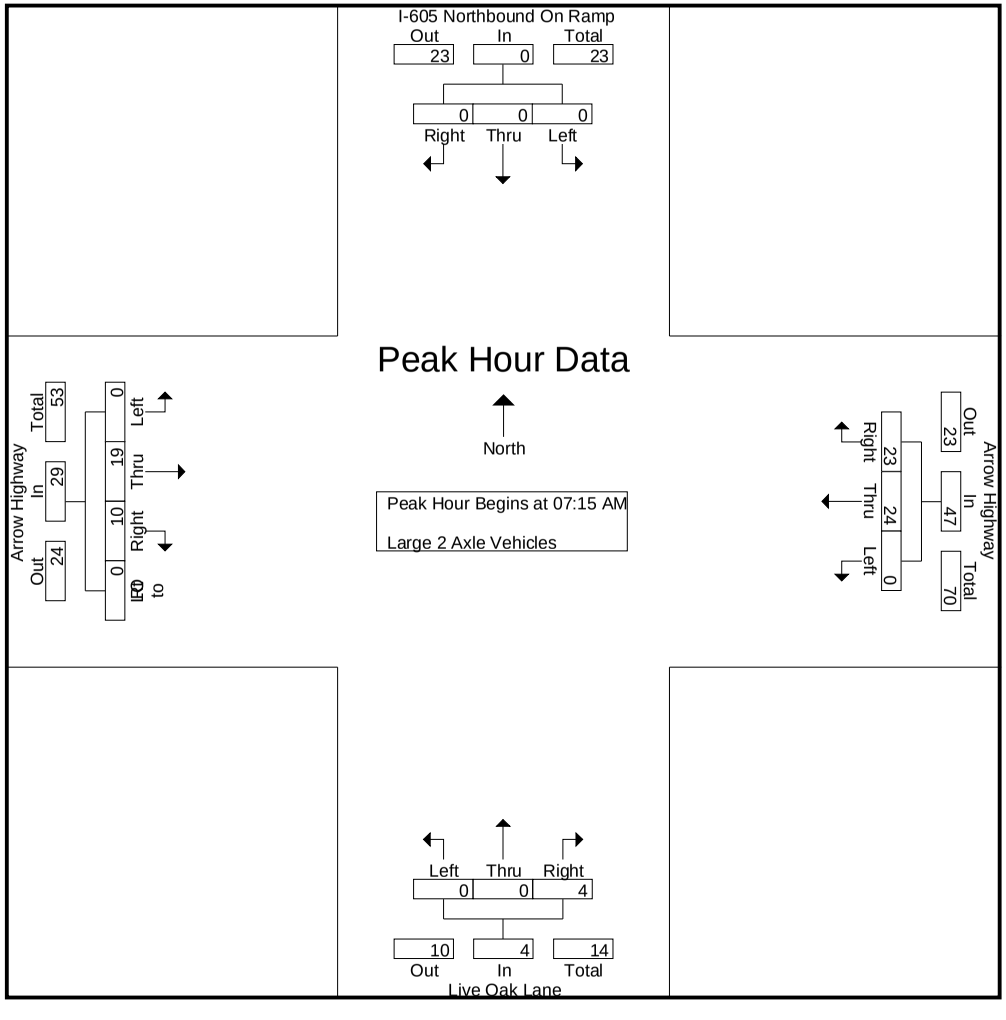
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	9	2	0	11	0	0	2	0	2	0	5	7	1	13	0	26	26
07:15 AM	0	0	0	0	0	0	14	6	0	20	0	0	1	0	1	0	5	1	0	6	0	27	27
07:30 AM	0	0	0	0	0	0	4	2	0	6	0	0	2	0	2	0	1	5	0	6	0	14	14
07:45 AM	0	0	0	0	0	0	4	7	0	11	0	0	0	0	0	0	5	1	0	6	0	17	17
Total	0	0	0	0	0	0	31	17	0	48	0	0	5	0	5	0	16	14	1	31	0	84	84
08:00 AM	0	0	0	0	0	0	2	8	0	10	0	0	1	0	1	0	8	3	0	11	0	22	22
08:15 AM	0	0	0	0	0	0	3	4	0	7	0	0	1	0	1	0	9	7	0	16	0	24	24
08:30 AM	0	0	0	0	0	0	7	7	0	14	0	0	2	0	2	0	0	3	1	4	0	20	20
08:45 AM	0	0	0	0	0	0	6	5	0	11	0	0	0	0	0	0	5	3	0	8	0	19	19
Total	0	0	0	0	0	0	18	24	0	42	0	0	4	0	4	0	22	16	1	39	0	85	85
Grand Total	0	0	0	0	0	0	49	41	0	90	0	0	9	0	9	0	38	30	2	70	0	169	169
Apprch %	0	0	0			0	54.4	45.6			0	0	100			0	54.3	42.9	2.9				
Total %	0	0	0		0	0	29	24.3		53.3	0	0	5.3		5.3	0	22.5	17.8	1.2	41.4	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	**14**	6	**20**	0	0	1	1	0	5	1	0	6	**27**
07:30 AM	0	0	0	0	0	4	2	6	0	0	**2**	**2**	0	1	**5**	0	6	14
07:45 AM	0	0	0	0	0	4	7	11	0	0	0	0	0	5	1	0	6	17
08:00 AM	0	0	0	0	0	2	**8**	10	0	0	1	1	0	**8**	3	0	**11**	22
Total Volume	0	0	0	0	0	24	23	47	0	0	4	4	0	19	10	0	29	80
% App. Total	0	0	0		0	51.1	48.9		0	0	100		0	65.5	34.5	0		
PHF	.000	.000	.000	.000	.000	.429	.719	.588	.000	.000	.500	.500	.000	.594	.500	.000	.659	.741

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:15 AM				07:15 AM				07:15 AM				07:15 AM					
+0 mins.	0	0	0	0	0	**14**	6	**20**	0	0	1	1	0	5	1	0	6	
+15 mins.	0	0	0	0	0	4	2	6	0	0	**2**	**2**	0	1	**5**	0	6	
+30 mins.	0	0	0	0	0	4	7	11	0	0	0	0	0	5	1	0	6	
+45 mins.	0	0	0	0	0	2	**8**	10	0	0	1	1	0	**8**	3	0	**11**	
Total Volume	0	0	0	0	0	24	23	47	0	0	4	4	0	19	10	0	29	
% App. Total	0	0	0		0	51.1	48.9		0	0	100		0	65.5	34.5	0		
PHF	.000	.000	.000	.000	.000	.429	.719	.588	.000	.000	.500	.500	.000	.594	.500	.000	.659	

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

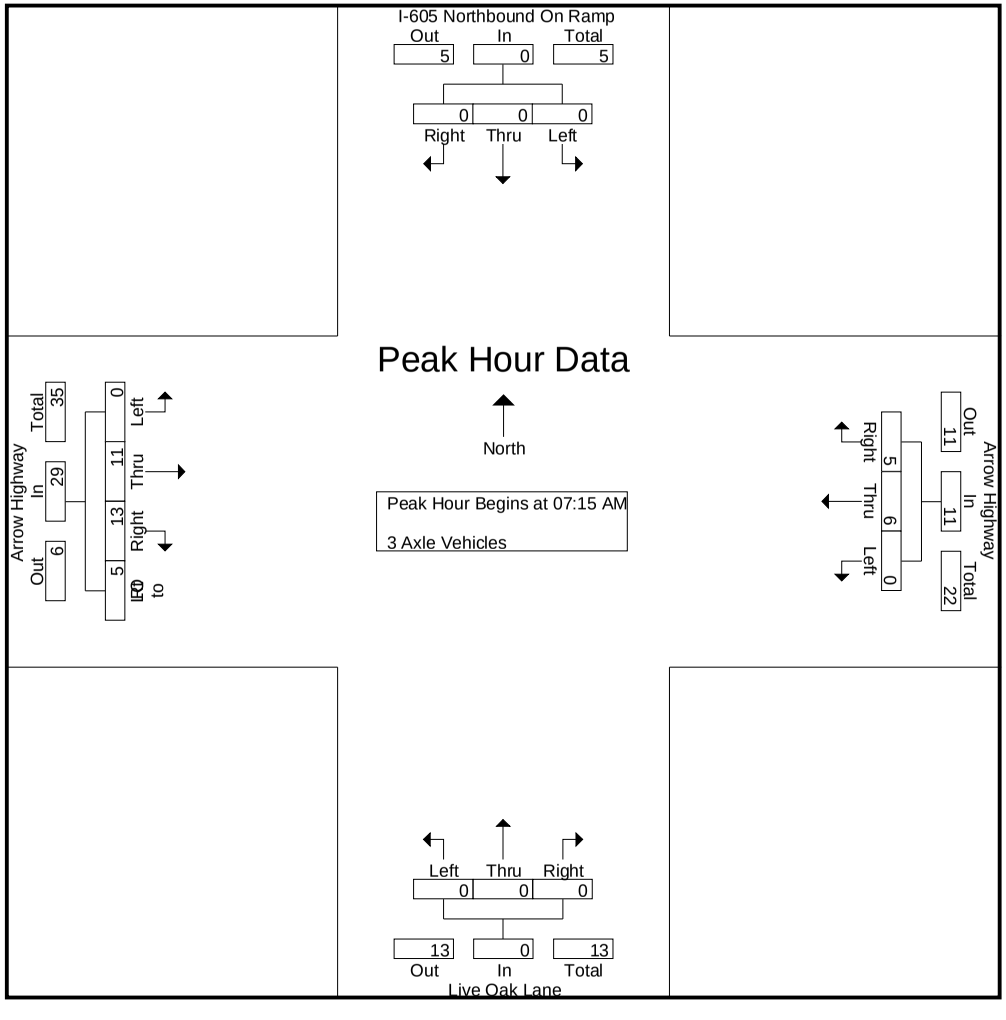
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	2	1	0	3	0	8	8
07:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	3	4	10	0	13	13
07:30 AM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	1	4	1	6	0	10	10
07:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	6	4	0	10	0	11	11
Total	0	0	0	0	0	0	8	4	0	12	0	0	1	0	1	0	12	12	5	29	0	42	42
08:00 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	1	2	0	3	0	6	6
08:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	3	1	0	4	0	7	7
08:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	4	1	9	0	12	12
08:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	3	0	5	0	6	6
Total	0	0	0	0	0	0	8	2	0	10	0	0	0	0	0	0	10	10	1	21	0	31	31
Grand Total	0	0	0	0	0	0	16	6	0	22	0	0	1	0	1	0	22	22	6	50	0	73	73
Apprch %	0	0	0			0	72.7	27.3			0	0	100			0	44	44	12				
Total %	0	0	0		0	0	21.9	8.2		30.1	0	0	1.4		1.4	0	30.1	30.1	8.2	68.5	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	**3**	0	3	0	0	0	0	0	3	3	**4**	**10**	**13**
07:30 AM	0	0	0	0	0	1	**3**	**4**	0	0	0	0	0	1	**4**	1	6	10
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	**6**	4	0	10	11
08:00 AM	0	0	0	0	0	2	1	3	0	0	0	0	0	1	2	0	3	6
Total Volume	0	0	0	0	0	6	5	11	0	0	0	0	0	11	13	5	29	40
% App. Total	0	0	0		0	54.5	45.5		0	0	0		0	37.9	44.8	17.2		
PHF	.000	.000	.000	.000	.000	.500	.417	.688	.000	.000	.000	.000	.000	.458	.813	.313	.725	.769

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
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File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:15 AM				07:15 AM				07:15 AM				07:15 AM					
+0 mins.	0	0	0	0	0	**3**	0	3	0	0	0	0	0	3	3	**4**	**10**	
+15 mins.	0	0	0	0	0	1	**3**	**4**	0	0	0	0	0	1	**4**	1	6	
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	**6**	4	0	10	
+45 mins.	0	0	0	0	0	2	1	3	0	0	0	0	0	1	2	0	3	
Total Volume	0	0	0	0	0	6	5	11	0	0	0	0	0	11	13	5	29	
% App. Total	0	0	0		0	54.5	45.5		0	0	0		0	37.9	44.8	17.2		
PHF	.000	.000	.000	.000	.000	.500	.417	.688	.000	.000	.000	.000	.000	.458	.813	.313	.725	

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Weather: Clear

File Name : 17_IRW_605N On Ar AM
Site Code : 05117783
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Groups Printed- 4+ Axle Trucks

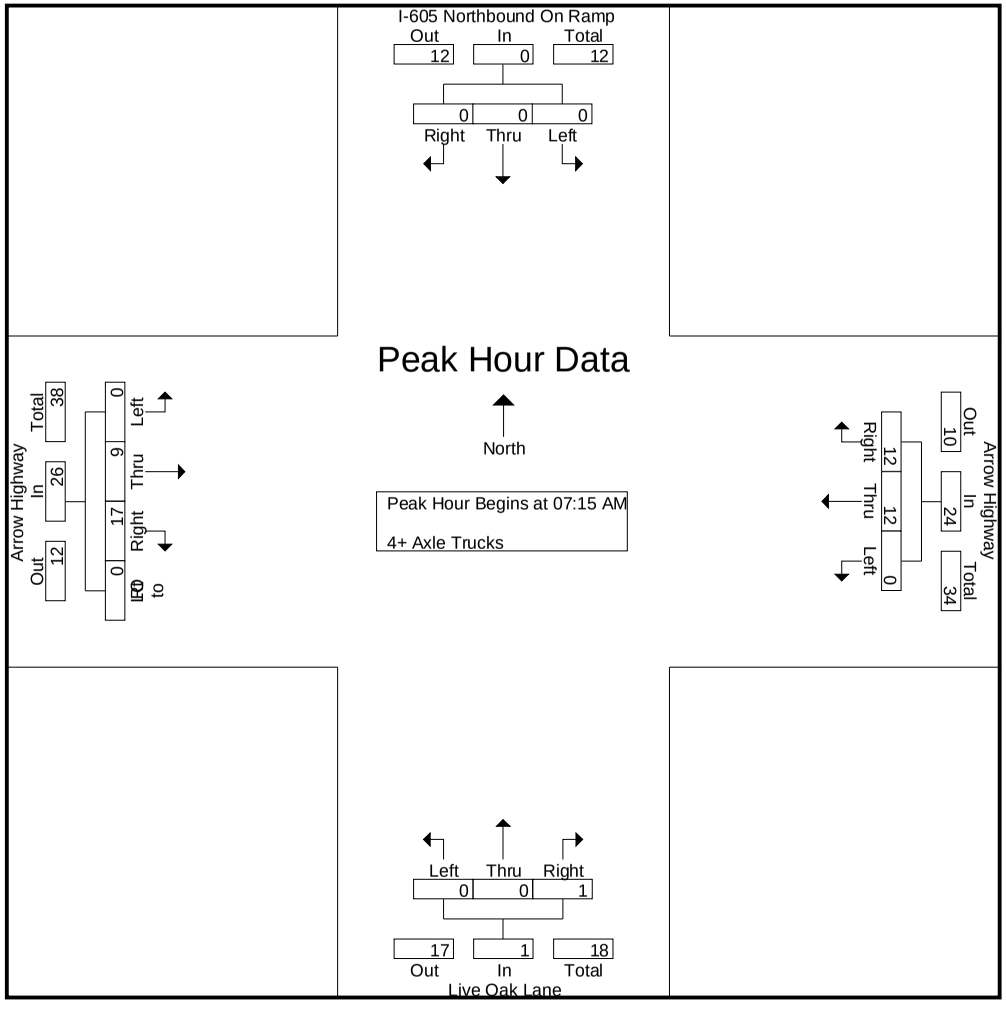
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	2	7	2	11	0	16	16
07:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	2	4	0	6	0	9	9
07:30 AM	0	0	0	0	0	0	7	5	0	12	0	0	1	0	1	0	1	7	0	8	0	21	21
07:45 AM	0	0	0	0	0	0	2	3	0	5	0	0	0	0	0	0	3	3	0	6	0	11	11
Total	0	0	0	0	0	0	14	11	0	25	0	0	1	0	1	0	8	21	2	31	0	57	57
08:00 AM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	3	3	0	6	0	10	10
08:15 AM	0	0	0	0	0	0	3	3	0	6	0	0	0	0	0	0	2	4	2	8	0	14	14
08:30 AM	0	0	0	0	0	0	5	3	0	8	0	0	0	0	0	0	1	5	1	7	0	15	15
08:45 AM	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	3	6	0	9	0	18	18
Total	0	0	0	0	0	0	14	13	0	27	0	0	0	0	0	0	9	18	3	30	0	57	57
Grand Total	0	0	0	0	0	0	28	24	0	52	0	0	1	0	1	0	17	39	5	61	0	114	114
Apprch %	0	0	0			0	53.8	46.2			0	0	100			0	27.9	63.9	8.2				
Total %	0	0	0		0	0	24.6	21.1		45.6	0	0	0.9		0.9	0	14.9	34.2	4.4	53.5	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	2	1	3	0	0	0	0	0	2	4	0	6	9
07:30 AM	0	0	0	0	0	**7**	**5**	**12**	0	0	**1**	**1**	0	1	**7**	0	**8**	**21**
07:45 AM	0	0	0	0	0	2	3	5	0	0	0	0	0	**3**	3	0	6	11
08:00 AM	0	0	0	0	0	1	3	4	0	0	0	0	0	3	3	0	6	10
Total Volume	0	0	0	0	0	12	12	24	0	0	1	1	0	9	17	0	26	51
% App. Total	0	0	0		0	50	50		0	0	100		0	34.6	65.4	0		
PHF	.000	.000	.000	.000	.000	.429	.600	.500	.000	.000	.250	.250	.000	.750	.607	.000	.813	.607

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E/W: Arrow Highway
Weather: Clear

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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:15 AM				07:15 AM				07:15 AM				07:15 AM					
+0 mins.	0	0	0	0	0	2	1	3	0	0	0	0	0	2	4	0	6	
+15 mins.	0	0	0	0	0	**7**	**5**	**12**	0	0	**1**	**1**	0	1	**7**	0	**8**	
+30 mins.	0	0	0	0	0	2	3	5	0	0	0	0	0	**3**	3	0	6	
+45 mins.	0	0	0	0	0	1	3	4	0	0	0	0	0	3	3	0	6	
Total Volume	0	0	0	0	0	12	12	24	0	0	1	1	0	9	17	0	26	
% App. Total	0	0	0		0	50	50		0	0	100		0	34.6	65.4	0		
PHF	.000	.000	.000	.000	.000	.429	.600	.500	.000	.000	.250	.250	.000	.750	.607	.000	.813	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

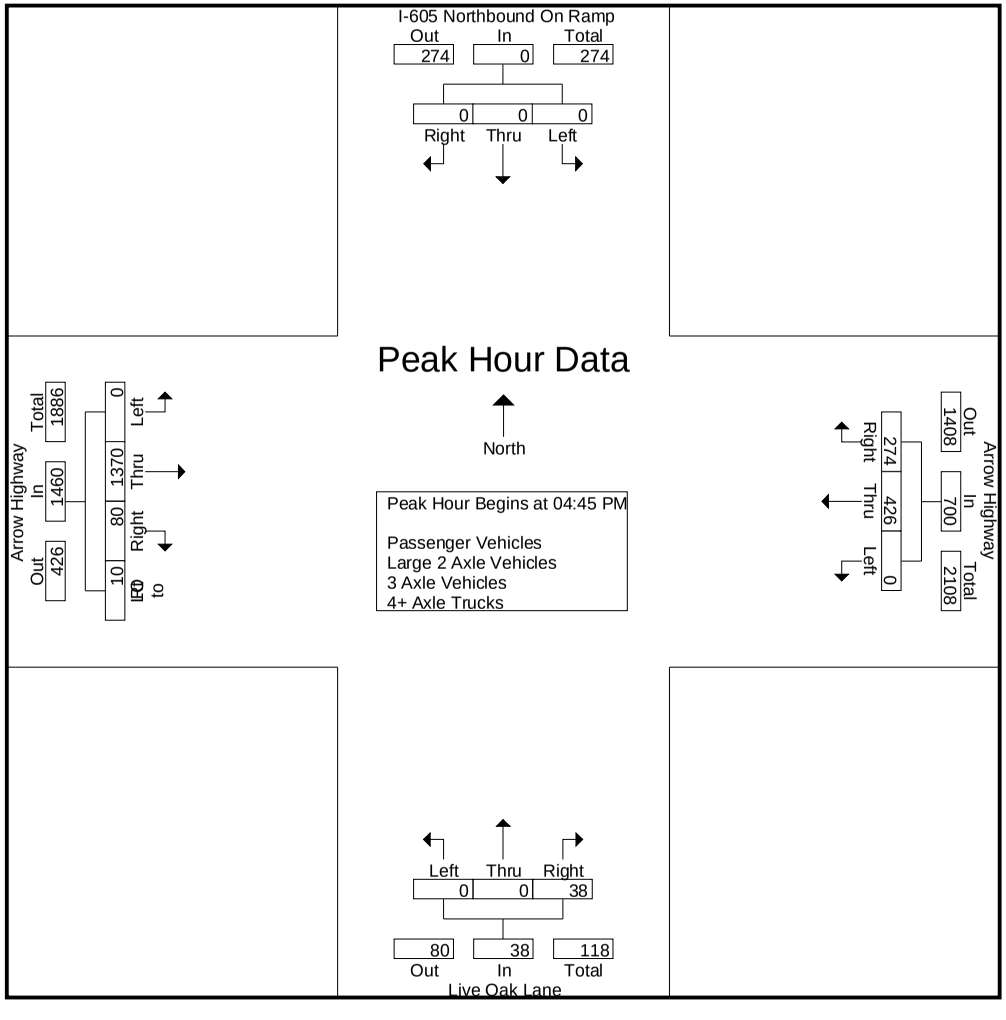
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	97	47	0	144	0	0	5	0	5	0	276	11	7	294	0	443	443
04:15 PM	0	0	0	0	0	0	101	52	0	153	0	0	7	0	7	0	298	18	5	321	0	481	481
04:30 PM	0	0	0	0	0	0	95	61	0	156	0	0	3	0	3	0	310	25	3	338	0	497	497
04:45 PM	0	0	0	0	0	0	113	56	0	169	0	0	13	0	13	0	350	13	3	366	0	548	548
Total	0	0	0	0	0	0	406	216	0	622	0	0	28	0	28	0	1234	67	18	1319	0	1969	1969
05:00 PM	0	0	0	0	0	0	99	76	0	175	0	0	10	0	10	0	337	25	3	365	0	550	550
05:15 PM	0	0	0	0	0	0	104	67	0	171	0	0	10	0	10	0	325	25	2	352	0	533	533
05:30 PM	0	0	0	0	0	0	110	75	0	185	0	0	5	0	5	0	358	17	2	377	0	567	567
05:45 PM	0	0	0	0	0	0	93	53	0	146	0	0	3	0	3	0	298	25	2	325	0	474	474
Total	0	0	0	0	0	0	406	271	0	677	0	0	28	0	28	0	1318	92	9	1419	0	2124	2124
Grand Total	0	0	0	0	0	0	812	487	0	1299	0	0	56	0	56	0	2552	159	27	2738	0	4093	4093
Apprch %	0	0	0			0	62.5	37.5			0	0	100			0	93.2	5.8	1				
Total %	0	0	0		0	0	19.8	11.9		31.7	0	0	1.4		1.4	0	62.4	3.9	0.7	66.9	0	100	
Passenger Vehicles	0	0	0		0	0	787	472		1259	0	0	49		49	0	2480	146	5	2631	0	0	3939
% Passenger Vehicles	0	0	0	0	0	0	96.9	96.9	0	96.9	0	0	87.5	0	87.5	0	97.2	91.8	18.5	96.1	0	0	96.2
Large 2 Axle Vehicles	0	0	0		0	0	18	5		23	0	0	5		5	0	46	4	7	57	0	0	85
% Large 2 Axle Vehicles	0	0	0	0	0	0	2.2	1	0	1.8	0	0	8.9	0	8.9	0	1.8	2.5	25.9	2.1	0	0	2.1
3 Axle Vehicles	0	0	0		0	0	1	1		2	0	0	0		0	0	12	1	8	21	0	0	23
% 3 Axle Vehicles	0	0	0	0	0	0	0.1	0.2	0	0.2	0	0	0	0	0	0	0.5	0.6	29.6	0.8	0	0	0.6
4+ Axle Trucks	0	0	0		0	0	6	9		15	0	0	2		2	0	14	8	7	29	0	0	46
% 4+ Axle Trucks	0	0	0	0	0	0	0.7	1.8	0	1.2	0	0	3.6	0	3.6	0	0.5	5	25.9	1.1	0	0	1.1

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	0	0	0	0	0	**113**	56	169	0	0	**13**	**13**	0	350	13	**3**	366	548
05:00 PM	0	0	0	0	0	99	**76**	175	0	0	10	10	0	337	**25**	3	365	550
05:15 PM	0	0	0	0	0	104	67	171	0	0	10	10	0	325	25	2	352	533
05:30 PM	0	0	0	0	0	110	75	**185**	0	0	5	5	0	**358**	17	2	**377**	**567**
Total Volume	0	0	0	0	0	426	274	700	0	0	38	38	0	1370	80	10	1460	2198
% App. Total	0	0	0		0	60.9	39.1		0	0	100		0	93.8	5.5	0.7		
PHF	.000	.000	.000	.000	.000	.942	.901	.946	.000	.000	.731	.731	.000	.957	.800	.833	.968	.969

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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:00 PM				04:45 PM				04:45 PM				04:45 PM					
+0 mins.	0	0	0	0	0	**113**	56	169	0	0	**13**	**13**	0	350	13	**3**	366	
+15 mins.	0	0	0	0	0	99	**76**	175	0	0	10	10	0	337	**25**	3	365	
+30 mins.	0	0	0	0	0	104	67	171	0	0	10	10	0	325	25	2	352	
+45 mins.	0	0	0	0	0	110	75	**185**	0	0	5	5	0	**358**	17	2	**377**	
Total Volume	0	0	0	0	0	426	274	700	0	0	38	38	0	1370	80	10	1460	
% App. Total	0	0	0		0	60.9	39.1		0	0	100		0	93.8	5.5	0.7		
PHF	.000	.000	.000	.000	.000	.942	.901	.946	.000	.000	.731	.731	.000	.957	.800	.833	.968	

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Groups Printed- Passenger Vehicles

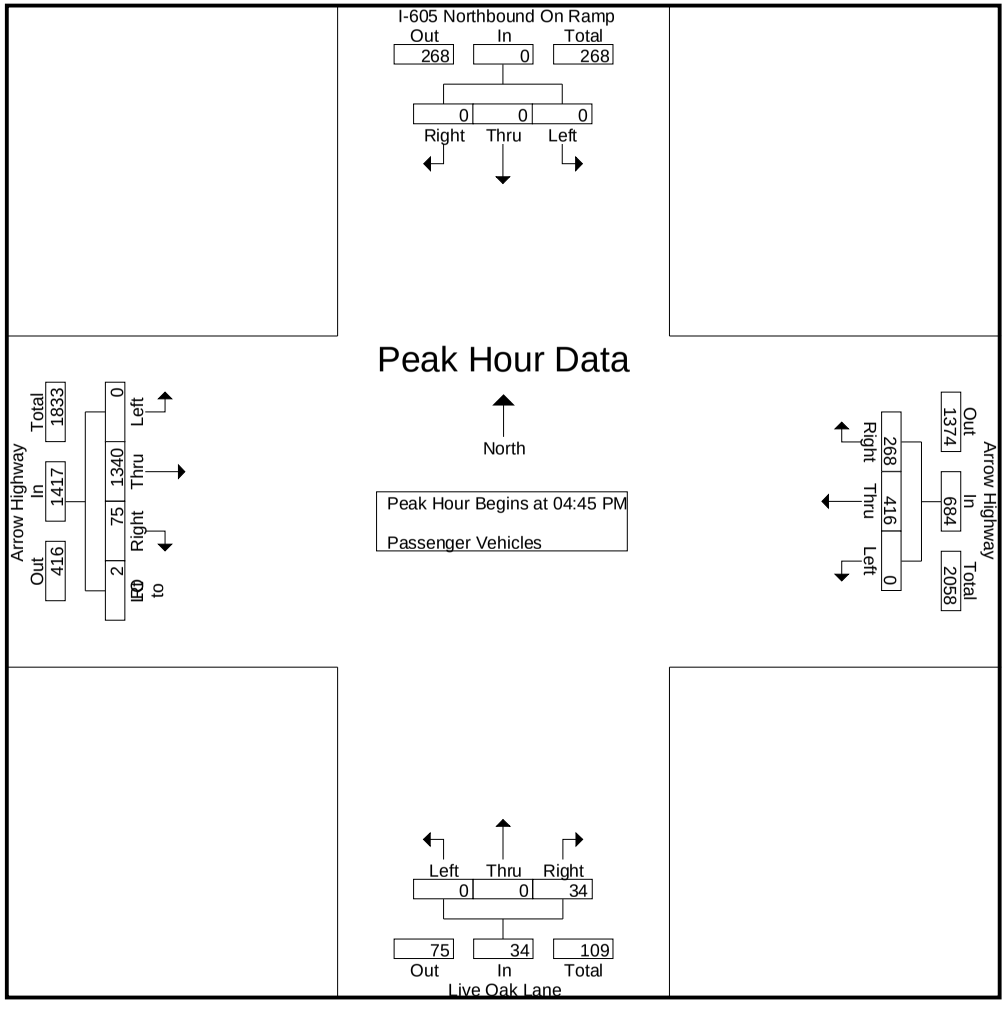
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	93	45	0	138	0	0	5	0	5	0	263	9	2	274	0	417	417
04:15 PM	0	0	0	0	0	0	94	50	0	144	0	0	4	0	4	0	284	16	1	301	0	449	449
04:30 PM	0	0	0	0	0	0	92	58	0	150	0	0	3	0	3	0	302	23	0	325	0	478	478
04:45 PM	0	0	0	0	0	0	110	55	0	165	0	0	12	0	12	0	344	12	1	357	0	534	534
Total	0	0	0	0	0	0	389	208	0	597	0	0	24	0	24	0	1193	60	4	1257	0	1878	1878
05:00 PM	0	0	0	0	0	0	97	75	0	172	0	0	9	0	9	0	325	23	1	349	0	530	530
05:15 PM	0	0	0	0	0	0	101	66	0	167	0	0	8	0	8	0	322	24	0	346	0	521	521
05:30 PM	0	0	0	0	0	0	108	72	0	180	0	0	5	0	5	0	349	16	0	365	0	550	550
05:45 PM	0	0	0	0	0	0	92	51	0	143	0	0	3	0	3	0	291	23	0	314	0	460	460
Total	0	0	0	0	0	0	398	264	0	662	0	0	25	0	25	0	1287	86	1	1374	0	2061	2061
Grand Total	0	0	0	0	0	0	787	472	0	1259	0	0	49	0	49	0	2480	146	5	2631	0	3939	3939
Apprch %	0	0	0			0	62.5	37.5			0	0	100			0	94.3	5.5	0.2				
Total %	0	0	0		0	0	20	12		32	0	0	1.2		1.2	0	63	3.7	0.1	66.8	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	0	0	0	0	0	**110**	55	165	0	0	**12**	**12**	0	344	12	**1**	357	534
05:00 PM	0	0	0	0	0	97	**75**	172	0	0	9	9	0	325	23	1	349	530
05:15 PM	0	0	0	0	0	101	66	167	0	0	8	8	0	322	**24**	0	346	521
05:30 PM	0	0	0	0	0	108	72	**180**	0	0	5	5	0	**349**	16	0	**365**	**550**
Total Volume	0	0	0	0	0	416	268	684	0	0	34	34	0	1340	75	2	1417	2135
% App. Total	0	0	0		0	60.8	39.2		0	0	100		0	94.6	5.3	0.1		
PHF	.000	.000	.000	.000	.000	.945	.893	.950	.000	.000	.708	.708	.000	.960	.781	.500	.971	.970

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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:45 PM				04:45 PM				04:45 PM				04:45 PM					
+0 mins.	0	0	0	0	0	**110**	55	165	0	0	**12**	**12**	0	344	12	**1**	357	
+15 mins.	0	0	0	0	0	97	**75**	172	0	0	9	9	0	325	23	1	349	
+30 mins.	0	0	0	0	0	101	66	167	0	0	8	8	0	322	**24**	0	346	
+45 mins.	0	0	0	0	0	108	72	**180**	0	0	5	5	0	**349**	16	0	**365**	
Total Volume	0	0	0	0	0	416	268	684	0	0	34	34	0	1340	75	2	1417	
% App. Total	0	0	0		0	60.8	39.2		0	0	100		0	94.6	5.3	0.1		
PHF	.000	.000	.000	.000	.000	.945	.893	.950	.000	.000	.708	.708	.000	.960	.781	.500	.971	

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Groups Printed- Large 2 Axle Vehicles

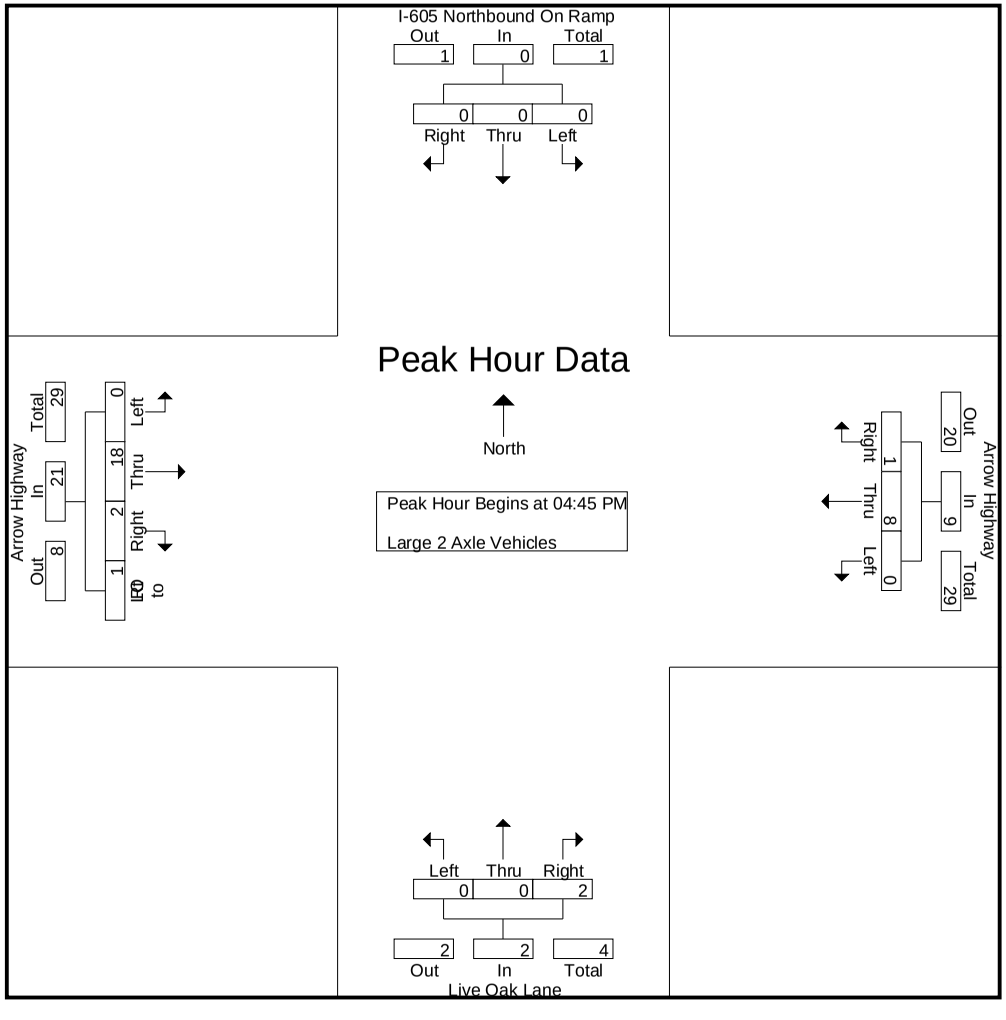
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	3	10	0	12	12
04:15 PM	0	0	0	0	0	0	6	1	0	7	0	0	3	0	3	0	10	1	1	12	0	22	22
04:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	5	0	1	6	0	8	8
04:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	2	0	0	2	0	6	6
Total	0	0	0	0	0	0	12	2	0	14	0	0	4	0	4	0	24	1	5	30	0	48	48
05:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	9	1	1	11	0	14	14
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
05:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	6	1	0	7	0	9	9
05:45 PM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	6	1	1	8	0	11	11
Total	0	0	0	0	0	0	6	3	0	9	0	0	1	0	1	0	22	3	2	27	0	37	37
Grand Total	0	0	0	0	0	0	18	5	0	23	0	0	5	0	5	0	46	4	7	57	0	85	85
Apprch %	0	0	0			0	78.3	21.7			0	0	100			0	80.7	7	12.3				
Total %	0	0	0		0	0	21.2	5.9		27.1	0	0	5.9		5.9	0	54.1	4.7	8.2	67.1	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	0	0	0	0	0	**3**	0	**3**	0	0	**1**	**1**	0	2	0	0	2	6
05:00 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	**9**	**1**	**1**	**11**	**14**
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	0	1	3
05:30 PM	0	0	0	0	0	1	**1**	2	0	0	0	0	0	6	1	0	7	9
Total Volume	0	0	0	0	0	8	1	9	0	0	2	2	0	18	2	1	21	32
% App. Total	0	0	0		0	88.9	11.1		0	0	100		0	85.7	9.5	4.8		
PHF	.000	.000	.000	.000	.000	.667	.250	.750	.000	.000	.500	.500	.000	.500	.500	.250	.477	.571

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E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:45 PM				04:45 PM				04:45 PM				04:45 PM					
+0 mins.	0	0	0	0	0	**3**	0	**3**	0	0	**1**	**1**	0	2	0	0	2	
+15 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	**9**	**1**	**1**	**11**	
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	0	1	
+45 mins.	0	0	0	0	0	1	**1**	2	0	0	0	0	0	6	1	0	7	
Total Volume	0	0	0	0	0	8	1	9	0	0	2	2	0	18	2	1	21	
% App. Total	0	0	0		0	88.9	11.1		0	0	100		0	85.7	9.5	4.8		
PHF	.000	.000	.000	.000	.000	.667	.250	.750	.000	.000	.500	.500	.000	.500	.500	.250	.477	

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

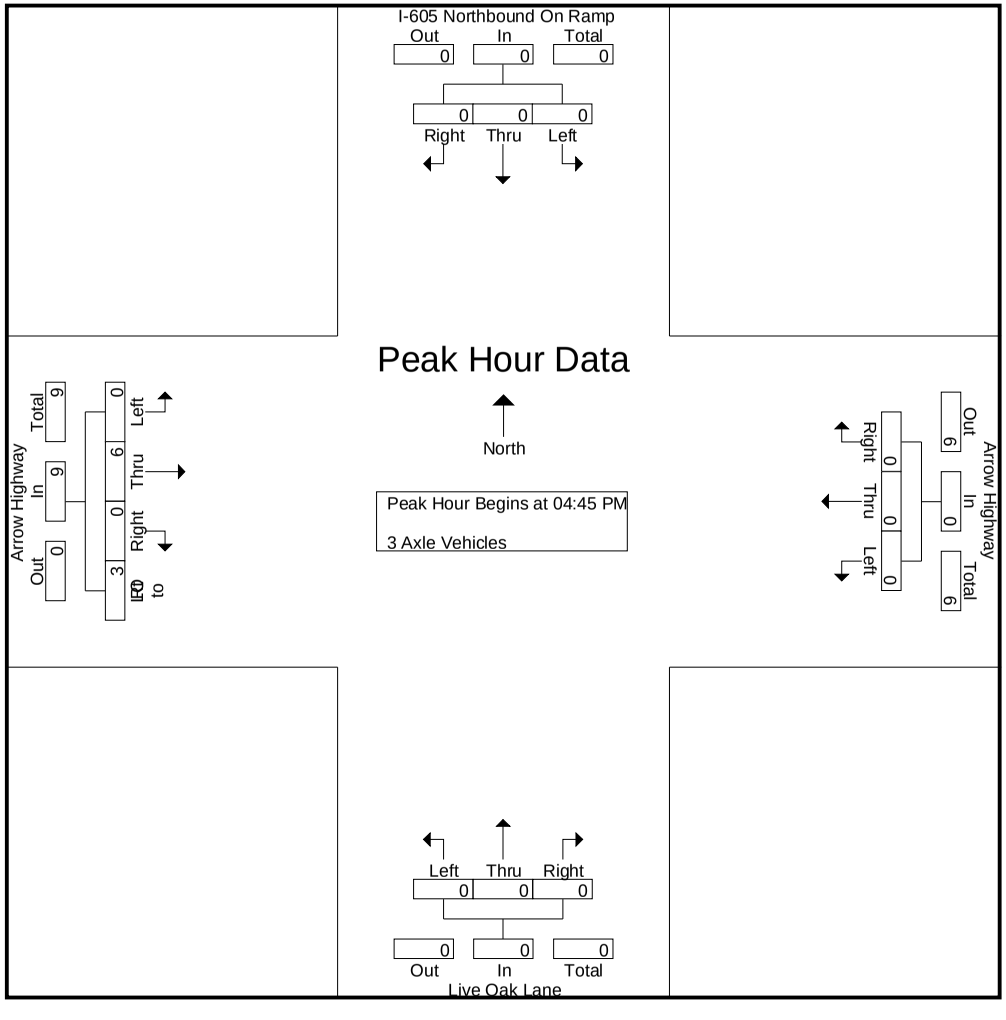
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	1	2	5	0	7	7
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	0	4	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	3
Total	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	8	1	5	14	0	16	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	3	7	0	7	7
Grand Total	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	12	1	8	21	0	23	23
Apprch %	0	0	0			0	50	50			0	0	0			0	57.1	4.8	38.1				
Total %	0	0	0		0	0	4.3	4.3		8.7	0	0	0		0	0	52.2	4.3	34.8	91.3	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**	**3**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	3	9	9
% App. Total	0	0	0		0	0	0		0	0	0		0	66.7	0	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.750	.750	.750

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
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City of Irwindale
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:45 PM				04:45 PM				04:45 PM				04:45 PM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	**3**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**	2	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	3	9	
% App. Total	0	0	0		0	0	0		0	0	0		0	66.7	0	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.750	.750	

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
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Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

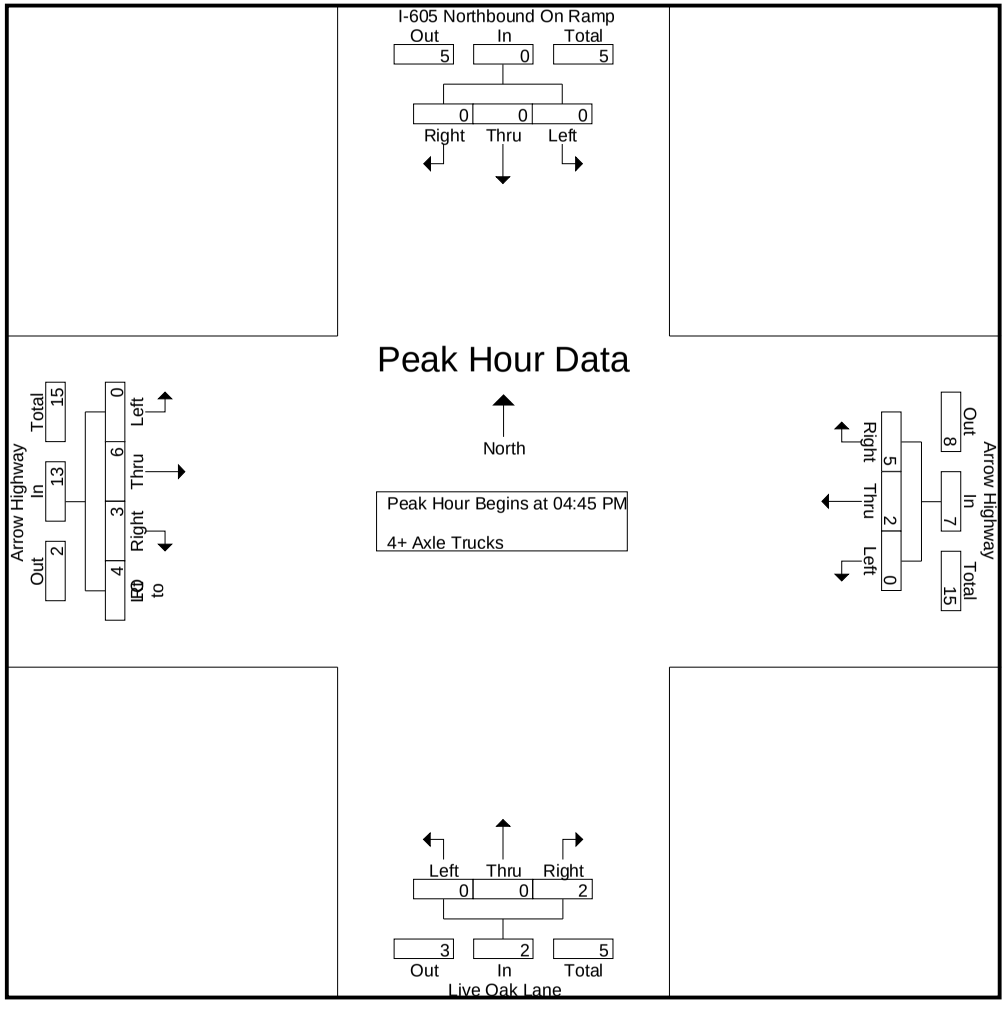
	I-605 Northbound On Ramp Southbound					Arrow Highway Westbound					Live Oak Lane Northbound					Arrow Highway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	Rt to LO	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	4	1	0	5	0	7	7
04:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	1	1	4	0	6	6
04:30 PM	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	2	2	1	5	0	9	9
04:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2	4	0	5	5
Total	0	0	0	0	0	0	4	5	0	9	0	0	0	0	0	0	9	5	4	18	0	27	27
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	1	0	3	0	4	4
05:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	0	1	1	1	3	0	7	7
05:30 PM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	2	0	1	3	0	6	6
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	2	2
Total	0	0	0	0	0	0	2	4	0	6	0	0	2	0	2	0	5	3	3	11	0	19	19
Grand Total	0	0	0	0	0	0	6	9	0	15	0	0	2	0	2	0	14	8	7	29	0	46	46
Apprch %	0	0	0			0	40	60			0	0	100			0	48.3	27.6	24.1				
Total %	0	0	0		0	0	13	19.6		32.6	0	0	4.3		4.3	0	30.4	17.4	15.2	63	0	100	

	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	**1**	**2**	**4**	5
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	**2**	1	0	3	4
05:15 PM	0	0	0	0	0	**1**	1	2	0	0	**2**	**2**	0	1	1	1	3	**7**
05:30 PM	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	2	0	1	3	6
Total Volume	0	0	0	0	0	2	5	7	0	0	2	2	0	6	3	4	13	22
% App. Total	0	0	0		0	28.6	71.4		0	0	100		0	46.2	23.1	30.8		
PHF	.000	.000	.000	.000	.000	.500	.625	.583	.000	.000	.250	.250	.000	.750	.750	.500	.813	.786

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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway
Weather: Clear

File Name : 17_IRW_605N On Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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	I-605 Northbound On Ramp Southbound				Arrow Highway Westbound				Live Oak Lane Northbound				Arrow Highway Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	Rt to LO	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:45 PM				04:45 PM				04:45 PM				04:45 PM					
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	**1**	**2**	**4**	
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	**2**	1	0	3	
+30 mins.	0	0	0	0	0	**1**	1	2	0	0	**2**	**2**	0	1	1	1	3	
+45 mins.	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	2	0	1	3	
Total Volume	0	0	0	0	0	2	5	7	0	0	2	2	0	6	3	4	13	
% App. Total	0	0	0		0	28.6	71.4		0	0	100		0	46.2	23.1	30.8		
PHF	.000	.000	.000	.000	.000	.500	.625	.583	.000	.000	.250	.250	.000	.750	.750	.500	.813	

Location: Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg I-605 NB On Ramp	East Leg Arrow Highway	South Leg Live Oak Lane	West Leg Arrow Highway	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-605 NB On Ramp	East Leg Arrow Highway	South Leg Live Oak Lane	West Leg Arrow Highway	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: I-605 NB On Ramp/Live Oak Lane
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg I-605 NB On Ramp	East Leg Arrow Highway	South Leg Live Oak Lane	West Leg Arrow Highway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	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	1	0	0	0	1
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	1	0	3

	North Leg I-605 NB On Ramp	East Leg Arrow Highway	South Leg Live Oak Lane	West Leg Arrow Highway	TOTAL
4:00 PM	0	0	2	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	2	0	2
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	0	0	0	0
TOTAL VOLUMES:	2	0	4	0	6

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

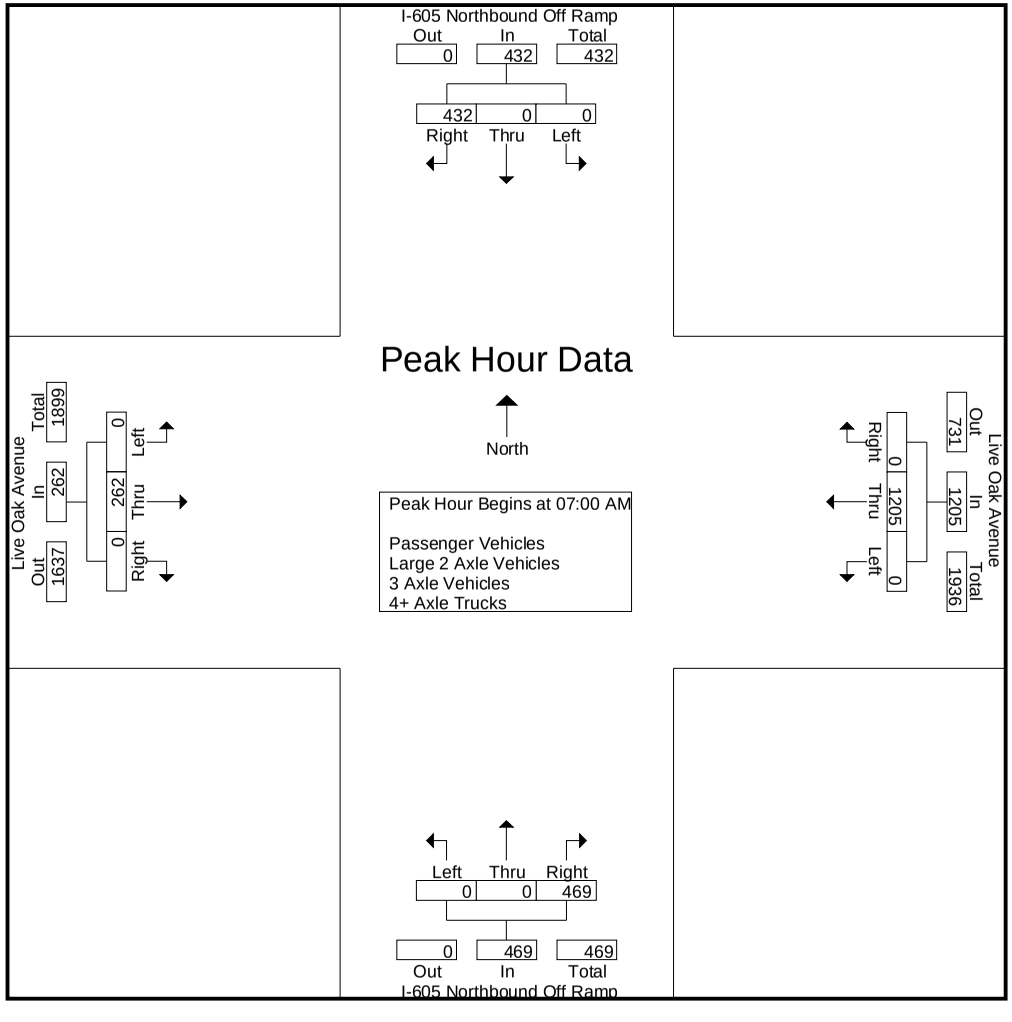
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	104	0	104	0	344	0	0	344	0	0	107	0	107	0	53	0	0	53	0	608	608
07:15 AM	0	0	91	0	91	0	307	0	0	307	0	0	107	0	107	0	59	0	0	59	0	564	564
07:30 AM	0	0	119	0	119	0	255	0	0	255	0	0	116	0	116	0	63	0	0	63	0	553	553
07:45 AM	0	0	118	0	118	0	299	0	0	299	0	0	139	0	139	0	87	0	0	87	0	643	643
Total	0	0	432	0	432	0	1205	0	0	1205	0	0	469	0	469	0	262	0	0	262	0	2368	2368
08:00 AM	0	0	128	0	128	0	255	0	0	255	0	0	116	0	116	0	88	0	0	88	0	587	587
08:15 AM	0	0	135	0	135	0	223	0	0	223	0	0	128	0	128	0	90	0	0	90	0	576	576
08:30 AM	0	0	117	0	117	0	216	0	0	216	0	0	90	0	90	0	88	0	0	88	0	511	511
08:45 AM	0	0	121	0	121	0	225	0	0	225	0	0	130	0	130	0	87	0	0	87	0	563	563
Total	0	0	501	0	501	0	919	0	0	919	0	0	464	0	464	0	353	0	0	353	0	2237	2237
Grand Total	0	0	933	0	933	0	2124	0	0	2124	0	0	933	0	933	0	615	0	0	615	0	4605	4605
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	20.3		20.3	0	46.1	0		46.1	0	0	20.3		20.3	0	13.4	0		13.4	0	100	
Passenger Vehicles	0	0	828		828	0	1783	0		1783	0	0	741		741	0	572	0		572	0	0	3924
% Passenger Vehicles	0	0	88.7	0	88.7	0	83.9	0	0	83.9	0	0	79.4	0	79.4	0	93	0	0	93	0	0	85.2
Large 2 Axle Vehicles	0	0	22		22	0	119	0		119	0	0	45		45	0	25	0		25	0	0	211
% Large 2 Axle Vehicles	0	0	2.4	0	2.4	0	5.6	0	0	5.6	0	0	4.8	0	4.8	0	4.1	0	0	4.1	0	0	4.6
3 Axle Vehicles	0	0	21		21	0	91	0		91	0	0	42		42	0	7	0		7	0	0	161
% 3 Axle Vehicles	0	0	2.3	0	2.3	0	4.3	0	0	4.3	0	0	4.5	0	4.5	0	1.1	0	0	1.1	0	0	3.5
4+ Axle Trucks	0	0	62		62	0	131	0		131	0	0	105		105	0	11	0		11	0	0	309
% 4+ Axle Trucks	0	0	6.6	0	6.6	0	6.2	0	0	6.2	0	0	11.3	0	11.3	0	1.8	0	0	1.8	0	0	6.7

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	104	104	0	**344**	0	**344**	0	0	107	107	0	53	0	53	608
07:15 AM	0	0	91	91	0	307	0	307	0	0	107	107	0	59	0	59	564
07:30 AM	0	0	**119**	**119**	0	255	0	255	0	0	116	116	0	63	0	63	553
07:45 AM	0	0	118	118	0	299	0	299	0	0	**139**	**139**	0	**87**	0	**87**	**643**
Total Volume	0	0	432	432	0	1205	0	1205	0	0	469	469	0	262	0	262	2368
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.908	.908	.000	.876	.000	.876	.000	.000	.844	.844	.000	.753	.000	.753	.921

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
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E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	08:00 AM				07:00 AM				07:30 AM				07:45 AM				
+0 mins.	0	0	128	128	0	**344**	0	**344**	0	0	116	116	0	87	0	87	
+15 mins.	0	0	**135**	**135**	0	307	0	307	0	0	**139**	**139**	0	88	0	88	
+30 mins.	0	0	117	117	0	255	0	255	0	0	116	116	0	**90**	0	**90**	
+45 mins.	0	0	121	121	0	299	0	299	0	0	128	128	0	88	0	88	
Total Volume	0	0	501	501	0	1205	0	1205	0	0	499	499	0	353	0	353	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.928	.928	.000	.876	.000	.876	.000	.000	.897	.897	.000	.981	.000	.981	

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

City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

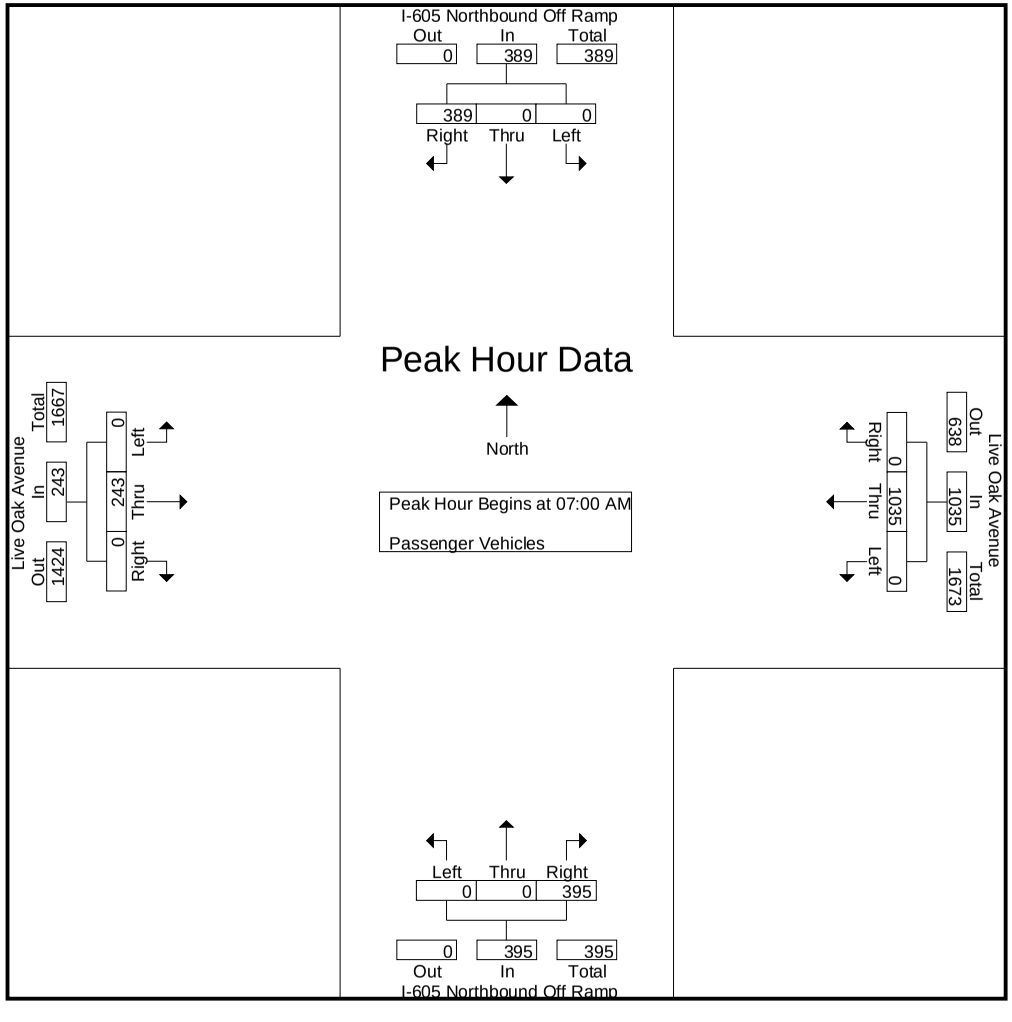
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	94	0	94	0	304	0	0	304	0	0	90	0	90	0	48	0	0	48	0	536	536
07:15 AM	0	0	77	0	77	0	266	0	0	266	0	0	90	0	90	0	52	0	0	52	0	485	485
07:30 AM	0	0	107	0	107	0	218	0	0	218	0	0	97	0	97	0	60	0	0	60	0	482	482
07:45 AM	0	0	111	0	111	0	247	0	0	247	0	0	118	0	118	0	83	0	0	83	0	559	559
Total	0	0	389	0	389	0	1035	0	0	1035	0	0	395	0	395	0	243	0	0	243	0	2062	2062
08:00 AM	0	0	109	0	109	0	221	0	0	221	0	0	90	0	90	0	82	0	0	82	0	502	502
08:15 AM	0	0	126	0	126	0	189	0	0	189	0	0	93	0	93	0	81	0	0	81	0	489	489
08:30 AM	0	0	101	0	101	0	163	0	0	163	0	0	59	0	59	0	85	0	0	85	0	408	408
08:45 AM	0	0	103	0	103	0	175	0	0	175	0	0	104	0	104	0	81	0	0	81	0	463	463
Total	0	0	439	0	439	0	748	0	0	748	0	0	346	0	346	0	329	0	0	329	0	1862	1862
Grand Total	0	0	828	0	828	0	1783	0	0	1783	0	0	741	0	741	0	572	0	0	572	0	3924	3924
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	21.1		21.1	0	45.4	0		45.4	0	0	18.9		18.9	0	14.6	0		14.6	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	94	94	0	**304**	0	**304**	0	0	90	90	0	48	0	48	536
07:15 AM	0	0	77	77	0	266	0	266	0	0	90	90	0	52	0	52	485
07:30 AM	0	0	107	107	0	218	0	218	0	0	97	97	0	60	0	60	482
07:45 AM	0	0	**111**	**111**	0	247	0	247	0	0	**118**	**118**	0	**83**	0	**83**	**559**
Total Volume	0	0	389	389	0	1035	0	1035	0	0	395	395	0	243	0	243	2062
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.876	.876	.000	.851	.000	.851	.000	.000	.837	.837	.000	.732	.000	.732	.922

Counts Unlimited
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Counts Unlimited
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	94	94	0	**304**	0	**304**	0	0	90	90	0	48	0	48	
+15 mins.	0	0	77	77	0	266	0	266	0	0	90	90	0	52	0	52	
+30 mins.	0	0	107	107	0	218	0	218	0	0	97	97	0	60	0	60	
+45 mins.	0	0	**111**	**111**	0	247	0	247	0	0	**118**	**118**	0	**83**	0	**83**	
Total Volume	0	0	389	389	0	1035	0	1035	0	0	395	395	0	243	0	243	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.876	.876	.000	.851	.000	.851	.000	.000	.837	.837	.000	.732	.000	.732	

Counts Unlimited
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

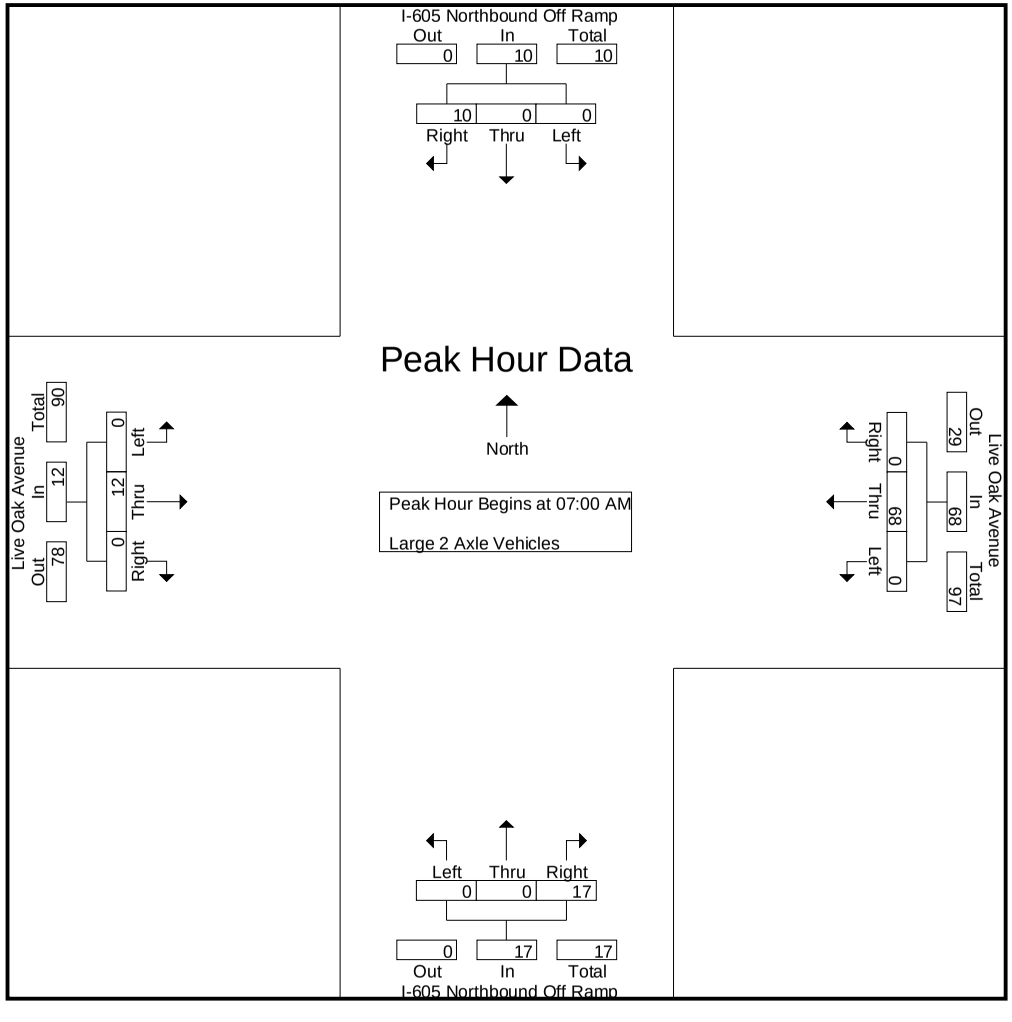
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	12	0	0	12	0	0	3	0	3	0	3	0	0	3	0	19	19
07:15 AM	0	0	4	0	4	0	14	0	0	14	0	0	5	0	5	0	5	0	0	5	0	28	28
07:30 AM	0	0	1	0	1	0	18	0	0	18	0	0	5	0	5	0	1	0	0	1	0	25	25
07:45 AM	0	0	4	0	4	0	24	0	0	24	0	0	4	0	4	0	3	0	0	3	0	35	35
Total	0	0	10	0	10	0	68	0	0	68	0	0	17	0	17	0	12	0	0	12	0	107	107
08:00 AM	0	0	3	0	3	0	7	0	0	7	0	0	10	0	10	0	2	0	0	2	0	22	22
08:15 AM	0	0	3	0	3	0	13	0	0	13	0	0	8	0	8	0	6	0	0	6	0	30	30
08:30 AM	0	0	1	0	1	0	15	0	0	15	0	0	4	0	4	0	1	0	0	1	0	21	21
08:45 AM	0	0	5	0	5	0	16	0	0	16	0	0	6	0	6	0	4	0	0	4	0	31	31
Total	0	0	12	0	12	0	51	0	0	51	0	0	28	0	28	0	13	0	0	13	0	104	104
Grand Total	0	0	22	0	22	0	119	0	0	119	0	0	45	0	45	0	25	0	0	25	0	211	211
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	10.4		10.4	0	56.4	0		56.4	0	0	21.3		21.3	0	11.8	0		11.8	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	12	0	12	0	0	3	3	0	3	0	3	19
07:15 AM	0	0	**4**	**4**	0	14	0	14	0	0	**5**	**5**	0	**5**	0	**5**	28
07:30 AM	0	0	1	1	0	18	0	18	0	0	5	5	0	1	0	1	25
07:45 AM	0	0	4	4	0	**24**	0	**24**	0	0	4	4	0	3	0	3	**35**
Total Volume	0	0	10	10	0	68	0	68	0	0	17	17	0	12	0	12	107
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.625	.625	.000	.708	.000	.708	.000	.000	.850	.850	.000	.600	.000	.600	.764

Counts Unlimited
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Corona, CA 92878
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	1	1	0	12	0	12	0	0	3	3	0	3	0	3	
+15 mins.	0	0	**4**	**4**	0	14	0	14	0	0	**5**	**5**	0	**5**	0	**5**	
+30 mins.	0	0	1	1	0	18	0	18	0	0	5	5	0	1	0	1	
+45 mins.	0	0	4	4	0	**24**	0	**24**	0	0	4	4	0	3	0	3	
Total Volume	0	0	10	10	0	68	0	68	0	0	17	17	0	12	0	12	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.625	.625	.000	.708	.000	.708	.000	.000	.850	.850	.000	.600	.000	.600	

Counts Unlimited
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

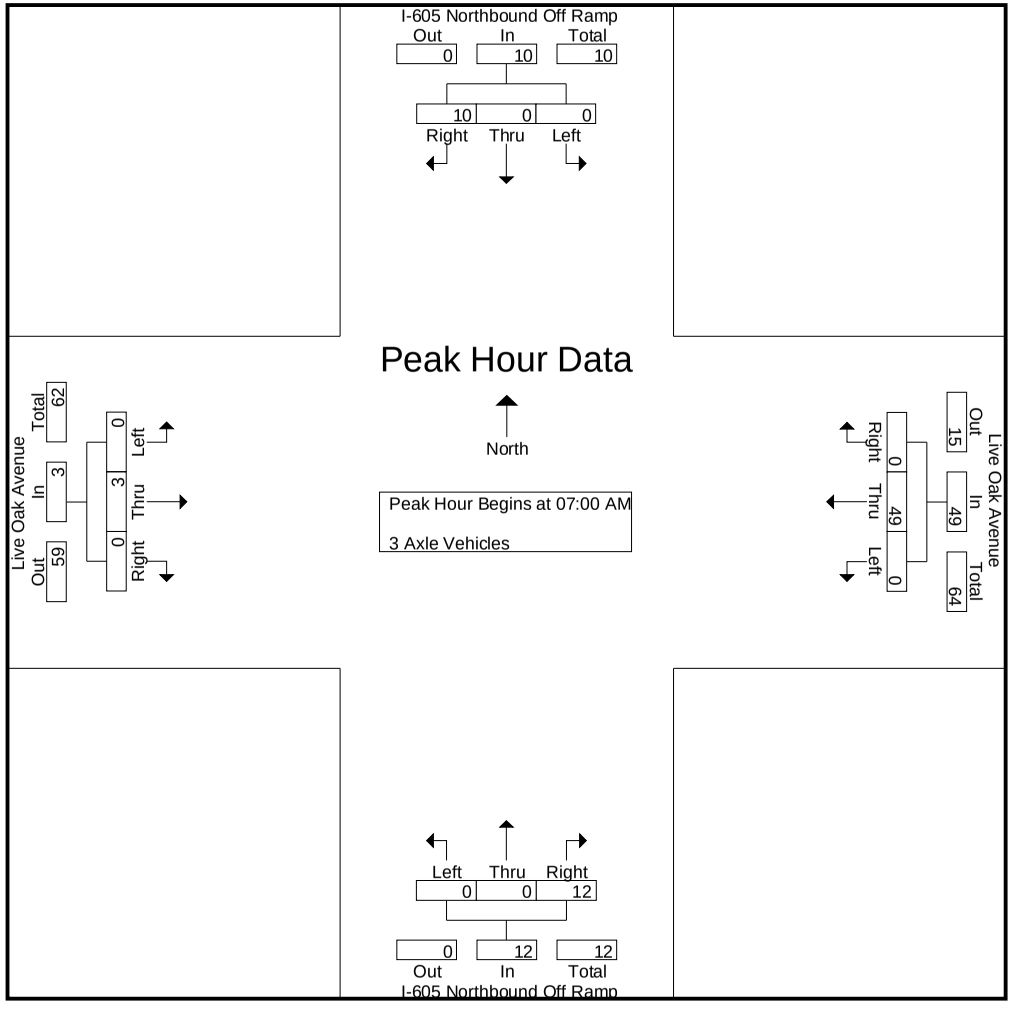
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	5	0	5	0	17	0	0	17	0	0	1	0	1	0	1	0	0	1	0	24	24
07:15 AM	0	0	2	0	2	0	12	0	0	12	0	0	4	0	4	0	0	0	0	0	0	18	18
07:30 AM	0	0	2	0	2	0	6	0	0	6	0	0	4	0	4	0	2	0	0	2	0	14	14
07:45 AM	0	0	1	0	1	0	14	0	0	14	0	0	3	0	3	0	0	0	0	0	0	18	18
Total	0	0	10	0	10	0	49	0	0	49	0	0	12	0	12	0	3	0	0	3	0	74	74
08:00 AM	0	0	5	0	5	0	7	0	0	7	0	0	3	0	3	0	1	0	0	1	0	16	16
08:15 AM	0	0	2	0	2	0	10	0	0	10	0	0	11	0	11	0	2	0	0	2	0	25	25
08:30 AM	0	0	2	0	2	0	14	0	0	14	0	0	10	0	10	0	1	0	0	1	0	27	27
08:45 AM	0	0	2	0	2	0	11	0	0	11	0	0	6	0	6	0	0	0	0	0	0	19	19
Total	0	0	11	0	11	0	42	0	0	42	0	0	30	0	30	0	4	0	0	4	0	87	87
Grand Total	0	0	21	0	21	0	91	0	0	91	0	0	42	0	42	0	7	0	0	7	0	161	161
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	13		13	0	56.5	0		56.5	0	0	26.1		26.1	0	4.3	0		4.3	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**5**	**5**	0	**17**	0	**17**	0	0	1	1	0	1	0	1	**24**
07:15 AM	0	0	2	2	0	12	0	12	0	0	**4**	**4**	0	0	0	0	18
07:30 AM	0	0	2	2	0	6	0	6	0	0	4	4	0	**2**	0	**2**	14
07:45 AM	0	0	1	1	0	14	0	14	0	0	3	3	0	0	0	0	18
Total Volume	0	0	10	10	0	49	0	49	0	0	12	12	0	3	0	3	74
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.500	.500	.000	.721	.000	.721	.000	.000	.750	.750	.000	.375	.000	.375	.771

Counts Unlimited
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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**5**	**5**	0	**17**	0	**17**	0	0	1	1	0	1	0	1	
+15 mins.	0	0	2	2	0	12	0	12	0	0	**4**	**4**	0	0	0	0	
+30 mins.	0	0	2	2	0	6	0	6	0	0	4	4	0	**2**	0	**2**	
+45 mins.	0	0	1	1	0	14	0	14	0	0	3	3	0	0	0	0	
Total Volume	0	0	10	10	0	49	0	49	0	0	12	12	0	3	0	3	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.500	.500	.000	.721	.000	.721	.000	.000	.750	.750	.000	.375	.000	.375	

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

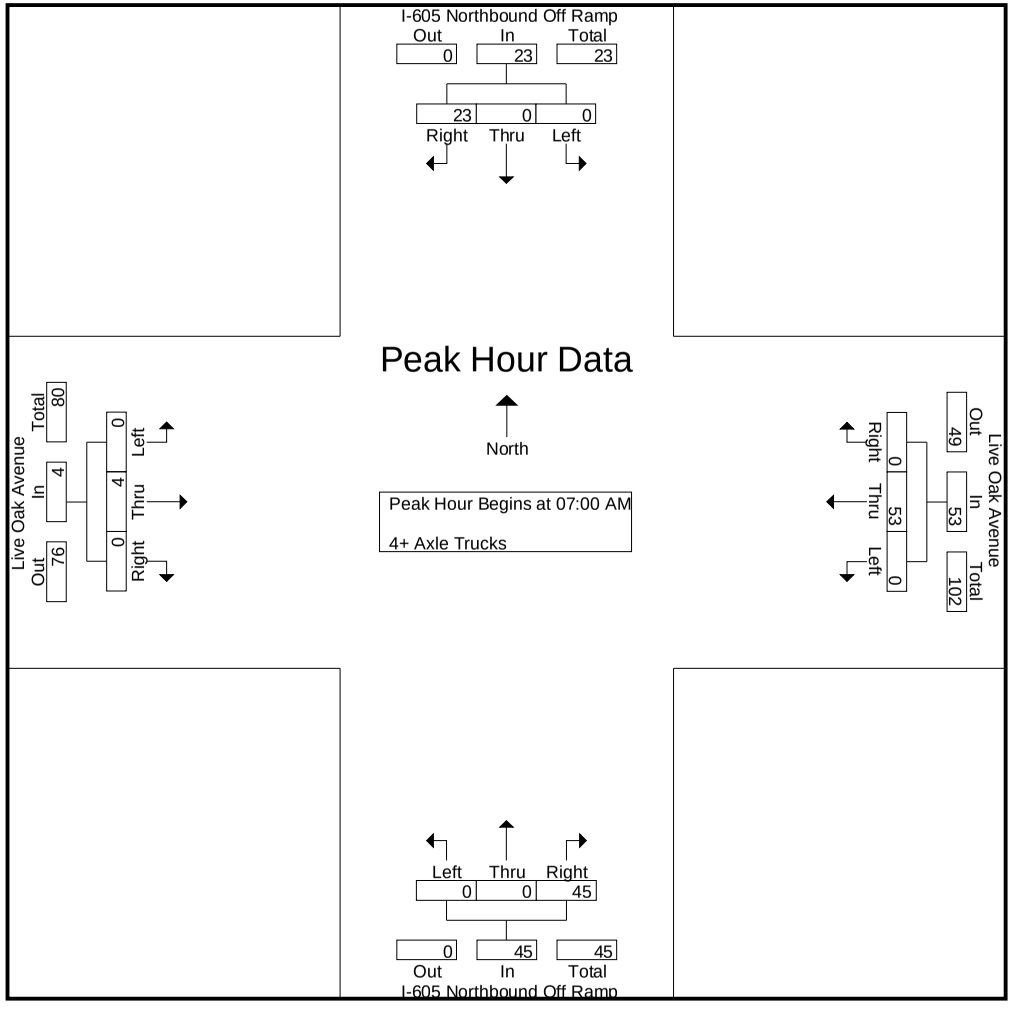
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	4	0	4	0	11	0	0	11	0	0	13	0	13	0	1	0	0	1	0	29	29
07:15 AM	0	0	8	0	8	0	15	0	0	15	0	0	8	0	8	0	2	0	0	2	0	33	33
07:30 AM	0	0	9	0	9	0	13	0	0	13	0	0	10	0	10	0	0	0	0	0	0	32	32
07:45 AM	0	0	2	0	2	0	14	0	0	14	0	0	14	0	14	0	1	0	0	1	0	31	31
Total	0	0	23	0	23	0	53	0	0	53	0	0	45	0	45	0	4	0	0	4	0	125	125
08:00 AM	0	0	11	0	11	0	20	0	0	20	0	0	13	0	13	0	3	0	0	3	0	47	47
08:15 AM	0	0	4	0	4	0	11	0	0	11	0	0	16	0	16	0	1	0	0	1	0	32	32
08:30 AM	0	0	13	0	13	0	24	0	0	24	0	0	17	0	17	0	1	0	0	1	0	55	55
08:45 AM	0	0	11	0	11	0	23	0	0	23	0	0	14	0	14	0	2	0	0	2	0	50	50
Total	0	0	39	0	39	0	78	0	0	78	0	0	60	0	60	0	7	0	0	7	0	184	184
Grand Total	0	0	62	0	62	0	131	0	0	131	0	0	105	0	105	0	11	0	0	11	0	309	309
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	20.1		20.1	0	42.4	0		42.4	0	0	34		34	0	3.6	0		3.6	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	4	4	0	11	0	11	0	0	13	13	0	1	0	1	29
07:15 AM	0	0	8	8	0	**15**	0	**15**	0	0	8	8	0	**2**	0	**2**	**33**
07:30 AM	0	0	**9**	**9**	0	13	0	13	0	0	10	10	0	0	0	0	32
07:45 AM	0	0	2	2	0	14	0	14	0	0	**14**	**14**	0	1	0	1	31
Total Volume	0	0	23	23	0	53	0	53	0	0	45	45	0	4	0	4	125
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.639	.639	.000	.883	.000	.883	.000	.000	.804	.804	.000	.500	.000	.500	.947

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo AM
Site Code : 05117783
Start Date : 11/28/2017

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	4	4	0	11	0	11	0	0	13	13	0	1	0	1	
+15 mins.	0	0	8	8	0	**15**	0	**15**	0	0	8	8	0	**2**	0	**2**	
+30 mins.	0	0	**9**	**9**	0	13	0	13	0	0	10	10	0	0	0	0	
+45 mins.	0	0	2	2	0	14	0	14	0	0	**14**	**14**	0	1	0	1	
Total Volume	0	0	23	23	0	53	0	53	0	0	45	45	0	4	0	4	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.639	.639	.000	.883	.000	.883	.000	.000	.804	.804	.000	.500	.000	.500	

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

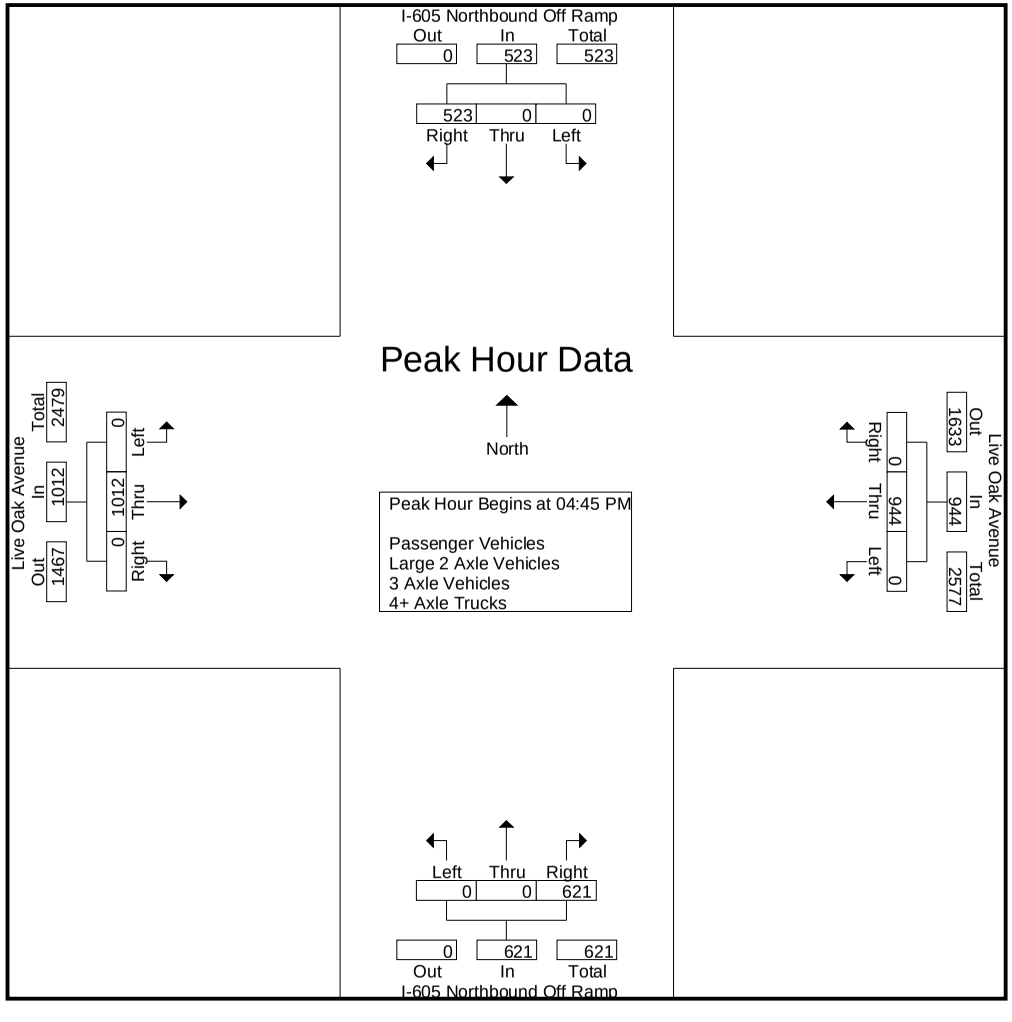
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	148	0	148	0	219	0	0	219	0	0	171	0	171	0	186	0	0	186	0	724	724
04:15 PM	0	0	133	0	133	0	186	0	0	186	0	0	181	0	181	0	192	0	0	192	0	692	692
04:30 PM	0	0	116	0	116	0	215	0	0	215	0	0	177	0	177	0	203	0	0	203	0	711	711
04:45 PM	0	0	106	0	106	0	239	0	0	239	0	0	151	0	151	0	251	0	0	251	0	747	747
Total	0	0	503	0	503	0	859	0	0	859	0	0	680	0	680	0	832	0	0	832	0	2874	2874
05:00 PM	0	0	144	0	144	0	245	0	0	245	0	0	156	0	156	0	247	0	0	247	0	792	792
05:15 PM	0	0	140	0	140	0	249	0	0	249	0	0	157	0	157	0	254	0	0	254	0	800	800
05:30 PM	0	0	133	0	133	0	211	0	0	211	0	0	157	0	157	0	260	0	0	260	0	761	761
05:45 PM	0	0	153	0	153	0	180	0	0	180	0	0	184	0	184	0	221	0	0	221	0	738	738
Total	0	0	570	0	570	0	885	0	0	885	0	0	654	0	654	0	982	0	0	982	0	3091	3091
Grand Total	0	0	1073	0	1073	0	1744	0	0	1744	0	0	1334	0	1334	0	1814	0	0	1814	0	5965	5965
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	18		18	0	29.2	0		29.2	0	0	22.4		22.4	0	30.4	0		30.4	0	100	
Passenger Vehicles	0	0	987		987	0	1641	0		1641	0	0	1255		1255	0	1743	0		1743	0	0	5626
% Passenger Vehicles	0	0	92	0	92	0	94.1	0	0	94.1	0	0	94.1	0	94.1	0	96.1	0	0	96.1	0	0	94.3
Large 2 Axle Vehicles	0	0	29		29	0	37	0		37	0	0	46		46	0	47	0		47	0	0	159
% Large 2 Axle Vehicles	0	0	2.7	0	2.7	0	2.1	0	0	2.1	0	0	3.4	0	3.4	0	2.6	0	0	2.6	0	0	2.7
3 Axle Vehicles	0	0	9		9	0	25	0		25	0	0	9		9	0	18	0		18	0	0	61
% 3 Axle Vehicles	0	0	0.8	0	0.8	0	1.4	0	0	1.4	0	0	0.7	0	0.7	0	1	0	0	1	0	0	1
4+ Axle Trucks	0	0	48		48	0	41	0		41	0	0	24		24	0	6	0		6	0	0	119
% 4+ Axle Trucks	0	0	4.5	0	4.5	0	2.4	0	0	2.4	0	0	1.8	0	1.8	0	0.3	0	0	0.3	0	0	2

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	106	106	0	239	0	239	0	0	151	151	0	251	0	251	747
05:00 PM	0	0	**144**	**144**	0	245	0	245	0	0	156	156	0	247	0	247	792
05:15 PM	0	0	140	140	0	**249**	0	**249**	0	0	**157**	**157**	0	254	0	254	**800**
05:30 PM	0	0	133	133	0	211	0	211	0	0	157	157	0	**260**	0	**260**	761
Total Volume	0	0	523	523	0	944	0	944	0	0	621	621	0	1012	0	1012	3100
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.908	.908	.000	.948	.000	.948	.000	.000	.989	.989	.000	.973	.000	.973	.969

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N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
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Start Date : 11/28/2017
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Site Code : 05117783
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	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:30 PM				04:00 PM				04:45 PM				
+0 mins.	0	0	144	144	0	215	0	215	0	0	171	171	0	251	0	251	
+15 mins.	0	0	140	140	0	239	0	239	0	0	**181**	**181**	0	247	0	247	
+30 mins.	0	0	133	133	0	245	0	245	0	0	177	177	0	254	0	254	
+45 mins.	0	0	**153**	**153**	0	**249**	0	**249**	0	0	151	151	0	**260**	0	**260**	
Total Volume	0	0	570	570	0	948	0	948	0	0	680	680	0	1012	0	1012	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.931	.931	.000	.952	.000	.952	.000	.000	.939	.939	.000	.973	.000	.973	

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

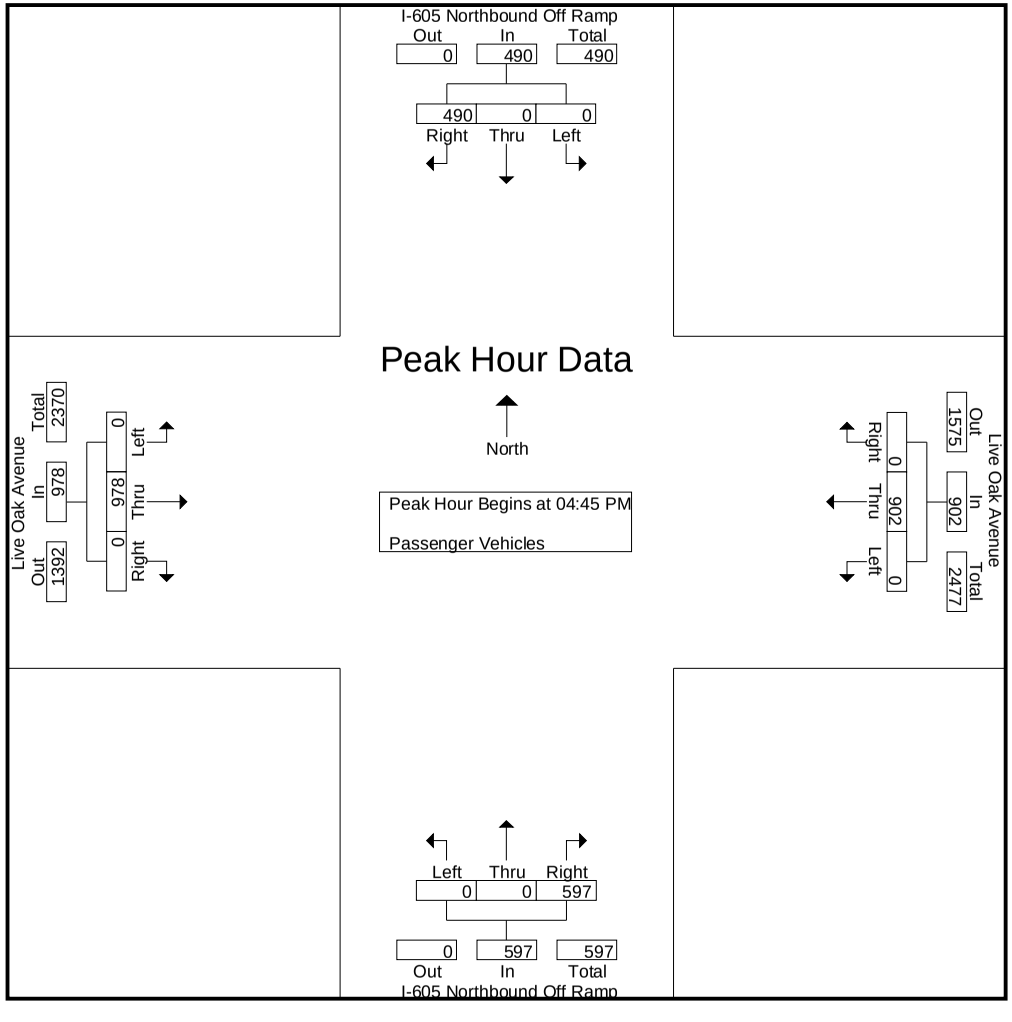
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	128	0	128	0	202	0	0	202	0	0	153	0	153	0	176	0	0	176	0	659	659
04:15 PM	0	0	117	0	117	0	162	0	0	162	0	0	167	0	167	0	181	0	0	181	0	627	627
04:30 PM	0	0	105	0	105	0	204	0	0	204	0	0	164	0	164	0	191	0	0	191	0	664	664
04:45 PM	0	0	99	0	99	0	224	0	0	224	0	0	145	0	145	0	239	0	0	239	0	707	707
Total	0	0	449	0	449	0	792	0	0	792	0	0	629	0	629	0	787	0	0	787	0	2657	2657
05:00 PM	0	0	132	0	132	0	235	0	0	235	0	0	150	0	150	0	242	0	0	242	0	759	759
05:15 PM	0	0	133	0	133	0	238	0	0	238	0	0	149	0	149	0	242	0	0	242	0	762	762
05:30 PM	0	0	126	0	126	0	205	0	0	205	0	0	153	0	153	0	255	0	0	255	0	739	739
05:45 PM	0	0	147	0	147	0	171	0	0	171	0	0	174	0	174	0	217	0	0	217	0	709	709
Total	0	0	538	0	538	0	849	0	0	849	0	0	626	0	626	0	956	0	0	956	0	2969	2969
Grand Total	0	0	987	0	987	0	1641	0	0	1641	0	0	1255	0	1255	0	1743	0	0	1743	0	5626	5626
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	17.5		17.5	0	29.2	0		29.2	0	0	22.3		22.3	0	31	0		31	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	99	99	0	224	0	224	0	0	145	145	0	239	0	239	707
05:00 PM	0	0	132	132	0	235	0	235	0	0	150	150	0	242	0	242	759
05:15 PM	0	0	**133**	**133**	0	**238**	0	**238**	0	0	149	149	0	242	0	242	**762**
05:30 PM	0	0	126	126	0	205	0	205	0	0	**153**	**153**	0	**255**	0	**255**	739
Total Volume	0	0	490	490	0	902	0	902	0	0	597	597	0	978	0	978	2967
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.921	.921	.000	.947	.000	.947	.000	.000	.975	.975	.000	.959	.000	.959	.973

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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File Name : 08_IRW_605N Lo PM
Site Code : 05117783
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	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	99	99	0	224	0	224	0	0	145	145	0	239	0	239	
+15 mins.	0	0	132	132	0	235	0	235	0	0	150	150	0	242	0	242	
+30 mins.	0	0	**133**	**133**	0	**238**	0	**238**	0	0	149	149	0	242	0	242	
+45 mins.	0	0	126	126	0	205	0	205	0	0	**153**	**153**	0	**255**	0	**255**	
Total Volume	0	0	490	490	0	902	0	902	0	0	597	597	0	978	0	978	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.921	.921	.000	.947	.000	.947	.000	.000	.975	.975	.000	.959	.000	.959	

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City of Irwindale
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Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
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Groups Printed- Large 2 Axle Vehicles

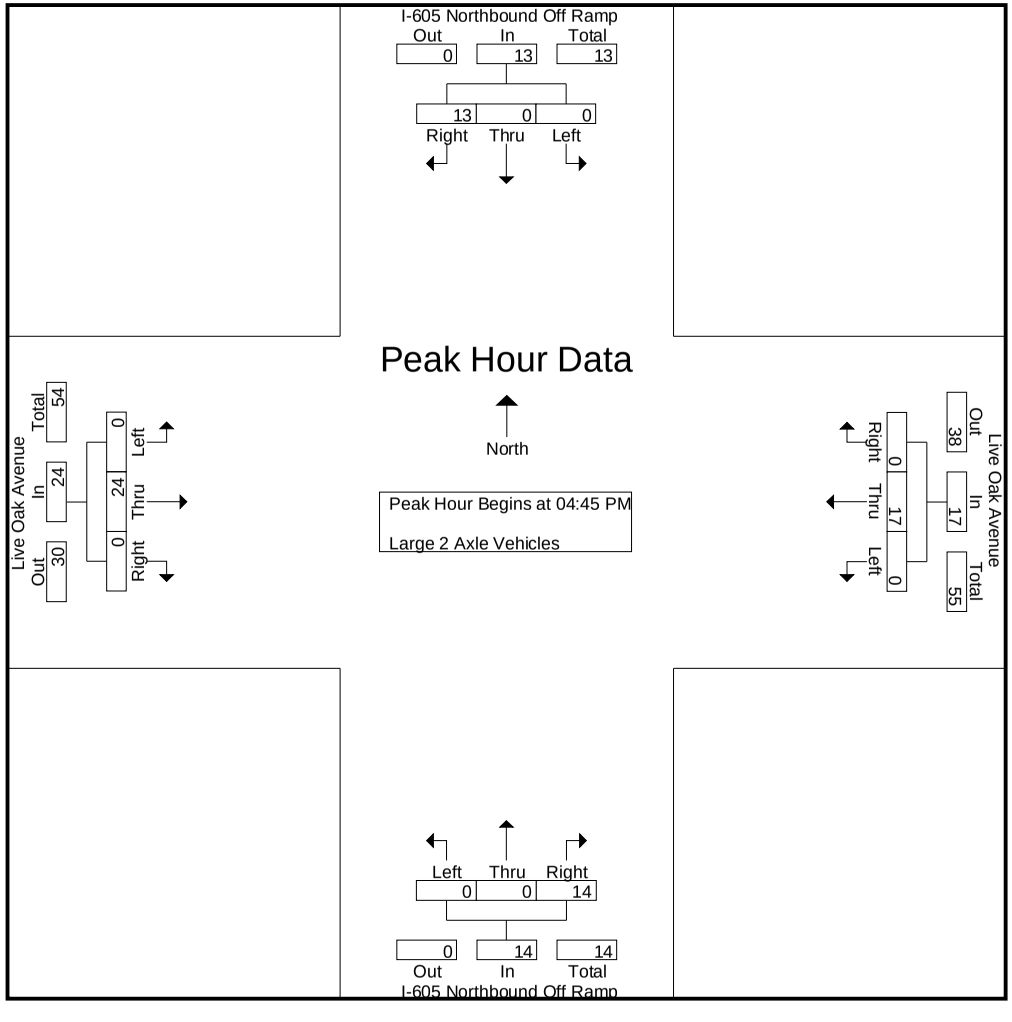
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	6	0	6	0	5	0	0	5	0	0	11	0	11	0	6	0	0	6	0	28	28
04:15 PM	0	0	6	0	6	0	7	0	0	7	0	0	8	0	8	0	6	0	0	6	0	27	27
04:30 PM	0	0	2	0	2	0	4	0	0	4	0	0	6	0	6	0	8	0	0	8	0	20	20
04:45 PM	0	0	1	0	1	0	2	0	0	2	0	0	2	0	2	0	7	0	0	7	0	12	12
Total	0	0	15	0	15	0	18	0	0	18	0	0	27	0	27	0	27	0	0	27	0	87	87
05:00 PM	0	0	6	0	6	0	4	0	0	4	0	0	5	0	5	0	5	0	0	5	0	20	20
05:15 PM	0	0	4	0	4	0	8	0	0	8	0	0	6	0	6	0	7	0	0	7	0	25	25
05:30 PM	0	0	2	0	2	0	3	0	0	3	0	0	1	0	1	0	5	0	0	5	0	11	11
05:45 PM	0	0	2	0	2	0	4	0	0	4	0	0	7	0	7	0	3	0	0	3	0	16	16
Total	0	0	14	0	14	0	19	0	0	19	0	0	19	0	19	0	20	0	0	20	0	72	72
Grand Total	0	0	29	0	29	0	37	0	0	37	0	0	46	0	46	0	47	0	0	47	0	159	159
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	18.2		18.2	0	23.3	0		23.3	0	0	28.9		28.9	0	29.6	0		29.6	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	1	1	0	2	0	2	0	0	2	2	0	**7**	0	**7**	12
05:00 PM	0	0	**6**	**6**	0	4	0	4	0	0	5	5	0	5	0	5	20
05:15 PM	0	0	4	4	0	**8**	0	**8**	0	0	**6**	**6**	0	7	0	7	**25**
05:30 PM	0	0	2	2	0	3	0	3	0	0	1	1	0	5	0	5	11
Total Volume	0	0	13	13	0	17	0	17	0	0	14	14	0	24	0	24	68
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.542	.542	.000	.531	.000	.531	.000	.000	.583	.583	.000	.857	.000	.857	.680

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E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
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City of Irwindale
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File Name : 08_IRW_605N Lo PM
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	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	1	1	0	2	0	2	0	0	2	2	0	**7**	0	**7**	
+15 mins.	0	0	**6**	**6**	0	4	0	4	0	0	5	5	0	5	0	5	
+30 mins.	0	0	4	4	0	**8**	0	**8**	0	0	**6**	**6**	0	7	0	7	
+45 mins.	0	0	2	2	0	3	0	3	0	0	1	1	0	5	0	5	
Total Volume	0	0	13	13	0	17	0	17	0	0	14	14	0	24	0	24	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.542	.542	.000	.531	.000	.531	.000	.000	.583	.583	.000	.857	.000	.857	

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City of Irwindale
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Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

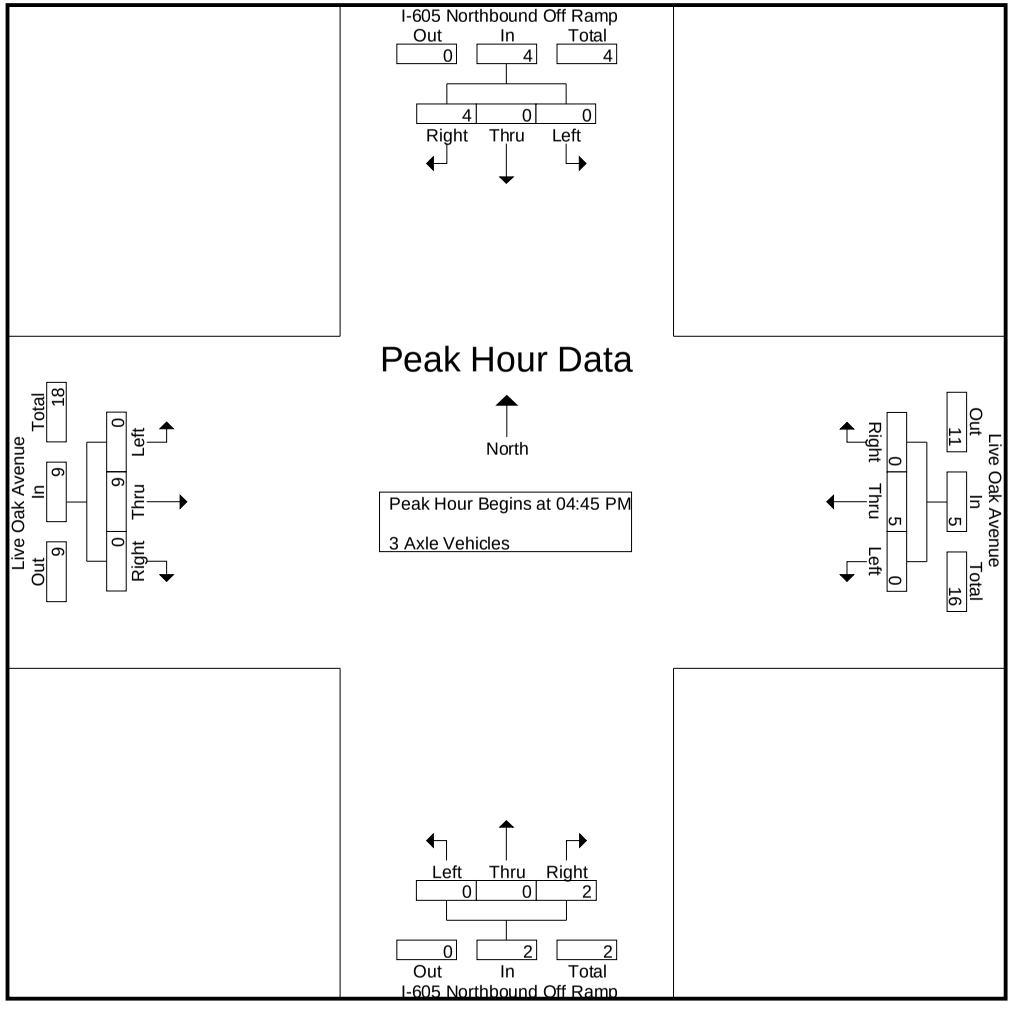
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	3	0	3	0	5	0	0	5	0	0	2	0	2	0	3	0	0	3	0	13	13
04:15 PM	0	0	2	0	2	0	9	0	0	9	0	0	1	0	1	0	3	0	0	3	0	15	15
04:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	3	0	3	0	2	0	0	2	0	7	7
04:45 PM	0	0	2	0	2	0	2	0	0	2	0	0	1	0	1	0	4	0	0	4	0	9	9
Total	0	0	7	0	7	0	18	0	0	18	0	0	7	0	7	0	12	0	0	12	0	44	44
05:00 PM	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	5	0	0	5	0	8	8
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	1	0	0	1	0	6	6
Total	0	0	2	0	2	0	7	0	0	7	0	0	2	0	2	0	6	0	0	6	0	17	17
Grand Total	0	0	9	0	9	0	25	0	0	25	0	0	9	0	9	0	18	0	0	18	0	61	61
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	14.8		14.8	0	41	0		41	0	0	14.8		14.8	0	29.5	0		29.5	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	**2**	**2**	0	**2**	0	**2**	0	0	**1**	**1**	0	4	0	4	**9**
05:00 PM	0	0	2	2	0	1	0	1	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	**5**	0	**5**	8
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	4	4	0	5	0	5	0	0	2	2	0	9	0	9	20
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.500	.500	.000	.625	.000	.625	.000	.000	.500	.500	.000	.450	.000	.450	.556

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
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File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	**2**	**2**	0	**2**	0	**2**	0	0	**1**	**1**	0	4	0	4	
+15 mins.	0	0	2	2	0	1	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	**5**	0	**5**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	4	4	0	5	0	5	0	0	2	2	0	9	0	9	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.500	.500	.000	.625	.000	.625	.000	.000	.500	.500	.000	.450	.000	.450	

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
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Page No : 1

Groups Printed- 4+ Axle Trucks

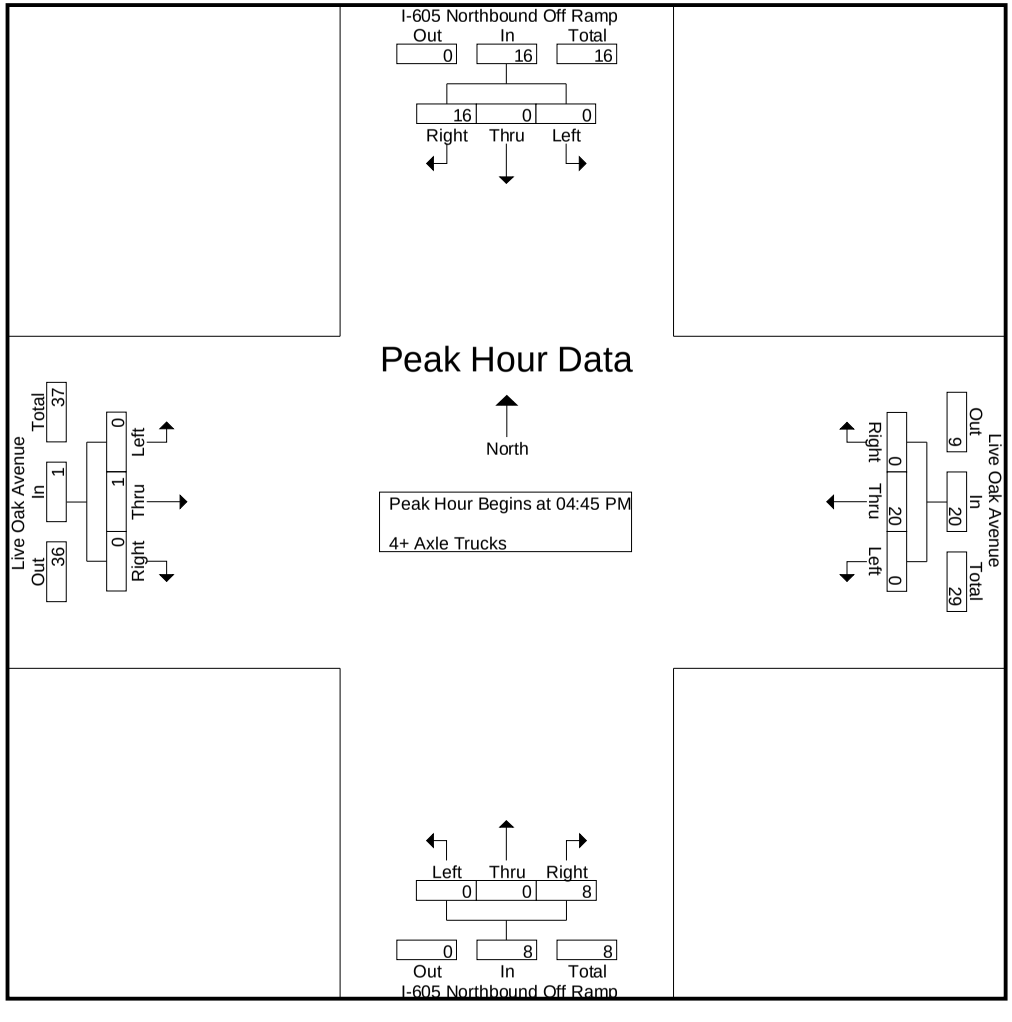
	I-605 Northbound Off Ramp Southbound					Live Oak Avenue Westbound					I-605 Northbound Off Ramp Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	11	0	11	0	7	0	0	7	0	0	5	0	5	0	1	0	0	1	0	24	24
04:15 PM	0	0	8	0	8	0	8	0	0	8	0	0	5	0	5	0	2	0	0	2	0	23	23
04:30 PM	0	0	9	0	9	0	5	0	0	5	0	0	4	0	4	0	2	0	0	2	0	20	20
04:45 PM	0	0	4	0	4	0	11	0	0	11	0	0	3	0	3	0	1	0	0	1	0	19	19
Total	0	0	32	0	32	0	31	0	0	31	0	0	17	0	17	0	6	0	0	6	0	86	86
05:00 PM	0	0	4	0	4	0	5	0	0	5	0	0	1	0	1	0	0	0	0	0	0	10	10
05:15 PM	0	0	3	0	3	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	5	5
05:30 PM	0	0	5	0	5	0	3	0	0	3	0	0	3	0	3	0	0	0	0	0	0	11	11
05:45 PM	0	0	4	0	4	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	7	7
Total	0	0	16	0	16	0	10	0	0	10	0	0	7	0	7	0	0	0	0	0	0	33	33
Grand Total	0	0	48	0	48	0	41	0	0	41	0	0	24	0	24	0	6	0	0	6	0	119	119
Apprch %	0	0	100			0	100	0			0	0	100			0	100	0					
Total %	0	0	40.3		40.3	0	34.5	0		34.5	0	0	20.2		20.2	0	5	0		5	0	100	

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	4	4	0	**11**	0	**11**	0	0	**3**	**3**	0	**1**	0	**1**	**19**
05:00 PM	0	0	4	4	0	5	0	5	0	0	1	1	0	0	0	0	10
05:15 PM	0	0	3	3	0	1	0	1	0	0	1	1	0	0	0	0	5
05:30 PM	0	0	**5**	**5**	0	3	0	3	0	0	3	3	0	0	0	0	11
Total Volume	0	0	16	16	0	20	0	20	0	0	8	8	0	1	0	1	45
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.800	.800	.000	.455	.000	.455	.000	.000	.667	.667	.000	.250	.000	.250	.592

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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue
Weather: Clear

File Name : 08_IRW_605N Lo PM
Site Code : 05117783
Start Date : 11/28/2017

	I-605 Northbound Off Ramp Southbound				Live Oak Avenue Westbound				I-605 Northbound Off Ramp Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	4	4	0	**11**	0	**11**	0	0	**3**	**3**	0	**1**	0	**1**	
+15 mins.	0	0	4	4	0	5	0	5	0	0	1	1	0	0	0	0	
+30 mins.	0	0	3	3	0	1	0	1	0	0	1	1	0	0	0	0	
+45 mins.	0	0	**5**	**5**	0	3	0	3	0	0	3	3	0	0	0	0	
Total Volume	0	0	16	16	0	20	0	20	0	0	8	8	0	1	0	1	
% App. Total	0	0	100		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.800	.800	.000	.455	.000	.455	.000	.000	.667	.667	.000	.250	.000	.250	

Location: Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg I-605 NB Off Ramp	East Leg Live Oak Avenue	South Leg I-605 NB Off Ramp	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-605 NB Off Ramp	East Leg Live Oak Avenue	South Leg I-605 NB Off Ramp	West Leg Live Oak Avenue	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: I-605 Northbound Off Ramps
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg I-605 NB Off Ramp	East Leg Live Oak Avenue	South Leg I-605 NB Off Ramp	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	3	0	3
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	5	0	6

	North Leg I-605 NB Off Ramp	East Leg Live Oak Avenue	South Leg I-605 NB Off Ramp	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
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 VOLUMES:	0	0	1	0	1

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

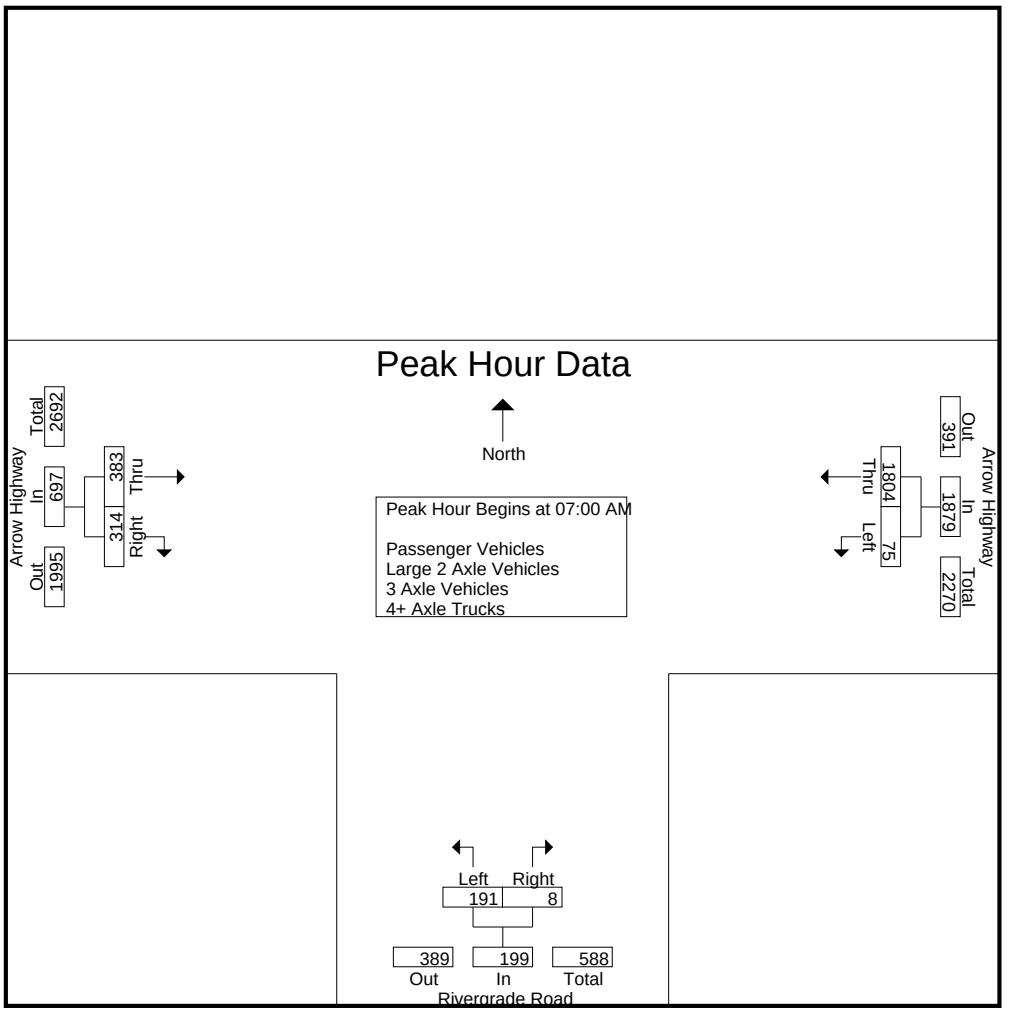
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	15	534	0	549	29	3	3	32	61	64	2	125	5	706	711
07:15 AM	11	512	0	523	52	1	0	53	83	52	9	135	9	711	720
07:30 AM	25	390	0	415	52	2	1	54	99	75	8	174	9	643	652
07:45 AM	24	368	0	392	58	2	1	60	140	123	17	263	18	715	733
Total	75	1804	0	1879	191	8	5	199	383	314	36	697	41	2775	2816
08:00 AM	17	329	0	346	54	0	0	54	131	101	16	232	16	632	648
08:15 AM	13	319	0	332	50	5	5	55	118	79	6	197	11	584	595
08:30 AM	5	245	0	250	43	1	1	44	106	62	7	168	8	462	470
08:45 AM	5	234	0	239	32	6	3	38	95	56	2	151	5	428	433
Total	40	1127	0	1167	179	12	9	191	450	298	31	748	40	2106	2146
Grand Total	115	2931	0	3046	370	20	14	390	833	612	67	1445	81	4881	4962
Apprch %	3.8	96.2			94.9	5.1			57.6	42.4					
Total %	2.4	60		62.4	7.6	0.4		8	17.1	12.5		29.6	1.6	98.4	
Passenger Vehicles	98	2808		2906	295	9		312	756	529		1340	0	0	4558
% Passenger Vehicles	85.2	95.8	0	95.4	79.7	45	57.1	77.2	90.8	86.4	82.1	88.6	0	0	91.9
Large 2 Axle Vehicles	3	90		93	31	3		36	55	34		94	0	0	223
% Large 2 Axle Vehicles	2.6	3.1	0	3.1	8.4	15	14.3	8.9	6.6	5.6	7.5	6.2	0	0	4.5
3 Axle Vehicles	2	17		19	10	4		15	12	24		43	0	0	77
% 3 Axle Vehicles	1.7	0.6	0	0.6	2.7	20	7.1	3.7	1.4	3.9	10.4	2.8	0	0	1.6
4+ Axle Trucks	12	16		28	34	4		41	10	25		35	0	0	104
% 4+ Axle Trucks	10.4	0.5	0	0.9	9.2	20	21.4	10.1	1.2	4.1	0	2.3	0	0	2.1

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	**534**	**549**	29	**3**	32	61	64	125	706
07:15 AM	11	512	523	52	1	53	83	52	135	711
07:30 AM	**25**	390	415	52	2	54	99	75	174	643
07:45 AM	24	368	392	**58**	2	**60**	**140**	**123**	**263**	**715**
Total Volume	75	1804	1879	191	8	199	383	314	697	2775
% App. Total	4	96		96	4		54.9	45.1		
PHF	.750	.845	.856	.823	.667	.829	.684	.638	.663	.970

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	15	**534**	**549**	52	2	54	99	75	174
+15 mins.	11	512	523	**58**	2	**60**	**140**	**123**	**263**
+30 mins.	**25**	390	415	54	0	54	131	101	232
+45 mins.	24	368	392	50	**5**	55	118	79	197
Total Volume	75	1804	1879	214	9	223	488	378	866
% App. Total	4	96		96	4		56.4	43.6	
PHF	.750	.845	.856	.922	.450	.929	.871	.768	.823

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City of Irwindale
N/S: Rivergrade Road
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Weather: Clear

File Name : 19_IRW_Riv Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

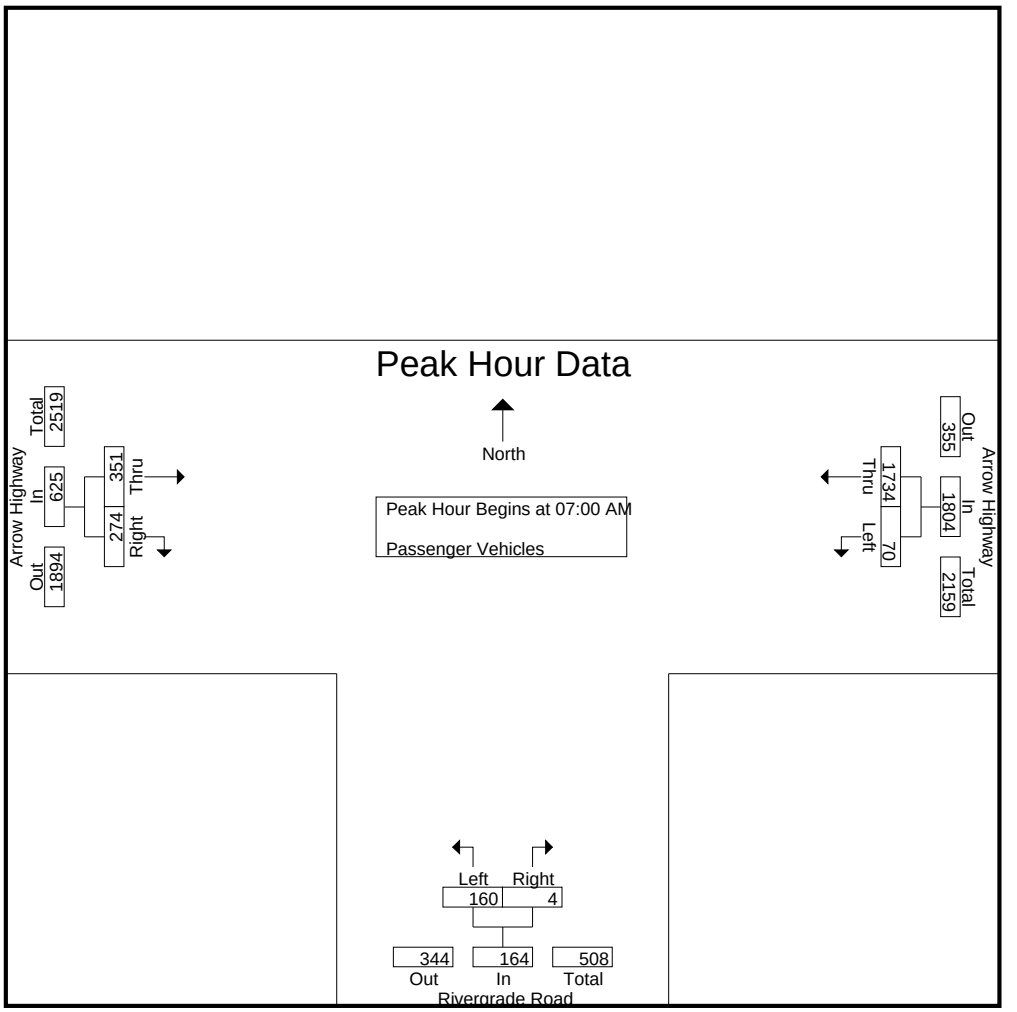
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	15	511	0	526	26	1	1	27	57	57	2	114	3	667	670
07:15 AM	11	490	0	501	45	1	0	46	70	41	7	111	7	658	665
07:30 AM	21	380	0	401	44	1	1	45	92	71	8	163	9	609	618
07:45 AM	23	353	0	376	45	1	1	46	132	105	13	237	14	659	673
Total	70	1734	0	1804	160	4	3	164	351	274	30	625	33	2593	2626
08:00 AM	14	314	0	328	42	0	0	42	118	90	14	208	14	578	592
08:15 AM	7	307	0	314	42	2	2	44	106	70	5	176	7	534	541
08:30 AM	3	232	0	235	27	0	0	27	94	46	4	140	4	402	406
08:45 AM	4	221	0	225	24	3	3	27	87	49	2	136	5	388	393
Total	28	1074	0	1102	135	5	5	140	405	255	25	660	30	1902	1932
Grand Total	98	2808	0	2906	295	9	8	304	756	529	55	1285	63	4495	4558
Apprch %	3.4	96.6			97	3			58.8	41.2					
Total %	2.2	62.5		64.6	6.6	0.2		6.8	16.8	11.8		28.6	1.4	98.6	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	**511**	**526**	26	**1**	27	57	57	114	**667**
07:15 AM	11	490	501	**45**	1	**46**	70	41	111	658
07:30 AM	21	380	401	44	1	45	92	71	163	609
07:45 AM	**23**	353	376	45	1	46	**132**	**105**	**237**	659
Total Volume	70	1734	1804	160	4	164	351	274	625	2593
% App. Total	3.9	96.1		97.6	2.4		56.2	43.8		
PHF	.761	.848	.857	.889	1.00	.891	.665	.652	.659	.972

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N/S: Rivergrade Road
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File Name : 19_IRW_Riv Ar AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	15	**511**	**526**	26	**1**	27	57	57	114
+15 mins.	11	490	501	**45**	1	**46**	70	41	111
+30 mins.	21	380	401	44	1	45	92	71	163
+45 mins.	**23**	353	376	45	1	46	**132**	**105**	**237**
Total Volume	70	1734	1804	160	4	164	351	274	625
% App. Total	3.9	96.1		97.6	2.4		56.2	43.8	
PHF	.761	.848	.857	.889	1.000	.891	.665	.652	.659

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar AM
Site Code : 05117783
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Groups Printed- Large 2 Axle Vehicles

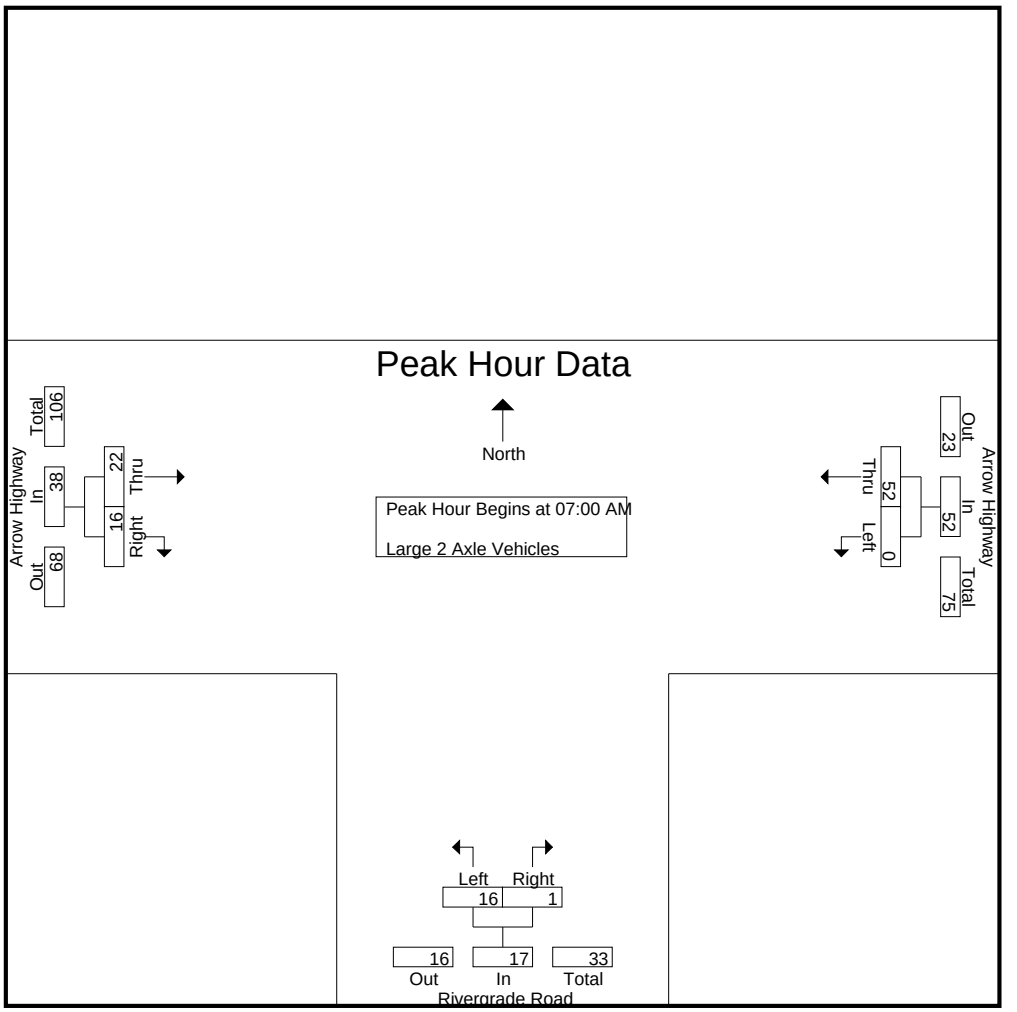
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	16	0	16	2	1	1	3	4	6	0	10	1	29	30
07:15 AM	0	16	0	16	5	0	0	5	6	4	1	10	1	31	32
07:30 AM	0	7	0	7	3	0	0	3	5	1	0	6	0	16	16
07:45 AM	0	13	0	13	6	0	0	6	7	5	1	12	1	31	32
Total	0	52	0	52	16	1	1	17	22	16	2	38	3	107	110
08:00 AM	2	10	0	12	5	0	0	5	10	4	1	14	1	31	32
08:15 AM	0	11	0	11	2	1	1	3	9	7	1	16	2	30	32
08:30 AM	1	9	0	10	6	0	0	6	8	6	1	14	1	30	31
08:45 AM	0	8	0	8	2	1	0	3	6	1	0	7	0	18	18
Total	3	38	0	41	15	2	1	17	33	18	3	51	4	109	113
Grand Total	3	90	0	93	31	3	2	34	55	34	5	89	7	216	223
Apprch %	3.2	96.8			91.2	8.8			61.8	38.2					
Total %	1.4	41.7		43.1	14.4	1.4		15.7	25.5	15.7		41.2	3.1	96.9	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**16**	**16**	2	**1**	3	4	**6**	10	29
07:15 AM	0	16	16	5	0	5	6	4	10	**31**
07:30 AM	0	7	7	3	0	3	5	1	6	16
07:45 AM	0	13	13	**6**	0	**6**	**7**	5	**12**	31
Total Volume	0	52	52	16	1	17	22	16	38	107
% App. Total	0	100		94.1	5.9		57.9	42.1		
PHF	.000	.813	.813	.667	.250	.708	.786	.667	.792	.863

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City of Irwindale
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Weather: Clear

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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**16**	**16**	2	**1**	3	4	**6**	10
+15 mins.	0	16	16	5	0	5	6	4	10
+30 mins.	0	7	7	3	0	3	5	1	6
+45 mins.	0	13	13	**6**	0	**6**	**7**	5	**12**
Total Volume	0	52	52	16	1	17	22	16	38
% App. Total	0	100		94.1	5.9		57.9	42.1	
PHF	.000	.813	.813	.667	.250	.708	.786	.667	.792

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar AM
Site Code : 05117783
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Groups Printed- 3 Axle Vehicles

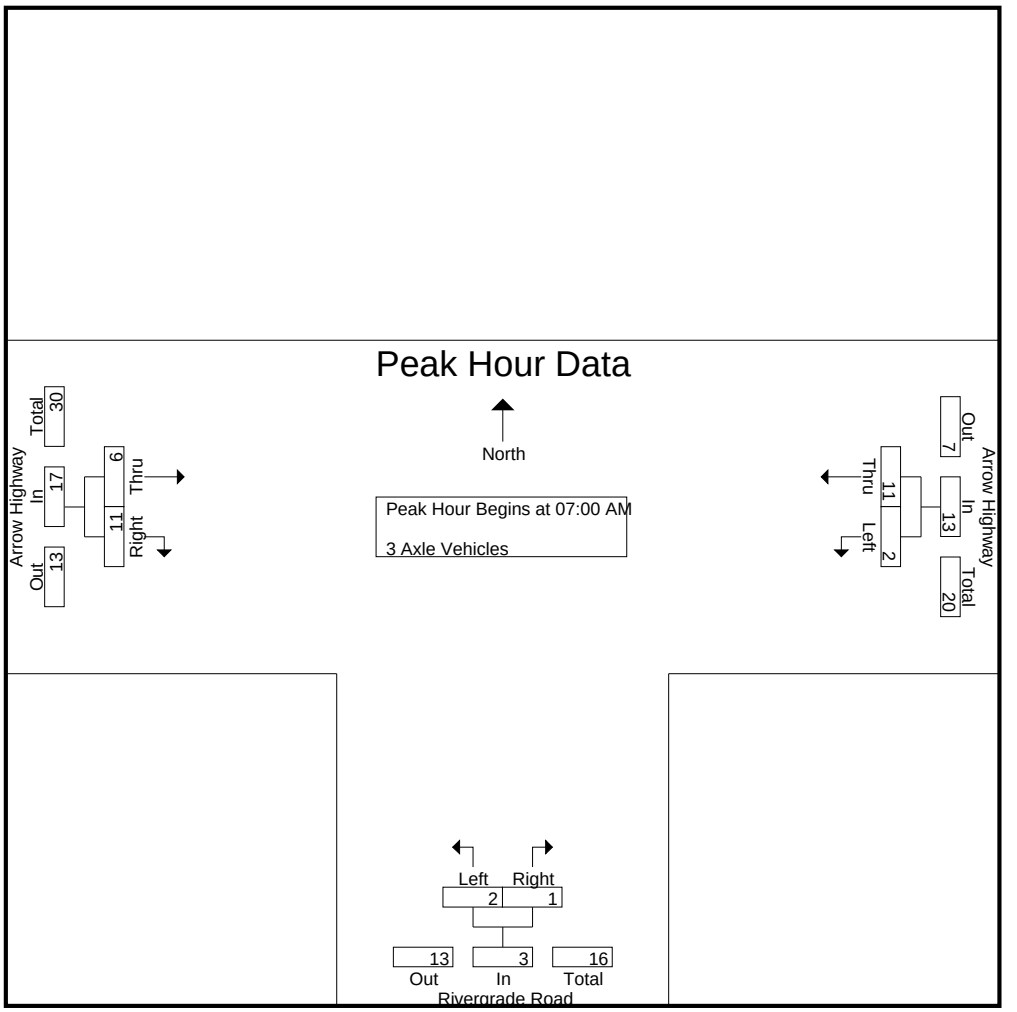
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	5	0	5	0	0	0	0	0	0	0	0	0	5	5
07:15 AM	0	5	0	5	0	0	0	0	5	4	1	9	1	14	15
07:30 AM	1	0	0	1	1	0	0	1	1	1	0	2	0	4	4
07:45 AM	1	1	0	2	1	1	0	2	0	6	3	6	3	10	13
Total	2	11	0	13	2	1	0	3	6	11	4	17	4	33	37
08:00 AM	0	2	0	2	3	0	0	3	2	3	1	5	1	10	11
08:15 AM	0	0	0	0	1	0	0	1	2	1	0	3	0	4	4
08:30 AM	0	1	0	1	3	1	1	4	2	7	2	9	3	14	17
08:45 AM	0	3	0	3	1	2	0	3	0	2	0	2	0	8	8
Total	0	6	0	6	8	3	1	11	6	13	3	19	4	36	40
Grand Total	2	17	0	19	10	4	1	14	12	24	7	36	8	69	77
Apprch %	10.5	89.5			71.4	28.6			33.3	66.7					
Total %	2.9	24.6		27.5	14.5	5.8		20.3	17.4	34.8		52.2	10.4	89.6	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**5**	**5**	0	0	0	0	0	0	5
07:15 AM	0	5	5	0	0	0	**5**	4	**9**	**14**
07:30 AM	**1**	0	1	**1**	0	1	1	1	2	4
07:45 AM	1	1	2	1	**1**	**2**	0	**6**	6	10
Total Volume	2	11	13	2	1	3	6	11	17	33
% App. Total	15.4	84.6		66.7	33.3		35.3	64.7		
PHF	.500	.550	.650	.500	.250	.375	.300	.458	.472	.589

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

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**5**	**5**	0	0	0	0	0	0
+15 mins.	0	5	5	0	0	0	**5**	4	**9**
+30 mins.	**1**	0	1	**1**	0	1	1	1	2
+45 mins.	1	1	2	1	**1**	**2**	0	**6**	6
Total Volume	2	11	13	2	1	3	6	11	17
% App. Total	15.4	84.6		66.7	33.3		35.3	64.7	
PHF	.500	.550	.650	.500	.250	.375	.300	.458	.472

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City of Irwindale
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Weather: Clear

File Name : 19_IRW_Riv Ar AM
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Groups Printed- 4+ Axle Trucks

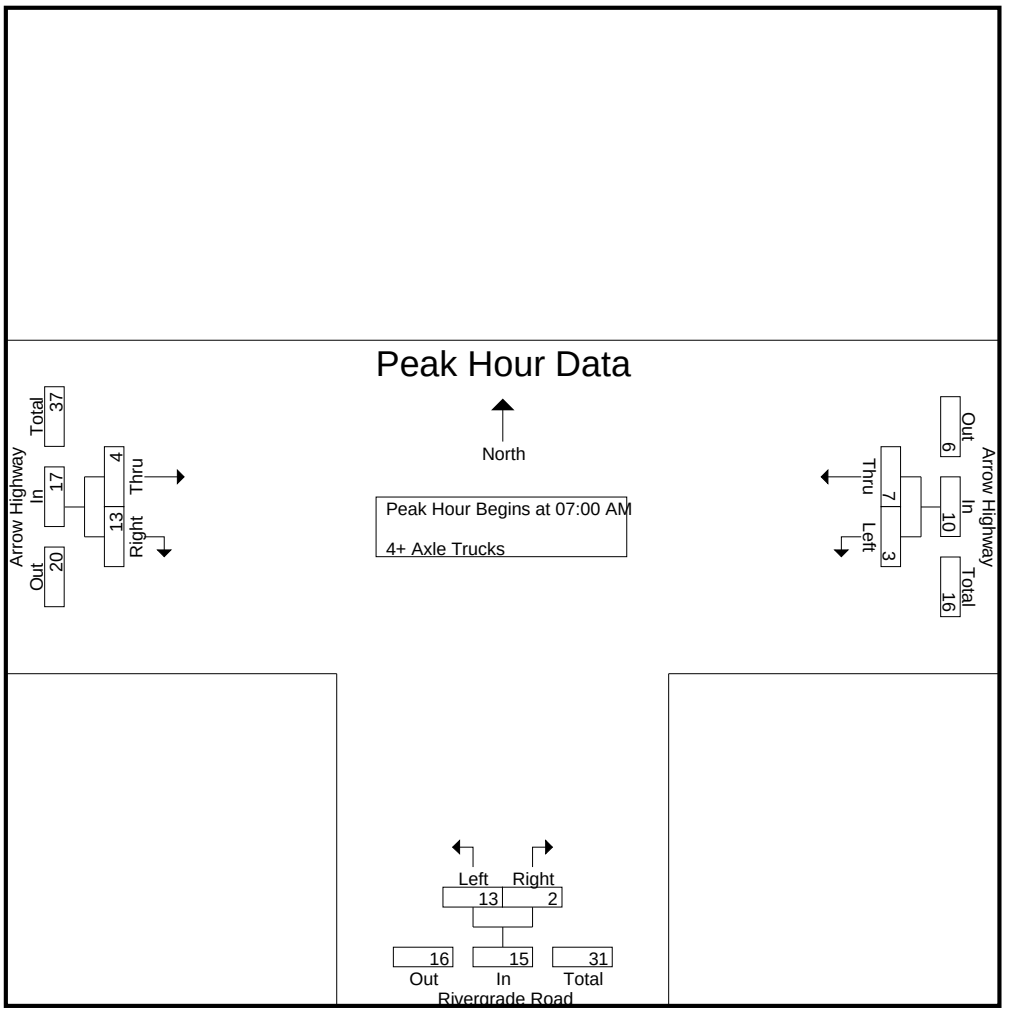
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	2	1	1	1	2	0	1	0	1	1	5	6
07:15 AM	0	1	0	1	2	0	0	2	2	3	0	5	0	8	8
07:30 AM	3	3	0	6	4	1	0	5	1	2	0	3	0	14	14
07:45 AM	0	1	0	1	6	0	0	6	1	7	0	8	0	15	15
Total	3	7	0	10	13	2	1	15	4	13	0	17	1	42	43
08:00 AM	1	3	0	4	4	0	0	4	1	4	0	5	0	13	13
08:15 AM	6	1	0	7	5	2	2	7	1	1	0	2	2	16	18
08:30 AM	1	3	0	4	7	0	0	7	2	3	0	5	0	16	16
08:45 AM	1	2	0	3	5	0	0	5	2	4	0	6	0	14	14
Total	9	9	0	18	21	2	2	23	6	12	0	18	2	59	61
Grand Total	12	16	0	28	34	4	3	38	10	25	0	35	3	101	104
Apprch %	42.9	57.1			89.5	10.5			28.6	71.4					
Total %	11.9	15.8		27.7	33.7	4		37.6	9.9	24.8		34.7	2.9	97.1	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	1	**1**	2	0	1	1	5
07:15 AM	0	1	1	2	0	2	**2**	3	5	8
07:30 AM	**3**	**3**	**6**	4	1	5	1	2	3	14
07:45 AM	0	1	1	**6**	0	**6**	1	**7**	**8**	**15**
Total Volume	3	7	10	13	2	15	4	13	17	42
% App. Total	30	70		86.7	13.3		23.5	76.5		
PHF	.250	.583	.417	.542	.500	.625	.500	.464	.531	.700

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File Name : 19_IRW_Riv Ar AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	1	**1**	2	0	1	1
+15 mins.	0	1	1	2	0	2	**2**	3	5
+30 mins.	**3**	**3**	**6**	4	1	5	1	2	3
+45 mins.	0	1	1	**6**	0	**6**	1	**7**	**8**
Total Volume	3	7	10	13	2	15	4	13	17
% App. Total	30	70		86.7	13.3		23.5	76.5	
PHF	.250	.583	.417	.542	.500	.625	.500	.464	.531

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

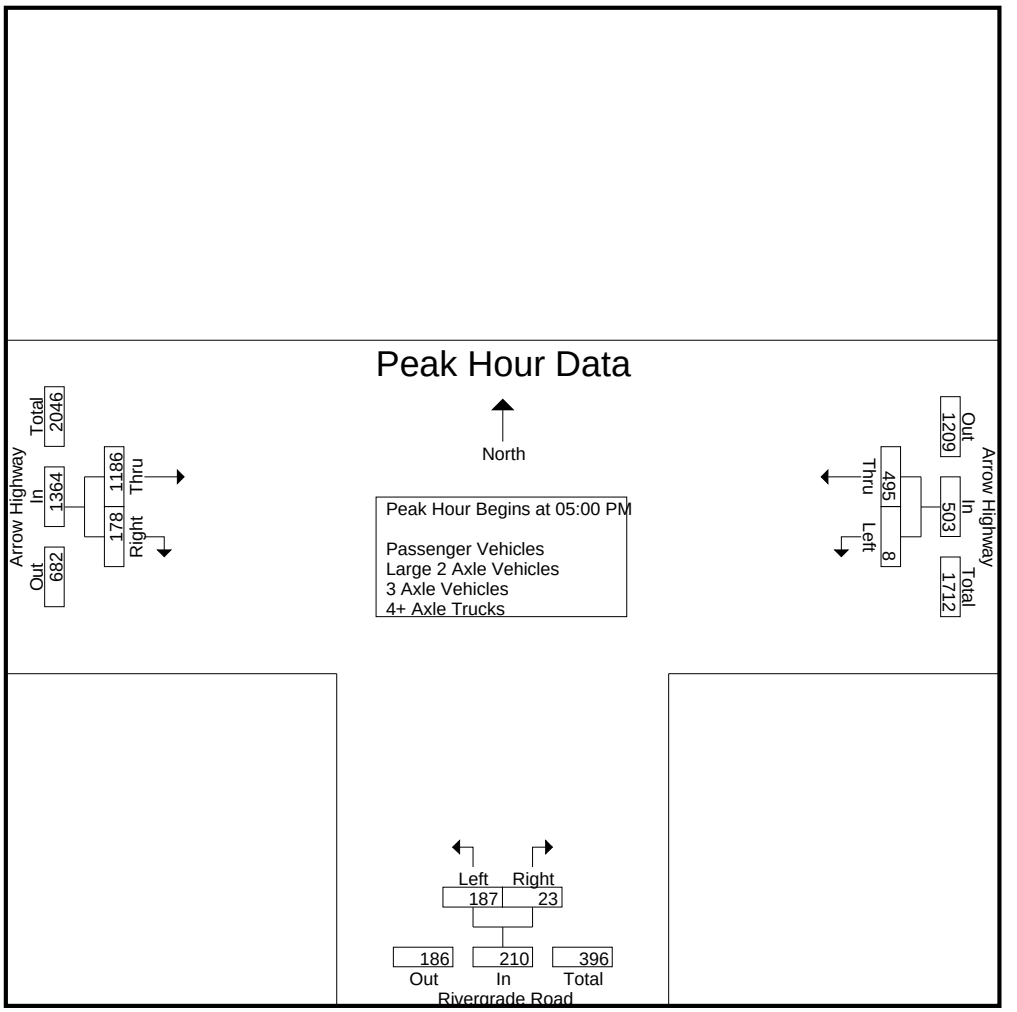
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	120	0	122	41	5	3	46	267	48	2	315	5	483	488
04:15 PM	2	103	0	105	29	2	2	31	254	36	7	290	9	426	435
04:30 PM	3	121	0	124	54	5	5	59	271	42	9	313	14	496	510
04:45 PM	9	115	0	124	49	7	4	56	259	48	7	307	11	487	498
Total	16	459	0	475	173	19	14	192	1051	174	25	1225	39	1892	1931
05:00 PM	0	126	0	126	62	7	4	69	278	50	7	328	11	523	534
05:15 PM	5	122	0	127	47	6	4	53	283	60	5	343	9	523	532
05:30 PM	1	124	0	125	44	8	3	52	305	41	9	346	12	523	535
05:45 PM	2	123	0	125	34	2	1	36	320	27	4	347	5	508	513
Total	8	495	0	503	187	23	12	210	1186	178	25	1364	37	2077	2114
Grand Total	24	954	0	978	360	42	26	402	2237	352	50	2589	76	3969	4045
Apprch %	2.5	97.5			89.6	10.4			86.4	13.6					
Total %	0.6	24		24.6	9.1	1.1		10.1	56.4	8.9		65.2	1.9	98.1	
Passenger Vehicles	11	930		941	346	39		409	2176	334		2557	0	0	3907
% Passenger Vehicles	45.8	97.5	0	96.2	96.1	92.9	92.3	95.6	97.3	94.9	94	96.9	0	0	96.6
Large 2 Axle Vehicles	1	16		17	7	2		11	44	10		55	0	0	83
% Large 2 Axle Vehicles	4.2	1.7	0	1.7	1.9	4.8	7.7	2.6	2	2.8	2	2.1	0	0	2.1
3 Axle Vehicles	12	1		13	2	0		2	5	2		9	0	0	24
% 3 Axle Vehicles	50	0.1	0	1.3	0.6	0	0	0.5	0.2	0.6	4	0.3	0	0	0.6
4+ Axle Trucks	0	7		7	5	1		6	12	6		18	0	0	31
% 4+ Axle Trucks	0	0.7	0	0.7	1.4	2.4	0	1.4	0.5	1.7	0	0.7	0	0	0.8

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**126**	126	**62**	7	**69**	278	50	328	**523**
05:15 PM	**5**	122	**127**	47	6	53	283	**60**	343	523
05:30 PM	1	124	125	44	**8**	52	305	41	346	523
05:45 PM	2	123	125	34	2	36	**320**	27	**347**	508
Total Volume	8	495	503	187	23	210	1186	178	1364	2077
% App. Total	1.6	98.4		89	11		87	13		
PHF	.400	.982	.990	.754	.719	.761	.927	.742	.983	.993

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City of Irwindale
N/S: Rivergrade Road
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Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:30 PM			05:00 PM		
+0 mins.	0	**126**	126	54	5	59	278	50	328
+15 mins.	**5**	122	**127**	49	**7**	56	283	**60**	343
+30 mins.	1	124	125	**62**	7	**69**	305	41	346
+45 mins.	2	123	125	47	6	53	**320**	27	**347**
Total Volume	8	495	503	212	25	237	1186	178	1364
% App. Total	1.6	98.4		89.5	10.5		87	13	
PHF	.400	.982	.990	.855	.893	.859	.927	.742	.983

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File Name : 19_IRW_Riv Ar PM
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Groups Printed- Passenger Vehicles

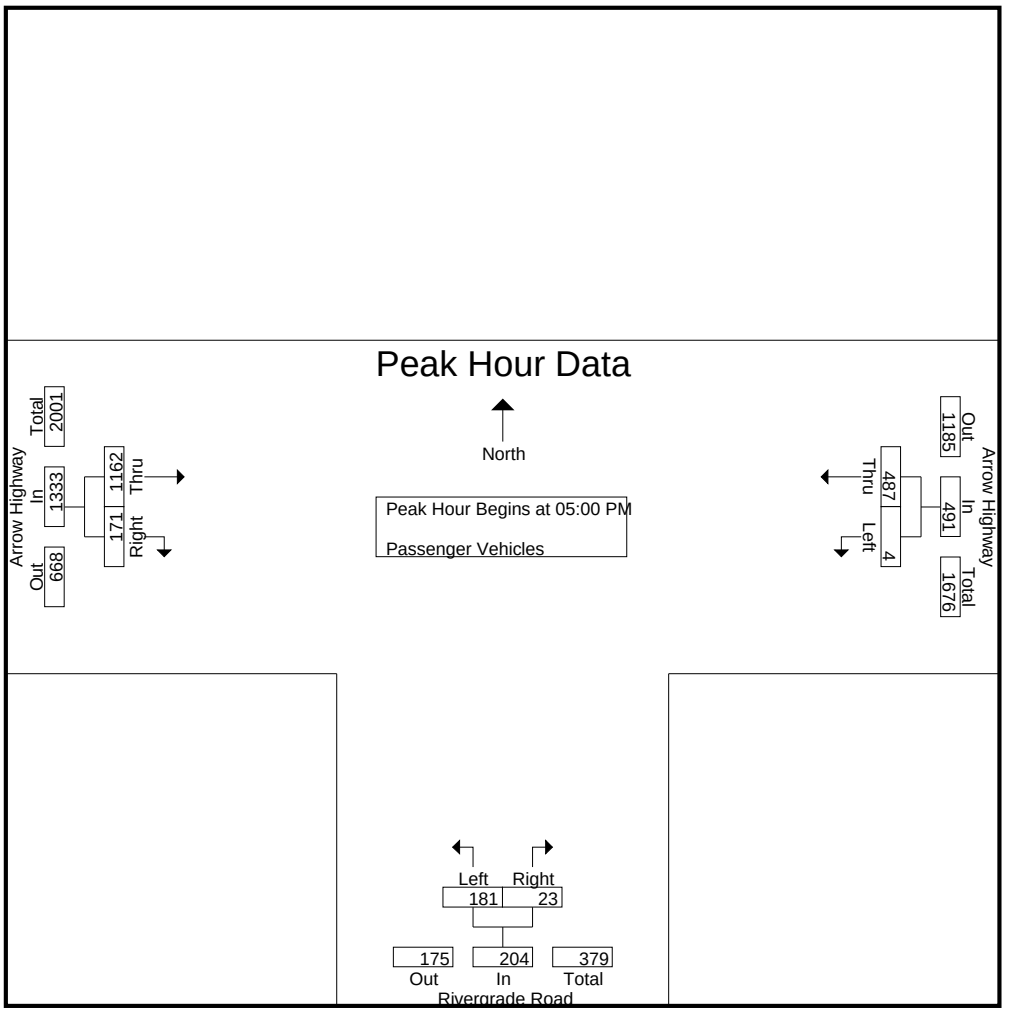
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	114	0	116	37	4	2	41	257	41	1	298	3	455	458
04:15 PM	1	100	0	101	29	1	1	30	241	35	7	276	8	407	415
04:30 PM	1	117	0	118	53	5	5	58	260	39	8	299	13	475	488
04:45 PM	3	112	0	115	46	6	4	52	256	48	7	304	11	471	482
Total	7	443	0	450	165	16	12	181	1014	163	23	1177	35	1808	1843
05:00 PM	0	123	0	123	61	7	4	68	272	48	7	320	11	511	522
05:15 PM	2	121	0	123	47	6	4	53	275	58	5	333	9	509	518
05:30 PM	0	122	0	122	40	8	3	48	297	40	9	337	12	507	519
05:45 PM	2	121	0	123	33	2	1	35	318	25	3	343	4	501	505
Total	4	487	0	491	181	23	12	204	1162	171	24	1333	36	2028	2064
Grand Total	11	930	0	941	346	39	24	385	2176	334	47	2510	71	3836	3907
Apprch %	1.2	98.8			89.9	10.1			86.7	13.3					
Total %	0.3	24.2		24.5	9	1		10	56.7	8.7		65.4	1.8	98.2	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**123**	**123**	**61**	7	**68**	272	48	320	**511**
05:15 PM	**2**	121	123	47	6	53	275	**58**	333	509
05:30 PM	0	122	122	40	**8**	48	297	40	337	507
05:45 PM	2	121	123	33	2	35	**318**	25	**343**	501
Total Volume	4	487	491	181	23	204	1162	171	1333	2028
% App. Total	0.8	99.2		88.7	11.3		87.2	12.8		
PHF	.500	.990	.998	.742	.719	.750	.914	.737	.972	.992

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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	**123**	**123**	**61**	7	**68**	272	48	320
+15 mins.	**2**	121	123	47	6	53	275	**58**	333
+30 mins.	0	122	122	40	**8**	48	297	40	337
+45 mins.	2	121	123	33	2	35	**318**	25	**343**
Total Volume	4	487	491	181	23	204	1162	171	1333
% App. Total	0.8	99.2		88.7	11.3		87.2	12.8	
PHF	.500	.990	.998	.742	.719	.750	.914	.737	.972

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Groups Printed- Large 2 Axle Vehicles

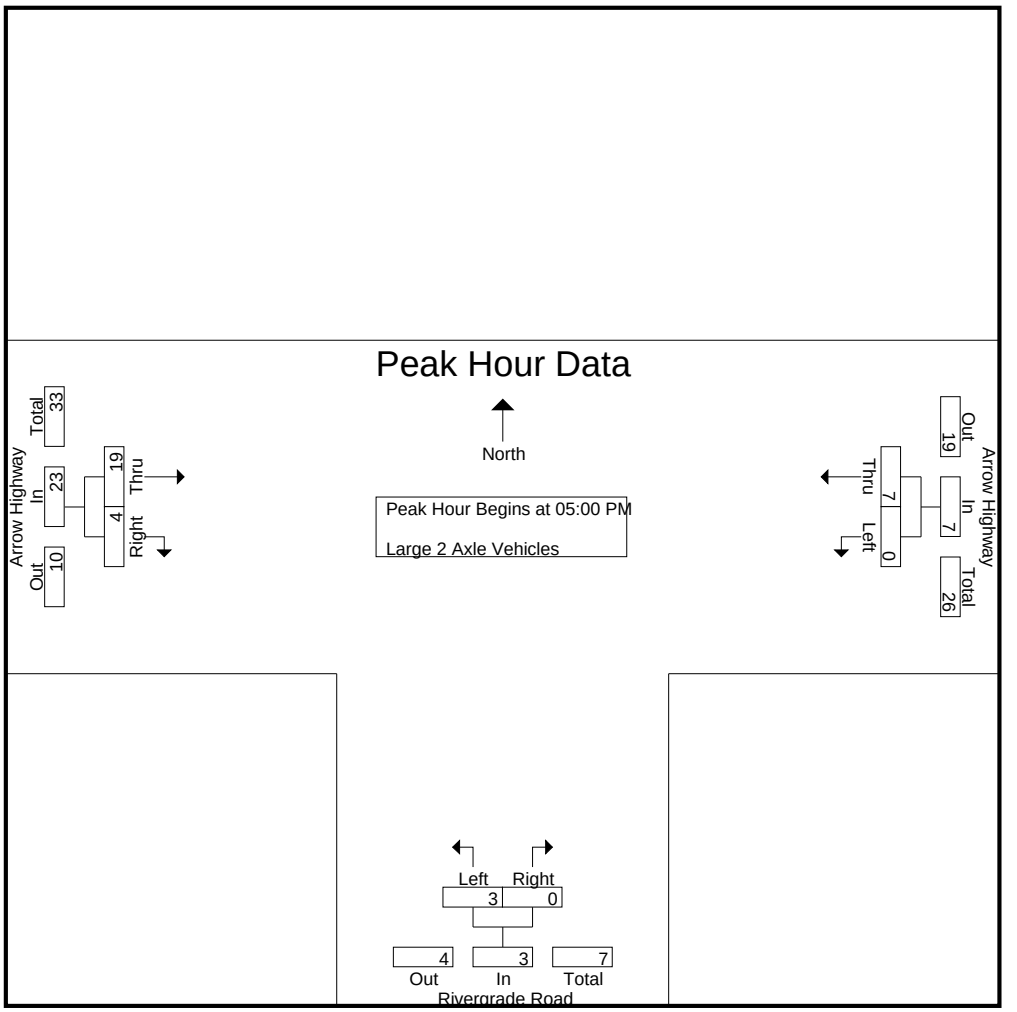
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	4	0	4	2	1	1	3	5	3	0	8	1	15	16
04:15 PM	0	1	0	1	0	1	1	1	11	1	0	12	1	14	15
04:30 PM	0	4	0	4	1	0	0	1	7	2	1	9	1	14	15
04:45 PM	1	0	0	1	1	0	0	1	2	0	0	2	0	4	4
Total	1	9	0	10	4	2	2	6	25	6	1	31	3	47	50
05:00 PM	0	3	0	3	0	0	0	0	6	1	0	7	0	10	10
05:15 PM	0	0	0	0	0	0	0	0	4	2	0	6	0	6	6
05:30 PM	0	2	0	2	3	0	0	3	8	1	0	9	0	14	14
05:45 PM	0	2	0	2	0	0	0	0	1	0	0	1	0	3	3
Total	0	7	0	7	3	0	0	3	19	4	0	23	0	33	33
Grand Total	1	16	0	17	7	2	2	9	44	10	1	54	3	80	83
Apprch %	5.9	94.1			77.8	22.2			81.5	18.5					
Total %	1.2	20		21.2	8.8	2.5		11.2	55	12.5		67.5	3.6	96.4	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**3**	**3**	0	0	0	6	1	7	10
05:15 PM	0	0	0	0	0	0	4	**2**	6	6
05:30 PM	0	2	2	**3**	0	**3**	**8**	1	**9**	**14**
05:45 PM	0	2	2	0	0	0	1	0	1	3
Total Volume	0	7	7	3	0	3	19	4	23	33
% App. Total	0	100		100	0		82.6	17.4		
PHF	.000	.583	.583	.250	.000	.250	.594	.500	.639	.589

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	**3**	**3**	0	0	0	6	1	7
+15 mins.	0	0	0	0	0	0	4	**2**	6
+30 mins.	0	2	2	**3**	0	**3**	**8**	1	**9**
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	7	7	3	0	3	19	4	23
% App. Total	0	100		100	0		82.6	17.4	
PHF	.000	.583	.583	.250	.000	.250	.594	.500	.639

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

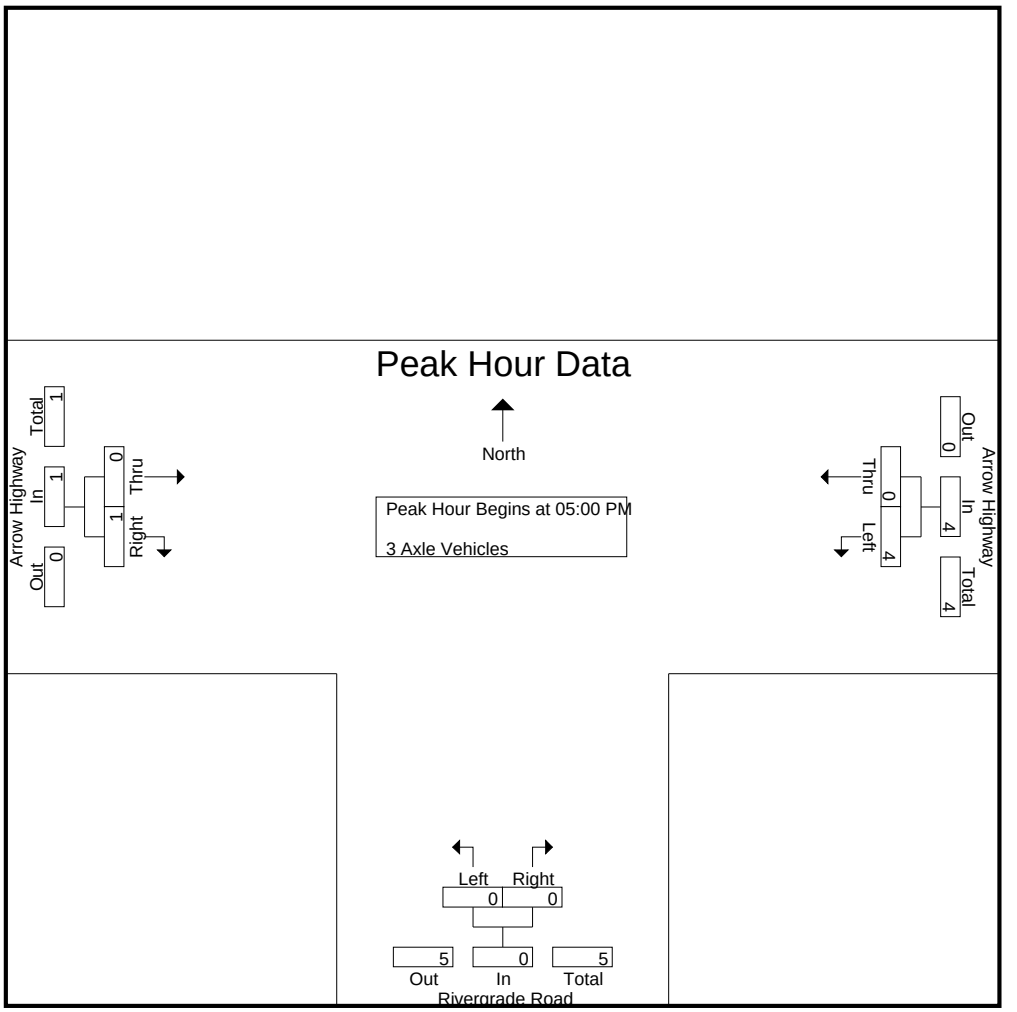
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	1	0	0	1	1	1	1	2	1	3	4
04:15 PM	1	1	0	2	0	0	0	0	1	0	0	1	0	3	3
04:30 PM	2	0	0	2	0	0	0	0	3	0	0	3	0	5	5
04:45 PM	5	0	0	5	1	0	0	1	0	0	0	0	0	6	6
Total	8	1	0	9	2	0	0	2	5	1	1	6	1	17	18
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	3	3
05:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2
Total	4	0	0	4	0	0	0	0	0	1	1	1	1	5	6
Grand Total	12	1	0	13	2	0	0	2	5	2	2	7	2	22	24
Apprch %	92.3	7.7			100	0			71.4	28.6					
Total %	54.5	4.5		59.1	9.1	0		9.1	22.7	9.1		31.8	8.3	91.7	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	**3**	0	**3**	0	0	0	0	0	0	**3**
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	4	0	4	0	0	0	0	1	1	5
% App. Total	100	0		0	0		0	100		
PHF	.333	.000	.333	.000	.000	.000	.000	.250	.250	.417

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	**3**	0	**3**	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	**1**	**1**
Total Volume	4	0	4	0	0	0	0	1	1
% App. Total	100	0		0	0		0	100	
PHF	.333	.000	.333	.000	.000	.000	.000	.250	.250

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

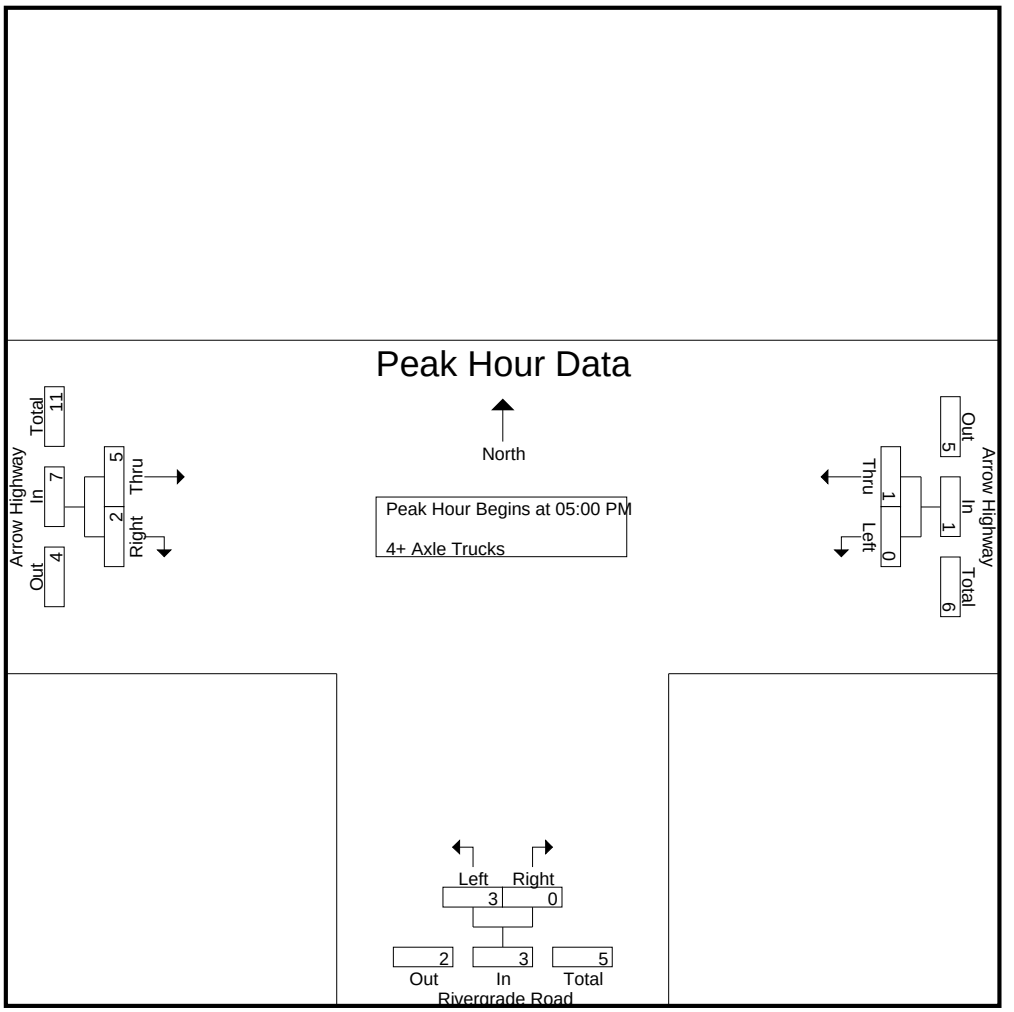
	Arrow Highway Westbound				Rivergrade Road Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	0	2	1	0	0	1	4	3	0	7	0	10	10
04:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	2	2
04:45 PM	0	3	0	3	1	1	0	2	1	0	0	1	0	6	6
Total	0	6	0	6	2	1	0	3	7	4	0	11	0	20	20
05:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	2	2
05:15 PM	0	1	0	1	0	0	0	0	4	0	0	4	0	5	5
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	1	0	0	1	1	1	0	2	0	3	3
Total	0	1	0	1	3	0	0	3	5	2	0	7	0	11	11
Grand Total	0	7	0	7	5	1	0	6	12	6	0	18	0	31	31
Apprch %	0	100			83.3	16.7			66.7	33.3					
Total %	0	22.6		22.6	16.1	3.2		19.4	38.7	19.4		58.1	0	100	

	Arrow Highway Westbound			Rivergrade Road Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	**1**	0	**1**	0	**1**	1	2
05:15 PM	0	**1**	**1**	0	0	0	**4**	0	**4**	**5**
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	1	0	1	1	1	2	3
Total Volume	0	1	1	3	0	3	5	2	7	11
% App. Total	0	100		100	0		71.4	28.6		
PHF	.000	.250	.250	.750	.000	.750	.313	.500	.438	.550

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City of Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway
Weather: Clear

File Name : 19_IRW_Riv Ar PM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	**1**	0	**1**	0	**1**	1
+15 mins.	0	**1**	**1**	0	0	0	**4**	0	**4**
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	1	0	1	1	1	2
Total Volume	0	1	1	3	0	3	5	2	7
% App. Total	0	100		100	0		71.4	28.6	
PHF	.000	.250	.250	.750	.000	.750	.313	.500	.438

Location: Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Arrow Highway	South Leg Rivergrade Road	West Leg Rivergrade Road	TOTAL
7:00 AM	0	0	0	0	0
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	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg Dead End	East Leg Arrow Highway	South Leg Rivergrade Road	West Leg Rivergrade Road	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
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 VOLUMES:	0	0	2	0	2

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Location: Irwindale
N/S: Rivergrade Road
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Arrow Highway	South Leg Rivergrade Road	West Leg Rivergrade Road	TOTAL
7:00 AM	0	0	0	0	0
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	1	0	1
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	3	0	3

	North Leg Dead End	East Leg Arrow Highway	South Leg Rivergrade Road	West Leg Rivergrade Road	TOTAL
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	1	0	1
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 VOLUMES:	0	0	1	0	1

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

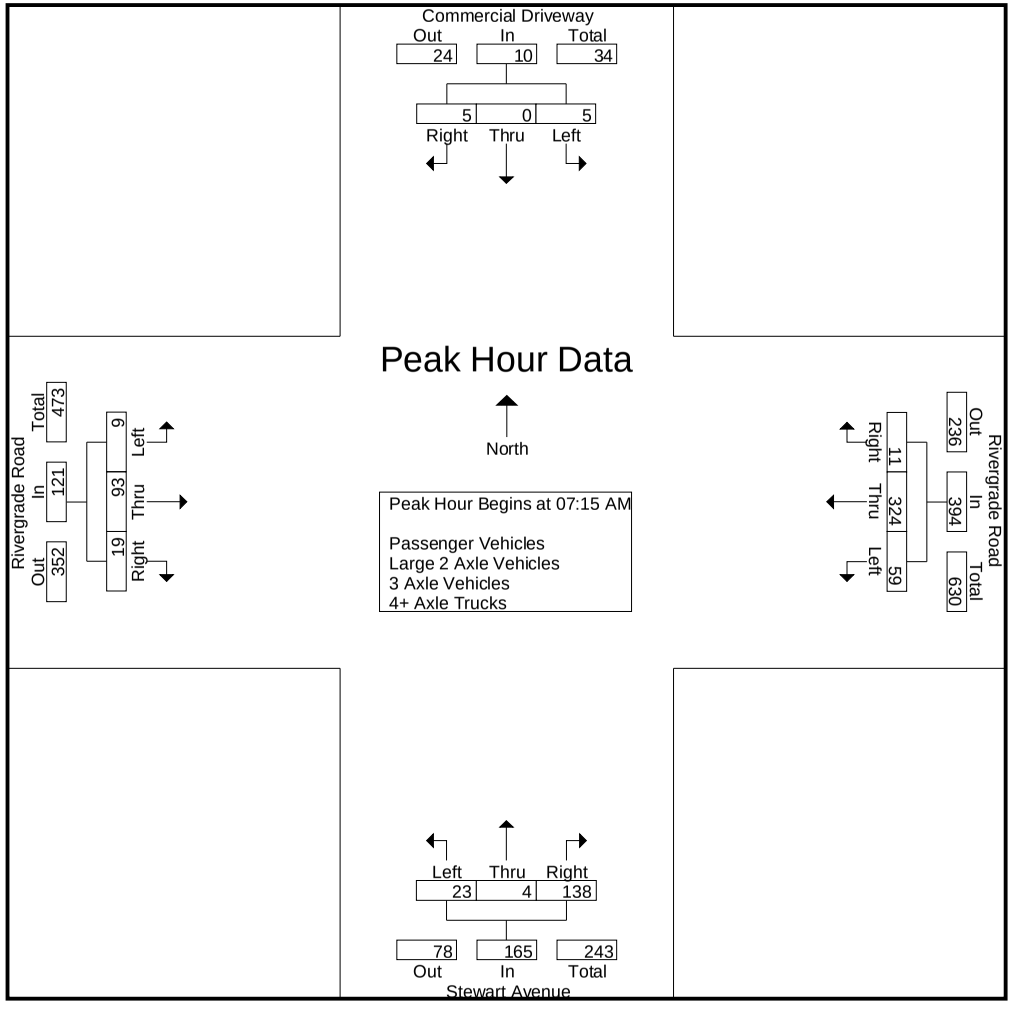
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	1	1	2	21	32	0	0	53	0	1	28	27	29	1	15	2	0	18	28	102	130
07:15 AM	1	0	3	2	4	14	56	3	0	73	3	1	29	28	33	3	17	4	0	24	30	134	164
07:30 AM	2	0	0	0	2	17	85	2	0	104	6	1	42	38	49	3	33	2	0	38	38	193	231
07:45 AM	1	0	1	1	2	10	103	1	0	114	13	1	36	23	50	1	24	9	1	34	25	200	225
Total	5	0	5	4	10	62	276	6	0	344	22	4	135	116	161	8	89	17	1	114	121	629	750
08:00 AM	1	0	1	0	2	18	80	5	0	103	1	1	31	26	33	2	19	4	0	25	26	163	189
08:15 AM	1	1	1	0	3	20	57	2	0	79	2	1	18	17	21	1	18	1	0	20	17	123	140
08:30 AM	3	2	4	3	9	16	44	1	0	61	1	1	20	18	22	1	20	3	0	24	21	116	137
08:45 AM	0	1	0	0	1	15	42	3	0	60	1	2	13	12	16	4	17	1	0	22	12	99	111
Total	5	4	6	3	15	69	223	11	0	303	5	5	82	73	92	8	74	9	0	91	76	501	577
Grand Total	10	4	11	7	25	131	499	17	0	647	27	9	217	189	253	16	163	26	1	205	197	1130	1327
Apprch %	40	16	44			20.2	77.1	2.6			10.7	3.6	85.8			7.8	79.5	12.7					
Total %	0.9	0.4	1		2.2	11.6	44.2	1.5		57.3	2.4	0.8	19.2		22.4	1.4	14.4	2.3		18.1	14.8	85.2	
Passenger Vehicles	3	4	2		10	127	440	13		580	24	7	210		423	7	107	19		134	0	0	1147
% Passenger Vehicles	30	100	18.2	14.3	31.2	96.9	88.2	76.5	0	89.6	88.9	77.8	96.8	96.3	95.7	43.8	65.6	73.1	100	65	0	0	86.4
Large 2 Axle Vehicles	1	0	6		10	3	12	2		17	1	1	6		14	3	22	5		30	0	0	71
% Large 2 Axle Vehicles	10	0	54.5	42.9	31.2	2.3	2.4	11.8	0	2.6	3.7	11.1	2.8	3.2	3.2	18.8	13.5	19.2	0	14.6	0	0	5.4
3 Axle Vehicles	0	0	2		4	1	14	0		15	0	0	0		0	1	8	2		11	0	0	30
% 3 Axle Vehicles	0	0	18.2	28.6	12.5	0.8	2.8	0	0	2.3	0	0	0	0	0	6.2	4.9	7.7	0	5.3	0	0	2.3
4+ Axle Trucks	6	0	1		8	0	33	2		35	2	1	1		5	5	26	0		31	0	0	79
% 4+ Axle Trucks	60	0	9.1	14.3	25	0	6.6	11.8	0	5.4	7.4	11.1	0.5	0.5	1.1	31.2	16	0	0	15	0	0	6

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	0	**3**	**4**	14	56	3	73	3	**1**	29	33	**3**	17	4	24	134
07:30 AM	**2**	0	0	2	17	85	2	104	6	1	**42**	49	3	**33**	2	**38**	193
07:45 AM	1	0	1	2	10	**103**	1	**114**	**13**	1	36	**50**	1	24	**9**	34	**200**
08:00 AM	1	0	1	2	**18**	80	**5**	103	1	1	31	33	2	19	4	25	163
Total Volume	5	0	5	10	59	324	11	394	23	4	138	165	9	93	19	121	690
% App. Total	50	0	50		15	82.2	2.8		13.9	2.4	83.6		7.4	76.9	15.7		
PHF	.625	.000	.417	.625	.819	.786	.550	.864	.442	1.00	.821	.825	.750	.705	.528	.796	.863

Counts Unlimited
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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:30 AM				07:15 AM				07:15 AM				
+0 mins.	1	0	1	2	17	85	2	104	3	**1**	29	33	**3**	17	4	24	
+15 mins.	1	0	1	2	10	**103**	1	**114**	6	1	**42**	49	3	**33**	2	**38**	
+30 mins.	1	1	1	3	18	80	**5**	103	**13**	1	36	**50**	1	24	**9**	34	
+45 mins.	**3**	**2**	**4**	**9**	**20**	57	2	79	1	1	31	33	2	19	4	25	
Total Volume	6	3	7	16	65	325	10	400	23	4	138	165	9	93	19	121	
% App. Total	37.5	18.8	43.8		16.2	81.2	2.5		13.9	2.4	83.6		7.4	76.9	15.7		
PHF	.500	.375	.438	.444	.813	.789	.500	.877	.442	1.000	.821	.825	.750	.705	.528	.796	

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

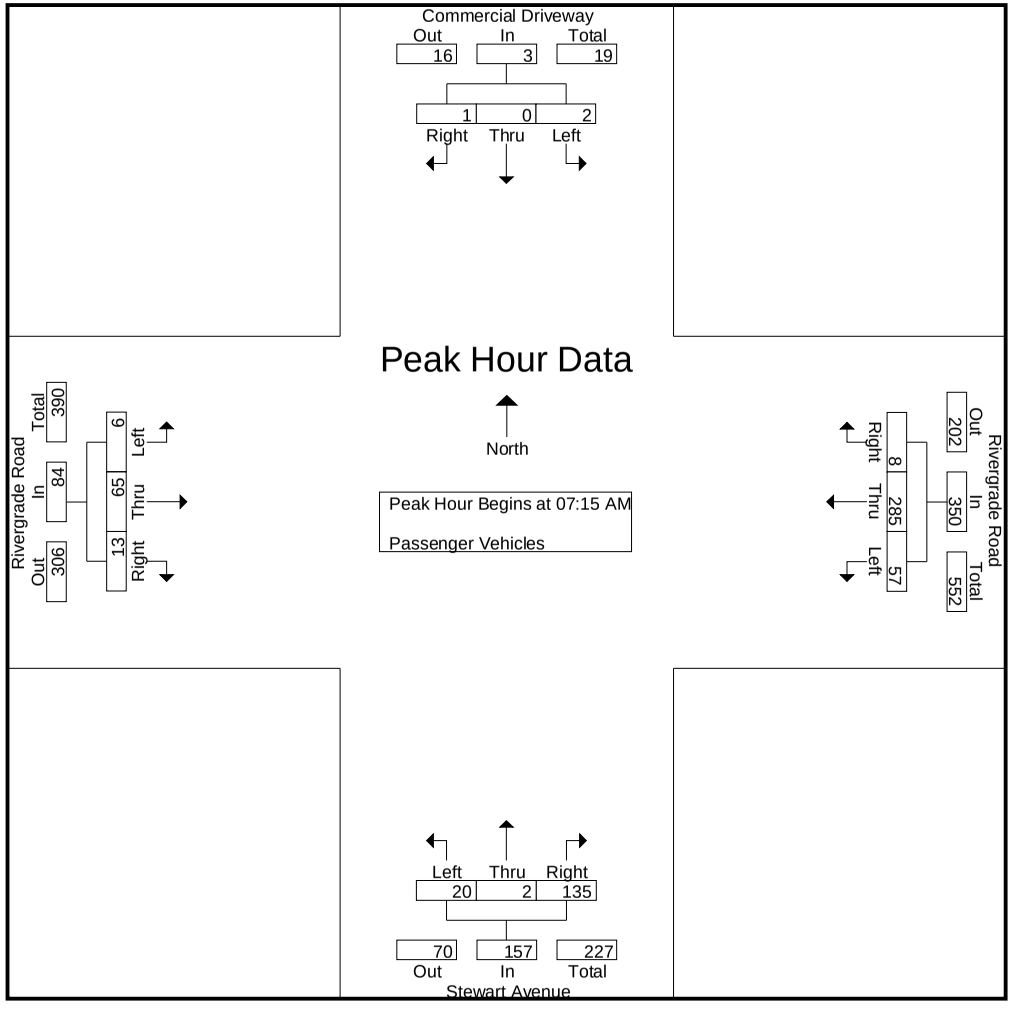
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	21	30	0	0	51	0	1	27	26	28	0	13	2	0	15	26	94	120
07:15 AM	0	0	1	1	1	13	44	3	0	60	2	0	29	28	31	2	14	2	0	18	29	110	139
07:30 AM	1	0	0	0	1	16	77	1	0	94	5	0	40	36	45	3	26	2	0	31	36	171	207
07:45 AM	0	0	0	0	0	10	89	0	0	99	12	1	36	23	49	0	16	5	1	21	24	169	193
Total	1	0	1	1	2	60	240	4	0	304	19	2	132	113	153	5	69	11	1	85	115	544	659
08:00 AM	1	0	0	0	1	18	75	4	0	97	1	1	30	25	32	1	9	4	0	14	25	144	169
08:15 AM	1	1	0	0	2	19	51	2	0	72	2	1	18	17	21	0	9	1	0	10	17	105	122
08:30 AM	0	2	1	0	3	16	41	0	0	57	1	1	18	16	20	0	9	2	0	11	16	91	107
08:45 AM	0	1	0	0	1	14	33	3	0	50	1	2	12	11	15	1	11	1	0	13	11	79	90
Total	2	4	1	0	7	67	200	9	0	276	5	5	78	69	88	2	38	8	0	48	69	419	488
Grand Total	3	4	2	1	9	127	440	13	0	580	24	7	210	182	241	7	107	19	1	133	184	963	1147
Apprch %	33.3	44.4	22.2			21.9	75.9	2.2			10	2.9	87.1			5.3	80.5	14.3					
Total %	0.3	0.4	0.2		0.9	13.2	45.7	1.3		60.2	2.5	0.7	21.8		25	0.7	11.1	2		13.8	16	84	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	**1**	13	44	3	60	2	0	29	31	2	14	2	18	110
07:30 AM	**1**	0	0	1	16	77	1	94	5	0	**40**	45	**3**	**26**	2	**31**	**171**
07:45 AM	0	0	0	0	10	**89**	0	**99**	**12**	**1**	36	**49**	0	16	**5**	21	169
08:00 AM	1	0	0	1	**18**	75	**4**	97	1	1	30	32	1	9	4	14	144
Total Volume	2	0	1	3	57	285	8	350	20	2	135	157	6	65	13	84	594
% App. Total	66.7	0	33.3		16.3	81.4	2.3		12.7	1.3	86		7.1	77.4	15.5		
PHF	.500	.000	.250	.750	.792	.801	.500	.884	.417	.500	.844	.801	.500	.625	.650	.677	.868

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

City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	**1**	**1**	13	44	3	60	2	0	29	31	2	14	2	18	
+15 mins.	**1**	0	0	1	16	77	1	94	5	0	**40**	45	**3**	**26**	2	**31**	
+30 mins.	0	0	0	0	10	**89**	0	**99**	**12**	**1**	36	**49**	0	16	**5**	21	
+45 mins.	1	0	0	1	**18**	75	**4**	97	1	1	30	32	1	9	4	14	
Total Volume	2	0	1	3	57	285	8	350	20	2	135	157	6	65	13	84	
% App. Total	66.7	0	33.3		16.3	81.4	2.3		12.7	1.3	86		7.1	77.4	15.5		
PHF	.500	.000	.250	.750	.792	.801	.500	.884	.417	.500	.844	.801	.500	.625	.650	.677	

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

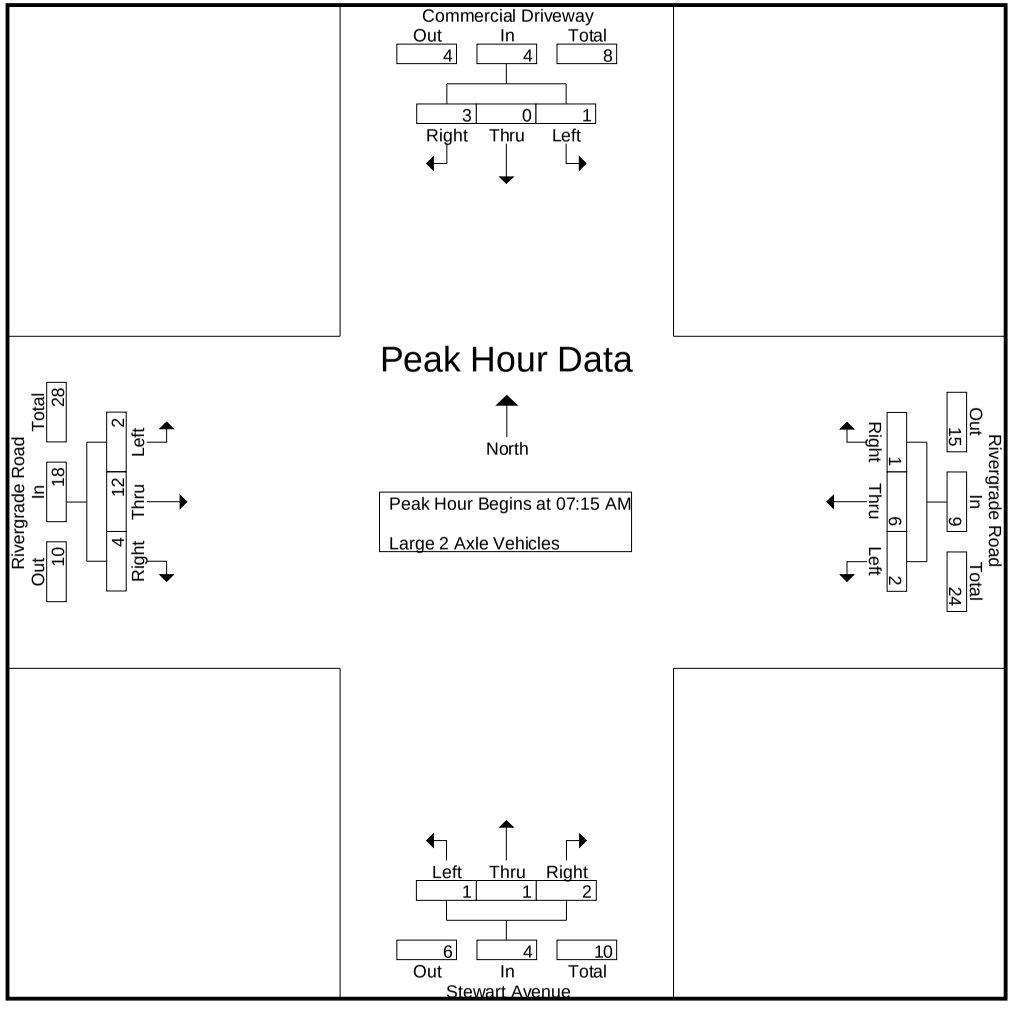
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	2	3
07:15 AM	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	1	1	2	0	4	0	7	7
07:30 AM	1	0	0	0	1	1	4	0	0	5	0	1	1	1	2	0	0	0	0	0	1	8	9
07:45 AM	0	0	1	1	1	0	0	1	0	1	1	0	0	0	1	0	4	2	0	6	1	9	10
Total	1	0	2	1	3	2	5	1	0	8	1	1	2	2	4	1	6	4	0	11	3	26	29
08:00 AM	0	0	1	0	1	0	1	0	0	1	0	0	1	1	1	1	7	0	0	8	1	11	12
08:15 AM	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	0	3	0	0	3	0	6	6
08:30 AM	0	0	2	2	2	0	1	1	0	2	0	0	2	2	2	0	6	1	0	7	4	13	17
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	1	1	1	0	0	0	1	1	6	7
Total	0	0	4	2	4	1	7	1	0	9	0	0	4	4	4	2	16	1	0	19	6	36	42
Grand Total	1	0	6	3	7	3	12	2	0	17	1	1	6	6	8	3	22	5	0	30	9	62	71
Apprch %	14.3	0	85.7			17.6	70.6	11.8			12.5	12.5	75			10	73.3	16.7					
Total %	1.6	0	9.7		11.3	4.8	19.4	3.2		27.4	1.6	1.6	9.7		12.9	4.8	35.5	8.1		48.4	12.7	87.3	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	**1**	**1**	1	0	2	0	0	0	0	**1**	1	**2**	4	7
07:30 AM	**1**	0	0	1	1	**4**	0	**5**	0	**1**	**1**	**2**	0	0	0	0	8
07:45 AM	0	0	1	1	0	0	**1**	1	**1**	0	0	1	0	4	2	6	9
08:00 AM	0	0	1	1	0	1	0	1	0	0	1	1	1	**7**	0	**8**	**11**
Total Volume	1	0	3	4	2	6	1	9	1	1	2	4	2	12	4	18	35
% App. Total	25	0	75		22.2	66.7	11.1		25	25	50		11.1	66.7	22.2		
PHF	.250	.000	.750	1.00	.500	.375	.250	.450	.250	.250	.500	.500	.500	.429	.500	.563	.795

Counts Unlimited
PO Box 1178
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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	**1**	**1**	**1**	1	0	2	0	0	0	0	**1**	1	**2**	4	
+15 mins.	**1**	0	0	1	1	**4**	0	**5**	0	**1**	**1**	**2**	0	0	0	0	
+30 mins.	0	0	1	1	0	0	**1**	1	**1**	0	0	1	0	4	2	6	
+45 mins.	0	0	1	1	0	1	0	1	0	0	1	1	1	**7**	0	**8**	
Total Volume	1	0	3	4	2	6	1	9	1	1	2	4	2	12	4	18	
% App. Total	25	0	75		22.2	66.7	11.1		25	25	50		11.1	66.7	22.2		
PHF	.250	.000	.750	1.000	.500	.375	.250	.450	.250	.250	.500	.500	.500	.429	.500	.563	

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

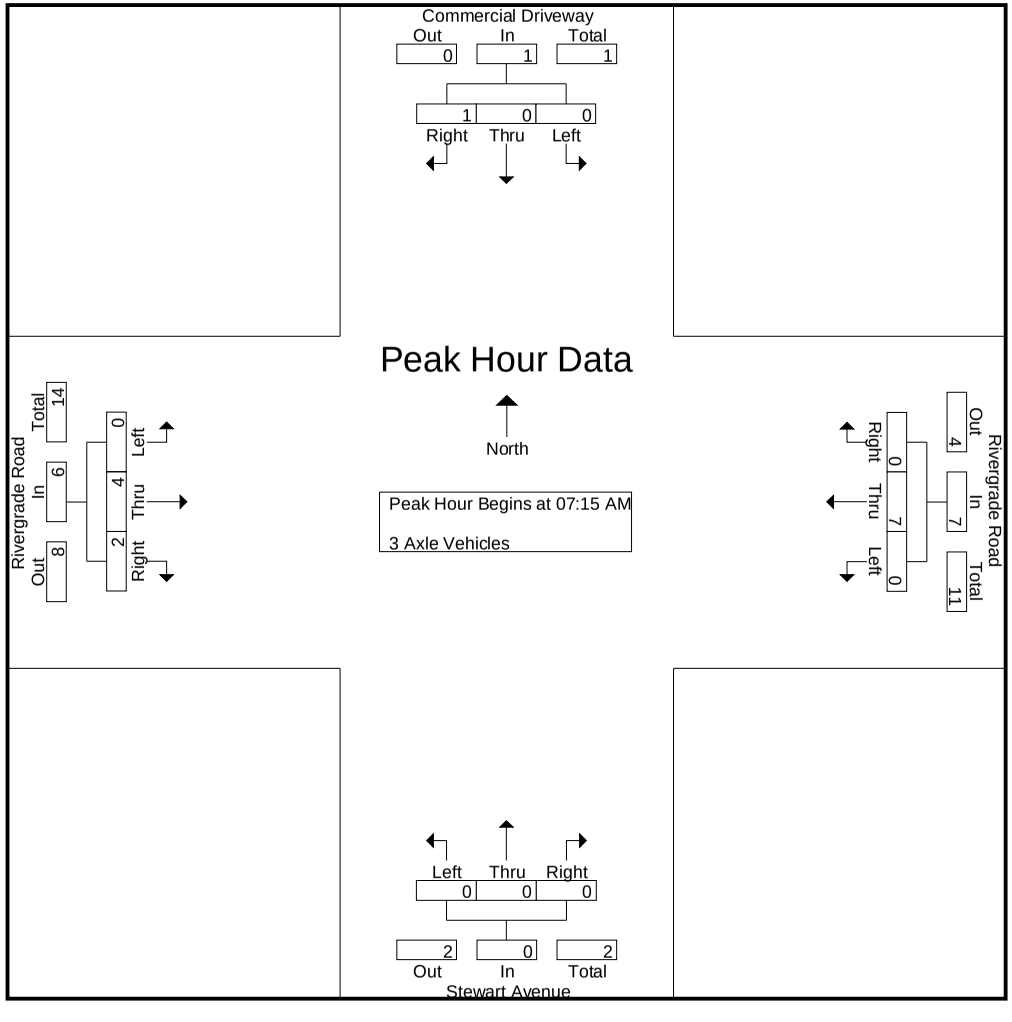
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	4
07:15 AM	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	4	5
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
07:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	0	5	5
Total	0	0	2	2	2	0	8	0	0	8	0	0	0	0	0	0	2	2	0	4	2	14	16
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
08:45 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2	0	4	4
Total	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	1	6	0	0	7	0	14	14
Grand Total	0	0	2	2	2	1	14	0	0	15	0	0	0	0	0	1	8	2	0	11	2	28	30
Apprch %	0	0	100			6.7	93.3	0			0	0	0			9.1	72.7	18.2					
Total %	0	0	7.1		7.1	3.6	50	0		53.6	0	0	0		0	3.6	28.6	7.1		39.3	6.7	93.3	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	**1**	0	2	0	2	0	0	0	0	0	1	0	1	4
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	0	**2**	**2**	**5**
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	2	3
Total Volume	0	0	1	1	0	7	0	7	0	0	0	0	0	4	2	6	14
% App. Total	0	0	100		0	100	0		0	0	0		0	66.7	33.3		
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.000	.000	.000	.000	.000	.500	.250	.750	.700

Counts Unlimited
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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	**1**	**1**	0	2	0	2	0	0	0	0	0	1	0	1	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	0	**2**	**2**	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	2	
Total Volume	0	0	1	1	0	7	0	7	0	0	0	0	0	4	2	6	
% App. Total	0	0	100		0	100	0		0	0	0		0	66.7	33.3		
PHF	.000	.000	.250	.250	.000	.583	.000	.583	.000	.000	.000	.000	.000	.500	.250	.750	

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City of Irwindale
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Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	3
07:15 AM	1	0	0	0	1	0	9	0	0	9	1	1	0	0	2	0	1	0	0	1	0	13	13
07:30 AM	0	0	0	0	0	0	3	1	0	4	1	0	1	1	2	0	6	0	0	6	1	12	13
07:45 AM	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	1	4	0	0	5	0	17	17
Total	3	0	0	0	3	0	23	1	0	24	2	1	1	1	4	2	12	0	0	14	1	45	46
08:00 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	0	5	5
08:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	4	0	0	5	0	8	8
08:30 AM	3	0	1	1	4	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	1	9	10
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	5	0	0	6	0	10	10
Total	3	0	1	1	4	0	10	1	0	11	0	0	0	0	0	3	14	0	0	17	1	32	33
Grand Total	6	0	1	1	7	0	33	2	0	35	2	1	1	1	4	5	26	0	0	31	2	77	79
Apprch %	85.7	0	14.3			0	94.3	5.7			50	25	25			16.1	83.9	0					
Total %	7.8	0	1.3		9.1	0	42.9	2.6		45.5	2.6	1.3	1.3		5.2	6.5	33.8	0		40.3	2.5	97.5	

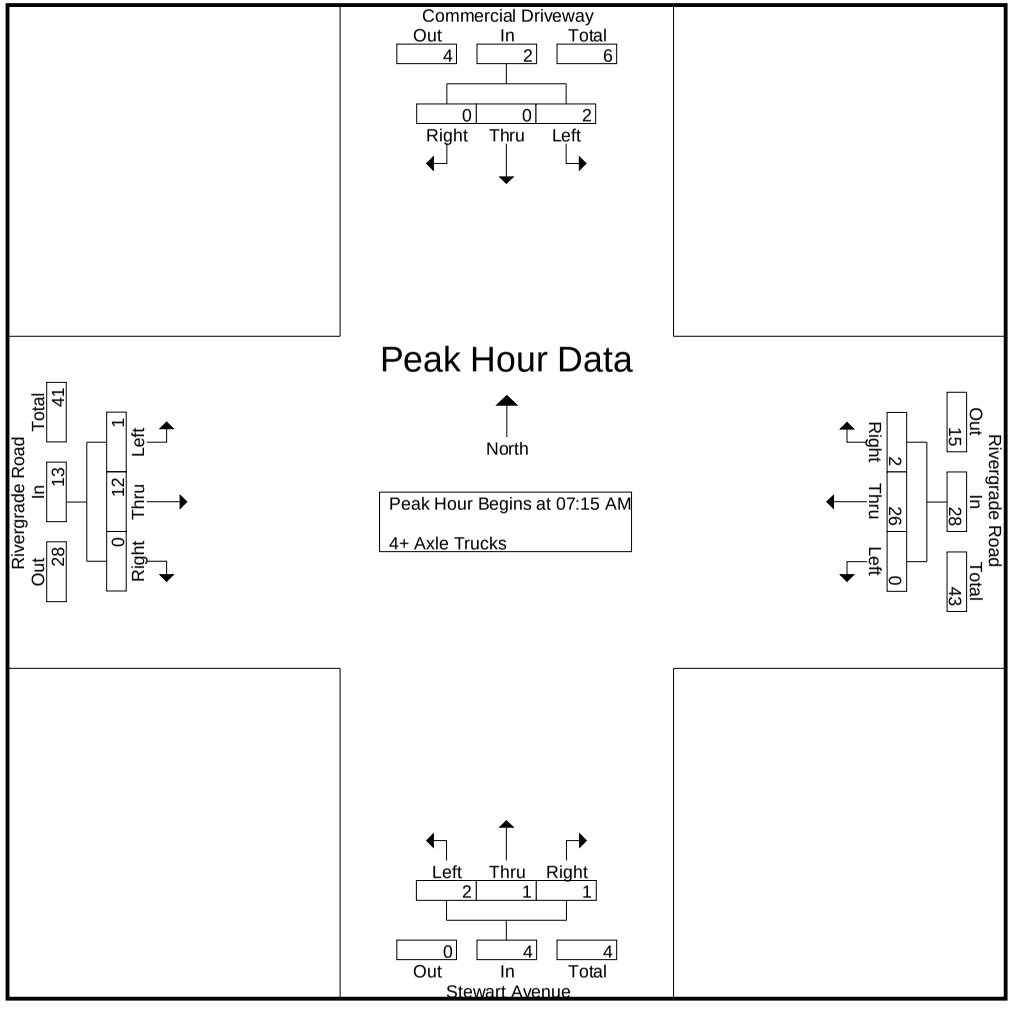
3.1-381

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	0	**1**	0	9	0	9	**1**	**1**	0	**2**	0	1	0	1	13
07:30 AM	0	0	0	0	0	3	**1**	4	1	0	**1**	2	0	**6**	0	**6**	12
07:45 AM	1	0	0	1	0	**11**	0	**11**	0	0	0	0	**1**	4	0	5	**17**
08:00 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	1	0	1	5
Total Volume	2	0	0	2	0	26	2	28	2	1	1	4	1	12	0	13	47
% App. Total	100	0	0		0	92.9	7.1		50	25	25		7.7	92.3	0		
PHF	.500	.000	.000	.500	.000	.591	.500	.636	.500	.250	.250	.500	.250	.500	.000	.542	.691

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	**1**	0	0	**1**	0	9	0	9	**1**	**1**	0	**2**	0	1	0	1	
+15 mins.	0	0	0	0	0	3	**1**	4	1	0	**1**	2	0	**6**	0	**6**	
+30 mins.	1	0	0	1	0	**11**	0	**11**	0	0	0	0	**1**	4	0	5	
+45 mins.	0	0	0	0	0	3	1	4	0	0	0	0	0	1	0	1	
Total Volume	2	0	0	2	0	26	2	28	2	1	1	4	1	12	0	13	
% App. Total	100	0	0		0	92.9	7.1		50	25	25		7.7	92.3	0		
PHF	.500	.000	.000	.500	.000	.591	.500	.636	.500	.250	.250	.500	.250	.500	.000	.542	

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv PM
Site Code : 05117783
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

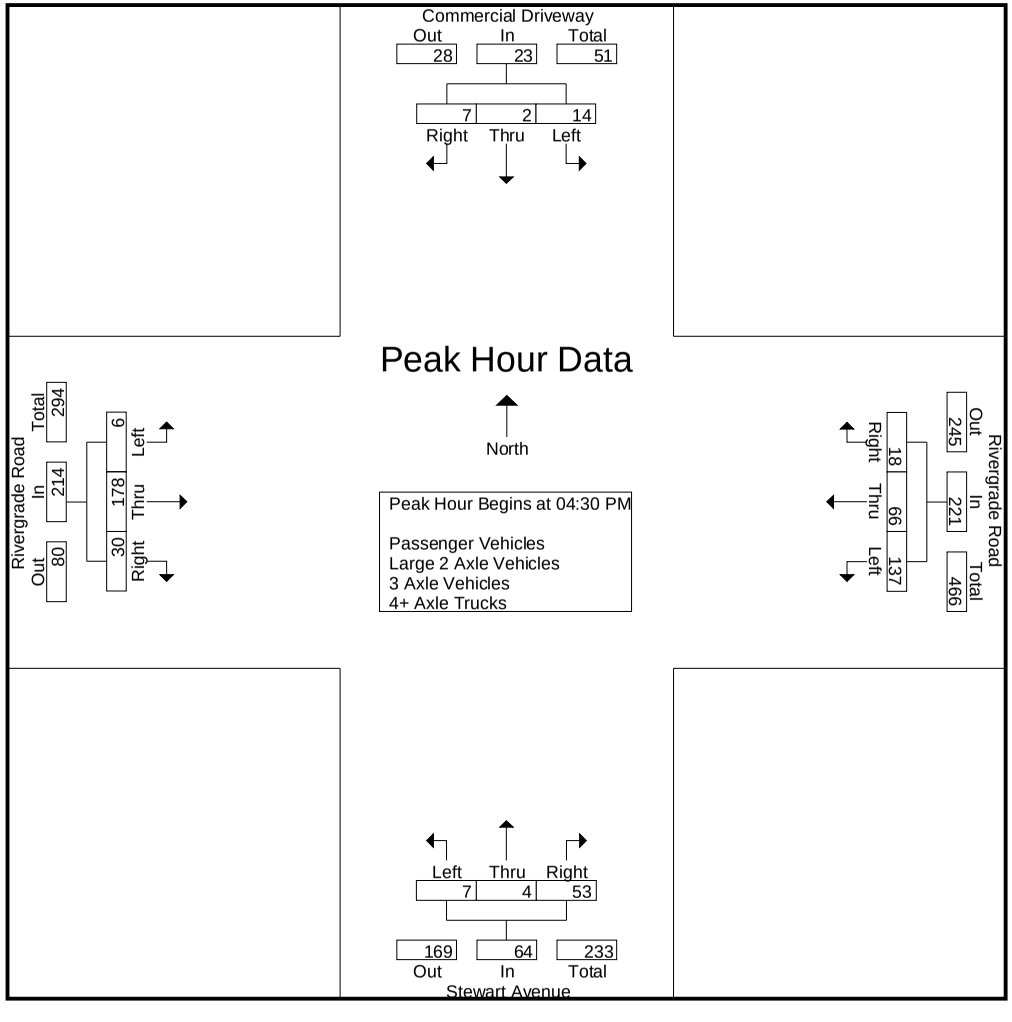
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	1	2	2	6	26	16	2	0	44	0	2	10	9	12	3	25	10	1	38	12	100	112
04:15 PM	3	1	2	1	6	36	18	1	0	55	0	0	9	9	9	1	22	4	0	27	10	97	107
04:30 PM	2	1	1	0	4	33	12	3	1	48	2	3	16	14	21	2	45	10	0	57	15	130	145
04:45 PM	5	0	1	0	6	33	19	7	2	59	2	1	8	7	11	1	40	10	1	51	10	127	137
Total	13	3	6	3	22	128	65	13	3	206	4	6	43	39	53	7	132	34	2	173	47	454	501
05:00 PM	5	0	3	1	8	33	15	5	0	53	1	0	18	13	19	2	44	7	1	53	15	133	148
05:15 PM	2	1	2	1	5	38	20	3	0	61	2	0	11	10	13	1	49	3	0	53	11	132	143
05:30 PM	3	1	1	1	5	41	6	2	0	49	0	1	20	14	21	1	34	7	2	42	17	117	134
05:45 PM	1	2	3	1	6	35	13	0	0	48	1	0	12	8	13	1	32	4	1	37	10	104	114
Total	11	4	9	4	24	147	54	10	0	211	4	1	61	45	66	5	159	21	4	185	53	486	539
Grand Total	24	7	15	7	46	275	119	23	3	417	8	7	104	84	119	12	291	55	6	358	100	940	1040
Apprch %	52.2	15.2	32.6			65.9	28.5	5.5			6.7	5.9	87.4			3.4	81.3	15.4					
Total %	2.6	0.7	1.6		4.9	29.3	12.7	2.4		44.4	0.9	0.7	11.1		12.7	1.3	31	5.9		38.1	9.6	90.4	
Passenger Vehicles	11	6	8		29	236	109	11		357	7	7	101		198	7	279	47		338	0	0	922
% Passenger Vehicles	45.8	85.7	53.3	57.1	54.7	85.8	91.6	47.8	33.3	85	87.5	100	97.1	98.8	97.5	58.3	95.9	85.5	83.3	92.9	0	0	88.7
Large 2 Axle Vehicles	8	0	1		10	8	2	5		16	1	0	3		5	2	5	8		16	0	0	47
% Large 2 Axle Vehicles	33.3	0	6.7	14.3	18.9	2.9	1.7	21.7	33.3	3.8	12.5	0	2.9	1.2	2.5	16.7	1.7	14.5	16.7	4.4	0	0	4.5
3 Axle Vehicles	0	0	0		0	31	2	0		33	0	0	0		0	0	0	0		0	0	0	33
% 3 Axle Vehicles	0	0	0	0	0	11.3	1.7	0	0	7.9	0	0	0	0	0	0	0	0	0	0	0	0	3.2
4+ Axle Trucks	5	1	6		14	0	6	7		14	0	0	0		0	3	7	0		10	0	0	38
% 4+ Axle Trucks	20.8	14.3	40	28.6	26.4	0	5	30.4	33.3	3.3	0	0	0	0	0	25	2.4	0	0	2.7	0	0	3.7

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	**1**	1	4	33	12	3	48	**2**	**3**	16	**21**	**2**	45	**10**	**57**	130
04:45 PM	**5**	0	1	6	33	19	**7**	59	2	1	8	11	1	40	10	51	127
05:00 PM	5	0	**3**	**8**	33	15	5	53	1	0	**18**	19	2	44	7	53	**133**
05:15 PM	2	1	2	5	**38**	**20**	3	**61**	2	0	11	13	1	**49**	3	53	132
Total Volume	14	2	7	23	137	66	18	221	7	4	53	64	6	178	30	214	522
% App. Total	60.9	8.7	30.4		62	29.9	8.1		10.9	6.2	82.8		2.8	83.2	14		
PHF	.700	.500	.583	.719	.901	.825	.643	.906	.875	.333	.736	.762	.750	.908	.750	.939	.981

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File Name : 18_IRW_St Riv PM
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:45 PM				05:00 PM				04:30 PM				
+0 mins.	3	**1**	2	6	33	19	**7**	59	1	0	18	19	**2**	45	**10**	**57**	
+15 mins.	2	1	1	4	33	15	5	53	**2**	0	11	13	1	40	10	51	
+30 mins.	**5**	0	1	6	38	**20**	3	**61**	0	**1**	**20**	**21**	2	44	7	53	
+45 mins.	5	0	**3**	**8**	**41**	6	2	49	1	0	12	13	1	**49**	3	53	
Total Volume	15	2	7	24	145	60	17	222	4	1	61	66	6	178	30	214	
% App. Total	62.5	8.3	29.2		65.3	27	7.7		6.1	1.5	92.4		2.8	83.2	14		
PHF	.750	.500	.583	.750	.884	.750	.607	.910	.500	.250	.763	.786	.750	.908	.750	.939	

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Groups Printed- Passenger Vehicles

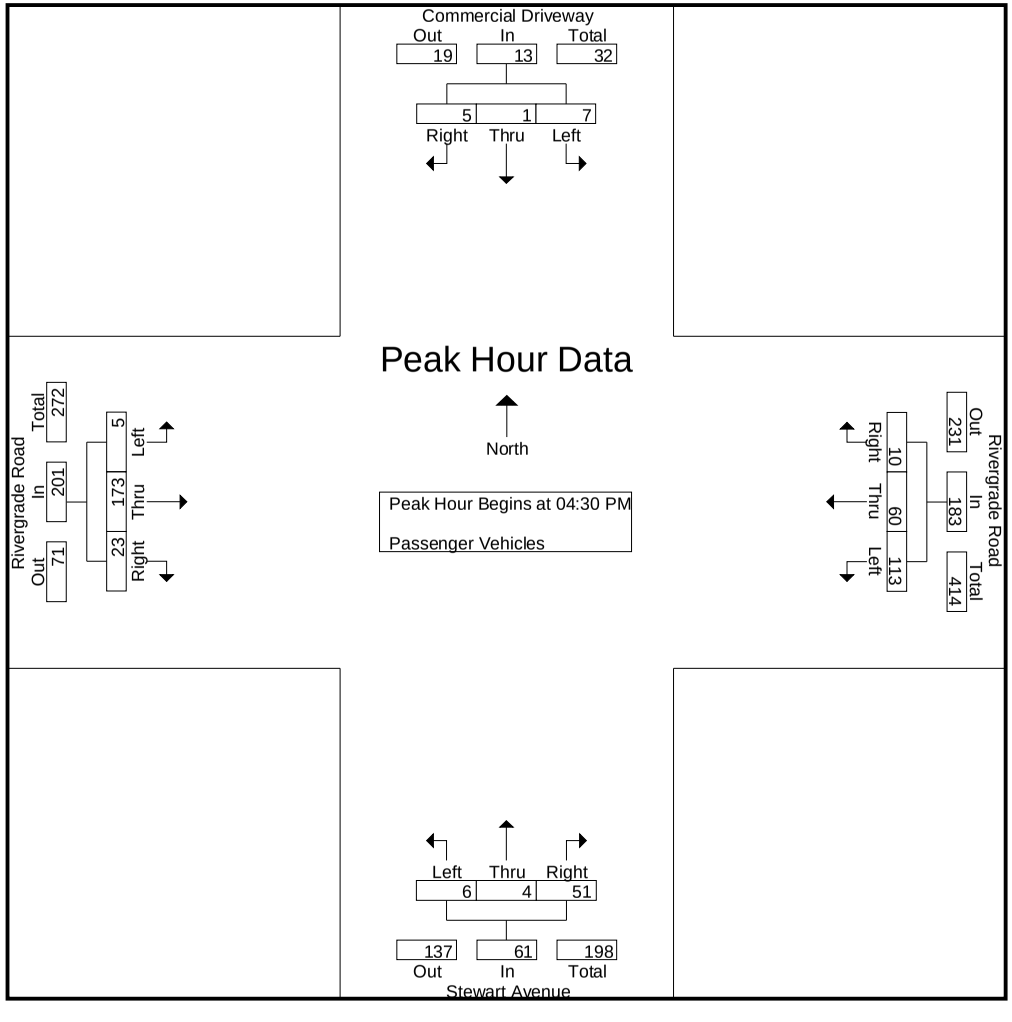
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	1	1	3	23	15	0	0	38	0	2	10	9	12	0	22	10	1	32	11	85	96
04:15 PM	1	1	1	1	3	32	17	0	0	49	0	0	9	9	9	1	20	4	0	25	10	86	96
04:30 PM	0	0	1	0	1	26	12	2	0	40	2	3	14	13	19	2	45	7	0	54	13	114	127
04:45 PM	3	0	0	0	3	30	16	4	1	50	2	1	8	7	11	1	37	7	0	45	8	109	117
Total	5	2	3	2	10	111	60	6	1	177	4	6	41	38	51	4	124	28	1	156	42	394	436
05:00 PM	3	0	2	1	5	27	13	4	0	44	0	0	18	13	18	1	43	7	1	51	15	118	133
05:15 PM	1	1	2	1	4	30	19	0	0	49	2	0	11	10	13	1	48	2	0	51	11	117	128
05:30 PM	1	1	0	0	2	35	4	1	0	40	0	1	20	14	21	0	33	7	2	40	16	103	119
05:45 PM	1	2	1	0	4	33	13	0	0	46	1	0	11	8	12	1	31	3	1	35	9	97	106
Total	6	4	5	2	15	125	49	5	0	179	3	1	60	45	64	3	155	19	4	177	51	435	486
Grand Total	11	6	8	4	25	236	109	11	1	356	7	7	101	83	115	7	279	47	5	333	93	829	922
Apprch %	44	24	32			66.3	30.6	3.1			6.1	6.1	87.8			2.1	83.8	14.1					
Total %	1.3	0.7	1		3	28.5	13.1	1.3		42.9	0.8	0.8	12.2		13.9	0.8	33.7	5.7		40.2	10.1	89.9	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	26	12	2	40	**2**	**3**	14	**19**	**2**	45	**7**	**54**	114
04:45 PM	**3**	0	0	3	**30**	16	**4**	**50**	2	1	8	11	1	37	7	45	109
05:00 PM	3	0	**2**	**5**	27	13	4	44	0	0	**18**	18	1	43	7	51	**118**
05:15 PM	1	**1**	2	4	30	**19**	0	49	2	0	11	13	1	**48**	2	51	117
Total Volume	7	1	5	13	113	60	10	183	6	4	51	61	5	173	23	201	458
% App. Total	53.8	7.7	38.5		61.7	32.8	5.5		9.8	6.6	83.6		2.5	86.1	11.4		
PHF	.583	.250	.625	.650	.942	.789	.625	.915	.750	.333	.708	.803	.625	.901	.821	.931	.970

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City of Irwindale
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	1	1	26	12	2	40	**2**	**3**	14	**19**	**2**	45	**7**	**54**	
+15 mins.	**3**	0	0	3	**30**	16	**4**	**50**	2	1	8	11	1	37	7	45	
+30 mins.	3	0	**2**	**5**	27	13	4	44	0	0	**18**	18	1	43	7	51	
+45 mins.	1	**1**	2	4	30	**19**	0	49	2	0	11	13	1	**48**	2	51	
Total Volume	7	1	5	13	113	60	10	183	6	4	51	61	5	173	23	201	
% App. Total	53.8	7.7	38.5		61.7	32.8	5.5		9.8	6.6	83.6		2.5	86.1	11.4		
PHF	.583	.250	.625	.650	.942	.789	.625	.915	.750	.333	.708	.803	.625	.901	.821	.931	

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Groups Printed- Large 2 Axle Vehicles

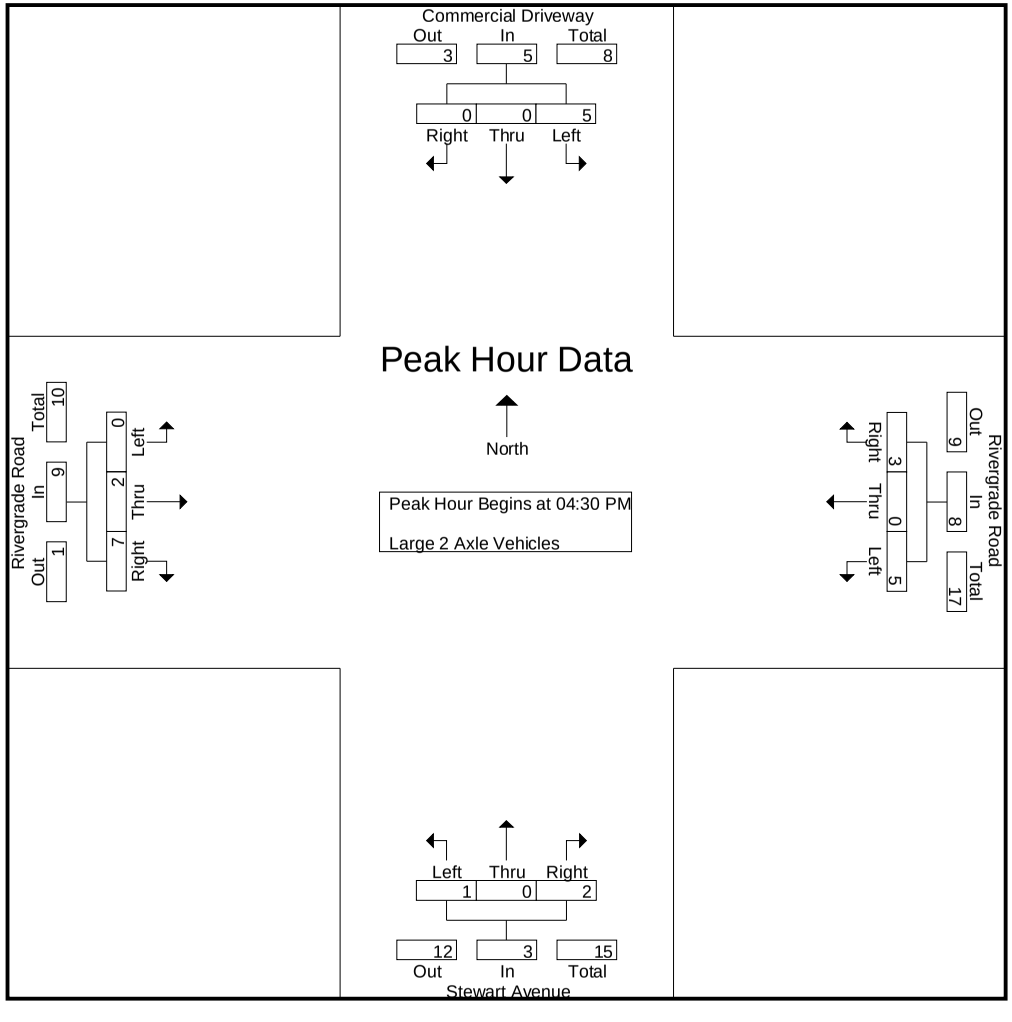
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	1	0	1	0	2	0	0	0	0	0	1	1	0	0	2	0	5	5
04:15 PM	2	0	0	0	2	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	4	4
04:30 PM	1	0	0	0	1	0	0	1	1	1	0	0	2	1	2	0	0	3	0	3	2	7	9
04:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	3	1	5	1	7	8
Total	5	0	0	0	5	3	0	3	1	6	0	0	2	1	2	1	3	6	1	10	3	23	26
05:00 PM	2	0	0	0	2	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	5	5
05:15 PM	1	0	0	0	1	2	0	2	0	4	0	0	0	0	0	0	0	1	0	1	0	6	6
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	4	4
05:45 PM	0	0	1	1	1	1	0	0	0	1	0	0	1	0	1	0	1	1	0	2	1	5	6
Total	3	0	1	1	4	5	2	2	0	9	1	0	1	0	2	1	2	2	0	5	1	20	21
Grand Total	8	0	1	1	9	8	2	5	1	15	1	0	3	1	4	2	5	8	1	15	4	43	47
Apprch %	88.9	0	11.1			53.3	13.3	33.3			25	0	75			13.3	33.3	53.3					
Total %	18.6	0	2.3		20.9	18.6	4.7	11.6		34.9	2.3	0	7		9.3	4.7	11.6	18.6		34.9	8.5	91.5	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	0	1	0	0	1	1	0	0	**2**	**2**	0	0	**3**	3	**7**
04:45 PM	1	0	0	1	1	0	0	1	0	0	0	0	0	**2**	3	**5**	7
05:00 PM	**2**	0	0	**2**	**2**	0	0	2	**1**	0	0	1	0	0	0	0	5
05:15 PM	1	0	0	1	2	0	**2**	**4**	0	0	0	0	0	0	1	1	6
Total Volume	5	0	0	5	5	0	3	8	1	0	2	3	0	2	7	9	25
% App. Total	100	0	0		62.5	0	37.5		33.3	0	66.7		0	22.2	77.8		
PHF	.625	.000	.000	.625	.625	.000	.375	.500	.250	.000	.250	.375	.000	.250	.583	.450	.893

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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	1	0	0	1	0	0	1	1	0	0	**2**	**2**	0	0	**3**	3	
+15 mins.	1	0	0	1	1	0	0	1	0	0	0	0	0	**2**	3	**5**	
+30 mins.	**2**	0	0	**2**	**2**	0	0	2	**1**	0	0	1	0	0	0	0	
+45 mins.	1	0	0	1	2	0	**2**	**4**	0	0	0	0	0	0	1	1	
Total Volume	5	0	0	5	5	0	3	8	1	0	2	3	0	2	7	9	
% App. Total	100	0	0		62.5	0	37.5		33.3	0	66.7		0	22.2	77.8		
PHF	.625	.000	.000	.625	.625	.000	.375	.500	.250	.000	.250	.375	.000	.250	.583	.450	

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Groups Printed- 3 Axle Vehicles

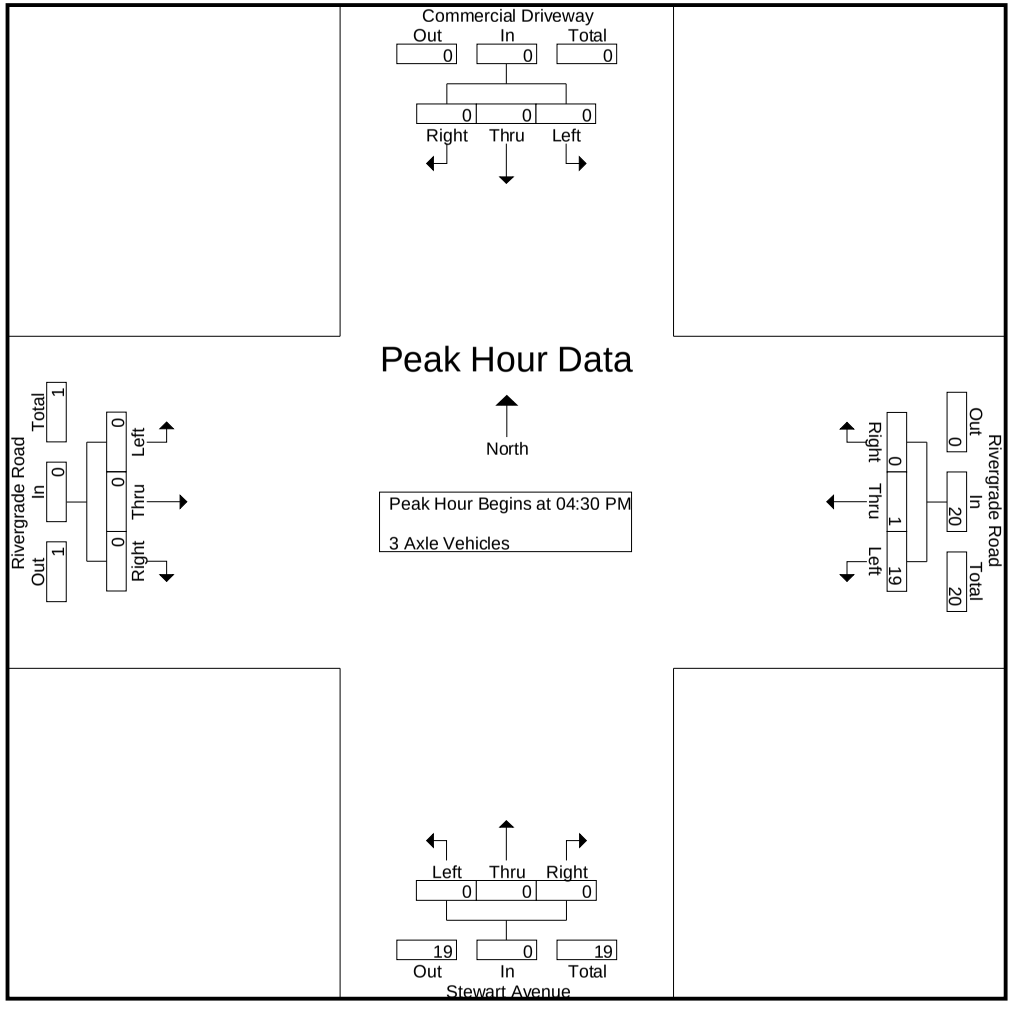
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
04:15 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
04:30 PM	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7	7
04:45 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	0	0	0	0	0	14	2	0	0	16	0	0	0	0	0	0	0	0	0	0	0	16	16
05:00 PM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	4
05:15 PM	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	6
05:30 PM	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	6
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	17	17
Grand Total	0	0	0	0	0	31	2	0	0	33	0	0	0	0	0	0	0	0	0	0	0	33	33
Apprch %	0	0	0			93.9	6.1	0			0	0	0			0	0	0					
Total %	0	0	0		0	93.9	6.1	0		100	0	0	0		0	0	0	0		0	0	100	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**7**	0	0	**7**	0	0	0	0	0	0	0	0	**7**
04:45 PM	0	0	0	0	2	**1**	0	3	0	0	0	0	0	0	0	0	3
05:00 PM	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	6
Total Volume	0	0	0	0	19	1	0	20	0	0	0	0	0	0	0	0	20
% App. Total	0	0	0		95	5	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.679	.250	.000	.714	.000	.000	.000	.000	.000	.000	.000	.000	.714

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City of Irwindale
N/S: Stewart Avenue
E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	**7**	0	0	**7**	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	2	**1**	0	3	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	19	1	0	20	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		95	5	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.679	.250	.000	.714	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Irwindale
N/S: Stewart Avenue
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File Name : 18_IRW_St Riv PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

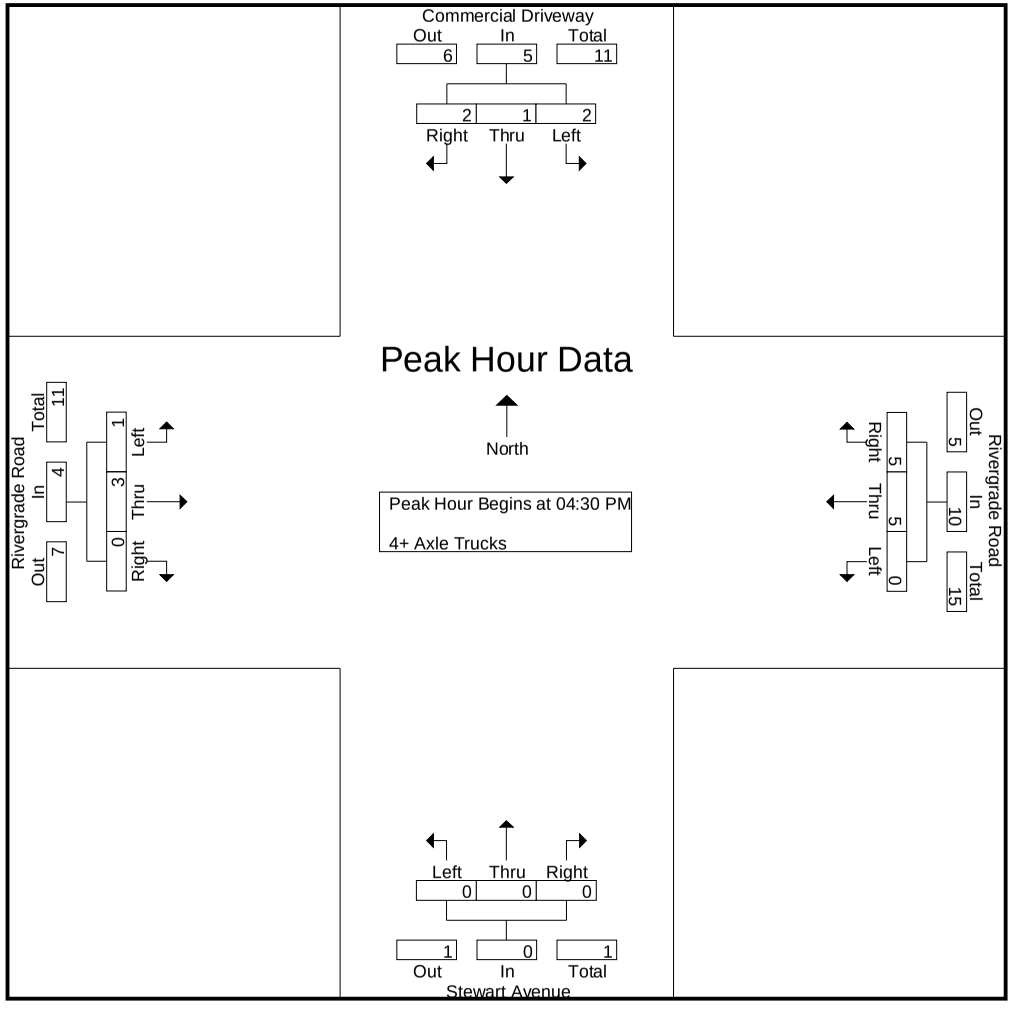
	Commercial Driveway Southbound					Rivergrade Road Westbound					Stewart Avenue Northbound					Rivergrade Road Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	1	1	2	0	0	1	0	1	0	0	0	0	0	2	2	0	0	4	1	7	8
04:15 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	4	4
04:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
04:45 PM	1	0	1	0	2	0	2	3	1	5	0	0	0	0	0	0	1	0	0	1	1	8	9
Total	3	1	3	1	7	0	3	4	1	7	0	0	0	0	0	2	5	0	0	7	2	21	23
05:00 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	1	1	0	0	2	0	6	6
05:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
05:30 PM	2	0	1	1	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	4	5
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	2	0	3	1	5	0	3	3	0	6	0	0	0	0	0	1	2	0	0	3	1	14	15
Grand Total	5	1	6	2	12	0	6	7	1	13	0	0	0	0	0	3	7	0	0	10	3	35	38
Apprch %	41.7	8.3	50			0	46.2	53.8			0	0	0			30	70	0					
Total %	14.3	2.9	17.1		34.3	0	17.1	20		37.1	0	0	0		0	8.6	20	0		28.6	7.9	92.1	

	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	1	0	**1**	2	0	**2**	**3**	**5**	0	0	0	0	0	**1**	0	1	**8**
05:00 PM	0	0	1	1	0	2	1	3	0	0	0	0	**1**	1	0	**2**	6
05:15 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	3
Total Volume	2	1	2	5	0	5	5	10	0	0	0	0	1	3	0	4	19
% App. Total	40	20	40		0	50	50		0	0	0		25	75	0		
PHF	.500	.250	.500	.625	.000	.625	.417	.500	.000	.000	.000	.000	.250	.750	.000	.500	.594

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City of Irwindale
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E/W: Rivergrade Road
Weather: Clear

File Name : 18_IRW_St Riv PM
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Start Date : 11/28/2017
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City of Irwindale
N/S: Stewart Avenue
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Site Code : 05117783
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	Commercial Driveway Southbound				Rivergrade Road Westbound				Stewart Avenue Northbound				Rivergrade Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	1	0	**1**	2	0	**2**	**3**	**5**	0	0	0	0	0	**1**	0	1	
+30 mins.	0	0	1	1	0	2	1	3	0	0	0	0	**1**	1	0	**2**	
+45 mins.	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	
Total Volume	2	1	2	5	0	5	5	10	0	0	0	0	1	3	0	4	
% App. Total	40	20	40		0	50	50		0	0	0		25	75	0		
PHF	.500	.250	.500	.625	.000	.625	.417	.500	.000	.000	.000	.000	.250	.750	.000	.500	

Location: Irwindale
N/S: Stewart Road
E/W: Rivergrade Road

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Commercial Driveway	East Leg Rivergrade Road	South Leg Stewart Road	West Leg Rivergrade Road	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Commercial Driveway	East Leg Rivergrade Road	South Leg Stewart Road	West Leg Rivergrade Road	TOTAL
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 VOLUMES:	0	0	0	0	0

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Location: Irwindale
N/S: Stewart Road
E/W: Rivergrade Road



Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Commercial Driveway	East Leg Rivergrade Road	South Leg Stewart Road	West Leg Rivergrade Road	TOTAL
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	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Commercial Driveway	East Leg Rivergrade Road	South Leg Stewart Road	West Leg Rivergrade Road	TOTAL
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	1	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

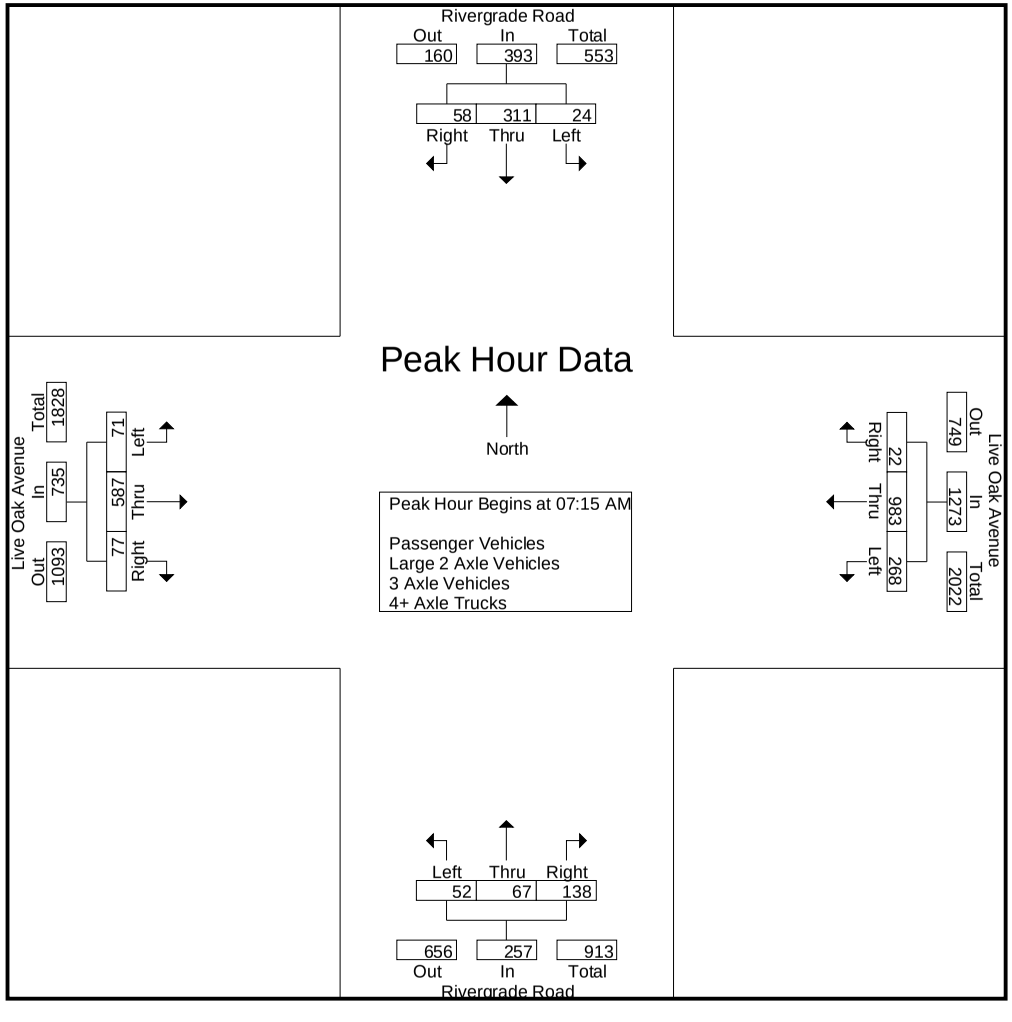
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	31	6	4	42	63	280	4	2	347	15	5	24	17	44	18	112	16	0	146	23	579	602
07:15 AM	5	52	12	2	69	56	269	6	3	331	11	17	26	7	54	21	122	4	0	147	12	601	613
07:30 AM	8	73	16	6	97	70	249	9	2	328	14	17	39	23	70	16	143	18	1	177	32	672	704
07:45 AM	8	103	18	11	129	71	246	6	0	323	15	20	42	27	77	18	175	28	0	221	38	750	788
Total	26	259	52	23	337	260	1044	25	7	1329	55	59	131	74	245	73	552	66	1	691	105	2602	2707
08:00 AM	3	83	12	9	98	71	219	1	0	291	12	13	31	23	56	16	147	27	6	190	38	635	673
08:15 AM	4	43	6	3	53	61	211	2	0	274	11	9	43	31	63	21	151	30	4	202	38	592	630
08:30 AM	3	35	4	3	42	76	187	2	0	265	11	10	37	21	58	12	125	22	2	159	26	524	550
08:45 AM	5	33	9	6	47	44	178	3	0	225	11	15	30	19	56	20	150	34	3	204	28	532	560
Total	15	194	31	21	240	252	795	8	0	1055	45	47	141	94	233	69	573	113	15	755	130	2283	2413
Grand Total	41	453	83	44	577	512	1839	33	7	2384	100	106	272	168	478	142	1125	179	16	1446	235	4885	5120
Apprch %	7.1	78.5	14.4			21.5	77.1	1.4			20.9	22.2	56.9			9.8	77.8	12.4					
Total %	0.8	9.3	1.7		11.8	10.5	37.6	0.7		48.8	2	2.2	5.6		9.8	2.9	23	3.7		29.6	4.6	95.4	
Passenger Vehicles	36	420	34		510	494	1636	25		2161	85	78	195		475	83	986	172		1257	0	0	4403
% Passenger Vehicles	87.8	92.7	41	45.5	82.1	96.5	89	75.8	85.7	90.4	85	73.6	71.7	69.6	73.5	58.5	87.6	96.1	100	86	0	0	86
Large 2 Axle Vehicles	3	7	16		37	8	115	3		126	4	6	9		26	29	65	4		98	0	0	287
% Large 2 Axle Vehicles	7.3	1.5	19.3	25	6	1.6	6.3	9.1	0	5.3	4	5.7	3.3	4.2	4	20.4	5.8	2.2	0	6.7	0	0	5.6
3 Axle Vehicles	0	5	14		28	2	24	0		26	7	6	9		26	7	21	1		29	0	0	109
% 3 Axle Vehicles	0	1.1	16.9	20.5	4.5	0.4	1.3	0	0	1.1	7	5.7	3.3	2.4	4	4.9	1.9	0.6	0	2	0	0	2.1
4+ Axle Trucks	2	21	19		46	8	64	5		78	4	16	59		119	23	53	2		78	0	0	321
% 4+ Axle Trucks	4.9	4.6	22.9	9.1	7.4	1.6	3.5	15.2	14.3	3.3	4	15.1	21.7	23.8	18.4	16.2	4.7	1.1	0	5.3	0	0	6.3

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	52	12	69	56	**269**	6	**331**	11	17	26	54	**21**	122	4	147	601
07:30 AM	**8**	73	16	97	70	249	**9**	328	14	17	39	70	16	143	18	177	672
07:45 AM	8	**103**	**18**	**129**	**71**	246	6	323	**15**	**20**	**42**	**77**	18	**175**	**28**	**221**	**750**
08:00 AM	3	83	12	98	71	219	1	291	12	13	31	56	16	147	27	190	635
Total Volume	24	311	58	393	268	983	22	1273	52	67	138	257	71	587	77	735	2658
% App. Total	6.1	79.1	14.8		21.1	77.2	1.7		20.2	26.1	53.7		9.7	79.9	10.5		
PHF	.750	.755	.806	.762	.944	.914	.611	.961	.867	.838	.821	.834	.845	.839	.688	.831	.886

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City of Irwindale
N/S: Rivergrade Road
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File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:30 AM				07:30 AM				
+0 mins.	5	52	12	69	63	**280**	4	**347**	14	17	39	70	16	143	18	177	
+15 mins.	**8**	73	16	97	56	269	6	331	**15**	**20**	42	**77**	18	**175**	28	**221**	
+30 mins.	8	**103**	**18**	**129**	70	249	**9**	328	12	13	31	56	16	147	27	190	
+45 mins.	3	83	12	98	**71**	246	6	323	11	9	**43**	63	**21**	151	**30**	202	
Total Volume	24	311	58	393	260	1044	25	1329	52	59	155	266	71	616	103	790	
% App. Total	6.1	79.1	14.8		19.6	78.6	1.9		19.5	22.2	58.3		9	78	13		
PHF	.750	.755	.806	.762	.915	.932	.694	.957	.867	.738	.901	.864	.845	.880	.858	.894	

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Groups Printed- Passenger Vehicles

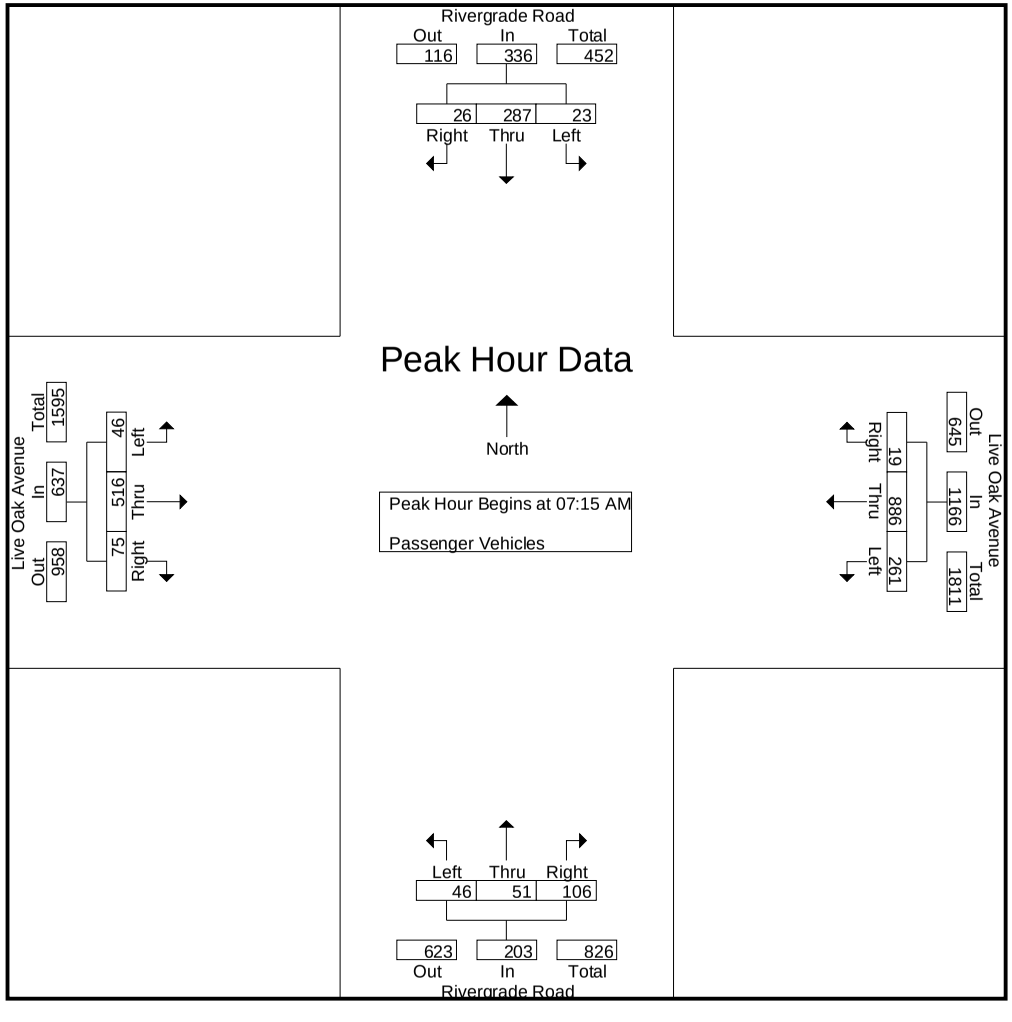
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	30	4	3	39	61	266	2	1	329	15	4	16	11	35	11	98	16	0	125	15	528	543
07:15 AM	4	44	5	0	53	54	245	5	3	304	8	13	18	4	39	16	105	4	0	125	7	521	528
07:30 AM	8	67	8	4	83	69	222	8	2	299	12	14	28	14	54	9	129	18	1	156	21	592	613
07:45 AM	8	99	8	6	115	68	221	6	0	295	14	13	34	24	61	12	158	27	0	197	30	668	698
Total	25	240	25	13	290	252	954	21	6	1227	49	44	96	53	189	48	490	65	1	603	73	2309	2382
08:00 AM	3	77	5	4	85	70	198	0	0	268	12	11	26	18	49	9	124	26	6	159	28	561	589
08:15 AM	2	41	2	1	45	59	179	1	0	239	9	7	28	19	44	9	128	29	4	166	24	494	518
08:30 AM	3	32	0	0	35	71	156	1	0	228	8	6	26	14	40	6	112	21	2	139	16	442	458
08:45 AM	3	30	2	2	35	42	149	2	0	193	7	10	19	13	36	11	132	31	3	174	18	438	456
Total	11	180	9	7	200	242	682	4	0	928	36	34	99	64	169	35	496	107	15	638	86	1935	2021
Grand Total	36	420	34	20	490	494	1636	25	6	2155	85	78	195	117	358	83	986	172	16	1241	159	4244	4403
Apprch %	7.3	85.7	6.9			22.9	75.9	1.2			23.7	21.8	54.5			6.7	79.5	13.9					
Total %	0.8	9.9	0.8		11.5	11.6	38.5	0.6		50.8	2	1.8	4.6		8.4	2	23.2	4.1		29.2	3.6	96.4	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	44	5	53	54	**245**	5	**304**	8	13	18	39	**16**	105	4	125	521
07:30 AM	**8**	67	**8**	83	69	222	**8**	299	12	**14**	28	54	9	129	18	156	592
07:45 AM	8	**99**	8	**115**	68	221	6	295	**14**	13	**34**	**61**	12	**158**	**27**	**197**	**668**
08:00 AM	3	77	5	85	**70**	198	0	268	12	11	26	49	9	124	26	159	561
Total Volume	23	287	26	336	261	886	19	1166	46	51	106	203	46	516	75	637	2342
% App. Total	6.8	85.4	7.7		22.4	76	1.6		22.7	25.1	52.2		7.2	81	11.8		
PHF	.719	.725	.813	.730	.932	.904	.594	.959	.821	.911	.779	.832	.719	.816	.694	.808	.876

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	4	44	5	53	54	**245**	5	**304**	8	13	18	39	**16**	105	4	125	
+15 mins.	**8**	67	**8**	83	69	222	**8**	299	12	**14**	28	54	9	129	18	156	
+30 mins.	8	**99**	8	**115**	68	221	6	295	**14**	13	**34**	**61**	12	**158**	**27**	**197**	
+45 mins.	3	77	5	85	**70**	198	0	268	12	11	26	49	9	124	26	159	
Total Volume	23	287	26	336	261	886	19	1166	46	51	106	203	46	516	75	637	
% App. Total	6.8	85.4	7.7		22.4	76	1.6		22.7	25.1	52.2		7.2	81	11.8		
PHF	.719	.725	.813	.730	.932	.904	.594	.959	.821	.911	.779	.832	.719	.816	.694	.808	

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City of Irwindale
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Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

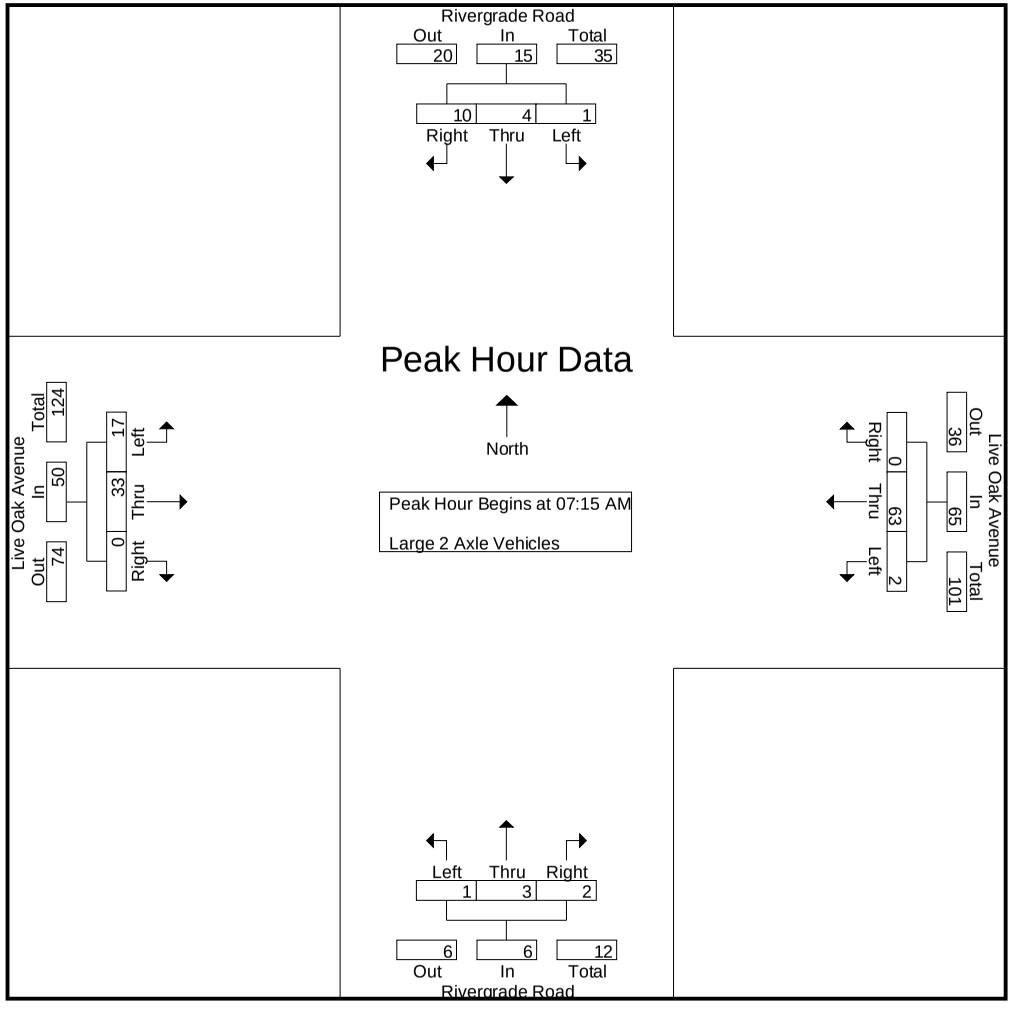
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	10	1	0	12	0	0	1	1	1	3	6	0	0	9	1	22	23
07:15 AM	1	0	3	1	4	1	14	0	0	15	0	0	1	0	1	5	8	0	0	13	1	33	34
07:30 AM	0	2	2	1	4	0	24	0	0	24	1	0	1	1	2	4	6	0	0	10	2	40	42
07:45 AM	0	1	3	2	4	1	16	0	0	17	0	2	0	0	2	4	8	0	0	12	2	35	37
Total	1	3	8	4	12	3	64	1	0	68	1	2	3	2	6	16	28	0	0	44	6	130	136
08:00 AM	0	1	2	2	3	0	9	0	0	9	0	1	0	0	1	4	11	0	0	15	2	28	30
08:15 AM	1	1	1	0	3	2	15	1	0	18	1	0	3	3	4	6	13	0	0	19	3	44	47
08:30 AM	0	2	1	1	3	1	11	1	0	13	0	2	1	1	3	2	3	1	0	6	2	25	27
08:45 AM	1	0	4	4	5	2	16	0	0	18	2	1	2	1	5	1	10	3	0	14	5	42	47
Total	2	4	8	7	14	5	51	2	0	58	3	4	6	5	13	13	37	4	0	54	12	139	151
Grand Total	3	7	16	11	26	8	115	3	0	126	4	6	9	7	19	29	65	4	0	98	18	269	287
Apprch %	11.5	26.9	61.5			6.3	91.3	2.4			21.1	31.6	47.4			29.6	66.3	4.1					
Total %	1.1	2.6	5.9		9.7	3	42.8	1.1		46.8	1.5	2.2	3.3		7.1	10.8	24.2	1.5		36.4	6.3	93.7	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	**3**	**4**	**1**	14	0	15	0	0	**1**	1	**5**	8	0	13	33
07:30 AM	0	**2**	2	4	0	**24**	0	**24**	**1**	0	1	**2**	4	6	0	10	**40**
07:45 AM	0	1	3	4	1	16	0	17	0	**2**	0	2	4	8	0	12	35
08:00 AM	0	1	2	3	0	9	0	9	0	1	0	1	4	**11**	0	**15**	28
Total Volume	1	4	10	15	2	63	0	65	1	3	2	6	17	33	0	50	136
% App. Total	6.7	26.7	66.7		3.1	96.9	0		16.7	50	33.3		34	66	0		
PHF	.250	.500	.833	.938	.500	.656	.000	.677	.250	.375	.500	.750	.850	.750	.000	.833	.850

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	**1**	0	**3**	**4**	**1**	14	0	15	0	0	**1**	1	**5**	8	0	13	
+15 mins.	0	**2**	2	4	0	**24**	0	**24**	**1**	0	1	**2**	4	6	0	10	
+30 mins.	0	1	3	4	1	16	0	17	0	**2**	0	2	4	8	0	12	
+45 mins.	0	1	2	3	0	9	0	9	0	1	0	1	4	**11**	0	**15**	
Total Volume	1	4	10	15	2	63	0	65	1	3	2	6	17	33	0	50	
% App. Total	6.7	26.7	66.7		3.1	96.9	0		16.7	50	33.3		34	66	0		
PHF	.250	.500	.833	.938	.500	.656	.000	.677	.250	.375	.500	.750	.850	.750	.000	.833	

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	2	1	2	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	1	5	6
07:15 AM	0	1	1	1	2	0	2	0	0	2	2	4	1	1	7	0	1	0	0	1	2	12	14
07:30 AM	0	1	3	1	4	1	0	0	0	1	1	0	1	0	2	1	4	0	0	5	1	12	13
07:45 AM	0	1	4	2	5	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	2	10	12
Total	0	3	10	5	13	2	6	0	0	8	3	4	2	1	9	2	7	0	0	9	6	39	45
08:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	1	0	0	3	0	5	5
08:15 AM	0	0	2	2	2	0	8	0	0	8	1	1	2	1	4	1	5	1	0	7	3	21	24
08:30 AM	0	1	2	2	3	0	3	0	0	3	2	0	4	2	6	1	5	0	0	6	4	18	22
08:45 AM	0	1	0	0	1	0	5	0	0	5	1	1	1	0	3	1	3	0	0	4	0	13	13
Total	0	2	4	4	6	0	18	0	0	18	4	2	7	3	13	5	14	1	0	20	7	57	64
Grand Total	0	5	14	9	19	2	24	0	0	26	7	6	9	4	22	7	21	1	0	29	13	96	109
Apprch %	0	26.3	73.7			7.7	92.3	0			31.8	27.3	40.9			24.1	72.4	3.4					
Total %	0	5.2	14.6		19.8	2.1	25	0		27.1	7.3	6.2	9.4		22.9	7.3	21.9	1		30.2	11.9	88.1	

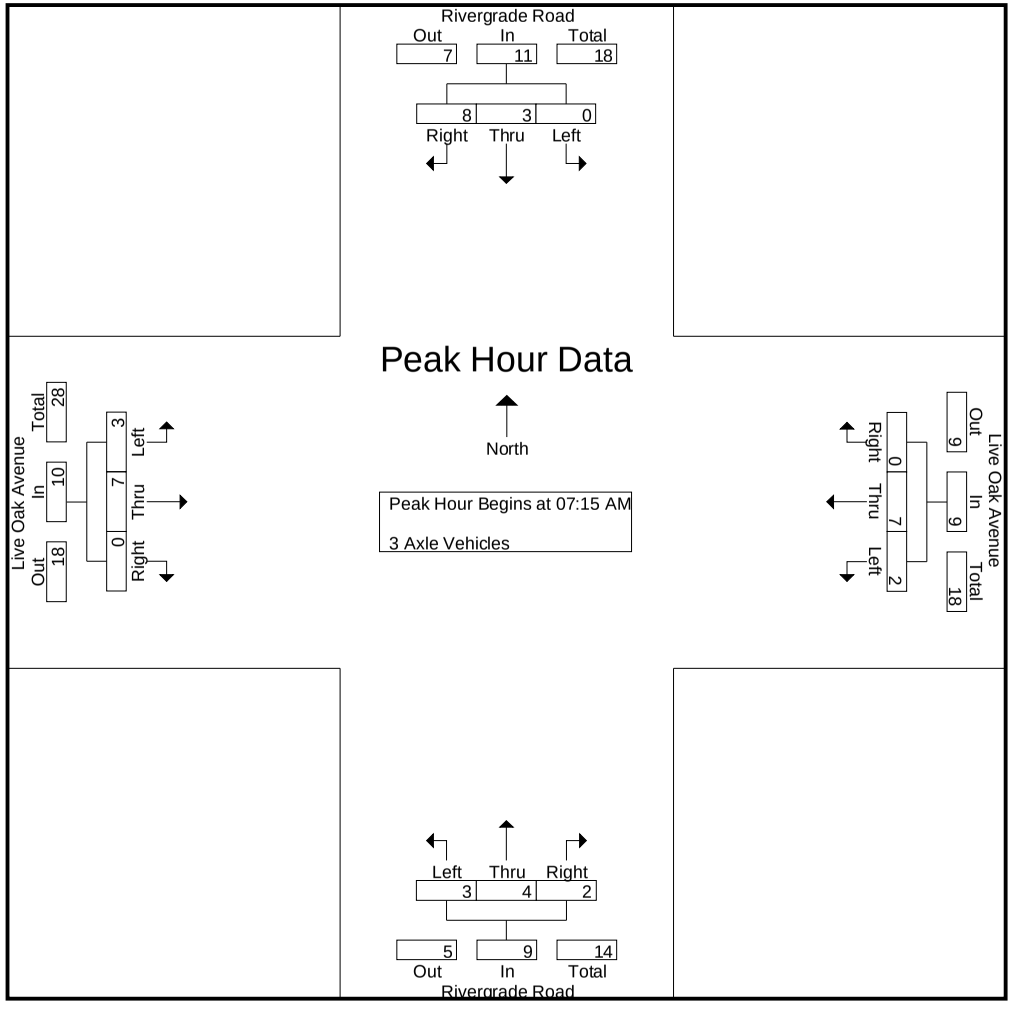
3.1-410

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	1	2	0	2	0	2	**2**	**4**	**1**	**7**	0	1	0	1	**12**
07:30 AM	0	1	3	4	**1**	0	0	1	1	0	1	2	1	**4**	0	**5**	12
07:45 AM	0	1	**4**	**5**	1	**3**	0	**4**	0	0	0	0	0	1	0	1	10
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	**2**	1	0	3	5
Total Volume	0	3	8	11	2	7	0	9	3	4	2	9	3	7	0	10	39
% App. Total	0	27.3	72.7		22.2	77.8	0		33.3	44.4	22.2		30	70	0		
PHF	.000	.750	.500	.550	.500	.583	.000	.563	.375	.250	.500	.321	.375	.438	.000	.500	.813

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	**1**	1	2	0	2	0	2	**2**	**4**	**1**	**7**	0	1	0	1	
+15 mins.	0	1	3	4	**1**	0	0	1	1	0	1	2	1	**4**	0	**5**	
+30 mins.	0	1	**4**	**5**	1	**3**	0	**4**	0	0	0	0	0	1	0	1	
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	**2**	1	0	3	
Total Volume	0	3	8	11	2	7	0	9	3	4	2	9	3	7	0	10	
% App. Total	0	27.3	72.7		22.2	77.8	0		33.3	44.4	22.2		30	70	0		
PHF	.000	.750	.500	.550	.500	.583	.000	.563	.375	.250	.500	.321	.375	.438	.000	.500	

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N/S: Rivergrade Road
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Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

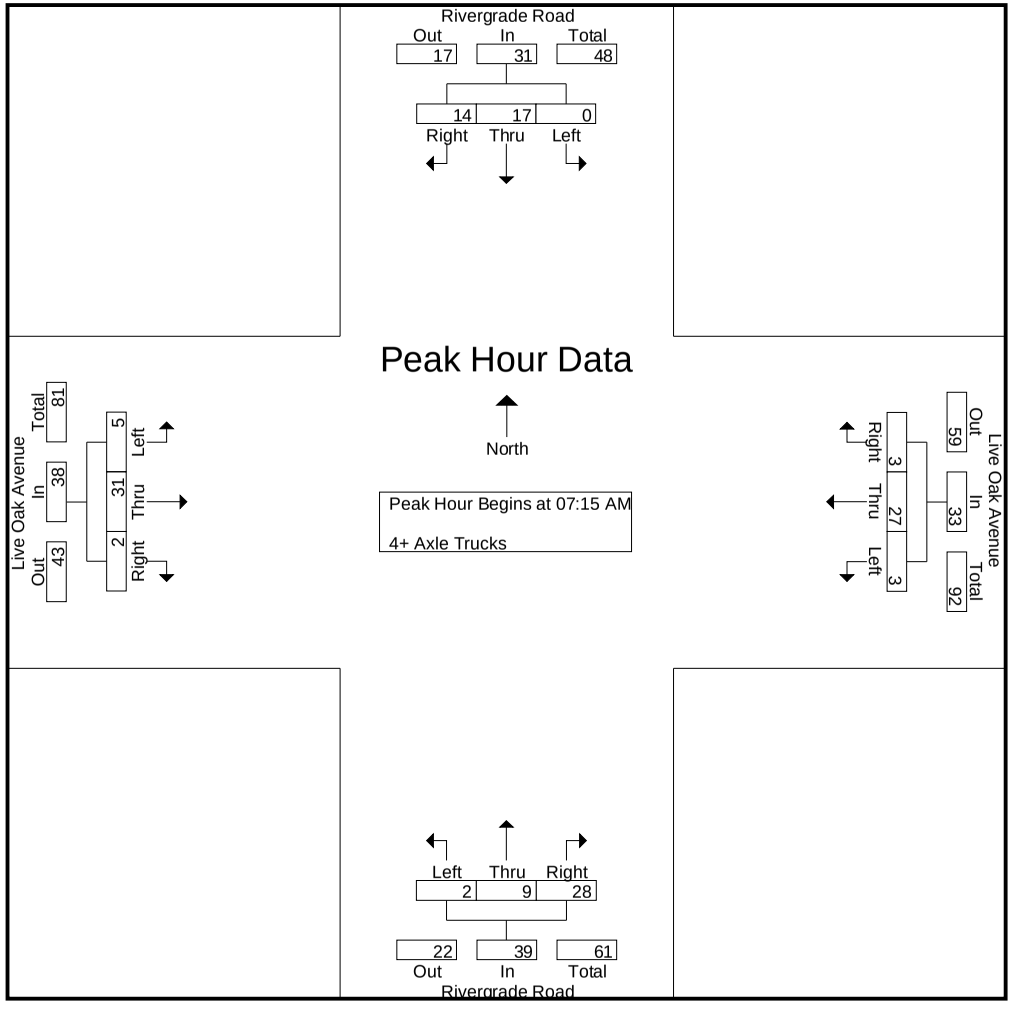
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	1	3	1	1	5	0	1	7	5	8	3	7	0	0	10	6	24	30
07:15 AM	0	7	3	0	10	1	8	1	0	10	1	0	6	2	7	0	8	0	0	8	2	35	37
07:30 AM	0	3	3	0	6	0	3	1	0	4	0	3	9	8	12	2	4	0	0	6	8	28	36
07:45 AM	0	2	3	1	5	1	6	0	0	7	1	5	8	3	14	2	8	1	0	11	4	37	41
Total	0	13	9	1	22	3	20	3	1	26	2	9	30	18	41	7	27	1	0	35	20	124	144
08:00 AM	0	5	5	3	10	1	10	1	0	12	0	1	5	5	6	1	11	1	0	13	8	41	49
08:15 AM	1	1	1	0	3	0	9	0	0	9	0	1	10	8	11	5	5	0	0	10	8	33	41
08:30 AM	0	0	1	0	1	4	17	0	0	21	1	2	6	4	9	3	5	0	0	8	4	39	43
08:45 AM	1	2	3	0	6	0	8	1	0	9	1	3	8	5	12	7	5	0	0	12	5	39	44
Total	2	8	10	3	20	5	44	2	0	51	2	7	29	22	38	16	26	1	0	43	25	152	177
Grand Total	2	21	19	4	42	8	64	5	1	77	4	16	59	40	79	23	53	2	0	78	45	276	321
Apprch %	4.8	50	45.2			10.4	83.1	6.5			5.1	20.3	74.7			29.5	67.9	2.6					
Total %	0.7	7.6	6.9		15.2	2.9	23.2	1.8		27.9	1.4	5.8	21.4		28.6	8.3	19.2	0.7		28.3	14	86	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**7**	3	**10**	**1**	8	**1**	10	**1**	0	6	7	0	8	0	8	35
07:30 AM	0	3	3	6	0	3	1	4	0	3	**9**	12	**2**	4	0	6	28
07:45 AM	0	2	3	5	1	6	0	7	1	**5**	8	**14**	2	8	**1**	11	37
08:00 AM	0	5	**5**	10	1	**10**	1	**12**	0	1	5	6	1	**11**	1	**13**	**41**
Total Volume	0	17	14	31	3	27	3	33	2	9	28	39	5	31	2	38	141
% App. Total	0	54.8	45.2		9.1	81.8	9.1		5.1	23.1	71.8		13.2	81.6	5.3		
PHF	.000	.607	.700	.775	.750	.675	.750	.688	.500	.450	.778	.696	.625	.705	.500	.731	.860

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	**7**	3	**10**	**1**	8	**1**	10	**1**	0	6	7	0	8	0	8	
+15 mins.	0	3	3	6	0	3	1	4	0	3	**9**	12	**2**	4	0	6	
+30 mins.	0	2	3	5	1	6	0	7	1	**5**	8	**14**	2	8	**1**	11	
+45 mins.	0	5	**5**	10	1	**10**	1	**12**	0	1	5	6	1	**11**	1	**13**	
Total Volume	0	17	14	31	3	27	3	33	2	9	28	39	5	31	2	38	
% App. Total	0	54.8	45.2		9.1	81.8	9.1		5.1	23.1	71.8		13.2	81.6	5.3		
PHF	.000	.607	.700	.775	.750	.675	.750	.688	.500	.450	.778	.696	.625	.705	.500	.731	

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Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
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Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

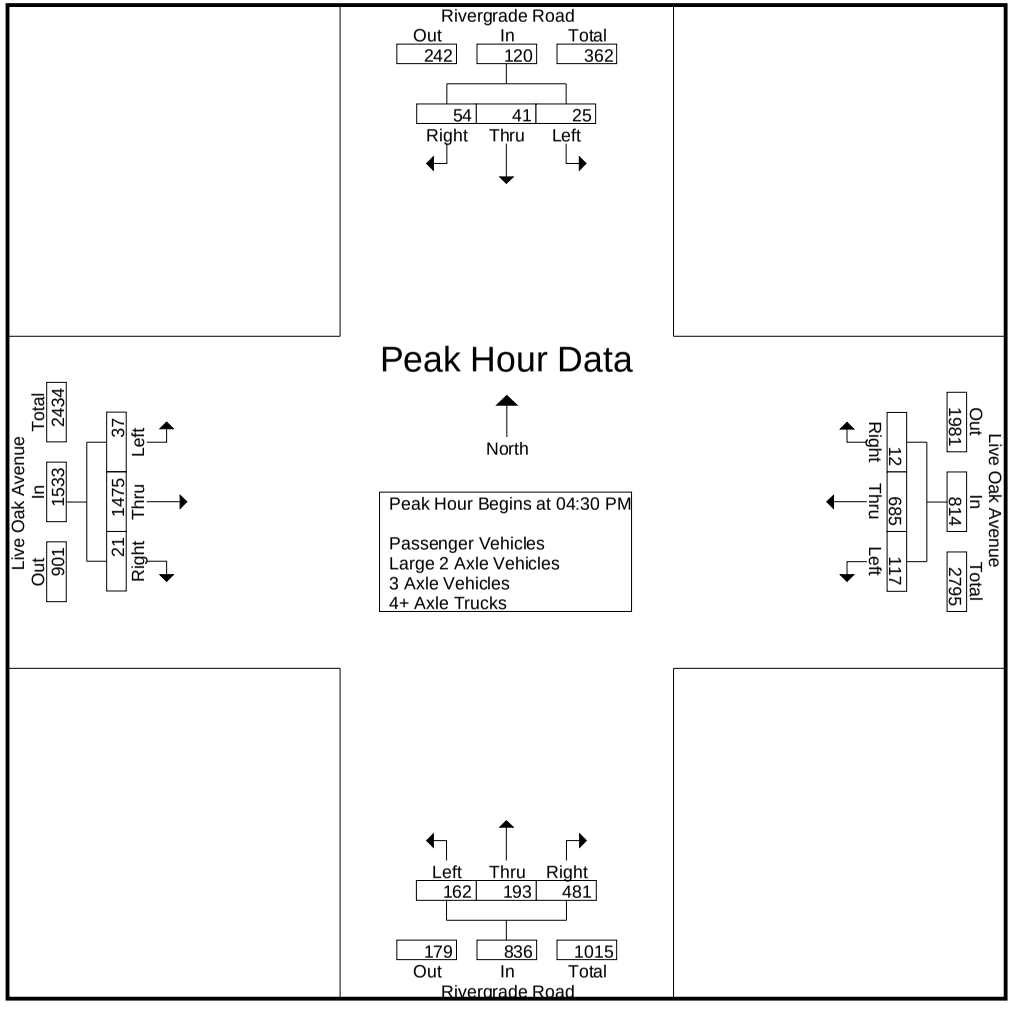
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	8	14	13	26	20	154	1	1	175	17	25	81	39	123	12	349	5	0	366	53	690	743
04:15 PM	3	11	7	4	21	18	154	2	0	174	19	27	83	30	129	8	362	11	0	381	34	705	739
04:30 PM	1	7	16	14	24	30	178	1	0	209	35	57	122	38	214	5	360	0	0	365	52	812	864
04:45 PM	6	12	10	4	28	29	171	6	1	206	43	41	119	42	203	9	383	10	1	402	48	839	887
Total	14	38	47	35	99	97	657	10	2	764	114	150	405	149	669	34	1454	26	1	1514	187	3046	3233
05:00 PM	6	12	15	11	33	33	176	3	0	212	39	46	154	71	239	11	385	5	1	401	83	885	968
05:15 PM	12	10	13	8	35	25	160	2	0	187	45	49	86	33	180	12	347	6	1	365	42	767	809
05:30 PM	6	3	9	7	18	24	148	6	3	178	39	31	90	44	160	12	427	7	0	446	54	802	856
05:45 PM	6	8	6	4	20	23	143	3	1	169	23	27	93	24	143	11	365	9	0	385	29	717	746
Total	30	33	43	30	106	105	627	14	4	746	146	153	423	172	722	46	1524	27	2	1597	208	3171	3379
Grand Total	44	71	90	65	205	202	1284	24	6	1510	260	303	828	321	1391	80	2978	53	3	3111	395	6217	6612
Apprch %	21.5	34.6	43.9			13.4	85	1.6			18.7	21.8	59.5			2.6	95.7	1.7					
Total %	0.7	1.1	1.4		3.3	3.2	20.7	0.4		24.3	4.2	4.9	13.3		22.4	1.3	47.9	0.9		50	6	94	
Passenger Vehicles	41	66	73		234	196	1197	19		1418	253	290	790		1638	75	2859	53		2990	0	0	6280
% Passenger Vehicles	93.2	93	81.1	83.1	86.7	97	93.2	79.2	100	93.5	97.3	95.7	95.4	95	95.7	93.8	96	100	100	96	0	0	95
Large 2 Axle Vehicles	1	0	5		11	3	42	2		47	1	10	21		41	3	89	0		92	0	0	191
% Large 2 Axle Vehicles	2.3	0	5.6	7.7	4.1	1.5	3.3	8.3	0	3.1	0.4	3.3	2.5	2.8	2.4	3.8	3	0	0	3	0	0	2.9
3 Axle Vehicles	1	0	2		3	1	18	0		19	2	1	6		9	0	7	0		7	0	0	38
% 3 Axle Vehicles	2.3	0	2.2	0	1.1	0.5	1.4	0	0	1.3	0.8	0.3	0.7	0	0.5	0	0.2	0	0	0.2	0	0	0.6
4+ Axle Trucks	1	5	10		22	2	27	3		32	4	2	11		24	2	23	0		25	0	0	103
% 4+ Axle Trucks	2.3	7	11.1	9.2	8.1	1	2.1	12.5	0	2.1	1.5	0.7	1.3	2.2	1.4	2.5	0.8	0	0	0.8	0	0	1.6

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	7	**16**	24	30	**178**	1	209	35	**57**	122	214	5	360	0	365	812
04:45 PM	6	**12**	10	28	29	171	**6**	206	43	41	119	203	9	383	**10**	**402**	839
05:00 PM	6	12	15	33	**33**	176	3	**212**	39	46	**154**	**239**	11	**385**	5	401	**885**
05:15 PM	**12**	10	13	**35**	25	160	2	187	**45**	49	86	180	**12**	347	6	365	767
Total Volume	25	41	54	120	117	685	12	814	162	193	481	836	37	1475	21	1533	3303
% App. Total	20.8	34.2	45		14.4	84.2	1.5		19.4	23.1	57.5		2.4	96.2	1.4		
PHF	.521	.854	.844	.857	.886	.962	.500	.960	.900	.846	.781	.874	.771	.958	.525	.953	.933

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:45 PM				
+0 mins.	1	7	**16**	24	30	**178**	1	209	35	**57**	122	214	9	383	**10**	402	
+15 mins.	6	**12**	10	28	29	171	**6**	206	43	41	119	203	11	385	5	401	
+30 mins.	6	12	15	33	**33**	176	3	**212**	39	46	**154**	**239**	**12**	347	6	365	
+45 mins.	**12**	10	13	**35**	25	160	2	187	**45**	49	86	180	12	**427**	7	**446**	
Total Volume	25	41	54	120	117	685	12	814	162	193	481	836	44	1542	28	1614	
% App. Total	20.8	34.2	45		14.4	84.2	1.5		19.4	23.1	57.5		2.7	95.5	1.7		
PHF	.521	.854	.844	.857	.886	.962	.500	.960	.900	.846	.781	.874	.917	.903	.700	.905	

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Groups Printed- Passenger Vehicles

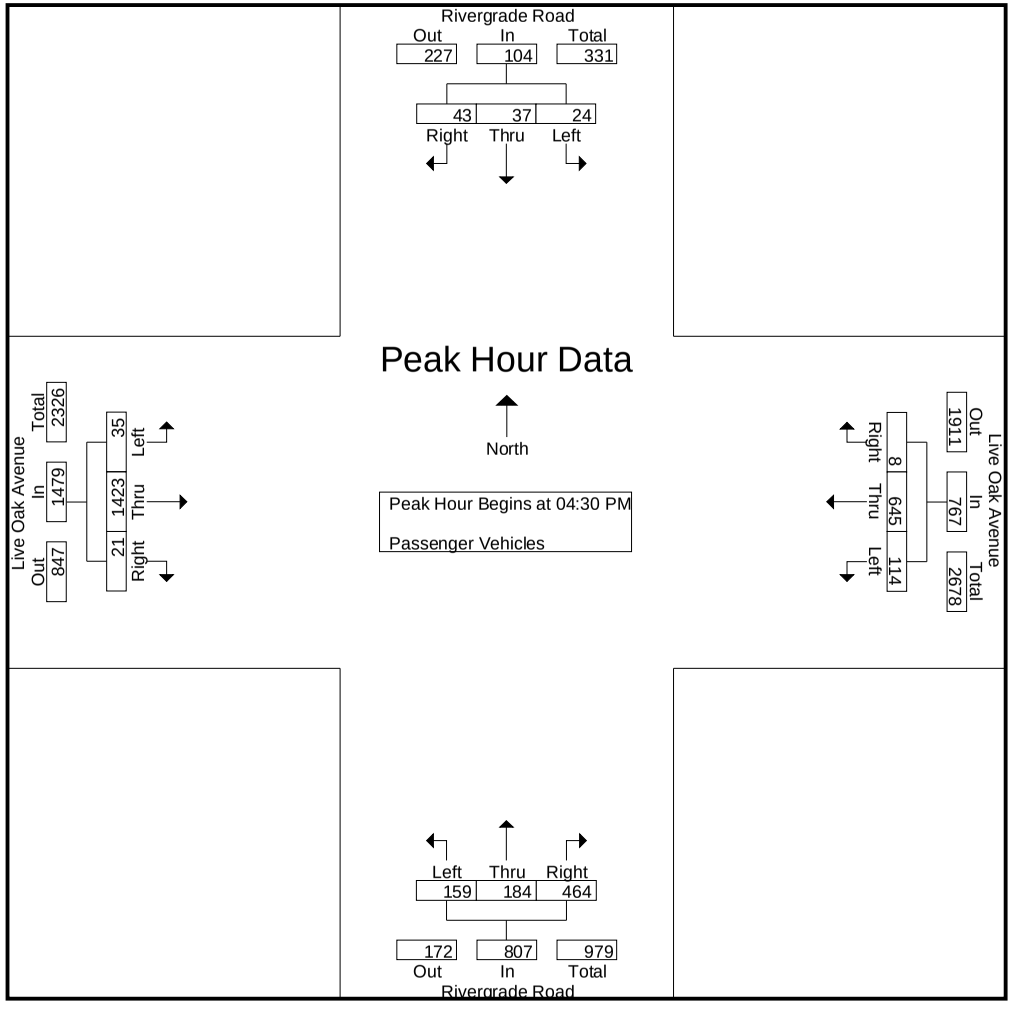
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	8	12	11	23	20	137	1	1	158	16	23	70	34	109	11	322	5	0	338	46	628	674
04:15 PM	3	10	6	4	19	17	134	1	0	152	17	26	78	27	121	8	342	11	0	361	31	653	684
04:30 PM	1	7	12	11	20	29	167	0	0	196	35	53	117	36	205	4	342	0	0	346	47	767	814
04:45 PM	6	11	7	4	24	28	163	4	1	195	41	39	115	41	195	9	371	10	1	390	47	804	851
Total	13	36	37	30	86	94	601	6	2	701	109	141	380	138	630	32	1377	26	1	1435	171	2852	3023
05:00 PM	5	11	12	8	28	33	166	2	0	201	38	44	148	69	230	11	373	5	1	389	78	848	926
05:15 PM	12	8	12	7	32	24	149	2	0	175	45	48	84	33	177	11	337	6	1	354	41	738	779
05:30 PM	5	3	8	6	16	23	144	6	3	173	38	30	87	41	155	10	416	7	0	433	50	777	827
05:45 PM	6	8	4	3	18	22	137	3	1	162	23	27	91	24	141	11	356	9	0	376	28	697	725
Total	28	30	36	24	94	102	596	13	4	711	144	149	410	167	703	43	1482	27	2	1552	197	3060	3257
Grand Total	41	66	73	54	180	196	1197	19	6	1412	253	290	790	305	1333	75	2859	53	3	2987	368	5912	6280
Apprch %	22.8	36.7	40.6			13.9	84.8	1.3			19	21.8	59.3			2.5	95.7	1.8					
Total %	0.7	1.1	1.2		3	3.3	20.2	0.3		23.9	4.3	4.9	13.4		22.5	1.3	48.4	0.9		50.5	5.9	94.1	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	7	**12**	20	29	**167**	0	196	35	**53**	117	205	4	342	0	346	767
04:45 PM	6	**11**	7	24	28	163	**4**	195	41	39	115	195	9	371	**10**	**390**	804
05:00 PM	5	11	12	28	**33**	166	2	**201**	38	44	**148**	**230**	**11**	**373**	5	389	**848**
05:15 PM	**12**	8	12	**32**	24	149	2	175	**45**	48	84	177	11	337	6	354	738
Total Volume	24	37	43	104	114	645	8	767	159	184	464	807	35	1423	21	1479	3157
% App. Total	23.1	35.6	41.3		14.9	84.1	1		19.7	22.8	57.5		2.4	96.2	1.4		
PHF	.500	.841	.896	.813	.864	.966	.500	.954	.883	.868	.784	.877	.795	.954	.525	.948	.931

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Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	1	7	**12**	20	29	**167**	0	196	35	**53**	117	205	4	342	0	346	
+15 mins.	6	**11**	7	24	28	163	**4**	195	41	39	115	195	9	371	**10**	**390**	
+30 mins.	5	11	12	28	**33**	166	2	**201**	38	44	**148**	**230**	**11**	**373**	5	389	
+45 mins.	**12**	8	12	**32**	24	149	2	175	**45**	48	84	177	11	337	6	354	
Total Volume	24	37	43	104	114	645	8	767	159	184	464	807	35	1423	21	1479	
% App. Total	23.1	35.6	41.3		14.9	84.1	1		19.7	22.8	57.5		2.4	96.2	1.4		
PHF	.500	.841	.896	.813	.864	.966	.500	.954	.883	.868	.784	.877	.795	.954	.525	.948	

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Groups Printed- Large 2 Axle Vehicles

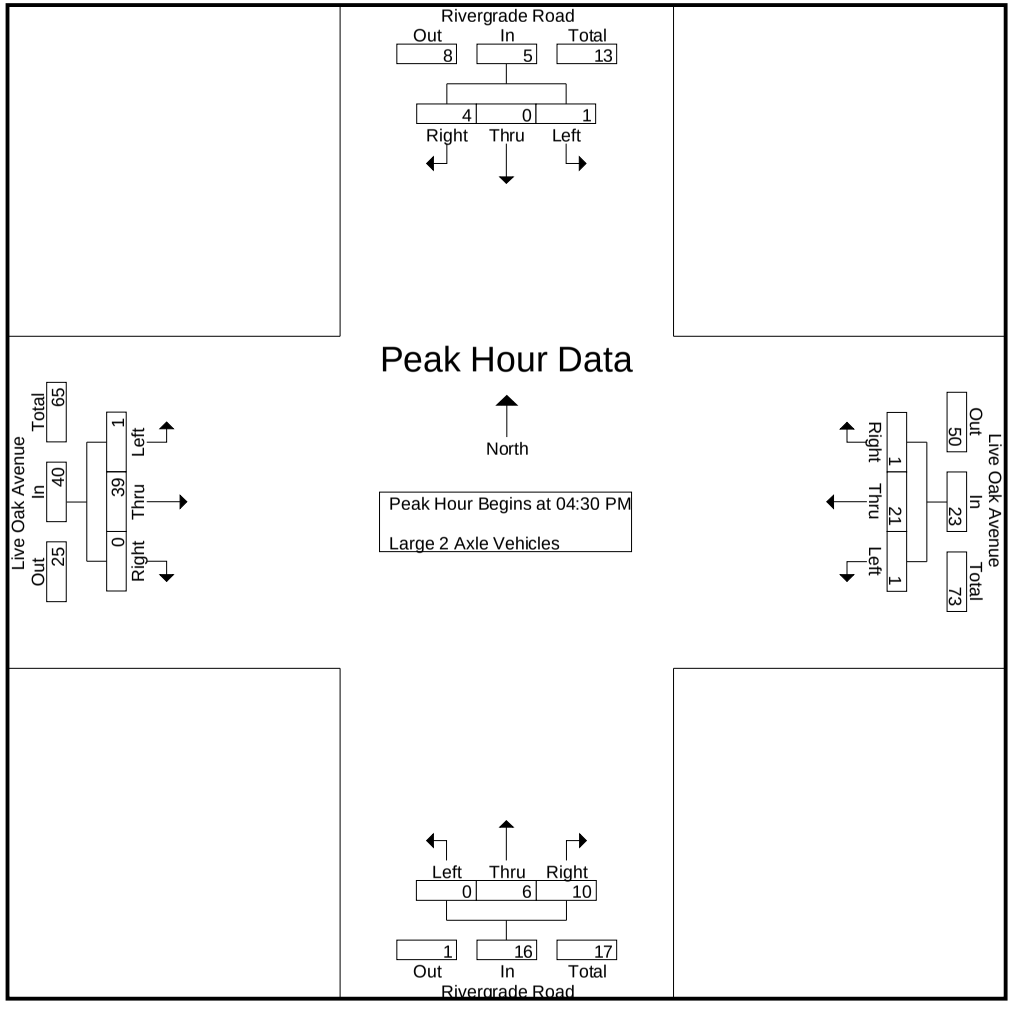
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	9	0	0	9	0	2	5	2	7	0	19	0	0	19	2	35	37
04:15 PM	0	0	0	0	0	0	7	1	0	8	0	1	4	3	5	0	13	0	0	13	3	26	29
04:30 PM	0	0	2	2	2	0	4	0	0	4	0	4	4	1	8	0	12	0	0	12	3	26	29
04:45 PM	0	0	0	0	0	1	4	1	0	6	0	1	2	1	3	0	7	0	0	7	1	16	17
Total	0	0	2	2	2	1	24	2	0	27	0	8	15	7	23	0	51	0	0	51	9	103	112
05:00 PM	1	0	1	1	2	0	6	0	0	6	0	0	3	1	3	0	10	0	0	10	2	21	23
05:15 PM	0	0	1	1	1	0	7	0	0	7	0	1	1	0	2	1	10	0	0	11	1	21	22
05:30 PM	0	0	0	0	0	1	3	0	0	4	1	1	1	1	3	2	10	0	0	12	1	19	20
05:45 PM	0	0	1	1	1	1	2	0	0	3	0	0	1	0	1	0	8	0	0	8	1	13	14
Total	1	0	3	3	4	2	18	0	0	20	1	2	6	2	9	3	38	0	0	41	5	74	79
Grand Total	1	0	5	5	6	3	42	2	0	47	1	10	21	9	32	3	89	0	0	92	14	177	191
Apprch %	16.7	0	83.3			6.4	89.4	4.3			3.1	31.2	65.6			3.3	96.7	0					
Total %	0.6	0	2.8		3.4	1.7	23.7	1.1		26.6	0.6	5.6	11.9		18.1	1.7	50.3	0		52	7.3	92.7	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**2**	**2**	0	4	0	4	0	**4**	**4**	**8**	0	**12**	0	**12**	**26**
04:45 PM	0	0	0	0	**1**	4	**1**	6	0	1	2	3	0	7	0	7	16
05:00 PM	**1**	0	1	2	0	6	0	6	0	0	3	3	0	10	0	10	21
05:15 PM	0	0	1	1	0	**7**	0	**7**	0	1	1	2	**1**	10	0	11	21
Total Volume	1	0	4	5	1	21	1	23	0	6	10	16	1	39	0	40	84
% App. Total	20	0	80		4.3	91.3	4.3		0	37.5	62.5		2.5	97.5	0		
PHF	.250	.000	.500	.625	.250	.750	.250	.821	.000	.375	.625	.500	.250	.813	.000	.833	.808

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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	**2**	**2**	0	4	0	4	0	**4**	**4**	**8**	0	**12**	0	**12**	
+15 mins.	0	0	0	0	**1**	4	**1**	6	0	1	2	3	0	7	0	7	
+30 mins.	**1**	0	1	2	0	6	0	6	0	0	3	3	0	10	0	10	
+45 mins.	0	0	1	1	0	**7**	0	**7**	0	1	1	2	**1**	10	0	11	
Total Volume	1	0	4	5	1	21	1	23	0	6	10	16	1	39	0	40	
% App. Total	20	0	80		4.3	91.3	4.3		0	37.5	62.5		2.5	97.5	0		
PHF	.250	.000	.500	.625	.250	.750	.250	.821	.000	.375	.625	.500	.250	.813	.000	.833	

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Groups Printed- 3 Axle Vehicles

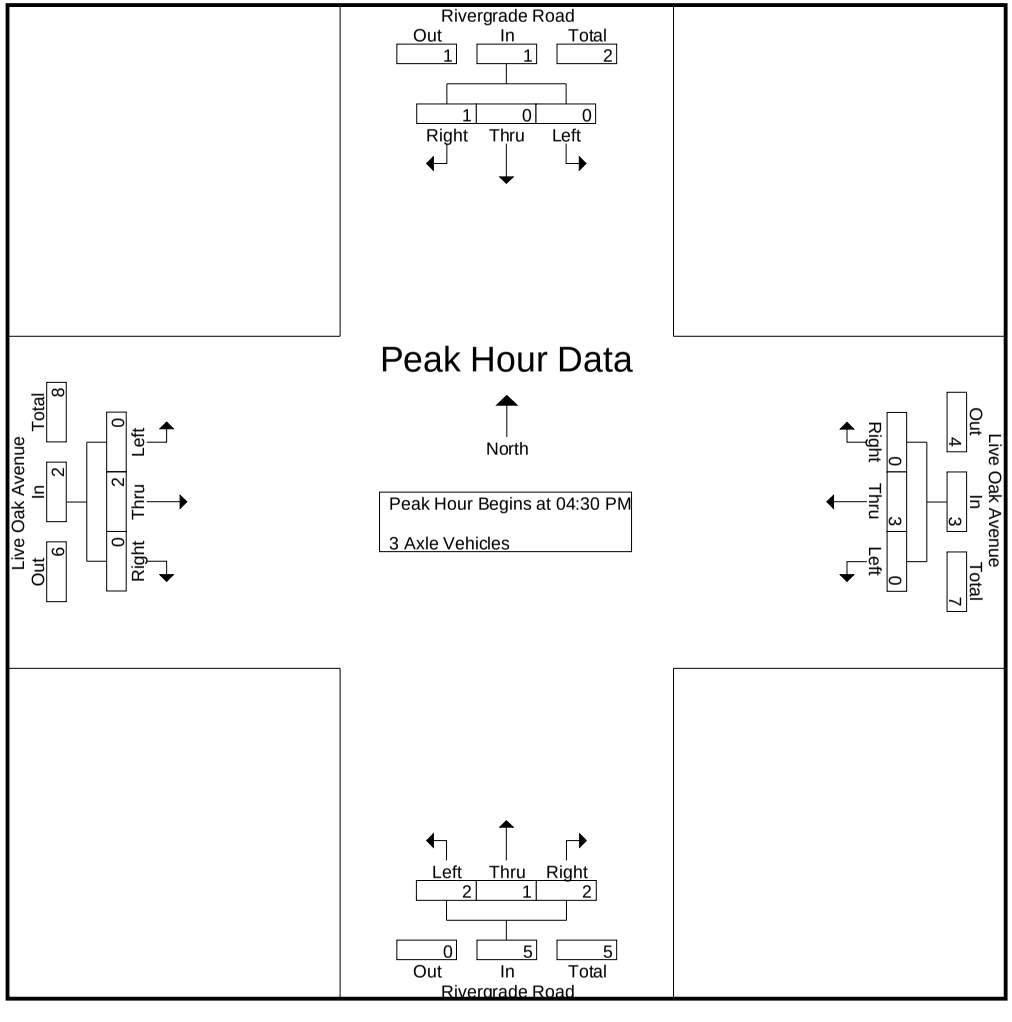
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	0	2	0	0	2	0	8	8
04:15 PM	0	0	1	0	1	1	7	0	0	8	0	0	1	0	1	0	3	0	0	3	0	13	13
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
04:45 PM	0	0	1	0	1	0	0	0	0	0	1	1	2	0	4	0	1	0	0	1	0	6	6
Total	0	0	2	0	2	1	11	0	0	12	1	1	6	0	8	0	7	0	0	7	0	29	29
05:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	4
Total	1	0	0	0	1	0	7	0	0	7	1	0	0	0	1	0	0	0	0	0	0	9	9
Grand Total	1	0	2	0	3	1	18	0	0	19	2	1	6	0	9	0	7	0	0	7	0	38	38
Apprch %	33.3	0	66.7			5.3	94.7	0			22.2	11.1	66.7			0	100	0					
Total %	2.6	0	5.3		7.9	2.6	47.4	0		50	5.3	2.6	15.8		23.7	0	18.4	0		18.4	0	100	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	2
04:45 PM	0	0	**1**	**1**	0	0	0	0	**1**	**1**	**2**	**4**	0	1	0	1	**6**
05:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	2
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	3	0	3	2	1	2	5	0	2	0	2	11
% App. Total	0	0	100		0	100	0		40	20	40		0	100	0		
PHF	.000	.000	.250	.250	.000	.750	.000	.750	.500	.250	.250	.313	.000	.500	.000	.500	.458

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Rivergrade Road
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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	
+15 mins.	0	0	**1**	**1**	0	0	0	0	**1**	**1**	**2**	**4**	0	1	0	1	
+30 mins.	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	1	0	3	0	3	2	1	2	5	0	2	0	2	
% App. Total	0	0	100		0	100	0		40	20	40		0	100	0		
PHF	.000	.000	.250	.250	.000	.750	.000	.750	.500	.250	.250	.313	.000	.500	.000	.500	

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City of Irwindale
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Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

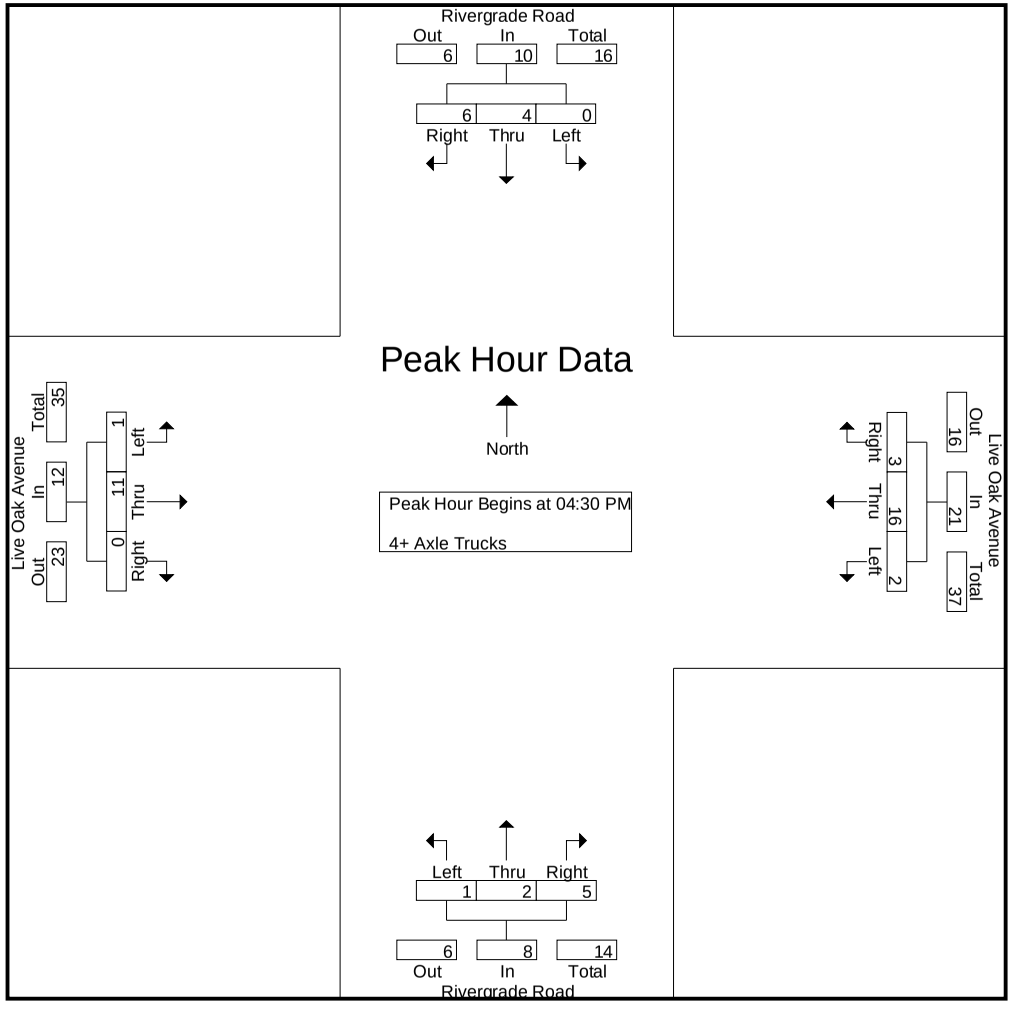
	Rivergrade Road Southbound					Live Oak Avenue Westbound					Rivergrade Road Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	2	2	3	0	5	0	0	5	1	0	3	3	4	1	6	0	0	7	5	19	24
04:15 PM	0	1	0	0	1	0	6	0	0	6	2	0	0	0	2	0	4	0	0	4	0	13	13
04:30 PM	0	0	2	1	2	1	6	1	0	8	0	0	1	1	1	1	5	0	0	6	2	17	19
04:45 PM	0	1	2	0	3	0	4	1	0	5	1	0	0	0	1	0	4	0	0	4	0	13	13
Total	1	2	6	3	9	1	21	2	0	24	4	0	4	4	8	2	19	0	0	21	7	62	69
05:00 PM	0	1	2	2	3	0	3	1	0	4	0	2	3	1	5	0	2	0	0	2	3	14	17
05:15 PM	0	2	0	0	2	1	3	0	0	4	0	0	1	0	1	0	0	0	0	0	0	7	7
05:30 PM	0	0	1	1	1	0	0	0	0	0	0	0	2	2	2	0	1	0	0	1	3	4	7
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	3	3
Total	0	3	4	3	7	1	6	1	0	8	0	2	7	3	9	0	4	0	0	4	6	28	34
Grand Total	1	5	10	6	16	2	27	3	0	32	4	2	11	7	17	2	23	0	0	25	13	90	103
Apprch %	6.2	31.2	62.5			6.2	84.4	9.4			23.5	11.8	64.7			8	92	0					
Total %	1.1	5.6	11.1		17.8	2.2	30	3.3		35.6	4.4	2.2	12.2		18.9	2.2	25.6	0		27.8	12.6	87.4	

	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**2**	2	**1**	**6**	**1**	**8**	0	0	1	1	**1**	**5**	0	**6**	**17**
04:45 PM	0	1	2	**3**	0	4	1	5	**1**	0	0	1	0	4	0	4	13
05:00 PM	0	1	2	3	0	3	1	4	0	**2**	**3**	**5**	0	2	0	2	14
05:15 PM	0	**2**	0	2	1	3	0	4	0	0	1	1	0	0	0	0	7
Total Volume	0	4	6	10	2	16	3	21	1	2	5	8	1	11	0	12	51
% App. Total	0	40	60		9.5	76.2	14.3		12.5	25	62.5		8.3	91.7	0		
PHF	.000	.500	.750	.833	.500	.667	.750	.656	.250	.250	.417	.400	.250	.550	.000	.500	.750

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City of Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue
Weather: Clear

File Name : 09_IRW_Riv Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Rivergrade Road
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Site Code : 05117783
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	Rivergrade Road Southbound				Live Oak Avenue Westbound				Rivergrade Road Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	**2**	2	**1**	**6**	**1**	**8**	0	0	1	1	**1**	**5**	0	**6**	
+15 mins.	0	1	2	**3**	0	4	1	5	**1**	0	0	1	0	4	0	4	
+30 mins.	0	1	2	3	0	3	1	4	0	**2**	**3**	**5**	0	2	0	2	
+45 mins.	0	**2**	0	2	1	3	0	4	0	0	1	1	0	0	0	0	
Total Volume	0	4	6	10	2	16	3	21	1	2	5	8	1	11	0	12	
% App. Total	0	40	60		9.5	76.2	14.3		12.5	25	62.5		8.3	91.7	0		
PHF	.000	.500	.750	.833	.500	.667	.750	.656	.250	.250	.417	.400	.250	.550	.000	.500	

Location: Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Rivergrade Road	East Leg Live Oak Avenue	South Leg Rivergrade Road	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	2	0	0	2
7:30 AM	0	0	0	0	0
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	0	0	1	0	1
TOTAL VOLUMES:	0	4	1	0	5

	North Leg Rivergrade Road	East Leg Live Oak Avenue	South Leg Rivergrade Road	West Leg Live Oak Avenue	TOTAL
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	2	0	0	2
5:30 PM	1	0	0	0	1
5:45 PM	1	2	0	0	3
TOTAL VOLUMES:	2	4	0	0	6

Location: Irwindale
N/S: Rivergrade Road
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Rivergrade Road	East Leg Live Oak Avenue	South Leg Rivergrade Road	West Leg Live Oak Avenue	TOTAL
7:00 AM	1	0	0	1	2
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	1	1	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	1	2	1	6

	North Leg Rivergrade Road	East Leg Live Oak Avenue	South Leg Rivergrade Road	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	1	0	0	1
5:00 PM	1	0	1	0	2
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	2	0	2
TOTAL VOLUMES:	2	1	3	0	6

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

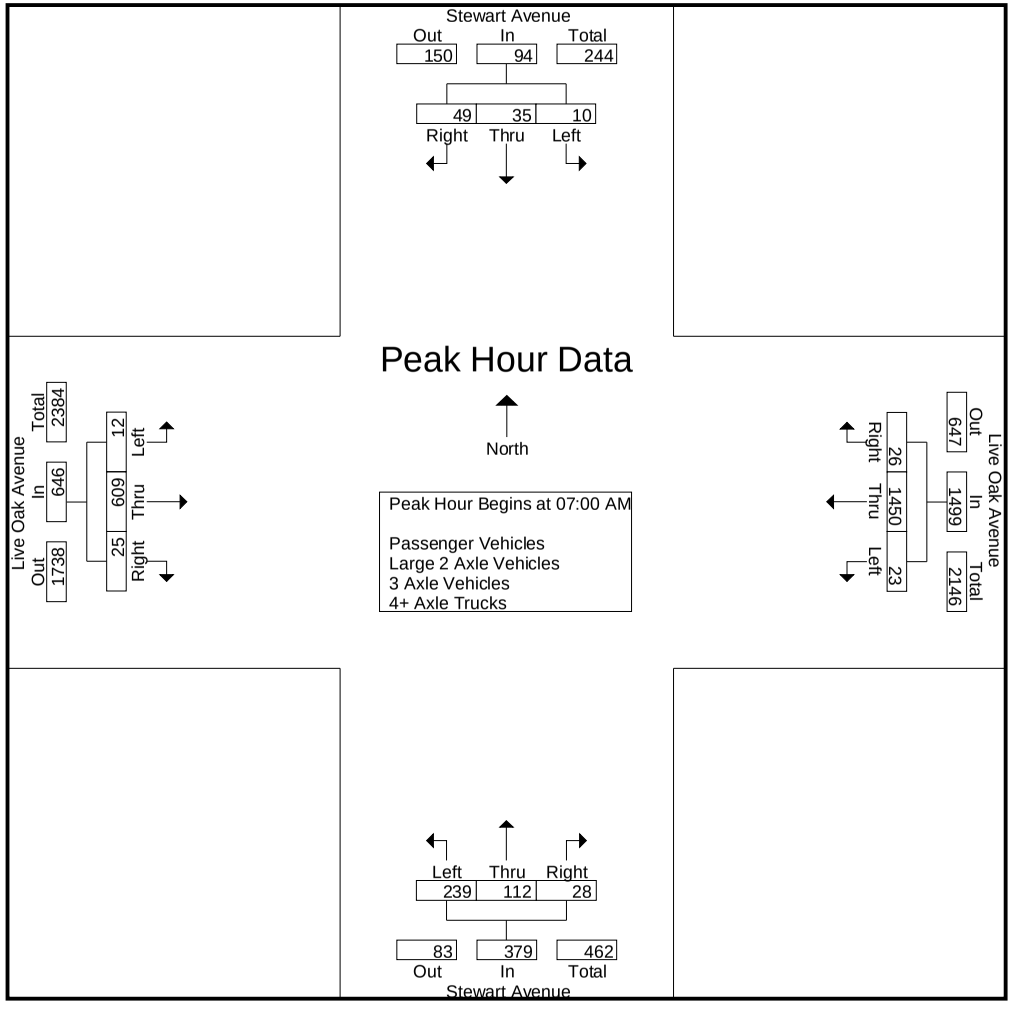
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	6	21	2	30	5	443	4	0	452	66	27	6	0	99	1	114	3	1	118	3	699	702
07:15 AM	2	7	5	2	14	3	397	7	3	407	65	25	6	0	96	1	125	3	0	129	5	646	651
07:30 AM	2	11	9	4	22	4	320	6	1	330	59	30	10	3	99	3	160	11	3	174	11	625	636
07:45 AM	3	11	14	3	28	11	290	9	3	310	49	30	6	0	85	7	210	8	2	225	8	648	656
Total	10	35	49	11	94	23	1450	26	7	1499	239	112	28	3	379	12	609	25	6	646	27	2618	2645
08:00 AM	1	12	15	8	28	7	277	6	3	290	40	21	8	3	69	3	173	9	1	185	15	572	587
08:15 AM	6	13	14	1	33	5	270	4	1	279	40	15	7	3	62	6	158	7	0	171	5	545	550
08:30 AM	2	6	13	5	21	7	210	3	0	220	23	13	3	1	39	1	159	13	1	173	7	453	460
08:45 AM	4	3	11	8	18	5	216	3	0	224	26	10	6	3	42	8	165	8	1	181	12	465	477
Total	13	34	53	22	100	24	973	16	4	1013	129	59	24	10	212	18	655	37	3	710	39	2035	2074
Grand Total	23	69	102	33	194	47	2423	42	11	2512	368	171	52	13	591	30	1264	62	9	1356	66	4653	4719
Apprch %	11.9	35.6	52.6			1.9	96.5	1.7			62.3	28.9	8.8			2.2	93.2	4.6					
Total %	0.5	1.5	2.2		4.2	1	52.1	0.9		54	7.9	3.7	1.1		12.7	0.6	27.2	1.3		29.1	1.4	98.6	
Passenger Vehicles	15	65	99		211	43	2180	38		2272	356	169	47		584	26	1049	57		1141	0	0	4208
% Passenger Vehicles	65.2	94.2	97.1	97	93	91.5	90	90.5	100	90.1	96.7	98.8	90.4	92.3	96.7	86.7	83	91.9	100	83.6	0	0	89.2
Large 2 Axle Vehicles	7	1	2		10	3	92	4		99	10	0	3		13	2	63	4		69	0	0	191
% Large 2 Axle Vehicles	30.4	1.4	2	0	4.4	6.4	3.8	9.5	0	3.9	2.7	0	5.8	0	2.2	6.7	5	6.5	0	5.1	0	0	4
3 Axle Vehicles	0	3	1		5	1	39	0		40	1	2	2		6	2	26	0		28	0	0	79
% 3 Axle Vehicles	0	4.3	1	3	2.2	2.1	1.6	0	0	1.6	0.3	1.2	3.8	7.7	1	6.7	2.1	0	0	2.1	0	0	1.7
4+ Axle Trucks	1	0	0		1	0	112	0		112	1	0	0		1	0	126	1		127	0	0	241
% 4+ Axle Trucks	4.3	0	0	0	0.4	0	4.6	0	0	4.4	0.3	0	0	0	0.2	0	10	1.6	0	9.3	0	0	5.1

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	6	**21**	**30**	5	**443**	4	**452**	**66**	27	6	**99**	1	114	3	118	**699**
07:15 AM	2	7	5	14	3	397	7	407	65	25	6	96	1	125	3	129	646
07:30 AM	2	**11**	9	22	4	320	6	330	59	**30**	**10**	99	3	160	**11**	174	625
07:45 AM	3	11	14	28	**11**	290	**9**	310	49	30	6	85	**7**	**210**	8	**225**	648
Total Volume	10	35	49	94	23	1450	26	1499	239	112	28	379	12	609	25	646	2618
% App. Total	10.6	37.2	52.1		1.5	96.7	1.7		63.1	29.6	7.4		1.9	94.3	3.9		
PHF	.833	.795	.583	.783	.523	.818	.722	.829	.905	.933	.700	.957	.429	.725	.568	.718	.936

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City of Irwindale
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File Name : 10_IRW_St Lo AM
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City of Irwindale
N/S: Stewart Avenue
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File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:00 AM				07:00 AM				07:30 AM				
+0 mins.	2	11	9	22	5	**443**	4	**452**	**66**	27	6	**99**	3	160	**11**	174	
+15 mins.	3	11	14	28	3	397	7	407	65	25	6	96	**7**	**210**	8	**225**	
+30 mins.	1	12	**15**	28	4	320	6	330	59	**30**	**10**	99	3	173	9	185	
+45 mins.	**6**	**13**	14	**33**	**11**	290	**9**	310	49	30	6	85	6	158	7	171	
Total Volume	12	47	52	111	23	1450	26	1499	239	112	28	379	19	701	35	755	
% App. Total	10.8	42.3	46.8		1.5	96.7	1.7		63.1	29.6	7.4		2.5	92.8	4.6		
PHF	.500	.904	.867	.841	.523	.818	.722	.829	.905	.933	.700	.957	.679	.835	.795	.839	

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City of Irwindale
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Groups Printed- Passenger Vehicles

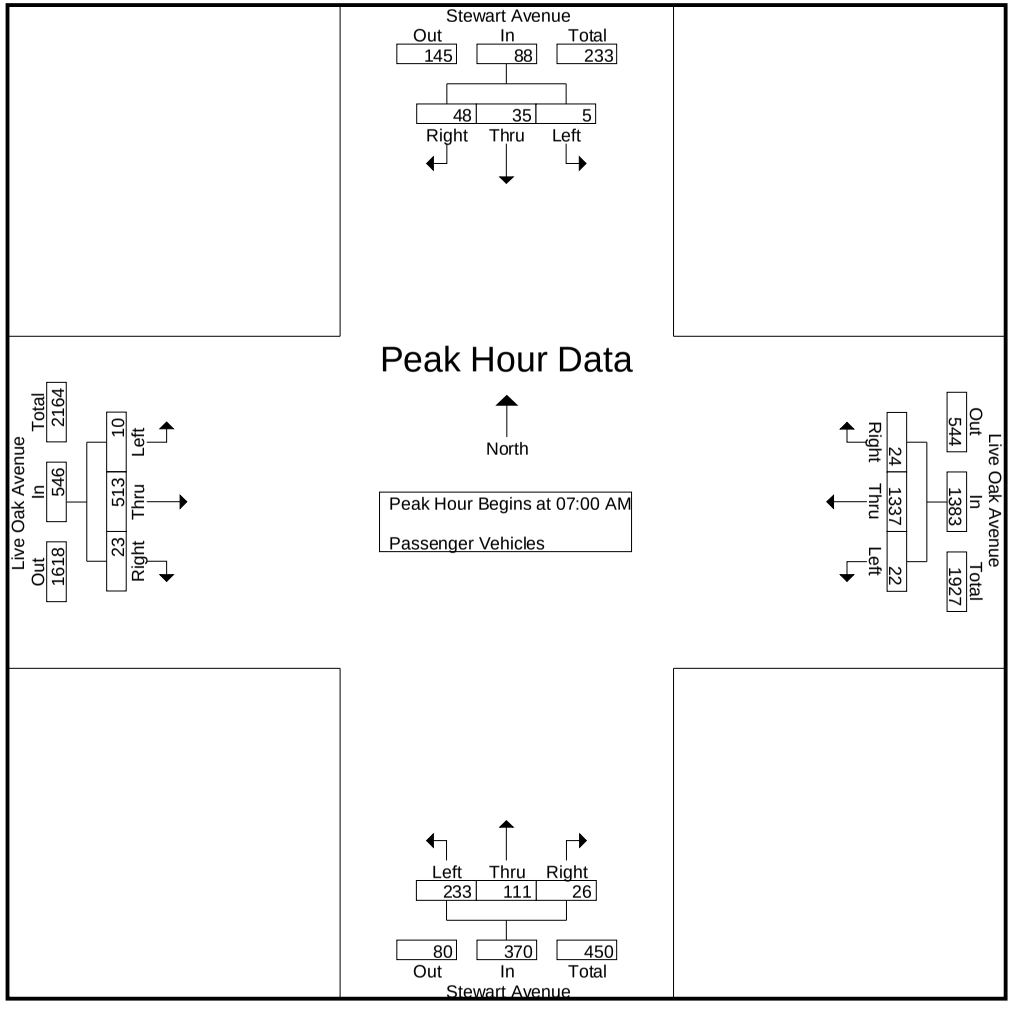
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	6	21	2	28	4	418	3	0	425	66	27	5	0	98	1	92	2	1	95	3	646	649
07:15 AM	1	7	5	2	13	3	359	6	3	368	63	25	6	0	94	1	99	2	0	102	5	577	582
07:30 AM	2	11	9	4	22	4	295	6	1	305	57	29	10	3	96	3	134	11	3	148	11	571	582
07:45 AM	1	11	13	3	25	11	265	9	3	285	47	30	5	0	82	5	188	8	2	201	8	593	601
Total	5	35	48	11	88	22	1337	24	7	1383	233	111	26	3	370	10	513	23	6	546	27	2387	2414
08:00 AM	1	10	15	8	26	7	252	5	3	264	38	20	8	3	66	3	144	7	1	154	15	510	525
08:15 AM	4	12	13	1	29	4	232	4	1	240	39	15	5	3	59	6	126	7	0	139	5	467	472
08:30 AM	2	5	12	4	19	6	180	2	0	188	21	13	3	1	37	1	124	12	1	137	6	381	387
08:45 AM	3	3	11	8	17	4	179	3	0	186	25	10	5	2	40	6	142	8	1	156	11	399	410
Total	10	30	51	21	91	21	843	14	4	878	123	58	21	9	202	16	536	34	3	586	37	1757	1794
Grand Total	15	65	99	32	179	43	2180	38	11	2261	356	169	47	12	572	26	1049	57	9	1132	64	4144	4208
Apprch %	8.4	36.3	55.3			1.9	96.4	1.7			62.2	29.5	8.2			2.3	92.7	5			1.5	98.5	
Total %	0.4	1.6	2.4		4.3	1	52.6	0.9		54.6	8.6	4.1	1.1		13.8	0.6	25.3	1.4		27.3			

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	6	**21**	**28**	4	**418**	3	**425**	**66**	27	5	**98**	1	92	2	95	**646**
07:15 AM	1	7	5	13	3	359	6	368	63	25	6	94	1	99	2	102	577
07:30 AM	**2**	**11**	9	22	4	295	6	305	57	29	**10**	96	3	134	**11**	148	571
07:45 AM	1	11	13	25	**11**	265	**9**	285	47	**30**	5	82	**5**	**188**	8	**201**	593
Total Volume	5	35	48	88	22	1337	24	1383	233	111	26	370	10	513	23	546	2387
% App. Total	5.7	39.8	54.5		1.6	96.7	1.7		63	30	7		1.8	94	4.2		
PHF	.625	.795	.571	.786	.500	.800	.667	.814	.883	.925	.650	.944	.500	.682	.523	.679	.924

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	6	**21**	**28**	4	**418**	3	**425**	**66**	27	5	**98**	1	92	2	95	
+15 mins.	1	7	5	13	3	359	6	368	63	25	6	94	1	99	2	102	
+30 mins.	**2**	**11**	9	22	4	295	6	305	57	29	**10**	96	3	134	**11**	148	
+45 mins.	1	11	13	25	**11**	265	**9**	285	47	**30**	5	82	**5**	**188**	8	**201**	
Total Volume	5	35	48	88	22	1337	24	1383	233	111	26	370	10	513	23	546	
% App. Total	5.7	39.8	54.5		1.6	96.7	1.7		63	30	7		1.8	94	4.2		
PHF	.625	.795	.571	.786	.500	.800	.667	.814	.883	.925	.650	.944	.500	.682	.523	.679	

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

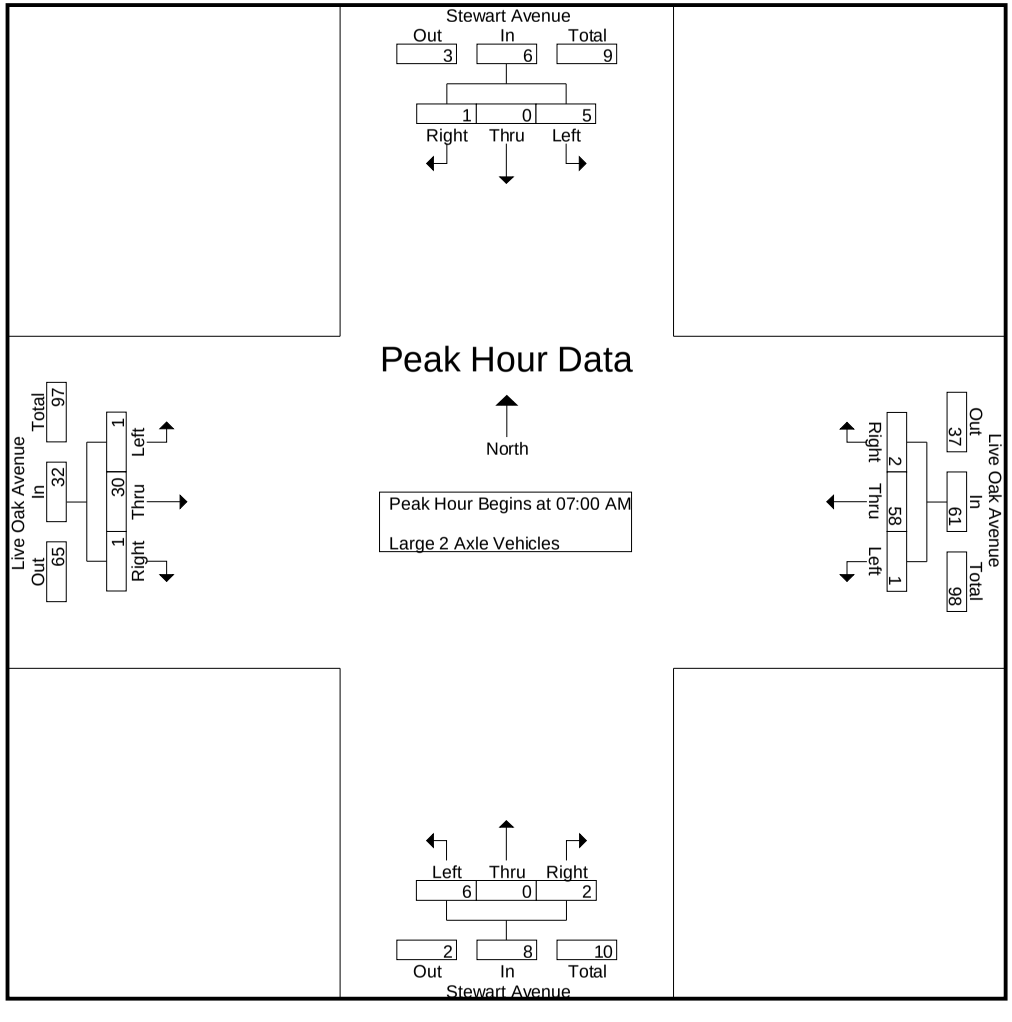
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	0	0	2	1	14	1	0	16	0	0	1	0	1	0	8	0	0	8	0	27	27
07:15 AM	1	0	0	0	1	0	21	1	0	22	2	0	0	0	2	0	8	1	0	9	0	34	34
07:30 AM	0	0	0	0	0	0	12	0	0	12	2	0	0	0	2	0	9	0	0	9	0	23	23
07:45 AM	2	0	1	0	3	0	11	0	0	11	2	0	1	0	3	1	5	0	0	6	0	23	23
Total	5	0	1	0	6	1	58	2	0	61	6	0	2	0	8	1	30	1	0	32	0	107	107
08:00 AM	0	0	0	0	0	0	11	1	0	12	2	0	0	0	2	0	7	2	0	9	0	23	23
08:15 AM	2	1	1	0	4	1	9	0	0	10	0	0	1	0	1	0	6	0	0	6	0	21	21
08:30 AM	0	0	0	0	0	1	6	1	0	8	1	0	0	0	1	0	12	1	0	13	0	22	22
08:45 AM	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	1	8	0	0	9	0	18	18
Total	2	1	1	0	4	2	34	2	0	38	4	0	1	0	5	1	33	3	0	37	0	84	84
Grand Total	7	1	2	0	10	3	92	4	0	99	10	0	3	0	13	2	63	4	0	69	0	191	191
Apprch %	70	10	20			3	92.9	4			76.9	0	23.1			2.9	91.3	5.8					
Total %	3.7	0.5	1		5.2	1.6	48.2	2.1		51.8	5.2	0	1.6		6.8	1	33	2.1		36.1	0	100	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**2**	0	0	2	**1**	14	**1**	16	0	0	**1**	1	0	8	0	8	27
07:15 AM	1	0	0	1	0	**21**	1	**22**	**2**	0	0	2	0	8	**1**	**9**	**34**
07:30 AM	0	0	0	0	0	12	0	12	2	0	0	2	0	**9**	0	9	23
07:45 AM	2	0	**1**	**3**	0	11	0	11	2	0	1	**3**	**1**	5	0	6	23
Total Volume	5	0	1	6	1	58	2	61	6	0	2	8	1	30	1	32	107
% App. Total	83.3	0	16.7		1.6	95.1	3.3		75	0	25		3.1	93.8	3.1		
PHF	.625	.000	.250	.500	.250	.690	.500	.693	.750	.000	.500	.667	.250	.833	.250	.889	.787

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**2**	0	0	2	**1**	14	**1**	16	0	0	**1**	1	0	8	0	8	
+15 mins.	1	0	0	1	0	**21**	1	**22**	**2**	0	0	2	0	8	**1**	**9**	
+30 mins.	0	0	0	0	0	12	0	12	2	0	0	2	0	**9**	0	9	
+45 mins.	2	0	**1**	**3**	0	11	0	11	2	0	1	**3**	**1**	5	0	6	
Total Volume	5	0	1	6	1	58	2	61	6	0	2	8	1	30	1	32	
% App. Total	83.3	0	16.7		1.6	95.1	3.3		75	0	25		3.1	93.8	3.1		
PHF	.625	.000	.250	.500	.250	.690	.500	.693	.750	.000	.500	.667	.250	.833	.250	.889	

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

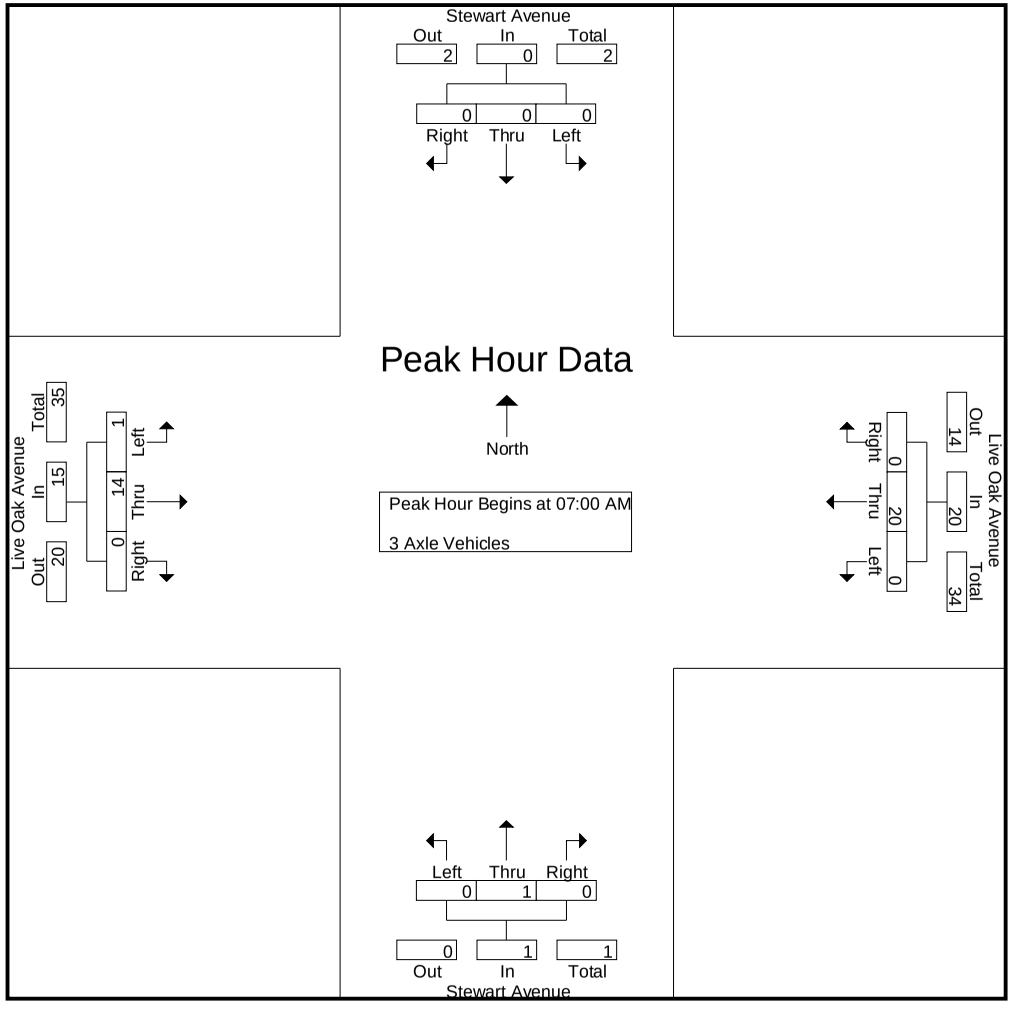
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	10	10
07:15 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	6	0	0	6	0	13	13
07:30 AM	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	2	0	0	2	0	8	8
07:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	0	5	5
Total	0	0	0	0	0	0	20	0	0	20	0	1	0	0	1	1	14	0	0	15	0	36	36
08:00 AM	0	2	0	0	2	0	4	0	0	4	0	1	0	0	1	0	1	0	0	1	0	8	8
08:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	0	10	10
08:30 AM	0	1	1	1	2	0	4	0	0	4	1	0	0	0	1	0	5	0	0	5	1	12	13
08:45 AM	0	0	0	0	0	1	7	0	0	8	0	0	1	1	1	1	1	0	0	2	1	11	12
Total	0	3	1	1	4	1	19	0	0	20	1	1	2	1	4	1	12	0	0	13	2	41	43
Grand Total	0	3	1	1	4	1	39	0	0	40	1	2	2	1	5	2	26	0	0	28	2	77	79
Apprch %	0	75	25			2.5	97.5	0			20	40	40			7.1	92.9	0					
Total %	0	3.9	1.3		5.2	1.3	50.6	0		51.9	1.3	2.6	2.6		6.5	2.6	33.8	0		36.4	2.5	97.5	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**7**	0	**7**	0	0	0	0	0	3	0	3	10
07:15 AM	0	0	0	0	0	7	0	7	0	0	0	0	0	**6**	0	**6**	**13**
07:30 AM	0	0	0	0	0	5	0	5	0	**1**	0	**1**	0	2	0	2	8
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	**1**	3	0	4	5
Total Volume	0	0	0	0	0	20	0	20	0	1	0	1	1	14	0	15	36
% App. Total	0	0	0		0	100	0		0	100	0		6.7	93.3	0		
PHF	.000	.000	.000	.000	.000	.714	.000	.714	.000	.250	.000	.250	.250	.583	.000	.625	.692

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**7**	0	**7**	0	0	0	0	0	3	0	3	
+15 mins.	0	0	0	0	0	7	0	7	0	0	0	0	0	**6**	0	**6**	
+30 mins.	0	0	0	0	0	5	0	5	0	**1**	0	**1**	0	2	0	2	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	**1**	3	0	4	
Total Volume	0	0	0	0	0	20	0	20	0	1	0	1	1	14	0	15	
% App. Total	0	0	0		0	100	0		0	100	0		6.7	93.3	0		
PHF	.000	.000	.000	.000	.000	.714	.000	.714	.000	.250	.000	.250	.250	.583	.000	.625	

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

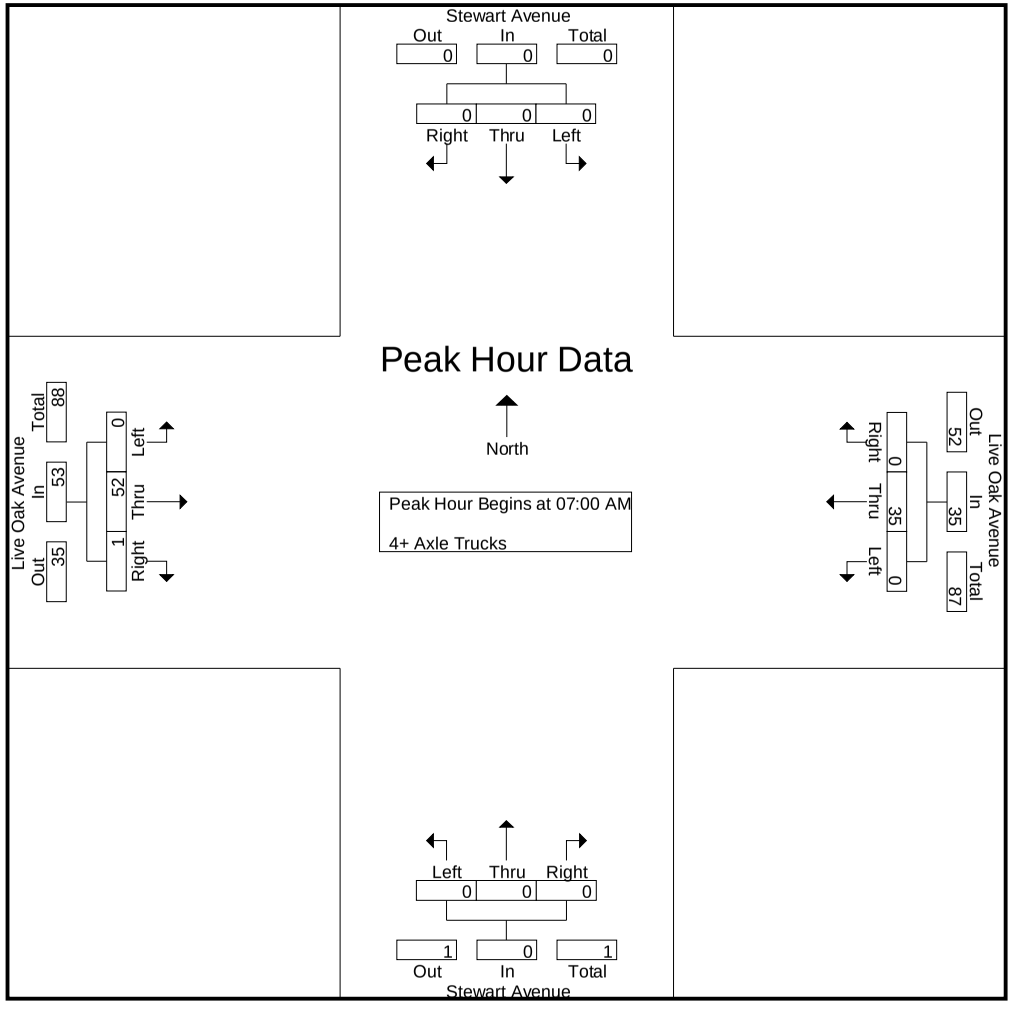
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	11	1	0	12	0	16	16
07:15 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	0	22	22
07:30 AM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	15	0	0	15	0	23	23
07:45 AM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	14	0	0	14	0	27	27
Total	0	0	0	0	0	0	35	0	0	35	0	0	0	0	0	0	52	1	0	53	0	88	88
08:00 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	21	0	0	21	0	31	31
08:15 AM	0	0	0	0	0	0	25	0	0	25	1	0	0	0	1	0	21	0	0	21	0	47	47
08:30 AM	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	18	0	0	18	0	38	38
08:45 AM	1	0	0	0	1	0	22	0	0	22	0	0	0	0	0	0	14	0	0	14	0	37	37
Total	1	0	0	0	1	0	77	0	0	77	1	0	0	0	1	0	74	0	0	74	0	153	153
Grand Total	1	0	0	0	1	0	112	0	0	112	1	0	0	0	1	0	126	1	0	127	0	241	241
Apprch %	100	0	0			0	100	0			100	0	0			0	99.2	0.8					
Total %	0.4	0	0		0.4	0	46.5	0		46.5	0.4	0	0		0.4	0	52.3	0.4		52.7	0	100	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	11	**1**	12	16
07:15 AM	0	0	0	0	0	10	0	10	0	0	0	0	0	12	0	12	22
07:30 AM	0	0	0	0	0	8	0	8	0	0	0	0	0	**15**	0	**15**	23
07:45 AM	0	0	0	0	0	**13**	0	**13**	0	0	0	0	0	14	0	14	**27**
Total Volume	0	0	0	0	0	35	0	35	0	0	0	0	0	52	1	53	88
% App. Total	0	0	0		0	100	0		0	0	0		0	98.1	1.9		
PHF	.000	.000	.000	.000	.000	.673	.000	.673	.000	.000	.000	.000	.000	.867	.250	.883	.815

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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	11	**1**	12	
+15 mins.	0	0	0	0	0	10	0	10	0	0	0	0	0	12	0	12	
+30 mins.	0	0	0	0	0	8	0	8	0	0	0	0	0	**15**	0	**15**	
+45 mins.	0	0	0	0	0	**13**	0	**13**	0	0	0	0	0	14	0	14	
Total Volume	0	0	0	0	0	35	0	35	0	0	0	0	0	52	1	53	
% App. Total	0	0	0		0	100	0		0	0	0		0	98.1	1.9		
PHF	.000	.000	.000	.000	.000	.673	.000	.673	.000	.000	.000	.000	.000	.867	.250	.883	

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

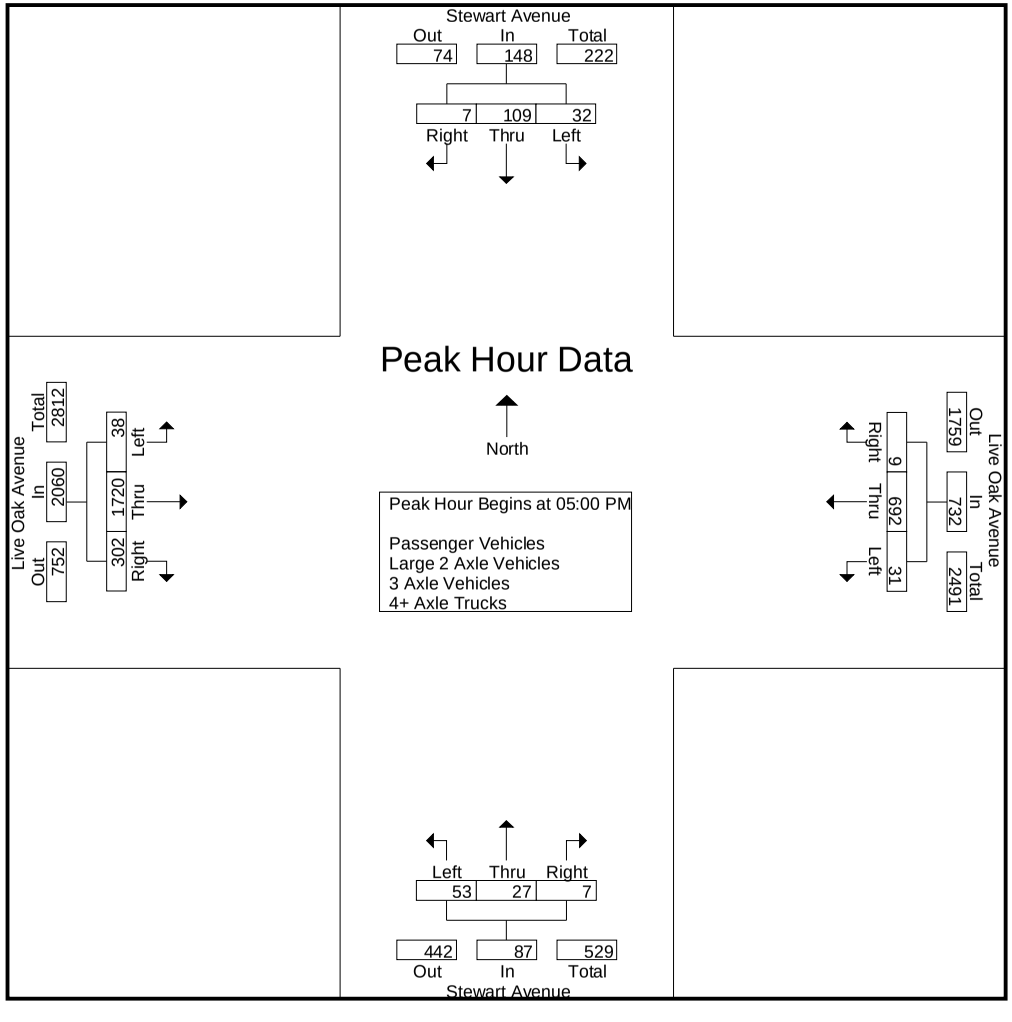
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	7	18	4	2	29	10	184	3	0	197	15	10	2	0	27	2	384	47	5	433	7	686	693
04:15 PM	5	22	5	3	32	8	156	3	0	167	10	4	6	0	20	4	360	42	14	406	17	625	642
04:30 PM	5	18	1	1	24	10	177	4	0	191	14	7	5	0	26	5	418	77	13	500	14	741	755
04:45 PM	4	39	2	0	45	5	171	2	1	178	11	9	3	0	23	7	420	55	15	482	16	728	744
Total	21	97	12	6	130	33	688	12	1	733	50	30	16	0	96	18	1582	221	47	1821	54	2780	2834
05:00 PM	7	23	2	2	32	6	188	2	0	196	11	9	2	0	22	12	429	88	17	529	19	779	798
05:15 PM	11	41	3	2	55	8	176	1	1	185	9	8	1	0	18	3	425	90	25	518	28	776	804
05:30 PM	10	26	2	2	38	8	180	5	0	193	21	5	1	0	27	15	401	64	22	480	24	738	762
05:45 PM	4	19	0	0	23	9	148	1	0	158	12	5	3	0	20	8	465	60	22	533	22	734	756
Total	32	109	7	6	148	31	692	9	1	732	53	27	7	0	87	38	1720	302	86	2060	93	3027	3120
Grand Total	53	206	19	12	278	64	1380	21	2	1465	103	57	23	0	183	56	3302	523	133	3881	147	5807	5954
Apprch %	19.1	74.1	6.8			4.4	94.2	1.4			56.3	31.1	12.6			1.4	85.1	13.5					
Total %	0.9	3.5	0.3		4.8	1.1	23.8	0.4		25.2	1.8	1	0.4		3.2	1	56.9	9		66.8	2.5	97.5	
Passenger Vehicles	47	192	12		260	57	1288	17		1364	99	56	21		176	55	3166	513		3865	0	0	5665
% Passenger Vehicles	88.7	93.2	63.2	75	89.7	89.1	93.3	81	100	93	96.1	98.2	91.3	0	96.2	98.2	95.9	98.1	98.5	96.3	0	0	95.1
Large 2 Axle Vehicles	5	1	5		13	1	47	3		51	4	1	1		6	1	95	6		103	0	0	173
% Large 2 Axle Vehicles	9.4	0.5	26.3	16.7	4.5	1.6	3.4	14.3	0	3.5	3.9	1.8	4.3	0	3.3	1.8	2.9	1.1	0.8	2.6	0	0	2.9
3 Axle Vehicles	0	13	1		15	6	12	1		19	0	0	1		1	0	15	4		20	0	0	55
% 3 Axle Vehicles	0	6.3	5.3	8.3	5.2	9.4	0.9	4.8	0	1.3	0	0	4.3	0	0.5	0	0.5	0.8	0.8	0.5	0	0	0.9
4+ Axle Trucks	1	0	1		2	0	33	0		33	0	0	0		0	0	26	0		26	0	0	61
% 4+ Axle Trucks	1.9	0	5.3	0	0.7	0	2.4	0	0	2.2	0	0	0	0	0	0	0.8	0	0	0.6	0	0	1

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	23	2	32	6	**188**	2	**196**	11	**9**	2	22	12	429	88	529	**779**
05:15 PM	**11**	**41**	**3**	**55**	8	176	1	185	9	8	1	18	3	425	**90**	518	776
05:30 PM	10	26	2	38	8	180	**5**	193	**21**	5	1	**27**	**15**	401	64	480	738
05:45 PM	4	19	0	23	**9**	148	1	158	12	5	**3**	20	8	**465**	60	**533**	734
Total Volume	32	109	7	148	31	692	9	732	53	27	7	87	38	1720	302	2060	3027
% App. Total	21.6	73.6	4.7		4.2	94.5	1.2		60.9	31	8		1.8	83.5	14.7		
PHF	.727	.665	.583	.673	.861	.920	.450	.934	.631	.750	.583	.806	.633	.925	.839	.966	.971

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City of Irwindale
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	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:00 PM				05:00 PM				
+0 mins.	4	39	2	45	5	171	2	178	**15**	**10**	2	**27**	12	429	88	529	
+15 mins.	7	23	2	32	6	**188**	2	**196**	10	4	**6**	20	3	425	**90**	518	
+30 mins.	**11**	**41**	**3**	**55**	**8**	176	1	185	14	7	5	26	**15**	401	64	480	
+45 mins.	10	26	2	38	8	180	**5**	193	11	9	3	23	8	**465**	60	**533**	
Total Volume	32	129	9	170	27	715	10	752	50	30	16	96	38	1720	302	2060	
% App. Total	18.8	75.9	5.3		3.6	95.1	1.3		52.1	31.2	16.7		1.8	83.5	14.7		
PHF	.727	.787	.750	.773	.844	.951	.500	.959	.833	.750	.667	.889	.633	.925	.839	.966	

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Groups Printed- Passenger Vehicles

	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	17	2	2	25	8	161	3	0	172	15	9	1	0	25	2	354	45	5	401	7	623	630
04:15 PM	4	21	2	1	27	6	139	2	0	147	9	4	6	0	19	4	342	40	14	386	15	579	594
04:30 PM	5	16	1	1	22	9	165	3	0	177	13	7	5	0	25	5	396	75	12	476	13	700	713
04:45 PM	4	34	1	0	39	5	157	1	1	163	10	9	2	0	21	7	400	55	15	462	16	685	701
Total	19	88	6	4	113	28	622	9	1	659	47	29	14	0	90	18	1492	215	46	1725	51	2587	2638
05:00 PM	7	23	2	2	32	6	179	2	0	187	10	9	2	0	21	11	419	87	17	517	19	757	776
05:15 PM	9	37	2	1	48	6	171	1	1	178	9	8	1	0	18	3	412	88	24	503	26	747	773
05:30 PM	9	25	2	2	36	8	175	4	0	187	21	5	1	0	27	15	387	64	22	466	24	716	740
05:45 PM	3	19	0	0	22	9	141	1	0	151	12	5	3	0	20	8	456	59	22	523	22	716	738
Total	28	104	6	5	138	29	666	8	1	703	52	27	7	0	86	37	1674	298	85	2009	91	2936	3027
Grand Total	47	192	12	9	251	57	1288	17	2	1362	99	56	21	0	176	55	3166	513	131	3734	142	5523	5665
Apprch %	18.7	76.5	4.8			4.2	94.6	1.2			56.2	31.8	11.9			1.5	84.8	13.7					
Total %	0.9	3.5	0.2		4.5	1	23.3	0.3		24.7	1.8	1	0.4		3.2	1	57.3	9.3		67.6	2.5	97.5	

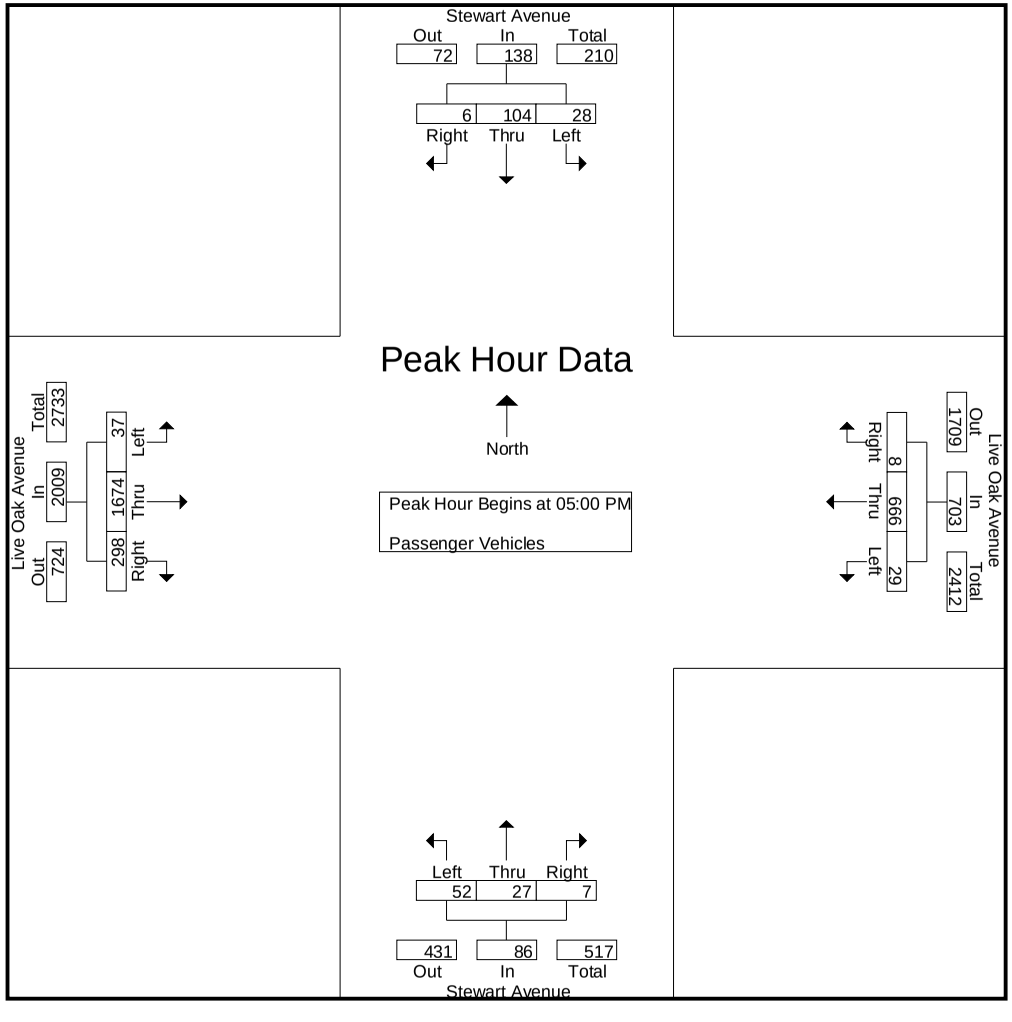
3.1-451

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	23	**2**	32	6	**179**	2	**187**	10	**9**	2	21	11	419	87	517	**757**
05:15 PM	**9**	**37**	2	**48**	6	171	1	178	9	8	1	18	3	412	**88**	503	747
05:30 PM	9	25	2	36	8	175	**4**	187	**21**	5	1	**27**	**15**	387	64	466	716
05:45 PM	3	19	0	22	**9**	141	1	151	12	5	**3**	20	8	**456**	59	**523**	716
Total Volume	28	104	6	138	29	666	8	703	52	27	7	86	37	1674	298	2009	2936
% App. Total	20.3	75.4	4.3		4.1	94.7	1.1		60.5	31.4	8.1		1.8	83.3	14.8		
PHF	.778	.703	.750	.719	.806	.930	.500	.940	.619	.750	.583	.796	.617	.918	.847	.960	.970

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	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	7	23	**2**	32	6	**179**	2	**187**	10	**9**	2	21	11	419	87	517	
+15 mins.	**9**	**37**	2	**48**	6	171	1	178	9	8	1	18	3	412	**88**	503	
+30 mins.	9	25	2	36	8	175	**4**	187	**21**	5	1	**27**	**15**	387	64	466	
+45 mins.	3	19	0	22	**9**	141	1	151	12	5	**3**	20	8	**456**	59	**523**	
Total Volume	28	104	6	138	29	666	8	703	52	27	7	86	37	1674	298	2009	
% App. Total	20.3	75.4	4.3		4.1	94.7	1.1		60.5	31.4	8.1		1.8	83.3	14.8		
PHF	.778	.703	.750	.719	.806	.930	.500	.940	.619	.750	.583	.796	.617	.918	.847	.960	

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City of Irwindale
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Groups Printed- Large 2 Axle Vehicles

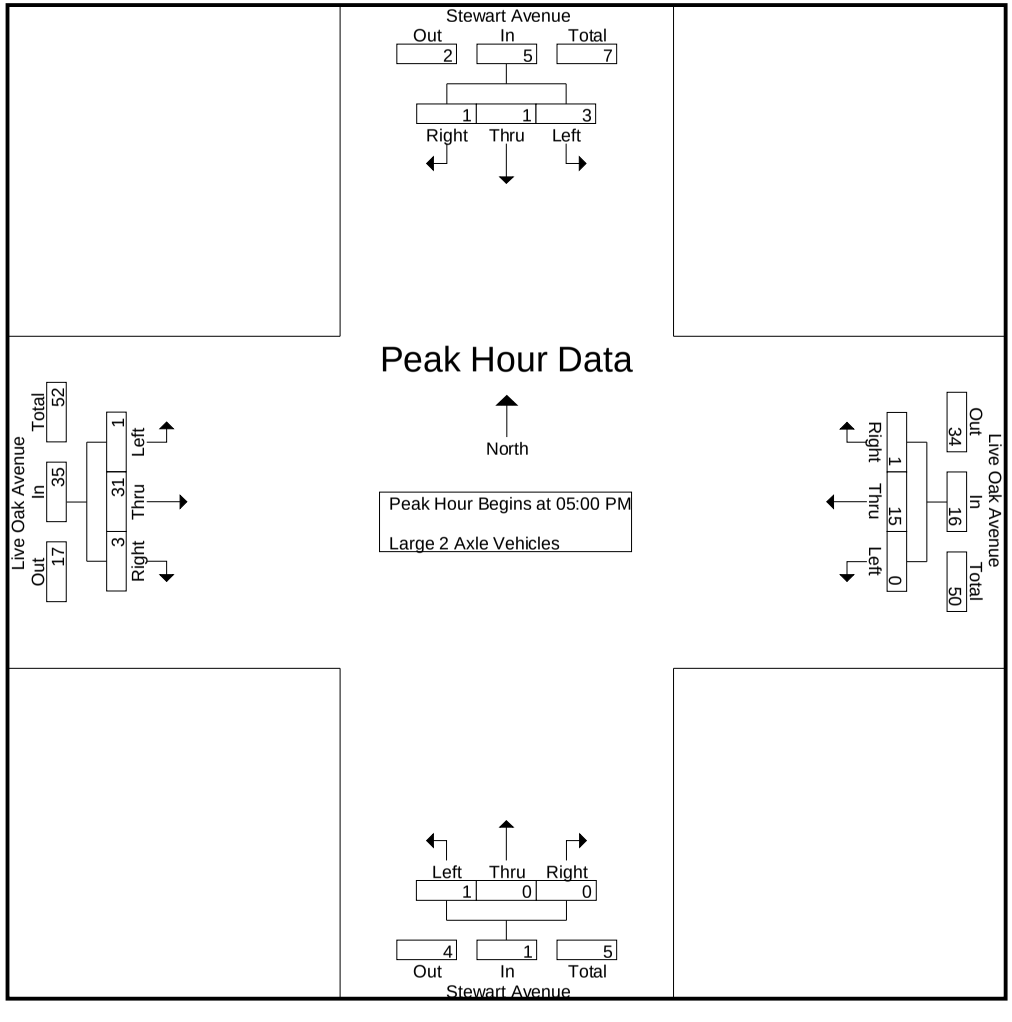
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	2	0	3	1	11	0	0	12	0	1	1	0	2	0	19	1	0	20	0	37	37
04:15 PM	1	0	1	1	2	0	6	0	0	6	1	0	0	0	1	0	14	2	0	16	1	25	26
04:30 PM	0	0	0	0	0	0	6	1	0	7	1	0	0	0	1	0	15	0	0	15	0	23	23
04:45 PM	0	0	1	0	1	0	9	1	0	10	1	0	0	0	1	0	16	0	0	16	0	28	28
Total	2	0	4	1	6	1	32	2	0	35	3	1	1	0	5	0	64	3	0	67	1	113	114
05:00 PM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	1	6	1	0	8	0	14	14
05:15 PM	2	1	1	1	4	0	5	0	0	5	0	0	0	0	0	0	11	1	1	12	2	21	23
05:30 PM	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	8	0	0	8	0	11	11
05:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	1	0	7	0	11	11
Total	3	1	1	1	5	0	15	1	0	16	1	0	0	0	1	1	31	3	1	35	2	57	59
Grand Total	5	1	5	2	11	1	47	3	0	51	4	1	1	0	6	1	95	6	1	102	3	170	173
Apprch %	45.5	9.1	45.5			2	92.2	5.9			66.7	16.7	16.7			1	93.1	5.9					
Total %	2.9	0.6	2.9		6.5	0.6	27.6	1.8		30	2.4	0.6	0.6		3.5	0.6	55.9	3.5		60	1.7	98.3	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**5**	0	**5**	**1**	0	0	**1**	**1**	6	**1**	8	14
05:15 PM	**2**	**1**	**1**	**4**	0	5	0	5	0	0	0	0	0	**11**	1	**12**	**21**
05:30 PM	1	0	0	1	0	1	**1**	2	0	0	0	0	0	8	0	8	11
05:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	6	1	7	11
Total Volume	3	1	1	5	0	15	1	16	1	0	0	1	1	31	3	35	57
% App. Total	60	20	20		0	93.8	6.2		100	0	0		2.9	88.6	8.6		
PHF	.375	.250	.250	.313	.000	.750	.250	.800	.250	.000	.000	.250	.250	.705	.750	.729	.679

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	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	**5**	0	**5**	**1**	0	0	**1**	**1**	6	**1**	8	
+15 mins.	**2**	**1**	**1**	**4**	0	5	0	5	0	0	0	0	0	**11**	1	**12**	
+30 mins.	1	0	0	1	0	1	**1**	2	0	0	0	0	0	8	0	8	
+45 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	6	1	7	
Total Volume	3	1	1	5	0	15	1	16	1	0	0	1	1	31	3	35	
% App. Total	60	20	20		0	93.8	6.2		100	0	0		2.9	88.6	8.6		
PHF	.375	.250	.250	.313	.000	.750	.250	.800	.250	.000	.000	.250	.250	.705	.750	.729	

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Groups Printed- 3 Axle Vehicles

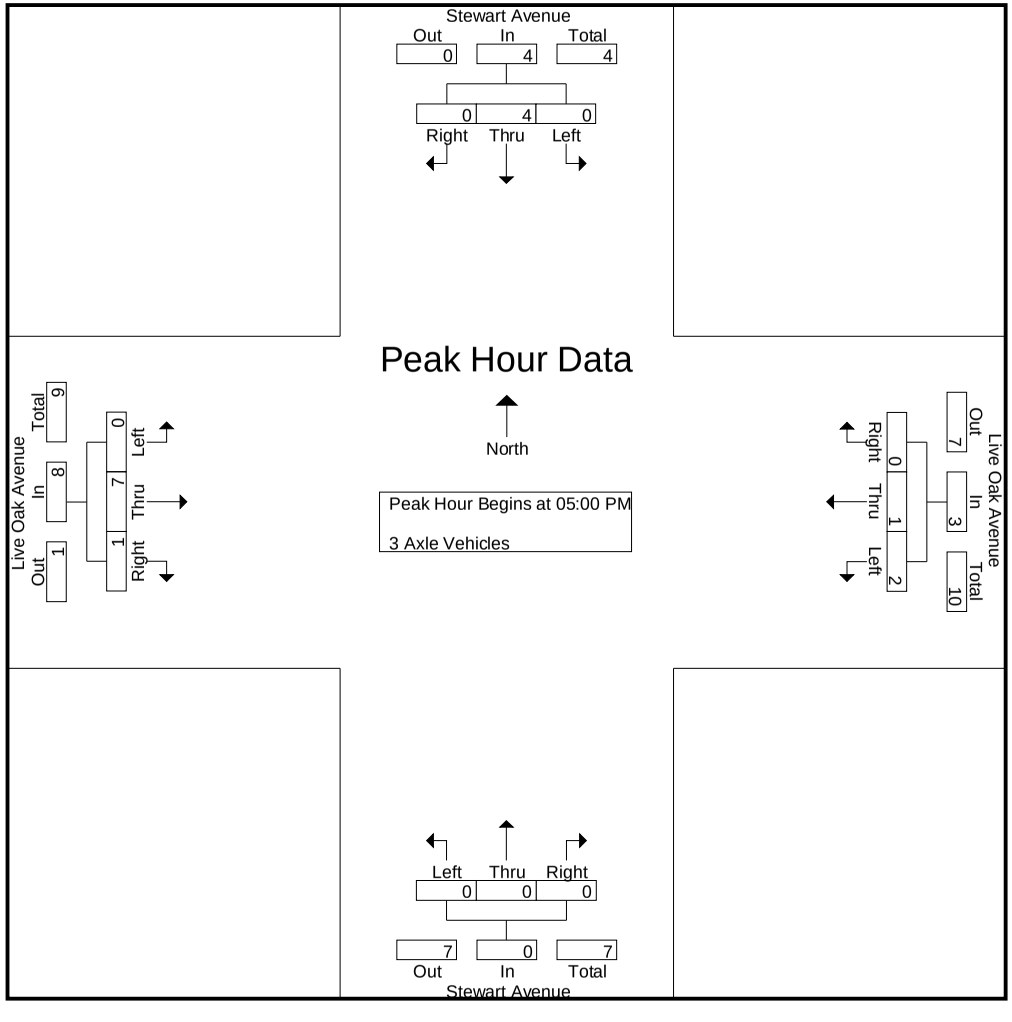
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	0	5	1	0	6	0	9	9
04:15 PM	0	1	1	1	2	2	6	1	0	9	0	0	0	0	0	0	1	0	0	1	1	12	13
04:30 PM	0	2	0	0	2	1	1	0	0	2	0	0	0	0	0	0	1	2	1	3	1	7	8
04:45 PM	0	5	0	0	5	0	3	0	0	3	0	0	1	0	1	0	1	0	0	1	0	10	10
Total	0	9	1	1	10	4	11	1	0	16	0	0	1	0	1	0	8	3	1	11	2	38	40
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
05:15 PM	0	3	0	0	3	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	6	6
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	5
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	4	0	0	4	2	1	0	0	3	0	0	0	0	0	0	7	1	0	8	0	15	15
Grand Total	0	13	1	1	14	6	12	1	0	19	0	0	1	0	1	0	15	4	1	19	2	53	55
Apprch %	0	92.9	7.1			31.6	63.2	5.3			0	0	100			0	78.9	21.1					
Total %	0	24.5	1.9		26.4	11.3	22.6	1.9		35.8	0	0	1.9		1.9	0	28.3	7.5		35.8	3.6	96.4	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:15 PM	0	**3**	0	**3**	**2**	0	0	**2**	0	0	0	0	0	0	**1**	1	**6**
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	**4**	0	**4**	5
05:45 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1	0	1	2
Total Volume	0	4	0	4	2	1	0	3	0	0	0	0	0	7	1	8	15
% App. Total	0	100	0		66.7	33.3	0		0	0	0		0	87.5	12.5		
PHF	.000	.333	.000	.333	.250	.250	.000	.375	.000	.000	.000	.000	.000	.438	.250	.500	.625

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Weather: Clear

File Name : 10_IRW_St Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
+15 mins.	0	**3**	0	**3**	**2**	0	0	**2**	0	0	0	0	0	0	**1**	1	
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	**4**	0	**4**	
+45 mins.	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1	0	1	
Total Volume	0	4	0	4	2	1	0	3	0	0	0	0	0	7	1	8	
% App. Total	0	100	0		66.7	33.3	0		0	0	0		0	87.5	12.5		
PHF	.000	.333	.000	.333	.250	.250	.000	.375	.000	.000	.000	.000	.000	.438	.250	.500	

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

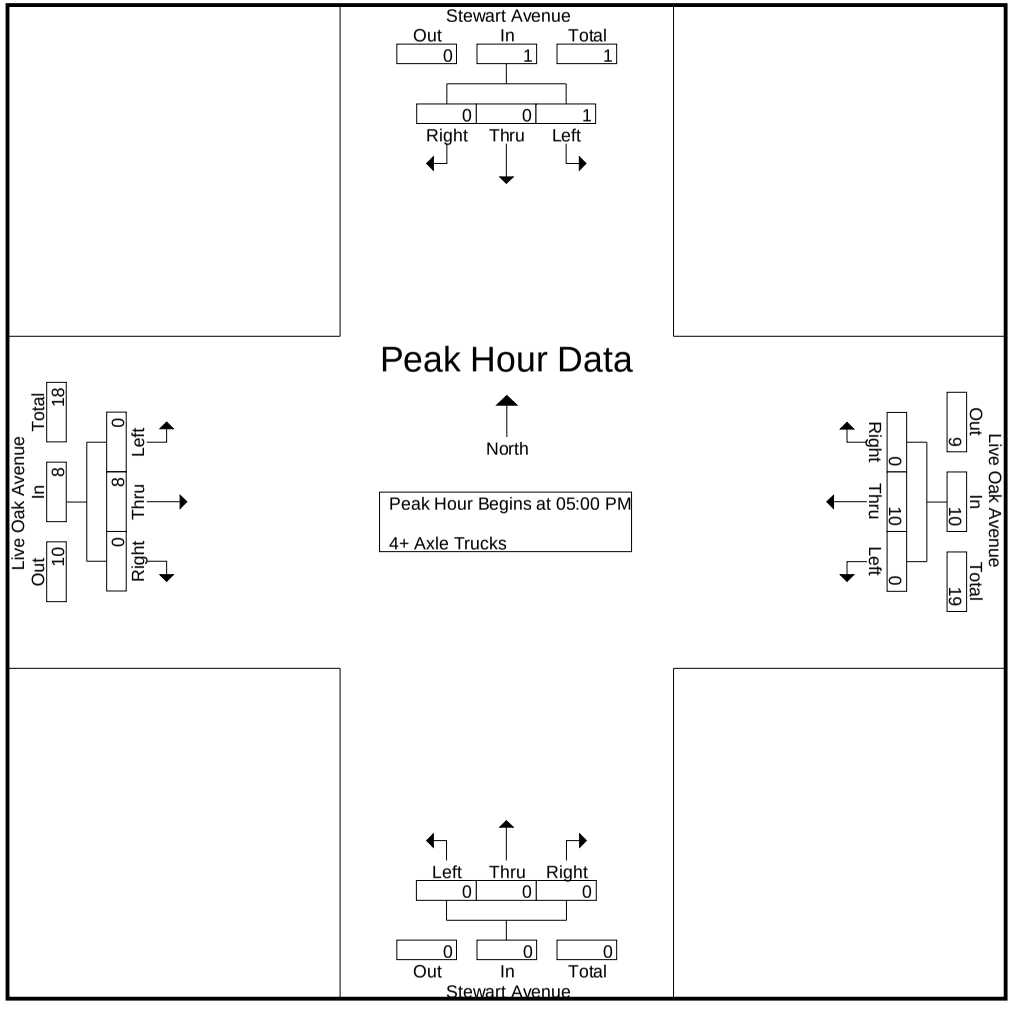
	Stewart Avenue Southbound					Live Oak Avenue Westbound					Stewart Avenue Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	6	0	0	6	0	17	17
04:15 PM	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	9	9
04:30 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	11	11
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
Total	0	0	1	0	1	0	23	0	0	23	0	0	0	0	0	0	18	0	0	18	0	42	42
05:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	6	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	6	6
05:45 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	5	5
Total	1	0	0	0	1	0	10	0	0	10	0	0	0	0	0	0	8	0	0	8	0	19	19
Grand Total	1	0	1	0	2	0	33	0	0	33	0	0	0	0	0	0	26	0	0	26	0	61	61
Apprch %	50	0	50			0	100	0			0	0	0			0	100	0					
Total %	1.6	0	1.6		3.3	0	54.1	0		54.1	0	0	0		0	0	42.6	0		42.6	0	100	

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	**2**	0	**2**	**6**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	6
05:45 PM	**1**	0	0	**1**	0	2	0	2	0	0	0	0	0	2	0	2	5
Total Volume	1	0	0	1	0	10	0	10	0	0	0	0	0	8	0	8	19
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	1.00	.000	1.00	.792

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City of Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue
Weather: Clear

File Name : 10_IRW_St Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Stewart Avenue
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File Name : 10_IRW_St Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Stewart Avenue Southbound				Live Oak Avenue Westbound				Stewart Avenue Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	**2**	0	**2**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
+30 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	
+45 mins.	**1**	0	0	**1**	0	2	0	2	0	0	0	0	0	2	0	2	
Total Volume	1	0	0	1	0	10	0	10	0	0	0	0	0	8	0	8	
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.000	1.000	.000	1.000	

Location: Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Stewart Avenue	East Leg Live Oak Avenue	South Leg Stewart Avenue	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	2	0	0	2
7:15 AM	1	3	2	0	6
7:30 AM	0	0	3	0	3
7:45 AM	0	0	1	0	1
8:00 AM	0	3	0	0	3
8:15 AM	0	0	0	0	0
8:30 AM	1	2	1	0	4
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	10	7	0	19

	North Leg Stewart Avenue	East Leg Live Oak Avenue	South Leg Stewart Avenue	West Leg Live Oak Avenue	TOTAL
4:00 PM	1	4	0	0	5
4:15 PM	0	4	0	0	4
4:30 PM	0	3	0	0	3
4:45 PM	1	0	1	0	2
5:00 PM	0	1	0	0	1
5:15 PM	0	2	0	0	2
5:30 PM	1	2	0	0	3
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	16	1	0	20

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Location: Irwindale
N/S: Stewart Avenue
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Stewart Avenue	East Leg Live Oak Avenue	South Leg Stewart Avenue	West Leg Live Oak Avenue	TOTAL
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	1	1	0	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	1	3

	North Leg Stewart Avenue	East Leg Live Oak Avenue	South Leg Stewart Avenue	West Leg Live Oak Avenue	TOTAL
4:00 PM	1	0	1	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	2	0	0	2
4:45 PM	1	1	1	0	3
5:00 PM	0	0	1	0	1
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	3	0	0	3
TOTAL VOLUMES:	2	6	4	0	12

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City of Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue
Weather: Clear

File Name : 11_IRW_BP Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

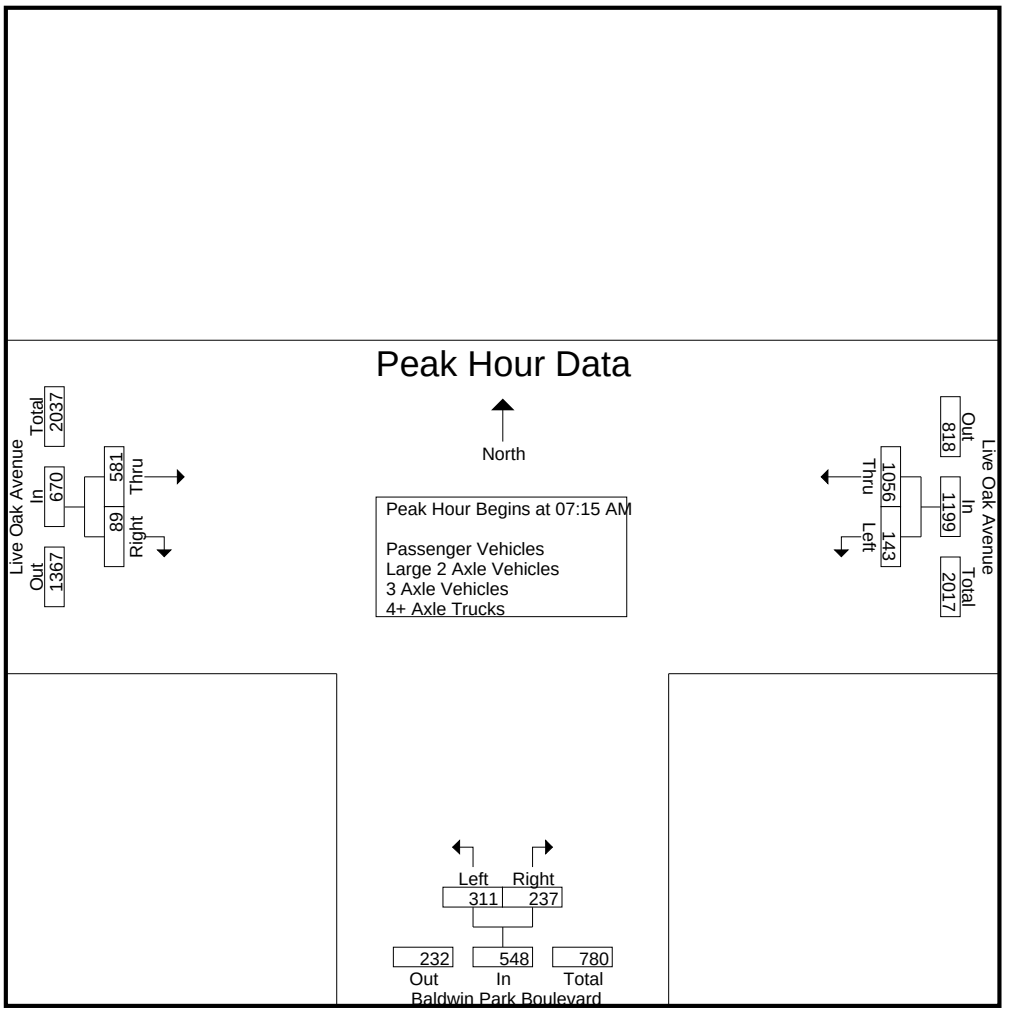
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	22	242	0	264	100	35	25	135	112	9	2	121	27	520	547
07:15 AM	22	281	0	303	79	43	24	122	121	23	9	144	33	569	602
07:30 AM	35	299	0	334	82	61	28	143	134	17	6	151	34	628	662
07:45 AM	40	256	0	296	78	70	26	148	181	29	7	210	33	654	687
Total	119	1078	0	1197	339	209	103	548	548	78	24	626	127	2371	2498
08:00 AM	46	220	0	266	72	63	27	135	145	20	2	165	29	566	595
08:15 AM	52	222	0	274	50	41	28	91	150	17	5	167	33	532	565
08:30 AM	34	215	0	249	50	27	20	77	130	18	7	148	27	474	501
08:45 AM	40	169	0	209	46	48	24	94	151	16	4	167	28	470	498
Total	172	826	0	998	218	179	99	397	576	71	18	647	117	2042	2159
Grand Total	291	1904	0	2195	557	388	202	945	1124	149	42	1273	244	4413	4657
Apprch %	13.3	86.7			58.9	41.1			88.3	11.7					
Total %	6.6	43.1		49.7	12.6	8.8		21.4	25.5	3.4		28.8	5.2	94.8	
Passenger Vehicles	257	1696		1953	544	363		1096	913	137		1090	0	0	4139
% Passenger Vehicles	88.3	89.1	0	89	97.7	93.6	93.6	95.6	81.2	91.9	95.2	82.9	0	0	88.9
Large 2 Axle Vehicles	13	95		108	11	11		28	70	10		81	0	0	217
% Large 2 Axle Vehicles	4.5	5	0	4.9	2	2.8	3	2.4	6.2	6.7	2.4	6.2	0	0	4.7
3 Axle Vehicles	11	23		34	1	10		15	30	1		32	0	0	81
% 3 Axle Vehicles	3.8	1.2	0	1.5	0.2	2.6	2	1.3	2.7	0.7	2.4	2.4	0	0	1.7
4+ Axle Trucks	10	90		100	1	4		8	111	1		112	0	0	220
% 4+ Axle Trucks	3.4	4.7	0	4.6	0.2	1	1.5	0.7	9.9	0.7	0	8.5	0	0	4.7

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	22	281	303	79	43	122	121	23	144	569
07:30 AM	35	**299**	**334**	**82**	61	143	134	17	151	628
07:45 AM	40	256	296	78	**70**	**148**	**181**	**29**	**210**	**654**
08:00 AM	**46**	220	266	72	63	135	145	20	165	566
Total Volume	143	1056	1199	311	237	548	581	89	670	2417
% App. Total	11.9	88.1		56.8	43.2		86.7	13.3		
PHF	.777	.883	.897	.948	.846	.926	.802	.767	.798	.924

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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

File Name : 11_IRW_BP Lo AM
Site Code : 05117783
Start Date : 11/28/2017



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

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	22	281	303	**100**	35	135	134	17	151
+15 mins.	35	**299**	**334**	79	43	122	**181**	**29**	**210**
+30 mins.	40	256	296	82	61	143	145	20	165
+45 mins.	**46**	220	266	78	**70**	**148**	150	17	167
Total Volume	143	1056	1199	339	209	548	610	83	693
% App. Total	11.9	88.1		61.9	38.1		88	12	
PHF	.777	.883	.897	.848	.746	.926	.843	.716	.825

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City of Irwindale
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File Name : 11_IRW_BP Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles

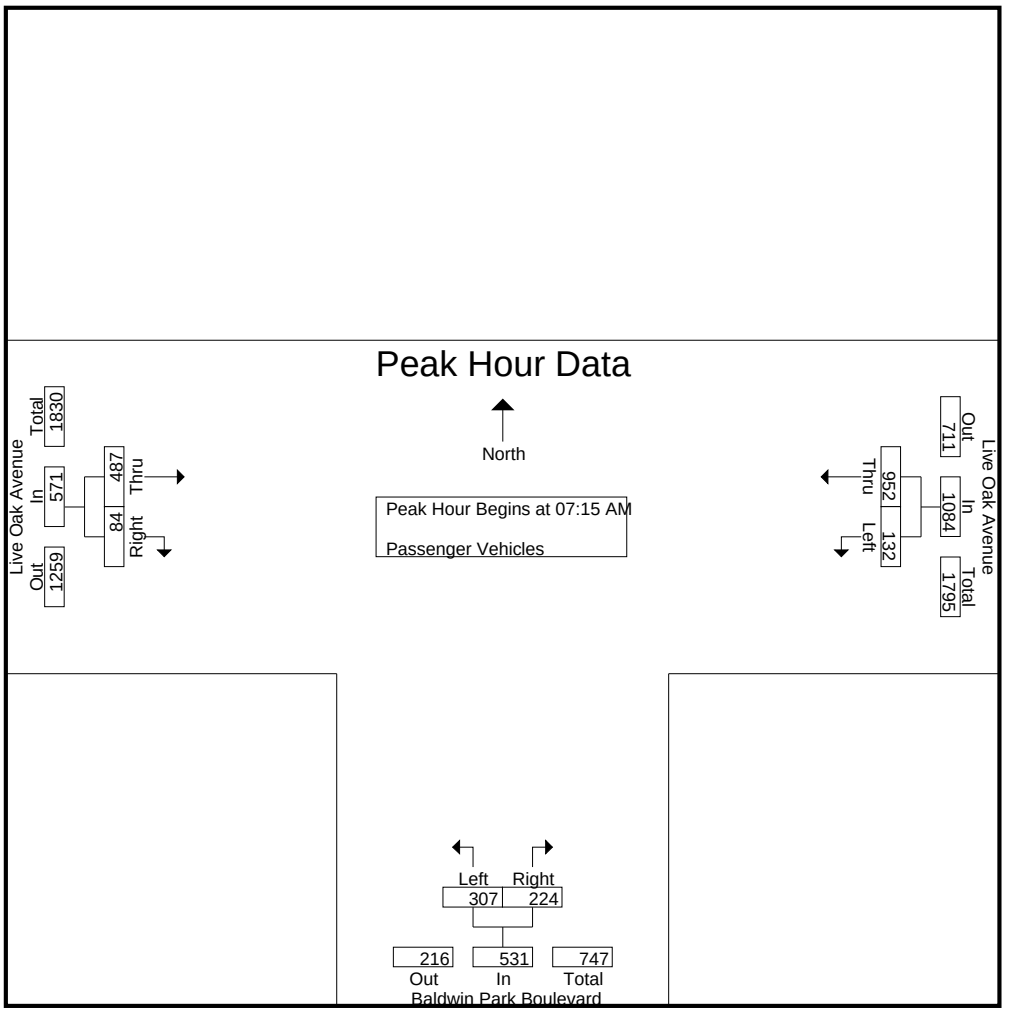
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	18	229	0	247	97	32	23	129	89	8	2	97	25	473	498
07:15 AM	21	254	0	275	78	40	23	118	104	21	9	125	32	518	550
07:30 AM	34	263	0	297	81	56	25	137	109	17	6	126	31	560	591
07:45 AM	37	234	0	271	78	65	24	143	155	28	7	183	31	597	628
Total	110	980	0	1090	334	193	95	527	457	74	24	531	119	2148	2267
08:00 AM	40	201	0	241	70	63	27	133	119	18	2	137	29	511	540
08:15 AM	44	193	0	237	47	39	26	86	114	13	4	127	30	450	480
08:30 AM	28	182	0	210	48	26	19	74	105	18	7	123	26	407	433
08:45 AM	35	140	0	175	45	42	22	87	118	14	3	132	25	394	419
Total	147	716	0	863	210	170	94	380	456	63	16	519	110	1762	1872
Grand Total	257	1696	0	1953	544	363	189	907	913	137	40	1050	229	3910	4139
Apprch %	13.2	86.8			60	40			87	13					
Total %	6.6	43.4		49.9	13.9	9.3		23.2	23.4	3.5		26.9	5.5	94.5	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	21	254	275	78	40	118	104	21	125	518
07:30 AM	34	**263**	**297**	**81**	56	137	109	17	126	560
07:45 AM	37	234	271	78	**65**	**143**	**155**	**28**	**183**	**597**
08:00 AM	**40**	201	241	70	63	133	119	18	137	511
Total Volume	132	952	1084	307	224	531	487	84	571	2186
% App. Total	12.2	87.8		57.8	42.2		85.3	14.7		
PHF	.825	.905	.912	.948	.862	.928	.785	.750	.780	.915

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Site Code : 05117783
Start Date : 11/28/2017



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	21	254	275	78	40	118	104	21	125
+15 mins.	34	**263**	**297**	**81**	56	137	109	17	126
+30 mins.	37	234	271	78	**65**	**143**	**155**	**28**	**183**
+45 mins.	**40**	201	241	70	63	133	119	18	137
Total Volume	132	952	1084	307	224	531	487	84	571
% App. Total	12.2	87.8		57.8	42.2		85.3	14.7	
PHF	.825	.905	.912	.948	.862	.928	.785	.750	.780

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File Name : 11_IRW_BP Lo AM
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Groups Printed- Large 2 Axle Vehicles

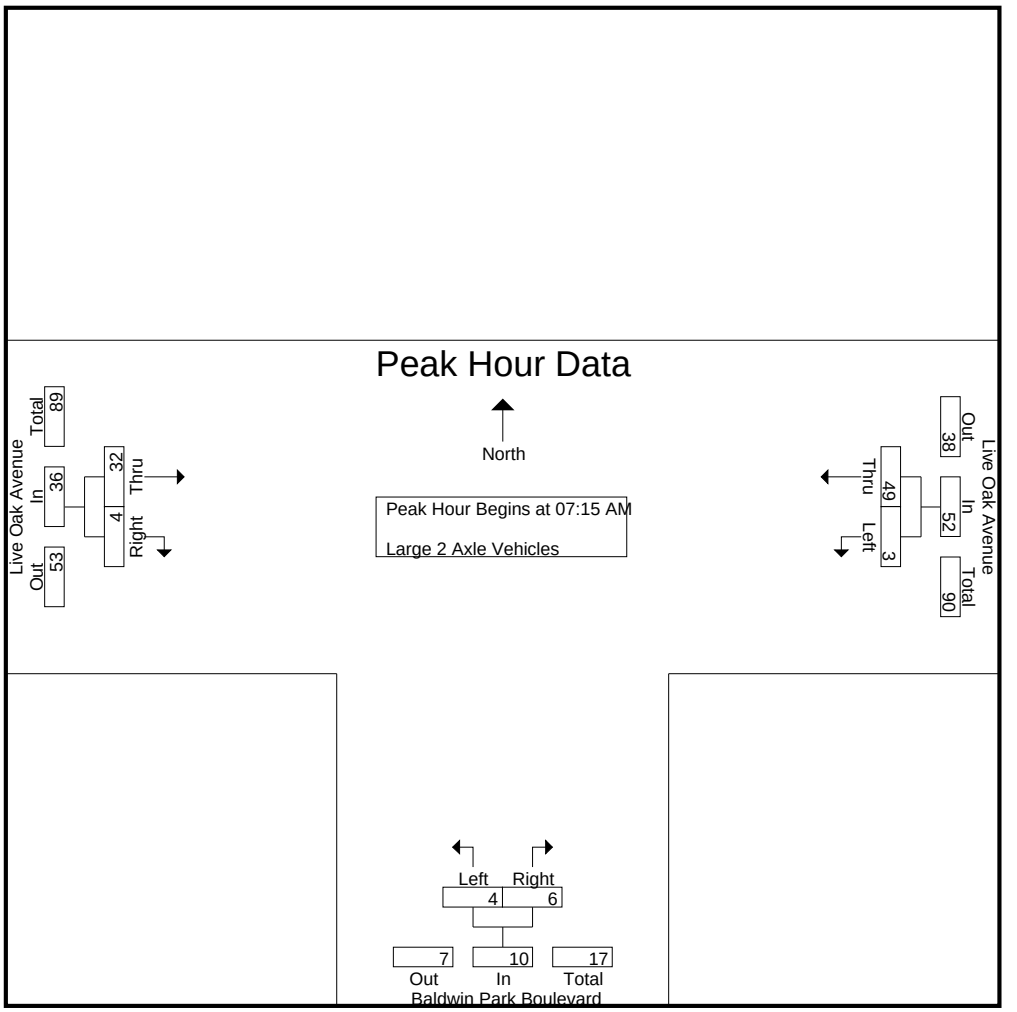
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	9	0	10	2	1	0	3	7	1	0	8	0	21	21
07:15 AM	0	10	0	10	1	2	1	3	4	2	0	6	1	19	20
07:30 AM	1	23	0	24	1	2	2	3	6	0	0	6	2	33	35
07:45 AM	0	14	0	14	0	2	0	2	10	1	0	11	0	27	27
Total	2	56	0	58	4	7	3	11	27	4	0	31	3	100	103
08:00 AM	2	2	0	4	2	0	0	2	12	1	0	13	0	19	19
08:15 AM	3	15	0	18	2	1	1	3	14	3	0	17	1	38	39
08:30 AM	2	9	0	11	2	1	1	3	5	0	0	5	1	19	20
08:45 AM	4	13	0	17	1	2	1	3	12	2	1	14	2	34	36
Total	11	39	0	50	7	4	3	11	43	6	1	49	4	110	114
Grand Total	13	95	0	108	11	11	6	22	70	10	1	80	7	210	217
Apprch %	12	88			50	50			87.5	12.5					
Total %	6.2	45.2		51.4	5.2	5.2		10.5	33.3	4.8		38.1	3.2	96.8	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	10	10	1	**2**	**3**	4	**2**	6	19
07:30 AM	1	**23**	**24**	1	2	3	6	0	6	**33**
07:45 AM	0	14	14	0	2	2	10	1	11	27
08:00 AM	**2**	2	4	**2**	0	2	**12**	1	**13**	19
Total Volume	3	49	52	4	6	10	32	4	36	98
% App. Total	5.8	94.2		40	60		88.9	11.1		
PHF	.375	.533	.542	.500	.750	.833	.667	.500	.692	.742

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Weather: Clear

File Name : 11_IRW_BP Lo AM
Site Code : 05117783
Start Date : 11/28/2017



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	10	10	1	**2**	**3**	4	**2**	6
+15 mins.	1	**23**	**24**	1	2	3	6	0	6
+30 mins.	0	14	14	0	2	2	10	1	11
+45 mins.	**2**	2	4	**2**	0	2	**12**	1	**13**
Total Volume	3	49	52	4	6	10	32	4	36
% App. Total	5.8	94.2		40	60		88.9	11.1	
PHF	.375	.533	.542	.500	.750	.833	.667	.500	.692

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City of Irwindale
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E/W: Live Oak Avenue
Weather: Clear

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Groups Printed- 3 Axle Vehicles

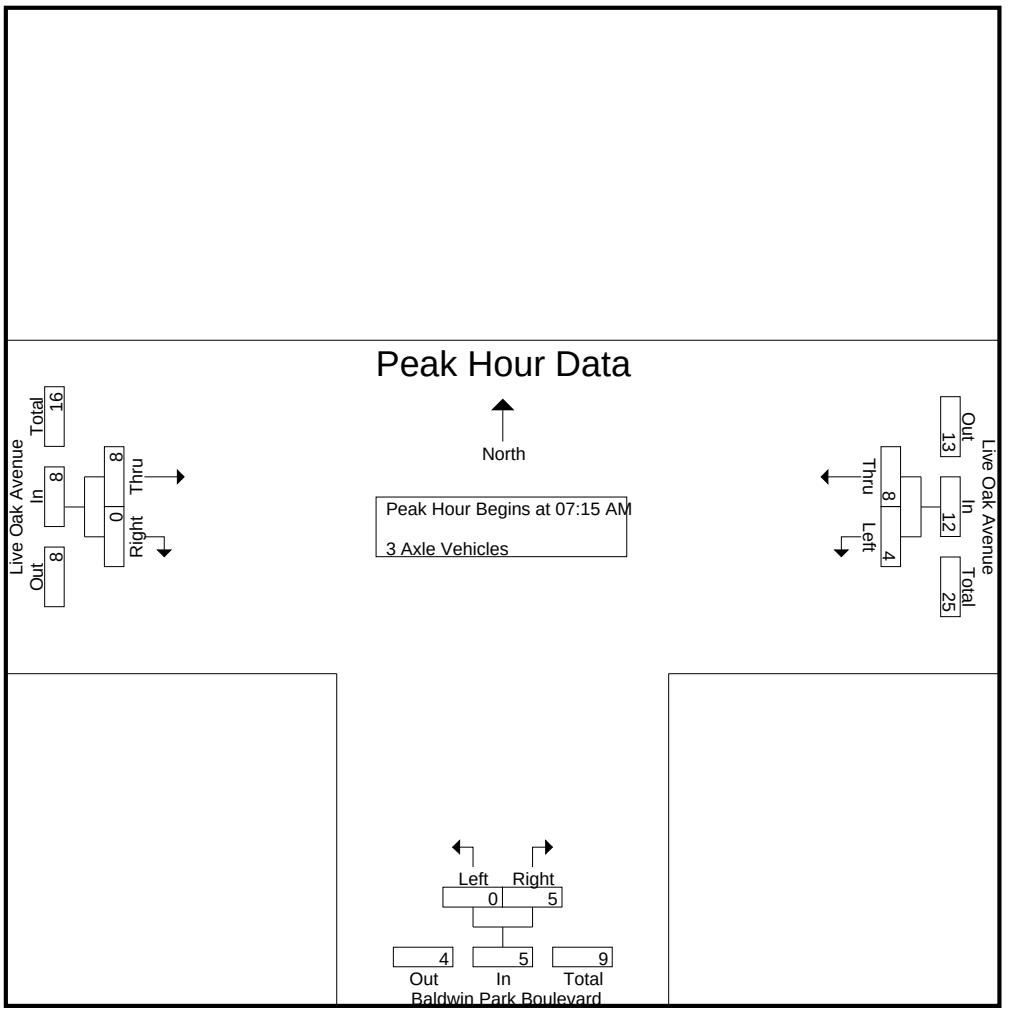
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	1	0	3	0	1	1	1	2	0	0	2	1	6	7
07:15 AM	1	2	0	3	0	0	0	0	1	0	0	1	0	4	4
07:30 AM	0	1	0	1	0	3	1	3	5	0	0	5	1	9	10
07:45 AM	1	4	0	5	0	2	1	2	2	0	0	2	1	9	10
Total	4	8	0	12	0	6	3	6	10	0	0	10	3	28	31
08:00 AM	2	1	0	3	0	0	0	0	0	0	0	0	0	3	3
08:15 AM	2	6	0	8	1	0	0	1	5	1	1	6	1	15	16
08:30 AM	3	1	0	4	0	0	0	0	10	0	0	10	0	14	14
08:45 AM	0	7	0	7	0	4	1	4	5	0	0	5	1	16	17
Total	7	15	0	22	1	4	1	5	20	1	1	21	2	48	50
Grand Total	11	23	0	34	1	10	4	11	30	1	1	31	5	76	81
Apprch %	32.4	67.6			9.1	90.9			96.8	3.2					
Total %	14.5	30.3		44.7	1.3	13.2		14.5	39.5	1.3		40.8	6.2	93.8	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	1	2	3	0	0	0	1	0	1	4
07:30 AM	0	1	1	0	**3**	**3**	**5**	0	**5**	**9**
07:45 AM	1	**4**	**5**	0	2	2	2	0	2	9
08:00 AM	**2**	1	3	0	0	0	0	0	0	3
Total Volume	4	8	12	0	5	5	8	0	8	25
% App. Total	33.3	66.7		0	100		100	0		
PHF	.500	.500	.600	.000	.417	.417	.400	.000	.400	.694

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	1	2	3	0	0	0	1	0	1
+15 mins.	0	1	1	0	**3**	**3**	**5**	0	**5**
+30 mins.	1	**4**	**5**	0	2	2	2	0	2
+45 mins.	**2**	1	3	0	0	0	0	0	0
Total Volume	4	8	12	0	5	5	8	0	8
% App. Total	33.3	66.7		0	100		100	0	
PHF	.500	.500	.600	.000	.417	.417	.400	.000	.400

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File Name : 11_IRW_BP Lo AM
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Groups Printed- 4+ Axle Trucks

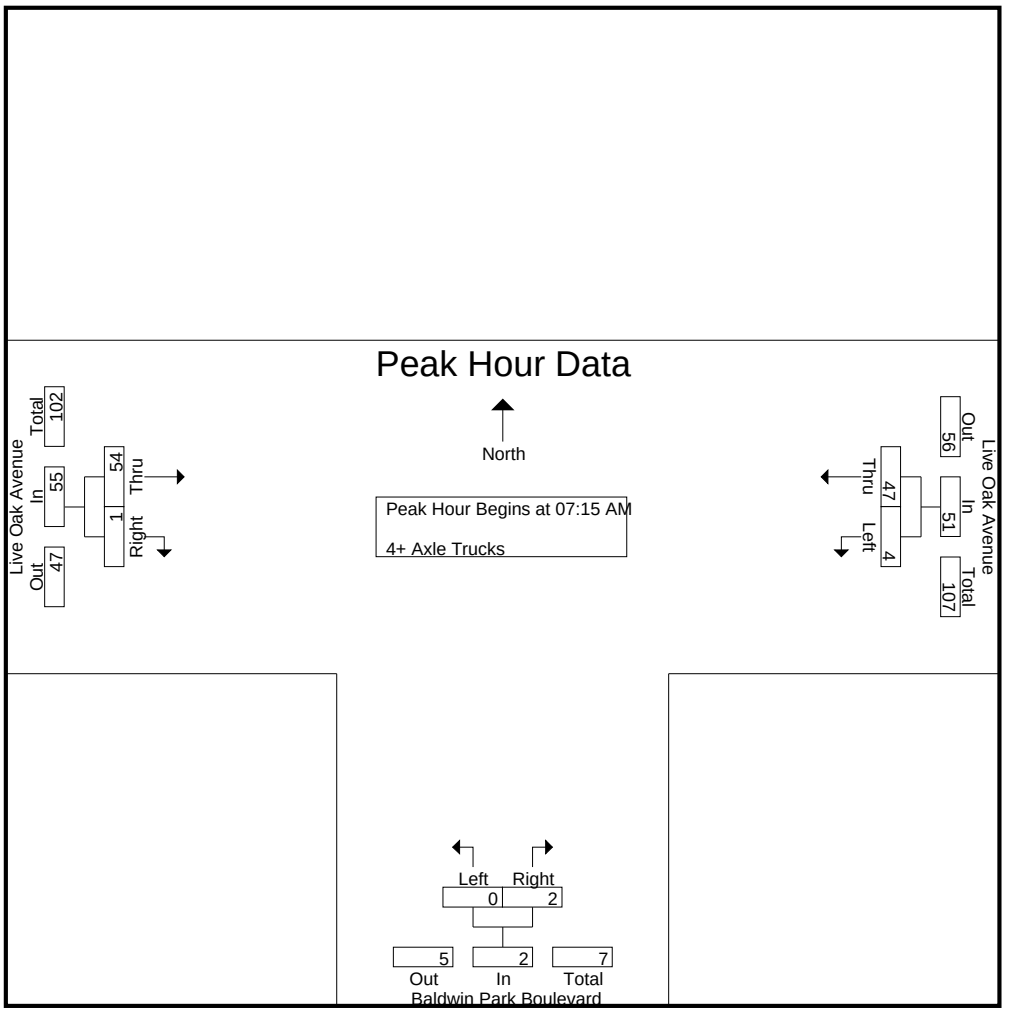
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	3	0	4	1	1	1	2	14	0	0	14	1	20	21
07:15 AM	0	15	0	15	0	1	0	1	12	0	0	12	0	28	28
07:30 AM	0	12	0	12	0	0	0	0	14	0	0	14	0	26	26
07:45 AM	2	4	0	6	0	1	1	1	14	0	0	14	1	21	22
Total	3	34	0	37	1	3	2	4	54	0	0	54	2	95	97
08:00 AM	2	16	0	18	0	0	0	0	14	1	0	15	0	33	33
08:15 AM	3	8	0	11	0	1	1	1	17	0	0	17	1	29	30
08:30 AM	1	23	0	24	0	0	0	0	10	0	0	10	0	34	34
08:45 AM	1	9	0	10	0	0	0	0	16	0	0	16	0	26	26
Total	7	56	0	63	0	1	1	1	57	1	0	58	1	122	123
Grand Total	10	90	0	100	1	4	3	5	111	1	0	112	3	217	220
Apprch %	10	90			20	80			99.1	0.9					
Total %	4.6	41.5		46.1	0.5	1.8		2.3	51.2	0.5		51.6	1.4	98.6	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	15	15	0	**1**	**1**	12	0	12	28
07:30 AM	0	12	12	0	0	0	**14**	0	14	26
07:45 AM	**2**	4	6	0	1	1	14	0	14	21
08:00 AM	2	**16**	**18**	0	0	0	14	**1**	**15**	**33**
Total Volume	4	47	51	0	2	2	54	1	55	108
% App. Total	7.8	92.2		0	100		98.2	1.8		
PHF	.500	.734	.708	.000	.500	.500	.964	.250	.917	.818

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File Name : 11_IRW_BP Lo AM
Site Code : 05117783
Start Date : 11/28/2017



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	15	15	0	**1**	**1**	12	0	12
+15 mins.	0	12	12	0	0	0	**14**	0	14
+30 mins.	**2**	4	6	0	1	1	14	0	14
+45 mins.	2	**16**	**18**	0	0	0	14	**1**	**15**
Total Volume	4	47	51	0	2	2	54	1	55
% App. Total	7.8	92.2		0	100		98.2	1.8	
PHF	.500	.734	.708	.000	.500	.500	.964	.250	.917

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File Name : 11_IRW_BP Lo PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

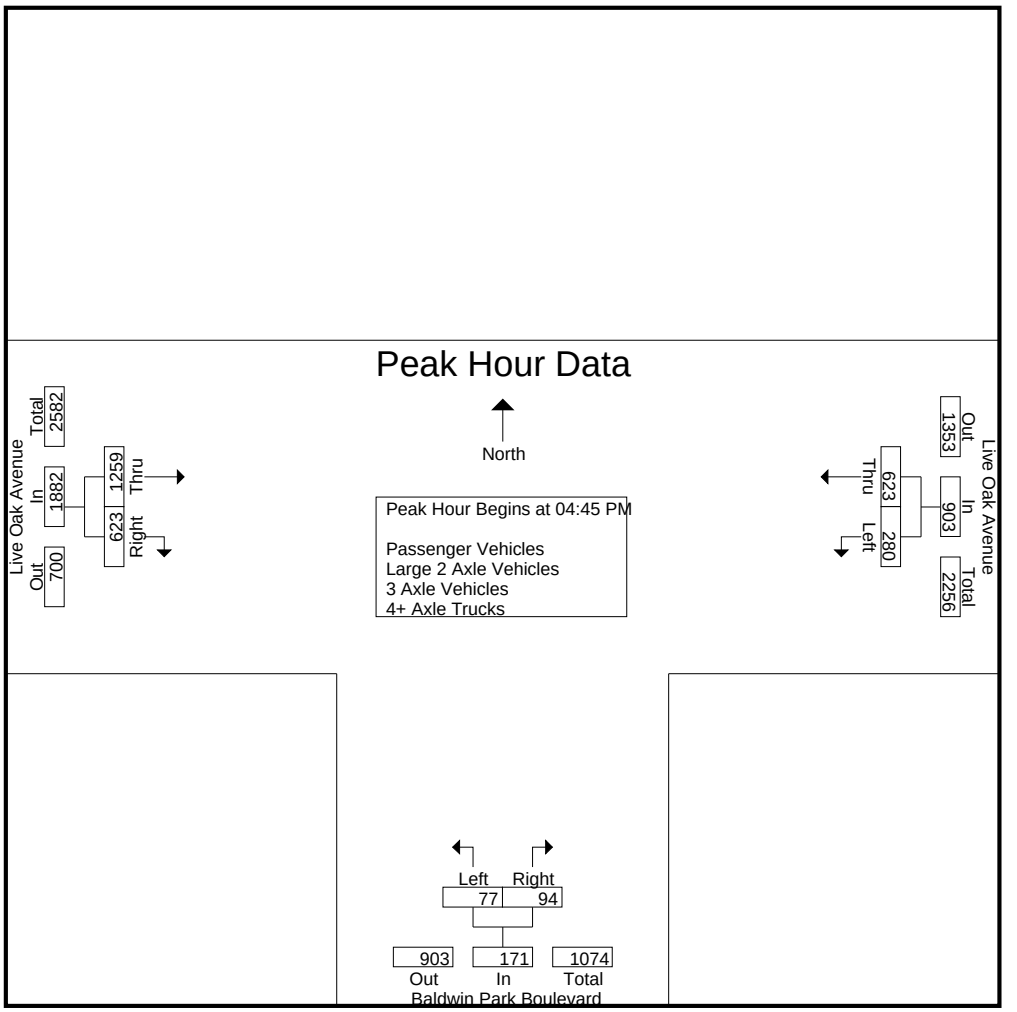
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	58	140	0	198	26	29	13	55	292	89	6	381	19	634	653
04:15 PM	54	142	0	196	21	29	15	50	288	130	6	418	21	664	685
04:30 PM	59	159	0	218	31	22	15	53	320	145	19	465	34	736	770
04:45 PM	65	159	0	224	21	21	10	42	303	172	26	475	36	741	777
Total	236	600	0	836	99	101	53	200	1203	536	57	1739	110	2775	2885
05:00 PM	63	173	0	236	21	19	5	40	356	140	15	496	20	772	792
05:15 PM	78	167	0	245	12	27	16	39	276	137	29	413	45	697	742
05:30 PM	74	124	0	198	23	27	14	50	324	174	24	498	38	746	784
05:45 PM	67	138	0	205	15	26	15	41	299	136	15	435	30	681	711
Total	282	602	0	884	71	99	50	170	1255	587	83	1842	133	2896	3029
Grand Total	518	1202	0	1720	170	200	103	370	2458	1123	140	3581	243	5671	5914
Apprch %	30.1	69.9			45.9	54.1			68.6	31.4					
Total %	9.1	21.2		30.3	3	3.5		6.5	43.3	19.8		63.1	4.1	95.9	
Passenger Vehicles	495	1122		1617	158	183		439	2334	1103		3575	0	0	5631
% Passenger Vehicles	95.6	93.3	0	94	92.9	91.5	95.1	92.8	95	98.2	98.6	96.1	0	0	95.2
Large 2 Axle Vehicles	4	28		32	8	7		16	79	18		98	0	0	146
% Large 2 Axle Vehicles	0.8	2.3	0	1.9	4.7	3.5	1	3.4	3.2	1.6	0.7	2.6	0	0	2.5
3 Axle Vehicles	12	21		33	1	9		13	11	2		14	0	0	60
% 3 Axle Vehicles	2.3	1.7	0	1.9	0.6	4.5	2.9	2.7	0.4	0.2	0.7	0.4	0	0	1
4+ Axle Trucks	7	31		38	3	1		5	34	0		34	0	0	77
% 4+ Axle Trucks	1.4	2.6	0	2.2	1.8	0.5	1	1.1	1.4	0	0	0.9	0	0	1.3

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	65	159	224	21	21	42	303	172	475	741
05:00 PM	63	**173**	236	21	19	40	**356**	140	496	**772**
05:15 PM	**78**	167	**245**	12	**27**	39	276	137	413	697
05:30 PM	74	124	198	**23**	27	**50**	324	**174**	**498**	746
Total Volume	280	623	903	77	94	171	1259	623	1882	2956
% App. Total	31	69		45	55		66.9	33.1		
PHF	.897	.900	.921	.837	.870	.855	.884	.895	.945	.957

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Start Date : 11/28/2017



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

	04:30 PM			04:00 PM			04:45 PM		
+0 mins.	59	159	218	26	**29**	**55**	303	172	475
+15 mins.	65	159	224	21	29	50	**356**	140	496
+30 mins.	63	**173**	236	**31**	22	53	276	137	413
+45 mins.	**78**	167	**245**	21	21	42	324	**174**	**498**
Total Volume	265	658	923	99	101	200	1259	623	1882
% App. Total	28.7	71.3		49.5	50.5		66.9	33.1	
PHF	.849	.951	.942	.798	.871	.909	.884	.895	.945

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File Name : 11_IRW_BP Lo PM
Site Code : 05117783
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Groups Printed- Passenger Vehicles

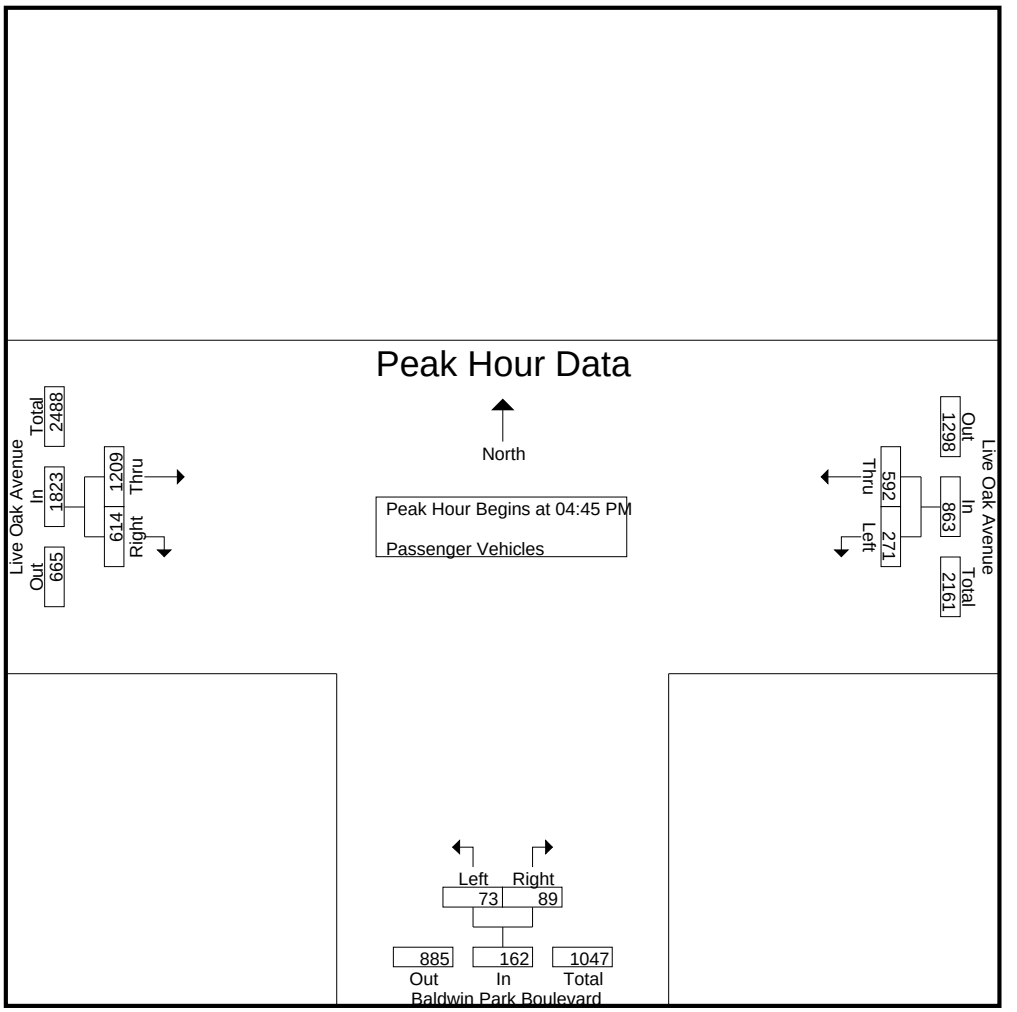
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	54	128	0	182	23	26	13	49	263	85	6	348	19	579	598
04:15 PM	51	123	0	174	19	24	13	43	272	125	6	397	19	614	633
04:30 PM	53	147	0	200	30	20	14	50	300	143	19	443	33	693	726
04:45 PM	63	151	0	214	20	21	10	41	289	169	25	458	35	713	748
Total	221	549	0	770	92	91	50	183	1124	522	56	1646	106	2599	2705
05:00 PM	61	167	0	228	18	15	4	33	340	138	15	478	19	739	758
05:15 PM	76	154	0	230	12	26	16	38	270	135	29	405	45	673	718
05:30 PM	71	120	0	191	23	27	14	50	310	172	23	482	37	723	760
05:45 PM	66	132	0	198	13	24	14	37	290	136	15	426	29	661	690
Total	274	573	0	847	66	92	48	158	1210	581	82	1791	130	2796	2926
Grand Total	495	1122	0	1617	158	183	98	341	2334	1103	138	3437	236	5395	5631
Apprch %	30.6	69.4			46.3	53.7			67.9	32.1					
Total %	9.2	20.8		30	2.9	3.4		6.3	43.3	20.4		63.7	4.2	95.8	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	63	151	214	20	21	41	289	169	458	713
05:00 PM	61	**167**	228	18	15	33	**340**	138	478	**739**
05:15 PM	**76**	154	**230**	12	26	38	270	135	405	673
05:30 PM	71	120	191	**23**	**27**	**50**	310	**172**	**482**	723
Total Volume	271	592	863	73	89	162	1209	614	1823	2848
% App. Total	31.4	68.6		45.1	54.9		66.3	33.7		
PHF	.891	.886	.938	.793	.824	.810	.889	.892	.946	.963

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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	63	151	214	20	21	41	289	169	458
+15 mins.	61	**167**	228	18	15	33	**340**	138	478
+30 mins.	**76**	154	**230**	12	26	38	270	135	405
+45 mins.	71	120	191	**23**	**27**	**50**	310	**172**	**482**
Total Volume	271	592	863	73	89	162	1209	614	1823
% App. Total	31.4	68.6		45.1	54.9		66.3	33.7	
PHF	.891	.886	.938	.793	.824	.810	.889	.892	.946

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Groups Printed- Large 2 Axle Vehicles

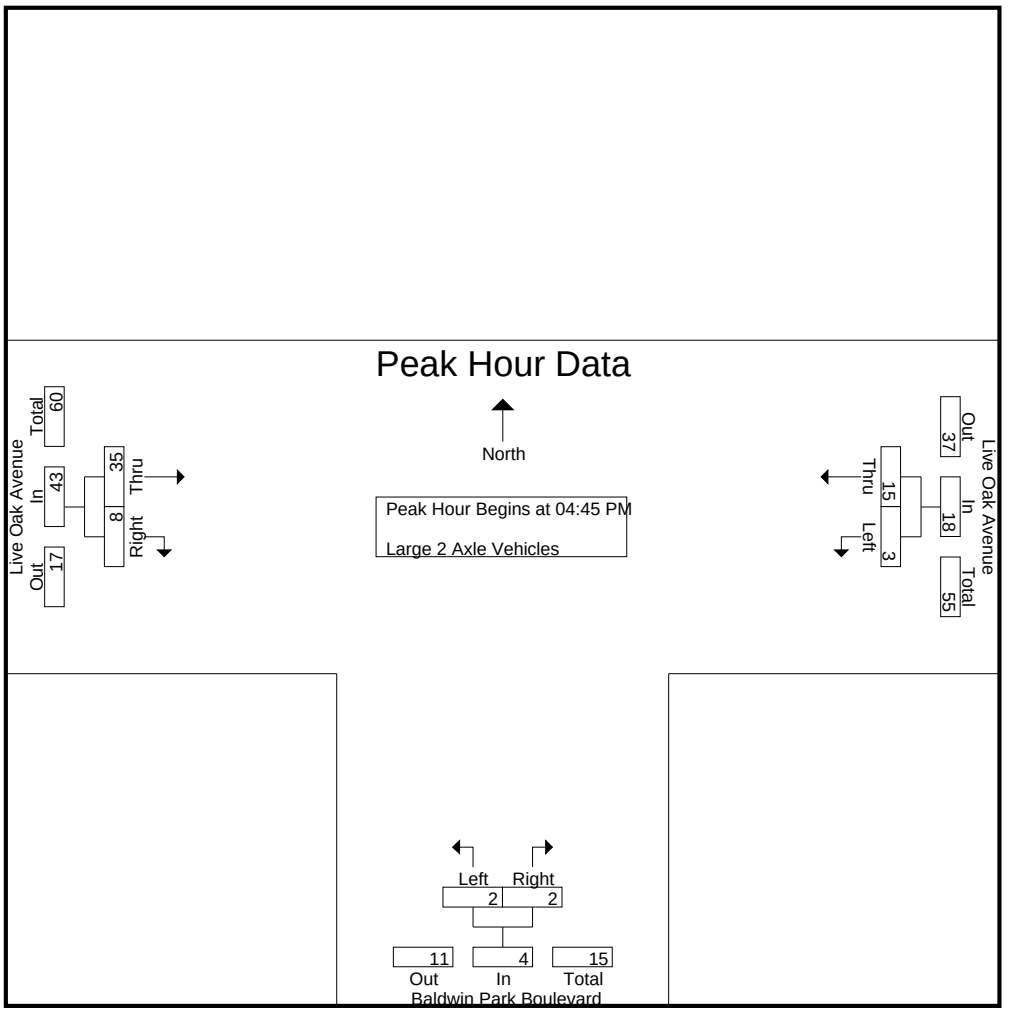
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	0	2	3	1	0	4	16	4	0	20	0	26	26
04:15 PM	1	5	0	6	1	4	1	5	9	5	0	14	1	25	26
04:30 PM	0	4	0	4	1	0	0	1	12	1	0	13	0	18	18
04:45 PM	1	3	0	4	1	0	0	1	9	2	0	11	0	16	16
Total	2	14	0	16	6	5	1	11	46	12	0	58	1	85	86
05:00 PM	0	2	0	2	1	1	0	2	11	2	0	13	0	17	17
05:15 PM	1	7	0	8	0	1	0	1	6	2	0	8	0	17	17
05:30 PM	1	3	0	4	0	0	0	0	9	2	1	11	1	15	16
05:45 PM	0	2	0	2	1	0	0	1	7	0	0	7	0	10	10
Total	2	14	0	16	2	2	0	4	33	6	1	39	1	59	60
Grand Total	4	28	0	32	8	7	1	15	79	18	1	97	2	144	146
Apprch %	12.5	87.5			53.3	46.7			81.4	18.6					
Total %	2.8	19.4		22.2	5.6	4.9		10.4	54.9	12.5		67.4	1.4	98.6	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**1**	3	4	**1**	0	1	9	**2**	11	16
05:00 PM	0	2	2	1	**1**	**2**	**11**	2	**13**	**17**
05:15 PM	1	**7**	**8**	0	1	1	6	2	8	17
05:30 PM	1	3	4	0	0	0	9	2	11	15
Total Volume	3	15	18	2	2	4	35	8	43	65
% App. Total	16.7	83.3		50	50		81.4	18.6		
PHF	.750	.536	.563	.500	.500	.500	.795	1.00	.827	.956

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Site Code : 05117783
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**1**	3	4	**1**	0	1	9	**2**	11
+15 mins.	0	2	2	1	**1**	**2**	**11**	2	**13**
+30 mins.	1	**7**	**8**	0	1	1	6	2	8
+45 mins.	1	3	4	0	0	0	9	2	11
Total Volume	3	15	18	2	2	4	35	8	43
% App. Total	16.7	83.3		50	50		81.4	18.6	
PHF	.750	.536	.563	.500	.500	.500	.795	1.000	.827

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Groups Printed- 3 Axle Vehicles

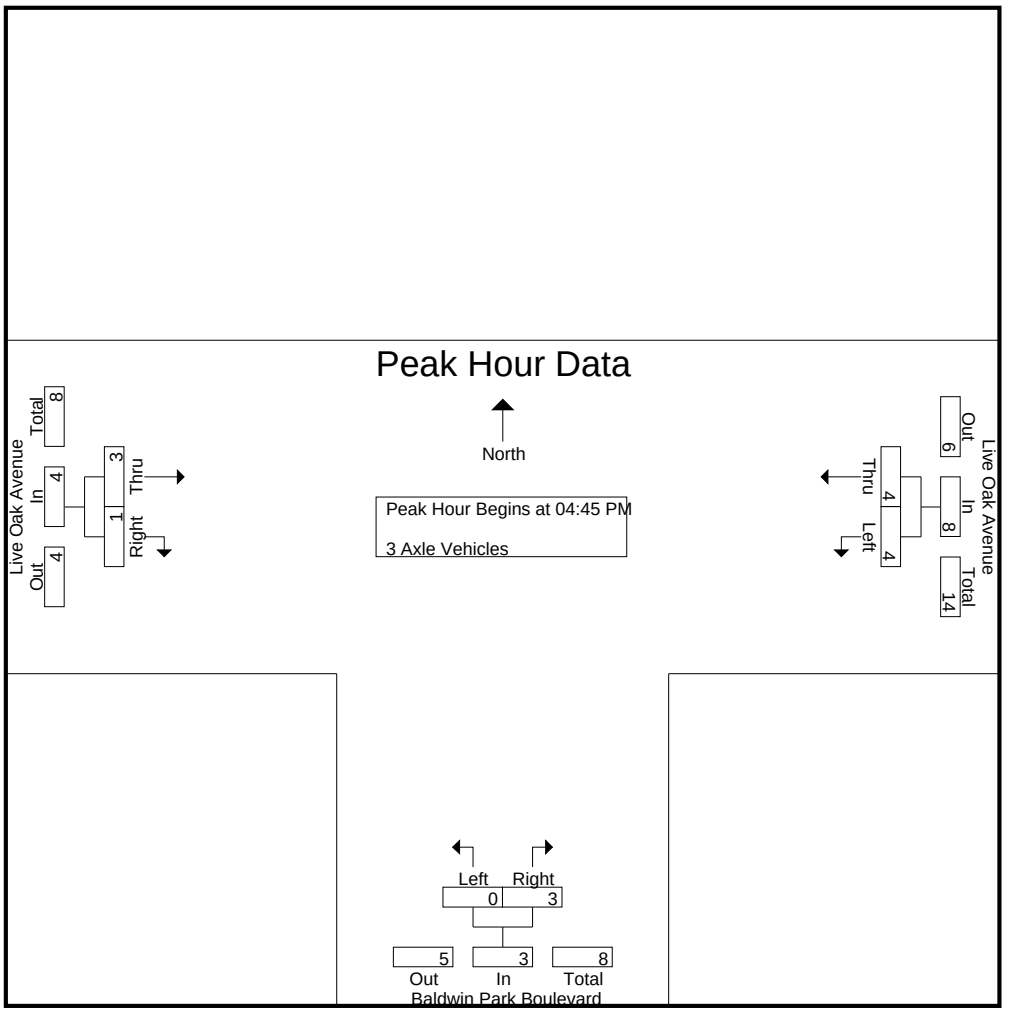
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	5	0	9	0	2	0	2	3	0	0	3	0	14	14
04:15 PM	1	6	0	7	0	0	0	0	3	0	0	3	0	10	10
04:30 PM	3	2	0	5	0	2	1	2	2	1	0	3	1	10	11
04:45 PM	0	1	0	1	0	0	0	0	1	1	1	2	1	3	4
Total	8	14	0	22	0	4	1	4	9	2	1	11	2	37	39
05:00 PM	1	1	0	2	0	3	1	3	1	0	0	1	1	6	7
05:15 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	2	2
05:30 PM	2	1	0	3	0	0	0	0	1	0	0	1	0	4	4
05:45 PM	0	4	0	4	1	2	1	3	0	0	0	0	1	7	8
Total	4	7	0	11	1	5	2	6	2	0	0	2	2	19	21
Grand Total	12	21	0	33	1	9	3	10	11	2	1	13	4	56	60
Apprch %	36.4	63.6			10	90			84.6	15.4					
Total %	21.4	37.5		58.9	1.8	16.1		17.9	19.6	3.6		23.2	6.7	93.3	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**1**	1	0	0	0	**1**	**1**	**2**	3
05:00 PM	1	1	2	0	**3**	**3**	1	0	1	**6**
05:15 PM	1	1	2	0	0	0	0	0	0	2
05:30 PM	**2**	1	**3**	0	0	0	1	0	1	4
Total Volume	4	4	8	0	3	3	3	1	4	15
% App. Total	50	50		0	100		75	25		
PHF	.500	1.00	.667	.000	.250	.250	.750	.250	.500	.625

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City of Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue
Weather: Clear

File Name : 11_IRW_BP Lo PM
Site Code : 05117783
Start Date : 11/28/2017



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**1**	1	0	0	0	**1**	**1**	**2**
+15 mins.	1	1	2	0	**3**	**3**	1	0	1
+30 mins.	1	1	2	0	0	0	0	0	0
+45 mins.	**2**	1	**3**	0	0	0	1	0	1
Total Volume	4	4	8	0	3	3	3	1	4
% App. Total	50	50		0	100		75	25	
PHF	.500	1.000	.667	.000	.250	.250	.750	.250	.500

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City of Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue
Weather: Clear

File Name : 11_IRW_BP Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

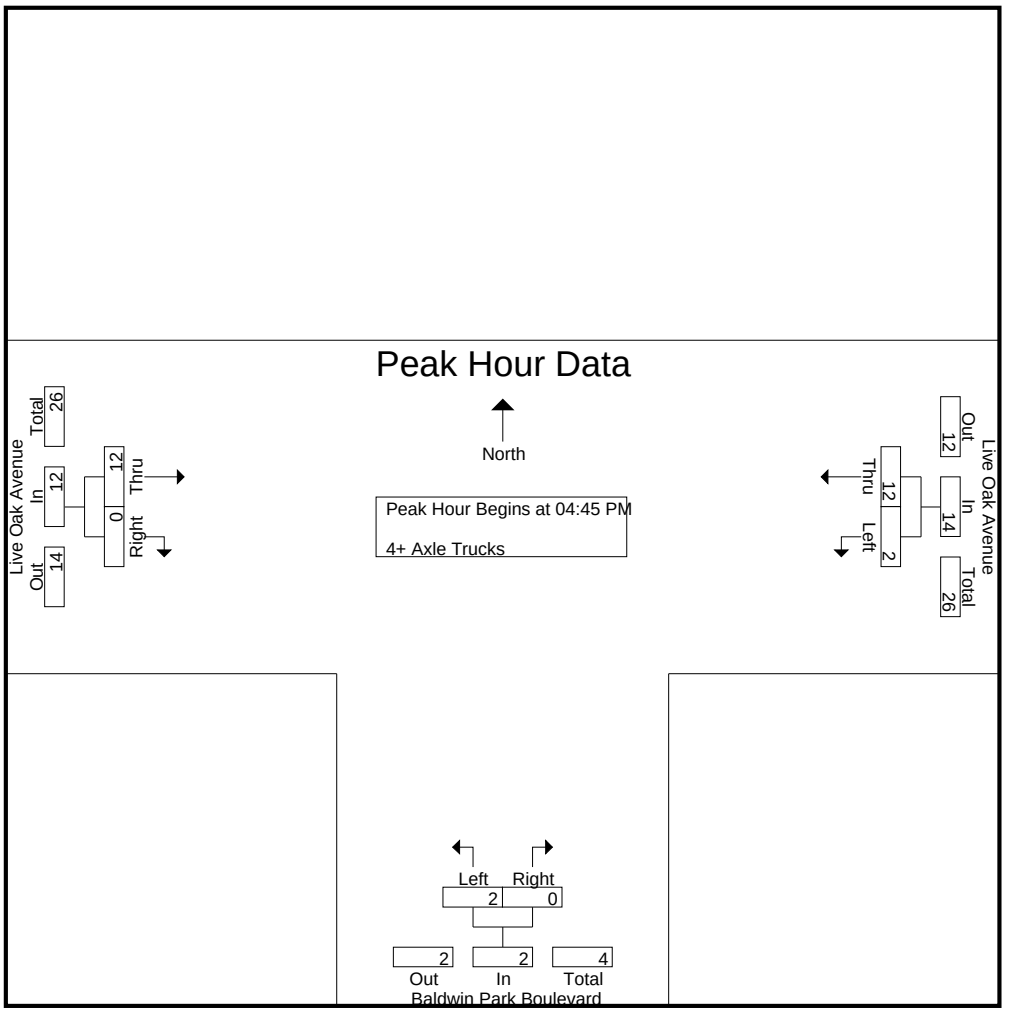
	Live Oak Avenue Westbound				Baldwin Park Boulevard Northbound				Live Oak Avenue Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	5	0	5	0	0	0	0	10	0	0	10	0	15	15
04:15 PM	1	8	0	9	1	1	1	2	4	0	0	4	1	15	16
04:30 PM	3	6	0	9	0	0	0	0	6	0	0	6	0	15	15
04:45 PM	1	4	0	5	0	0	0	0	4	0	0	4	0	9	9
Total	5	23	0	28	1	1	1	2	24	0	0	24	1	54	55
05:00 PM	1	3	0	4	2	0	0	2	4	0	0	4	0	10	10
05:15 PM	0	5	0	5	0	0	0	0	0	0	0	0	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	4	4
05:45 PM	1	0	0	1	0	0	0	0	2	0	0	2	0	3	3
Total	2	8	0	10	2	0	0	2	10	0	0	10	0	22	22
Grand Total	7	31	0	38	3	1	1	4	34	0	0	34	1	76	77
Apprch %	18.4	81.6			75	25			100	0					
Total %	9.2	40.8		50	3.9	1.3		5.3	44.7	0		44.7	1.3	98.7	

	Live Oak Avenue Westbound			Baldwin Park Boulevard Northbound			Live Oak Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**1**	4	**5**	0	0	0	**4**	0	**4**	9
05:00 PM	1	3	4	**2**	0	**2**	4	0	4	**10**
05:15 PM	0	**5**	5	0	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	4	0	4	4
Total Volume	2	12	14	2	0	2	12	0	12	28
% App. Total	14.3	85.7		100	0		100	0		
PHF	.500	.600	.700	.250	.000	.250	.750	.000	.750	.700

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City of Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue
Weather: Clear

File Name : 11_IRW_BP Lo PM
Site Code : 05117783
Start Date : 11/28/2017



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**1**	4	**5**	0	0	0	**4**	0	**4**
+15 mins.	1	3	4	**2**	0	**2**	4	0	4
+30 mins.	0	**5**	5	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	4	0	4
Total Volume	2	12	14	2	0	2	12	0	12
% App. Total	14.3	85.7		100	0		100	0	
PHF	.500	.600	.700	.250	.000	.250	.750	.000	.750

Location: Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Live Oak Avenue	South Leg Baldwin Park Boulevard	West Leg Live Oak Avenue	TOTAL
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	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Dead End	East Leg Live Oak Avenue	South Leg Baldwin Park Boulevard	West Leg Live Oak Avenue	TOTAL
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	2	0	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

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Location: Irwindale
N/S: Baldwin Park Boulevard
E/W: Live Oak Avenue

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Live Oak Avenue	South Leg Baldwin Park Boulevard	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	2	0	3

	North Leg Dead End	East Leg Live Oak Avenue	South Leg Baldwin Park Boulevard	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
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	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	0	2

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

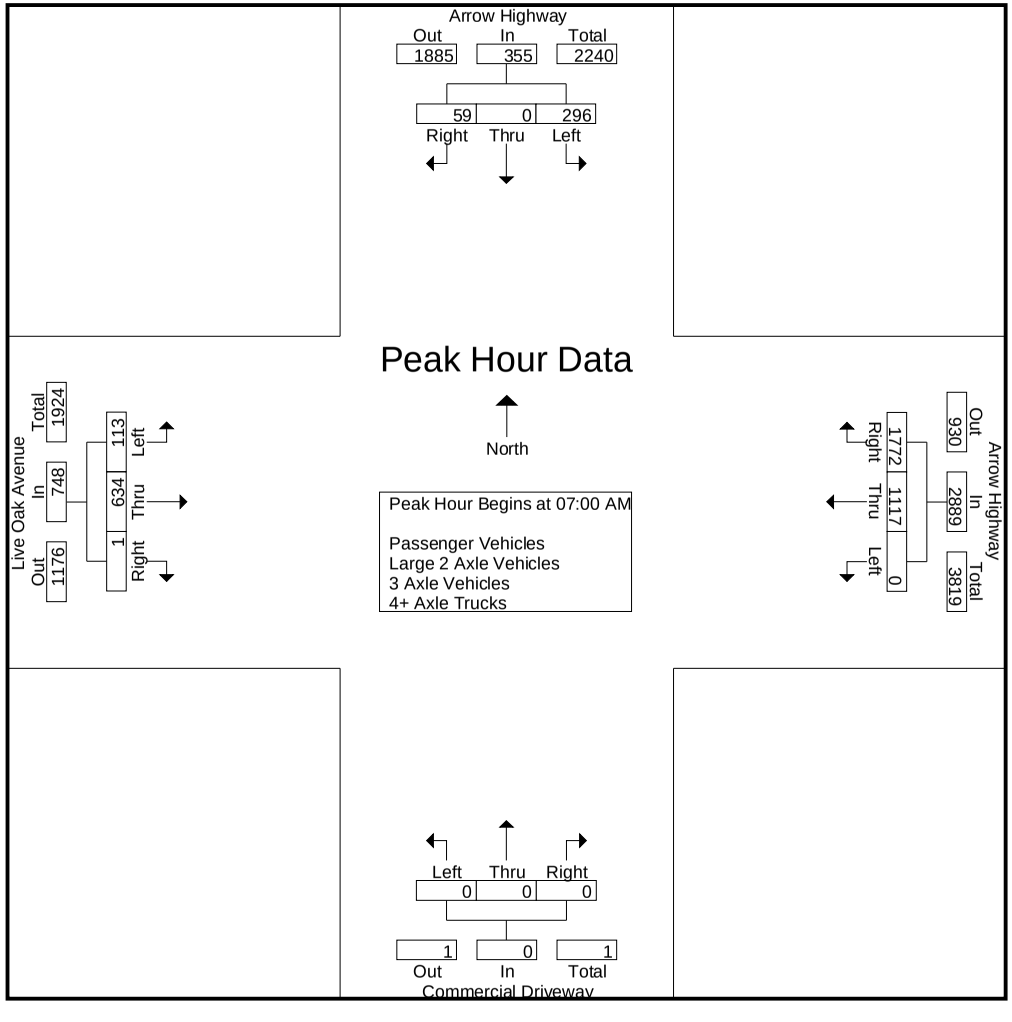
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	60	0	13	9	73	0	259	424	0	683	0	0	0	0	0	20	133	0	0	153	9	909	918
07:15 AM	56	0	17	9	73	0	298	514	1	812	0	0	0	0	0	25	133	0	0	158	10	1043	1053
07:30 AM	73	0	7	5	80	0	311	429	0	740	0	0	0	0	0	36	177	1	0	214	5	1034	1039
07:45 AM	107	0	22	7	129	0	249	405	0	654	0	0	0	0	0	32	191	0	0	223	7	1006	1013
Total	296	0	59	30	355	0	1117	1772	1	2889	0	0	0	0	0	113	634	1	0	748	31	3992	4023
08:00 AM	91	0	20	11	111	0	248	342	0	590	0	0	0	0	0	27	179	0	0	206	11	907	918
08:15 AM	88	0	27	14	115	0	228	281	1	509	0	0	0	0	0	15	176	0	0	191	15	815	830
08:30 AM	81	0	8	5	89	0	242	252	0	494	0	0	0	0	0	13	145	0	0	158	5	741	746
08:45 AM	71	0	8	4	79	0	196	231	0	427	0	0	0	0	0	22	178	0	0	200	4	706	710
Total	331	0	63	34	394	0	914	1106	1	2020	0	0	0	0	0	77	678	0	0	755	35	3169	3204
Grand Total	627	0	122	64	749	0	2031	2878	2	4909	0	0	0	0	0	190	1312	1	0	1503	66	7161	7227
Apprch %	83.7	0	16.3			0	41.4	58.6			0	0	0			12.6	87.3	0.1					
Total %	8.8	0	1.7		10.5	0	28.4	40.2		68.6	0	0	0		0	2.7	18.3	0		21	0.9	99.1	
Passenger Vehicles	575	0	113		749	0	1766	2744		4512	0	0	0		0	181	1082	0		1263	0	0	6524
% Passenger Vehicles	91.7	0	92.6	95.3	92.1	0	87	95.3	100	91.9	0	0	0	0	0	95.3	82.5	0	0	84	0	0	90.3
Large 2 Axle Vehicles	39	0	7		49	0	132	80		212	0	0	0		0	5	79	0		84	0	0	345
% Large 2 Axle Vehicles	6.2	0	5.7	4.7	6	0	6.5	2.8	0	4.3	0	0	0	0	0	2.6	6	0	0	5.6	0	0	4.8
3 Axle Vehicles	8	0	1		9	0	36	18		54	0	0	0		0	2	41	1		44	0	0	107
% 3 Axle Vehicles	1.3	0	0.8	0	1.1	0	1.8	0.6	0	1.1	0	0	0	0	0	1.1	3.1	100	0	2.9	0	0	1.5
4+ Axle Trucks	5	0	1		6	0	97	36		133	0	0	0		0	2	110	0		112	0	0	251
% 4+ Axle Trucks	0.8	0	0.8	0	0.7	0	4.8	1.3	0	2.7	0	0	0	0	0	1.1	8.4	0	0	7.5	0	0	3.5

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	60	0	13	73	0	259	424	683	0	0	0	0	20	133	0	153	909
07:15 AM	56	0	17	73	0	298	**514**	**812**	0	0	0	0	25	133	0	158	**1043**
07:30 AM	73	0	7	80	0	**311**	429	740	0	0	0	0	**36**	177	**1**	214	1034
07:45 AM	**107**	0	**22**	**129**	0	249	405	654	0	0	0	0	32	**191**	0	**223**	1006
Total Volume	296	0	59	355	0	1117	1772	2889	0	0	0	0	113	634	1	748	3992
% App. Total	83.4	0	16.6		0	38.7	61.3		0	0	0		15.1	84.8	0.1		
PHF	.692	.000	.670	.688	.000	.898	.862	.889	.000	.000	.000	.000	.785	.830	.250	.839	.957

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City of Irwindale
N/S: Arrow Highway
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Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
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File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:00 AM				07:00 AM				07:30 AM				
+0 mins.	**107**	0	22	**129**	0	259	424	683	0	0	0	0	**36**	177	**1**	214	
+15 mins.	91	0	20	111	0	298	**514**	**812**	0	0	0	0	32	**191**	0	**223**	
+30 mins.	88	0	**27**	115	0	**311**	429	740	0	0	0	0	27	179	0	206	
+45 mins.	81	0	8	89	0	249	405	654	0	0	0	0	15	176	0	191	
Total Volume	367	0	77	444	0	1117	1772	2889	0	0	0	0	110	723	1	834	
% App. Total	82.7	0	17.3		0	38.7	61.3		0	0	0		13.2	86.7	0.1		
PHF	.857	.000	.713	.860	.000	.898	.862	.889	.000	.000	.000	.000	.764	.946	.250	.935	

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Groups Printed- Passenger Vehicles

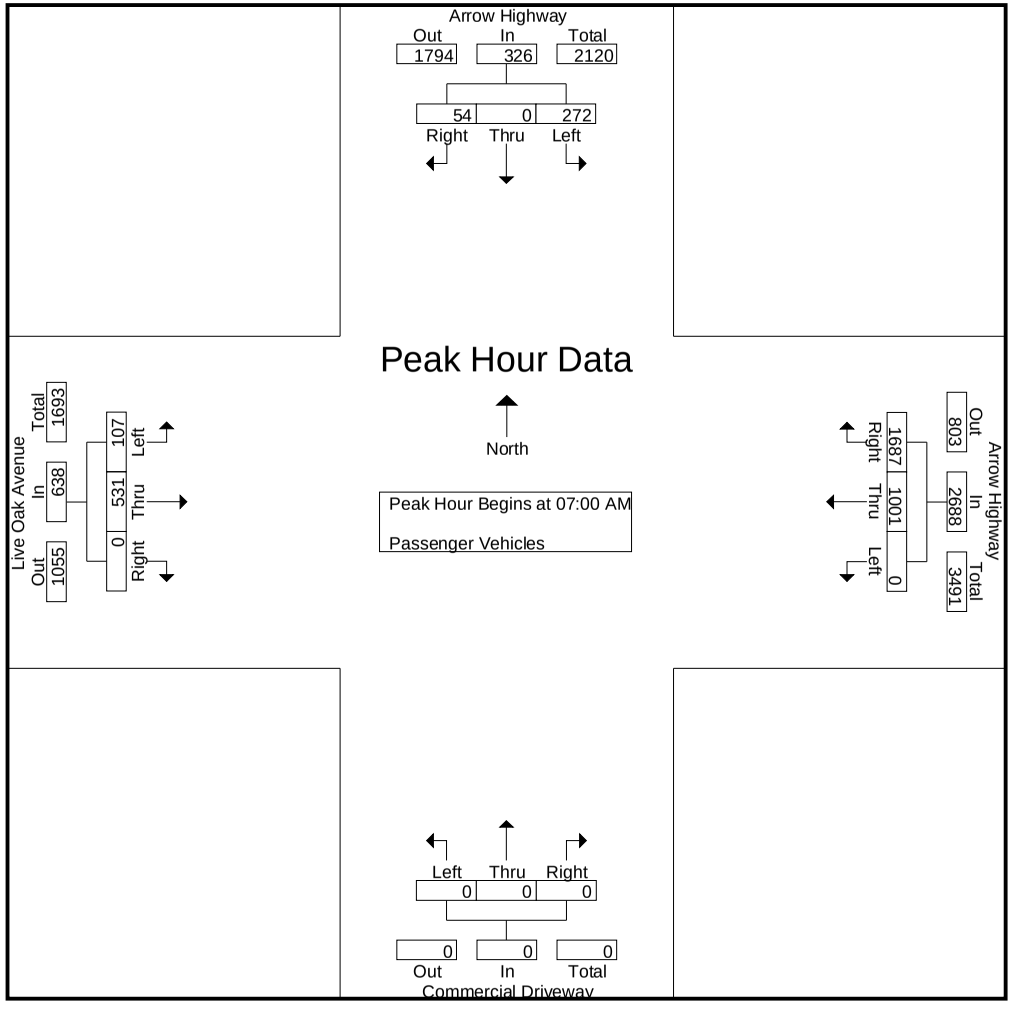
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	52	0	11	8	63	0	243	405	0	648	0	0	0	0	0	20	106	0	0	126	8	837	845
07:15 AM	52	0	16	9	68	0	267	480	1	747	0	0	0	0	0	23	114	0	0	137	10	952	962
07:30 AM	71	0	6	4	77	0	273	413	0	686	0	0	0	0	0	33	147	0	0	180	4	943	947
07:45 AM	97	0	21	7	118	0	218	389	0	607	0	0	0	0	0	31	164	0	0	195	7	920	927
Total	272	0	54	28	326	0	1001	1687	1	2688	0	0	0	0	0	107	531	0	0	638	29	3652	3681
08:00 AM	82	0	20	11	102	0	217	329	0	546	0	0	0	0	0	27	153	0	0	180	11	828	839
08:15 AM	76	0	24	14	100	0	189	271	1	460	0	0	0	0	0	14	138	0	0	152	15	712	727
08:30 AM	78	0	8	5	86	0	199	242	0	441	0	0	0	0	0	13	120	0	0	133	5	660	665
08:45 AM	67	0	7	3	74	0	160	215	0	375	0	0	0	0	0	20	140	0	0	160	3	609	612
Total	303	0	59	33	362	0	765	1057	1	1822	0	0	0	0	0	74	551	0	0	625	34	2809	2843
Grand Total	575	0	113	61	688	0	1766	2744	2	4510	0	0	0	0	0	181	1082	0	0	1263	63	6461	6524
Apprch %	83.6	0	16.4			0	39.2	60.8			0	0	0			14.3	85.7	0					
Total %	8.9	0	1.7		10.6	0	27.3	42.5		69.8	0	0	0		0	2.8	16.7	0		19.5	1	99	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	52	0	11	63	0	243	405	648	0	0	0	0	20	106	0	126	837
07:15 AM	52	0	16	68	0	267	**480**	**747**	0	0	0	0	23	114	0	137	**952**
07:30 AM	71	0	6	77	0	**273**	413	686	0	0	0	0	**33**	147	0	180	943
07:45 AM	**97**	0	**21**	**118**	0	218	389	607	0	0	0	0	31	**164**	0	**195**	920
Total Volume	272	0	54	326	0	1001	1687	2688	0	0	0	0	107	531	0	638	3652
% App. Total	83.4	0	16.6		0	37.2	62.8		0	0	0		16.8	83.2	0		
PHF	.701	.000	.643	.691	.000	.917	.879	.900	.000	.000	.000	.000	.811	.809	.000	.818	.959

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File Name : 12_IRW_Ar Lo AM
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File Name : 12_IRW_Ar Lo AM
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Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	52	0	11	63	0	243	405	648	0	0	0	0	20	106	0	126	
+15 mins.	52	0	16	68	0	267	**480**	**747**	0	0	0	0	23	114	0	137	
+30 mins.	71	0	6	77	0	**273**	413	686	0	0	0	0	**33**	147	0	180	
+45 mins.	**97**	0	**21**	**118**	0	218	389	607	0	0	0	0	31	**164**	0	**195**	
Total Volume	272	0	54	326	0	1001	1687	2688	0	0	0	0	107	531	0	638	
% App. Total	83.4	0	16.6		0	37.2	62.8		0	0	0		16.8	83.2	0		
PHF	.701	.000	.643	.691	.000	.917	.879	.900	.000	.000	.000	.000	.811	.809	.000	.818	

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Large 2 Axle Vehicles

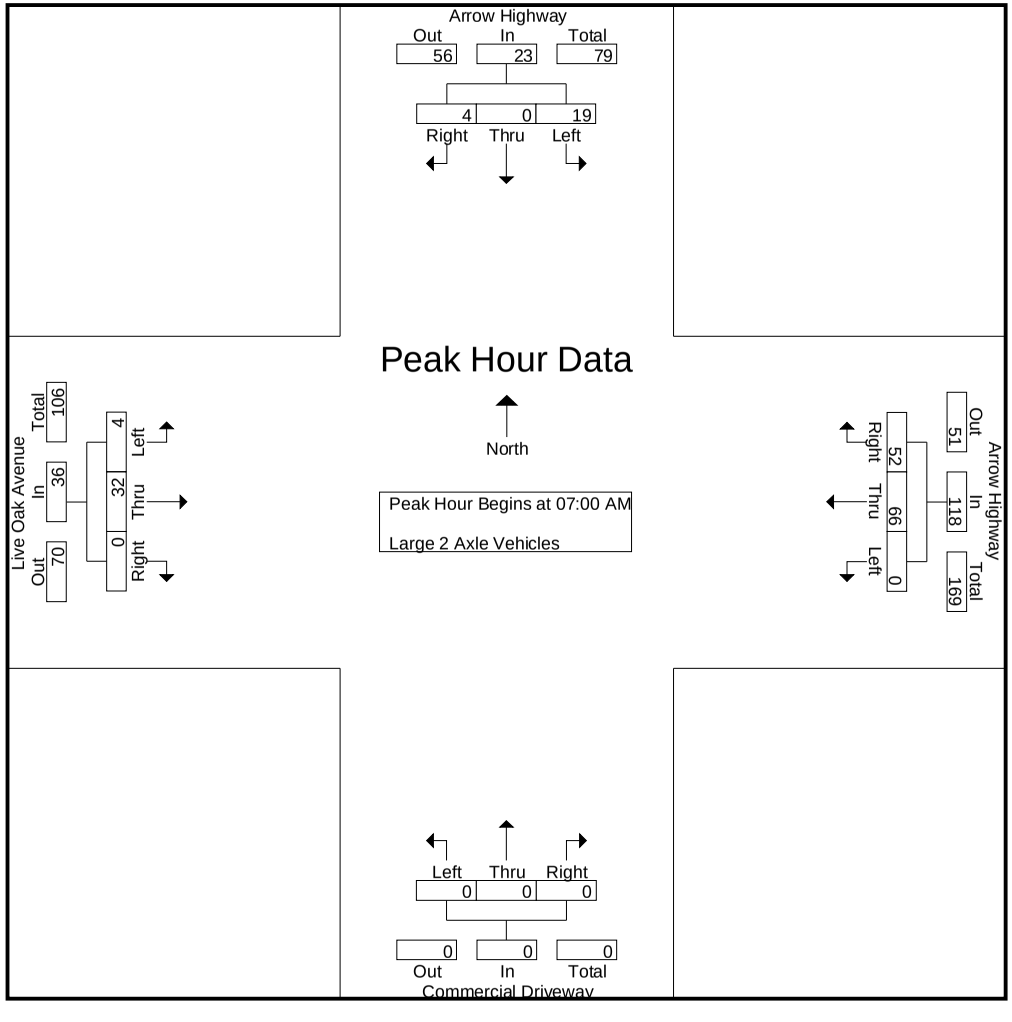
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	0	2	1	8	0	10	13	0	23	0	0	0	0	0	0	8	0	0	8	1	39	40
07:15 AM	3	0	0	0	3	0	15	23	0	38	0	0	0	0	0	2	7	0	0	9	0	50	50
07:30 AM	2	0	1	1	3	0	23	10	0	33	0	0	0	0	0	1	8	0	0	9	1	45	46
07:45 AM	8	0	1	0	9	0	18	6	0	24	0	0	0	0	0	1	9	0	0	10	0	43	43
Total	19	0	4	2	23	0	66	52	0	118	0	0	0	0	0	4	32	0	0	36	2	177	179
08:00 AM	6	0	0	0	6	0	10	4	0	14	0	0	0	0	0	0	11	0	0	11	0	31	31
08:15 AM	11	0	2	0	13	0	22	6	0	28	0	0	0	0	0	0	17	0	0	17	0	58	58
08:30 AM	1	0	0	0	1	0	17	7	0	24	0	0	0	0	0	0	5	0	0	5	0	30	30
08:45 AM	2	0	1	1	3	0	17	11	0	28	0	0	0	0	0	1	14	0	0	15	1	46	47
Total	20	0	3	1	23	0	66	28	0	94	0	0	0	0	0	1	47	0	0	48	1	165	166
Grand Total	39	0	7	3	46	0	132	80	0	212	0	0	0	0	0	5	79	0	0	84	3	342	345
Apprch %	84.8	0	15.2			0	62.3	37.7			0	0	0			6	94	0					
Total %	11.4	0	2		13.5	0	38.6	23.4		62	0	0	0		0	1.5	23.1	0		24.6	0.9	99.1	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	0	**2**	8	0	10	13	23	0	0	0	0	0	8	0	8	39
07:15 AM	3	0	0	3	0	15	**23**	**38**	0	0	0	0	**2**	7	0	9	**50**
07:30 AM	2	0	1	3	0	**23**	10	33	0	0	0	0	1	8	0	9	45
07:45 AM	**8**	0	1	**9**	0	18	6	24	0	0	0	0	1	**9**	0	**10**	43
Total Volume	19	0	4	23	0	66	52	118	0	0	0	0	4	32	0	36	177
% App. Total	82.6	0	17.4		0	55.9	44.1		0	0	0		11.1	88.9	0		
PHF	.594	.000	.500	.639	.000	.717	.565	.776	.000	.000	.000	.000	.500	.889	.000	.900	.885

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



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City of Irwindale
N/S: Arrow Highway
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File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	6	0	**2**	8	0	10	13	23	0	0	0	0	0	8	0	8	
+15 mins.	3	0	0	3	0	15	**23**	**38**	0	0	0	0	**2**	7	0	9	
+30 mins.	2	0	1	3	0	**23**	10	33	0	0	0	0	1	8	0	9	
+45 mins.	**8**	0	1	**9**	0	18	6	24	0	0	0	0	1	**9**	0	**10**	
Total Volume	19	0	4	23	0	66	52	118	0	0	0	0	4	32	0	36	
% App. Total	82.6	0	17.4		0	55.9	44.1		0	0	0		11.1	88.9	0		
PHF	.594	.000	.500	.639	.000	.717	.565	.776	.000	.000	.000	.000	.500	.889	.000	.900	

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City of Irwindale
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 3 Axle Vehicles

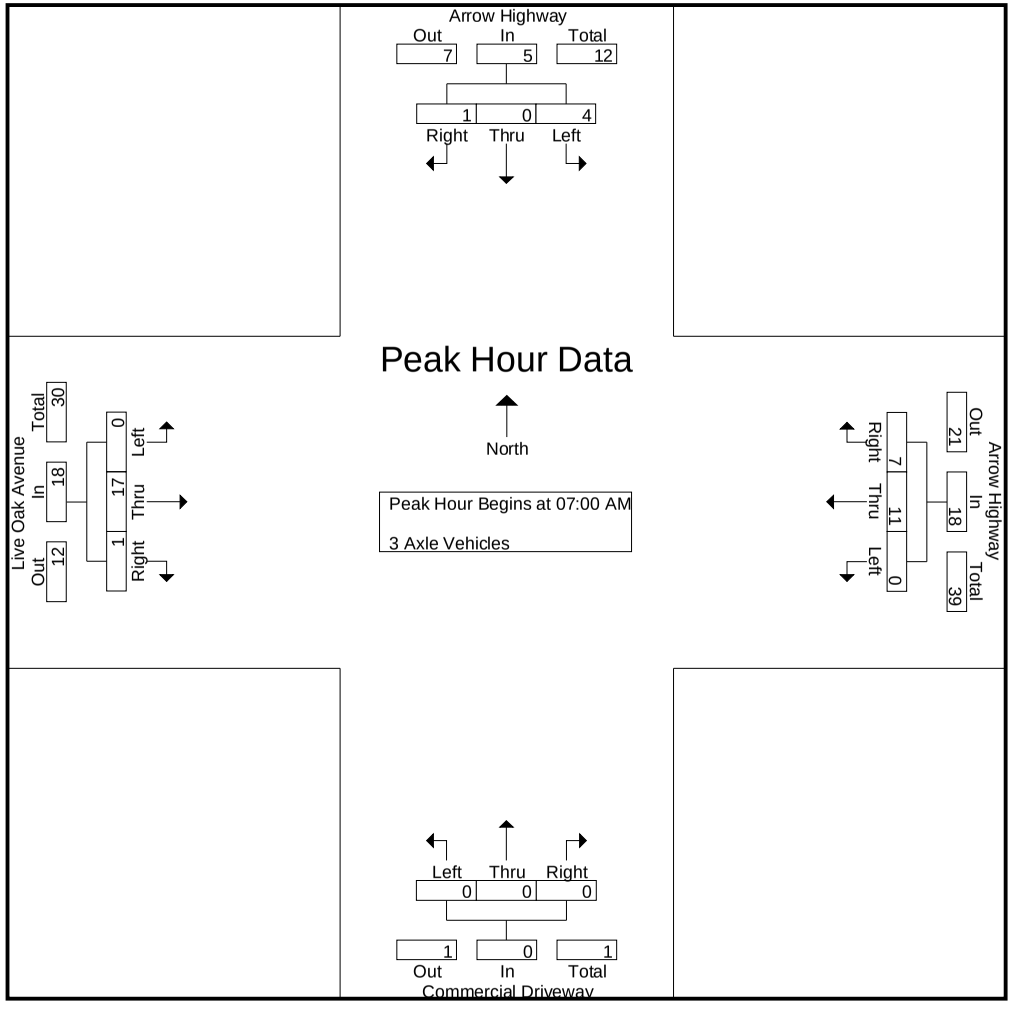
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	0	0	2	0	3	2	0	5	0	0	0	0	0	0	3	0	0	3	0	10	10
07:15 AM	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	0	5	5
07:30 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	9	1	0	10	0	14	14
07:45 AM	2	0	0	0	2	0	4	3	0	7	0	0	0	0	0	0	3	0	0	3	0	12	12
Total	4	0	1	0	5	0	11	7	0	18	0	0	0	0	0	0	17	1	0	18	0	41	41
08:00 AM	1	0	0	0	1	0	4	3	0	7	0	0	0	0	0	0	1	0	0	1	0	9	9
08:15 AM	1	0	0	0	1	0	7	3	0	10	0	0	0	0	0	1	4	0	0	5	0	16	16
08:30 AM	1	0	0	0	1	0	6	2	0	8	0	0	0	0	0	0	10	0	0	10	0	19	19
08:45 AM	1	0	0	0	1	0	8	3	0	11	0	0	0	0	0	1	9	0	0	10	0	22	22
Total	4	0	0	0	4	0	25	11	0	36	0	0	0	0	0	2	24	0	0	26	0	66	66
Grand Total	8	0	1	0	9	0	36	18	0	54	0	0	0	0	0	2	41	1	0	44	0	107	107
Apprch %	88.9	0	11.1			0	66.7	33.3			0	0	0			4.5	93.2	2.3					
Total %	7.5	0	0.9		8.4	0	33.6	16.8		50.5	0	0	0		0	1.9	38.3	0.9		41.1	0	100	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**2**	0	0	**2**	0	3	2	5	0	0	0	0	0	3	0	3	10
07:15 AM	0	0	**1**	1	0	1	1	2	0	0	0	0	0	2	0	2	5
07:30 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	**9**	**1**	**10**	**14**
07:45 AM	2	0	0	2	0	**4**	**3**	**7**	0	0	0	0	0	3	0	3	12
Total Volume	4	0	1	5	0	11	7	18	0	0	0	0	0	17	1	18	41
% App. Total	80	0	20		0	61.1	38.9		0	0	0		0	94.4	5.6		
PHF	.500	.000	.250	.625	.000	.688	.583	.643	.000	.000	.000	.000	.000	.472	.250	.450	.732

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**2**	0	0	**2**	0	3	2	5	0	0	0	0	0	3	0	3	
+15 mins.	0	0	**1**	1	0	1	1	2	0	0	0	0	0	2	0	2	
+30 mins.	0	0	0	0	0	3	1	4	0	0	0	0	0	**9**	**1**	**10**	
+45 mins.	2	0	0	2	0	**4**	**3**	**7**	0	0	0	0	0	3	0	3	
Total Volume	4	0	1	5	0	11	7	18	0	0	0	0	0	17	1	18	
% App. Total	80	0	20		0	61.1	38.9		0	0	0		0	94.4	5.6		
PHF	.500	.000	.250	.625	.000	.688	.583	.643	.000	.000	.000	.000	.000	.472	.250	.450	

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City of Irwindale
N/S: Arrow Highway
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Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

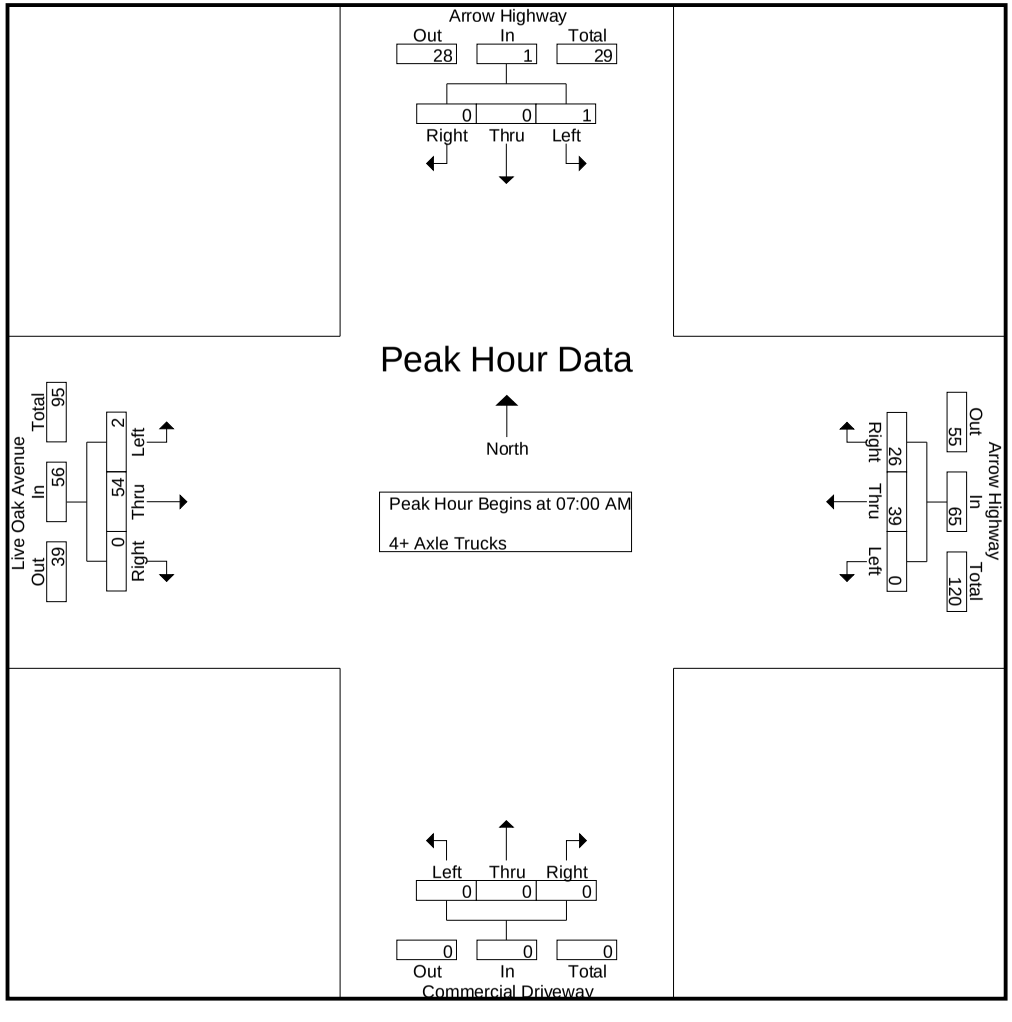
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	4	0	7	0	0	0	0	0	0	16	0	0	16	0	23	23
07:15 AM	1	0	0	0	1	0	15	10	0	25	0	0	0	0	0	0	10	0	0	10	0	36	36
07:30 AM	0	0	0	0	0	0	12	5	0	17	0	0	0	0	0	2	13	0	0	15	0	32	32
07:45 AM	0	0	0	0	0	0	9	7	0	16	0	0	0	0	0	0	15	0	0	15	0	31	31
Total	1	0	0	0	1	0	39	26	0	65	0	0	0	0	0	2	54	0	0	56	0	122	122
08:00 AM	2	0	0	0	2	0	17	6	0	23	0	0	0	0	0	0	14	0	0	14	0	39	39
08:15 AM	0	0	1	0	1	0	10	1	0	11	0	0	0	0	0	0	17	0	0	17	0	29	29
08:30 AM	1	0	0	0	1	0	20	1	0	21	0	0	0	0	0	0	10	0	0	10	0	32	32
08:45 AM	1	0	0	0	1	0	11	2	0	13	0	0	0	0	0	0	15	0	0	15	0	29	29
Total	4	0	1	0	5	0	58	10	0	68	0	0	0	0	0	0	56	0	0	56	0	129	129
Grand Total	5	0	1	0	6	0	97	36	0	133	0	0	0	0	0	2	110	0	0	112	0	251	251
Apprch %	83.3	0	16.7			0	72.9	27.1			0	0	0			1.8	98.2	0					
Total %	2	0	0.4		2.4	0	38.6	14.3		53	0	0	0		0	0.8	43.8	0		44.6	0	100	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	3	4	7	0	0	0	0	0	**16**	0	**16**	23
07:15 AM	**1**	0	0	**1**	0	**15**	**10**	**25**	0	0	0	0	0	10	0	10	**36**
07:30 AM	0	0	0	0	0	12	5	17	0	0	0	0	**2**	13	0	15	32
07:45 AM	0	0	0	0	0	9	7	16	0	0	0	0	0	15	0	15	31
Total Volume	1	0	0	1	0	39	26	65	0	0	0	0	2	54	0	56	122
% App. Total	100	0	0		0	60	40		0	0	0		3.6	96.4	0		
PHF	.250	.000	.000	.250	.000	.650	.650	.650	.000	.000	.000	.000	.250	.844	.000	.875	.847

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File Name : 12_IRW_Ar Lo AM
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Start Date : 11/28/2017
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 3

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	3	4	7	0	0	0	0	0	**16**	0	**16**	
+15 mins.	**1**	0	0	**1**	0	**15**	**10**	**25**	0	0	0	0	0	10	0	10	
+30 mins.	0	0	0	0	0	12	5	17	0	0	0	0	**2**	13	0	15	
+45 mins.	0	0	0	0	0	9	7	16	0	0	0	0	0	15	0	15	
Total Volume	1	0	0	1	0	39	26	65	0	0	0	0	2	54	0	56	
% App. Total	100	0	0		0	60	40		0	0	0		3.6	96.4	0		
PHF	.250	.000	.000	.250	.000	.650	.650	.650	.000	.000	.000	.000	.250	.844	.000	.875	

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Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

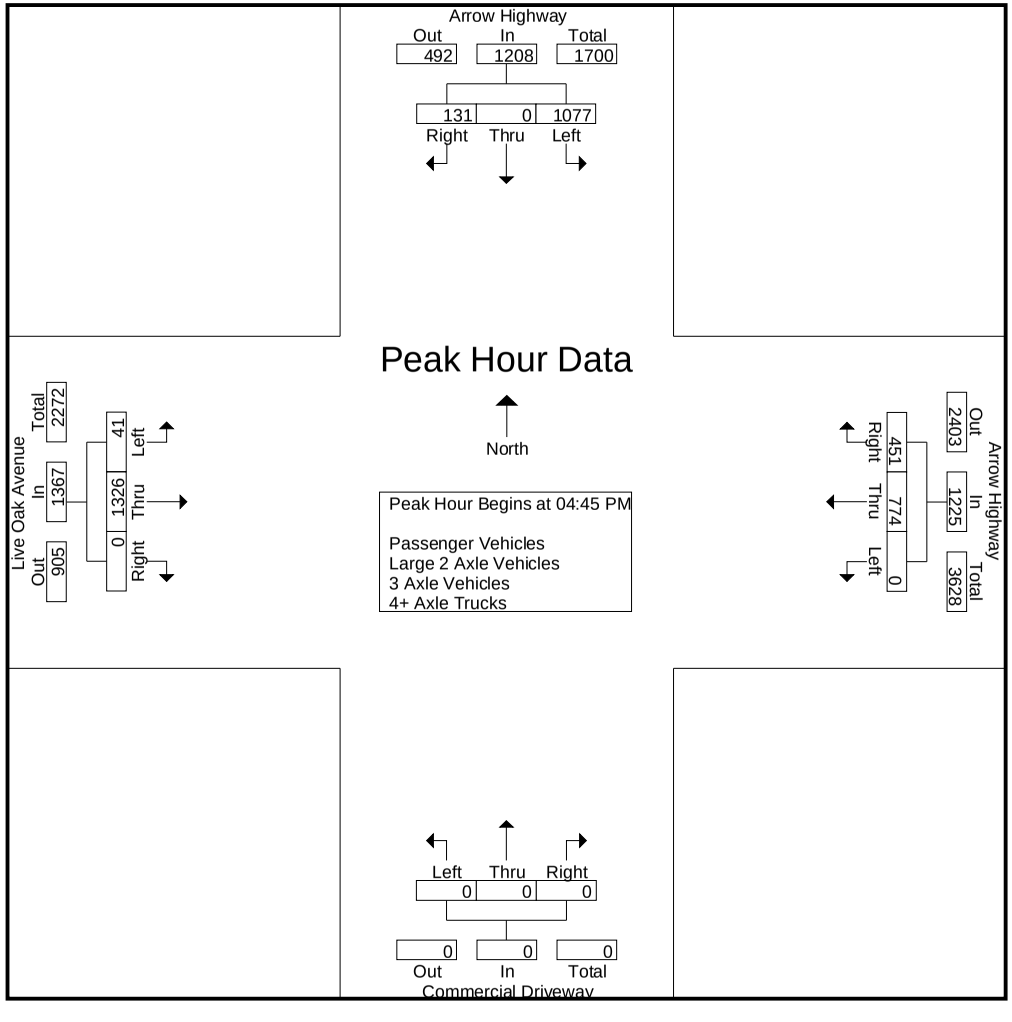
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	263	0	27	16	290	0	169	98	0	267	0	0	0	0	0	12	313	0	0	325	16	882	898
04:15 PM	224	0	23	6	247	0	171	111	0	282	0	0	0	0	0	9	305	0	0	314	6	843	849
04:30 PM	222	0	25	10	247	0	195	113	0	308	0	0	0	0	0	10	335	0	0	345	10	900	910
04:45 PM	280	0	41	25	321	0	178	107	0	285	0	0	0	0	0	12	324	0	0	336	25	942	967
Total	989	0	116	57	1105	0	713	429	0	1142	0	0	0	0	0	43	1277	0	0	1320	57	3567	3624
05:00 PM	268	0	29	11	297	0	206	125	0	331	0	0	0	0	0	7	344	0	0	351	11	979	990
05:15 PM	280	0	25	14	305	0	214	103	0	317	0	0	0	0	0	9	324	0	0	333	14	955	969
05:30 PM	249	0	36	18	285	0	176	116	0	292	0	0	0	0	0	13	334	0	0	347	18	924	942
05:45 PM	283	0	26	15	309	0	164	88	0	252	0	0	0	0	0	14	314	0	0	328	15	889	904
Total	1080	0	116	58	1196	0	760	432	0	1192	0	0	0	0	0	43	1316	0	0	1359	58	3747	3805
Grand Total	2069	0	232	115	2301	0	1473	861	0	2334	0	0	0	0	0	86	2593	0	0	2679	115	7314	7429
Apprch %	89.9	0	10.1			0	63.1	36.9			0	0	0			3.2	96.8	0					
Total %	28.3	0	3.2		31.5	0	20.1	11.8		31.9	0	0	0		0	1.2	35.5	0		36.6	1.5	98.5	
Passenger Vehicles	1999	0	226		2338	0	1371	804		2175	0	0	0		0	83	2435	0		2518	0	0	7031
% Passenger Vehicles	96.6	0	97.4	98.3	96.8	0	93.1	93.4	0	93.2	0	0	0	0	0	96.5	93.9	0	0	94	0	0	94.6
Large 2 Axle Vehicles	57	0	3		61	0	37	14		51	0	0	0		0	1	106	0		107	0	0	219
% Large 2 Axle Vehicles	2.8	0	1.3	0.9	2.5	0	2.5	1.6	0	2.2	0	0	0	0	0	1.2	4.1	0	0	4	0	0	2.9
3 Axle Vehicles	6	0	1		7	0	31	35		66	0	0	0		0	0	19	0		19	0	0	92
% 3 Axle Vehicles	0.3	0	0.4	0	0.3	0	2.1	4.1	0	2.8	0	0	0	0	0	0	0.7	0	0	0.7	0	0	1.2
4+ Axle Trucks	7	0	2		10	0	34	8		42	0	0	0		0	2	33	0		35	0	0	87
% 4+ Axle Trucks	0.3	0	0.9	0.9	0.4	0	2.3	0.9	0	1.8	0	0	0	0	0	2.3	1.3	0	0	1.3	0	0	1.2

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**280**	0	**41**	**321**	0	178	107	285	0	0	0	0	12	324	0	336	942
05:00 PM	268	0	29	297	0	206	**125**	**331**	0	0	0	0	7	**344**	0	**351**	**979**
05:15 PM	280	0	25	305	0	**214**	103	317	0	0	0	0	9	324	0	333	955
05:30 PM	249	0	36	285	0	176	116	292	0	0	0	0	**13**	334	0	347	924
Total Volume	1077	0	131	1208	0	774	451	1225	0	0	0	0	41	1326	0	1367	3800
% App. Total	89.2	0	10.8		0	63.2	36.8		0	0	0		3	97	0		
PHF	.962	.000	.799	.941	.000	.904	.902	.925	.000	.000	.000	.000	.788	.964	.000	.974	.970

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:30 PM				04:00 PM				04:45 PM				
+0 mins.	**280**	0	**41**	**321**	0	195	113	308	0	0	0	0	12	324	0	336	
+15 mins.	268	0	29	297	0	178	107	285	0	0	0	0	7	**344**	0	**351**	
+30 mins.	280	0	25	305	0	206	**125**	**331**	0	0	0	0	9	324	0	333	
+45 mins.	249	0	36	285	0	**214**	103	317	0	0	0	0	**13**	334	0	347	
Total Volume	1077	0	131	1208	0	793	448	1241	0	0	0	0	41	1326	0	1367	
% App. Total	89.2	0	10.8		0	63.9	36.1		0	0	0		3	97	0		
PHF	.962	.000	.799	.941	.000	.926	.896	.937	.000	.000	.000	.000	.788	.964	.000	.974	

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City of Irwindale
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Weather: Clear

File Name : 12_IRW_Ar Lo PM
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Groups Printed- Passenger Vehicles

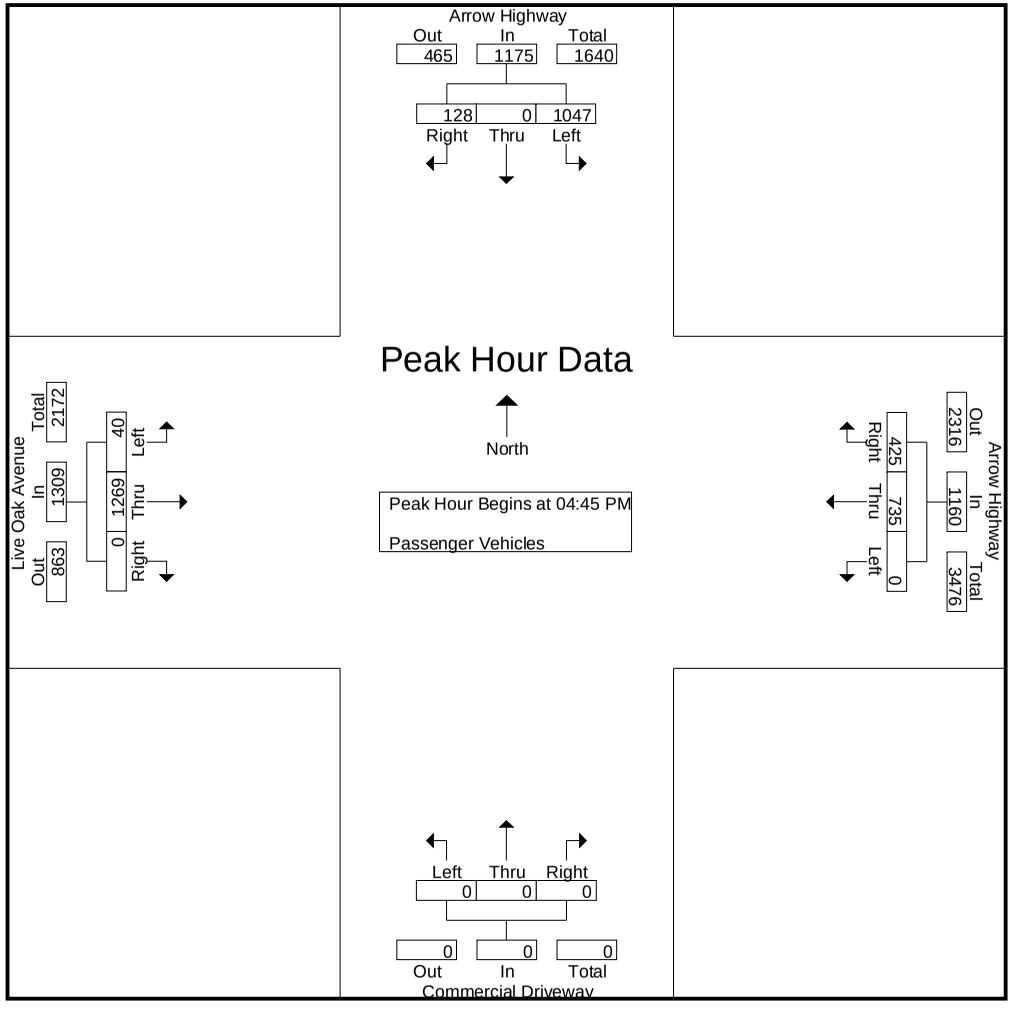
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	244	0	27	16	271	0	152	89	0	241	0	0	0	0	0	12	275	0	0	287	16	799	815
04:15 PM	214	0	21	6	235	0	151	103	0	254	0	0	0	0	0	8	280	0	0	288	6	777	783
04:30 PM	214	0	24	10	238	0	175	102	0	277	0	0	0	0	0	9	312	0	0	321	10	836	846
04:45 PM	270	0	41	25	311	0	170	104	0	274	0	0	0	0	0	12	310	0	0	322	25	907	932
Total	942	0	113	57	1055	0	648	398	0	1046	0	0	0	0	0	41	1177	0	0	1218	57	3319	3376
05:00 PM	259	0	28	11	287	0	198	114	0	312	0	0	0	0	0	7	324	0	0	331	11	930	941
05:15 PM	275	0	25	14	300	0	199	98	0	297	0	0	0	0	0	9	318	0	0	327	14	924	938
05:30 PM	243	0	34	16	277	0	168	109	0	277	0	0	0	0	0	12	317	0	0	329	16	883	899
05:45 PM	280	0	26	15	306	0	158	85	0	243	0	0	0	0	0	14	299	0	0	313	15	862	877
Total	1057	0	113	56	1170	0	723	406	0	1129	0	0	0	0	0	42	1258	0	0	1300	56	3599	3655
Grand Total	1999	0	226	113	2225	0	1371	804	0	2175	0	0	0	0	0	83	2435	0	0	2518	113	6918	7031
Apprch %	89.8	0	10.2			0	63	37			0	0	0			3.3	96.7	0					
Total %	28.9	0	3.3		32.2	0	19.8	11.6		31.4	0	0	0		0	1.2	35.2	0		36.4	1.6	98.4	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	270	0	**41**	**311**	0	170	104	274	0	0	0	0	**12**	310	0	322	907
05:00 PM	259	0	28	287	0	198	**114**	**312**	0	0	0	0	7	**324**	0	**331**	**930**
05:15 PM	**275**	0	25	300	0	**199**	98	297	0	0	0	0	9	318	0	327	924
05:30 PM	243	0	34	277	0	168	109	277	0	0	0	0	12	317	0	329	883
Total Volume	1047	0	128	1175	0	735	425	1160	0	0	0	0	40	1269	0	1309	3644
% App. Total	89.1	0	10.9		0	63.4	36.6		0	0	0		3.1	96.9	0		
PHF	.952	.000	.780	.945	.000	.923	.932	.929	.000	.000	.000	.000	.833	.979	.000	.989	.980

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City of Irwindale
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	270	0	**41**	**311**	0	170	104	274	0	0	0	0	**12**	310	0	322	
+15 mins.	259	0	28	287	0	198	**114**	**312**	0	0	0	0	7	**324**	0	**331**	
+30 mins.	**275**	0	25	300	0	**199**	98	297	0	0	0	0	9	318	0	327	
+45 mins.	243	0	34	277	0	168	109	277	0	0	0	0	12	317	0	329	
Total Volume	1047	0	128	1175	0	735	425	1160	0	0	0	0	40	1269	0	1309	
% App. Total	89.1	0	10.9		0	63.4	36.6		0	0	0		3.1	96.9	0		
PHF	.952	.000	.780	.945	.000	.923	.932	.929	.000	.000	.000	.000	.833	.979	.000	.989	

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City of Irwindale
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
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Page No : 1

Groups Printed- Large 2 Axle Vehicles

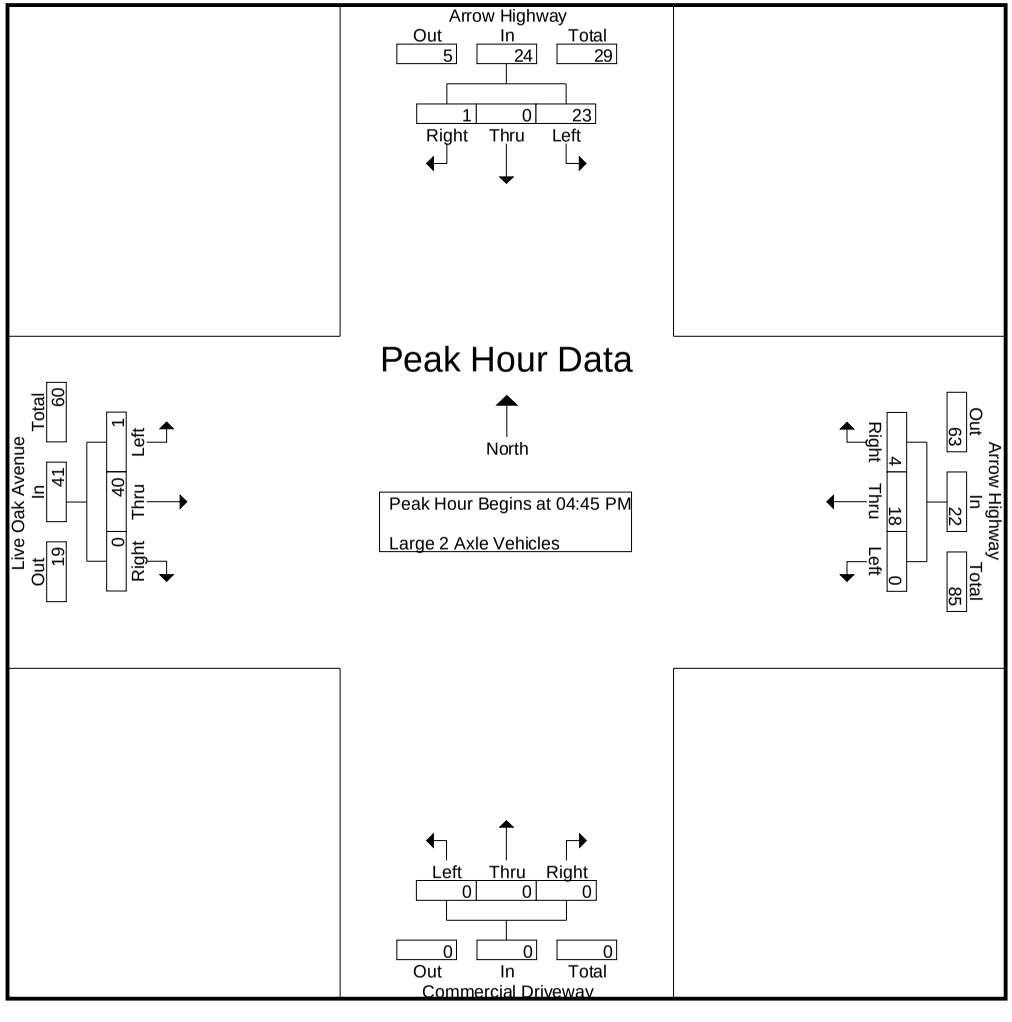
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	15	0	0	0	15	0	3	5	0	8	0	0	0	0	0	0	24	0	0	24	0	47	47
04:15 PM	9	0	2	0	11	0	7	4	0	11	0	0	0	0	0	0	16	0	0	16	0	38	38
04:30 PM	7	0	0	0	7	0	6	1	0	7	0	0	0	0	0	0	14	0	0	14	0	28	28
04:45 PM	7	0	0	0	7	0	3	1	0	4	0	0	0	0	0	0	10	0	0	10	0	21	21
Total	38	0	2	0	40	0	19	11	0	30	0	0	0	0	0	0	64	0	0	64	0	134	134
05:00 PM	8	0	0	0	8	0	3	2	0	5	0	0	0	0	0	0	13	0	0	13	0	26	26
05:15 PM	4	0	0	0	4	0	8	1	0	9	0	0	0	0	0	0	6	0	0	6	0	19	19
05:30 PM	4	0	1	1	5	0	4	0	0	4	0	0	0	0	0	1	11	0	0	12	1	21	22
05:45 PM	3	0	0	0	3	0	3	0	0	3	0	0	0	0	0	0	12	0	0	12	0	18	18
Total	19	0	1	1	20	0	18	3	0	21	0	0	0	0	0	1	42	0	0	43	1	84	85
Grand Total	57	0	3	1	60	0	37	14	0	51	0	0	0	0	0	1	106	0	0	107	1	218	219
Apprch %	95	0	5			0	72.5	27.5			0	0	0			0.9	99.1	0					
Total %	26.1	0	1.4		27.5	0	17	6.4		23.4	0	0	0		0	0.5	48.6	0		49.1	0.5	99.5	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	7	0	0	7	0	3	1	4	0	0	0	0	0	10	0	10	21
05:00 PM	**8**	0	0	**8**	0	3	**2**	5	0	0	0	0	0	**13**	0	**13**	**26**
05:15 PM	4	0	0	4	0	**8**	1	**9**	0	0	0	0	0	6	0	6	19
05:30 PM	4	0	**1**	5	0	4	0	4	0	0	0	0	**1**	11	0	12	21
Total Volume	23	0	1	24	0	18	4	22	0	0	0	0	1	40	0	41	87
% App. Total	95.8	0	4.2		0	81.8	18.2		0	0	0		2.4	97.6	0		
PHF	.719	.000	.250	.750	.000	.563	.500	.611	.000	.000	.000	.000	.250	.769	.000	.788	.837

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
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E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	7	0	0	7	0	3	1	4	0	0	0	0	0	10	0	10	
+15 mins.	**8**	0	0	**8**	0	3	**2**	5	0	0	0	0	0	**13**	0	**13**	
+30 mins.	4	0	0	4	0	**8**	1	**9**	0	0	0	0	0	6	0	6	
+45 mins.	4	0	**1**	5	0	4	0	4	0	0	0	0	**1**	11	0	12	
Total Volume	23	0	1	24	0	18	4	22	0	0	0	0	1	40	0	41	
% App. Total	95.8	0	4.2		0	81.8	18.2		0	0	0		2.4	97.6	0		
PHF	.719	.000	.250	.750	.000	.563	.500	.611	.000	.000	.000	.000	.250	.769	.000	.788	

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City of Irwindale
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Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- 3 Axle Vehicles

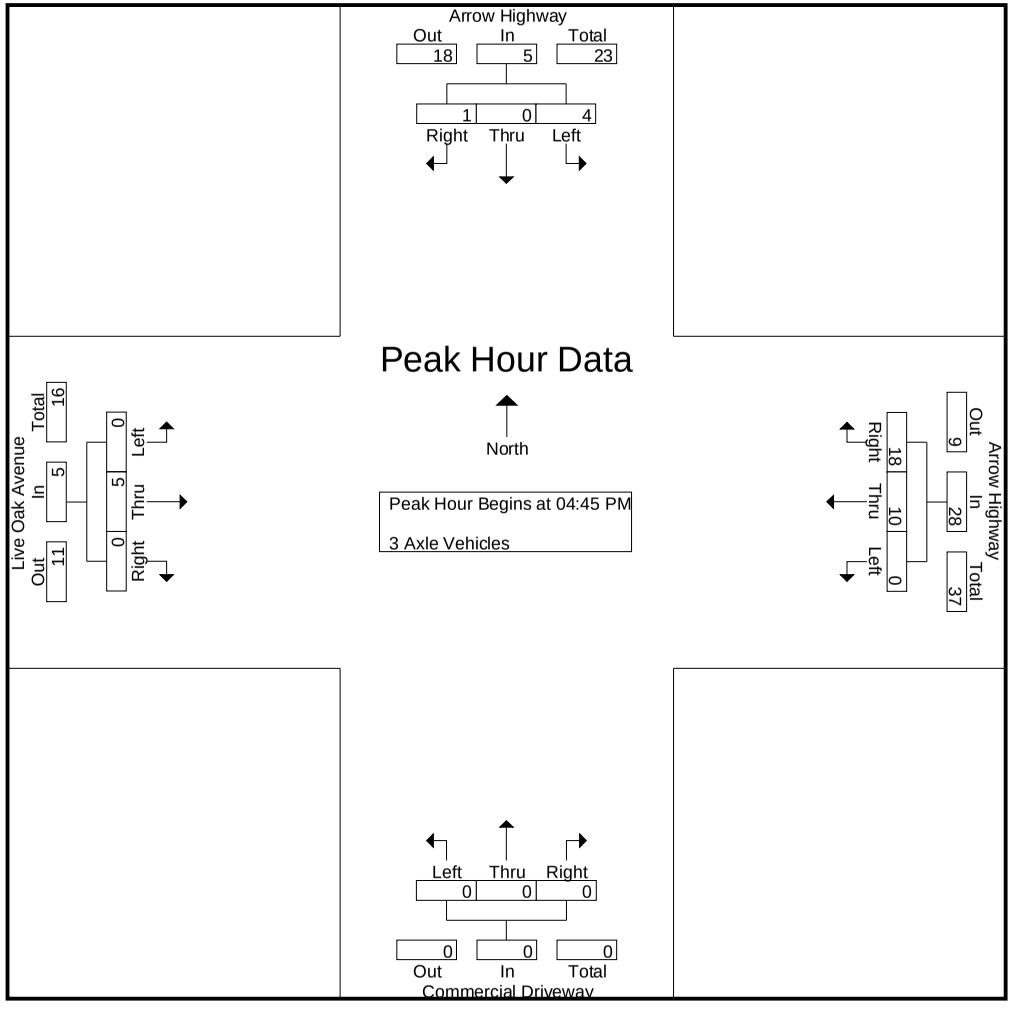
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	7	3	0	10	0	0	0	0	0	0	5	0	0	5	0	15	15
04:15 PM	1	0	0	0	1	0	7	3	0	10	0	0	0	0	0	0	4	0	0	4	0	15	15
04:30 PM	1	0	0	0	1	0	5	8	0	13	0	0	0	0	0	0	4	0	0	4	0	18	18
04:45 PM	2	0	0	0	2	0	1	2	0	3	0	0	0	0	0	0	1	0	0	1	0	6	6
Total	4	0	0	0	4	0	20	16	0	36	0	0	0	0	0	0	14	0	0	14	0	54	54
05:00 PM	1	0	1	0	2	0	3	7	0	10	0	0	0	0	0	0	3	0	0	3	0	15	15
05:15 PM	1	0	0	0	1	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	6	6
05:30 PM	0	0	0	0	0	0	4	6	0	10	0	0	0	0	0	0	1	0	0	1	0	11	11
05:45 PM	0	0	0	0	0	0	2	3	0	5	0	0	0	0	0	0	1	0	0	1	0	6	6
Total	2	0	1	0	3	0	11	19	0	30	0	0	0	0	0	0	5	0	0	5	0	38	38
Grand Total	6	0	1	0	7	0	31	35	0	66	0	0	0	0	0	0	19	0	0	19	0	92	92
Apprch %	85.7	0	14.3			0	47	53			0	0	0			0	100	0					
Total %	6.5	0	1.1		7.6	0	33.7	38		71.7	0	0	0		0	0	20.7	0		20.7	0	100	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**2**	0	0	**2**	0	1	2	3	0	0	0	0	0	1	0	1	6
05:00 PM	1	0	**1**	2	0	3	**7**	**10**	0	0	0	0	0	**3**	0	**3**	**15**
05:15 PM	1	0	0	1	0	2	3	5	0	0	0	0	0	0	0	0	6
05:30 PM	0	0	0	0	0	**4**	6	10	0	0	0	0	0	1	0	1	11
Total Volume	4	0	1	5	0	10	18	28	0	0	0	0	0	5	0	5	38
% App. Total	80	0	20		0	35.7	64.3		0	0	0		0	100	0		
PHF	.500	.000	.250	.625	.000	.625	.643	.700	.000	.000	.000	.000	.000	.417	.000	.417	.633

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City of Irwindale
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File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**2**	0	0	**2**	0	1	2	3	0	0	0	0	0	1	0	1	
+15 mins.	1	0	**1**	2	0	3	**7**	**10**	0	0	0	0	0	**3**	0	**3**	
+30 mins.	1	0	0	1	0	2	3	5	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	**4**	6	10	0	0	0	0	0	1	0	1	
Total Volume	4	0	1	5	0	10	18	28	0	0	0	0	0	5	0	5	
% App. Total	80	0	20		0	35.7	64.3		0	0	0		0	100	0		
PHF	.500	.000	.250	.625	.000	.625	.643	.700	.000	.000	.000	.000	.000	.417	.000	.417	

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File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

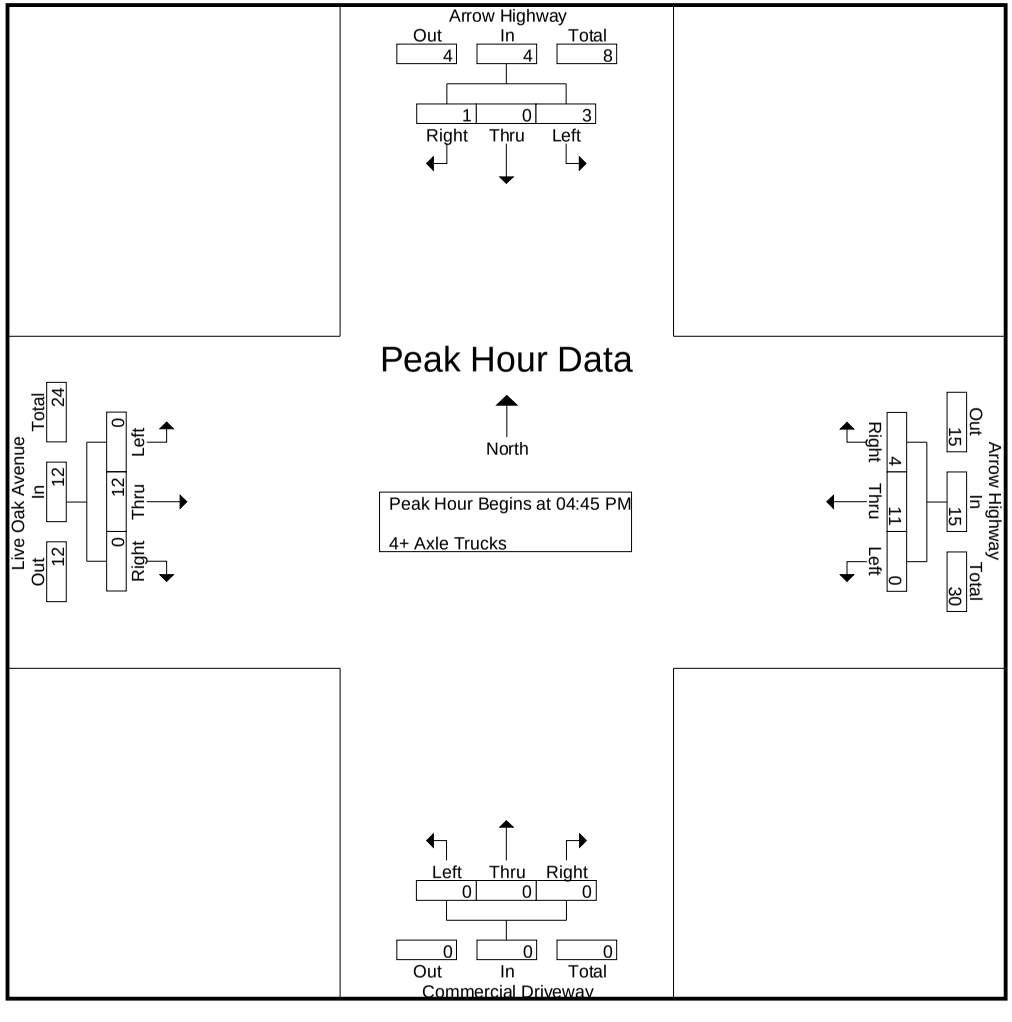
	Arrow Highway Southbound					Arrow Highway Westbound					Commercial Driveway Northbound					Live Oak Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	0	0	0	4	0	7	1	0	8	0	0	0	0	0	0	9	0	0	9	0	21	21
04:15 PM	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	1	5	0	0	6	0	13	13
04:30 PM	0	0	1	0	1	0	9	2	0	11	0	0	0	0	0	1	5	0	0	6	0	18	18
04:45 PM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	8	8
Total	5	0	1	0	6	0	26	4	0	30	0	0	0	0	0	2	22	0	0	24	0	60	60
05:00 PM	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
05:15 PM	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	6	6
05:30 PM	2	0	1	1	3	0	0	1	0	1	0	0	0	0	0	0	5	0	0	5	1	9	10
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
Total	2	0	1	1	3	0	8	4	0	12	0	0	0	0	0	0	11	0	0	11	1	26	27
Grand Total	7	0	2	1	9	0	34	8	0	42	0	0	0	0	0	2	33	0	0	35	1	86	87
Apprch %	77.8	0	22.2			0	81	19			0	0	0			5.7	94.3	0					
Total %	8.1	0	2.3		10.5	0	39.5	9.3		48.8	0	0	0		0	2.3	38.4	0		40.7	1.1	98.9	

	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	0	0	1	0	4	0	4	0	0	0	0	0	3	0	3	8
05:00 PM	0	0	0	0	0	2	**2**	4	0	0	0	0	0	4	0	4	8
05:15 PM	0	0	0	0	0	**5**	1	**6**	0	0	0	0	0	0	0	0	6
05:30 PM	**2**	0	**1**	**3**	0	0	1	1	0	0	0	0	0	**5**	0	**5**	**9**
Total Volume	3	0	1	4	0	11	4	15	0	0	0	0	0	12	0	12	31
% App. Total	75	0	25		0	73.3	26.7		0	0	0		0	100	0		
PHF	.375	.000	.250	.333	.000	.550	.500	.625	.000	.000	.000	.000	.000	.600	.000	.600	.861

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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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City of Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue/Arrow Highway
Weather: Clear

File Name : 12_IRW_Ar Lo PM
Site Code : 05117783
Start Date : 11/28/2017
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	Arrow Highway Southbound				Arrow Highway Westbound				Commercial Driveway Northbound				Live Oak Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	1	0	0	1	0	4	0	4	0	0	0	0	0	3	0	3	
+15 mins.	0	0	0	0	0	2	**2**	4	0	0	0	0	0	4	0	4	
+30 mins.	0	0	0	0	0	**5**	1	**6**	0	0	0	0	0	0	0	0	
+45 mins.	**2**	0	**1**	**3**	0	0	1	1	0	0	0	0	0	**5**	0	**5**	
Total Volume	3	0	1	4	0	11	4	15	0	0	0	0	0	12	0	12	
% App. Total	75	0	25		0	73.3	26.7		0	0	0		0	100	0		
PHF	.375	.000	.250	.333	.000	.550	.500	.625	.000	.000	.000	.000	.000	.600	.000	.600	

Location: Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue /Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Arrow Highway	East Leg Arrow Highway	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
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
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Arrow Highway	East Leg Arrow Highway	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
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	3	3
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	3	3

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Location: Irwindale
N/S: Arrow Highway
E/W: Live Oak Avenue /Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Arrow Highway	East Leg Arrow Highway	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
7:00 AM	0	0	1	1	2
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	1	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	2	1	3
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	5	3	9

	North Leg Arrow Highway	East Leg Arrow Highway	South Leg Commercial Driveway	West Leg Live Oak Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	1	2
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	0	0	0	1	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
TOTAL VOLUMES:	1	0	1	2	4

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

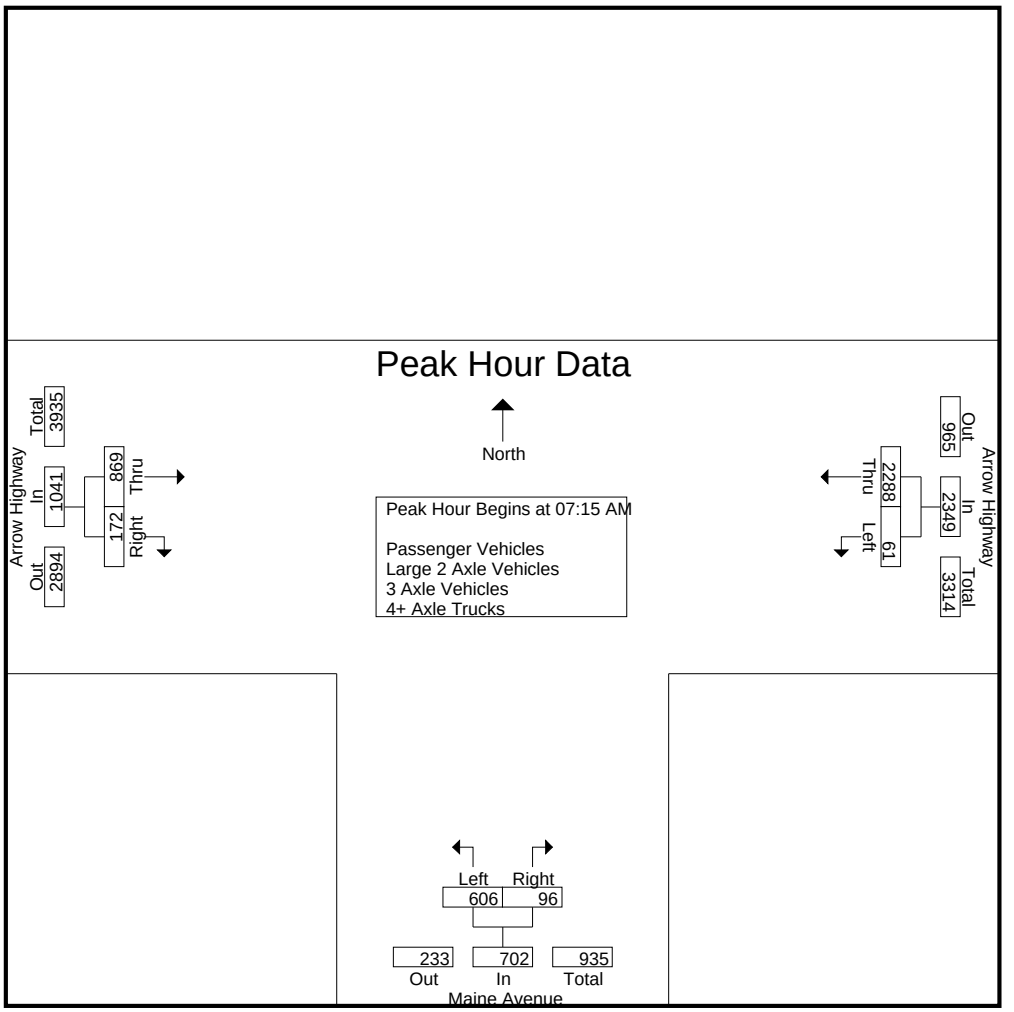
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	4	504	0	508	175	13	9	188	169	28	8	197	17	893	910
07:15 AM	7	656	0	663	187	26	22	213	167	31	10	198	32	1074	1106
07:30 AM	13	617	0	630	151	14	8	165	210	37	10	247	18	1042	1060
07:45 AM	27	525	0	552	140	33	16	173	260	52	16	312	32	1037	1069
Total	51	2302	0	2353	653	86	55	739	806	148	44	954	99	4046	4145
08:00 AM	14	490	0	504	128	23	15	151	232	52	10	284	25	939	964
08:15 AM	19	421	0	440	104	23	16	127	241	29	4	270	20	837	857
08:30 AM	13	403	0	416	84	18	14	102	190	43	7	233	21	751	772
08:45 AM	19	350	0	369	84	24	13	108	196	44	12	240	25	717	742
Total	65	1664	0	1729	400	88	58	488	859	168	33	1027	91	3244	3335
Grand Total	116	3966	0	4082	1053	174	113	1227	1665	316	77	1981	190	7290	7480
Apprch %	2.8	97.2			85.8	14.2			84	16					
Total %	1.6	54.4		56	14.4	2.4		16.8	22.8	4.3		27.2	2.5	97.5	
Passenger Vehicles	112	3646		3758	1004	168		1283	1391	301		1768	0	0	6809
% Passenger Vehicles	96.6	91.9	0	92.1	95.3	96.6	98.2	95.7	83.5	95.3	98.7	85.9	0	0	91
Large 2 Axle Vehicles	3	153		156	35	4		41	109	13		123	0	0	320
% Large 2 Axle Vehicles	2.6	3.9	0	3.8	3.3	2.3	1.8	3.1	6.5	4.1	1.3	6	0	0	4.3
3 Axle Vehicles	0	37		37	6	0		6	46	1		47	0	0	90
% 3 Axle Vehicles	0	0.9	0	0.9	0.6	0	0	0.4	2.8	0.3	0	2.3	0	0	1.2
4+ Axle Trucks	1	130		131	8	2		10	119	1		120	0	0	261
% 4+ Axle Trucks	0.9	3.3	0	3.2	0.8	1.1	0	0.7	7.1	0.3	0	5.8	0	0	3.5

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	7	**656**	**663**	**187**	26	**213**	167	31	198	**1074**
07:30 AM	13	617	630	151	14	165	210	37	247	1042
07:45 AM	**27**	525	552	140	**33**	173	**260**	**52**	**312**	1037
08:00 AM	14	490	504	128	23	151	232	52	284	939
Total Volume	61	2288	2349	606	96	702	869	172	1041	4092
% App. Total	2.6	97.4		86.3	13.7		83.5	16.5		
PHF	.565	.872	.886	.810	.727	.824	.836	.827	.834	.953

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	4	504	508	175	13	188	210	37	247
+15 mins.	7	**656**	**663**	**187**	26	**213**	**260**	**52**	**312**
+30 mins.	13	617	630	151	14	165	232	52	284
+45 mins.	**27**	525	552	140	**33**	173	241	29	270
Total Volume	51	2302	2353	653	86	739	943	170	1113
% App. Total	2.2	97.8		88.4	11.6		84.7	15.3	
PHF	.472	.877	.887	.873	.652	.867	.907	.817	.892

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Passenger Vehicles

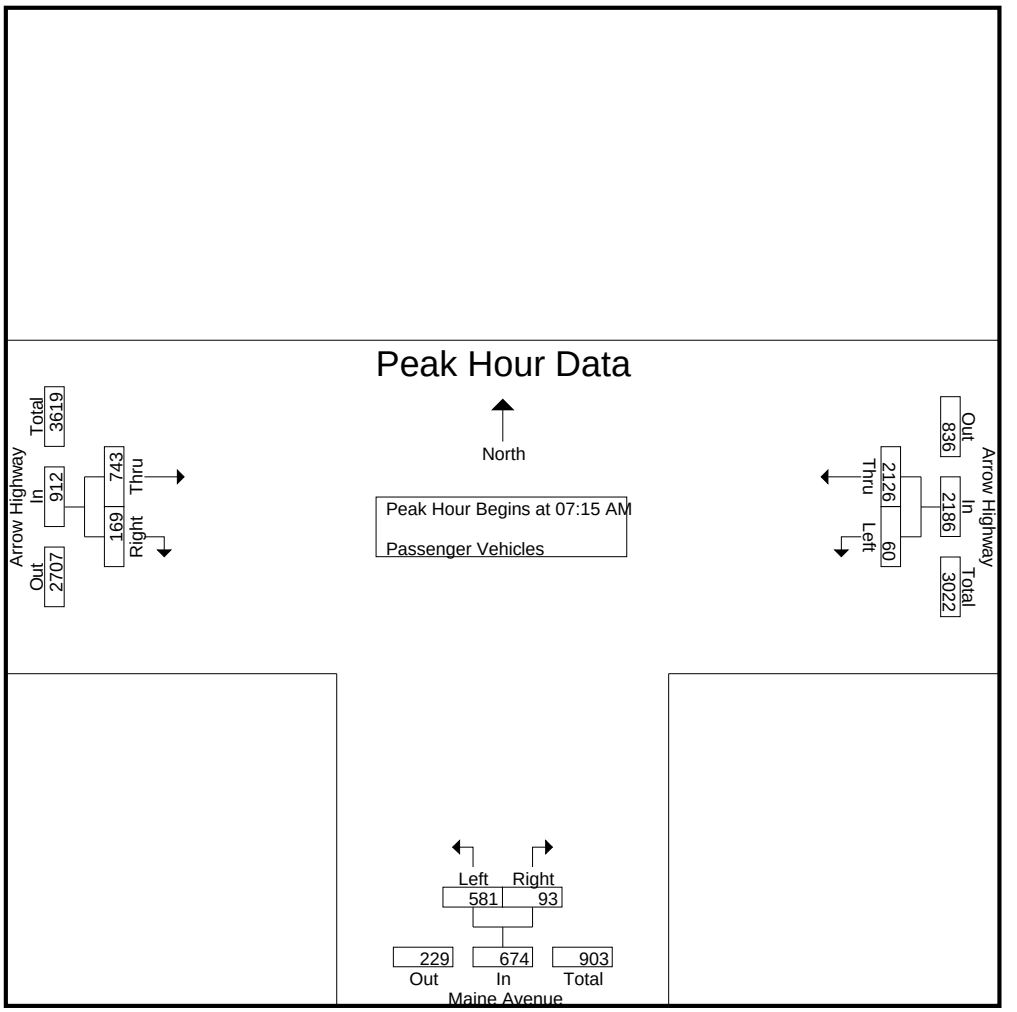
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	4	480	0	484	164	13	9	177	135	24	8	159	17	820	837
07:15 AM	7	607	0	614	178	24	21	202	146	31	10	177	31	993	1024
07:30 AM	13	575	0	588	143	13	8	156	177	35	10	212	18	956	974
07:45 AM	27	488	0	515	134	33	16	167	218	52	16	270	32	952	984
Total	51	2150	0	2201	619	83	54	702	676	142	44	818	98	3721	3819
08:00 AM	13	456	0	469	126	23	15	149	202	51	10	253	25	871	896
08:15 AM	16	380	0	396	98	21	15	119	192	25	4	217	19	732	751
08:30 AM	13	357	0	370	80	18	14	98	165	41	7	206	21	674	695
08:45 AM	19	303	0	322	81	23	13	104	156	42	11	198	24	624	648
Total	61	1496	0	1557	385	85	57	470	715	159	32	874	89	2901	2990
Grand Total	112	3646	0	3758	1004	168	111	1172	1391	301	76	1692	187	6622	6809
Apprch %	3	97			85.7	14.3			82.2	17.8					
Total %	1.7	55.1		56.8	15.2	2.5		17.7	21	4.5		25.6	2.7	97.3	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	7	**607**	**614**	**178**	24	**202**	146	31	177	**993**
07:30 AM	13	575	588	143	13	156	177	35	212	956
07:45 AM	**27**	488	515	134	**33**	167	**218**	**52**	**270**	952
08:00 AM	13	456	469	126	23	149	202	51	253	871
Total Volume	60	2126	2186	581	93	674	743	169	912	3772
% App. Total	2.7	97.3		86.2	13.8		81.5	18.5		
PHF	.556	.876	.890	.816	.705	.834	.852	.813	.844	.950

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City of Irwindale
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File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	7	**607**	**614**	**178**	24	**202**	146	31	177
+15 mins.	13	575	588	143	13	156	177	35	212
+30 mins.	**27**	488	515	134	**33**	167	**218**	**52**	**270**
+45 mins.	13	456	469	126	23	149	202	51	253
Total Volume	60	2126	2186	581	93	674	743	169	912
% App. Total	2.7	97.3		86.2	13.8		81.5	18.5	
PHF	.556	.876	.890	.816	.705	.834	.852	.813	.844

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Groups Printed- Large 2 Axle Vehicles

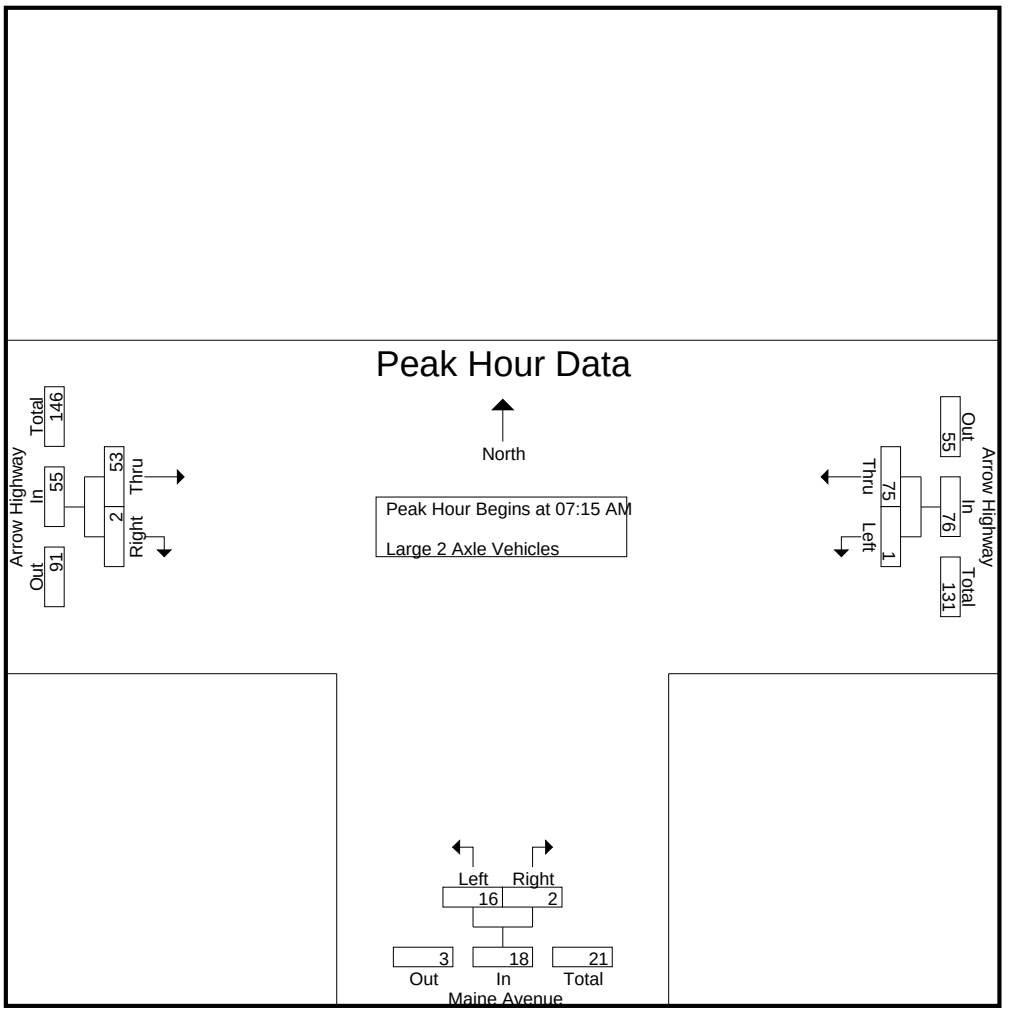
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	15	0	15	8	0	0	8	13	3	0	16	0	39	39
07:15 AM	0	24	0	24	7	1	1	8	9	0	0	9	1	41	42
07:30 AM	0	25	0	25	5	1	0	6	9	2	0	11	0	42	42
07:45 AM	0	17	0	17	3	0	0	3	20	0	0	20	0	40	40
Total	0	81	0	81	23	2	1	25	51	5	0	56	1	162	163
08:00 AM	1	9	0	10	1	0	0	1	15	0	0	15	0	26	26
08:15 AM	2	20	0	22	4	1	1	5	25	4	0	29	1	56	57
08:30 AM	0	19	0	19	4	0	0	4	4	2	0	6	0	29	29
08:45 AM	0	24	0	24	3	1	0	4	14	2	1	16	1	44	45
Total	3	72	0	75	12	2	1	14	58	8	1	66	2	155	157
Grand Total	3	153	0	156	35	4	2	39	109	13	1	122	3	317	320
Apprch %	1.9	98.1			89.7	10.3			89.3	10.7					
Total %	0.9	48.3		49.2	11	1.3		12.3	34.4	4.1		38.5	0.9	99.1	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	24	24	**7**	**1**	**8**	9	0	9	41
07:30 AM	0	**25**	**25**	5	1	6	9	**2**	11	**42**
07:45 AM	0	17	17	3	0	3	**20**	0	**20**	40
08:00 AM	**1**	9	10	1	0	1	15	0	15	26
Total Volume	1	75	76	16	2	18	53	2	55	149
% App. Total	1.3	98.7		88.9	11.1		96.4	3.6		
PHF	.250	.750	.760	.571	.500	.563	.663	.250	.688	.887

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City of Irwindale
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Site Code : 05117783
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	24	24	**7**	**1**	**8**	9	0	9
+15 mins.	0	**25**	**25**	5	1	6	9	**2**	11
+30 mins.	0	17	17	3	0	3	**20**	0	**20**
+45 mins.	**1**	9	10	1	0	1	15	0	15
Total Volume	1	75	76	16	2	18	53	2	55
% App. Total	1.3	98.7		88.9	11.1		96.4	3.6	
PHF	.250	.750	.760	.571	.500	.563	.663	.250	.688

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City of Irwindale
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E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
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Groups Printed- 3 Axle Vehicles

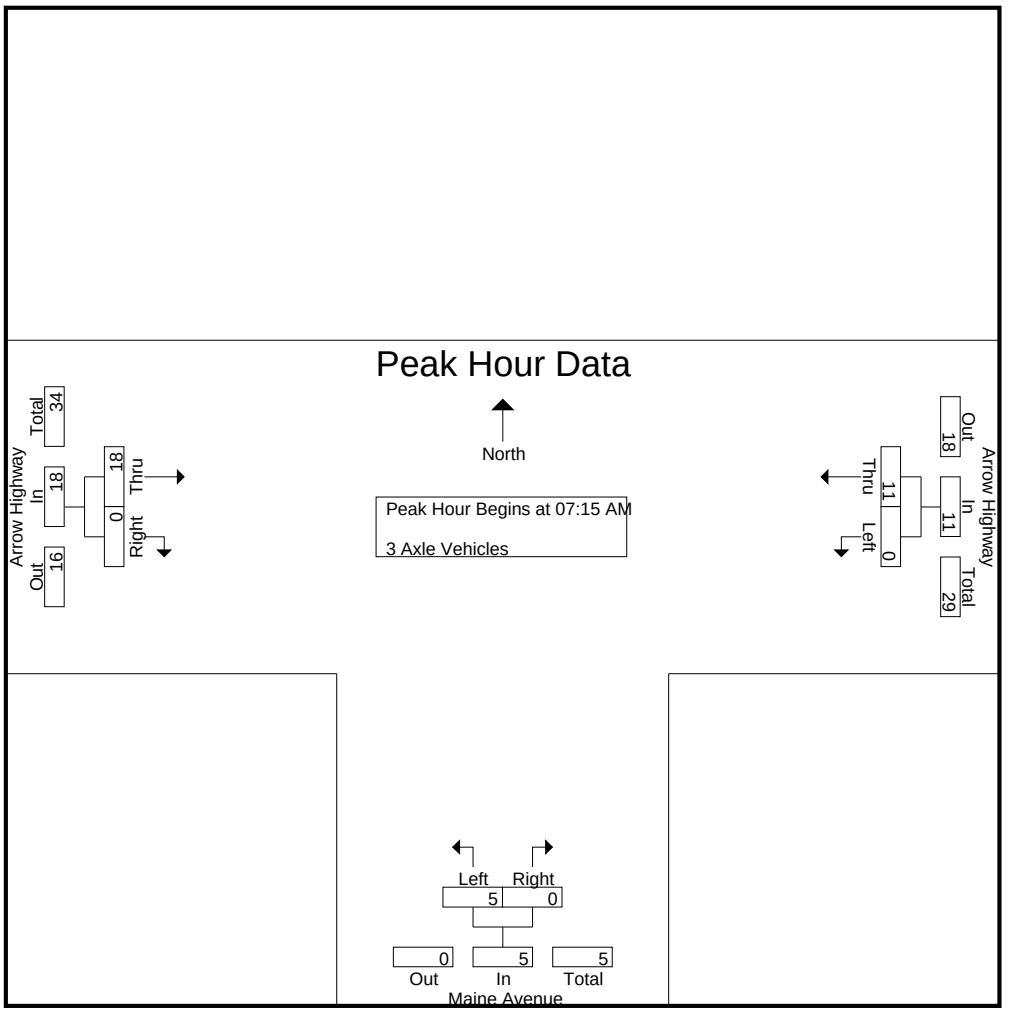
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	5	0	5	0	0	0	0	4	1	0	5	0	10	10
07:15 AM	0	1	0	1	1	0	0	1	1	0	0	1	0	3	3
07:30 AM	0	2	0	2	1	0	0	1	9	0	0	9	0	12	12
07:45 AM	0	3	0	3	3	0	0	3	6	0	0	6	0	12	12
Total	0	11	0	11	5	0	0	5	20	1	0	21	0	37	37
08:00 AM	0	5	0	5	0	0	0	0	2	0	0	2	0	7	7
08:15 AM	0	7	0	7	1	0	0	1	5	0	0	5	0	13	13
08:30 AM	0	5	0	5	0	0	0	0	10	0	0	10	0	15	15
08:45 AM	0	9	0	9	0	0	0	0	9	0	0	9	0	18	18
Total	0	26	0	26	1	0	0	1	26	0	0	26	0	53	53
Grand Total	0	37	0	37	6	0	0	6	46	1	0	47	0	90	90
Apprch %	0	100			100	0			97.9	2.1					
Total %	0	41.1		41.1	6.7	0		6.7	51.1	1.1		52.2	0	100	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	1	1	1	0	1	1	0	1	3
07:30 AM	0	2	2	1	0	1	**9**	0	**9**	**12**
07:45 AM	0	3	3	**3**	0	**3**	6	0	6	12
08:00 AM	0	**5**	**5**	0	0	0	2	0	2	7
Total Volume	0	11	11	5	0	5	18	0	18	34
% App. Total	0	100		100	0		100	0		
PHF	.000	.550	.550	.417	.000	.417	.500	.000	.500	.708

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar AM
Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	1	1	1	0	1	1	0	1
+15 mins.	0	2	2	1	0	1	**9**	0	**9**
+30 mins.	0	3	3	**3**	0	**3**	6	0	6
+45 mins.	0	**5**	**5**	0	0	0	2	0	2
Total Volume	0	11	11	5	0	5	18	0	18
% App. Total	0	100		100	0		100	0	
PHF	.000	.550	.550	.417	.000	.417	.500	.000	.500

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City of Irwindale
N/S: Maine Avenue
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Weather: Clear

File Name : 13_IRW_Ma Ar AM
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Groups Printed- 4+ Axle Trucks

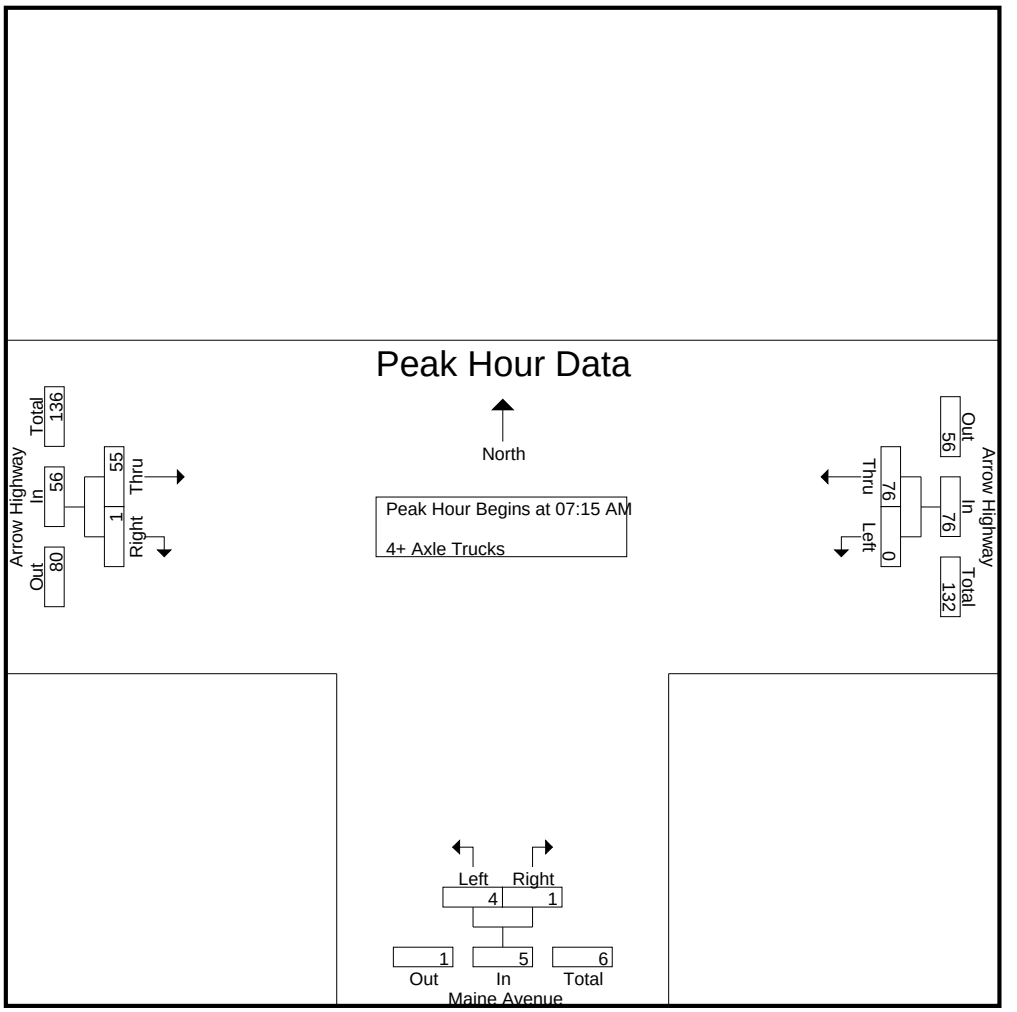
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	4	0	4	3	0	0	3	17	0	0	17	0	24	24
07:15 AM	0	24	0	24	1	1	0	2	11	0	0	11	0	37	37
07:30 AM	0	15	0	15	2	0	0	2	15	0	0	15	0	32	32
07:45 AM	0	17	0	17	0	0	0	0	16	0	0	16	0	33	33
Total	0	60	0	60	6	1	0	7	59	0	0	59	0	126	126
08:00 AM	0	20	0	20	1	0	0	1	13	1	0	14	0	35	35
08:15 AM	1	14	0	15	1	1	0	2	19	0	0	19	0	36	36
08:30 AM	0	22	0	22	0	0	0	0	11	0	0	11	0	33	33
08:45 AM	0	14	0	14	0	0	0	0	17	0	0	17	0	31	31
Total	1	70	0	71	2	1	0	3	60	1	0	61	0	135	135
Grand Total	1	130	0	131	8	2	0	10	119	1	0	120	0	261	261
Apprch %	0.8	99.2			80	20			99.2	0.8					
Total %	0.4	49.8		50.2	3.1	0.8		3.8	45.6	0.4		46	0	100	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	**24**	**24**	1	**1**	**2**	11	0	11	**37**
07:30 AM	0	15	15	**2**	0	2	15	0	15	32
07:45 AM	0	17	17	0	0	0	**16**	0	**16**	33
08:00 AM	0	20	20	1	0	1	13	**1**	14	35
Total Volume	0	76	76	4	1	5	55	1	56	137
% App. Total	0	100		80	20		98.2	1.8		
PHF	.000	.792	.792	.500	.250	.625	.859	.250	.875	.926

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	**24**	**24**	1	**1**	**2**	11	0	11
+15 mins.	0	15	15	**2**	0	2	15	0	15
+30 mins.	0	17	17	0	0	0	**16**	0	**16**
+45 mins.	0	20	20	1	0	1	13	**1**	14
Total Volume	0	76	76	4	1	5	55	1	56
% App. Total	0	100		80	20		98.2	1.8	
PHF	.000	.792	.792	.500	.250	.625	.859	.250	.875

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

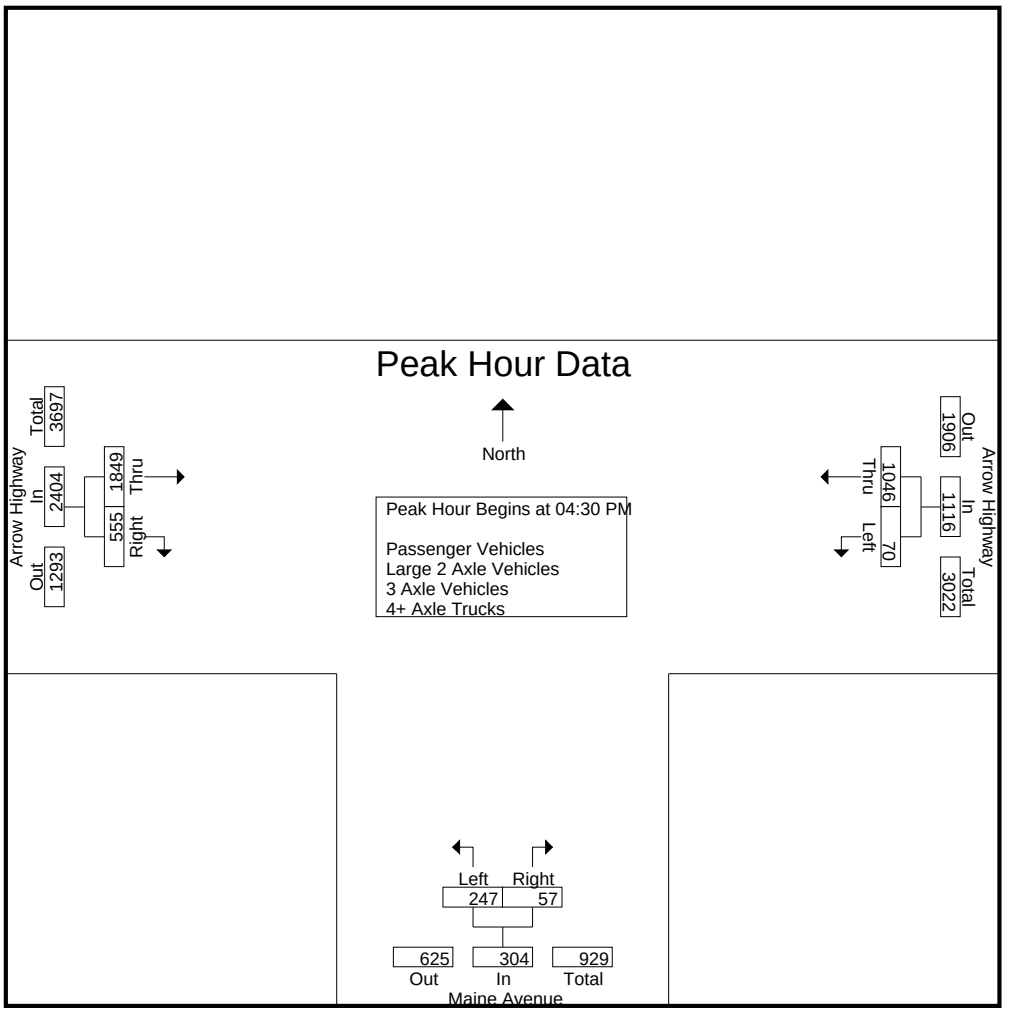
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	8	245	0	253	57	11	5	68	448	127	22	575	27	896	923
04:15 PM	21	205	0	226	65	16	8	81	445	101	18	546	26	853	879
04:30 PM	20	258	0	278	78	21	6	99	464	111	25	575	31	952	983
04:45 PM	19	243	0	262	50	12	8	62	457	138	27	595	35	919	954
Total	68	951	0	1019	250	60	27	310	1814	477	92	2291	119	3620	3739
05:00 PM	15	287	0	302	60	14	9	74	494	131	28	625	37	1001	1038
05:15 PM	16	258	0	274	59	10	6	69	434	175	30	609	36	952	988
05:30 PM	13	238	0	251	61	16	10	77	440	155	35	595	45	923	968
05:45 PM	20	213	0	233	56	20	2	76	438	152	18	590	20	899	919
Total	64	996	0	1060	236	60	27	296	1806	613	111	2419	138	3775	3913
Grand Total	132	1947	0	2079	486	120	54	606	3620	1090	203	4710	257	7395	7652
Apprch %	6.3	93.7			80.2	19.8			76.9	23.1					
Total %	1.8	26.3		28.1	6.6	1.6		8.2	49	14.7		63.7	3.4	96.6	
Passenger Vehicles	128	1798		1926	474	111		637	3432	1057		4687	0	0	7250
% Passenger Vehicles	97	92.3	0	92.6	97.5	92.5	96.3	96.5	94.8	97	97.5	95.4	0	0	94.7
Large 2 Axle Vehicles	3	46		49	7	6		15	123	27		154	0	0	218
% Large 2 Axle Vehicles	2.3	2.4	0	2.4	1.4	5	3.7	2.3	3.4	2.5	2	3.1	0	0	2.8
3 Axle Vehicles	1	60		61	3	2		5	24	3		27	0	0	93
% 3 Axle Vehicles	0.8	3.1	0	2.9	0.6	1.7	0	0.8	0.7	0.3	0	0.5	0	0	1.2
4+ Axle Trucks	0	43		43	2	1		3	41	3		45	0	0	91
% 4+ Axle Trucks	0	2.2	0	2.1	0.4	0.8	0	0.5	1.1	0.3	0.5	0.9	0	0	1.2

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**20**	258	278	**78**	**21**	**99**	464	111	575	952
04:45 PM	19	243	262	50	12	62	457	138	595	919
05:00 PM	15	**287**	**302**	60	14	74	**494**	131	**625**	**1001**
05:15 PM	16	258	274	59	10	69	434	**175**	609	952
Total Volume	70	1046	1116	247	57	304	1849	555	2404	3824
% App. Total	6.3	93.7		81.2	18.8		76.9	23.1		
PHF	.875	.911	.924	.792	.679	.768	.936	.793	.962	.955

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Site Code : 05117783
Start Date : 11/28/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:15 PM			04:45 PM		
+0 mins.	**20**	258	278	65	16	81	457	138	595
+15 mins.	19	243	262	**78**	**21**	**99**	**494**	131	**625**
+30 mins.	15	**287**	**302**	50	12	62	434	**175**	609
+45 mins.	16	258	274	60	14	74	440	155	595
Total Volume	70	1046	1116	253	63	316	1825	599	2424
% App. Total	6.3	93.7		80.1	19.9		75.3	24.7	
PHF	.875	.911	.924	.811	.750	.798	.924	.856	.970

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Groups Printed- Passenger Vehicles

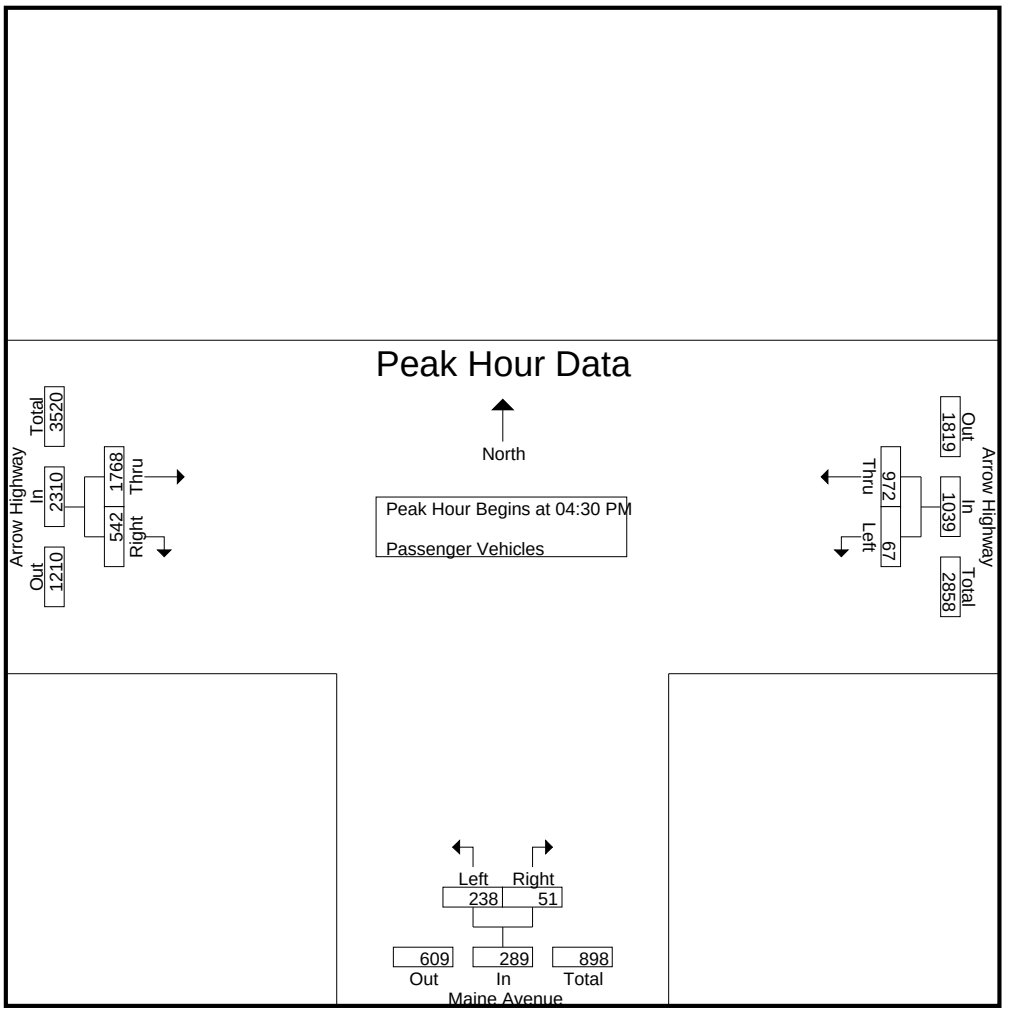
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	8	216	0	224	56	10	5	66	402	120	22	522	27	812	839
04:15 PM	21	183	0	204	64	15	8	79	416	94	16	510	24	793	817
04:30 PM	19	227	0	246	77	20	6	97	435	109	24	544	30	887	917
04:45 PM	17	233	0	250	47	10	7	57	440	133	26	573	33	880	913
Total	65	859	0	924	244	55	26	299	1693	456	88	2149	114	3372	3486
05:00 PM	15	273	0	288	56	12	9	68	469	129	28	598	37	954	991
05:15 PM	16	239	0	255	58	9	5	67	424	171	29	595	34	917	951
05:30 PM	12	220	0	232	61	16	10	77	423	151	35	574	45	883	928
05:45 PM	20	207	0	227	55	19	2	74	423	150	18	573	20	874	894
Total	63	939	0	1002	230	56	26	286	1739	601	110	2340	136	3628	3764
Grand Total	128	1798	0	1926	474	111	52	585	3432	1057	198	4489	250	7000	7250
Apprch %	6.6	93.4			81	19			76.5	23.5					
Total %	1.8	25.7		27.5	6.8	1.6		8.4	49	15.1		64.1	3.4	96.6	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**19**	227	246	**77**	**20**	**97**	435	109	544	887
04:45 PM	17	233	250	47	10	57	440	133	573	880
05:00 PM	15	**273**	**288**	56	12	68	**469**	129	**598**	**954**
05:15 PM	16	239	255	58	9	67	424	**171**	595	917
Total Volume	67	972	1039	238	51	289	1768	542	2310	3638
% App. Total	6.4	93.6		82.4	17.6		76.5	23.5		
PHF	.882	.890	.902	.773	.638	.745	.942	.792	.966	.953

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	**19**	227	246	**77**	**20**	**97**	435	109	544
+15 mins.	17	233	250	47	10	57	440	133	573
+30 mins.	15	**273**	**288**	56	12	68	**469**	129	**598**
+45 mins.	16	239	255	58	9	67	424	**171**	595
Total Volume	67	972	1039	238	51	289	1768	542	2310
% App. Total	6.4	93.6		82.4	17.6		76.5	23.5	
PHF	.882	.890	.902	.773	.638	.745	.942	.792	.966

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City of Irwindale
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Groups Printed- Large 2 Axle Vehicles

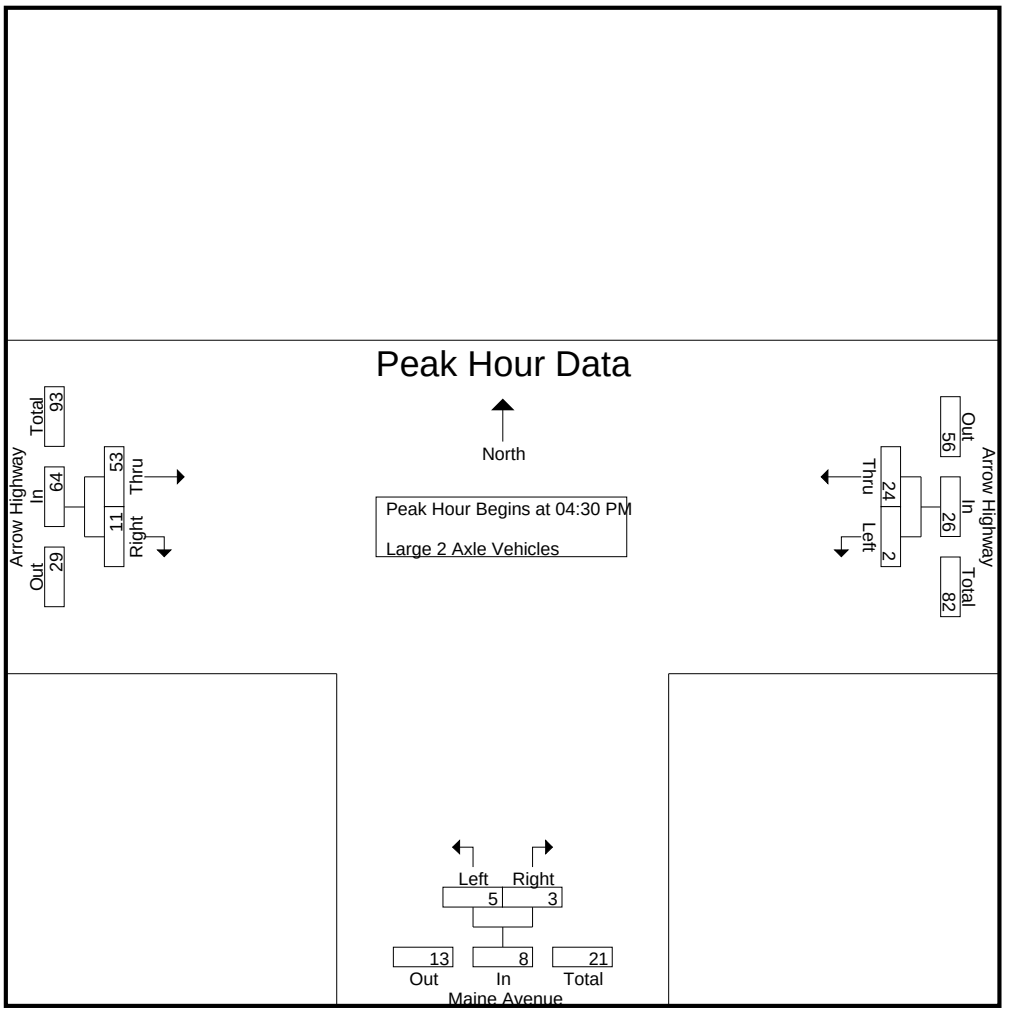
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	5	0	5	1	1	0	2	29	5	0	34	0	41	41
04:15 PM	0	8	0	8	1	1	0	2	21	5	1	26	1	36	37
04:30 PM	1	8	0	9	0	1	0	1	19	1	1	20	1	30	31
04:45 PM	1	4	0	5	3	1	1	4	10	4	1	14	2	23	25
Total	2	25	0	27	5	4	1	9	79	15	3	94	4	130	134
05:00 PM	0	2	0	2	2	0	0	2	15	2	0	17	0	21	21
05:15 PM	0	10	0	10	0	1	1	1	9	4	1	13	2	24	26
05:30 PM	1	6	0	7	0	0	0	0	9	4	0	13	0	20	20
05:45 PM	0	3	0	3	0	1	0	1	11	2	0	13	0	17	17
Total	1	21	0	22	2	2	1	4	44	12	1	56	2	82	84
Grand Total	3	46	0	49	7	6	2	13	123	27	4	150	6	212	218
Apprch %	6.1	93.9			53.8	46.2			82	18					
Total %	1.4	21.7		23.1	3.3	2.8		6.1	58	12.7		70.8	2.8	97.2	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**1**	8	9	0	**1**	1	**19**	1	**20**	**30**
04:45 PM	1	4	5	**3**	1	**4**	10	**4**	14	23
05:00 PM	0	2	2	2	0	2	15	2	17	21
05:15 PM	0	**10**	**10**	0	1	1	9	4	13	24
Total Volume	2	24	26	5	3	8	53	11	64	98
% App. Total	7.7	92.3		62.5	37.5		82.8	17.2		
PHF	.500	.600	.650	.417	.750	.500	.697	.688	.800	.817

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	**1**	8	9	0	**1**	1	**19**	1	**20**
+15 mins.	1	4	5	**3**	1	**4**	10	**4**	14
+30 mins.	0	2	2	2	0	2	15	2	17
+45 mins.	0	**10**	**10**	0	1	1	9	4	13
Total Volume	2	24	26	5	3	8	53	11	64
% App. Total	7.7	92.3		62.5	37.5		82.8	17.2	
PHF	.500	.600	.650	.417	.750	.500	.697	.688	.800

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City of Irwindale
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Weather: Clear

File Name : 13_IRW_Ma Ar PM
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Groups Printed- 3 Axle Vehicles

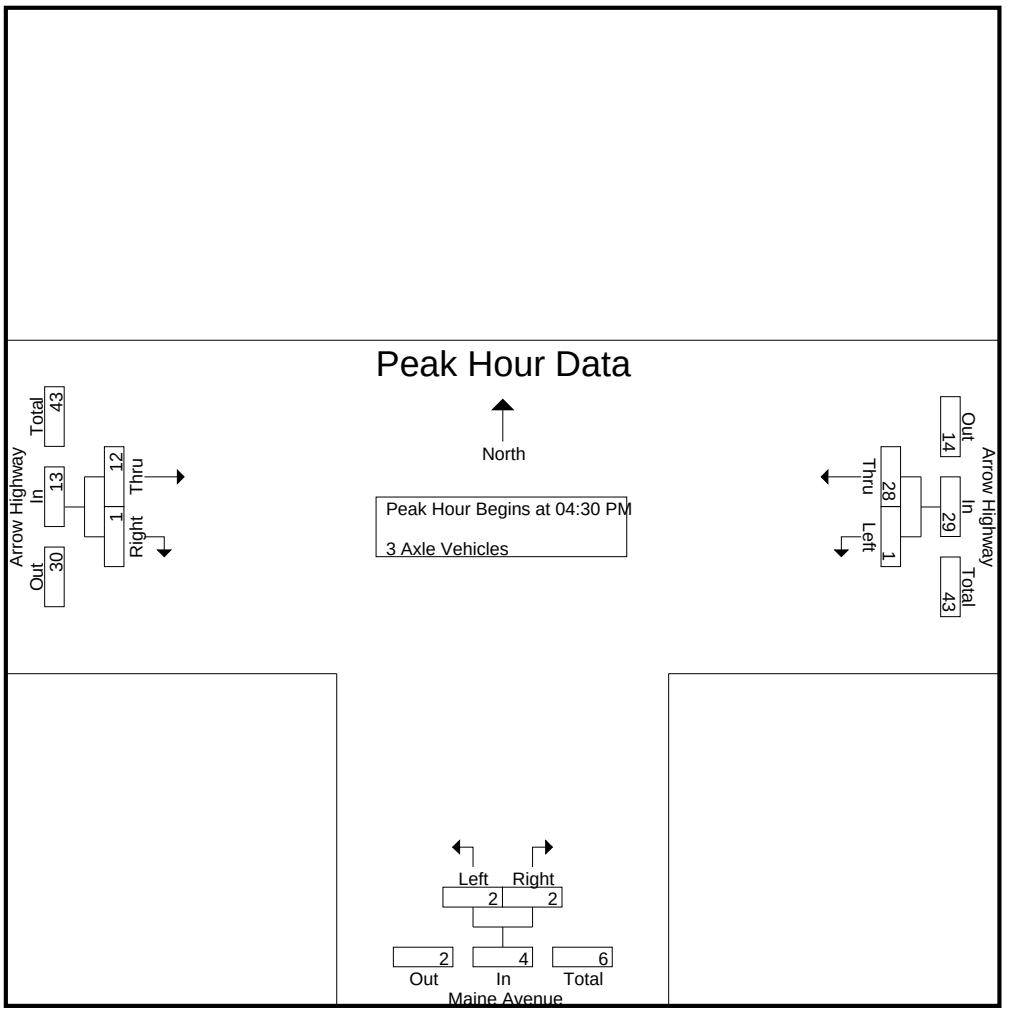
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	13	0	13	0	0	0	0	4	2	0	6	0	19	19
04:15 PM	0	7	0	7	0	0	0	0	5	0	0	5	0	12	12
04:30 PM	0	13	0	13	0	0	0	0	4	1	0	5	0	18	18
04:45 PM	1	2	0	3	0	1	0	1	2	0	0	2	0	6	6
Total	1	35	0	36	0	1	0	1	15	3	0	18	0	55	55
05:00 PM	0	8	0	8	2	1	0	3	5	0	0	5	0	16	16
05:15 PM	0	5	0	5	0	0	0	0	1	0	0	1	0	6	6
05:30 PM	0	10	0	10	0	0	0	0	1	0	0	1	0	11	11
05:45 PM	0	2	0	2	1	0	0	1	2	0	0	2	0	5	5
Total	0	25	0	25	3	1	0	4	9	0	0	9	0	38	38
Grand Total	1	60	0	61	3	2	0	5	24	3	0	27	0	93	93
Apprch %	1.6	98.4			60	40			88.9	11.1					
Total %	1.1	64.5		65.6	3.2	2.2		5.4	25.8	3.2		29	0	100	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	**13**	**13**	0	0	0	4	**1**	**5**	**18**
04:45 PM	**1**	2	3	0	**1**	1	2	0	2	6
05:00 PM	0	8	8	**2**	1	**3**	**5**	0	5	16
05:15 PM	0	5	5	0	0	0	1	0	1	6
Total Volume	1	28	29	2	2	4	12	1	13	46
% App. Total	3.4	96.6		50	50		92.3	7.7		
PHF	.250	.538	.558	.250	.500	.333	.600	.250	.650	.639

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

City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	**13**	**13**	0	0	0	4	**1**	**5**
+15 mins.	**1**	2	3	0	**1**	1	2	0	2
+30 mins.	0	8	8	**2**	1	**3**	**5**	0	5
+45 mins.	0	5	5	0	0	0	1	0	1
Total Volume	1	28	29	2	2	4	12	1	13
% App. Total	3.4	96.6		50	50		92.3	7.7	
PHF	.250	.538	.558	.250	.500	.333	.600	.250	.650

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 1

Groups Printed- 4+ Axle Trucks

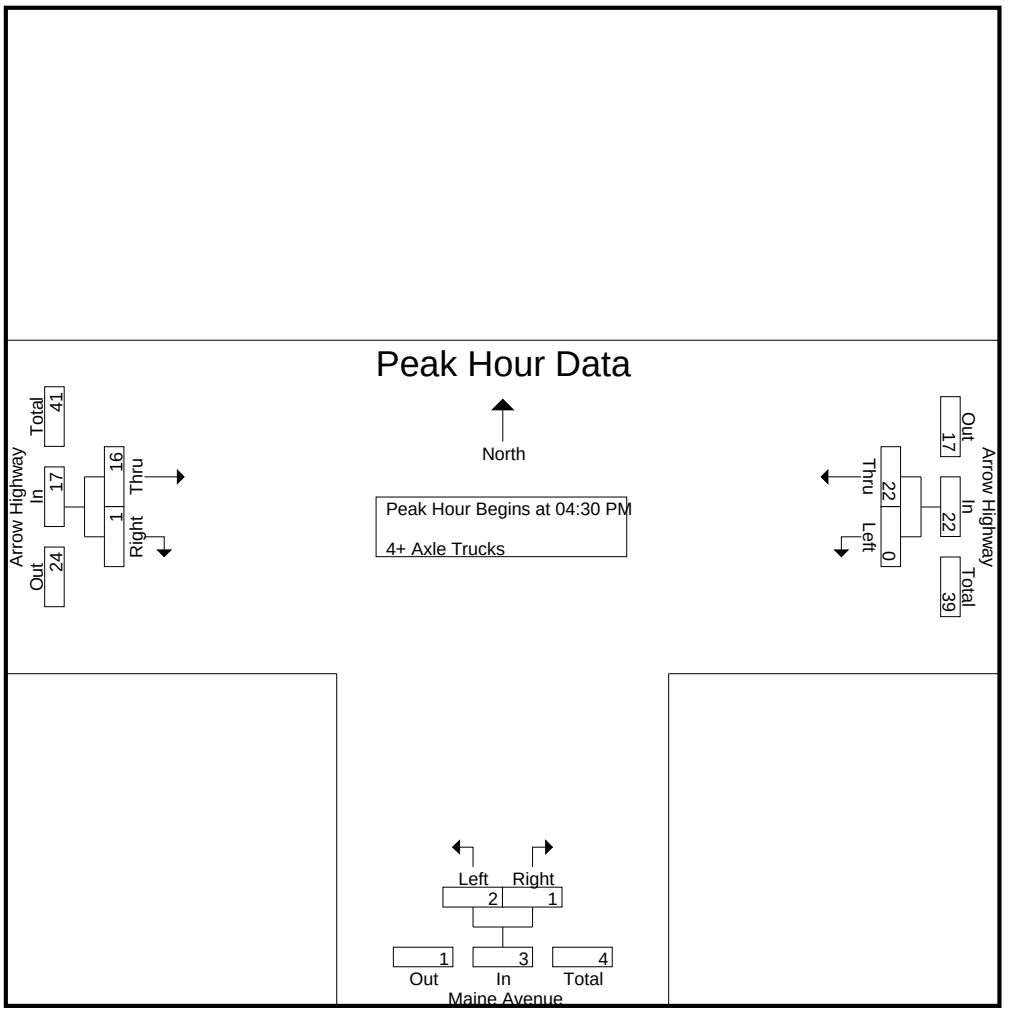
	Arrow Highway Westbound				Maine Avenue Northbound				Arrow Highway Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	11	0	11	0	0	0	0	13	0	0	13	0	24	24
04:15 PM	0	7	0	7	0	0	0	0	3	2	1	5	1	12	13
04:30 PM	0	10	0	10	1	0	0	1	6	0	0	6	0	17	17
04:45 PM	0	4	0	4	0	0	0	0	5	1	0	6	0	10	10
Total	0	32	0	32	1	0	0	1	27	3	1	30	1	63	64
05:00 PM	0	4	0	4	0	1	0	1	5	0	0	5	0	10	10
05:15 PM	0	4	0	4	1	0	0	1	0	0	0	0	0	5	5
05:30 PM	0	2	0	2	0	0	0	0	7	0	0	7	0	9	9
05:45 PM	0	1	0	1	0	0	0	0	2	0	0	2	0	3	3
Total	0	11	0	11	1	1	0	2	14	0	0	14	0	27	27
Grand Total	0	43	0	43	2	1	0	3	41	3	1	44	1	90	91
Apprch %	0	100			66.7	33.3			93.2	6.8					
Total %	0	47.8		47.8	2.2	1.1		3.3	45.6	3.3		48.9	1.1	98.9	

	Arrow Highway Westbound			Maine Avenue Northbound			Arrow Highway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	**10**	**10**	**1**	0	**1**	**6**	0	**6**	**17**
04:45 PM	0	4	4	0	0	0	5	**1**	6	10
05:00 PM	0	4	4	0	**1**	1	5	0	5	10
05:15 PM	0	4	4	1	0	1	0	0	0	5
Total Volume	0	22	22	2	1	3	16	1	17	42
% App. Total	0	100		66.7	33.3		94.1	5.9		
PHF	.000	.550	.550	.500	.250	.750	.667	.250	.708	.618

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City of Irwindale
N/S: Maine Avenue
E/W: Arrow Highway
Weather: Clear

File Name : 13_IRW_Ma Ar PM
Site Code : 05117783
Start Date : 11/28/2017
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	**10**	**10**	**1**	0	**1**	**6**	0	**6**
+15 mins.	0	4	4	0	0	0	5	**1**	6
+30 mins.	0	4	4	0	**1**	1	5	0	5
+45 mins.	0	4	4	1	0	1	0	0	0
Total Volume	0	22	22	2	1	3	16	1	17
% App. Total	0	100		66.7	33.3		94.1	5.9	
PHF	.000	.550	.550	.500	.250	.750	.667	.250	.708

Location: Irwindale
N/S: Maine Avenue
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Arrow Highway	South Leg Maine Avenue	West Leg Arrow Highway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	1	1	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	2	3	0	5

	North Leg Dead End	East Leg Arrow Highway	South Leg Maine Avenue	West Leg Arrow Highway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	1	1	0	2
4:30 PM	0	0	0	0	0
4:45 PM	0	3	1	0	4
5:00 PM	0	0	1	0	1
5:15 PM	0	0	4	0	4
5:30 PM	0	0	0	0	0
5:45 PM	0	1	1	0	2
TOTAL VOLUMES:	0	5	8	0	13

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Location: Irwindale
N/S: Maine Avenue
E/W: Arrow Highway

Date: 11/28/2017
Day: Tuesday

BICYCLES

	North Leg Dead End	East Leg Arrow Highway	South Leg Maine Avenue	West Leg Arrow Highway	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	1	0	0	0	1
7:30 AM	0	1	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	4	0	6

	North Leg Dead End	East Leg Arrow Highway	South Leg Maine Avenue	West Leg Arrow Highway	TOTAL
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 VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.

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City of Irwindale
Longden Avenue
W/ Live Oak Avenue
24 Hour Directional Classification Count

IRW001
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	3	34	3	2	1	1	0	0	0	0	1	0	0	45
01:00	0	22	7	1	0	0	0	0	0	0	0	0	0	30
02:00	1	17	3	1	2	0	0	0	0	0	0	0	0	24
03:00	1	30	7	0	0	0	0	0	0	0	1	0	0	39
04:00	3	58	25	5	8	2	0	0	1	0	0	0	0	102
05:00	7	123	43	4	9	6	0	4	3	0	2	0	0	201
06:00	7	216	38	**12**	18	**13**	0	**6**	2	0	3	0	0	315
07:00	6	255	**55**	6	11	13	0	2	2	0	**4**	0	0	354
08:00	**8**	**325**	37	3	19	6	0	2	**4**	0	3	0	0	**407**
09:00	5	244	44	5	**26**	2	**2**	5	1	0	2	0	0	336
10:00	7	172	37	3	10	7	1	3	2	0	3	0	0	245
11:00	4	184	47	5	24	5	0	2	3	0	4	0	0	278
12 PM	8	224	46	3	16	3	0	6	**2**	0	1	0	0	309
13:00	4	235	60	7	10	**5**	1	3	1	0	**3**	0	0	329
14:00	9	336	85	7	21	2	**2**	4	2	0	3	0	**1**	472
15:00	12	444	124	4	26	4	1	6	0	0	3	0	0	624
16:00	10	**598**	**155**	**11**	**34**	3	2	3	0	0	0	0	0	**816**
17:00	**21**	503	92	10	21	3	0	**7**	1	0	1	0	0	659
18:00	9	538	74	3	20	3	2	2	0	0	0	0	0	651
19:00	2	227	26	1	6	0	0	1	0	0	0	0	0	263
20:00	4	147	18	0	5	1	0	1	1	0	0	0	0	177
21:00	0	134	11	1	6	0	0	0	0	0	0	0	0	152
22:00	2	95	12	1	0	0	0	0	0	0	0	0	0	110
23:00	1	50	5	0	1	0	0	0	0	0	0	0	0	57
Total	134	5211	1054	95	294	79	11	57	25	0	34	0	1	6995
Percent	1.9%	74.5%	15.1%	1.4%	4.2%	1.1%	0.2%	0.8%	0.4%	0.0%	0.5%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00	06:00	09:00	06:00	09:00	06:00	08:00		07:00			08:00
Vol.	8	325	55	12	26	13	2	6	4		4			407
PM Peak	17:00	16:00	16:00	16:00	16:00	13:00	14:00	17:00	12:00		13:00		14:00	16:00
Vol.	21	598	155	11	34	5	2	7	2		3		1	816
Grand Total	134	5211	1054	95	294	79	11	57	25	0	34	0	1	6995
Percent	1.9%	74.5%	15.1%	1.4%	4.2%	1.1%	0.2%	0.8%	0.4%	0.0%	0.5%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Irwindale
Longden Avenue
W/ Live Oak Avenue
24 Hour Directional Classification Count

IRW001
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	2	35	4	1	1	0	0	0	0	0	0	0	0	43
01:00	2	38	10	2	1	3	0	0	0	0	0	0	0	56
02:00	0	21	4	0	0	0	0	0	0	0	0	0	0	25
03:00	0	24	9	0	0	0	0	0	0	0	0	0	0	33
04:00	1	98	25	3	6	4	0	1	1	0	3	0	0	142
05:00	1	210	82	5	18	5	0	3	2	0	1	0	0	327
06:00	10	652	**190**	4	**64**	16	0	7	2	0	1	0	0	**946**
07:00	**40**	585	124	18	36	8	0	6	0	**1**	2	0	0	820
08:00	15	**653**	153	15	37	14	0	**9**	2	0	2	0	**1**	901
09:00	9	330	108	9	25	7	1	5	2	0	**5**	0	0	501
10:00	3	243	79	14	29	13	**3**	3	**3**	0	2	0	0	392
11:00	5	212	66	**21**	28	**20**	0	3	3	0	4	0	0	362
12 PM	6	211	69	11	19	6	0	4	**6**	0	0	0	0	332
13:00	2	231	70	**12**	**33**	10	0	2	4	0	**5**	0	0	369
14:00	5	281	93	11	30	**12**	0	**8**	2	0	3	0	0	445
15:00	3	326	90	8	28	4	0	1	4	0	1	0	0	465
16:00	7	395	96	5	24	5	0	7	0	0	0	0	0	539
17:00	**9**	**520**	**101**	2	28	1	0	0	0	0	0	0	0	**661**
18:00	7	405	74	1	24	2	0	1	0	0	0	0	0	514
19:00	1	235	42	1	4	1	**1**	2	1	0	0	0	0	288
20:00	3	171	32	0	3	0	0	0	1	0	0	0	0	210
21:00	0	179	25	1	6	0	0	0	1	0	1	0	0	213
22:00	3	123	20	1	3	1	0	0	0	0	0	0	0	151
23:00	1	58	18	0	1	1	0	0	0	0	0	0	0	79
Total	135	6236	1584	145	448	133	5	62	34	1	30	0	1	8814
Percent	1.5%	70.8%	18.0%	1.6%	5.1%	1.5%	0.1%	0.7%	0.4%	0.0%	0.3%	0.0%	0.0%	
AM Peak	07:00	08:00	06:00	11:00	06:00	11:00	10:00	08:00	10:00	07:00	09:00		08:00	06:00
Vol.	40	653	190	21	64	20	3	9	3	1	5		1	946
PM Peak	17:00	17:00	17:00	13:00	13:00	14:00	19:00	14:00	12:00		13:00			17:00
Vol.	9	520	101	12	33	12	1	8	6		5			661
Grand Total	135	6236	1584	145	448	133	5	62	34	1	30	0	1	8814
Percent	1.5%	70.8%	18.0%	1.6%	5.1%	1.5%	0.1%	0.7%	0.4%	0.0%	0.3%	0.0%	0.0%	

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City of Irwindale
Longden Avenue
W/ Live Oak Avenue
24 Hour Directional Classification Count

IRW001
Site Code: 051-17783

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	5	69	7	3	2	1	0	0	0	0	1	0	0	88
01:00	2	60	17	3	1	3	0	0	0	0	0	0	0	86
02:00	1	38	7	1	2	0	0	0	0	0	0	0	0	49
03:00	1	54	16	0	0	0	0	0	0	0	1	0	0	72
04:00	4	156	50	8	14	6	0	1	2	0	3	0	0	244
05:00	8	333	125	9	27	11	0	7	5	0	3	0	0	528
06:00	17	868	**228**	16	**82**	**29**	0	**13**	4	0	4	0	0	1261
07:00	**46**	840	179	24	47	21	0	8	2	**1**	6	0	0	1174
08:00	23	**978**	190	18	56	20	0	11	**6**	0	5	0	**1**	**1308**
09:00	14	574	152	14	51	9	3	10	3	0	7	0	0	837
10:00	10	415	116	17	39	20	**4**	6	5	0	5	0	0	637
11:00	9	396	113	**26**	52	25	0	5	6	0	**8**	0	0	640
12 PM	14	435	115	14	35	9	0	10	**8**	0	1	0	0	641
13:00	6	466	130	**19**	43	**15**	1	5	5	0	**8**	0	0	698
14:00	14	617	178	18	51	14	**2**	**12**	4	0	6	0	**1**	917
15:00	15	770	214	12	54	8	1	7	4	0	4	0	0	1089
16:00	17	993	**251**	16	**58**	8	2	10	0	0	0	0	0	**1355**
17:00	**30**	**1023**	193	12	49	4	0	7	1	0	1	0	0	1320
18:00	16	943	148	4	44	5	2	3	0	0	0	0	0	1165
19:00	3	462	68	2	10	1	1	3	1	0	0	0	0	551
20:00	7	318	50	0	8	1	0	1	2	0	0	0	0	387
21:00	0	313	36	2	12	0	0	0	1	0	1	0	0	365
22:00	5	218	32	2	3	1	0	0	0	0	0	0	0	261
23:00	2	108	23	0	2	1	0	0	0	0	0	0	0	136
Total	269	11447	2638	240	742	212	16	119	59	1	64	0	2	15809
Percent	1.7%	72.4%	16.7%	1.5%	4.7%	1.3%	0.1%	0.8%	0.4%	0.0%	0.4%	0.0%	0.0%	
AM Peak	07:00	08:00	06:00	11:00	06:00	06:00	10:00	06:00	08:00	07:00	11:00		08:00	08:00
Vol.	46	978	228	26	82	29	4	13	6	1	8		1	1308
PM Peak	17:00	17:00	16:00	13:00	16:00	13:00	14:00	14:00	12:00		13:00		14:00	16:00
Vol.	30	1023	251	19	58	15	2	12	8		8		1	1355
Grand Total	269	11447	2638	240	742	212	16	119	59	1	64	0	2	15809
Percent	1.7%	72.4%	16.7%	1.5%	4.7%	1.3%	0.1%	0.8%	0.4%	0.0%	0.4%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Irwindale
Live Oak Avenue
E/ Peck Road
24 Hour Directional Classification Count

IRW002
Site Code: 051-17830

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	1	61	4	1	4	2	0	0	0	0	0	0	0	73
01:00	0	38	2	2	0	0	0	0	0	0	3	0	0	45
02:00	0	22	11	1	2	0	0	0	0	0	8	0	0	44
03:00	0	27	4	4	0	0	0	0	3	0	**10**	0	0	48
04:00	1	56	19	19	2	2	0	2	**11**	0	4	**1**	0	117
05:00	0	120	40	**30**	11	11	0	2	5	0	6	1	0	226
06:00	5	287	90	24	19	9	0	4	4	0	5	0	0	447
07:00	4	458	88	15	**38**	11	2	1	5	0	0	0	0	622
08:00	5	**535**	**108**	18	31	**31**	4	3	2	0	1	0	0	**738**
09:00	3	350	95	15	37	28	0	4	5	0	0	1	0	538
10:00	**8**	335	102	21	31	27	4	**5**	3	0	0	0	0	536
11:00	4	302	90	17	36	30	**5**	3	6	0	3	0	0	496
12 PM	1	367	98	19	41	23	2	5	**6**	0	**3**	**1**	0	566
13:00	4	459	129	**26**	43	**26**	0	9	6	0	0	0	0	702
14:00	0	497	178	20	45	22	5	8	6	0	2	0	0	783
15:00	5	790	188	14	56	22	5	8	5	0	1	0	0	1094
16:00	5	1105	**270**	12	**73**	9	**11**	**17**	3	0	1	0	0	1506
17:00	**6**	**1225**	233	13	37	8	10	7	2	0	1	0	0	**1542**
18:00	5	934	147	6	27	4	3	4	1	0	2	0	0	1133
19:00	1	483	67	5	10	3	0	0	1	0	1	0	0	571
20:00	4	264	38	4	6	3	0	1	0	0	0	0	0	320
21:00	2	233	31	3	6	2	0	0	1	0	0	0	0	278
22:00	1	156	20	1	5	0	0	0	0	0	0	0	0	183
23:00	1	107	5	1	2	1	0	1	0	0	0	0	0	118
Total	66	9211	2057	291	562	274	51	84	75	0	51	4	0	12726
Percent	0.5%	72.4%	16.2%	2.3%	4.4%	2.2%	0.4%	0.7%	0.6%	0.0%	0.4%	0.0%	0.0%	
AM Peak	10:00	08:00	08:00	05:00	07:00	08:00	11:00	10:00	04:00		03:00	04:00		08:00
Vol.	8	535	108	30	38	31	5	5	11		10	1		738
PM Peak	17:00	17:00	16:00	13:00	16:00	13:00	16:00	16:00	12:00		12:00	12:00		17:00
Vol.	6	1225	270	26	73	26	11	17	6		3	1		1542
Grand Total	66	9211	2057	291	562	274	51	84	75	0	51	4	0	12726
Percent	0.5%	72.4%	16.2%	2.3%	4.4%	2.2%	0.4%	0.7%	0.6%	0.0%	0.4%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Irwindale
Live Oak Avenue
E/ Peck Road
24 Hour Directional Classification Count

IRW002
Site Code: 051-17830

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	1	53	2	7	2	1	0	0	0	0	0	0	0	66
01:00	0	36	3	6	0	0	0	0	0	0	0	0	0	45
02:00	0	31	6	4	2	0	0	0	0	0	1	0	0	44
03:00	3	33	10	0	5	2	0	0	1	0	**2**	0	0	56
04:00	0	62	27	4	10	0	0	0	5	0	0	0	0	108
05:00	3	169	69	8	15	9	0	4	1	0	0	0	0	278
06:00	3	672	176	9	55	**42**	2	**27**	5	0	0	0	0	991
07:00	**8**	**1135**	**232**	14	**73**	14	0	21	7	**1**	2	0	0	**1507**
08:00	1	829	147	20	51	7	3	19	3	0	1	**1**	0	1082
09:00	3	485	131	**26**	41	9	**10**	20	3	0	0	0	0	728
10:00	5	304	91	19	43	12	4	10	7	0	0	0	0	495
11:00	0	279	90	17	34	17	8	9	**8**	0	2	0	0	464
12 PM	5	345	80	11	**37**	12	**6**	**10**	4	0	4	0	0	514
13:00	1	325	93	24	37	14	4	5	5	0	**15**	0	0	523
14:00	5	346	98	16	35	**16**	1	5	**8**	0	14	0	0	544
15:00	6	388	94	14	32	11	0	3	6	0	7	0	0	561
16:00	4	429	101	7	16	3	0	2	5	0	1	0	0	568
17:00	3	**594**	**102**	11	9	2	0	1	1	0	1	0	0	**724**
18:00	1	495	78	**31**	6	0	0	2	0	0	0	0	0	613
19:00	**7**	307	46	28	8	4	0	3	0	0	0	0	0	403
20:00	0	201	20	27	3	0	0	1	1	0	0	0	0	253
21:00	2	169	15	14	4	2	0	1	2	0	0	0	0	209
22:00	0	156	14	13	1	0	0	0	1	0	0	0	0	185
23:00	3	74	6	14	4	1	0	0	0	0	0	0	0	102
Total	64	7917	1731	344	523	178	38	143	73	1	50	1	0	11063
Percent	0.6%	71.6%	15.6%	3.1%	4.7%	1.6%	0.3%	1.3%	0.7%	0.0%	0.5%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	06:00	09:00	06:00	11:00	07:00	03:00	08:00		07:00
Vol.	8	1135	232	26	73	42	10	27	8	1	2	1		1507
PM Peak	19:00	17:00	17:00	18:00	12:00	14:00	12:00	12:00	14:00		13:00			17:00
Vol.	7	594	102	31	37	16	6	10	8		15			724
Grand Total	64	7917	1731	344	523	178	38	143	73	1	50	1	0	11063
Percent	0.6%	71.6%	15.6%	3.1%	4.7%	1.6%	0.3%	1.3%	0.7%	0.0%	0.5%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Peck Road
24 Hour Directional Classification Count

IRW002
Site Code: 051-17830

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	2	114	6	8	6	3	0	0	0	0	0	0	0	139
01:00	0	74	5	8	0	0	0	0	0	0	3	0	0	90
02:00	0	53	17	5	4	0	0	0	0	0	9	0	0	88
03:00	3	60	14	4	5	2	0	0	4	0	**12**	0	0	104
04:00	1	118	46	23	12	2	0	2	**16**	0	4	**1**	0	225
05:00	3	289	109	38	26	20	0	6	6	0	6	1	0	504
06:00	8	959	266	33	74	**51**	2	**31**	9	0	5	0	0	1438
07:00	12	**1593**	**320**	29	**111**	25	2	22	12	**1**	2	0	0	**2129**
08:00	6	1364	255	38	82	38	7	22	5	0	2	1	0	1820
09:00	6	835	226	**41**	78	37	10	24	8	0	0	1	0	1266
10:00	**13**	639	193	40	74	39	8	15	10	0	0	0	0	1031
11:00	4	581	180	34	70	47	**13**	12	14	0	5	0	0	960
12 PM	6	712	178	30	78	35	8	15	10	0	7	**1**	0	1080
13:00	5	784	222	**50**	80	**40**	4	14	11	0	15	0	0	1225
14:00	5	843	276	36	80	38	6	13	**14**	0	**16**	0	0	1327
15:00	**11**	1178	282	28	88	33	5	11	11	0	8	0	0	1655
16:00	9	1534	**371**	19	**89**	12	**11**	**19**	8	0	2	0	0	2074
17:00	9	**1819**	335	24	46	10	10	8	3	0	2	0	0	**2266**
18:00	6	1429	225	37	33	4	3	6	1	0	2	0	0	1746
19:00	8	790	113	33	18	7	0	3	1	0	1	0	0	974
20:00	4	465	58	31	9	3	0	2	1	0	0	0	0	573
21:00	4	402	46	17	10	4	0	1	3	0	0	0	0	487
22:00	1	312	34	14	6	0	0	0	1	0	0	0	0	368
23:00	4	181	11	15	6	2	0	1	0	0	0	0	0	220
Total	130	17128	3788	635	1085	452	89	227	148	1	101	5	0	23789
Percent	0.5%	72.0%	15.9%	2.7%	4.6%	1.9%	0.4%	1.0%	0.6%	0.0%	0.4%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	09:00	07:00	06:00	11:00	06:00	04:00	07:00	03:00	04:00		07:00
Vol.	13	1593	320	41	111	51	13	31	16	1	12	1		2129
PM Peak	15:00	17:00	16:00	13:00	16:00	13:00	16:00	16:00	14:00		14:00	12:00		17:00
Vol.	11	1819	371	50	89	40	11	19	14		16	1		2266
Grand Total	130	17128	3788	635	1085	452	89	227	148	1	101	5	0	23789
Percent	0.5%	72.0%	15.9%	2.7%	4.6%	1.9%	0.4%	1.0%	0.6%	0.0%	0.4%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Longden Avenue
24 Hour Directional Classification Count

IRW003
Site Code: 051-17830

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	0	98	8	1	4	1	0	0	1	0	1	0	0	114
01:00	0	60	8	2	1	0	0	0	0	0	3	0	0	74
02:00	0	41	12	1	1	0	0	0	1	0	9	0	0	65
03:00	2	56	14	4	0	0	0	0	3	0	**10**	0	0	89
04:00	3	115	38	21	4	5	0	2	8	0	4	**1**	0	201
05:00	2	254	82	29	17	21	0	4	**12**	0	7	1	0	429
06:00	**8**	464	136	**33**	37	12	0	**9**	4	0	5	0	0	708
07:00	6	758	155	14	**76**	11	3	5	6	0	0	0	0	1034
08:00	7	**851**	174	19	56	**30**	4	8	3	0	3	0	0	**1155**
09:00	4	544	163	23	56	23	2	9	10	0	4	1	0	839
10:00	7	496	**183**	25	50	25	4	7	9	0	2	0	0	808
11:00	5	453	144	23	65	26	**6**	8	10	0	7	0	0	747
12 PM	4	585	154	23	77	**20**	4	11	7	0	**9**	0	0	894
13:00	10	689	188	**32**	69	15	1	10	**10**	1	1	**1**	0	1027
14:00	3	840	266	20	99	20	6	11	6	0	2	0	0	1273
15:00	10	1227	361	29	110	15	5	14	7	0	1	0	0	1779
16:00	5	1668	**448**	16	**162**	10	12	**32**	1	**4**	1	0	0	2359
17:00	**21**	**1908**	436	12	114	9	**14**	21	0	1	1	0	0	**2537**
18:00	11	1455	303	11	68	7	1	11	1	1	3	0	0	1872
19:00	4	701	144	2	32	4	0	9	1	2	0	0	**1**	900
20:00	5	363	87	3	24	1	0	2	0	0	2	0	0	487
21:00	2	361	59	3	14	2	0	2	2	0	0	0	0	445
22:00	1	233	52	3	16	1	0	0	0	0	0	0	0	306
23:00	3	166	15	1	2	1	0	0	0	0	0	0	0	188
Total	123	14386	3630	350	1154	259	62	175	102	9	75	4	1	20330
Percent	0.6%	70.8%	17.9%	1.7%	5.7%	1.3%	0.3%	0.9%	0.5%	0.0%	0.4%	0.0%	0.0%	
AM Peak	06:00	08:00	10:00	06:00	07:00	08:00	11:00	06:00	05:00		03:00	04:00		08:00
Vol.	8	851	183	33	76	30	6	9	12		10	1		1155
PM Peak	17:00	17:00	16:00	13:00	16:00	12:00	17:00	16:00	13:00	16:00	12:00	13:00	19:00	17:00
Vol.	21	1908	448	32	162	20	14	32	10	4	9	1	1	2537
Grand Total	123	14386	3630	350	1154	259	62	175	102	9	75	4	1	20330
Percent	0.6%	70.8%	17.9%	1.7%	5.7%	1.3%	0.3%	0.9%	0.5%	0.0%	0.4%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Longden Avenue
24 Hour Directional Classification Count

IRW003
Site Code: 051-17830

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	4	91	9	5	4	0	0	0	1	0	0	0	0	114
01:00	1	68	14	3	0	2	0	0	1	0	0	0	0	89
02:00	1	61	14	1	3	0	0	0	1	0	1	0	0	82
03:00	3	71	24	0	10	3	0	0	0	0	1	0	0	112
04:00	3	176	73	4	18	4	0	0	6	0	0	0	0	284
05:00	1	443	180	9	52	10	1	12	1	0	1	0	0	710
06:00	24	1343	**399**	32	**126**	**62**	0	39	10	**6**	2	**1**	0	2044
07:00	**80**	**1681**	397	33	125	32	3	**51**	**17**	3	4	0	0	**2426**
08:00	15	1510	321	**34**	113	17	4	45	7	1	3	0	0	2070
09:00	4	822	267	27	92	23	**12**	33	10	0	2	0	0	1292
10:00	16	512	153	25	79	33	8	15	15	0	3	0	0	859
11:00	6	492	156	23	67	41	7	16	14	2	**9**	0	0	833
12 PM	27	603	171	16	77	34	**7**	7	7	0	10	0	0	959
13:00	**31**	640	180	**33**	**80**	**47**	3	18	8	**2**	**17**	0	**2**	1061
14:00	18	600	193	20	64	26	3	**19**	**15**	0	12	0	0	970
15:00	16	686	205	19	62	19	1	8	11	0	7	0	0	1034
16:00	18	774	204	8	51	6	0	9	4	0	1	0	0	1075
17:00	17	**1122**	**237**	12	45	12	0	11	3	1	1	0	0	**1461**
18:00	2	898	181	24	29	4	1	4	2	2	0	0	0	1147
19:00	6	580	103	24	17	6	0	6	2	0	1	0	0	745
20:00	5	404	68	25	14	3	0	1	3	0	0	0	0	523
21:00	3	334	72	11	14	3	1	2	1	0	0	0	0	441
22:00	0	283	52	11	8	2	0	3	1	0	0	0	0	360
23:00	5	151	21	11	4	4	1	0	0	0	0	0	0	197
Total	306	14345	3694	410	1154	393	52	299	140	17	75	1	2	20888
Percent	1.5%	68.7%	17.7%	2.0%	5.5%	1.9%	0.2%	1.4%	0.7%	0.1%	0.4%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	08:00	06:00	06:00	09:00	07:00	07:00	06:00	11:00	06:00		07:00
Vol.	80	1681	399	34	126	62	12	51	17	6	9	1		2426
PM Peak	13:00	17:00	17:00	13:00	13:00	13:00	12:00	14:00	14:00	13:00	13:00		13:00	17:00
Vol.	31	1122	237	33	80	47	7	19	15	2	17		2	1461
Grand Total	306	14345	3694	410	1154	393	52	299	140	17	75	1	2	20888
Percent	1.5%	68.7%	17.7%	2.0%	5.5%	1.9%	0.2%	1.4%	0.7%	0.1%	0.4%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Longden Avenue
24 Hour Directional Classification Count

IRW003
Site Code: 051-17830

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	4	189	17	6	8	1	0	0	2	0	1	0	0	228
01:00	1	128	22	5	1	2	0	0	1	0	3	0	0	163
02:00	1	102	26	2	4	0	0	0	2	0	10	0	0	147
03:00	5	127	38	4	10	3	0	0	3	0	11	0	0	201
04:00	6	291	111	25	22	9	0	2	14	0	4	**1**	0	485
05:00	3	697	262	38	69	31	1	16	13	0	8	1	0	1139
06:00	32	1807	535	**65**	163	**74**	0	48	14	**6**	7	1	0	2752
07:00	**86**	**2439**	**552**	47	**201**	43	6	**56**	23	3	4	0	0	**3460**
08:00	22	2361	495	53	169	47	8	53	10	1	6	0	0	3225
09:00	8	1366	430	50	148	46	**14**	42	20	0	6	1	0	2131
10:00	23	1008	336	50	129	58	12	22	**24**	0	5	0	0	1667
11:00	11	945	300	46	132	67	13	24	24	2	**16**	0	0	1580
12 PM	31	1188	325	39	154	54	11	18	14	0	**19**	0	0	1853
13:00	**41**	1329	368	**65**	149	**62**	4	28	18	3	18	**1**	**2**	2088
14:00	21	1440	459	40	163	46	9	30	**21**	0	14	0	0	2243
15:00	26	1913	566	48	172	34	6	22	18	0	8	0	0	2813
16:00	23	2442	652	24	**213**	16	12	**41**	5	**4**	2	0	0	3434
17:00	38	**3030**	**673**	24	159	21	**14**	32	3	2	2	0	0	**3998**
18:00	13	2353	484	35	97	11	2	15	3	3	3	0	0	3019
19:00	10	1281	247	26	49	10	0	15	3	2	1	0	1	1645
20:00	10	767	155	28	38	4	0	3	3	0	2	0	0	1010
21:00	5	695	131	14	28	5	1	4	3	0	0	0	0	886
22:00	1	516	104	14	24	3	0	3	1	0	0	0	0	666
23:00	8	317	36	12	6	5	1	0	0	0	0	0	0	385
Total	429	28731	7324	760	2308	652	114	474	242	26	150	5	3	41218
Percent	1.0%	69.7%	17.8%	1.8%	5.6%	1.6%	0.3%	1.1%	0.6%	0.1%	0.4%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	07:00	06:00	09:00	07:00	10:00	06:00	11:00	04:00		07:00
Vol.	86	2439	552	65	201	74	14	56	24	6	16	1		3460
PM Peak	13:00	17:00	17:00	13:00	16:00	13:00	17:00	16:00	14:00	16:00	12:00	13:00	13:00	17:00
Vol.	41	3030	673	65	213	62	14	41	21	4	19	1	2	3998
Grand Total	429	28731	7324	760	2308	652	114	474	242	26	150	5	3	41218
Percent	1.0%	69.7%	17.8%	1.8%	5.6%	1.6%	0.3%	1.1%	0.6%	0.1%	0.4%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Live Oak Avenue
24 Hour Directional Classification Count

IRW004
Site Code: 051-17830

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	0	52	8	0	4	0	0	0	0	0	0	0	0	64
01:00	0	45	8	0	2	2	0	0	0	0	1	0	0	58
02:00	0	23	7	1	0	1	0	0	0	0	1	0	0	33
03:00	0	30	7	1	0	1	0	0	2	0	1	0	0	42
04:00	0	71	20	3	5	1	0	3	3	0	1	0	0	107
05:00	0	128	36	8	9	10	0	2	10	0	5	0	0	208
06:00	3	298	77	15	17	15	2	4	7	0	5	0	0	443
07:00	4	402	84	11	25	13	5	6	12	0	12	0	0	574
08:00	4	**481**	**116**	17	19	20	**6**	**8**	**19**	0	15	0	0	**705**
09:00	4	358	86	17	24	**22**	4	6	11	0	17	0	0	549
10:00	3	328	89	**21**	17	19	3	6	15	0	**18**	0	0	519
11:00	**6**	270	83	16	**27**	18	4	5	17	0	18	0	0	464
12 PM	5	262	86	**13**	**43**	22	**14**	**6**	25	0	**24**	0	0	500
13:00	**11**	329	93	11	29	**29**	9	4	**30**	**1**	20	0	0	566
14:00	6	390	139	13	30	21	7	4	14	0	14	0	**1**	639
15:00	4	547	151	11	31	17	8	5	9	0	1	0	0	784
16:00	5	619	**163**	5	28	13	8	6	5	0	1	0	0	853
17:00	8	**676**	139	1	17	11	5	2	3	1	1	0	0	**864**
18:00	3	541	102	3	14	5	2	1	4	0	2	0	0	677
19:00	1	326	62	1	7	1	0	0	1	0	0	0	0	399
20:00	6	199	37	1	3	6	0	0	2	0	2	0	0	256
21:00	3	174	33	2	3	6	0	0	2	1	0	0	0	224
22:00	5	119	16	4	5	7	0	0	1	0	1	0	0	158
23:00	0	75	11	1	2	2	0	0	2	0	2	**1**	0	96
Total	81	6743	1653	176	361	262	77	68	194	3	162	1	1	9782
Percent	0.8%	68.9%	16.9%	1.8%	3.7%	2.7%	0.8%	0.7%	2.0%	0.0%	1.7%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	10:00	11:00	09:00	08:00	08:00	08:00		10:00			08:00
Vol.	6	481	116	21	27	22	6	8	19		18			705
PM Peak	13:00	17:00	16:00	12:00	12:00	13:00	12:00	12:00	13:00	13:00	12:00	23:00	14:00	17:00
Vol.	11	676	163	13	43	29	14	6	30	1	24	1	1	864
Grand Total	81	6743	1653	176	361	262	77	68	194	3	162	1	1	9782
Percent	0.8%	68.9%	16.9%	1.8%	3.7%	2.7%	0.8%	0.7%	2.0%	0.0%	1.7%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Irwindale
Arrow Highway
E/ Live Oak Avenue
24 Hour Directional Classification Count

IRW004
Site Code: 051-17830

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	3	44	5	5	2	1	0	0	6	0	0	0	0	66
01:00	1	32	4	4	1	1	0	2	9	0	1	0	0	55
02:00	5	36	12	1	4	3	0	0	5	0	1	0	0	67
03:00	3	38	17	1	5	2	0	0	7	0	7	0	0	80
04:00	1	99	54	1	15	4	0	0	11	0	9	0	0	194
05:00	6	277	119	7	50	7	1	8	23	0	6	0	0	504
06:00	8	929	246	16	75	16	6	20	12	1	2	**1**	**1**	1333
07:00	**15**	**1418**	**323**	18	**88**	21	**13**	**35**	21	**3**	20	1	0	**1976**
08:00	8	1016	215	22	72	9	2	19	24	2	17	1	0	1407
09:00	6	481	160	**23**	57	8	6	21	46	0	17	0	0	825
10:00	5	314	105	21	45	13	10	15	23	1	**23**	0	0	575
11:00	6	278	116	21	45	**27**	6	13	**50**	0	16	0	0	578
12 PM	9	328	108	9	46	23	**6**	**14**	29	**1**	**27**	0	0	600
13:00	6	326	112	**26**	44	**24**	1	6	25	1	24	0	0	595
14:00	8	326	118	18	28	18	0	8	**31**	0	16	0	0	571
15:00	7	428	123	6	**49**	8	0	8	22	0	6	0	**1**	658
16:00	6	489	152	12	29	5	1	12	5	0	1	0	0	712
17:00	**10**	**718**	**164**	4	24	7	0	1	7	0	1	0	0	**936**
18:00	5	542	119	19	17	6	0	7	7	0	0	0	0	722
19:00	4	280	55	14	11	4	0	5	5	0	2	0	0	380
20:00	3	169	34	17	7	1	0	3	11	0	3	0	0	248
21:00	1	138	37	8	6	4	0	1	6	0	1	0	0	202
22:00	2	104	17	8	8	3	0	0	4	0	2	0	0	148
23:00	4	62	10	10	0	2	0	0	2	0	0	0	0	90
Total	132	8872	2425	291	728	217	52	198	391	9	202	3	2	13522
Percent	1.0%	65.6%	17.9%	2.2%	5.4%	1.6%	0.4%	1.5%	2.9%	0.1%	1.5%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	11:00	07:00	07:00	11:00	07:00	10:00	06:00	06:00	07:00
Vol.	15	1418	323	23	88	27	13	35	50	3	23	1	1	1976
PM Peak	17:00	17:00	17:00	13:00	15:00	13:00	12:00	12:00	14:00	12:00	12:00		15:00	17:00
Vol.	10	718	164	26	49	24	6	14	31	1	27		1	936
Grand Total	132	8872	2425	291	728	217	52	198	391	9	202	3	2	13522
Percent	1.0%	65.6%	17.9%	2.2%	5.4%	1.6%	0.4%	1.5%	2.9%	0.1%	1.5%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Live Oak Avenue
24 Hour Directional Classification Count

IRW004
Site Code: 051-17830

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	3	96	13	5	6	1	0	0	6	0	0	0	0	130
01:00	1	77	12	4	3	3	0	2	9	0	2	0	0	113
02:00	5	59	19	2	4	4	0	0	5	0	2	0	0	100
03:00	3	68	24	2	5	3	0	0	9	0	8	0	0	122
04:00	1	170	74	4	20	5	0	3	14	0	10	0	0	301
05:00	6	405	155	15	59	17	1	10	33	0	11	0	0	712
06:00	11	1227	323	31	92	31	8	24	19	1	7	**1**	**1**	1776
07:00	**19**	**1820**	**407**	29	**113**	34	**18**	**41**	33	**3**	32	1	0	**2550**
08:00	12	1497	331	39	91	29	8	27	43	2	32	1	0	2112
09:00	10	839	246	40	81	30	10	27	57	0	34	0	0	1374
10:00	8	642	194	**42**	62	32	13	21	38	1	**41**	0	0	1094
11:00	12	548	199	37	72	**45**	10	18	**67**	0	34	0	0	1042
12 PM	14	590	194	22	**89**	45	**20**	**20**	54	1	**51**	0	0	1100
13:00	17	655	205	**37**	73	**53**	10	10	**55**	**2**	44	0	0	1161
14:00	14	716	257	31	58	39	7	12	45	0	30	0	**1**	1210
15:00	11	975	274	17	80	25	8	13	31	0	7	0	1	1442
16:00	11	1108	**315**	17	57	18	9	18	10	0	2	0	0	1565
17:00	**18**	**1394**	303	5	41	18	5	3	10	1	2	0	0	**1800**
18:00	8	1083	221	22	31	11	2	8	11	0	2	0	0	1399
19:00	5	606	117	15	18	5	0	5	6	0	2	0	0	779
20:00	9	368	71	18	10	7	0	3	13	0	5	0	0	504
21:00	4	312	70	10	9	10	0	1	8	1	1	0	0	426
22:00	7	223	33	12	13	10	0	0	5	0	3	0	0	306
23:00	4	137	21	11	2	4	0	0	4	0	2	**1**	0	186
Total	213	15615	4078	467	1089	479	129	266	585	12	364	4	3	23304
Percent	0.9%	67.0%	17.5%	2.0%	4.7%	2.1%	0.6%	1.1%	2.5%	0.1%	1.6%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	10:00	07:00	11:00	07:00	07:00	11:00	07:00	10:00	06:00	06:00	07:00
Vol.	19	1820	407	42	113	45	18	41	67	3	41	1	1	2550
PM Peak	17:00	17:00	16:00	13:00	12:00	13:00	12:00	12:00	13:00	13:00	12:00	23:00	14:00	17:00
Vol.	18	1394	315	37	89	53	20	20	55	2	51	1	1	1800
Grand Total	213	15615	4078	467	1089	479	129	266	585	12	364	4	3	23304
Percent	0.9%	67.0%	17.5%	2.0%	4.7%	2.1%	0.6%	1.1%	2.5%	0.1%	1.6%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Avenida Barbosa
24 Hour Directional Classification Count

IRW005
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	41	9	1	2	2	0	0	1	0	5	**1**	0	63
01:00	2	27	4	2	2	2	5	0	3	0	7	0	0	54
02:00	1	23	5	1	1	2	0	1	1	0	3	0	0	38
03:00	0	15	5	3	1	1	0	0	3	0	9	0	0	37
04:00	1	41	12	15	3	3	0	3	6	0	**11**	0	0	95
05:00	3	74	35	16	23	4	2	2	9	0	9	0	0	177
06:00	3	152	55	17	18	8	5	6	14	0	6	0	0	284
07:00	6	323	70	15	**37**	6	6	8	12	0	0	0	**1**	484
08:00	**12**	**329**	73	9	29	20	4	9	6	**1**	7	1	0	**500**
09:00	9	232	**77**	15	31	21	3	14	15	0	5	0	0	422
10:00	11	205	74	10	29	24	3	12	22	0	5	0	0	395
11:00	10	198	77	**20**	29	**28**	**10**	**15**	**28**	1	4	0	0	420
12 PM	10	234	86	**28**	35	**25**	2	19	18	0	**7**	**1**	0	465
13:00	15	293	107	16	40	22	**6**	12	**19**	0	7	0	**3**	540
14:00	16	360	102	9	44	16	3	15	15	1	3	1	0	585
15:00	15	589	170	16	**58**	19	2	12	8	1	3	1	0	894
16:00	**27**	738	174	4	46	9	2	18	1	3	0	0	1	1023
17:00	13	**869**	**180**	4	45	7	2	**29**	1	**6**	0	1	0	**1157**
18:00	15	637	102	3	18	2	1	3	2	2	0	0	0	785
19:00	1	282	59	3	11	1	0	2	3	0	0	0	0	362
20:00	0	166	26	3	9	1	1	4	7	0	1	0	0	218
21:00	1	121	23	1	3	2	0	2	3	0	0	0	0	156
22:00	4	84	17	1	2	4	0	0	4	0	1	0	0	117
23:00	3	82	13	2	1	2	4	0	1	0	2	0	0	110
Total	179	6115	1555	214	517	231	61	186	202	15	95	6	5	9381
Percent	1.9%	65.2%	16.6%	2.3%	5.5%	2.5%	0.7%	2.0%	2.2%	0.2%	1.0%	0.1%	0.1%	
AM Peak	08:00	08:00	09:00	11:00	07:00	11:00	11:00	11:00	11:00	08:00	04:00	00:00	07:00	08:00
Vol.	12	329	77	20	37	28	10	15	28	1	11	1	1	500
PM Peak	16:00	17:00	17:00	12:00	15:00	12:00	13:00	17:00	13:00	17:00	12:00	12:00	13:00	17:00
Vol.	27	869	180	28	58	25	6	29	19	6	7	1	3	1157
Grand Total	179	6115	1555	214	517	231	61	186	202	15	95	6	5	9381
Percent	1.9%	65.2%	16.6%	2.3%	5.5%	2.5%	0.7%	2.0%	2.2%	0.2%	1.0%	0.1%	0.1%	

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City of Irwindale
Arrow Highway
E/ Avenida Barbosa
24 Hour Directional Classification Count

IRW005
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	49	10	7	3	2	0	0	7	0	0	0	0	79
01:00	3	36	10	5	2	3	0	2	3	0	0	0	0	64
02:00	4	24	7	4	2	5	0	0	4	0	0	0	0	50
03:00	4	34	10	1	7	4	1	1	7	0	0	0	0	69
04:00	3	65	27	0	15	2	0	0	6	0	6	0	0	124
05:00	1	191	98	5	50	3	0	0	11	0	4	0	0	363
06:00	7	791	217	14	105	22	0	14	9	0	5	0	0	1184
07:00	**21**	**1475**	**398**	**22**	**149**	**24**	0	**17**	11	**2**	2	**1**	0	**2122**
08:00	18	1355	340	7	87	13	1	15	14	0	7	0	**1**	1858
09:00	7	728	216	13	98	19	1	15	25	1	3	0	0	1126
10:00	6	281	115	13	57	19	1	7	12	0	6	1	0	518
11:00	11	293	120	18	62	22	**7**	10	**27**	1	**9**	1	0	581
12 PM	**10**	253	107	**22**	44	**25**	**3**	4	**37**	**2**	9	0	0	516
13:00	2	330	100	21	55	19	2	5	22	0	**12**	0	0	568
14:00	6	312	131	17	52	19	2	**16**	31	0	4	**1**	0	591
15:00	6	366	**154**	12	**61**	13	2	7	12	0	10	1	0	644
16:00	6	426	138	17	45	6	0	9	11	0	4	0	0	662
17:00	4	**495**	144	7	41	6	0	6	6	0	3	0	0	**712**
18:00	4	435	129	13	26	3	0	7	5	0	0	0	0	622
19:00	5	309	85	18	20	1	0	5	6	0	0	0	0	449
20:00	10	166	37	22	6	7	0	1	4	0	2	0	0	255
21:00	3	138	47	12	7	3	0	0	4	0	1	0	0	215
22:00	3	125	25	6	2	3	0	1	4	0	0	0	0	169
23:00	3	66	19	9	6	3	0	1	5	0	1	0	0	113
Total	148	8743	2684	285	1002	246	20	143	283	6	88	5	1	13654
Percent	1.1%	64.0%	19.7%	2.1%	7.3%	1.8%	0.1%	1.0%	2.1%	0.0%	0.6%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	11:00	07:00	11:00	07:00	11:00	07:00	08:00	07:00
Vol.	21	1475	398	22	149	24	7	17	27	2	9	1	1	2122
PM Peak	12:00	17:00	15:00	12:00	15:00	12:00	12:00	14:00	12:00	12:00	13:00	14:00		17:00
Vol.	10	495	154	22	61	25	3	16	37	2	12	1		712
Grand Total	148	8743	2684	285	1002	246	20	143	283	6	88	5	1	13654
Percent	1.1%	64.0%	19.7%	2.1%	7.3%	1.8%	0.1%	1.0%	2.1%	0.0%	0.6%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Avenida Barbosa
24 Hour Directional Classification Count

IRW005
Site Code: 051-17783

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	2	90	19	8	5	4	0	0	8	0	5	**1**	0	142
01:00	5	63	14	7	4	5	5	2	6	0	7	0	0	118
02:00	5	47	12	5	3	7	0	1	5	0	3	0	0	88
03:00	4	49	15	4	8	5	1	1	10	0	9	0	0	106
04:00	4	106	39	15	18	5	0	3	12	0	**17**	0	0	219
05:00	4	265	133	21	73	7	2	2	20	0	13	0	0	540
06:00	10	943	272	31	123	30	5	20	23	0	11	0	0	1468
07:00	27	**1798**	**468**	37	**186**	30	6	25	23	**2**	2	1	**1**	**2606**
08:00	**30**	1684	413	16	116	33	5	24	20	1	14	1	1	2358
09:00	16	960	293	28	129	40	4	**29**	40	1	8	0	0	1548
10:00	17	486	189	23	86	43	4	19	34	0	11	1	0	913
11:00	21	491	197	**38**	91	**50**	**17**	25	**55**	2	13	1	0	1001
12 PM	20	487	193	**50**	79	**50**	5	23	**55**	2	16	1	0	981
13:00	17	623	207	37	95	41	**8**	17	41	0	**19**	0	**3**	1108
14:00	22	672	233	26	96	35	5	31	46	1	7	**2**	0	1176
15:00	21	955	**324**	28	**119**	32	4	19	20	1	13	2	0	1538
16:00	**33**	1164	312	21	91	15	2	27	12	3	4	0	1	1685
17:00	17	**1364**	324	11	86	13	2	**35**	7	**6**	3	1	0	**1869**
18:00	19	1072	231	16	44	5	1	10	7	2	0	0	0	1407
19:00	6	591	144	21	31	2	0	7	9	0	0	0	0	811
20:00	10	332	63	25	15	8	1	5	11	0	3	0	0	473
21:00	4	259	70	13	10	5	0	2	7	0	1	0	0	371
22:00	7	209	42	7	4	7	0	1	8	0	1	0	0	286
23:00	6	148	32	11	7	5	4	1	6	0	3	0	0	223
Total	327	14858	4239	499	1519	477	81	329	485	21	183	11	6	23035
Percent	1.4%	64.5%	18.4%	2.2%	6.6%	2.1%	0.4%	1.4%	2.1%	0.1%	0.8%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	11:00	07:00	11:00	11:00	09:00	11:00	07:00	04:00	00:00	07:00	07:00
Vol.	30	1798	468	38	186	50	17	29	55	2	17	1	1	2606
PM Peak	16:00	17:00	15:00	12:00	15:00	12:00	13:00	17:00	12:00	17:00	13:00	14:00	13:00	17:00
Vol.	33	1364	324	50	119	50	8	35	55	6	19	2	3	1869
Grand Total	327	14858	4239	499	1519	477	81	329	485	21	183	11	6	23035
Percent	1.4%	64.5%	18.4%	2.2%	6.6%	2.1%	0.4%	1.4%	2.1%	0.1%	0.8%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW006
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	7	53	11	0	0	4	0	0	0	0	1	0	0	76
01:00	0	32	6	1	0	0	0	1	1	0	1	0	0	42
02:00	2	17	5	0	1	2	0	0	2	0	3	0	0	32
03:00	3	25	8	0	0	2	0	0	0	0	4	0	0	42
04:00	2	76	23	1	5	2	0	3	1	0	2	0	0	115
05:00	1	128	48	3	8	5	0	4	3	0	0	0	0	200
06:00	4	216	47	6	14	7	4	3	6	0	0	0	0	307
07:00	5	458	76	11	29	5	3	**11**	7	0	0	0	0	605
08:00	5	**538**	**113**	13	**36**	5	1	6	5	0	4	**1**	**1**	**728**
09:00	**9**	295	77	**16**	27	11	1	4	12	0	2	0	0	454
10:00	7	247	85	11	20	**17**	3	5	13	0	1	0	0	409
11:00	5	237	96	11	26	16	**6**	4	**14**	0	**5**	0	0	420
12 PM	5	357	102	14	34	10	**6**	10	**17**	0	2	0	0	557
13:00	10	358	115	11	33	**17**	2	6	16	0	**4**	0	**1**	573
14:00	9	447	166	11	**56**	16	6	10	11	0	0	0	0	732
15:00	17	727	168	**20**	46	11	1	**21**	6	0	1	0	0	1018
16:00	19	815	**257**	8	41	13	6	20	5	**1**	4	0	0	1189
17:00	**22**	**976**	202	2	41	9	5	11	3	1	1	0	0	**1273**
18:00	17	810	147	5	21	7	2	11	0	0	0	**1**	0	1021
19:00	1	432	82	4	16	2	1	5	1	0	2	0	0	546
20:00	3	245	38	0	6	0	0	0	0	0	2	0	0	294
21:00	2	208	30	0	5	2	0	1	1	0	1	0	0	250
22:00	2	144	23	0	6	3	0	1	3	0	2	0	0	184
23:00	0	112	15	1	3	0	0	1	0	0	2	0	0	134
Total	157	7953	1940	149	474	166	47	138	127	2	44	2	2	11201
Percent	1.4%	71.0%	17.3%	1.3%	4.2%	1.5%	0.4%	1.2%	1.1%	0.0%	0.4%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	09:00	08:00	10:00	11:00	07:00	11:00		11:00	08:00	08:00	08:00
Vol.	9	538	113	16	36	17	6	11	14		5	1	1	728
PM Peak	17:00	17:00	16:00	15:00	14:00	13:00	12:00	15:00	12:00	16:00	13:00	18:00	13:00	17:00
Vol.	22	976	257	20	56	17	6	21	17	1	4	1	1	1273
Grand Total	157	7953	1940	149	474	166	47	138	127	2	44	2	2	11201
Percent	1.4%	71.0%	17.3%	1.3%	4.2%	1.5%	0.4%	1.2%	1.1%	0.0%	0.4%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Irwindale
Arrow Highway
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW006
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	3	58	5	0	0	1	0	0	3	0	1	0	0	71
01:00	0	22	8	2	0	0	0	0	0	0	1	0	0	33
02:00	3	27	5	0	1	3	0	1	4	0	3	0	0	47
03:00	1	51	20	1	1	1	0	0	3	0	1	0	0	79
04:00	2	105	38	4	6	1	0	0	6	0	4	0	0	166
05:00	2	411	113	11	38	17	0	6	5	0	**5**	0	0	608
06:00	6	1282	290	**17**	73	**18**	1	**19**	9	**1**	4	**1**	0	1721
07:00	7	**1604**	**294**	13	**77**	15	0	12	14	0	5	1	0	**2042**
08:00	4	981	154	11	46	6	0	10	14	0	5	1	0	1232
09:00	7	500	126	12	44	7	1	6	**19**	0	2	0	0	724
10:00	2	349	98	10	25	13	1	4	14	0	4	0	0	520
11:00	**11**	353	93	9	25	13	**3**	4	13	0	4	0	0	528
12 PM	4	412	94	**15**	29	**21**	1	2	**21**	0	9	0	0	608
13:00	3	392	**104**	15	**38**	16	0	4	10	0	**11**	0	0	593
14:00	5	429	94	6	24	8	**2**	4	9	0	6	0	0	587
15:00	**7**	506	93	7	30	6	0	1	9	0	4	0	0	663
16:00	1	509	96	2	20	1	0	2	2	0	1	0	0	634
17:00	1	**584**	89	3	16	1	0	**5**	3	0	1	0	0	**703**
18:00	5	415	70	1	15	1	0	1	0	0	0	0	0	508
19:00	1	245	50	0	6	0	0	0	1	0	0	0	0	303
20:00	3	178	33	3	3	0	0	1	2	0	1	0	0	224
21:00	4	173	26	1	5	3	0	0	7	0	1	0	0	220
22:00	3	118	9	2	4	3	0	2	3	0	2	0	0	146
23:00	1	63	5	3	1	0	0	0	2	0	1	0	0	76
Total	86	9767	2007	148	527	155	9	84	173	1	76	3	0	13036
Percent	0.7%	74.9%	15.4%	1.1%	4.0%	1.2%	0.1%	0.6%	1.3%	0.0%	0.6%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	06:00	07:00	06:00	11:00	06:00	09:00	06:00	05:00	06:00		07:00
Vol.	11	1604	294	17	77	18	3	19	19	1	5	1		2042
PM Peak	15:00	17:00	13:00	12:00	13:00	12:00	14:00	17:00	12:00		13:00			17:00
Vol.	7	584	104	15	38	21	2	5	21		11			703
Grand Total	86	9767	2007	148	527	155	9	84	173	1	76	3	0	13036
Percent	0.7%	74.9%	15.4%	1.1%	4.0%	1.2%	0.1%	0.6%	1.3%	0.0%	0.6%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW006
Site Code: 051-17783

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	10	111	16	0	0	5	0	0	3	0	2	0	0	147
01:00	0	54	14	3	0	0	0	1	1	0	2	0	0	75
02:00	5	44	10	0	2	5	0	1	6	0	6	0	0	79
03:00	4	76	28	1	1	3	0	0	3	0	5	0	0	121
04:00	4	181	61	5	11	3	0	3	7	0	6	0	0	281
05:00	3	539	161	14	46	22	0	10	8	0	5	0	0	808
06:00	10	1498	337	23	87	25	5	22	15	**1**	4	1	0	2028
07:00	12	**2062**	**370**	24	**106**	20	3	**23**	21	0	5	1	0	**2647**
08:00	9	1519	267	24	82	11	1	16	19	0	**9**	**2**	**1**	1960
09:00	**16**	795	203	**28**	71	18	2	10	**31**	0	4	0	0	1178
10:00	9	596	183	21	45	**30**	4	9	27	0	5	0	0	929
11:00	16	590	189	20	51	29	**9**	8	27	0	9	0	0	948
12 PM	9	769	196	**29**	63	31	7	12	**38**	0	11	0	0	1165
13:00	13	750	219	26	71	**33**	2	10	26	0	**15**	0	**1**	1166
14:00	14	876	260	17	**80**	24	**8**	14	20	0	6	0	0	1319
15:00	**24**	1233	261	27	76	17	1	**22**	15	0	5	0	0	1681
16:00	20	1324	**353**	10	61	14	6	22	7	**1**	5	0	0	1823
17:00	23	**1560**	291	5	57	10	5	16	6	1	2	0	0	**1976**
18:00	22	1225	217	6	36	8	2	12	0	0	0	**1**	0	1529
19:00	2	677	132	4	22	2	1	5	2	0	2	0	0	849
20:00	6	423	71	3	9	0	0	1	2	0	3	0	0	518
21:00	6	381	56	1	10	5	0	1	8	0	2	0	0	470
22:00	5	262	32	2	10	6	0	3	6	0	4	0	0	330
23:00	1	175	20	4	4	0	0	1	2	0	3	0	0	210
Total	243	17720	3947	297	1001	321	56	222	300	3	120	5	2	24237
Percent	1.0%	73.1%	16.3%	1.2%	4.1%	1.3%	0.2%	0.9%	1.2%	0.0%	0.5%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	09:00	07:00	10:00	11:00	07:00	09:00	06:00	08:00	08:00	08:00	07:00
Vol.	16	2062	370	28	106	30	9	23	31	1	9	2	1	2647
PM Peak	15:00	17:00	16:00	12:00	14:00	13:00	14:00	15:00	12:00	16:00	13:00	18:00	13:00	17:00
Vol.	24	1560	353	29	80	33	8	22	38	1	15	1	1	1976
Grand Total	243	17720	3947	297	1001	321	56	222	300	3	120	5	2	24237
Percent	1.0%	73.1%	16.3%	1.2%	4.1%	1.3%	0.2%	0.9%	1.2%	0.0%	0.5%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Rivergrade Road
24 Hour Directional Classification Count

IRW007
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	1	47	7	0	1	1	0	0	0	0	0	0	0	57
01:00	0	31	2	0	0	0	0	0	1	0	2	0	0	36
02:00	0	16	5	0	0	0	0	0	1	0	1	0	0	23
03:00	0	20	3	0	0	0	0	0	0	0	**4**	0	0	27
04:00	0	56	10	0	3	0	0	3	1	0	3	0	0	76
05:00	4	86	24	1	4	0	0	1	0	0	0	0	0	120
06:00	3	145	29	3	12	4	5	5	1	0	0	0	0	207
07:00	2	294	41	7	24	4	1	**9**	4	0	0	0	0	386
08:00	1	**351**	64	2	**31**	3	1	3	1	0	2	0	0	**459**
09:00	2	227	43	**10**	25	6	3	3	3	0	1	0	0	323
10:00	3	214	58	7	13	6	3	2	3	0	0	0	0	309
11:00	**14**	207	**65**	3	25	**16**	**9**	2	**5**	0	2	0	0	348
12 PM	1	293	83	5	31	7	4	**8**	1	0	3	0	0	436
13:00	2	310	91	6	25	**9**	1	8	5	0	7	0	0	464
14:00	2	444	132	3	43	8	2	5	**9**	0	2	0	0	650
15:00	4	733	137	**13**	**47**	6	1	8	4	0	2	0	0	955
16:00	8	877	**213**	6	47	7	**5**	8	6	**1**	**8**	0	0	1186
17:00	**14**	**1054**	160	2	38	8	5	5	2	0	2	0	0	**1290**
18:00	2	845	116	2	18	3	2	2	0	0	0	0	0	990
19:00	1	433	58	2	13	0	0	3	1	0	2	0	0	513
20:00	1	220	30	0	4	0	0	0	0	0	1	0	0	256
21:00	1	182	17	0	2	0	0	0	2	0	0	0	0	204
22:00	1	128	13	0	1	1	0	2	1	0	0	0	0	147
23:00	0	105	14	0	2	0	0	2	1	0	1	0	0	125
Total	67	7318	1415	72	409	89	42	79	52	1	43	0	0	9587
Percent	0.7%	76.3%	14.8%	0.8%	4.3%	0.9%	0.4%	0.8%	0.5%	0.0%	0.4%	0.0%	0.0%	
AM Peak	11:00	08:00	11:00	09:00	08:00	11:00	11:00	07:00	11:00		03:00			08:00
Vol.	14	351	65	10	31	16	9	9	5		4			459
PM Peak	17:00	17:00	16:00	15:00	15:00	13:00	16:00	12:00	14:00	16:00	16:00			17:00
Vol.	14	1054	213	13	47	9	5	8	9	1	8			1290
Grand Total	67	7318	1415	72	409	89	42	79	52	1	43	0	0	9587
Percent	0.7%	76.3%	14.8%	0.8%	4.3%	0.9%	0.4%	0.8%	0.5%	0.0%	0.4%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Rivergrade Road
24 Hour Directional Classification Count

IRW007
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	0	51	2	0	1	0	0	0	3	0	0	0	0	57
01:00	0	22	4	0	0	0	0	0	0	0	0	0	0	26
02:00	1	28	3	0	1	2	0	0	1	0	0	0	0	36
03:00	0	45	11	1	1	0	0	0	0	0	2	0	0	60
04:00	2	108	33	4	5	1	0	0	2	0	2	0	0	157
05:00	6	400	103	8	38	7	0	3	2	0	5	0	0	572
06:00	**10**	1300	**274**	**15**	**80**	15	1	10	6	0	6	**1**	**1**	1719
07:00	9	**1623**	252	12	74	**20**	0	**11**	7	0	9	1	0	**2018**
08:00	3	989	145	2	44	4	0	4	2	**1**	**11**	1	0	1206
09:00	6	473	108	7	31	4	1	5	6	0	2	0	0	643
10:00	2	313	84	5	23	14	0	3	5	0	1	0	0	450
11:00	6	298	66	5	21	12	**2**	3	**8**	0	1	0	0	422
12 PM	2	339	71	5	**25**	**21**	**1**	2	6	0	**5**	0	0	477
13:00	1	333	**80**	**10**	24	13	0	2	4	0	5	0	0	472
14:00	5	362	62	4	21	4	0	**4**	4	0	5	0	0	471
15:00	**6**	422	60	5	18	5	0	1	**7**	0	3	0	0	527
16:00	2	382	72	1	15	9	0	2	0	0	2	0	0	485
17:00	3	**436**	63	1	11	18	0	3	2	0	1	0	0	**538**
18:00	3	334	53	1	14	13	0	0	1	0	0	0	0	419
19:00	1	192	37	0	6	0	0	0	1	0	0	0	0	237
20:00	3	173	20	1	4	0	0	1	1	0	0	0	0	203
21:00	5	151	18	1	3	5	0	0	3	0	0	0	0	186
22:00	1	100	8	1	3	1	0	1	2	0	0	0	0	117
23:00	0	45	3	3	1	0	0	0	0	0	0	0	0	52
Total	77	8919	1632	92	464	168	5	55	73	1	60	3	1	11550
Percent	0.7%	77.2%	14.1%	0.8%	4.0%	1.5%	0.0%	0.5%	0.6%	0.0%	0.5%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	06:00	06:00	07:00	11:00	07:00	11:00	08:00	08:00	06:00	06:00	07:00
Vol.	10	1623	274	15	80	20	2	11	8	1	11	1	1	2018
PM Peak	15:00	17:00	13:00	13:00	12:00	12:00	12:00	14:00	15:00		12:00			17:00
Vol.	6	436	80	10	25	21	1	4	7		5			538
Grand Total	77	8919	1632	92	464	168	5	55	73	1	60	3	1	11550
Percent	0.7%	77.2%	14.1%	0.8%	4.0%	1.5%	0.0%	0.5%	0.6%	0.0%	0.5%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
E/ Rivergrade Road
24 Hour Directional Classification Count

IRW007
Site Code: 051-17783

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	1	98	9	0	2	1	0	0	3	0	0	0	0	114
01:00	0	53	6	0	0	0	0	0	1	0	2	0	0	62
02:00	1	44	8	0	1	2	0	0	2	0	1	0	0	59
03:00	0	65	14	1	1	0	0	0	0	0	6	0	0	87
04:00	2	164	43	4	8	1	0	3	3	0	5	0	0	233
05:00	10	486	127	9	42	7	0	4	2	0	5	0	0	692
06:00	13	1445	**303**	18	92	19	6	15	7	0	6	**1**	**1**	1926
07:00	11	**1917**	293	**19**	**98**	24	1	**20**	11	0	9	1	0	**2404**
08:00	4	1340	209	4	75	7	1	7	3	**1**	**13**	1	0	1665
09:00	8	700	151	17	56	10	4	8	9	0	3	0	0	966
10:00	5	527	142	12	36	20	3	5	8	0	1	0	0	759
11:00	**20**	505	131	8	46	**28**	**11**	5	**13**	0	3	0	0	770
12 PM	3	632	154	10	56	**28**	**5**	**10**	7	0	8	0	0	913
13:00	3	643	171	16	49	22	1	10	9	0	**12**	0	0	936
14:00	7	806	194	7	64	12	2	9	**13**	0	7	0	0	1121
15:00	10	1155	197	**18**	**65**	11	1	9	11	0	5	0	0	1482
16:00	10	1259	**285**	7	62	16	5	10	6	**1**	10	0	0	1671
17:00	**17**	**1490**	223	3	49	26	5	8	4	0	3	0	0	**1828**
18:00	5	1179	169	3	32	16	2	2	1	0	0	0	0	1409
19:00	2	625	95	2	19	0	0	3	2	0	2	0	0	750
20:00	4	393	50	1	8	0	0	1	1	0	1	0	0	459
21:00	6	333	35	1	5	5	0	0	5	0	0	0	0	390
22:00	2	228	21	1	4	2	0	3	3	0	0	0	0	264
23:00	0	150	17	3	3	0	0	2	1	0	1	0	0	177
Total	144	16237	3047	164	873	257	47	134	125	2	103	3	1	21137
Percent	0.7%	76.8%	14.4%	0.8%	4.1%	1.2%	0.2%	0.6%	0.6%	0.0%	0.5%	0.0%	0.0%	
AM Peak	11:00	07:00	06:00	07:00	07:00	11:00	11:00	07:00	11:00	08:00	08:00	06:00	06:00	07:00
Vol.	20	1917	303	19	98	28	11	20	13	1	13	1	1	2404
PM Peak	17:00	17:00	16:00	15:00	15:00	12:00	12:00	12:00	14:00	16:00	13:00			17:00
Vol.	17	1490	285	18	65	28	5	10	13	1	12			1828
Grand Total	144	16237	3047	164	873	257	47	134	125	2	103	3	1	21137
Percent	0.7%	76.8%	14.4%	0.8%	4.1%	1.2%	0.2%	0.6%	0.6%	0.0%	0.5%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
W/ Maine Avenue
24 Hour Directional Classification Count

IRW008
Site Code: 1778300834578

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	0	95	19	4	5	1	0	1	1	0	0	0	0	126
01:00	0	82	10	6	6	4	0	0	0	0	0	0	0	108
02:00	0	48	20	7	7	0	0	2	4	0	0	0	0	88
03:00	2	90	20	2	7	1	0	0	0	0	2	0	0	124
04:00	3	192	57	4	22	3	0	3	1	0	2	0	0	287
05:00	4	388	102	5	31	6	2	3	4	0	0	0	0	545
06:00	10	472	148	8	51	21	0	0	6	0	8	0	0	724
07:00	7	615	167	16	79	17	1	14	7	0	37	0	0	960
08:00	7	**665**	**199**	20	77	10	**10**	8	12	0	33	0	0	**1041**
09:00	5	478	170	27	78	9	3	9	16	0	34	0	**1**	830
10:00	**15**	444	159	27	**99**	22	6	**28**	17	0	**63**	0	0	880
11:00	12	459	193	**38**	99	**23**	5	19	**19**	0	46	0	1	914
12 PM	7	524	201	30	114	**22**	**12**	23	22	0	**63**	**1**	0	1019
13:00	10	634	229	28	107	18	9	22	**29**	0	54	0	**2**	1142
14:00	12	960	310	**35**	158	22	4	**24**	17	0	46	0	2	1590
15:00	**13**	1056	347	28	149	14	1	16	11	0	19	0	0	1654
16:00	12	1503	**401**	19	**162**	11	0	14	11	0	9	0	0	2142
17:00	12	**1814**	398	11	108	6	0	20	4	0	1	0	0	**2374**
18:00	8	1652	325	15	85	8	0	6	8	0	5	0	0	2112
19:00	8	997	200	13	45	12	0	3	3	0	1	0	0	1282
20:00	3	496	96	7	35	5	0	4	1	0	0	0	0	647
21:00	6	332	63	6	11	3	0	1	2	0	0	0	0	424
22:00	2	233	32	6	11	3	0	0	7	0	0	0	0	294
23:00	3	191	26	6	5	5	0	2	2	0	0	0	0	240
Total	161	14420	3892	368	1551	246	53	222	204	0	423	1	6	21547
Percent	0.7%	66.9%	18.1%	1.7%	7.2%	1.1%	0.2%	1.0%	0.9%	0.0%	2.0%	0.0%	0.0%	
AM Peak	10:00	08:00	08:00	11:00	10:00	11:00	08:00	10:00	11:00		10:00		09:00	08:00
Vol.	15	665	199	38	99	23	10	28	19		63		1	1041
PM Peak	15:00	17:00	16:00	14:00	16:00	12:00	12:00	14:00	13:00		12:00	12:00	13:00	17:00
Vol.	13	1814	401	35	162	22	12	24	29		63	1	2	2374
Grand Total	161	14420	3892	368	1551	246	53	222	204	0	423	1	6	21547
Percent	0.7%	66.9%	18.1%	1.7%	7.2%	1.1%	0.2%	1.0%	0.9%	0.0%	2.0%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
W/ Maine Avenue
24 Hour Directional Classification Count

IRW008
Site Code: 1778300834578

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	79	22	4	4	3	0	0	0	0	1	0	0	114
01:00	2	88	12	2	6	0	0	0	2	0	1	0	0	113
02:00	0	59	12	5	9	1	0	0	3	0	0	0	0	89
03:00	2	100	31	7	14	2	0	0	3	0	3	0	0	162
04:00	4	253	104	15	26	5	0	1	11	0	15	0	0	434
05:00	15	737	255	17	125	24	0	16	10	0	14	0	0	1213
06:00	30	1955	**518**	24	**227**	16	1	35	16	0	4	0	**1**	2827
07:00	**33**	**2055**	470	27	158	10	**2**	**36**	11	0	26	0	0	**2828**
08:00	26	1400	358	23	150	23	0	19	19	0	22	0	0	2040
09:00	21	873	276	**33**	129	**27**	0	10	**20**	0	19	0	0	1408
10:00	19	587	204	28	136	26	0	19	12	0	**63**	0	0	1094
11:00	21	464	186	28	106	27	1	17	16	0	36	0	1	903
12 PM	20	613	203	**35**	**123**	30	0	**21**	**21**	0	**47**	0	0	1113
13:00	24	602	215	35	80	**39**	0	12	17	0	39	0	0	1063
14:00	17	724	208	21	119	14	**1**	20	17	0	23	0	0	1164
15:00	**26**	680	225	20	96	19	0	20	9	0	12	0	0	1107
16:00	20	790	**237**	12	65	27	0	11	7	0	9	0	**1**	1179
17:00	11	**889**	227	10	53	19	0	6	4	0	1	0	1	**1221**
18:00	6	583	151	11	33	7	1	7	2	0	0	0	0	801
19:00	7	413	93	13	27	6	0	3	5	0	0	0	0	567
20:00	5	316	76	8	16	2	0	0	2	0	0	0	0	425
21:00	5	293	64	2	10	3	0	5	1	0	0	0	0	383
22:00	2	232	38	5	15	8	0	1	2	0	0	0	0	303
23:00	3	152	25	6	4	6	0	0	1	0	1	0	0	198
Total	320	14937	4210	391	1731	344	6	259	211	0	336	0	4	22749
Percent	1.4%	65.7%	18.5%	1.7%	7.6%	1.5%	0.0%	1.1%	0.9%	0.0%	1.5%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	09:00	06:00	09:00	07:00	07:00	09:00		10:00		06:00	07:00
Vol.	33	2055	518	33	227	27	2	36	20		63		1	2828
PM Peak	15:00	17:00	16:00	12:00	12:00	13:00	14:00	12:00	12:00		12:00		16:00	17:00
Vol.	26	889	237	35	123	39	1	21	21		47		1	1221
Grand Total	320	14937	4210	391	1731	344	6	259	211	0	336	0	4	22749
Percent	1.4%	65.7%	18.5%	1.7%	7.6%	1.5%	0.0%	1.1%	0.9%	0.0%	1.5%	0.0%	0.0%	

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City of Irwindale
Arrow Highway
W/ Maine Avenue
24 Hour Directional Classification Count

IRW008
Site Code: 1778300834578

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	174	41	8	9	4	0	1	1	0	1	0	0	240
01:00	2	170	22	8	12	4	0	0	2	0	1	0	0	221
02:00	0	107	32	12	16	1	0	2	7	0	0	0	0	177
03:00	4	190	51	9	21	3	0	0	3	0	5	0	0	286
04:00	7	445	161	19	48	8	0	4	12	0	17	0	0	721
05:00	19	1125	357	22	156	30	2	19	14	0	14	0	0	1758
06:00	**40**	2427	**666**	32	**278**	37	1	35	22	0	12	0	1	3551
07:00	40	**2670**	637	43	237	27	3	**50**	18	0	63	0	0	**3788**
08:00	33	2065	557	43	227	33	**10**	27	31	0	55	0	0	3081
09:00	26	1351	446	60	207	36	3	19	**36**	0	53	0	1	2238
10:00	34	1031	363	55	235	48	6	47	29	0	**126**	0	0	1974
11:00	33	923	379	**66**	205	**50**	6	36	35	0	82	0	**2**	1817
12 PM	27	1137	404	**65**	237	52	**12**	**44**	43	0	**110**	**1**	0	2132
13:00	34	1236	444	63	187	**57**	9	34	**46**	0	93	0	**2**	2205
14:00	29	1684	518	56	**277**	36	5	44	34	0	69	0	2	2754
15:00	**39**	1736	572	48	245	33	1	36	20	0	31	0	0	2761
16:00	32	2293	**638**	31	227	38	0	25	18	0	18	0	1	3321
17:00	23	**2703**	625	21	161	25	0	26	8	0	2	0	1	**3595**
18:00	14	2235	476	26	118	15	1	13	10	0	5	0	0	2913
19:00	15	1410	293	26	72	18	0	6	8	0	1	0	0	1849
20:00	8	812	172	15	51	7	0	4	3	0	0	0	0	1072
21:00	11	625	127	8	21	6	0	6	3	0	0	0	0	807
22:00	4	465	70	11	26	11	0	1	9	0	0	0	0	597
23:00	6	343	51	12	9	11	0	2	3	0	1	0	0	438
Total	481	29357	8102	759	3282	590	59	481	415	0	759	1	10	44296
Percent	1.1%	66.3%	18.3%	1.7%	7.4%	1.3%	0.1%	1.1%	0.9%	0.0%	1.7%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	11:00	06:00	11:00	08:00	07:00	09:00		10:00		11:00	07:00
Vol.	40	2670	666	66	278	50	10	50	36		126		2	3788
PM Peak	15:00	17:00	16:00	12:00	14:00	13:00	12:00	12:00	13:00		12:00	12:00	13:00	17:00
Vol.	39	2703	638	65	277	57	12	44	46		110	1	2	3595
Grand Total	481	29357	8102	759	3282	590	59	481	415	0	759	1	10	44296
Percent	1.1%	66.3%	18.3%	1.7%	7.4%	1.3%	0.1%	1.1%	0.9%	0.0%	1.7%	0.0%	0.0%	

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City of Irwindale
Rivegrade Road
S/ Arrow Highway
24 Hour Directional Classification Count

IRW009
Site Code: 051-17783

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	2	0	1	0	1	0	0	1	0	0	0	0	6
01:00	2	9	4	0	0	0	0	0	1	0	0	0	0	16
02:00	0	9	5	0	0	1	0	0	1	0	0	0	0	16
03:00	2	11	3	1	2	0	0	1	0	0	0	0	0	20
04:00	6	28	13	3	2	5	0	1	3	0	0	0	0	61
05:00	6	50	21	4	4	2	0	1	5	0	0	0	0	93
06:00	1	83	**40**	3	15	**12**	0	3	7	0	0	0	0	164
07:00	3	**150**	39	4	**16**	2	**1**	**4**	8	0	**1**	0	0	**228**
08:00	**11**	93	26	**8**	12	6	1	3	**12**	0	1	0	0	173
09:00	6	74	13	4	11	5	1	0	12	0	0	0	0	126
10:00	7	68	16	5	10	4	0	2	2	0	0	0	0	114
11:00	5	67	22	2	5	8	0	2	11	0	1	0	0	123
12 PM	1	89	27	4	6	5	**1**	1	**13**	0	1	0	**1**	149
13:00	**3**	89	25	**8**	**11**	**8**	0	**2**	9	0	0	0	0	155
14:00	3	101	**29**	4	8	8	0	2	3	0	1	0	0	159
15:00	3	86	25	7	10	4	1	1	4	0	**5**	0	0	146
16:00	1	143	25	3	3	2	0	2	0	0	2	0	0	181
17:00	3	**193**	26	5	4	3	0	0	0	0	0	0	0	**234**
18:00	1	95	16	2	3	2	0	0	0	0	0	0	0	119
19:00	0	59	6	1	1	0	0	0	1	0	0	0	0	68
20:00	0	35	4	1	2	1	0	1	1	0	0	0	0	45
21:00	1	24	4	0	0	1	0	0	0	0	1	0	0	31
22:00	2	16	2	0	1	2	0	0	0	0	0	0	0	23
23:00	1	13	4	2	1	0	0	0	0	0	0	0	0	21
Total	69	1587	395	72	127	82	5	26	94	0	13	0	1	2471
Percent	2.8%	64.2%	16.0%	2.9%	5.1%	3.3%	0.2%	1.1%	3.8%	0.0%	0.5%	0.0%	0.0%	
AM Peak	08:00	07:00	06:00	08:00	07:00	06:00	07:00	07:00	08:00		07:00			07:00
Vol.	11	150	40	8	16	12	1	4	12		1			228
PM Peak	13:00	17:00	14:00	13:00	13:00	13:00	12:00	13:00	12:00		15:00		12:00	17:00
Vol.	3	193	29	8	11	8	1	2	13		5		1	234
Grand Total	69	1587	395	72	127	82	5	26	94	0	13	0	1	2471
Percent	2.8%	64.2%	16.0%	2.9%	5.1%	3.3%	0.2%	1.1%	3.8%	0.0%	0.5%	0.0%	0.0%	

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City of Irwindale
Rivegrade Road
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24 Hour Directional Classification Count

IRW009
Site Code: 051-17783

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	2	17	1	0	0	1	0	2	0	0	0	0	0	23
01:00	1	16	1	2	0	2	0	0	0	0	1	0	0	23
02:00	**7**	8	1	1	1	6	0	0	1	0	0	0	0	25
03:00	1	9	6	1	1	3	0	0	1	0	0	0	0	22
04:00	4	22	10	3	2	2	0	1	0	0	0	0	0	44
05:00	0	41	14	**8**	6	3	0	0	8	0	0	0	0	80
06:00	7	95	17	7	7	4	0	2	7	0	0	0	0	146
07:00	4	**266**	32	6	**10**	3	**2**	**4**	2	0	**13**	0	0	**342**
08:00	3	240	**34**	1	10	4	2	4	5	0	2	0	0	305
09:00	3	110	24	4	7	5	0	1	9	0	0	0	0	163
10:00	7	66	11	4	10	**8**	2	1	**15**	**1**	4	0	0	129
11:00	2	68	22	6	5	6	2	1	13	0	1	0	0	126
12 PM	**5**	98	30	**12**	5	6	0	**4**	**9**	0	0	0	0	169
13:00	2	109	35	9	9	3	**2**	1	9	0	0	0	0	179
14:00	3	111	30	6	13	2	2	2	8	0	0	0	0	177
15:00	1	115	28	4	**14**	4	1	1	6	0	0	0	0	174
16:00	3	128	40	4	6	15	0	2	0	0	0	0	0	198
17:00	2	**130**	**44**	3	7	**18**	0	1	0	0	0	0	0	**205**
18:00	2	86	21	1	1	5	0	0	0	0	0	0	0	116
19:00	0	56	9	3	1	0	0	0	0	0	0	0	0	69
20:00	1	37	5	4	1	2	0	0	0	0	0	0	0	50
21:00	1	35	7	0	1	2	0	0	0	0	0	0	0	46
22:00	4	37	4	1	0	0	0	1	0	0	0	0	0	47
23:00	1	31	1	0	0	1	0	0	0	0	0	0	0	34
Total	66	1931	427	90	117	105	13	28	93	1	21	0	0	2892
Percent	2.3%	66.8%	14.8%	3.1%	4.0%	3.6%	0.4%	1.0%	3.2%	0.0%	0.7%	0.0%	0.0%	
AM Peak	02:00	07:00	08:00	05:00	07:00	10:00	07:00	07:00	10:00	10:00	07:00			07:00
Vol.	7	266	34	8	10	8	2	4	15	1	13			342
PM Peak	12:00	17:00	17:00	12:00	15:00	17:00	13:00	12:00	12:00					17:00
Vol.	5	130	44	12	14	18	2	4	9					205
Grand Total	66	1931	427	90	117	105	13	28	93	1	21	0	0	2892
Percent	2.3%	66.8%	14.8%	3.1%	4.0%	3.6%	0.4%	1.0%	3.2%	0.0%	0.7%	0.0%	0.0%	

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Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	3	19	1	1	0	2	0	2	1	0	0	0	0	29
01:00	3	25	5	2	0	2	0	0	1	0	1	0	0	39
02:00	7	17	6	1	1	7	0	0	2	0	0	0	0	41
03:00	3	20	9	2	3	3	0	1	1	0	0	0	0	42
04:00	10	50	23	6	4	7	0	2	3	0	0	0	0	105
05:00	6	91	35	**12**	10	5	0	1	13	0	0	0	0	173
06:00	8	178	57	10	22	**16**	0	5	14	0	0	0	0	310
07:00	7	**416**	**71**	10	**26**	5	**3**	**8**	10	0	**14**	0	0	**570**
08:00	**14**	333	60	9	22	10	3	7	17	0	3	0	0	478
09:00	9	184	37	8	18	10	1	1	21	0	0	0	0	289
10:00	14	134	27	9	20	12	2	3	17	**1**	4	0	0	243
11:00	7	135	44	8	10	14	2	3	**24**	0	2	0	0	249
12 PM	**6**	187	57	16	11	11	1	**5**	**22**	0	1	0	**1**	318
13:00	5	198	60	**17**	20	11	**2**	3	18	0	0	0	0	334
14:00	6	212	59	10	21	10	2	4	11	0	1	0	0	336
15:00	4	201	53	11	**24**	8	2	2	10	0	**5**	0	0	320
16:00	4	271	65	7	9	17	0	4	0	0	2	0	0	379
17:00	5	**323**	**70**	8	11	**21**	0	1	0	0	0	0	0	**439**
18:00	3	181	37	3	4	7	0	0	0	0	0	0	0	235
19:00	0	115	15	4	2	0	0	0	1	0	0	0	0	137
20:00	1	72	9	5	3	3	0	1	1	0	0	0	0	95
21:00	2	59	11	0	1	3	0	0	0	0	1	0	0	77
22:00	6	53	6	1	1	2	0	1	0	0	0	0	0	70
23:00	2	44	5	2	1	1	0	0	0	0	0	0	0	55
Total	135	3518	822	162	244	187	18	54	187	1	34	0	1	5363
Percent	2.5%	65.6%	15.3%	3.0%	4.5%	3.5%	0.3%	1.0%	3.5%	0.0%	0.6%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	05:00	07:00	06:00	07:00	07:00	11:00	10:00	07:00			07:00
Vol.	14	416	71	12	26	16	3	8	24	1	14			570
PM Peak	12:00	17:00	17:00	13:00	15:00	17:00	13:00	12:00	12:00		15:00		12:00	17:00
Vol.	6	323	70	17	24	21	2	5	22		5		1	439
Grand Total	135	3518	822	162	244	187	18	54	187	1	34	0	1	5363
Percent	2.5%	65.6%	15.3%	3.0%	4.5%	3.5%	0.3%	1.0%	3.5%	0.0%	0.6%	0.0%	0.0%	

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email: counts@countsunlimited.com

City of Irwindale
Rivergrade Road
N/ Live Oak Avenue
24 Hour Directional Classification Count

IRW010
Site Code: 051-17783

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	1	0	0	0	1	0	0	0	0	0	0	0	3
01:00	0	6	1	0	0	0	0	0	1	0	0	0	0	8
02:00	0	12	2	0	0	0	0	0	1	0	0	0	0	15
03:00	0	5	2	2	2	0	0	1	1	0	0	0	0	13
04:00	3	16	4	2	3	2	0	0	3	0	0	0	0	33
05:00	3	19	13	3	5	3	0	2	6	0	0	0	0	54
06:00	3	41	17	3	10	6	0	3	8	0	0	0	0	91
07:00	**8**	62	**22**	4	**12**	4	**1**	1	9	0	**2**	0	0	**125**
08:00	4	47	11	**6**	9	**8**	1	**5**	**14**	0	1	0	0	106
09:00	5	51	12	5	10	7	1	0	12	0	1	0	0	104
10:00	6	52	20	4	7	3	0	2	4	0	0	0	0	98
11:00	2	**72**	13	1	8	6	0	2	14	0	1	0	0	119
12 PM	2	77	13	6	7	5	**1**	0	**14**	0	5	0	0	130
13:00	1	80	19	**10**	5	**7**	0	**3**	11	0	0	0	0	136
14:00	3	85	**20**	4	8	4	0	3	4	0	1	0	0	132
15:00	**5**	78	16	7	**9**	5	1	1	7	0	**7**	0	0	136
16:00	3	135	19	2	7	3	0	3	0	0	2	0	0	**174**
17:00	1	**146**	15	3	5	0	0	0	2	0	0	0	0	172
18:00	1	74	13	0	2	1	0	0	1	0	0	0	0	92
19:00	1	39	2	0	1	1	0	0	1	0	0	0	0	45
20:00	0	17	2	1	1	1	0	2	2	0	0	0	0	26
21:00	1	13	2	1	1	1	0	0	0	0	1	0	0	20
22:00	0	8	1	0	0	0	0	2	0	0	0	0	0	11
23:00	0	7	2	1	0	0	0	0	0	0	0	0	0	10
Total	53	1143	241	65	112	68	5	30	115	0	21	0	0	1853
Percent	2.9%	61.7%	13.0%	3.5%	6.0%	3.7%	0.3%	1.6%	6.2%	0.0%	1.1%	0.0%	0.0%	
AM Peak	07:00	11:00	07:00	08:00	07:00	08:00	07:00	08:00	08:00		07:00			07:00
Vol.	8	72	22	6	12	8	1	5	14		2			125
PM Peak	15:00	17:00	14:00	13:00	15:00	13:00	12:00	13:00	12:00		15:00			16:00
Vol.	5	146	20	10	9	7	1	3	14		7			174
Grand Total	53	1143	241	65	112	68	5	30	115	0	21	0	0	1853
Percent	2.9%	61.7%	13.0%	3.5%	6.0%	3.7%	0.3%	1.6%	6.2%	0.0%	1.1%	0.0%	0.0%	

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City of Irwindale
Rivergrade Road
N/ Live Oak Avenue
24 Hour Directional Classification Count

IRW010
Site Code: 051-17783

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	5	1	0	0	0	0	2	0	0	0	0	0	9
01:00	0	8	0	2	0	0	0	0	0	0	1	0	0	11
02:00	1	7	1	2	1	1	0	1	4	0	0	0	0	18
03:00	4	5	2	1	1	2	0	0	1	0	0	0	0	16
04:00	0	8	3	3	1	0	0	2	3	0	0	0	0	20
05:00	2	26	6	**10**	4	4	0	1	7	0	0	0	0	60
06:00	**7**	58	10	8	11	**5**	0	1	5	0	0	0	0	105
07:00	1	**230**	**22**	6	10	3	**3**	4	4	0	**9**	0	**1**	**293**
08:00	3	185	15	6	**12**	4	1	**5**	4	0	2	0	0	237
09:00	3	83	18	3	12	5	0	0	10	0	0	0	0	134
10:00	4	49	10	4	12	5	3	0	13	0	4	0	0	104
11:00	3	40	5	7	5	4	0	5	**14**	0	1	0	0	84
12 PM	**9**	71	18	**12**	7	**7**	0	3	5	**1**	0	0	0	**133**
13:00	0	**73**	**22**	7	6	3	3	1	**7**	0	0	0	0	122
14:00	6	57	17	4	8	5	**4**	**4**	5	0	0	0	0	110
15:00	7	54	14	4	**9**	3	1	1	4	1	0	0	0	98
16:00	3	47	16	1	3	4	0	3	0	0	0	0	0	77
17:00	6	46	16	2	6	2	0	1	2	0	0	0	0	81
18:00	1	32	7	0	1	1	0	0	1	0	0	0	0	43
19:00	0	23	3	1	1	0	0	0	2	0	0	0	0	30
20:00	1	11	1	2	1	1	0	0	0	0	0	0	0	17
21:00	1	11	2	0	0	1	0	0	2	0	0	0	0	17
22:00	4	12	2	1	0	1	0	1	0	0	0	0	0	21
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Total	67	1147	211	86	111	61	15	35	93	2	17	0	1	1846
Percent	3.6%	62.1%	11.4%	4.7%	6.0%	3.3%	0.8%	1.9%	5.0%	0.1%	0.9%	0.0%	0.1%	
AM Peak	06:00	07:00	07:00	05:00	08:00	06:00	07:00	08:00	11:00		07:00		07:00	07:00
Vol.	7	230	22	10	12	5	3	5	14		9		1	293
PM Peak	12:00	13:00	13:00	12:00	15:00	12:00	14:00	14:00	13:00	12:00				12:00
Vol.	9	73	22	12	9	7	4	4	7	1				133
Grand Total	67	1147	211	86	111	61	15	35	93	2	17	0	1	1846
Percent	3.6%	62.1%	11.4%	4.7%	6.0%	3.3%	0.8%	1.9%	5.0%	0.1%	0.9%	0.0%	0.1%	

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City of Irwindale
Rivergrade Road
N/ Live Oak Avenue
24 Hour Directional Classification Count

IRW010
Site Code: 051-17783

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	2	6	1	0	0	1	0	2	0	0	0	0	0	12
01:00	0	14	1	2	0	0	0	0	1	0	1	0	0	19
02:00	1	19	3	2	1	1	0	1	5	0	0	0	0	33
03:00	4	10	4	3	3	2	0	1	2	0	0	0	0	29
04:00	3	24	7	5	4	2	0	2	6	0	0	0	0	53
05:00	5	45	19	**13**	9	7	0	3	13	0	0	0	0	114
06:00	**10**	99	27	11	21	11	0	4	13	0	0	0	0	196
07:00	9	**292**	**44**	10	**22**	7	**4**	5	13	0	**11**	0	**1**	**418**
08:00	7	232	26	12	21	**12**	2	**10**	18	0	3	0	0	343
09:00	8	134	30	8	22	12	1	0	22	0	1	0	0	238
10:00	10	101	30	8	19	8	3	2	17	0	4	0	0	202
11:00	5	112	18	8	13	10	0	7	**28**	0	2	0	0	203
12 PM	11	148	31	**18**	14	**12**	1	3	**19**	**1**	5	0	0	**263**
13:00	1	153	**41**	17	11	10	3	4	18	0	0	0	0	258
14:00	9	142	37	8	16	9	**4**	**7**	9	0	1	0	0	242
15:00	**12**	132	30	11	**18**	8	2	2	11	1	**7**	0	0	234
16:00	6	182	35	3	10	7	0	6	0	0	2	0	0	251
17:00	7	**192**	31	5	11	2	0	1	4	0	0	0	0	253
18:00	2	106	20	0	3	2	0	0	2	0	0	0	0	135
19:00	1	62	5	1	2	1	0	0	3	0	0	0	0	75
20:00	1	28	3	3	2	2	0	2	2	0	0	0	0	43
21:00	2	24	4	1	1	2	0	0	2	0	1	0	0	37
22:00	4	20	3	1	0	1	0	3	0	0	0	0	0	32
23:00	0	13	2	1	0	0	0	0	0	0	0	0	0	16
Total	120	2290	452	151	223	129	20	65	208	2	38	0	1	3699
Percent	3.2%	61.9%	12.2%	4.1%	6.0%	3.5%	0.5%	1.8%	5.6%	0.1%	1.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	05:00	07:00	08:00	07:00	08:00	11:00		07:00		07:00	07:00
Vol.	10	292	44	13	22	12	4	10	28		11		1	418
PM Peak	15:00	17:00	13:00	12:00	15:00	12:00	14:00	14:00	12:00	12:00	15:00			12:00
Vol.	12	192	41	18	18	12	4	7	19	1	7			263
Grand Total	120	2290	452	151	223	129	20	65	208	2	38	0	1	3699
Percent	3.2%	61.9%	12.2%	4.1%	6.0%	3.5%	0.5%	1.8%	5.6%	0.1%	1.0%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
W/ Interstate 605
24 Hour Directional Classification Count

IRW011
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/30/17	3	60	10	0	4	3	0	1	2	0	0	0	0	83
01:00	3	39	15	3	3	5	0	1	5	0	2	0	0	76
02:00	4	36	9	1	2	5	0	0	7	0	8	0	0	72
03:00	3	52	14	3	2	5	0	2	7	0	9	0	0	97
04:00	6	100	45	11	21	7	1	3	18	0	16	0	0	228
05:00	12	232	68	21	34	19	4	8	26	0	**19**	0	0	443
06:00	**16**	367	90	**35**	42	**31**	**7**	6	34	**2**	10	0	**2**	642
07:00	9	431	120	9	44	24	7	5	12	0	7	0	1	669
08:00	9	**524**	128	16	47	16	0	6	32	0	6	0	0	**784**
09:00	6	416	**129**	23	54	20	5	8	**47**	0	1	0	0	709
10:00	7	330	127	21	51	28	2	6	41	0	4	0	1	618
11:00	12	326	125	22	**78**	22	3	**9**	43	1	10	0	1	652
12 PM	9	405	130	20	51	28	**8**	14	41	**2**	1	0	**1**	710
13:00	5	449	152	25	58	27	1	6	**45**	0	**4**	0	0	772
14:00	14	601	213	**27**	79	24	3	**18**	39	0	4	0	0	1022
15:00	12	932	294	24	120	**30**	1	10	19	0	2	0	0	1444
16:00	15	1279	**386**	16	**137**	20	3	15	8	0	0	0	0	1879
17:00	15	**1485**	379	13	90	16	4	7	8	0	1	0	0	**2018**
18:00	**17**	1179	245	12	60	11	0	9	9	0	1	0	0	1543
19:00	5	478	109	6	28	5	1	4	5	0	3	0	0	644
20:00	5	303	55	4	20	5	1	2	3	0	4	0	0	402
21:00	4	248	47	4	14	4	1	1	4	0	0	0	0	327
22:00	5	187	35	2	10	2	0	0	5	0	0	0	0	246
23:00	4	101	24	0	4	4	0	0	4	0	1	0	0	142
Total	200	10560	2949	318	1053	361	52	141	464	5	113	0	6	16222
Percent	1.2%	65.1%	18.2%	2.0%	6.5%	2.2%	0.3%	0.9%	2.9%	0.0%	0.7%	0.0%	0.0%	
AM Peak	06:00	08:00	09:00	06:00	11:00	06:00	06:00	11:00	09:00	06:00	05:00		06:00	08:00
Vol.	16	524	129	35	78	31	7	9	47	2	19		2	784
PM Peak	18:00	17:00	16:00	14:00	16:00	15:00	12:00	14:00	13:00	12:00	13:00		12:00	17:00
Vol.	17	1485	386	27	137	30	8	18	45	2	4		1	2018
Grand Total	200	10560	2949	318	1053	361	52	141	464	5	113	0	6	16222
Percent	1.2%	65.1%	18.2%	2.0%	6.5%	2.2%	0.3%	0.9%	2.9%	0.0%	0.7%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
W/ Interstate 605
24 Hour Directional Classification Count

IRW011
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/30/17	3	68	10	1	0	1	0	0	5	0	2	0	0	90
01:00	1	50	12	0	1	5	0	0	4	0	1	0	0	74
02:00	1	37	11	2	3	0	0	0	4	0	2	0	0	60
03:00	6	59	16	1	4	5	0	0	2	0	4	0	0	97
04:00	3	119	43	4	14	6	0	2	15	0	0	0	0	206
05:00	2	257	97	11	29	16	0	5	12	0	4	0	0	433
06:00	2	607	**216**	17	66	**56**	2	**18**	12	0	4	0	0	1000
07:00	8	**834**	195	15	**68**	16	1	16	15	0	7	0	0	**1175**
08:00	4	727	182	20	57	11	**15**	11	35	0	17	0	0	1079
09:00	**13**	448	131	23	40	36	15	11	43	0	20	0	0	780
10:00	8	350	112	**30**	49	32	12	10	52	0	21	0	**1**	677
11:00	12	307	95	25	42	34	11	6	**57**	0	**25**	0	0	614
12 PM	6	353	127	18	**54**	31	**12**	3	50	0	32	0	0	686
13:00	14	378	90	**30**	48	**41**	11	7	**55**	0	**45**	0	0	719
14:00	12	450	142	17	47	23	8	**9**	35	0	21	0	0	764
15:00	**15**	448	144	19	47	18	6	4	29	0	5	0	0	735
16:00	9	547	132	10	30	14	2	6	22	0	1	0	0	773
17:00	7	**770**	**150**	8	30	7	0	3	16	0	2	0	0	**993**
18:00	9	593	110	17	22	9	0	6	15	0	2	0	0	783
19:00	6	415	82	8	10	5	0	7	7	**1**	0	0	0	541
20:00	7	283	54	10	9	5	0	2	5	0	2	0	0	377
21:00	3	290	54	6	11	7	0	3	3	0	1	0	0	378
22:00	1	200	40	4	5	4	0	1	3	0	2	0	0	260
23:00	4	111	16	0	3	6	0	0	4	0	4	0	0	148
Total	156	8701	2261	296	689	388	95	130	500	1	224	0	1	13442
Percent	1.2%	64.7%	16.8%	2.2%	5.1%	2.9%	0.7%	1.0%	3.7%	0.0%	1.7%	0.0%	0.0%	
AM Peak	09:00	07:00	06:00	10:00	07:00	06:00	08:00	06:00	11:00		11:00		10:00	07:00
Vol.	13	834	216	30	68	56	15	18	57		25		1	1175
PM Peak	15:00	17:00	17:00	13:00	12:00	13:00	12:00	14:00	13:00	19:00	13:00			17:00
Vol.	15	770	150	30	54	41	12	9	55	1	45			993
Grand Total	156	8701	2261	296	689	388	95	130	500	1	224	0	1	13442
Percent	1.2%	64.7%	16.8%	2.2%	5.1%	2.9%	0.7%	1.0%	3.7%	0.0%	1.7%	0.0%	0.0%	

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Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/30/17	6	128	20	1	4	4	0	1	7	0	2	0	0	173
01:00	4	89	27	3	4	10	0	1	9	0	3	0	0	150
02:00	5	73	20	3	5	5	0	0	11	0	10	0	0	132
03:00	9	111	30	4	6	10	0	2	9	0	13	0	0	194
04:00	9	219	88	15	35	13	1	5	33	0	16	0	0	434
05:00	14	489	165	32	63	35	4	13	38	0	23	0	0	876
06:00	18	974	306	**52**	108	**87**	9	**24**	46	**2**	14	0	**2**	1642
07:00	17	**1265**	**315**	24	112	40	8	21	27	0	14	0	1	1844
08:00	13	1251	310	36	104	27	15	17	67	0	23	0	0	**1863**
09:00	19	864	260	46	94	56	**20**	19	90	0	21	0	0	1489
10:00	15	680	239	51	100	60	14	16	93	0	25	0	2	1295
11:00	**24**	633	220	47	**120**	56	14	15	**100**	1	**35**	0	1	1266
12 PM	15	758	257	38	105	59	**20**	17	91	**2**	33	0	**1**	1396
13:00	19	827	242	**55**	106	**68**	12	13	**100**	0	**49**	0	0	1491
14:00	26	1051	355	44	126	47	11	**27**	74	0	25	0	0	1786
15:00	**27**	1380	438	43	**167**	48	7	14	48	0	7	0	0	2179
16:00	24	1826	518	26	167	34	5	21	30	0	1	0	0	2652
17:00	22	**2255**	**529**	21	120	23	4	10	24	0	3	0	0	**3011**
18:00	26	1772	355	29	82	20	0	15	24	0	3	0	0	2326
19:00	11	893	191	14	38	10	1	11	12	1	3	0	0	1185
20:00	12	586	109	14	29	10	1	4	8	0	6	0	0	779
21:00	7	538	101	10	25	11	1	4	7	0	1	0	0	705
22:00	6	387	75	6	15	6	0	1	8	0	2	0	0	506
23:00	8	212	40	0	7	10	0	0	8	0	5	0	0	290
Total	356	19261	5210	614	1742	749	147	271	964	6	337	0	7	29664
Percent	1.2%	64.9%	17.6%	2.1%	5.9%	2.5%	0.5%	0.9%	3.2%	0.0%	1.1%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	06:00	11:00	06:00	09:00	06:00	11:00	06:00	11:00		06:00	08:00
Vol.	24	1265	315	52	120	87	20	24	100	2	35		2	1863
PM Peak	15:00	17:00	17:00	13:00	15:00	13:00	12:00	14:00	13:00	12:00	13:00		12:00	17:00
Vol.	27	2255	529	55	167	68	20	27	100	2	49		1	3011
Grand Total	356	19261	5210	614	1742	749	147	271	964	6	337	0	7	29664
Percent	1.2%	64.9%	17.6%	2.1%	5.9%	2.5%	0.5%	0.9%	3.2%	0.0%	1.1%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW012
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	2	63	6	0	5	4	0	0	4	0	1	0	0	85
01:00	1	52	7	0	4	2	0	0	2	0	0	0	0	68
02:00	3	44	11	3	3	3	0	0	3	0	1	0	0	71
03:00	1	56	11	2	3	0	0	0	0	0	1	0	0	74
04:00	4	125	39	2	19	6	0	0	7	0	3	0	0	205
05:00	3	261	73	4	27	4	0	2	4	0	3	0	0	381
06:00	3	302	111	16	31	4	0	8	12	0	7	0	0	494
07:00	5	481	134	9	**66**	8	2	9	17	**1**	12	3	0	747
08:00	**9**	**509**	**138**	15	60	12	**9**	7	20	1	**23**	1	0	**804**
09:00	9	305	116	**19**	34	12	4	8	32	0	15	2	0	556
10:00	8	237	115	10	44	13	4	8	20	0	18	0	0	477
11:00	1	262	99	19	64	**14**	6	**10**	**34**	0	21	**4**	0	534
12 PM	9	327	124	21	62	15	**8**	11	**31**	0	**34**	**4**	0	646
13:00	12	425	156	**36**	87	15	2	**14**	30	0	25	2	0	804
14:00	12	599	197	22	95	17	7	12	10	**1**	25	1	0	998
15:00	**20**	807	258	20	**106**	**20**	1	4	25	0	9	2	0	1272
16:00	1	1024	**312**	16	103	6	2	14	8	1	2	0	0	1489
17:00	6	**1175**	295	12	75	8	2	11	6	0	1	0	0	**1591**
18:00	7	1028	219	10	63	6	0	9	7	0	1	0	0	1350
19:00	6	647	118	7	27	7	0	1	4	0	2	0	0	819
20:00	3	309	59	3	14	4	0	3	4	0	0	0	0	399
21:00	4	226	43	4	9	3	0	0	4	0	0	0	0	293
22:00	2	166	27	2	3	4	0	0	2	0	0	0	0	206
23:00	3	86	15	2	3	4	0	4	4	0	0	0	0	121
Total	134	9516	2683	254	1007	191	47	135	290	4	204	19	0	14484
Percent	0.9%	65.7%	18.5%	1.8%	7.0%	1.3%	0.3%	0.9%	2.0%	0.0%	1.4%	0.1%	0.0%	
AM Peak	08:00	08:00	08:00	09:00	07:00	11:00	08:00	11:00	11:00	07:00	08:00	11:00		08:00
Vol.	9	509	138	19	66	14	9	10	34	1	23	4		804
PM Peak	15:00	17:00	16:00	13:00	15:00	15:00	12:00	13:00	12:00	14:00	12:00	12:00		17:00
Vol.	20	1175	312	36	106	20	8	14	31	1	34	4		1591
Grand Total	134	9516	2683	254	1007	191	47	135	290	4	204	19	0	14484
Percent	0.9%	65.7%	18.5%	1.8%	7.0%	1.3%	0.3%	0.9%	2.0%	0.0%	1.4%	0.1%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW012
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	0	56	14	1	2	2	0	0	0	0	2	0	0	77
01:00	1	42	9	0	0	2	0	3	2	0	0	0	0	59
02:00	1	41	8	2	2	1	0	0	1	0	2	1	0	59
03:00	3	67	19	1	9	4	0	2	3	0	4	0	0	112
04:00	4	186	57	7	8	5	0	2	9	0	6	0	**2**	286
05:00	**9**	480	181	21	77	33	0	9	20	**1**	5	0	0	836
06:00	8	**899**	**259**	20	**82**	**54**	3	**14**	18	0	4	0	0	**1361**
07:00	7	847	210	21	80	15	**4**	14	19	0	33	3	0	1253
08:00	9	588	146	34	61	21	3	9	20	0	37	5	0	933
09:00	7	373	158	**42**	49	25	1	10	**32**	0	**59**	4	1	761
10:00	9	281	103	23	58	19	3	5	31	0	49	4	0	585
11:00	3	277	101	23	47	26	3	9	30	0	55	**6**	0	580
12 PM	5	335	126	**35**	47	21	4	4	**37**	0	**67**	7	0	688
13:00	11	355	94	31	**59**	**27**	2	**8**	34	0	51	**8**	**1**	681
14:00	9	429	106	23	47	22	**5**	7	18	0	15	4	0	685
15:00	**12**	424	**142**	19	41	20	4	3	7	0	10	3	0	685
16:00	2	560	141	12	46	13	3	7	9	0	10	2	0	805
17:00	4	**685**	132	8	34	7	0	6	5	0	1	0	0	**882**
18:00	0	473	90	7	30	10	0	2	9	0	1	0	0	622
19:00	3	252	62	5	12	4	0	4	4	0	1	0	0	347
20:00	4	155	45	6	3	7	0	4	2	0	0	0	0	226
21:00	1	162	34	4	7	5	0	1	3	0	1	0	0	218
22:00	1	126	25	1	12	3	0	0	1	0	0	0	0	169
23:00	1	81	17	3	3	4	0	0	5	0	0	0	0	114
Total	114	8174	2279	349	816	350	35	123	319	1	413	47	4	13024
Percent	0.9%	62.8%	17.5%	2.7%	6.3%	2.7%	0.3%	0.9%	2.4%	0.0%	3.2%	0.4%	0.0%	
AM Peak	05:00	06:00	06:00	09:00	06:00	06:00	07:00	06:00	09:00	05:00	09:00	11:00	04:00	06:00
Vol.	9	899	259	42	82	54	4	14	32	1	59	6	2	1361
PM Peak	15:00	17:00	15:00	12:00	13:00	13:00	14:00	13:00	12:00		12:00	13:00	13:00	17:00
Vol.	12	685	142	35	59	27	5	8	37		67	8	1	882
Grand Total	114	8174	2279	349	816	350	35	123	319	1	413	47	4	13024
Percent	0.9%	62.8%	17.5%	2.7%	6.3%	2.7%	0.3%	0.9%	2.4%	0.0%	3.2%	0.4%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Live Oak Lane
24 Hour Directional Classification Count

IRW012
Site Code: 051-17783

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	2	119	20	1	7	6	0	0	4	0	3	0	0	162
01:00	2	94	16	0	4	4	0	3	4	0	0	0	0	127
02:00	4	85	19	5	5	4	0	0	4	0	3	1	0	130
03:00	4	123	30	3	12	4	0	2	3	0	5	0	0	186
04:00	8	311	96	9	27	11	0	2	16	0	9	0	**2**	491
05:00	12	741	254	25	104	37	0	11	24	**1**	8	0	0	1217
06:00	11	1201	**370**	36	113	**58**	3	22	30	0	11	0	0	1855
07:00	12	**1328**	344	30	**146**	23	6	**23**	36	1	45	6	0	**2000**
08:00	**18**	1097	284	49	121	33	**12**	16	40	1	60	6	0	1737
09:00	16	678	274	**61**	83	37	5	18	**64**	0	74	6	1	1317
10:00	17	518	218	33	102	32	7	13	51	0	67	4	0	1062
11:00	4	539	200	42	111	40	9	19	64	0	**76**	**10**	0	1114
12 PM	14	662	250	56	109	36	**12**	15	**68**	0	**101**	**11**	0	1334
13:00	23	780	250	**67**	146	**42**	4	**22**	64	0	76	10	**1**	1485
14:00	21	1028	303	45	142	39	12	19	28	**1**	40	5	0	1683
15:00	**32**	1231	400	39	147	40	5	7	32	0	19	5	0	1957
16:00	3	1584	**453**	28	**149**	19	5	21	17	1	12	2	0	2294
17:00	10	**1860**	427	20	109	15	2	17	11	0	2	0	0	**2473**
18:00	7	1501	309	17	93	16	0	11	16	0	2	0	0	1972
19:00	9	899	180	12	39	11	0	5	8	0	3	0	0	1166
20:00	7	464	104	9	17	11	0	7	6	0	0	0	0	625
21:00	5	388	77	8	16	8	0	1	7	0	1	0	0	511
22:00	3	292	52	3	15	7	0	0	3	0	0	0	0	375
23:00	4	167	32	5	6	8	0	4	9	0	0	0	0	235
Total	248	17690	4962	603	1823	541	82	258	609	5	617	66	4	27508
Percent	0.9%	64.3%	18.0%	2.2%	6.6%	2.0%	0.3%	0.9%	2.2%	0.0%	2.2%	0.2%	0.0%	
AM Peak	08:00	07:00	06:00	09:00	07:00	06:00	08:00	07:00	09:00	05:00	11:00	11:00	04:00	07:00
Vol.	18	1328	370	61	146	58	12	23	64	1	76	10	2	2000
PM Peak	15:00	17:00	16:00	13:00	16:00	13:00	12:00	13:00	12:00	14:00	12:00	12:00	13:00	17:00
Vol.	32	1860	453	67	149	42	12	22	68	1	101	11	1	2473
Grand Total	248	17690	4962	603	1823	541	82	258	609	5	617	66	4	27508
Percent	0.9%	64.3%	18.0%	2.2%	6.6%	2.0%	0.3%	0.9%	2.2%	0.0%	2.2%	0.2%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Commerce Drive
24 Hour Directional Classification Count

IRW013
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	2	80	13	0	3	5	0	0	2	0	0	0	0	105
01:00	0	62	7	3	4	1	0	0	2	0	0	0	0	79
02:00	2	44	10	1	0	3	0	1	1	0	1	0	0	63
03:00	0	83	16	1	3	0	0	0	0	0	1	0	0	104
04:00	2	157	49	1	19	2	0	0	1	0	2	0	0	233
05:00	4	315	89	3	18	8	0	0	4	0	2	0	0	443
06:00	9	351	99	11	34	5	0	3	9	0	22	0	0	543
07:00	3	462	**138**	8	53	11	1	6	13	0	42	6	0	743
08:00	3	**490**	133	23	**63**	2	**11**	7	12	0	**61**	9	0	**814**
09:00	6	354	109	**27**	45	12	6	7	17	0	38	3	**1**	625
10:00	7	320	122	19	48	9	5	**19**	19	0	55	6	0	629
11:00	**10**	343	110	23	59	**13**	7	11	**28**	0	60	**10**	0	674
12 PM	10	479	141	26	78	17	**9**	21	22	0	**67**	**6**	**2**	878
13:00	13	505	181	**31**	86	16	2	21	**32**	**1**	54	6	0	948
14:00	9	794	231	20	99	15	9	**24**	8	1	40	1	0	1251
15:00	16	1044	311	29	**132**	**32**	5	18	27	0	33	3	0	1650
16:00	10	1394	**367**	23	128	19	4	23	7	1	13	1	0	1990
17:00	**21**	**1607**	352	21	97	13	3	20	10	1	7	0	0	**2152**
18:00	11	1270	254	11	74	7	0	14	10	1	5	1	0	1658
19:00	5	761	148	8	43	6	0	4	2	1	3	0	0	981
20:00	5	379	81	4	17	3	0	4	2	0	0	0	0	495
21:00	6	275	60	4	8	4	0	1	2	0	0	0	0	360
22:00	3	200	33	3	8	4	0	0	2	0	0	0	0	253
23:00	1	137	28	3	5	3	0	3	3	0	0	0	0	183
Total	158	11906	3082	303	1124	210	62	207	235	6	506	52	3	17854
Percent	0.9%	66.7%	17.3%	1.7%	6.3%	1.2%	0.3%	1.2%	1.3%	0.0%	2.8%	0.3%	0.0%	
AM Peak	11:00	08:00	07:00	09:00	08:00	11:00	08:00	10:00	11:00		08:00	11:00	09:00	08:00
Vol.	10	490	138	27	63	13	11	19	28		61	10	1	814
PM Peak	17:00	17:00	16:00	13:00	15:00	15:00	12:00	14:00	13:00	13:00	12:00	12:00	12:00	17:00
Vol.	21	1607	367	31	132	32	9	24	32	1	67	6	2	2152
Grand Total	158	11906	3082	303	1124	210	62	207	235	6	506	52	3	17854
Percent	0.9%	66.7%	17.3%	1.7%	6.3%	1.2%	0.3%	1.2%	1.3%	0.0%	2.8%	0.3%	0.0%	

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24 Hour Directional Classification Count

IRW013
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	0	53	13	0	2	3	0	0	0	0	0	0	0	71
01:00	0	49	13	1	0	1	0	3	0	0	2	0	0	69
02:00	2	62	8	0	3	2	0	0	0	1	1	1	0	80
03:00	4	82	23	0	9	4	0	1	2	0	3	0	0	128
04:00	1	217	74	7	18	6	0	2	8	0	10	0	0	343
05:00	4	560	199	21	78	24	0	9	12	1	5	0	0	913
06:00	7	1131	**293**	17	**110**	**50**	2	20	12	1	6	0	0	1649
07:00	**15**	**1253**	263	**31**	99	19	**3**	**21**	11	**2**	31	5	**2**	**1755**
08:00	15	848	179	26	79	14	2	9	**21**	1	40	**9**	0	1243
09:00	3	501	164	31	43	14	0	13	15	0	41	3	0	828
10:00	7	317	105	21	61	19	0	5	18	0	38	3	0	594
11:00	6	323	113	19	56	21	0	9	20	0	**43**	6	0	616
12 PM	**10**	391	130	**31**	49	22	0	5	**19**	0	**48**	**8**	1	714
13:00	5	424	107	26	**74**	**25**	0	10	16	0	43	4	**2**	736
14:00	4	488	118	21	48	15	**1**	**15**	17	0	7	3	0	737
15:00	7	455	**150**	18	45	9	1	4	1	0	12	2	0	704
16:00	9	529	136	6	53	10	1	5	8	0	8	2	0	**767**
17:00	5	**576**	126	8	31	3	0	5	4	0	0	0	0	758
18:00	5	425	101	10	27	8	0	2	5	0	0	0	0	583
19:00	5	250	59	4	14	3	0	3	1	0	0	0	0	339
20:00	4	173	42	5	4	5	0	2	2	0	0	0	0	237
21:00	0	172	40	5	11	1	0	2	4	0	1	0	0	236
22:00	0	131	27	3	12	2	0	0	0	0	0	0	0	175
23:00	1	82	25	3	4	5	0	0	5	0	0	0	0	125
Total	119	9492	2508	314	930	285	10	145	201	6	339	46	5	14400
Percent	0.8%	65.9%	17.4%	2.2%	6.5%	2.0%	0.1%	1.0%	1.4%	0.0%	2.4%	0.3%	0.0%	
AM Peak	07:00	07:00	06:00	07:00	06:00	06:00	07:00	07:00	08:00	07:00	11:00	08:00	07:00	07:00
Vol.	15	1253	293	31	110	50	3	21	21	2	43	9	2	1755
PM Peak	12:00	17:00	15:00	12:00	13:00	13:00	14:00	14:00	12:00		12:00	12:00	13:00	16:00
Vol.	10	576	150	31	74	25	1	15	19		48	8	2	767
Grand Total	119	9492	2508	314	930	285	10	145	201	6	339	46	5	14400
Percent	0.8%	65.9%	17.4%	2.2%	6.5%	2.0%	0.1%	1.0%	1.4%	0.0%	2.4%	0.3%	0.0%	

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IRW013
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Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/29/17	2	133	26	0	5	8	0	0	2	0	0	0	0	176
01:00	0	111	20	4	4	2	0	3	2	0	2	0	0	148
02:00	4	106	18	1	3	5	0	1	1	1	2	1	0	143
03:00	4	165	39	1	12	4	0	1	2	0	4	0	0	232
04:00	3	374	123	8	37	8	0	2	9	0	12	0	0	576
05:00	8	875	288	24	96	32	0	9	16	1	7	0	0	1356
06:00	16	1482	392	28	144	**55**	2	23	21	1	28	0	0	2192
07:00	**18**	**1715**	**401**	39	**152**	30	4	**27**	24	**2**	73	11	**2**	**2498**
08:00	18	1338	312	49	142	16	**13**	16	33	1	101	**18**	0	2057
09:00	9	855	273	**58**	88	26	6	20	32	0	79	6	1	1453
10:00	14	637	227	40	109	28	5	24	37	0	93	9	0	1223
11:00	16	666	223	42	115	34	7	20	**48**	0	**103**	16	0	1290
12 PM	20	870	271	**57**	127	39	9	26	41	0	**115**	**14**	**3**	1592
13:00	18	929	288	57	160	**41**	2	31	**48**	**1**	97	10	2	1684
14:00	13	1282	349	41	147	30	**10**	**39**	25	1	47	4	0	1988
15:00	23	1499	461	47	177	41	6	22	28	0	45	5	0	2354
16:00	19	1923	**503**	29	**181**	29	5	28	15	1	21	3	0	2757
17:00	**26**	**2183**	478	29	128	16	3	25	14	1	7	0	0	**2910**
18:00	16	1695	355	21	101	15	0	16	15	1	5	1	0	2241
19:00	10	1011	207	12	57	9	0	7	3	1	3	0	0	1320
20:00	9	552	123	9	21	8	0	6	4	0	0	0	0	732
21:00	6	447	100	9	19	5	0	3	6	0	1	0	0	596
22:00	3	331	60	6	20	6	0	0	2	0	0	0	0	428
23:00	2	219	53	6	9	8	0	3	8	0	0	0	0	308
Total	277	21398	5590	617	2054	495	72	352	436	12	845	98	8	32254
Percent	0.9%	66.3%	17.3%	1.9%	6.4%	1.5%	0.2%	1.1%	1.4%	0.0%	2.6%	0.3%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	06:00	08:00	07:00	11:00	07:00	11:00	08:00	07:00	07:00
Vol.	18	1715	401	58	152	55	13	27	48	2	103	18	2	2498
PM Peak	17:00	17:00	16:00	12:00	16:00	13:00	14:00	14:00	13:00	13:00	12:00	12:00	12:00	17:00
Vol.	26	2183	503	57	181	41	10	39	48	1	115	14	3	2910
Grand Total	277	21398	5590	617	2054	495	72	352	436	12	845	98	8	32254
Percent	0.9%	66.3%	17.3%	1.9%	6.4%	1.5%	0.2%	1.1%	1.4%	0.0%	2.6%	0.3%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Stewart Avenue
24 Hour Directional Classification Count

IRW014
Site Code: 051-17783

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	0	68	14	1	1	0	0	0	1	0	0	0	0	85
01:00	1	60	8	2	3	3	0	0	0	0	0	0	0	77
02:00	0	45	9	3	1	0	0	0	5	0	0	0	0	63
03:00	0	72	11	1	2	0	0	0	0	0	1	0	0	87
04:00	1	132	40	1	8	3	0	0	3	0	1	0	0	189
05:00	2	286	73	4	14	8	3	2	4	0	0	0	0	396
06:00	**8**	319	103	6	30	15	0	0	9	0	8	0	0	498
07:00	3	427	120	8	50	9	0	10	6	0	37	0	0	670
08:00	3	**428**	**123**	19	53	9	**15**	10	10	0	35	0	0	**705**
09:00	4	306	108	16	39	5	1	9	15	0	35	0	0	538
10:00	5	242	103	14	57	**17**	7	**22**	16	0	**75**	0	0	558
11:00	6	289	114	**26**	**62**	13	4	10	**17**	0	49	**1**	0	591
12 PM	7	351	124	23	80	**16**	**12**	17	20	0	**63**	0	0	713
13:00	11	440	146	20	72	14	7	15	**27**	0	51	0	0	803
14:00	8	681	237	24	100	15	4	21	14	0	44	0	**1**	1149
15:00	**21**	919	317	**32**	**130**	16	1	**22**	15	0	26	0	0	1499
16:00	10	1248	**343**	15	122	14	1	12	6	0	7	**1**	1	1780
17:00	7	**1479**	263	18	79	3	0	15	4	0	1	0	0	**1869**
18:00	6	1241	229	6	46	4	0	7	8	0	0	0	0	1547
19:00	3	730	124	11	34	6	0	2	7	0	0	0	0	917
20:00	3	337	64	2	19	1	0	5	1	0	0	0	0	432
21:00	1	234	46	5	3	1	0	1	2	0	0	0	0	293
22:00	3	177	26	3	6	3	0	0	4	0	0	0	0	222
23:00	0	151	15	2	2	0	0	1	1	0	0	0	0	172
Total	113	10662	2760	262	1013	175	55	181	195	0	433	2	2	15853
Percent	0.7%	67.3%	17.4%	1.7%	6.4%	1.1%	0.3%	1.1%	1.2%	0.0%	2.7%	0.0%	0.0%	
AM Peak	06:00	08:00	08:00	11:00	11:00	10:00	08:00	10:00	11:00		10:00	11:00		08:00
Vol.	8	428	123	26	62	17	15	22	17		75	1		705
PM Peak	15:00	17:00	16:00	15:00	15:00	12:00	12:00	15:00	13:00		12:00	16:00	14:00	17:00
Vol.	21	1479	343	32	130	16	12	22	27		63	1	1	1869
Grand Total	113	10662	2760	262	1013	175	55	181	195	0	433	2	2	15853
Percent	0.7%	67.3%	17.4%	1.7%	6.4%	1.1%	0.3%	1.1%	1.2%	0.0%	2.7%	0.0%	0.0%	

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City of Irwindale
Live Oak Avenue
E/ Stewart Avenue
24 Hour Directional Classification Count

IRW014
Site Code: 051-17783

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	43	15	0	4	1	0	0	0	0	0	0	0	64
01:00	0	57	12	0	2	0	0	0	1	0	0	0	0	72
02:00	0	45	9	2	7	0	0	0	3	0	0	0	0	66
03:00	0	62	25	3	15	1	0	1	2	0	2	0	0	111
04:00	3	195	66	8	31	3	0	0	15	0	12	0	0	333
05:00	6	488	191	11	95	14	0	13	9	0	9	0	0	836
06:00	6	984	**273**	20	**113**	**15**	**1**	20	8	0	3	0	0	1443
07:00	**10**	**1055**	238	19	94	4	0	16	7	0	21	0	0	**1464**
08:00	3	737	179	19	90	12	0	5	13	0	33	0	0	1091
09:00	5	493	150	**27**	78	14	0	4	**22**	0	21	0	1	815
10:00	8	350	138	26	89	14	0	**23**	17	0	**74**	0	1	740
11:00	4	273	106	26	73	14	0	17	20	0	41	0	**2**	576
12 PM	**7**	372	123	33	**79**	14	0	**22**	**23**	0	**60**	0	**1**	734
13:00	5	376	132	**36**	50	**18**	**1**	9	18	0	36	0	0	681
14:00	6	475	132	15	71	12	0	17	20	0	26	0	0	**774**
15:00	6	402	137	13	73	17	0	18	10	0	13	0	0	689
16:00	7	494	**138**	8	52	15	0	10	6	0	7	0	0	737
17:00	5	**521**	129	8	27	8	0	6	2	0	2	0	0	708
18:00	2	378	89	7	28	3	1	6	3	0	0	0	0	517
19:00	1	237	59	9	16	2	0	2	7	0	0	0	0	333
20:00	4	210	36	6	18	4	0	1	2	0	0	0	0	281
21:00	1	178	34	3	10	1	0	2	3	0	0	0	0	232
22:00	3	148	20	2	8	6	0	1	2	0	0	0	0	190
23:00	1	99	18	3	2	1	0	0	1	0	1	0	0	126
Total	94	8672	2449	304	1125	193	3	193	214	0	361	0	5	13613
Percent	0.7%	63.7%	18.0%	2.2%	8.3%	1.4%	0.0%	1.4%	1.6%	0.0%	2.7%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	09:00	06:00	06:00	06:00	10:00	09:00		10:00		11:00	07:00
Vol.	10	1055	273	27	113	15	1	23	22		74		2	1464
PM Peak	12:00	17:00	16:00	13:00	12:00	13:00	13:00	12:00	12:00		12:00		12:00	14:00
Vol.	7	521	138	36	79	18	1	22	23		60		1	774
Grand Total	94	8672	2449	304	1125	193	3	193	214	0	361	0	5	13613
Percent	0.7%	63.7%	18.0%	2.2%	8.3%	1.4%	0.0%	1.4%	1.6%	0.0%	2.7%	0.0%	0.0%	

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IRW014
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Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/28/17	1	111	29	1	5	1	0	0	1	0	0	0	0	149
01:00	1	117	20	2	5	3	0	0	1	0	0	0	0	149
02:00	0	90	18	5	8	0	0	0	8	0	0	0	0	129
03:00	0	134	36	4	17	1	0	1	2	0	3	0	0	198
04:00	4	327	106	9	39	6	0	0	18	0	13	0	0	522
05:00	8	774	264	15	109	22	3	15	13	0	9	0	0	1232
06:00	**14**	1303	**376**	26	143	30	1	20	17	0	11	0	0	1941
07:00	13	**1482**	358	27	144	13	0	26	13	0	58	0	0	**2134**
08:00	6	1165	302	38	143	21	**15**	15	23	0	68	0	0	1796
09:00	9	799	258	43	117	19	1	13	**37**	0	56	0	1	1353
10:00	13	592	241	40	**146**	**31**	7	**45**	33	0	**149**	0	1	1298
11:00	10	562	220	**52**	135	27	4	27	37	0	90	**1**	**2**	1167
12 PM	14	723	247	**56**	159	30	**12**	39	43	0	**123**	0	**1**	1447
13:00	16	816	278	56	122	32	8	24	**45**	0	87	0	0	1484
14:00	14	1156	369	39	171	27	4	38	34	0	70	0	1	1923
15:00	**27**	1321	454	45	**203**	**33**	1	**40**	25	0	39	0	0	2188
16:00	17	1742	**481**	23	174	29	1	22	12	0	14	**1**	1	2517
17:00	12	**2000**	392	26	106	11	0	21	6	0	3	0	0	**2577**
18:00	8	1619	318	13	74	7	1	13	11	0	0	0	0	2064
19:00	4	967	183	20	50	8	0	4	14	0	0	0	0	1250
20:00	7	547	100	8	37	5	0	6	3	0	0	0	0	713
21:00	2	412	80	8	13	2	0	3	5	0	0	0	0	525
22:00	6	325	46	5	14	9	0	1	6	0	0	0	0	412
23:00	1	250	33	5	4	1	0	1	2	0	1	0	0	298
Total	207	19334	5209	566	2138	368	58	374	409	0	794	2	7	29466
Percent	0.7%	65.6%	17.7%	1.9%	7.3%	1.2%	0.2%	1.3%	1.4%	0.0%	2.7%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	11:00	10:00	10:00	08:00	10:00	09:00		10:00	11:00	11:00	07:00
Vol.	14	1482	376	52	146	31	15	45	37		149	1	2	2134
PM Peak	15:00	17:00	16:00	12:00	15:00	15:00	12:00	15:00	13:00		12:00	16:00	12:00	17:00
Vol.	27	2000	481	56	203	33	12	40	45		123	1	1	2577
Grand Total	207	19334	5209	566	2138	368	58	374	409	0	794	2	7	29466
Percent	0.7%	65.6%	17.7%	1.9%	7.3%	1.2%	0.2%	1.3%	1.4%	0.0%	2.7%	0.0%	0.0%	

APPENDIX 3.2:

EXISTING (2017) CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	113	645	10	138	687	57	49	236	81	115	780	312
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	645	10	138	687	57	49	236	81	115	780	312
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	121	691	11	148	736	61	53	253	87	123	836	334
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	691	11	148	736	61	53	253	87	123	836	334
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	691	11	148	736	61	53	253	87	123	836	334
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.43	0.57
Final Sat.:	1600	3151	49	1600	3200	1600	1600	1600	1600	1600	2286	914
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.09	0.23	0.04	0.03	0.16	0.05	0.08	0.37	0.37
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.878
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	241	662	160	28	577	235	133	535	237	184	1068	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	662	160	28	577	235	133	535	237	184	1068	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	249	685	165	29	597	243	138	553	245	190	1104	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	685	165	29	597	243	138	553	245	190	1104	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	249	685	165	29	597	243	138	553	245	190	1104	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.10	0.02	0.19	0.15	0.09	0.17	0.15	0.12	0.35	0.35
Crit Moves:	****			****			****			****		

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.736
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	5	7	8	379	5	17	27	619	0	9	1485	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	379	5	17	27	619	0	9	1485	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	5	7	8	393	5	18	28	641	0	9	1539	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	393	5	18	28	641	0	9	1539	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	393	5	18	28	641	0	9	1539	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.97	0.03	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3158	42	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.12	0.12	0.01	0.02	0.20	0.00	0.01	0.48	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.989
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 0	2 0	2	0 0
Volume Module:												
Base Vol:	976	0	247	0	0	0	0	493	0	145	1774	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	976	0	247	0	0	0	0	493	0	145	1774	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	1009	0	255	0	0	0	0	510	0	150	1835	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1009	0	255	0	0	0	0	510	0	150	1835	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1009	0	255	0	0	0	0	510	0	150	1835	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.32	0.00	0.16	0.00	0.00	0.00	0.00	0.16	0.00	0.05	0.57	0.00
Crit Moves:	****						****				****	

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Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	813	29	27	1211	12	30
Future Vol, veh/h	813	29	27	1211	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	838	30	28	1248	12	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	868	0	1533	434
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	680	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	459	-	136	492
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	456	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	459	-	128	492
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	456	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	20.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	271	-	-	459	-
HCM Lane V/C Ratio	0.16	-	-	0.061	-
HCM Control Delay (s)	20.8	-	-	13.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑↑↱							↱
Traffic Vol, veh/h	0	740	0	0	1910	19	0	0	0	0	0	0
Future Vol, veh/h	0	740	0	0	1910	19	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	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	0	804	0	0	2076	21	0	0	0	0	0	0

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	-	-	-	0				-	-	1049
Stage 1	-	-	-	-	-	-				-	-	-
Stage 2	-	-	-	-	-	-				-	-	-
Critical Hdwy	-	-	-	-	-	-				-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-				-	-	-
Follow-up Hdwy	-	-	-	-	-	-				-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-				0	0	195
Stage 1	0	-	0	0	-	-				0	0	-
Stage 2	0	-	0	0	-	-				0	0	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-				-	0	195
Mov Cap-2 Maneuver	-	-	-	-	-	-				-	0	-
Stage 1	-	-	-	-	-	-				-	0	-
Stage 2	-	-	-	-	-	-				-	0	-

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

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

The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.488
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	0	0	1	0	0	0	0	840	2	6	1238	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	1	0	0	0	0	840	2	6	1238	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	1	0	0	0	0	840	2	6	1238	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	1	0	0	0	0	840	2	6	1238	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	1	0	0	0	0	840	2	6	1238	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.99	0.01	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4789	11	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.00	0.39	0.00
Crit Moves:			****				****				****	

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The Park @ Live Oak (JN 11110)
Existing
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.509
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0	2 0 1	2	0	1 0 1
Volume Module:												
Base Vol:	53	313	603	2	95	7	2	2	9	180	6	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	313	603	2	95	7	2	2	9	180	6	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	62	365	703	2	111	8	2	2	10	210	7	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	365	703	2	111	8	2	2	10	210	7	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	365	703	2	111	8	2	2	10	210	7	21
OvlAdjVol:			493									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.86	2.00	0.02	0.98	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	232	1368	3200	33	1567	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.22	0.07	0.07	0.01	0.00	0.00	0.01	0.07	0.00	0.01
OvlAdjV/S:			0.15									
Crit Moves:	****			****					****	****		

The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

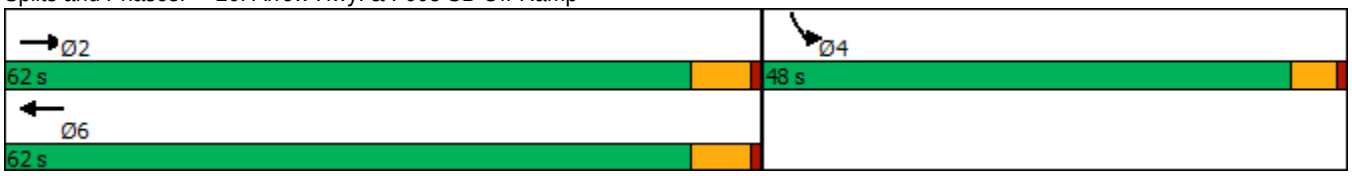
Cycle (sec):	100	Critical Vol./Cap.(X):	1.016
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

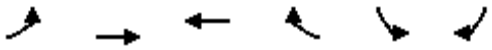
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	198	0	174	311	429	0	0	1756	648
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	198	0	174	311	429	0	0	1756	648
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	213	0	187	334	461	0	0	1888	697
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	213	0	187	334	461	0	0	1888	697
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	213	0	187	334	461	0	0	1888	697
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.12	0.21	0.14	0.00	0.00	0.59	0.44
Crit Moves:						****	****				****	

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	627	1755	446	649
Future Volume (vph)	627	1755	446	649
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 94.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	627	1755	0	446	649
Future Volume (veh/h)	0	627	1755	0	446	649
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	646	1809	0	460	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	3061	2130	0	515	
Arrive On Green	0.00	0.59	0.59	0.00	0.28	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	646	1809	0	460	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	4.9	34.5	0.0	20.4	0.0
Cycle Q Clear(g_c), s	0.0	4.9	34.5	0.0	20.4	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3061	2130	0	515	
V/C Ratio(X)	0.00	0.21	0.85	0.00	0.89	
Avail Cap(c_a), veh/h	0	3475	2419	0	934	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.1	14.1	0.0	28.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.8	0.0	5.6	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	1.5	11.7	0.0	9.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.1	16.9	0.0	34.4	0.0
LnGrp LOS	A	A	B	A	C	
Approach Vol, veh/h		646	1809		460	A
Approach Delay, s/veh		8.1	16.9		34.4	
Approach LOS		A	B		C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		55.3		28.6		55.3
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		6.9		22.4		36.5
Green Ext Time (p_c), s		4.5		1.4		13.0

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

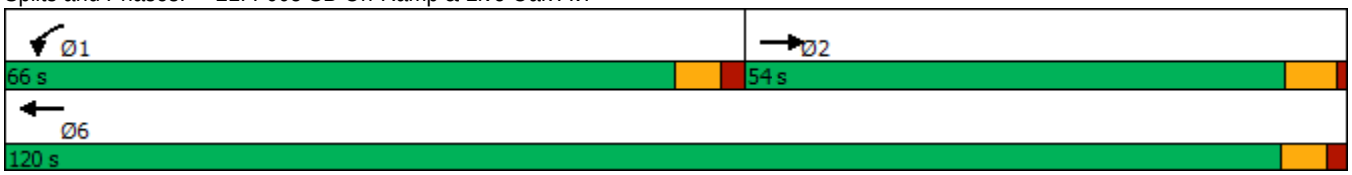
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	322	519	668	1244
Future Volume (vph)	322	519	668	1244
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	54.0		66.0	120.0
Total Split (%)	45.0%		55.0%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 56.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	322	519	668	1244	0	0
Future Volume (veh/h)	322	519	668	1244	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	339	0	703	1309		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	692		1040	3188		
Arrive On Green	0.19	0.00	0.57	0.88		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	339	0	703	1309		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	4.4	0.0	14.1	3.5		
Cycle Q Clear(g_c), s	4.4	0.0	14.1	3.5		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	692		1040	3188		
V/C Ratio(X)	0.49		0.68	0.41		
Avail Cap(c_a), veh/h	3333		2076	7877		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	18.8	0.0	7.7	0.6		
Incr Delay (d2), s/veh	0.2	0.0	1.7	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	0.0	3.4	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	0.0	9.4	0.7		
LnGrp LOS	B		A	A		
Approach Vol, veh/h	339	A		2012		
Approach Delay, s/veh	19.0			3.8		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	36.1	16.1				52.2
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	59.9	* 48				113.9
Max Q Clear Time (g_c+I1), s	16.1	6.4				5.5
Green Ext Time (p_c), s	7.2	1.3				32.9

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	756	19	0	1755	397	0	0	12	0	0	0
Future Vol, veh/h	0	756	19	0	1755	397	0	0	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	822	21	0	1908	432	0	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	411
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	-	-	0	0	596
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	596	-	-	-	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	11.2	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	24.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	322	0	0	1413	0	0	0	580	0	0	499
Future Vol, veh/h	0	322	0	0	1413	0	0	0	580	0	0	499
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	350	0	0	1536	0	0	0	630	0	0	542

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	175	-	-	768
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	904	0	0	~ 470
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	904	-	-	~ 470
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.6	119.3
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	904	-	-	470
HCM Lane V/C Ratio	0.697	-	-	1.154
HCM Control Delay (s)	17.6	-	-	119.3
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	5.9	-	-	19.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	227	0	21	0	0	0	0	876	359	83	1914	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	227	0	21	0	0	0	0	876	359	83	1914	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	234	0	22	0	0	0	0	903	370	86	1973	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	234	0	22	0	0	0	0	903	370	86	1973	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	234	0	22	0	0	0	0	903	370	86	1973	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.28	0.23	0.05	0.62	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Existing
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.369
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	28	7	141	10	0	8	12	127	23	60	386	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	7	141	10	0	8	12	127	23	60	386	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	32	8	163	12	0	9	14	147	27	70	447	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	8	163	12	0	9	14	147	27	70	447	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	8	163	12	0	9	14	147	27	70	447	19
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.05	0.95	1.00	0.11	0.89	1.00	1.69	0.31	1.00	1.92	0.08
Final Sat.:	1600	76	1524	1600	178	1422	1600	2709	491	1600	3073	127
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.11	0.01	0.00	0.01	0.01	0.05	0.05	0.04	0.15	0.15
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Existing
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	60	91	197		25	350	99		93	673	81		277	1076	28	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	60	91	197		25	350	99		93	673	81		277	1076	28	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.89	0.89	0.89		0.89	0.89	0.89		0.89	0.89	0.89		0.89	0.89	0.89	
PHF Volume:	68	103	222		28	395	112		105	760	91		313	1214	32	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	68	103	222		28	395	112		105	760	91		313	1214	32	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	68	103	222		28	395	112		105	760	91		313	1214	32	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	1600	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.06	0.14		0.02	0.12	0.07		0.07	0.24	0.06		0.20	0.38	0.02	
Crit Moves:	****					****			****					****		

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The Park @ Live Oak (JN 11110)
Existing
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	242	113	29	13	35	50	14	742	28	24	1569	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	242	113	29	13	35	50	14	742	28	24	1569	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	259	121	31	14	37	53	15	793	30	26	1676	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	121	31	14	37	53	15	793	30	26	1676	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	121	31	14	37	53	15	793	30	26	1676	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.63	0.29	0.08	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1008	471	121	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.26	0.26	0.01	0.02	0.03	0.01	0.25	0.02	0.02	0.52	0.02
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Existing
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.669
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0 2	0	0
Volume Module:																
Base Vol:	313	0	249		0	0	0		0	713	93		157	1183	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	313	0	249		0	0	0		0	713	93		157	1183	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	339	0	269		0	0	0		0	772	101		170	1280	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	339	0	269		0	0	0		0	772	101		170	1280	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	339	0	269		0	0	0		0	772	101		170	1280	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.00	0.17		0.00	0.00	0.00		0.00	0.24	0.06		0.11	0.40	0.00	
Crit Moves:			****							****				****		

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	312	0	62	119	775	0	0	1259	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	312	0	62	119	775	0	0	1259	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	0	0	326	0	65	124	810	0	0	1316	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	326	0	65	124	810	0	0	1316	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	326	0	65	124	810	0	0	1316	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.04	0.08	0.25	0.00	0.00	0.41	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Existing
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0 3	0	0
Volume Module:																
Base Vol:	633	0	99		0	0	0		0	1024	175		62	2505	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	633	0	99		0	0	0		0	1024	175		62	2505	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	664	0	104		0	0	0		0	1075	184		65	2629	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	664	0	104		0	0	0		0	1075	184		65	2629	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	664	0	104		0	0	0		0	1075	184		65	2629	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	3.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	4800	0	
Capacity Analysis Module:																
Vol/Sat:	0.21	0.00	0.06		0.00	0.00	0.00		0.00	0.34	0.11		0.04	0.55	0.00	
Crit Moves:	****								****					****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.923
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	113	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	85	688	48	313	1008	61	83	576	80	21	359	258
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	688	48	313	1008	61	83	576	80	21	359	258
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	88	709	49	322	1038	63	85	593	82	22	370	266
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	709	49	322	1038	63	85	593	82	22	370	266
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	709	49	322	1038	63	85	593	82	22	370	266
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.16	0.84
Final Sat.:	1600	2991	209	1600	3200	1600	1600	1600	1600	1600	1862	1338
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.20	0.32	0.04	0.05	0.37	0.05	0.01	0.20	0.20
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.940
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	125	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	188	695	165	252	668	146	110	1148	190	93	567	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	695	165	252	668	146	110	1148	190	93	567	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	200	738	175	268	709	155	117	1219	202	99	602	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	738	175	268	709	155	117	1219	202	99	602	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	200	738	175	268	709	155	117	1219	202	99	602	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3134	66
Capacity Analysis Module:												
Vol/Sat:	0.12	0.23	0.11	0.17	0.22	0.10	0.07	0.38	0.13	0.06	0.19	0.19
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	942	0	8	15	1554	0	2	747	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	942	0	8	15	1554	0	2	747	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	942	0	8	15	1554	0	2	747	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	942	0	8	15	1554	0	2	747	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	942	0	8	15	1554	0	2	747	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.29	0.00	0.01	0.01	0.49	0.00	0.00	0.23	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 0	2	0	2 0 0
Volume Module:												
Base Vol:	798	0	152	0	0	0	0	721	0	342	620	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	798	0	152	0	0	0	0	721	0	342	620	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	812	0	155	0	0	0	0	733	0	348	631	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	812	0	155	0	0	0	0	733	0	348	631	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	812	0	155	0	0	0	0	733	0	348	631	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.25	0.00	0.10	0.00	0.00	0.00	0.00	0.23	0.00	0.11	0.20	0.00
Crit Moves:	****							****		****		

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Intersection	
Int Delay, s/veh	27.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2305	12	40	930	20	56
Future Vol, veh/h	2305	12	40	930	20	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2401	13	42	969	21	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2414	0	2977	1207
Stage 1	-	-	-	-	2408	-
Stage 2	-	-	-	-	569	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	79	-	~ 18	153
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	79	-	~ 8	153
Mov Cap-2 Maneuver	-	-	-	-	~ 8	-
Stage 1	-	-	-	-	~ 15	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	$ 1177.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	27	-	-	79	-
HCM Lane V/C Ratio	2.932	-	-	0.527	-
HCM Control Delay (s)	$ 1177.1	-	-	93	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	9.6	-	-	2.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	872	0	0	1245	1	0	0	0	0	0	1
Future Vol, veh/h	0	872	0	0	1245	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	899	0	0	1284	1	0	0	0	0	0	1

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	-	-	-	0			-	-	643
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	-	-	-			-	-	-
Critical Hdwy	-	-	-	-	-	-			-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			-	-	-
Follow-up Hdwy	-	-	-	-	-	-			-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-			0	0	361
Stage 1	0	-	0	0	-	-			0	0	-
Stage 2	0	-	0	0	-	-			0	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	-	-	-	-	-	-			-	0	361
Mov Cap-2 Maneuver	-	-	-	-	-	-			-	0	-
Stage 1	-	-	-	-	-	-			-	0	-
Stage 2	-	-	-	-	-	-			-	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	361
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s)	-	-	-	15
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	3	0	2	0	0	0	0	2260	0	2	966	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	2	0	0	0	0	2260	0	2	966	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	3	0	2	0	0	0	0	2332	0	2	997	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	2	0	0	0	0	2332	0	2	997	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	0	2	0	0	0	0	2332	0	2	997	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.31	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0	2 0 1	2	0	1 0 1
Volume Module:												
Base Vol:	10	148	338	11	395	6	4	15	83	497	9	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	148	338	11	395	6	4	15	83	497	9	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	11	163	373	12	436	7	4	17	92	548	10	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	163	373	12	436	7	4	17	92	548	10	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	163	373	12	436	7	4	17	92	548	10	17
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.94	2.00	0.03	0.97	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	101	1499	3200	43	1557	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.12	0.28	0.28	0.00	0.00	0.01	0.06	0.17	0.01	0.01
OvlAdjV/S:			0.00									
Crit Moves:	****			****					****	****		

The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

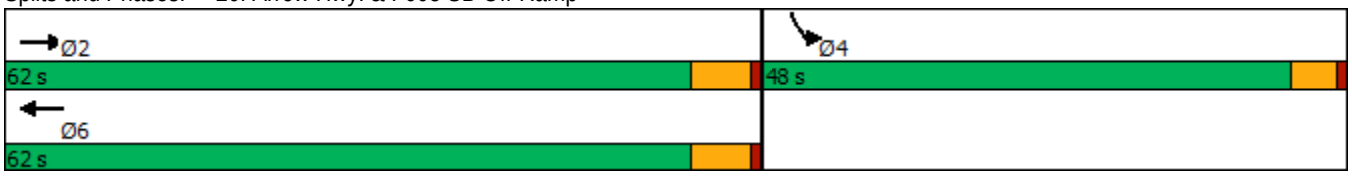
Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

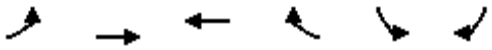
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0	2	0	0 0	1	0	2 0	0	0	2 0 1
Volume Module:												
Base Vol:	0	0	0	649	0	413	225	648	0	0	550	231
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	649	0	413	225	648	0	0	550	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	670	0	427	232	669	0	0	568	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	670	0	427	232	669	0	0	568	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	670	0	427	232	669	0	0	568	239
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.27	0.15	0.21	0.00	0.00	0.18	0.15
Crit Moves:						****	****				****	

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1297	750	275	314
Future Volume (vph)	1297	750	275	314
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 48.1
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	1297	750	0	275	314
Future Volume (veh/h)	0	1297	750	0	275	314
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	1351	781	0	286	0
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	0	2689	1872	0	402	
Arrive On Green	0.00	0.52	0.52	0.00	0.22	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	1351	781	0	286	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	6.9	5.4	0.0	5.9	0.0
Cycle Q Clear(g_c), s	0.0	6.9	5.4	0.0	5.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2689	1872	0	402	
V/C Ratio(X)	0.00	0.50	0.42	0.00	0.71	
Avail Cap(c_a), veh/h	0	7198	5010	0	1935	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.3	6.0	0.0	14.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	2.3	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	1.2	1.0	0.0	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	6.5	6.1	0.0	16.9	0.0
LnGrp LOS	A	A	A	A	B	
Approach Vol, veh/h		1351	781		286	A
Approach Delay, s/veh		6.5	6.1		16.9	
Approach LOS		A	A		B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		26.8		13.7		26.8
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		8.9		7.9		7.4
Green Ext Time (p_c), s		12.1		0.9		5.7

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1177	1186	611	968
Future Volume (vph)	1177	1186	611	968
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	77.0		43.0	120.0
Total Split (%)	64.2%		35.8%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 82.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1177	1186	611	968	0	0
Future Volume (veh/h)	1177	1186	611	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	1226	0	636	1008		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1501		752	3305		
Arrive On Green	0.42	0.00	0.42	0.92		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1226	0	636	1008		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	21.7	0.0	22.9	2.4		
Cycle Q Clear(g_c), s	21.7	0.0	22.9	2.4		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1501		752	3305		
V/C Ratio(X)	0.82		0.85	0.30		
Avail Cap(c_a), veh/h	3559		924	5693		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	18.7	0.0	19.0	0.4		
Incr Delay (d2), s/veh	0.4	0.0	7.9	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.7	0.0	9.6	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.1	0.0	26.9	0.5		
LnGrp LOS	B		C	A		
Approach Vol, veh/h	1226	A		1644		
Approach Delay, s/veh	19.1			10.7		
Approach LOS	B			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	36.1	36.1				72.2
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	36.9	* 71				113.9
Max Q Clear Time (g_c+I1), s	24.9	23.7				4.4
Green Ext Time (p_c), s	3.9	6.3				19.8

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1462	23	0	750	284	0	0	43	0	0	0
Future Vol, veh/h	0	1462	23	0	750	284	0	0	43	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1523	24	0	781	296	0	0	45	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	762
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	-	-	0	0	352
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	352
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	352	-	-	-	-
HCM Lane V/C Ratio	0.127	-	-	-	-
HCM Control Delay (s)	16.7	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	32.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1177	0	0	1008	0	0	0	646	0	0	572
Future Vol, veh/h	0	1177	0	0	1008	0	0	0	646	0	0	572
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1213	0	0	1039	0	0	0	666	0	0	590

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	607	-	-	520
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 563	0	0	620
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 563	-	-	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	123.9	50.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	563	-	-	620
HCM Lane V/C Ratio	1.183	-	-	0.951
HCM Control Delay (s)	123.9	-	-	50.9
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	23.5	-	-	13.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.607
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	195	0	26	0	0	0	0	1392	185	12	550	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	195	0	26	0	0	0	0	1392	185	12	550	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
PHF Volume:	196	0	26	0	0	0	0	1402	186	12	554	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	0	26	0	0	0	0	1402	186	12	554	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	0	26	0	0	0	0	1402	186	12	554	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.44	0.12	0.01	0.17	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.321
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0 1	0	1	0 1	0	1	0 1	1	0	1 0
Volume Module:												
Base Vol:	8	4	54	21	4	11	8	185	34	159	77	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	4	54	21	4	11	8	185	34	159	77	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	8	4	55	21	4	11	8	189	35	162	78	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	4	55	21	4	11	8	189	35	162	78	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	4	55	21	4	11	8	189	35	162	78	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.07	0.93	1.00	0.39	0.61	1.00	1.69	0.31	1.00	1.44	0.56
Final Sat.:	1600	110	1490	1600	622	978	1600	2703	497	1600	2303	897
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.07	0.07	0.10	0.03	0.03
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.042
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	166	201		498	26	49		69	40	1519		21	122	731		19
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	166	201		498	26	49		69	40	1519		21	122	731		19
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93
PHF Volume:	178	215		534	28	53		74	43	1628		23	131	783		20
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	178	215		534	28	53		74	43	1628		23	131	783		20
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	178	215		534	28	53		74	43	1628		23	131	783		20
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	1.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00
Final Sat.:	1600	1600		1600	1600	3200		1600	1600	3200		1600	1600	3200		1600
Capacity Analysis Module:																
Vol/Sat:	0.11	0.13		0.33	0.02	0.02		0.05	0.03	0.51		0.01	0.08	0.24		0.01
Crit Moves:				****		****				****				****		

The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.795
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2	0 1
Volume Module:												
Base Vol:	54	27	7	36	114	8	39	1759	305	33	721	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	27	7	36	114	8	39	1759	305	33	721	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	56	28	7	37	117	8	40	1812	314	34	743	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	28	7	37	117	8	40	1812	314	34	743	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	28	7	37	117	8	40	1812	314	34	743	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	0.31	0.08	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	982	491	127	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.06	0.02	0.07	0.01	0.03	0.57	0.20	0.02	0.23	0.01
Crit Moves:	****			****			****			****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	82	0	98	0	0	0	0	1304	628	290	659	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	0	98	0	0	0	0	1304	628	290	659	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	86	0	102	0	0	0	0	1363	656	303	689	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	0	102	0	0	0	0	1363	656	303	689	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	0	102	0	0	0	0	1363	656	303	689	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.06	0.00	0.00	0.00	0.00	0.43	0.41	0.19	0.22	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1099	0	135	43	1375	0	0	867	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1099	0	135	43	1375	0	0	867	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	1133	0	139	44	1418	0	0	894	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1133	0	139	44	1418	0	0	894	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1133	0	139	44	1418	0	0	894	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.35	0.00	0.09	0.03	0.44	0.00	0.00	0.28	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Existing
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	3 0 0
Volume Module:												
Base Vol:	256	0	63	0	0	0	0	1920	564	72	1130	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	0	63	0	0	0	0	1920	564	72	1130	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	269	0	66	0	0	0	0	2021	594	76	1189	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	269	0	66	0	0	0	0	2021	594	76	1189	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	269	0	66	0	0	0	0	2021	594	76	1189	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.04	0.00	0.00	0.00	0.00	0.63	0.37	0.05	0.25	0.00
Crit Moves:	****							****				

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APPENDIX 3.3:

EXISTING (2017) TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

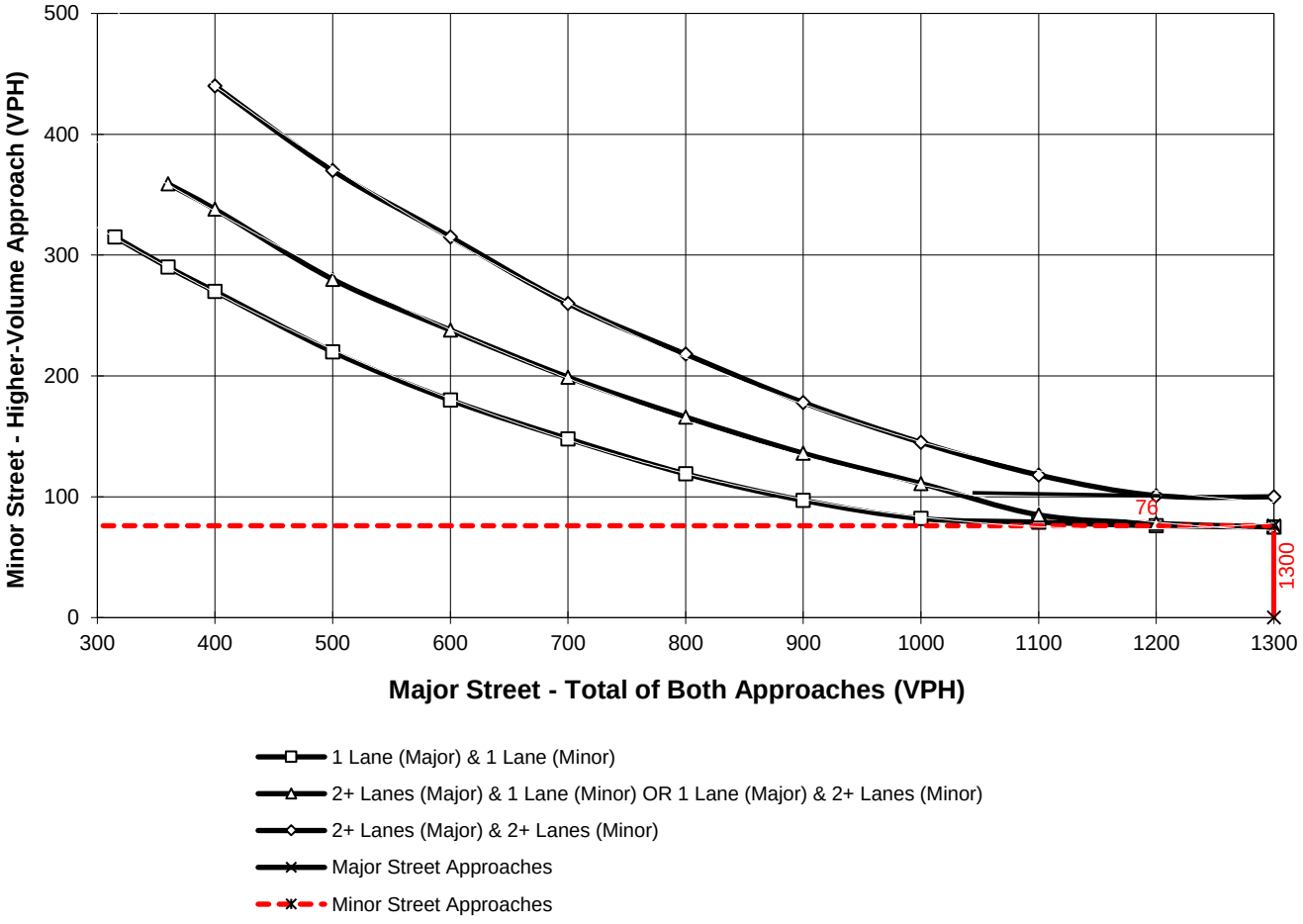
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2017) Conditions - Weekday PM Peak Hour**

Major Street Name = **Live Oak Av.**
Total of Both Approaches (VPH) = **3287**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Driveway**
High Volume Approach (VPH) = **76**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



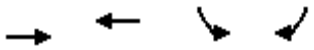
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2017) CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	646	1809	460	669
v/c Ratio	0.22	0.87	0.82	0.41
Control Delay	10.7	24.2	43.1	0.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.7	24.2	43.1	0.8
Queue Length 50th (ft)	63	445	261	0
Queue Length 95th (ft)	110	#802	377	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	3138	2184	841	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.83	0.55	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	24.8

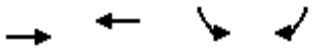
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	322	0	0	1413	0	0	0	580	0	0	499
Future Vol, veh/h	0	322	0	0	1413	0	0	0	580	0	0	499
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	350	0	0	1536	0	0	0	630	0	0	542

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	175	-	-	768
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	904	0	0	~ 470
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	904	-	-	~ 470
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.6	119.3
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	904	-	-	470
HCM Lane V/C Ratio	0.697	-	-	1.154
HCM Control Delay (s)	17.6	-	-	119.3
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	5.9	-	-	19.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1351	781	286	327
v/c Ratio	0.54	0.45	0.54	0.20
Control Delay	10.0	9.6	19.4	0.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.0	9.6	19.4	0.3
Queue Length 50th (ft)	84	66	64	0
Queue Length 95th (ft)	153	131	151	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	5066	3526	1598	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.22	0.18	0.20

Intersection Summary

Intersection	
Int Delay, s/veh	32.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1177	0	0	1008	0	0	0	646	0	0	572
Future Vol, veh/h	0	1177	0	0	1008	0	0	0	646	0	0	572
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1213	0	0	1039	0	0	0	666	0	0	590

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	607	-	-	520
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 563	0	0	620
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 563	-	-	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	123.9	50.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	563	-	-	620
HCM Lane V/C Ratio	1.183	-	-	0.951
HCM Control Delay (s)	123.9	-	-	50.9
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	23.5	-	-	13.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 3.5:

EXISTING (2017) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5922	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1690
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	67.2
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4897	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1398
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)	0.58
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	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5820	Heavy Vehicle Adjustment Factor (f_{HV})	0.926
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1708
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)	0.71
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	25.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4568	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1366
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)	0.57
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	19.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	3981	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1190
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)	0.50
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4883	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1460
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4987	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1409
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)	0.59
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4449	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1257
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)	0.52
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	18.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6130	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1750
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)	0.73
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4330	Heavy Vehicle Adjustment Factor (f_{HV})	0.877
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1342
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)	0.56
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	3977	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1242
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)	0.52
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	17.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5121	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1572
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)	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		

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APPENDIX 3.6:

EXISTING (2017) CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	5922	1025
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 (f_{HV})	0.952	0.952
Flow Rate (v_i), pc/h	6762	1170
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.70	0.59

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	33.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.533
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1577
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3608	Ramp Junction Speed (S), mi/h	66.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4897	923
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	23.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.813
Flow Rate (v_i), pc/h	5591	1234
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.71	0.62

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	28.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.404
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1678
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	61.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.064	Outer Lanes Freeway Speed (S_O), mi/h	70.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	2236	Ramp Junction Speed (S), mi/h	65.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3470	Average Density (D), pc/mi/ln	25.9
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4212	356
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	5037	429
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.57	0.21

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	21.7
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	63.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.164	Outer Lanes Freeway Speed (S_O), mi/h	71.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2015	Ramp Junction Speed (S), mi/h	67.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2444	Average Density (D), pc/mi/ln	20.2
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	3981	231
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	23.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.813
Flow Rate (v_i), pc/h	4760	309
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.53	0.15

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	19.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.326
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1428
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	64.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.179	Outer Lanes Freeway Speed (S_O), mi/h	71.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	1904	Ramp Junction Speed (S), mi/h	68.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2213	Average Density (D), pc/mi/ln	18.6
Level of Service (LOS)	B		

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HCS7 Freeway Diverge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	4883	902
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	13.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.885
Flow Rate (v_i), pc/h	5839	1108
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.55

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 (D_S)	0.528
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1334
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	57.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	81.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3171	Ramp Junction Speed (S), mi/h	66.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.0
Level of Service (LOS)	D		

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HCS7 Freeway Diverge Report

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	4987	538
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 (f_{HV})	0.962	0.926
Flow Rate (v_i), pc/h	5635	632
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.32

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	26.2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.485
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1411
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	59.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2813	Ramp Junction Speed (S), mi/h	68.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	20.7
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4449	1681
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	5027	1938
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.73	0.97

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	31.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.481
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1508
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	59.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	71.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2011	Ramp Junction Speed (S), mi/h	63.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3949	Average Density (D), pc/mi/ln	27.2
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4057	273
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.980
Flow Rate (v_i), pc/h	5069	303
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.15

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	20.8
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.330
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1521
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	64.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.180	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2028	Ramp Junction Speed (S), mi/h	68.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2331	Average Density (D), pc/mi/ln	19.8
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	3977	80
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	6.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.943
Flow Rate (v_i), pc/h	4969	92
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.53	0.05

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	18.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.321
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1491
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	64.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.206	Outer Lanes Freeway Speed (S_O), mi/h	71.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	1988	Ramp Junction Speed (S), mi/h	68.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2080	Average Density (D), pc/mi/ln	18.5
Level of Service (LOS)	B		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2017)
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5121	1144
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.885	0.952
Flow Rate (v_i), pc/h	6290	1306
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.65

Speed and Density

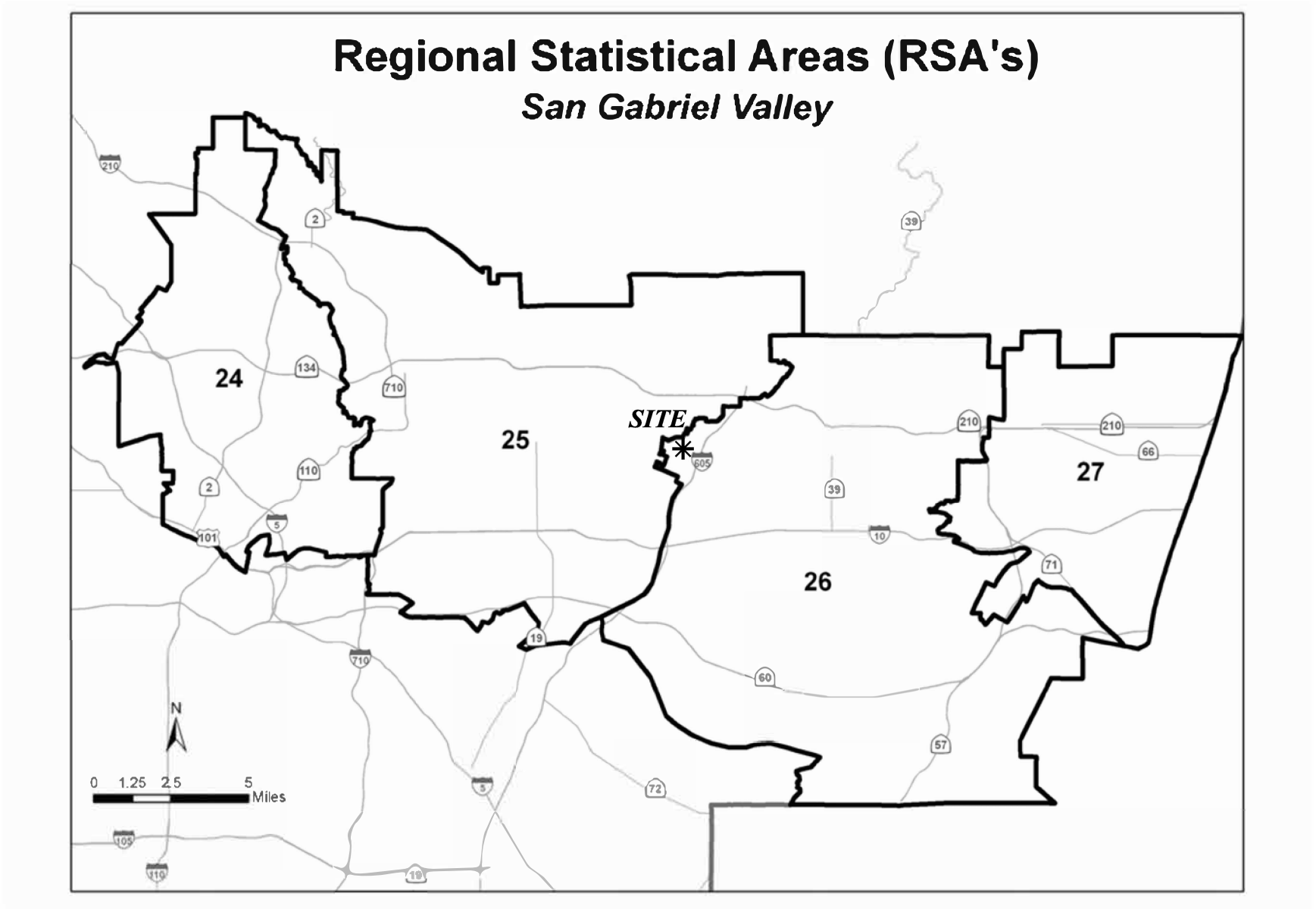
Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	32.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.546
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1406
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	3479	Ramp Junction Speed (S), mi/h	65.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.0
Level of Service (LOS)	D		

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APPENDIX 4.1:

LA COUNTY CMP REGIONAL STATISTICAL AREAS AND GROWTH FACTORS

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SOURCE: 2010 Congestion Management Program for Los Angeles County

Exhibit D-1

GENERAL TRAFFIC VOLUME GROWTH FACTORS

RSA	Representative City/Place	2010	2015	2020	2025	2030	2035
7	Agoura Hills	1.000	1.020	1.041	1.052	1.063	1.075
8	Santa Clarita	1.000	1.145	1.291	1.348	1.405	1.461
9	Lancaster	1.000	1.214	1.427	1.676	1.924	2.172
10	Palmdale	1.000	1.134	1.267	1.363	1.458	1.553
11	Angeles Forest	1.000	1.151	1.301	1.394	1.487	1.580
12	West S.F. Valley	1.000	1.027	1.054	1.068	1.083	1.097
13	Burbank	1.000	1.024	1.049	1.063	1.077	1.092
14	Sylmar	1.000	1.024	1.049	1.071	1.093	1.114
15	Malibu	1.000	1.027	1.054	1.075	1.096	1.117
16	Santa Monica	1.000	1.014	1.028	1.038	1.049	1.059
17	West/Central L.A.	1.000	1.007	1.014	1.024	1.034	1.044
18	South Bay/LAX	1.000	1.013	1.026	1.035	1.044	1.053
19	Palos Verdes	1.000	1.025	1.051	1.061	1.071	1.081
20	Long Beach	1.000	1.076	1.152	1.160	1.168	1.177
21	Vernon	1.000	1.073	1.146	1.158	1.170	1.182
22	Downey	1.000	1.052	1.104	1.116	1.127	1.139
23	Downtown L.A.	1.000	1.009	1.018	1.030	1.042	1.054
24	Glendale	1.000	1.014	1.027	1.041	1.055	1.068
25	Pasadena	1.000	1.041	1.082	1.098	1.115	1.131
26	West Covina	1.000	1.023	1.046	1.066	1.086	1.106
27	Pomona	1.000	1.081	1.161	1.190	1.219	1.248

APPENDIX 4.2:

CUMULATIVE PROJECT TRIP GENERATION

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Table Appendix 4.2

Cumulative Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
I1. Manning Pit (SWC of Vincent Av. & Arrow Hwy.)	545.735	TSF							
Passenger Cars:			23	7	30	12	31	43	518
Truck Trips:									
2-axle:			3	1	4	1	2	3	62
3-axle:			4	1	5	1	4	5	102
4+-axle:			19	6	25	6	16	22	461
- Net Truck Trips			26	8	34	8	22	30	625
Manning Pit (SWC of Vincent Av. & Arrow Hwy.) Total:			**49**	**15**	**64**	**20**	**53**	**73**	**1,143**
I2. Nu-Way Pit (13620 Live Oak Lane)									
Pilot Flying J Travel Center	15.000	TSF	199	199	398	181	160	341	6,833
New Truck Sales Dealership	3.000	TSF	4	2	6	3	4	7	84
			0	0	0	0	0	0	0
Nu-Way Pit (13620 Live Oak Lane) Total:			**203**	**201**	**404**	**184**	**164**	**348**	**6,917**
I3. Panatonni (16203-16233 Arrow Highway)	133.800	TSF							
Passenger Cars:			14	4	18	5	15	20	186
Truck Trips:									
2-axle:			1	0	1	0	1	1	12
3-axle:			1	1	2	1	2	3	19
4+-axle:			6	2	8	2	7	9	88
- Net Truck Trips			8	3	11	3	10	13	119
Panatonni (16203-16233 Arrow Highway) Total:			**22**	**7**	**29**	**8**	**25**	**33**	**305**
I4. Panatonni (242 Live Oak Avenue)	85.400	TSF							
Passenger Cars:			42	6	48	6	37	43	339
Truck Trips:									
2-axle:			3	0	3	0	2	2	21
3-axle:			4	1	5	1	4	5	35
4+-axle:			20	3	23	3	18	21	159
- Net Truck Trips			27	4	31	4	24	28	215
Panatonni (242 Live Oak Avenue) Total:			**69**	**10**	**79**	**10**	**61**	**71**	**554**
I6. 15768 Arrow Hwy.									
Irwindale Med Clinic (15768 Arrow Highway)	13.300	TSF	29	8	37	13	33	46	20
Wendy's Restaurant (15768 Arrow Highway)	2.300	TSF	47	45	92	39	36	75	1,083
Pass-By (49% AM, 50% PM/Daily):			-23	-23	-46	-20	-20	-40	-542
15768 Arrow Hwy. Total:			**53**	**30**	**83**	**32**	**49**	**81**	**561**
I9. Regional Shopping Center (500 Speedway Dr.)	700.000	TSF	342	127	469	753	850	1,603	18,613
Pass-By:			0	0	0	-273	-273	-546	-546
Diverted Linked Trips:			0	0	0	-140	-140	-280	-280
Regional Shopping Center (500 Speedway Dr.) Total:			**342**	**127**	**469**	**341**	**438**	**779**	**17,788**
BP3. Warehouse - 5014 Heintz St.	1.500	TSF							
Passenger Cars:			1	0	1	0	1	1	6
Truck Trips:									
2-axle:			0	0	0	0	0	0	0
3-axle:			0	0	0	0	0	0	1
4+-axle:			0	0	0	0	0	0	3
- Net Truck Trips			0	0	0	0	0	0	4
Warehouse - 5014 Heintz St. Total:			**1**	**0**	**1**	**0**	**1**	**1**	**10**

Cumulative Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
BP11. Warehouse - 5044 Gayhurst Av.	2.600	TSF							
Passenger Cars:			1	0	1	0	1	1	10
Truck Trips:									
2-axle:			0	0	0	0	0	0	1
3-axle:			0	0	0	0	0	0	1
4+-axle:			1	0	1	0	1	1	5
- Net Truck Trips			1	0	1	0	1	1	7
Warehouse - 5044 Gayhurst Av. Total:			**2**	**0**	**2**	**0**	**2**	**2**	**17**
BP15. Residential - 4923-4929 Fortin St.	15	DU	**3**	**8**	**11**	**9**	**5**	**14**	**142**
BP16. Residential/Warehouse - 5115 Azusa Canyon Rd.									
Condos	10	DU	1	4	5	4	2	6	73
Warehouse	90.000	TSF							
Passenger Cars:			44	6	50	6	39	45	357
Truck Trips:									
2-axle:			3	0	3	0	2	2	22
3-axle:			5	1	6	1	4	5	37
4+-axle:			21	3	24	3	19	22	168
- Net Truck Trips			29	4	33	4	25	29	227
Warehouse Total:			73	10	83	10	64	74	584
Residential/Warehouse - 5115 Azusa Canyon Rd. Total:			**74**	**14**	**88**	**14**	**66**	**80**	**657**
AR2. TTM No. 77169 (11700 Goldring Rd.)	16.360	TSF							
Passenger Cars:			8	1	9	1	7	8	65
Truck Trips:									
2-axle:			1	0	1	0	0	0	4
3-axle:			1	0	1	0	1	1	7
4+-axle:			4	1	5	1	3	4	30
- Net Truck Trips			6	1	7	1	4	5	41
TTM No. 77169 (11700 Goldring Rd.) Total:			**14**	**2**	**16**	**2**	**11**	**13**	**106**
Total Cumulative Trips			***832***	***414***	***1,246***	***620***	***875***	***1,495***	***28,200***

[1] TSF = thousand square feet; DU = Dwelling Units

APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.839
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	113	645	10	138	687	57	49	236	81	115	780	312
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	645	10	138	687	57	49	236	81	115	780	312
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	645	10	164	687	57	49	265	81	115	797	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	121	691	11	176	736	61	53	284	87	123	854	352
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	691	11	176	736	61	53	284	87	123	854	352
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	691	11	176	736	61	53	284	87	123	854	352
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.42	0.58
Final Sat.:	1600	3151	49	1600	3200	1600	1600	1600	1600	1600	2267	933
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.11	0.23	0.04	0.03	0.18	0.05	0.08	0.38	0.38
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.883
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	241	662	160	28	577	235	133	535	237	184	1068	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	662	160	28	577	235	133	535	237	184	1068	13
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	241	662	189	28	577	235	133	564	237	201	1085	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	249	685	195	29	597	243	138	583	245	208	1122	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	685	195	29	597	243	138	583	245	208	1122	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	249	685	195	29	597	243	138	583	245	208	1122	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.12	0.02	0.19	0.15	0.09	0.18	0.15	0.13	0.35	0.35
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	5	7	8	379	5	17	27	619	0	9	1485	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	379	5	17	27	619	0	9	1485	0
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	7	8	434	5	17	27	677	0	9	1519	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	5	7	8	450	5	18	28	702	0	9	1574	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	450	5	18	28	702	0	9	1574	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	450	5	18	28	702	0	9	1574	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.98	0.02	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3164	36	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.14	0.14	0.01	0.02	0.22	0.00	0.01	0.49	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.010
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	0	2 0	2 0	0
Volume Module:												
Base Vol:	976	0	247	0	0	0	0	493	0	145	1774	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	976	0	247	0	0	0	0	493	0	145	1774	0
Added Vol:	64	0	2	0	0	0	0	57	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1040	0	249	0	0	0	0	550	0	145	1776	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	1075	0	257	0	0	0	0	569	0	150	1837	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1075	0	257	0	0	0	0	569	0	150	1837	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1075	0	257	0	0	0	0	569	0	150	1837	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.34	0.00	0.16	0.00	0.00	0.00	0.00	0.18	0.00	0.05	0.57	0.00
Crit Moves:	****						****				****	

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Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	681	118	0	1921	0	93
Future Vol, veh/h	681	118	0	1921	0	93
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	740	128	0	2088	0	101

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	434
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	492
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	492
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)	492	-	-	-
HCM Lane V/C Ratio	0.205	-	-	-
HCM Control Delay (s)	14.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	897	1173	125	0	116
Future Vol, veh/h	0	897	1173	125	0	116
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	975	1275	136	0	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	706
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	328
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	328
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.7
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	328
HCM Lane V/C Ratio	-	-	-	0.384
HCM Control Delay (s)	-	-	-	22.7
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.8

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	869	29	27	1286	12	30
Future Vol, veh/h	869	29	27	1286	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	896	30	28	1326	12	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	926	0	1497	463
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	586	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	431	-	176	471
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	478	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	431	-	165	471
Mov Cap-2 Maneuver	-	-	-	-	165	-
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	308	-	-	431	-
HCM Lane V/C Ratio	0.141	-	-	0.065	-
HCM Control Delay (s)	18.6	-	-	13.9	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	771	3	0	1921	0	4
Future Vol, veh/h	771	3	0	1921	0	4
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	838	3	0	2088	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	421
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	501
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	501
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	501	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	12.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	894	1312	9	0	1
Future Vol, veh/h	4	894	1312	9	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	4	972	1426	10	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1436	0	-	0	-	718
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	244	-	-	-	0	322
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	244	-	-	-	-	322
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	244	-	-	-	322
HCM Lane V/C Ratio	0.018	-	-	-	0.003
HCM Control Delay (s)	20	-	-	-	16.2
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	894	1320	3	0	1
Future Vol, veh/h	0	894	1320	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	972	1435	3	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	719
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	322
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	322
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	322
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s)	-	-	-	16.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	774	1	48	1911	19	1	0	6	0	0	9
Future Vol, veh/h	0	774	1	48	1911	19	1	0	6	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	0	841	1	52	2077	21	1	0	7	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2098	0	0	842	0	0	1777	3044	421	2528	3034	1049
Stage 1	-	-	-	-	-	-	842	842	-	2192	2192	-
Stage 2	-	-	-	-	-	-	935	2202	-	336	842	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	114	-	-	473	-	-	89	13	501	30	13	195
Stage 1	-	-	-	-	-	-	259	383	-	29	84	-
Stage 2	-	-	-	-	-	-	262	83	-	602	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	114	-	-	473	-	-	77	12	501	27	12	195
Mov Cap-2 Maneuver	-	-	-	-	-	-	144	59	-	27	59	-
Stage 1	-	-	-	-	-	-	259	383	-	29	75	-
Stage 2	-	-	-	-	-	-	221	74	-	594	383	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	14.9	24.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	114	-	-	473	-	-	195
HCM Lane V/C Ratio	0.021	-	-	-	0.11	-	-	0.05
HCM Control Delay (s)	14.9	0	-	-	13.6	-	-	24.4
HCM Lane LOS	B	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0.4	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	779	0	0	1978	0	3
Future Vol, veh/h	779	0	0	1978	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	847	0	0	2150	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	424
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	499
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	499
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	499	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-
HCM Control Delay (s)	12.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.466
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	0	0	1	0	0	0	0	840	2	6	1238	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	1	0	0	0	0	840	2	6	1238	0
Added Vol:	0	0	0	52	0	30	46	6	0	0	54	78
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	1	52	0	30	46	846	2	6	1292	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	1	52	0	30	46	846	2	6	1292	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	1	52	0	30	46	846	2	6	1292	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	1	52	0	30	46	846	2	6	1292	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	2.99	0.01	1.00	2.83	0.17
Final Sat.:	3200	0	1600	1015	0	585	1600	4789	11	1600	4527	273
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.05	0.03	0.18	0.18	0.00	0.29	0.29
Crit Moves:			****			****	****				****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.546
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:		Ovl				Include				Include				Include		
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	0	1 0	0	2	0	1 0	0	1	1	0	2 0	1	2	0	1 0	1
Volume Module:																
Base Vol:	53	313	603		2	95	7		2	2	9		180	6	18	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	53	313	603		2	95	7		2	2	9		180	6	18	
Added Vol:	0	18	0		0	32	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	53	331	603		2	127	7		2	2	9		180	6	18	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.86	0.86	0.86		0.86	0.86	0.86		0.86	0.86	0.86		0.86	0.86	0.86	
PHF Volume:	62	386	703		2	148	8		2	2	10		210	7	21	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	62	386	703		2	148	8		2	2	10		210	7	21	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	62	386	703		2	148	8		2	2	10		210	7	21	
OvlAdjVol:			493													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.14	0.86	2.00		0.02	0.98	1.00		1.00	2.00	1.00		2.00	1.00	1.00	
Final Sat.:	221	1379	3200		25	1575	1600		1600	3200	1600		3200	1600	1600	
Capacity Analysis Module:																
Vol/Sat:	0.28	0.28	0.22		0.09	0.09	0.01		0.00	0.00	0.01		0.07	0.00	0.01	
OvlAdjV/S:			0.15													
Crit Moves:		****				****					****		****			

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.116
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	1	0 1	2	0	0	1 0	1	0	2	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	0	0	0		198	0	174		311	429	0		0	1756	648	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		198	0	174		311	429	0		0	1756	648	
Added Vol:	1	3	101		23	9	0		15	26	1		307	48	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1	3	101		221	9	174		326	455	1		307	1804	648	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93	
PHF Volume:	1	3	109		238	10	187		351	489	1		330	1940	697	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1	3	109		238	10	187		351	489	1		330	1940	697	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1	3	109		238	10	187		351	489	1		330	1940	697	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	0.05	0.95		1.00	2.99	0.01		1.00	2.00	1.00	
Final Sat.:	1600	1600	1600		3200	79	1521		1600	4789	11		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.07		0.07	0.12	0.12		0.22	0.10	0.10		0.21	0.61	0.44	
Crit Moves:			****			****			****					****		

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.485
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	841	0	0	1244	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	841	0	0	1244	0
Added Vol:	0	0	0	44	0	2	6	52	0	0	131	173
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	44	0	2	6	893	0	0	1375	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	48	0	2	7	971	0	0	1495	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	48	0	2	7	971	0	0	1495	188
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	48	0	2	7	971	0	0	1495	188
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.66	0.34
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4264	536
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.20	0.00	0.00	0.35	0.35
Crit Moves:				****			****				****	

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Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	740	202	0	2760	0	163
Future Vol, veh/h	740	202	0	2760	0	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	804	220	0	3000	0	177

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	402
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	808
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	808
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	808	-	-	-
HCM Lane V/C Ratio	0.219	-	-	-
HCM Control Delay (s)	10.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	659	244	0	2760	0	197
Future Vol, veh/h	659	244	0	2760	0	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	716	265	0	3000	0	214

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	358
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	844
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	844
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	844	-	-	-
HCM Lane V/C Ratio	0.254	-	-	-
HCM Control Delay (s)	10.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↱			↱
Traffic Vol, veh/h	0	937	1542	65	0	5
Future Vol, veh/h	0	937	1542	65	0	5
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	1018	1676	71	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	874
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	297
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	297
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

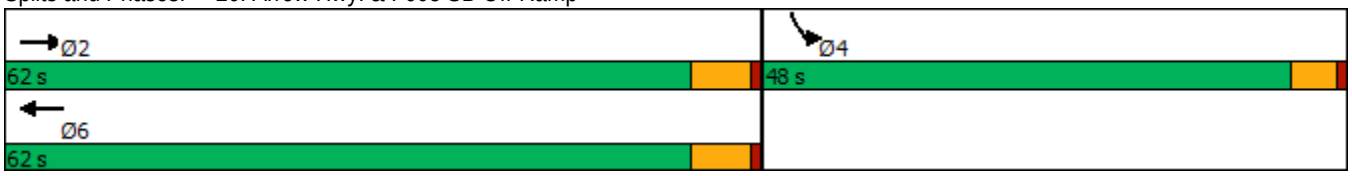
Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.3
HCM LOS			C

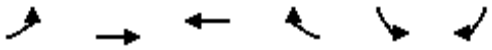
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	297
HCM Lane V/C Ratio	-	-	-	0.018
HCM Control Delay (s)	-	-	-	17.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	857	1822	446	938
Future Volume (vph)	857	1822	446	938
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 96.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	857	1822	0	446	938
Future Volume (veh/h)	0	857	1822	0	446	938
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	884	1878	0	460	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	3088	2149	0	513	
Arrive On Green	0.00	0.60	0.60	0.00	0.28	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	884	1878	0	460	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	7.2	38.1	0.0	21.2	0.0
Cycle Q Clear(g_c), s	0.0	7.2	38.1	0.0	21.2	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3088	2149	0	513	
V/C Ratio(X)	0.00	0.29	0.87	0.00	0.90	
Avail Cap(c_a), veh/h	0	3358	2337	0	903	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.6	14.8	0.0	29.9	0.0
Incr Delay (d2), s/veh	0.0	0.1	3.8	0.0	6.2	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	2.2	13.3	0.0	9.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.6	18.6	0.0	36.1	0.0
LnGrp LOS	A	A	B	A	D	
Approach Vol, veh/h		884	1878		460	A
Approach Delay, s/veh		8.6	18.6		36.1	
Approach LOS		A	B		D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	57.5	29.3	57.5
Change Period (Y+Rc), s	5.8	* 4.7	5.8
Max Green Setting (Gmax), s	56.2	* 43	56.2
Max Q Clear Time (g_c+I1), s	9.2	23.2	40.1
Green Ext Time (p_c), s	6.7	1.4	11.6

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	324	613	694	1608
Future Volume (vph)	324	613	694	1608
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	30.0		90.0	120.0
Total Split (%)	25.0%		75.0%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 60.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	324	613	694	1608	0	0
Future Volume (veh/h)	324	613	694	1608	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	341	0	731	1693		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1207		885	3292		
Arrive On Green	0.33	0.00	0.49	0.91		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	341	0	731	1693		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	4.8	0.0	23.9	5.4		
Cycle Q Clear(g_c), s	4.8	0.0	23.9	5.4		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1207		885	3292		
V/C Ratio(X)	0.28		0.83	0.51		
Avail Cap(c_a), veh/h	1263		2194	5943		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	16.9	0.0	15.1	0.5		
Incr Delay (d2), s/veh	0.0	0.0	4.2	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.7	0.0	8.7	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.0	0.0	19.4	0.8		
LnGrp LOS	B		B	A		
Approach Vol, veh/h	341	A		2424		
Approach Delay, s/veh	17.0			6.4		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	40.0	29.2				69.2
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	83.9	* 24				113.9
Max Q Clear Time (g_c+I1), s	25.9	6.8				7.4
Green Ext Time (p_c), s	7.9	1.2				55.7

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	863	142	0	1822	397	0	0	12	0	0	0
Future Vol, veh/h	0	863	142	0	1822	397	0	0	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	938	154	0	1980	432	0	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	469
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	-	-	0	0	546
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	546
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	546	-	-	-	-
HCM Lane V/C Ratio	0.024	-	-	-	-
HCM Control Delay (s)	11.8	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	113

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	324	0	0	1517	0	0	0	580	0	0	784
Future Vol, veh/h	0	324	0	0	1517	0	0	0	580	0	0	784
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	352	0	0	1649	0	0	0	630	0	0	852

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	176	-	-	825
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	903	0	0	~ 441
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	903	-	-	~ 441
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.7	$ 449
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	903	-	-	441
HCM Lane V/C Ratio	0.698	-	-	1.932
HCM Control Delay (s)	17.7	-	-	$ 449
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	5.9	-	-	57

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	227	0	21	0	0	0	0	876	359	83	1914	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	227	0	21	0	0	0	0	876	359	83	1914	0
Added Vol:	0	0	0	0	0	0	0	36	70	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	227	0	21	0	0	0	0	912	429	83	1981	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	234	0	22	0	0	0	0	940	442	86	2042	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	234	0	22	0	0	0	0	940	442	86	2042	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	234	0	22	0	0	0	0	940	442	86	2042	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.29	0.28	0.05	0.64	0.00
Crit Moves:	****						****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.394
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	0	1	0	0	1	0	1	0	1	1	0	1	0	1	1	0
Volume Module:																
Base Vol:	28	7	141		10	0	8		12	127	23		60	386	16	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	28	7	141		10	0	8		12	127	23		60	386	16	
Added Vol:	0	0	0		0	0	0		0	0	0		0	70	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	28	7	141		10	0	8		12	127	23		60	456	16	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.86	0.86	0.86		0.86	0.86	0.86		0.86	0.86	0.86		0.86	0.86	0.86	
PHF Volume:	32	8	163		12	0	9		14	147	27		70	528	19	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	8	163		12	0	9		14	147	27		70	528	19	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	32	8	163		12	0	9		14	147	27		70	528	19	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	0.05	0.95		1.00	0.11	0.89		1.00	1.69	0.31		1.00	1.93	0.07	
Final Sat.:	1600	76	1524		1600	178	1422		1600	2709	491		1600	3092	108	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.11	0.11		0.01	0.00	0.01		0.01	0.05	0.05		0.04	0.17	0.17	
Crit Moves:		****				****				****				****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.752
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 1		0 1	1 0 2		0 1	1 0 2		0 1	1 0 2		0 1
Volume Module:												
Base Vol:	60	91	197	25	350	99	93	673	81	277	1076	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	91	197	25	350	99	93	673	81	277	1076	28
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	91	197	55	364	125	93	675	81	277	1130	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	95	103	222	62	411	141	105	762	91	313	1275	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	103	222	62	411	141	105	762	91	313	1275	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	103	222	62	411	141	105	762	91	313	1275	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.14	0.04	0.13	0.09	0.07	0.24	0.06	0.20	0.40	0.02
Crit Moves:	****			****			****			****		

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.925
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	242	113	29	13	35	50	14	742	28	24	1569	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	242	113	29	13	35	50	14	742	28	24	1569	27
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	268	113	29	13	35	50	14	758	44	24	1597	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	286	121	31	14	37	53	15	810	47	26	1706	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	121	31	14	37	53	15	810	47	26	1706	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	121	31	14	37	53	15	810	47	26	1706	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.28	0.07	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1046	441	113	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.18	0.27	0.27	0.01	0.02	0.03	0.01	0.25	0.03	0.02	0.53	0.02
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.669
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0	2	0 0
Volume Module:																
Base Vol:	313	0	249		0	0	0		0	713	93		157	1183	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	313	0	249		0	0	0		0	713	93		157	1183	0	
Added Vol:	26	0	0		0	0	0		0	0	16		0	2	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	339	0	249		0	0	0		0	713	109		157	1185	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	367	0	269		0	0	0		0	772	118		170	1282	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	367	0	269		0	0	0		0	772	118		170	1282	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	367	0	269		0	0	0		0	772	118		170	1282	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.00	0.17		0.00	0.00	0.00		0.00	0.24	0.07		0.11	0.40	0.00	
Crit Moves:			****						****					****		

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	312	0	62	119	775	0	0	1259	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	312	0	62	119	775	0	0	1259	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	348	0	62	119	775	0	0	1261	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	0	0	364	0	65	124	810	0	0	1318	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	65	124	810	0	0	1318	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	65	124	810	0	0	1318	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.04	0.08	0.25	0.00	0.00	0.41	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
E+P
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	3 0	0
Volume Module:												
Base Vol:	633	0	99	0	0	0	0	1024	175	62	2505	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	633	0	99	0	0	0	0	1024	175	62	2505	0
Added Vol:	26	0	0	0	0	0	0	21	16	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	659	0	99	0	0	0	0	1045	191	62	2548	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	692	0	104	0	0	0	0	1097	200	65	2674	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	692	0	104	0	0	0	0	1097	200	65	2674	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	692	0	104	0	0	0	0	1097	200	65	2674	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.06	0.00	0.00	0.00	0.00	0.34	0.13	0.04	0.56	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.951
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	134	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	85	688	48	313	1008	61	83	576	80	21	359	258
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	688	48	313	1008	61	83	576	80	21	359	258
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	688	48	334	1008	61	83	599	80	21	389	283
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	88	709	49	344	1038	63	85	617	82	22	401	291
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	709	49	344	1038	63	85	617	82	22	401	291
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	709	49	344	1038	63	85	617	82	22	401	291
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.16	0.84
Final Sat.:	1600	2991	209	1600	3200	1600	1600	1600	1600	1600	1852	1348
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.21	0.32	0.04	0.05	0.39	0.05	0.01	0.22	0.22
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.968
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	151	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	188	695	165	252	668	146	110	1148	190	93	567	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	695	165	252	668	146	110	1148	190	93	567	12
Added Vol:	0	0	23	0	0	0	0	22	0	30	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	188	695	188	252	668	146	110	1170	190	123	594	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	200	738	200	268	709	155	117	1242	202	131	631	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	738	200	268	709	155	117	1242	202	131	631	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	200	738	200	268	709	155	117	1242	202	131	631	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3137	63
Capacity Analysis Module:												
Vol/Sat:	0.12	0.23	0.12	0.17	0.22	0.10	0.07	0.39	0.13	0.08	0.20	0.20
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.910
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	942	0	8	15	1554	0	2	747	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	942	0	8	15	1554	0	2	747	0
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	987	0	8	15	1600	0	2	804	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	987	0	8	15	1600	0	2	804	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	987	0	8	15	1600	0	2	804	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	987	0	8	15	1600	0	2	804	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.31	0.00	0.01	0.01	0.50	0.00	0.00	0.25	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
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PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.738
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 0	2 0	2 0	0
Volume Module:												
Base Vol:	798	0	152	0	0	0	0	721	0	342	620	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	798	0	152	0	0	0	0	721	0	342	620	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	899	0	163	0	0	0	0	766	0	342	632	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	915	0	166	0	0	0	0	779	0	348	643	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	915	0	166	0	0	0	0	779	0	348	643	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	915	0	166	0	0	0	0	779	0	348	643	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.00	0.10	0.00	0.00	0.00	0.00	0.24	0.00	0.11	0.20	0.00
Crit Moves:	****							****		****		

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Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	813	115	0	1258	0	119
Future Vol, veh/h	813	115	0	1258	0	119
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	884	125	0	1367	0	129

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	505
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	443
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	443
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	443	-	-	-
HCM Lane V/C Ratio	0.292	-	-	-
HCM Control Delay (s)	16.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.2	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2361	924	125	0	137
Future Vol, veh/h	0	2361	924	125	0	137
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	2566	1004	136	0	149

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	570
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	402
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	402
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	402
HCM Lane V/C Ratio	-	-	-	0.37
HCM Control Delay (s)	-	-	-	19.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.7

Intersection	
Int Delay, s/veh	17.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2350	12	40	1030	20	56
Future Vol, veh/h	2350	12	40	1030	20	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2448	13	42	1073	21	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2461	0	2968	1231
Stage 1	-	-	-	-	2455	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	75	-	28	147
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	75	-	~ 12	147
Mov Cap-2 Maneuver	-	-	-	-	~ 12	-
Stage 1	-	-	-	-	~ 13	-
Stage 2	-	-	-	-	522	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	$ 758
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	37	-	-	75	-
HCM Lane V/C Ratio	2.14	-	-	0.556	-
HCM Control Delay (s)	$ 758	-	-	101.3	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	8.7	-	-	2.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	931	2	0	1258	0	19
Future Vol, veh/h	931	2	0	1258	0	19
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	1012	2	0	1367	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	507
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	441
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	441
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	441	-	-	-
HCM Lane V/C Ratio	0.047	-	-	-
HCM Control Delay (s)	13.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2404	1063	5	0	6
Future Vol, veh/h	2	2404	1063	5	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	2	2613	1155	5	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1160	0	-	0	-	580
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	333	-	-	-	0	396
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	333	-	-	-	-	396
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	333	-	-	-	396
HCM Lane V/C Ratio	0.007	-	-	-	0.016
HCM Control Delay (s)	15.9	-	-	-	14.2
HCM Lane LOS	C	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2404	1062	2	0	5
Future Vol, veh/h	0	2404	1062	2	0	5
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	2613	1154	2	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	578
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	397
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	397
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	397
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	14.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	949	0	21	1251	1	6	0	32	0	0	1
Future Vol, veh/h	0	949	0	21	1251	1	6	0	32	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	978	0	22	1290	1	6	0	33	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1291	0	0	978	0	0	1538	2313	489	1726	2313	646
Stage 1	-	-	-	-	-	-	978	978	-	1335	1335	-
Stage 2	-	-	-	-	-	-	560	1335	-	391	978	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	288	-	-	407	-	-	124	38	453	96	38	359
Stage 1	-	-	-	-	-	-	209	331	-	118	225	-
Stage 2	-	-	-	-	-	-	443	225	-	559	331	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	288	-	-	407	-	-	119	36	453	85	36	359
Mov Cap-2 Maneuver	-	-	-	-	-	-	172	134	-	105	131	-
Stage 1	-	-	-	-	-	-	209	331	-	118	213	-
Stage 2	-	-	-	-	-	-	418	213	-	518	331	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	16.2	15.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	360	288	-	-	407	-	-	359
HCM Lane V/C Ratio	0.109	-	-	-	0.053	-	-	0.003
HCM Control Delay (s)	16.2	0	-	-	14.3	-	-	15.1
HCM Lane LOS	C	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	981	0	0	1273	0	13
Future Vol, veh/h	981	0	0	1273	0	13
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	1066	0	0	1384	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	533
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	425
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	425
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	425	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-
HCM Control Delay (s)	13.8	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.684
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	3	0	2	0	0	0	0	2260	0	2	966	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	2	0	0	0	0	2260	0	2	966	0
Added Vol:	0	0	0	67	0	39	39	4	0	0	56	66
PasserByVol:	0	0	0	32	0	19	32	-32	0	0	-19	19
Initial Fut:	3	0	2	99	0	58	71	2232	0	2	1003	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	3	0	2	102	0	60	73	2303	0	2	1035	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	2	102	0	60	73	2303	0	2	1035	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	0	2	102	0	60	73	2303	0	2	1035	88
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	3.00	0.00	1.00	2.77	0.23
Final Sat.:	3200	0	1600	1009	0	591	1600	4800	0	1600	4425	375
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.10	0.05	0.48	0.00	0.00	0.23	0.23
Crit Moves:			****	****				****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.758
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0 2	0 1	2	0 1	0 1
Volume Module:												
Base Vol:	10	148	338	11	395	6	4	15	83	497	9	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	148	338	11	395	6	4	15	83	497	9	15
Added Vol:	0	35	0	0	25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	183	338	11	420	6	4	15	83	497	9	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	11	202	373	12	463	7	4	17	92	548	10	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	202	373	12	463	7	4	17	92	548	10	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	202	373	12	463	7	4	17	92	548	10	17
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.95	2.00	0.03	0.97	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	83	1517	3200	41	1559	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.12	0.30	0.30	0.00	0.00	0.01	0.06	0.17	0.01	0.01
OvlAdjV/S:			0.00									
Crit Moves:	****			****					****	****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.887
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	0 1	0	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	649	0	413	225	648	0	0	550	231
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	649	0	413	225	648	0	0	550	231
Added Vol:	6	16	269	19	6	0	20	102	0	225	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	16	269	668	6	413	245	750	0	225	571	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	6	17	278	690	6	427	253	775	0	232	590	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	17	278	690	6	427	253	775	0	232	590	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	17	278	690	6	427	253	775	0	232	590	239
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.01	0.99	1.00	3.00	0.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	3200	23	1577	1600	4800	0	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.17	0.22	0.27	0.27	0.16	0.16	0.00	0.15	0.18	0.15
Crit Moves:			****			****	****				****	

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	2262	0	0	968	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	2262	0	0	968	0
Added Vol:	0	0	0	249	0	11	4	67	0	0	111	130
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	249	0	11	4	2329	0	0	1079	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	271	0	12	4	2532	0	0	1173	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	271	0	12	4	2532	0	0	1173	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	271	0	12	4	2532	0	0	1173	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.68	0.32
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4284	516
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.01	0.00	0.53	0.00	0.00	0.27	0.27
Crit Moves:				****				****				

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Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱		↑↑↑		↱
Traffic Vol, veh/h	1636	191	0	1310	0	193
Future Vol, veh/h	1636	191	0	1310	0	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	1778	208	0	1424	0	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	889
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	494
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	494
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	494	-	-	-
HCM Lane V/C Ratio	0.425	-	-	-
HCM Control Delay (s)	17.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.1	-	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1598	231	0	1310	0	232
Future Vol, veh/h	1598	231	0	1310	0	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	1737	251	0	1424	0	252

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	869
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	504
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	504
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	504	-	-	-
HCM Lane V/C Ratio	0.5	-	-	-
HCM Control Delay (s)	19.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.8	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2679	1179	41	0	30
Future Vol, veh/h	0	2679	1179	41	0	30
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	2912	1282	45	0	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	664
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	408
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	408
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

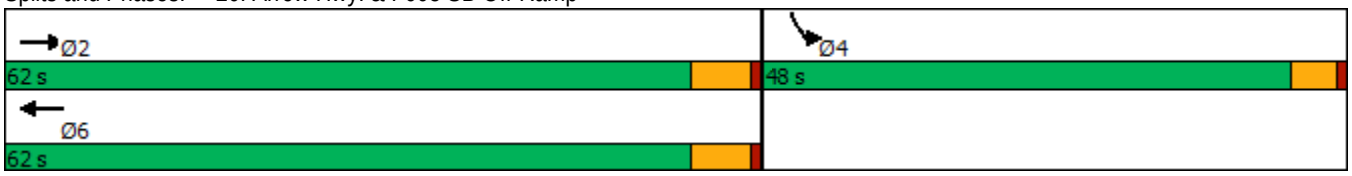
Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

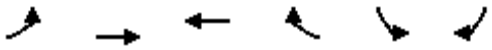
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	408
HCM Lane V/C Ratio	-	-	-	0.08
HCM Control Delay (s)	-	-	-	14.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1830	803	275	507
Future Volume (vph)	1830	803	275	507
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 67.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	1830	803	0	275	507
Future Volume (veh/h)	0	1830	803	0	275	507
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	1906	836	0	286	0
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	0	3186	2218	0	363	
Arrive On Green	0.00	0.61	0.61	0.00	0.20	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	1906	836	0	286	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	12.7	6.6	0.0	8.5	0.0
Cycle Q Clear(g_c), s	0.0	12.7	6.6	0.0	8.5	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3186	2218	0	363	
V/C Ratio(X)	0.00	0.60	0.38	0.00	0.79	
Avail Cap(c_a), veh/h	0	5139	3577	0	1381	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.7	5.5	0.0	21.5	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	3.8	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	0.0	2.6	1.4	0.0	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	6.9	5.6	0.0	25.3	0.0
LnGrp LOS	A	A	A	A	C	
Approach Vol, veh/h		1906	836		286	A
Approach Delay, s/veh		6.9	5.6		25.3	
Approach LOS		A	A		C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		40.6		16.1		40.6
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		14.7		10.5		8.6
Green Ext Time (p_c), s		20.1		0.9		6.2

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

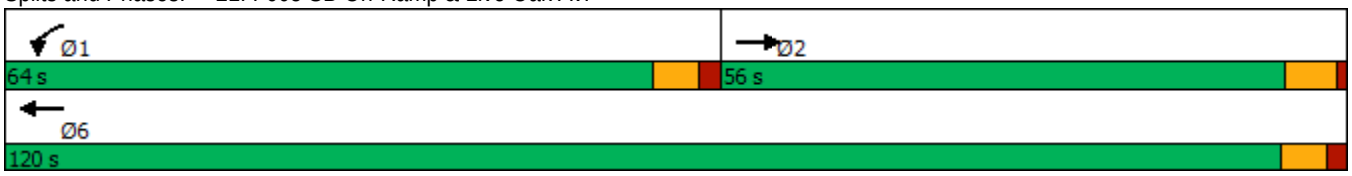
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1189	1490	653	1221
Future Volume (vph)	1189	1490	653	1221
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	56.0		64.0	120.0
Total Split (%)	46.7%		53.3%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1189	1490	653	1221	0	0
Future Volume (veh/h)	1189	1490	653	1221	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	1239	0	680	1272		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1471		797	3336		
Arrive On Green	0.41	0.00	0.44	0.92		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1239	0	680	1272		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	24.9	0.0	27.0	3.3		
Cycle Q Clear(g_c), s	24.9	0.0	27.0	3.3		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1471		797	3336		
V/C Ratio(X)	0.84		0.85	0.38		
Avail Cap(c_a), veh/h	2258		1305	5123		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	21.5	0.0	20.1	0.4		
Incr Delay (d2), s/veh	1.1	0.0	5.8	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	9.3	0.0	11.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.5	0.0	26.0	0.5		
LnGrp LOS	C		C	A		
Approach Vol, veh/h	1239	A		1952		
Approach Delay, s/veh	22.5			9.4		
Approach LOS	C			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	41.5	38.8				80.3
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	57.9	* 50				113.9
Max Q Clear Time (g_c+I1), s	29.0	26.9				5.3
Green Ext Time (p_c), s	6.3	5.8				31.0

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

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1646	372	0	803	284	0	0	43	0	0	0
Future Vol, veh/h	0	1646	372	0	803	284	0	0	43	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1715	388	0	836	296	0	0	45	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	858
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	-	-	0	0	304
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	304
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	304	-	-	-	-
HCM Lane V/C Ratio	0.147	-	-	-	-
HCM Control Delay (s)	18.9	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Intersection	
Int Delay, s/veh	60.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1189	0	0	1113	0	0	0	646	0	0	762
Future Vol, veh/h	0	1189	0	0	1113	0	0	0	646	0	0	762
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1226	0	0	1147	0	0	0	666	0	0	786

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	613	-	-	574
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 559	0	0	~ 584
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 559	-	-	~ 584
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	127.3	187.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	559	-	-	584
HCM Lane V/C Ratio	1.191	-	-	1.345
HCM Control Delay (s)	127.3	-	-	187.6
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	23.8	-	-	33.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	195	0	26	0	0	0	0	1392	185	12	550	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	195	0	26	0	0	0	0	1392	185	12	550	0
Added Vol:	0	0	0	0	0	0	0	76	108	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	195	0	26	0	0	0	0	1468	293	12	603	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
PHF Volume:	196	0	26	0	0	0	0	1478	295	12	607	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	0	26	0	0	0	0	1478	295	12	607	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	0	26	0	0	0	0	1478	295	12	607	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.46	0.18	0.01	0.19	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.321
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1	0 1	0	1	0 1	1 0
Volume Module:												
Base Vol:	8	4	54	21	4	11	8	185	34	159	77	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	4	54	21	4	11	8	185	34	159	77	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	108	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	4	54	21	4	11	8	185	34	159	185	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	8	4	55	21	4	11	8	189	35	162	189	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	4	55	21	4	11	8	189	35	162	189	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	4	55	21	4	11	8	189	35	162	189	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.07	0.93	1.00	0.39	0.61	1.00	1.69	0.31	1.00	1.72	0.28
Final Sat.:	1600	110	1490	1600	622	978	1600	2703	497	1600	2753	447
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.07	0.07	0.10	0.07	0.07
Crit Moves:	****		****				****			****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.072
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	166	201	498	26	49	69	40	1519	21	122	731	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	201	498	26	49	69	40	1519	21	122	731	19
Added Vol:	20	0	0	39	26	42	0	12	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	186	201	498	65	75	111	40	1531	21	122	774	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	199	215	534	70	80	119	43	1641	23	131	830	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	215	534	70	80	119	43	1641	23	131	830	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	199	215	534	70	80	119	43	1641	23	131	830	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.13	0.33	0.04	0.03	0.07	0.03	0.51	0.01	0.08	0.26	0.01
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	54	27	7	36	114	8	39	1759	305	33	721	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	27	7	36	114	8	39	1759	305	33	721	10
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	27	7	36	114	8	39	1786	330	33	743	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	77	28	7	37	117	8	40	1839	340	34	765	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	28	7	37	117	8	40	1839	340	34	765	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	28	7	37	117	8	40	1839	340	34	765	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.25	0.06	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1101	396	103	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.07	0.02	0.07	0.01	0.03	0.57	0.21	0.02	0.24	0.01
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	82	0	98	0	0	0	0	1304	628	290	659	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	0	98	0	0	0	0	1304	628	290	659	0
Added Vol:	21	0	0	0	0	0	0	2	25	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	0	98	0	0	0	0	1306	653	290	660	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	108	0	102	0	0	0	0	1365	682	303	690	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	0	102	0	0	0	0	1365	682	303	690	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	0	102	0	0	0	0	1365	682	303	690	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.06	0.00	0.00	0.00	0.00	0.43	0.43	0.19	0.22	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.922
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1099	0	135	43	1375	0	0	867	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1099	0	135	43	1375	0	0	867	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1175	0	135	43	1377	0	0	868	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	1211	0	139	44	1420	0	0	895	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1211	0	139	44	1420	0	0	895	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1211	0	139	44	1420	0	0	895	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.38	0.00	0.09	0.03	0.44	0.00	0.00	0.28	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
E+P
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2 0	1	1 0	3 0	0
Volume Module:												
Base Vol:	256	0	63	0	0	0	0	1920	564	72	1130	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	0	63	0	0	0	0	1920	564	72	1130	0
Added Vol:	21	0	0	0	0	0	0	53	25	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	277	0	63	0	0	0	0	1973	589	72	1162	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	292	0	66	0	0	0	0	2077	620	76	1223	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	292	0	66	0	0	0	0	2077	620	76	1223	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	292	0	66	0	0	0	0	2077	620	76	1223	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.04	0.00	0.00	0.00	0.00	0.65	0.39	0.05	0.25	0.00
Crit Moves:	****							****				

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APPENDIX 5.2:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC CHS	DATE	03/22/18
Jurisdiction: **City of Irwindale**				CHK CHS	DATE	03/22/18
Major Street: **Arrow Hwy.**				Critical Approach Speed (Major)		45 mph
Minor Street: **Driveway B**				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **24,287** vpd Minor Street Future ADT = **311** 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		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	*1*	8,000	5,600	2,400	1,680
2 + **24,287**	*1* **311**	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	*1*	12,000	8,400	1,200	850
2 + **24,287**	*1* **311**	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 19% B 37%				

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	CHS	DATE	03/22/18
Jurisdiction:	City of Irwindale			CHK	CHS	DATE	03/22/18
Major Street:	Live Oak Av.			Critical Approach Speed (Major)		45	mph
Minor Street:	Driveway A			Critical Approach Speed (Minor)		15	mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **33,295** vpd Minor Street Future ADT = **1,549** 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		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	1	8,000	5,600	2,400	1,680
2 + **33,295**	1 **1,549**	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	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	1	12,000	8,400	1,200	850
2 + **33,295**	1 **1,549**	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	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more	A 92% B 100%				

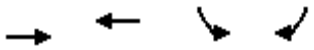
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

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 FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	884	1878	460	967
v/c Ratio	0.29	0.89	0.84	0.60
Control Delay	11.2	25.4	45.4	1.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.2	25.4	45.4	1.6
Queue Length 50th (ft)	91	481	261	0
Queue Length 95th (ft)	153	#853	377	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	3041	2116	815	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.89	0.56	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	113

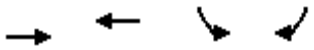
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	324	0	0	1517	0	0	0	580	0	0	784
Future Vol, veh/h	0	324	0	0	1517	0	0	0	580	0	0	784
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	352	0	0	1649	0	0	0	630	0	0	852

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	176	-	-	825
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	903	0	0	~ 441
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	903	-	-	~ 441
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.7	$ 449
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	903	-	-	441
HCM Lane V/C Ratio	0.698	-	-	1.932
HCM Control Delay (s)	17.7	-	-	$ 449
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	5.9	-	-	57

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1906	836	286	528
v/c Ratio	0.64	0.40	0.61	0.33
Control Delay	10.9	8.8	29.9	0.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.9	8.8	29.9	0.5
Queue Length 50th (ft)	169	88	100	0
Queue Length 95th (ft)	276	157	226	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	4333	3015	1217	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.28	0.24	0.33

Intersection Summary

Intersection	
Int Delay, s/veh	60.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1189	0	0	1113	0	0	0	646	0	0	762
Future Vol, veh/h	0	1189	0	0	1113	0	0	0	646	0	0	762
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1226	0	0	1147	0	0	0	666	0	0	786

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	613	-	-	574
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 559	0	0	~ 584
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 559	-	-	~ 584
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	127.3	187.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	559	-	-	584
HCM Lane V/C Ratio	1.191	-	-	1.345
HCM Control Delay (s)	127.3	-	-	187.6
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	23.8	-	-	33.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 5.4:

E+P CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6181	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1764
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)	0.74
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4897	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1398
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)	0.58
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	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5933	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1724
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)	0.72
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4684	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1400
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)	0.58
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	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	3981	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1190
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)	0.50
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		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5137	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1536
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)	0.64
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5173	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1461
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)	0.61
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		

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Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4449	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1257
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)	0.52
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	18.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6453	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1842
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)	0.77
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		

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Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4657	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1430
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)	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	20.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	3977	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1242
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)	0.52
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	17.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/6/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5304	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1628
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)	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		

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APPENDIX 5.5:

E+P CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	6181	1284
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 (f_{HV})	0.952	0.943
Flow Rate (v_i), pc/h	7057	1480
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.74	0.74

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	35.6
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.561
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1573
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3912	Ramp Junction Speed (S), mi/h	65.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	27.1
Level of Service (LOS)	E		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4897	1036
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	21.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.826
Flow Rate (v_i), pc/h	5591	1363
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.68

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	29.2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.422
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1678
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	61.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.047	Outer Lanes Freeway Speed (S_O), mi/h	70.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	2236	Ramp Junction Speed (S), mi/h	65.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3599	Average Density (D), pc/mi/ln	26.6
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4328	356
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	5175	429
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.58	0.21

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.338
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	63.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.164	Outer Lanes Freeway Speed (S_O), mi/h	71.2
Flow in Lanes 1 and 2 (v_{12}), pc/h	2070	Ramp Junction Speed (S), mi/h	67.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2499	Average Density (D), pc/mi/ln	20.7
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	3981	347
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	16.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.862
Flow Rate (v_i), pc/h	4760	438
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.54	0.22

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	20.8
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.330
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1428
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	64.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.163	Outer Lanes Freeway Speed (S_O), mi/h	71.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	1904	Ramp Junction Speed (S), mi/h	68.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2342	Average Density (D), pc/mi/ln	19.1
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5137	1156
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.893
Flow Rate (v_i), pc/h	6143	1407
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.64	0.70

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	32.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.555
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1336
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	81.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3472	Ramp Junction Speed (S), mi/h	65.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	23.6
Level of Service (LOS)	D		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	5173	724
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 (f_{HV})	0.962	0.926
Flow Rate (v_i), pc/h	5845	850
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.43

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	28.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.505
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1409
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	58.3
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	3028	Ramp Junction Speed (S), mi/h	67.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	21.7
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4449	2004
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	5027	2310
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.76	1.16

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	-
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	-
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1508
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	71.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2011	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4321	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4384	273
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.877	0.980
Flow Rate (v_i), pc/h	5434	303
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.60	0.15

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.337
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1630
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.180	Outer Lanes Freeway Speed (S_O), mi/h	70.9
Flow in Lanes 1 and 2 (v_{12}), pc/h	2174	Ramp Junction Speed (S), mi/h	67.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2477	Average Density (D), pc/mi/ln	21.2
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	3977	407
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.952
Flow Rate (v_i), pc/h	4969	465
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.57	0.23

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	21.7
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	1491
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.160	Outer Lanes Freeway Speed (S_O), mi/h	71.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	1988	Ramp Junction Speed (S), mi/h	67.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2453	Average Density (D), pc/mi/ln	20.0
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/8/2018
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5304	1327
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	13.00	5.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.885	0.952
Flow Rate (v_i), pc/h	6514	1515
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.68	0.76

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	34.8
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.564
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1410
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	3695	Ramp Junction Speed (S), mi/h	64.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.1
Level of Service (LOS)	D		

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APPENDIX 5.6:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WITH IMPROVEMENTS

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.839
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	113	645	10	138	687	57	49	236	81	115	780	312
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	645	10	138	687	57	49	236	81	115	780	312
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	645	10	164	687	57	49	265	81	115	797	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	121	691	11	176	736	61	53	284	87	123	854	352
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	691	11	176	736	61	53	284	87	123	854	352
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	691	11	176	736	61	53	284	87	123	854	352
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.53	0.47	1.00	1.42	0.58
Final Sat.:	1600	3151	49	1600	3200	1600	1600	2451	749	1600	2267	933
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.11	0.23	0.04	0.03	0.12	0.12	0.08	0.38	0.38
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.883
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 2	0	1	2 0 2	0	1	1 0 2	0	1	1 0 1	1	0
Volume Module:												
Base Vol:	241	662	160	28	577	235	133	535	237	184	1068	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	662	160	28	577	235	133	535	237	184	1068	13
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	241	662	189	28	577	235	133	564	237	201	1085	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	249	685	195	29	597	243	138	583	245	208	1122	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	685	195	29	597	243	138	583	245	208	1122	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	249	685	195	29	597	243	138	583	245	208	1122	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	3200	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.12	0.01	0.19	0.15	0.09	0.18	0.15	0.13	0.35	0.35
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1 0	2	1	0 1 0	2	0	0
Volume Module:												
Base Vol:	5	7	8	379	5	17	27	619	0	9	1485	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	379	5	17	27	619	0	9	1485	0
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	7	8	434	5	17	27	677	0	9	1519	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	5	7	8	450	5	18	28	702	0	9	1574	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	450	5	18	28	702	0	9	1574	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	450	5	18	28	702	0	9	1574	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.98	0.02	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3164	36	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.14	0.14	0.01	0.02	0.15	0.00	0.01	0.49	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.819
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	0	2 0	3 0	0
Volume Module:												
Base Vol:	976	0	247	0	0	0	0	493	0	145	1774	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	976	0	247	0	0	0	0	493	0	145	1774	0
Added Vol:	64	0	2	0	0	0	0	57	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1040	0	249	0	0	0	0	550	0	145	1776	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	1075	0	257	0	0	0	0	569	0	150	1837	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1075	0	257	0	0	0	0	569	0	150	1837	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1075	0	257	0	0	0	0	569	0	150	1837	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.34	0.00	0.16	0.00	0.00	0.00	0.00	0.18	0.00	0.05	0.38	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

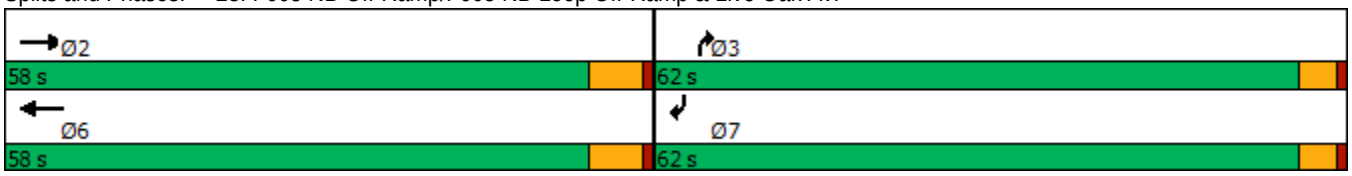
Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

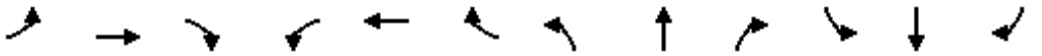
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	2	0 1	0	1	1	0 2	1	0	1	0 3	0	1
Volume Module:																
Base Vol:	0	0	0		198	0	174		311	429	0		0	1756	648	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		198	0	174		311	429	0		0	1756	648	
Added Vol:	1	3	101		23	9	0		15	26	1		307	48	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1	3	101		221	9	174		326	455	1		307	1804	648	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93	
PHF Volume:	1	3	109		238	10	187		351	489	1		330	1940	697	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1	3	109		238	10	187		351	489	1		330	1940	697	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1	3	109		238	10	187		351	489	1		330	1940	697	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	1.00	1.00		1.00	2.99	0.01		1.00	3.00	1.00	
Final Sat.:	1600	1600	1600		3200	1600	1600		1600	4789	11		1600	4800	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.07		0.07	0.01	0.12		0.22	0.10	0.10		0.21	0.40	0.44	
Crit Moves:			****		****				****						****	

Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	324	1517	580	784
Future Volume (vph)	324	1517	580	784
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	58.0	58.0	62.0	62.0
Total Split (%)	48.3%	48.3%	51.7%	51.7%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	324	0	0	1517	0	0	0	580	0	0	784
Future Volume (veh/h)	0	324	0	0	1517	0	0	0	580	0	0	784
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	352	0	0	1649	0	0	0	0	0	0	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	0	3142	0	0	3142	0	0	0		0	0	
Arrive On Green	0.00	0.87	0.00	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	352	0	0	1649	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	0.6	0.0	0.0	4.9	0.0						
Cycle Q Clear(g_c), s	0.0	0.6	0.0	0.0	4.9	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	3142	0	0	3142	0						
V/C Ratio(X)	0.00	0.11	0.00	0.00	0.52	0.00						
Avail Cap(c_a), veh/h	0	4213	0	0	4213	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.4	0.0	0.0	0.7	0.0						
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.1	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.5	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		352			1649							
Approach Delay, s/veh		0.5			1.0							
Approach LOS		A			A							

Timer - Assigned Phs	2	6
Phs Duration (G+Y+Rc), s	44.7	44.7
Change Period (Y+Rc), s	5.8	5.8
Max Green Setting (Gmax), s	52.2	52.2
Max Q Clear Time (g_c+I1), s	2.6	6.9
Green Ext Time (p_c), s	4.6	32.1

Intersection Summary	
HCM 6th Ctrl Delay	0.9
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.752
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 1		0 1	1 0 2		0 1	1 0 2		0 1	1 0 2		0 1
Volume Module:												
Base Vol:	60	91	197	25	350	99	93	673	81	277	1076	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	91	197	25	350	99	93	673	81	277	1076	28
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	91	197	55	364	125	93	675	81	277	1130	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	95	103	222	62	411	141	105	762	91	313	1275	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	103	222	62	411	141	105	762	91	313	1275	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	103	222	62	411	141	105	762	91	313	1275	32
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.14	0.04	0.13	0.09	0.07	0.24	0.06	0.20	0.40	0.02
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	242	113	29	13	35	50	14	742	28	24	1569	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	242	113	29	13	35	50	14	742	28	24	1569	27
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	268	113	29	13	35	50	14	758	44	24	1597	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	286	121	31	14	37	53	15	810	47	26	1706	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	121	31	14	37	53	15	810	47	26	1706	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	121	31	14	37	53	15	810	47	26	1706	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.28	0.07	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.95	0.05
Final Sat.:	1046	441	113	1600	1600	1600	1600	3200	1600	1600	4720	80
Capacity Analysis Module:												
Vol/Sat:	0.18	0.27	0.27	0.01	0.02	0.03	0.01	0.25	0.03	0.02	0.36	0.36
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	312	0	62	119	775	0	0	1259	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	312	0	62	119	775	0	0	1259	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	348	0	62	119	775	0	0	1261	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	0	0	364	0	65	124	810	0	0	1318	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	65	124	810	0	0	1318	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	65	124	810	0	0	1318	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.04	0.08	0.17	0.00	0.00	0.41	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	85	688	48	313	1008	61	83	576	80	21	359	258
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	688	48	313	1008	61	83	576	80	21	359	258
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	688	48	334	1008	61	83	599	80	21	389	283
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	88	709	49	344	1038	63	85	617	82	22	401	291
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	709	49	344	1038	63	85	617	82	22	401	291
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	709	49	344	1038	63	85	617	82	22	401	291
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.76	0.24	1.00	1.16	0.84
Final Sat.:	1600	2991	209	1600	3200	1600	1600	2823	377	1600	1852	1348
Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.21	0.32	0.04	0.05	0.22	0.22	0.01	0.22	0.22
Crit Moves:		****			****			****			****	

The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.916
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	109	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	188	695	165	252	668	146	110	1148	190	93	567	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	695	165	252	668	146	110	1148	190	93	567	12
Added Vol:	0	0	23	0	0	0	0	22	0	30	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	188	695	188	252	668	146	110	1170	190	123	594	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	200	738	200	268	709	155	117	1242	202	131	631	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	738	200	268	709	155	117	1242	202	131	631	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	200	738	200	268	709	155	117	1242	202	131	631	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	3200	3200	1600	1600	3200	1600	1600	3137	63
Capacity Analysis Module:												
Vol/Sat:	0.12	0.23	0.12	0.08	0.22	0.10	0.07	0.39	0.13	0.08	0.20	0.20
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	1 0
Volume Module:												
Base Vol:	0	0	0	942	0	8	15	1554	0	2	747	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	942	0	8	15	1554	0	2	747	0
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	987	0	8	15	1600	0	2	804	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	987	0	8	15	1600	0	2	804	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	987	0	8	15	1600	0	2	804	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	987	0	8	15	1600	0	2	804	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.31	0.00	0.01	0.01	0.33	0.00	0.00	0.25	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.738
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	0	2 0	3 0	0
Volume Module:												
Base Vol:	798	0	152	0	0	0	0	721	0	342	620	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	798	0	152	0	0	0	0	721	0	342	620	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	899	0	163	0	0	0	0	766	0	342	632	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	915	0	166	0	0	0	0	779	0	348	643	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	915	0	166	0	0	0	0	779	0	348	643	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	915	0	166	0	0	0	0	779	0	348	643	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.00	0.10	0.00	0.00	0.00	0.00	0.24	0.00	0.11	0.13	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

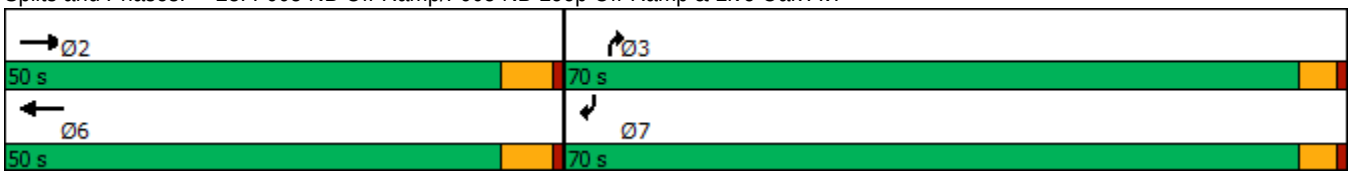
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	2	0 1	0	1	1	0 2	1	0	1	0 3	0	1
Volume Module:																
Base Vol:	0	0	0		649	0	413		225	648	0		0	550	231	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		649	0	413		225	648	0		0	550	231	
Added Vol:	6	16	269		19	6	0		20	102	0		225	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	6	16	269		668	6	413		245	750	0		225	571	231	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.97	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97	
PHF Volume:	6	17	278		690	6	427		253	775	0		232	590	239	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	6	17	278		690	6	427		253	775	0		232	590	239	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	6	17	278		690	6	427		253	775	0		232	590	239	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	1.00	1.00		1.00	3.00	0.00		1.00	3.00	1.00	
Final Sat.:	1600	1600	1600		3200	1600	1600		1600	4800	0		1600	4800	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.01	0.17		0.22	0.00	0.27		0.16	0.16	0.00		0.15	0.12	0.15	
Crit Moves:			****		****				****						****	

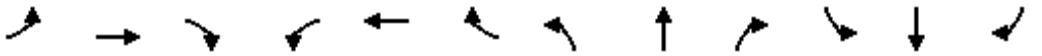
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Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	1189	1113	646	762
Future Volume (vph)	1189	1113	646	762
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	50.0	50.0	70.0	70.0
Total Split (%)	41.7%	41.7%	58.3%	58.3%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	1189	0	0	1113	0	0	0	646	0	0	762
Future Volume (veh/h)	0	1189	0	0	1113	0	0	0	646	0	0	762
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	1226	0	0	1147	0	0	0	0	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2940	0	0	2940	0	0	0		0	0	
Arrive On Green	0.00	0.81	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	1226	0	0	1147	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	3.0	0.0	0.0	2.7	0.0						
Cycle Q Clear(g_c), s	0.0	3.0	0.0	0.0	2.7	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	2940	0	0	2940	0						
V/C Ratio(X)	0.00	0.42	0.00	0.00	0.39	0.00						
Avail Cap(c_a), veh/h	0	5102	0	0	5102	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.8	0.0	0.0	0.8	0.0						
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	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	0.0	0.1	0.0	0.0	0.1	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.0	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		1226			1147							
Approach Delay, s/veh		1.0			1.0							
Approach LOS		A			A							
Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		31.3				31.3						
Change Period (Y+Rc), s		5.8				5.8						
Max Green Setting (Gmax), s		44.2				44.2						
Max Q Clear Time (g_c+I1), s		5.0				4.7						
Green Ext Time (p_c), s		20.5				18.9						

Intersection Summary	
HCM 6th Ctrl Delay	1.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.990
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	166	201		498	26	49		69	40	1519		21	122	731		19
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	166	201		498	26	49		69	40	1519		21	122	731		19
Added Vol:	20	0		0	39	26		42	0	12		0	0	43		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	186	201		498	65	75		111	40	1531		21	122	774		19
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93	0.93	0.93		0.93
PHF Volume:	199	215		534	70	80		119	43	1641		23	131	830		20
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	199	215		534	70	80		119	43	1641		23	131	830		20
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	199	215		534	70	80		119	43	1641		23	131	830		20
OvlAdjVol:				403												
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	1.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00
Final Sat.:	1600	1600		1600	1600	3200		1600	1600	3200		1600	1600	3200		1600
Capacity Analysis Module:																
Vol/Sat:	0.12	0.13		0.33	0.04	0.03		0.07	0.03	0.51		0.01	0.08	0.26		0.01
OvlAdjV/S:				0.25												
Crit Moves:				****	****					****			****			

The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 1 0
Volume Module:												
Base Vol:	54	27	7	36	114	8	39	1759	305	33	721	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	27	7	36	114	8	39	1759	305	33	721	10
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	27	7	36	114	8	39	1786	330	33	743	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	77	28	7	37	117	8	40	1839	340	34	765	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	28	7	37	117	8	40	1839	340	34	765	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	28	7	37	117	8	40	1839	340	34	765	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.25	0.06	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.96	0.04
Final Sat.:	1101	396	103	1600	1600	1600	1600	3200	1600	1600	4736	64
Capacity Analysis Module:												
Vol/Sat:	0.05	0.07	0.07	0.02	0.07	0.01	0.03	0.57	0.21	0.02	0.16	0.16
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
E+P Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	1099	0	135	43	1375	0	0	867	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1099	0	135	43	1375	0	0	867	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1175	0	135	43	1377	0	0	868	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	1211	0	139	44	1420	0	0	895	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1211	0	139	44	1420	0	0	895	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1211	0	139	44	1420	0	0	895	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.38	0.00	0.09	0.03	0.30	0.00	0.00	0.28	0.00
Crit Moves:				****			****				****	

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APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
OYC 2020 NP
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	120	684	10	153	729	60	52	257	86	122	831	334
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	120	684	10	153	729	60	52	257	86	122	831	334
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	684	10	153	729	60	52	257	86	122	831	334
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	684	10	153	729	60	52	257	86	122	831	334
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	684	10	153	729	60	52	257	86	122	831	334
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.43	0.57
Final Sat.:	1600	3154	46	1600	3200	1600	1600	1600	1600	1600	2283	917
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.10	0.23	0.04	0.03	0.16	0.05	0.08	0.36	0.36
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
OYC 2020 NP
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	256	702	177	30	612	249	141	605	253	209	1152	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	702	177	30	612	249	141	605	253	209	1152	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	702	177	30	612	249	141	605	253	209	1152	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	702	177	30	612	249	141	605	253	209	1152	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	702	177	30	612	249	141	605	253	209	1152	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.11	0.02	0.19	0.16	0.09	0.19	0.16	0.13	0.36	0.36
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
OYC 2020 NP
AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	5	7	8	416	5	18	28	708	0	10	1672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	416	5	18	28	708	0	10	1672	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	7	8	416	5	18	28	708	0	10	1672	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	416	5	18	28	708	0	10	1672	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	416	5	18	28	708	0	10	1672	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.98	0.02	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3162	38	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.13	0.13	0.01	0.02	0.22	0.00	0.01	0.52	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.044
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0	2	0 0	2	0
Volume Module:																
Base Vol:	1090	0	313		0	0	0		0	539	0		291	1931	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	1090	0	313		0	0	0		0	539	0		291	1931	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	1090	0	313		0	0	0		0	539	0		291	1931	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1090	0	313		0	0	0		0	539	0		291	1931	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1090	0	313		0	0	0		0	539	0		291	1931	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		2.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	0		3200	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.34	0.00	0.20		0.00	0.00	0.00		0.00	0.17	0.00		0.09	0.60	0.00	
Crit Moves:	****								****					****		

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Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1003	74	70	1373	30	46
Future Vol, veh/h	1003	74	70	1373	30	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1034	76	72	1415	31	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1110	0	1924	555
Stage 1	-	-	-	-	1072	-
Stage 2	-	-	-	-	852	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	352	-	79	411
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	373	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	352	-	63	411
Mov Cap-2 Maneuver	-	-	-	-	63	-
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	373	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	68.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	129	-	-	352	-
HCM Lane V/C Ratio	0.607	-	-	0.205	-
HCM Control Delay (s)	68.8	-	-	17.8	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	3.1	-	-	0.8	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑↑↱							↱
Traffic Vol, veh/h	0	852	0	0	2212	20	0	0	0	0	0	10
Future Vol, veh/h	0	852	0	0	2212	20	0	0	0	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	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	0	926	0	0	2404	22	0	0	0	0	0	11

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	-	-	-	0			-	-	1213
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	-	-	-			-	-	-
Critical Hdwy	-	-	-	-	-	-			-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			-	-	-
Follow-up Hdwy	-	-	-	-	-	-			-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-			0	0	152
Stage 1	0	-	0	0	-	-			0	0	-
Stage 2	0	-	0	0	-	-			0	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	-	-	-	-	-	-			-	0	152
Mov Cap-2 Maneuver	-	-	-	-	-	-			-	0	-
Stage 1	-	-	-	-	-	-			-	0	-
Stage 2	-	-	-	-	-	-			-	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.5
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	152
HCM Lane V/C Ratio	-	-	-	0.072
HCM Control Delay (s)	-	-	-	30.5
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.2

The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	2	0 0
Volume Module:												
Base Vol:	32	0	33	0	0	0	0	961	88	92	1411	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	0	33	0	0	0	0	961	88	92	1411	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	0	33	0	0	0	0	961	88	92	1411	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	0	33	0	0	0	0	961	88	92	1411	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	0	33	0	0	0	0	961	88	92	1411	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.75	0.25	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4397	403	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.22	0.22	0.06	0.44	0.00
Crit Moves:			****				****				****	

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.487
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0	2 0 1	2	0	1 0 1
Volume Module:												
Base Vol:	56	342	643	2	110	7	2	2	9	201	6	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	342	643	2	110	7	2	2	9	201	6	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	342	643	2	110	7	2	2	9	201	6	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	342	643	2	110	7	2	2	9	201	6	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	342	643	2	110	7	2	2	9	201	6	19
OvlAdjVol:			442									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.86	2.00	0.02	0.98	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	225	1375	3200	29	1571	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.20	0.07	0.07	0.00	0.00	0.00	0.01	0.06	0.00	0.01
OvlAdjV/S:			0.14									
Crit Moves:	****			****					****	****		

The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.067
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

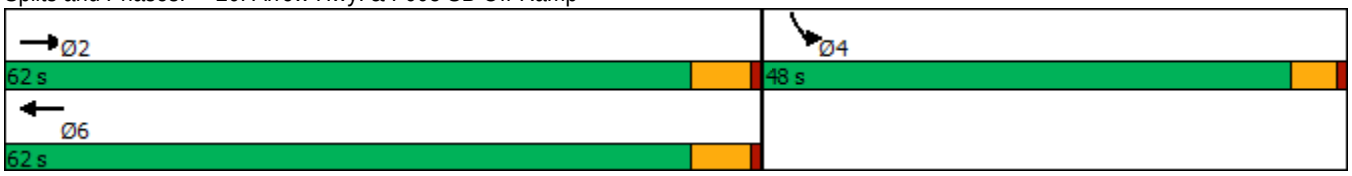
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	220	0	194	334	518	0	0	2038	698
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	220	0	194	334	518	0	0	2038	698
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	220	0	194	334	518	0	0	2038	698
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	220	0	194	334	518	0	0	2038	698
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	220	0	194	334	518	0	0	2038	698
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.12	0.21	0.16	0.00	0.00	0.64	0.44
Crit Moves:						****	****				****	

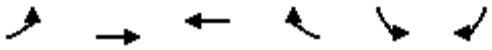
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Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	738	1882	489	853
Future Volume (vph)	738	1882	489	853
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 99.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	738	1882	0	489	853
Future Volume (veh/h)	0	738	1882	0	489	853
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	761	1940	0	504	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	3021	2103	0	553	
Arrive On Green	0.00	0.58	0.58	0.00	0.31	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	761	1940	0	504	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	6.7	45.5	0.0	25.1	0.0
Cycle Q Clear(g_c), s	0.0	6.7	45.5	0.0	25.1	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3021	2103	0	553	
V/C Ratio(X)	0.00	0.25	0.92	0.00	0.91	
Avail Cap(c_a), veh/h	0	3109	2163	0	836	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.6	17.7	0.0	31.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.1	0.0	10.1	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	17.4	0.0	12.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.6	24.8	0.0	41.4	0.0
LnGrp LOS	A	A	C	A	D	
Approach Vol, veh/h		761	1940		504	A
Approach Delay, s/veh		9.6	24.8		41.4	
Approach LOS		A	C		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.4		33.4		60.4
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		8.7		27.1		47.5
Green Ext Time (p_c), s		5.5		1.5		7.1

Intersection Summary		
HCM 6th Ctrl Delay		23.8
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	366	605	725	1532
Future Volume (vph)	366	605	725	1532
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	31.0		89.0	120.0
Total Split (%)	25.8%		74.2%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 60.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	366	605	725	1532	0	0
Future Volume (veh/h)	366	605	725	1532	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	385	0	763	1613		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1052		936	3264		
Arrive On Green	0.29	0.00	0.52	0.90		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	385	0	763	1613		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	5.4	0.0	22.4	4.9		
Cycle Q Clear(g_c), s	5.4	0.0	22.4	4.9		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1052		936	3264		
V/C Ratio(X)	0.37		0.82	0.49		
Avail Cap(c_a), veh/h	1428		2355	6456		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	17.9	0.0	12.8	0.5		
Incr Delay (d2), s/veh	0.1	0.0	3.8	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	0.0	7.6	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	0.0	16.6	0.8		
LnGrp LOS	B		B	A		
Approach Vol, veh/h	385	A		2376		
Approach Delay, s/veh	18.0			5.9		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	39.0	24.7				63.7
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	82.9	* 25				113.9
Max Q Clear Time (g_c+I1), s	24.4	7.4				6.9
Green Ext Time (p_c), s	8.5	1.3				50.7

Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	838	20	0	1882	436	0	0	13	0	0	0
Future Vol, veh/h	0	838	20	0	1882	436	0	0	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	911	22	0	2046	474	0	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	456
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	-	-	0	0	557
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	557
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	557	-	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	11.6	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	82.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	366	0	0	1568	0	0	0	666	0	0	690
Future Vol, veh/h	0	366	0	0	1568	0	0	0	666	0	0	690
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	398	0	0	1704	0	0	0	724	0	0	750

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	199	-	-	852
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	881	0	0	~ 428
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	881	-	-	~ 428
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	24.8	$ 370.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	881	-	-	428
HCM Lane V/C Ratio	0.822	-	-	1.752
HCM Control Delay (s)	24.8	-	-	$ 370.5
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	9.4	-	-	46.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	241	0	93	0	0	0	0	965	381	158	2066	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	0	93	0	0	0	0	965	381	158	2066	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	241	0	93	0	0	0	0	965	381	158	2066	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	0	93	0	0	0	0	965	381	158	2066	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	0	93	0	0	0	0	965	381	158	2066	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.30	0.24	0.10	0.65	0.00
Crit Moves:	****						****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.367
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	29	7	150	10	0	8	13	206	24	64	480	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	7	150	10	0	8	13	206	24	64	480	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	7	150	10	0	8	13	206	24	64	480	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	7	150	10	0	8	13	206	24	64	480	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	7	150	10	0	8	13	206	24	64	480	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.04	0.96	1.00	0.11	0.89	1.00	1.79	0.21	1.00	1.94	0.06
Final Sat.:	1600	71	1529	1600	178	1422	1600	2866	334	1600	3097	103
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.10	0.01	0.00	0.01	0.01	0.07	0.07	0.04	0.16	0.15
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	73	167		209	26	441		105	98	784		90	294	1200		30
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	73	167		209	26	441		105	98	784		90	294	1200		30
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	73	167		209	26	441		105	98	784		90	294	1200		30
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	73	167		209	26	441		105	98	784		90	294	1200		30
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	73	167		209	26	441		105	98	784		90	294	1200		30
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	1.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00	1.00	2.00		1.00
Final Sat.:	1600	1600		1600	1600	3200		1600	1600	3200		1600	1600	3200		1600
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10		0.13	0.02	0.14		0.07	0.06	0.25		0.06	0.18	0.38		0.02
Crit Moves:	****					****			****					****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.920
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0	1	0	1	1	0	2	0	1	1	0	2	0	1
Volume Module:																			
Base Vol:	270	120	40	13	37	53	14	853	33	29	1711	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	120	40	13	37	53	14	853	33	29	1711	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	270	120	40	13	37	53	14	853	33	29	1711	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	270	120	40	13	37	53	14	853	33	29	1711	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	270	120	40	13	37	53	14	853	33	29	1711	29
Saturation Flow Module:																			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.63	0.28	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1005	447	149	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:																			
Vol/Sat:	0.17	0.27	0.27	0.01	0.02	0.03	0.01	0.27	0.02	0.02	0.53	0.02
Crit Moves:		****			****			****				****							

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	340	0	294	0	0	0	0	831	101	190	1296	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	340	0	294	0	0	0	0	831	101	190	1296	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	340	0	294	0	0	0	0	831	101	190	1296	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	0	294	0	0	0	0	831	101	190	1296	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	340	0	294	0	0	0	0	831	101	190	1296	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.18	0.00	0.00	0.00	0.00	0.26	0.06	0.12	0.41	0.00
Crit Moves:			****				****				****	

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	377	0	86	146	905	0	0	1381	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	377	0	86	146	905	0	0	1381	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	377	0	86	146	905	0	0	1381	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	377	0	86	146	905	0	0	1381	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	377	0	86	146	905	0	0	1381	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.05	0.09	0.28	0.00	0.00	0.43	0.00
Crit Moves:				****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.885
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	3 0 0
Volume Module:												
Base Vol:	697	0	114	0	0	0	0	1194	208	69	2722	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	697	0	114	0	0	0	0	1194	208	69	2722	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	697	0	114	0	0	0	0	1194	208	69	2722	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	697	0	114	0	0	0	0	1194	208	69	2722	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	697	0	114	0	0	0	0	1194	208	69	2722	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.22	0.00	0.07	0.00	0.00	0.00	0.00	0.37	0.13	0.04	0.57	0.00
Crit Moves:	****						****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.956
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	139	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	90	730	50	339	1069	64	88	618	85	22	390	283
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	730	50	339	1069	64	88	618	85	22	390	283
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	730	50	339	1069	64	88	618	85	22	390	283
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	730	50	339	1069	64	88	618	85	22	390	283
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	730	50	339	1069	64	88	618	85	22	390	283
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.16	0.84
Final Sat.:	1600	2995	205	1600	3200	1600	1600	1600	1600	1600	1854	1346
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.24	0.21	0.33	0.04	0.06	0.39	0.05	0.01	0.21	0.21
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.955
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	138	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1	1	0 1	1	0
Volume Module:																
Base Vol:	201	738	190		267	709	154		117	1246	201		109	641	13	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	201	738	190		267	709	154		117	1246	201		109	641	13	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	201	738	190		267	709	154		117	1246	201		109	641	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	201	738	190		267	709	154		117	1246	201		109	641	13	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	201	738	190		267	709	154		117	1246	201		109	641	13	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	1.96	0.04	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3136	64	
Capacity Analysis Module:																
Vol/Sat:	0.13	0.23	0.12		0.17	0.22	0.10		0.07	0.39	0.13		0.07	0.20	0.20	
Crit Moves:		****				****					****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.965
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	148	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	1014	0	8	15	1749	0	2	847	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1014	0	8	15	1749	0	2	847	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1014	0	8	15	1749	0	2	847	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1014	0	8	15	1749	0	2	847	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1014	0	8	15	1749	0	2	847	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.32	0.00	0.01	0.01	0.55	0.00	0.00	0.26	0.00
Crit Moves:				****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.816
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	1	1	0	2 0	2	0 0
Volume Module:																
Base Vol:	905	0	336		0	0	0		0	807	1990		606	866	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	905	0	336		0	0	0		0	807	1990		606	866	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	905	0	336		0	0	0		0	807	1990		606	866	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	905	0	336		0	0	0		0	807	1990		606	866	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	905	0	336		0	0	0		0	807	1990		606	866	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	1.00	1.00		2.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	1600	1600		3200	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.28	0.00	0.21		0.00	0.00	0.00		0.00	0.50	1.24		0.19	0.27	0.00	
Crit Moves:	****										****		****			

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Intersection	
Int Delay, s/veh	30

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2610	56	83	1163	78	112
Future Vol, veh/h	2610	56	83	1163	78	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2719	58	86	1211	81	117

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2777	0	3526	1389
Stage 1	-	-	-	-	2748	-
Stage 2	-	-	-	-	778	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	~ 51	-	~ 8	~ 115
Stage 1	-	-	-	-	~ 19	-
Stage 2	-	-	-	-	407	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	~ 51	-	0	~ 115
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	407	-

Approach	EB	WB	NB
HCM Control Delay, s	0	34.1	$ 423.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	115	-	-	~ 51	-
HCM Lane V/C Ratio	1.721	-	-	1.695	-
HCM Control Delay (s)	$ 423.4	-	-	$ 511.9	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	15.2	-	-	8.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑↑↱							↱
Traffic Vol, veh/h	0	1142	0	0	1471	1	0	0	0	0	0	1
Future Vol, veh/h	0	1142	0	0	1471	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1177	0	0	1516	1	0	0	0	0	0	1

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	-	-	-	0			-	-	759
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	-	-	-			-	-	-
Critical Hdwy	-	-	-	-	-	-			-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			-	-	-
Follow-up Hdwy	-	-	-	-	-	-			-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-			0	0	303
Stage 1	0	-	0	0	-	-			0	0	-
Stage 2	0	-	0	0	-	-			0	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	-	-	-	-	-	-			-	0	303
Mov Cap-2 Maneuver	-	-	-	-	-	-			-	0	-
Stage 1	-	-	-	-	-	-			-	0	-
Stage 2	-	-	-	-	-	-			-	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	303
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s)	-	-	-	16.9
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0	0	0 1	0	0	0	0 0	0	0	2	1 0	1	0	2	0 0
Volume Module:																
Base Vol:	113	0	112		0	0	0		0	2635	86		87	1133	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	113	0	112		0	0	0		0	2635	86		87	1133	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	113	0	112		0	0	0		0	2635	86		87	1133	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	113	0	112		0	0	0		0	2635	86		87	1133	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	113	0	112		0	0	0		0	2635	86		87	1133	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.91	0.09		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	4648	152		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.00	0.07		0.00	0.00	0.00		0.00	0.57	0.57		0.05	0.35	0.00	
Crit Moves:			****							****			****			

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0 2	0 1	2	0 1	0 1
Volume Module:												
Base Vol:	10	165	371	11	428	6	4	16	88	537	10	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	165	371	11	428	6	4	16	88	537	10	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	165	371	11	428	6	4	16	88	537	10	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	165	371	11	428	6	4	16	88	537	10	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	165	371	11	428	6	4	16	88	537	10	16
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.94	2.00	0.03	0.97	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	91	1509	3200	40	1560	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.12	0.27	0.27	0.00	0.00	0.01	0.06	0.17	0.01	0.01
OvlAdjV/S:			0.00									
Crit Moves:	****			****					****	****		

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The Park @ Live Oak (JN 11110)
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.857
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

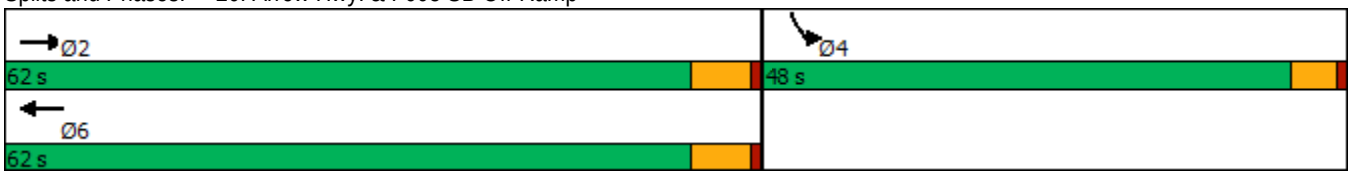
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	698	0	448	251	891	0	0	1025	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	698	0	448	251	891	0	0	1025	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	698	0	448	251	891	0	0	1025	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	698	0	448	251	891	0	0	1025	253
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	698	0	448	251	891	0	0	1025	253
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.22	0.00	0.28	0.16	0.28	0.00	0.00	0.32	0.16
Crit Moves:						****	****				****	

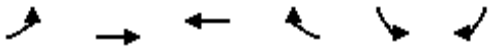
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Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1589	812	306	465
Future Volume (vph)	1589	812	306	465
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 60.7
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	1589	812	0	306	465
Future Volume (veh/h)	0	1589	812	0	306	465
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	1655	846	0	319	0
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	0	2944	2049	0	407	
Arrive On Green	0.00	0.57	0.57	0.00	0.22	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	1655	846	0	319	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	10.2	6.7	0.0	8.4	0.0
Cycle Q Clear(g_c), s	0.0	10.2	6.7	0.0	8.4	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2944	2049	0	407	
V/C Ratio(X)	0.00	0.56	0.41	0.00	0.78	
Avail Cap(c_a), veh/h	0	5764	4012	0	1549	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	6.9	6.2	0.0	18.4	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	3.4	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	2.1	1.4	0.0	3.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.1	6.3	0.0	21.8	0.0
LnGrp LOS	A	A	A	A	C	
Approach Vol, veh/h		1655	846		319	A
Approach Delay, s/veh		7.1	6.3		21.8	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	34.5	16.1	34.5
Change Period (Y+Rc), s	5.8	* 4.7	5.8
Max Green Setting (Gmax), s	56.2	* 43	56.2
Max Q Clear Time (g_c+I1), s	12.2	10.4	8.7
Green Ext Time (p_c), s	16.4	1.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

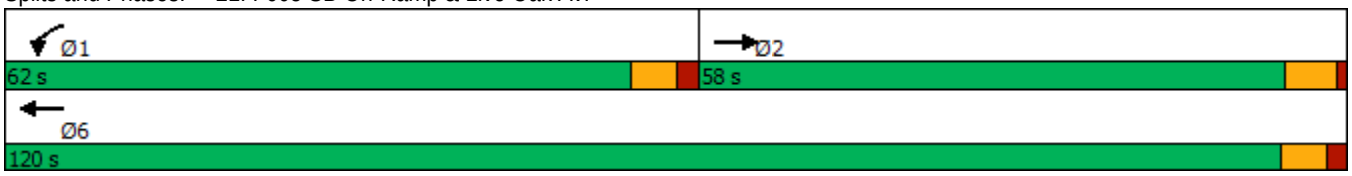
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1310	1453	699	1213
Future Volume (vph)	1310	1453	699	1213
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	58.0		62.0	120.0
Total Split (%)	48.3%		51.7%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 106.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1310	1453	699	1213	0	0
Future Volume (veh/h)	1310	1453	699	1213	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	1365	0	728	1264		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1543		812	3387		
Arrive On Green	0.43	0.00	0.45	0.94		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1365	0	728	1264		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	34.4	0.0	36.6	3.3		
Cycle Q Clear(g_c), s	34.4	0.0	36.6	3.3		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1543		812	3387		
V/C Ratio(X)	0.88		0.90	0.37		
Avail Cap(c_a), veh/h	1910		1025	4167		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	26.0	0.0	25.1	0.3		
Incr Delay (d2), s/veh	4.0	0.0	10.7	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.2	0.0	16.5	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.0	0.0	35.8	0.4		
LnGrp LOS	C		D	A		
Approach Vol, veh/h	1365	A		1992		
Approach Delay, s/veh	30.0			13.3		
Approach LOS	C			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	50.4	48.3				98.7
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	55.9	* 52				113.9
Max Q Clear Time (g_c+I1), s	38.6	36.4				5.3
Green Ext Time (p_c), s	5.7	5.8				30.6

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1584	24	0	812	315	0	0	46	0	0	0
Future Vol, veh/h	0	1584	24	0	812	315	0	0	46	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1650	25	0	846	328	0	0	48	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	825
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	-	-	0	0	320
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	320
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	320	-	-	-	-
HCM Lane V/C Ratio	0.15	-	-	-	-
HCM Control Delay (s)	18.2	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Intersection	
Int Delay, s/veh	74.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1310	0	0	1165	0	0	0	705	0	0	746
Future Vol, veh/h	0	1310	0	0	1165	0	0	0	705	0	0	746
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1351	0	0	1201	0	0	0	727	0	0	769

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	676	-	-	601
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 521	0	0	~ 566
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 521	-	-	~ 566
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	211.4	194.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	521	-	-	566
HCM Lane V/C Ratio	1.395	-	-	1.359
HCM Control Delay (s)	211.4	-	-	194.1
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	33.8	-	-	33.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	206	0	92	0	0	0	0	1510	196	70	614	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	0	92	0	0	0	0	1510	196	70	614	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	0	92	0	0	0	0	1510	196	70	614	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	0	92	0	0	0	0	1510	196	70	614	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	0	92	0	0	0	0	1510	196	70	614	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.47	0.12	0.04	0.19	0.00
Crit Moves:	****							****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	0	1 0	1	1 0
Volume Module:												
Base Vol:	8	4	57	22	4	12	8	260	36	168	139	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	4	57	22	4	12	8	260	36	168	139	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	4	57	22	4	12	8	260	36	168	139	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	4	57	22	4	12	8	260	36	168	139	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	4	57	22	4	12	8	260	36	168	139	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.07	0.93	1.00	0.37	0.63	1.00	1.76	0.24	1.00	1.64	0.36
Final Sat.:	1600	105	1495	1600	589	1011	1600	2811	389	1600	2616	584
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.09	0.09	0.11	0.05	0.05
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.052
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	186	277	528	27	109	73	42	1678	35	129	861	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	277	528	27	109	73	42	1678	35	129	861	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	186	277	528	27	109	73	42	1678	35	129	861	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	277	528	27	109	73	42	1678	35	129	861	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	186	277	528	27	109	73	42	1678	35	129	861	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.33	0.02	0.03	0.05	0.03	0.52	0.02	0.08	0.27	0.01
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	68	29	11	38	120	8	41	1917	338	44	841	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	29	11	38	120	8	41	1917	338	44	841	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	29	11	38	120	8	41	1917	338	44	841	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	29	11	38	120	8	41	1917	338	44	841	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	29	11	38	120	8	41	1917	338	44	841	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.63	0.27	0.10	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1007	430	163	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.07	0.02	0.08	0.01	0.03	0.60	0.21	0.03	0.26	0.01
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	91	0	127	0	0	0	0	1430	675	333	780	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	0	127	0	0	0	0	1430	675	333	780	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	0	127	0	0	0	0	1430	675	333	780	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	0	127	0	0	0	0	1430	675	333	780	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	0	127	0	0	0	0	1430	675	333	780	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.08	0.00	0.00	0.00	0.00	0.45	0.42	0.21	0.24	0.00
Crit Moves:			****					****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.948
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	132	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1204	0	159	63	1510	0	0	1010	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1204	0	159	63	1510	0	0	1010	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.38	0.00	0.10	0.04	0.47	0.00	0.00	0.32	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
OYC 2020 NP
PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	3 0 0
Volume Module:												
Base Vol:	293	0	70	0	0	0	0	0	0	85	1310	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	0	70	0	0	0	0	0	0	85	1310	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	293	0	70	0	0	0	0	0	0	85	1310	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	293	0	70	0	0	0	0	0	0	85	1310	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	293	0	70	0	0	0	0	0	0	85	1310	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.27	0.00
Crit Moves:	****										****	

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APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.836
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	120	684	10	153	729	60	52	257	86	122	831	334
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	120	684	10	153	729	60	52	257	86	122	831	334
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	684	10	179	729	60	52	286	86	122	848	350
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	684	10	179	729	60	52	286	86	122	848	350
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	684	10	179	729	60	52	286	86	122	848	350
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	684	10	179	729	60	52	286	86	122	848	350
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.42	0.58
Final Sat.:	1600	3154	46	1600	3200	1600	1600	1600	1600	1600	2265	935
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.11	0.23	0.04	0.03	0.18	0.05	0.08	0.37	0.37
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	256	702	177	30	612	249	141	605	253	209	1152	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	702	177	30	612	249	141	605	253	209	1152	14
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	702	206	30	612	249	141	634	253	226	1169	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	702	206	30	612	249	141	634	253	226	1169	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	702	206	30	612	249	141	634	253	226	1169	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	702	206	30	612	249	141	634	253	226	1169	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.13	0.02	0.19	0.16	0.09	0.20	0.16	0.14	0.37	0.37
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.812
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	5	7	8	416	5	18	28	708	0	10	1672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	416	5	18	28	708	0	10	1672	0
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	7	8	471	5	18	28	766	0	10	1706	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	7	8	471	5	18	28	766	0	10	1706	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	471	5	18	28	766	0	10	1706	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	471	5	18	28	766	0	10	1706	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.98	0.02	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3166	34	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.15	0.15	0.01	0.02	0.24	0.00	0.01	0.53	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.065
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0	2	0	2	0
Volume Module:																
Base Vol:	1090	0	313		0	0	0		0	539	0		291	1931	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	1090	0	313		0	0	0		0	539	0		291	1931	0	
Added Vol:	64	0	2		0	0	0		0	57	0		0	2	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1154	0	315		0	0	0		0	596	0		291	1933	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	1154	0	315		0	0	0		0	596	0		291	1933	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1154	0	315		0	0	0		0	596	0		291	1933	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1154	0	315		0	0	0		0	596	0		291	1933	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		2.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	0		3200	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.00	0.20		0.00	0.00	0.00		0.00	0.19	0.00		0.09	0.60	0.00	
Crit Moves:	****								****					****		

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Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	793	118	0	2223	0	93
Future Vol, veh/h	793	118	0	2223	0	93
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	862	128	0	2416	0	101

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	495
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	449
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	449
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	449	-	-	-
HCM Lane V/C Ratio	0.225	-	-	-
HCM Control Delay (s)	15.3	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1133	1353	125	0	116
Future Vol, veh/h	0	1133	1353	125	0	116
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	1232	1471	136	0	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	804
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	283
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	283
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	27.6
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	283
HCM Lane V/C Ratio	-	-	-	0.446
HCM Control Delay (s)	-	-	-	27.6
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1059	74	70	1448	30	46
Future Vol, veh/h	1059	74	70	1448	30	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1092	76	72	1493	31	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1168	0	1871	584
Stage 1	-	-	-	-	1130	-
Stage 2	-	-	-	-	741	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	330	-	112	394
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	397	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	330	-	88	394
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	397	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	44.7
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	-	-	330	-
HCM Lane V/C Ratio	0.472	-	-	0.219	-
HCM Control Delay (s)	44.7	-	-	18.9	-
HCM Lane LOS	E	-	-	C	-
HCM 95th %tile Q(veh)	2.2	-	-	0.8	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	883	3	0	2223	0	4
Future Vol, veh/h	883	3	0	2223	0	4
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	960	3	0	2416	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	482
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	458
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	458
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	458	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	12.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1102	1517	9	0	1
Future Vol, veh/h	4	1102	1517	9	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	4	1198	1649	10	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1659	0	-	0	-	830
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	190	-	-	-	0	272
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	190	-	-	-	-	272
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	190	-	-	-	272
HCM Lane V/C Ratio	0.023	-	-	-	0.004
HCM Control Delay (s)	24.4	-	-	-	18.3
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1102	1525	3	0	1
Future Vol, veh/h	0	1102	1525	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1198	1658	3	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	831
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	272
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	272
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	272
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	18.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	886	1	48	2213	20	1	0	6	0	0	10
Future Vol, veh/h	0	886	1	48	2213	20	1	0	6	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	0	963	1	52	2405	22	1	0	7	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2427	0	0	964	0	0	2030	3495	482	2905	3484	1214
Stage 1	-	-	-	-	-	-	964	964	-	2520	2520	-
Stage 2	-	-	-	-	-	-	1066	2531	-	385	964	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	78	-	-	413	-	-	62	6	458	17	7	151
Stage 1	-	-	-	-	-	-	214	336	-	16	57	-
Stage 2	-	-	-	-	-	-	217	56	-	563	336	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	78	-	-	413	-	-	52	5	458	15	6	151
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	40	-	15	40	-
Stage 1	-	-	-	-	-	-	214	336	-	16	50	-
Stage 2	-	-	-	-	-	-	176	49	-	555	336	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	16.6	30.7
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	78	-	-	413	-	-	151
HCM Lane V/C Ratio	0.024	-	-	-	0.126	-	-	0.072
HCM Control Delay (s)	16.6	0	-	-	15	-	-	30.7
HCM Lane LOS	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.1	0	-	-	0.4	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	891	0	0	2281	0	3
Future Vol, veh/h	891	0	0	2281	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	968	0	0	2479	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	484
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	457
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	457
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	457	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-
HCM Control Delay (s)	12.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.522
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	32	0	33	0	0	0	0	961	88	92	1411	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	0	33	0	0	0	0	961	88	92	1411	0
Added Vol:	0	0	0	52	0	30	46	6	0	0	54	78
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	0	33	52	0	30	46	967	88	92	1465	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	0	33	52	0	30	46	967	88	92	1465	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	0	33	52	0	30	46	967	88	92	1465	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	0	33	52	0	30	46	967	88	92	1465	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	2.75	0.25	1.00	2.85	0.15
Final Sat.:	3200	0	1600	1015	0	585	1600	4400	400	1600	4557	243
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.05	0.00	0.05	0.03	0.22	0.22	0.06	0.32	0.32
Crit Moves:			****			****	****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.518
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:		Ovl			Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1 0	2	0 1	2 0	1	0 1
Volume Module:												
Base Vol:	56	342	643	2	110	7	2	2	9	201	6	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	342	643	2	110	7	2	2	9	201	6	19
Added Vol:	0	18	0	0	32	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	360	643	2	142	7	2	2	9	201	6	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	360	643	2	142	7	2	2	9	201	6	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	360	643	2	142	7	2	2	9	201	6	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	360	643	2	142	7	2	2	9	201	6	19
OvlAdjVol:			442									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.87	2.00	0.01	0.99	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	215	1385	3200	22	1578	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.20	0.09	0.09	0.00	0.00	0.00	0.01	0.06	0.00	0.01
OvlAdjV/S:			0.14									
Crit Moves:	****			****					****	****		

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.160
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	2	0 0	1	0	1	0 2	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	0	0	0		220	0	194		334	518	0		0	2038	698	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		220	0	194		334	518	0		0	2038	698	
Added Vol:	1	3	101		23	9	0		15	26	1		307	48	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1	3	101		243	9	194		349	544	1		307	2086	698	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	1	3	101		243	9	194		349	544	1		307	2086	698	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1	3	101		243	9	194		349	544	1		307	2086	698	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1	3	101		243	9	194		349	544	1		307	2086	698	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	0.04	0.96		1.00	2.99	0.01		1.00	2.00	1.00	
Final Sat.:	1600	1600	1600		3200	71	1529		1600	4791	9		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.06		0.08	0.13	0.13		0.22	0.11	0.11		0.19	0.65	0.44	
Crit Moves:			****			****				****					****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.508
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	994	0	0	1503	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	994	0	0	1503	0
Added Vol:	0	0	0	44	0	2	6	52	0	0	131	173
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	44	0	2	6	1046	0	0	1634	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	44	0	2	6	1046	0	0	1634	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	44	0	2	6	1046	0	0	1634	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	44	0	2	6	1046	0	0	1634	173
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.71	0.29
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4340	460
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.22	0.00	0.00	0.38	0.38
Crit Moves:				****			****				****	

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Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	851	202	0	3092	0	163
Future Vol, veh/h	851	202	0	3092	0	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	925	220	0	3361	0	177

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	463
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	760
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	760
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	760	-	-	-
HCM Lane V/C Ratio	0.233	-	-	-
HCM Control Delay (s)	11.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	770	244	0	3092	0	197
Future Vol, veh/h	770	244	0	3092	0	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	837	265	0	3361	0	214

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	419
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	794
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	794
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	794	-	-	-
HCM Lane V/C Ratio	0.27	-	-	-
HCM Control Delay (s)	11.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↱			↱
Traffic Vol, veh/h	0	1066	1830	65	0	5
Future Vol, veh/h	0	1066	1830	65	0	5
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	1159	1989	71	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1030
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	234
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	234
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

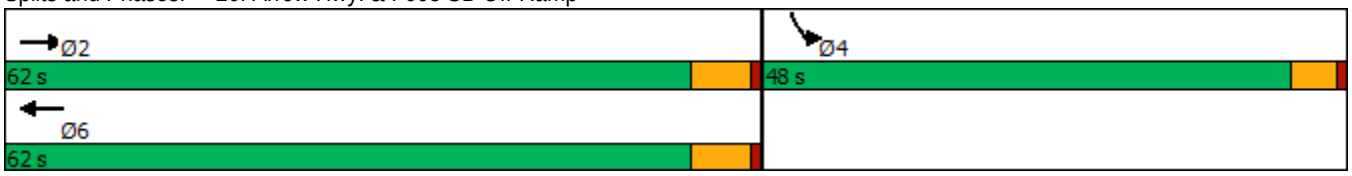
Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.8
HCM LOS			C

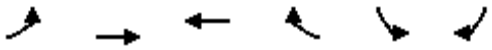
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	234
HCM Lane V/C Ratio	-	-	-	0.023
HCM Control Delay (s)	-	-	-	20.8
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	968	1949	489	1142
Future Volume (vph)	968	1949	489	1142
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 99.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	968	1949	0	489	1142
Future Volume (veh/h)	0	968	1949	0	489	1142
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	998	2009	0	504	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	3032	2110	0	552	
Arrive On Green	0.00	0.58	0.58	0.00	0.31	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	998	2009	0	504	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	9.4	49.6	0.0	25.5	0.0
Cycle Q Clear(g_c), s	0.0	9.4	49.6	0.0	25.5	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3032	2110	0	552	
V/C Ratio(X)	0.00	0.33	0.95	0.00	0.91	
Avail Cap(c_a), veh/h	0	3062	2131	0	823	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.2	18.5	0.0	31.9	0.0
Incr Delay (d2), s/veh	0.0	0.1	10.4	0.0	10.6	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	3.1	19.9	0.0	12.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.2	28.9	0.0	42.4	0.0
LnGrp LOS	A	B	C	A	D	
Approach Vol, veh/h		998	2009		504	A
Approach Delay, s/veh		10.2	28.9		42.4	
Approach LOS		B	C		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		61.5		33.7		61.5
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		11.4		27.5		51.6
Green Ext Time (p_c), s		7.8		1.5		4.0

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	368	699	751	1896
Future Volume (vph)	368	699	751	1896
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	30.0		90.0	120.0
Total Split (%)	25.0%		75.0%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 88.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	368	699	751	1896	0	0
Future Volume (veh/h)	368	699	751	1896	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	387	0	791	1996		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1289		915	3363		
Arrive On Green	0.36	0.00	0.51	0.93		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	387	0	791	1996		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	6.9	0.0	34.2	7.5		
Cycle Q Clear(g_c), s	6.9	0.0	34.2	7.5		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1289		915	3363		
V/C Ratio(X)	0.30		0.86	0.59		
Avail Cap(c_a), veh/h	1289		1704	4616		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	20.6	0.0	19.3	0.5		
Incr Delay (d2), s/veh	0.0	0.0	5.3	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.7	0.0	13.6	0.2		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	0.0	24.6	0.8		
LnGrp LOS	C		C	A		
Approach Vol, veh/h	387	A		2787		
Approach Delay, s/veh	20.7			7.6		
Approach LOS	C			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	51.2	37.9				89.1
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	83.9	* 24				113.9
Max Q Clear Time (g_c+I1), s	36.2	8.9				9.5
Green Ext Time (p_c), s	8.9	1.3				73.4

Intersection Summary	
HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	945	143	0	1949	436	0	0	13	0	0	0
Future Vol, veh/h	0	945	143	0	1949	436	0	0	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	1027	155	0	2118	474	0	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	514
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	-	-	0	0	511
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	511
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	511	-	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	12.2	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	207.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	368	0	0	1672	0	0	0	666	0	0	975
Future Vol, veh/h	0	368	0	0	1672	0	0	0	666	0	0	975
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	400	0	0	1817	0	0	0	724	0	0	1060

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	200	-	-	909
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	880	0	0	~ 401
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	880	-	-	~ 401
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	24.9	$ 767.4
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	880	-	-	401
HCM Lane V/C Ratio	0.823	-	-	2.643
HCM Control Delay (s)	24.9	-	-	$ 767.4
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	9.4	-	-	86.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	241	0	93	0	0	0	0	965	381	158	2066	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	0	93	0	0	0	0	965	381	158	2066	0
Added Vol:	0	0	0	0	0	0	0	36	70	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	241	0	93	0	0	0	0	1001	451	158	2133	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	241	0	93	0	0	0	0	1001	451	158	2133	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	0	93	0	0	0	0	1001	451	158	2133	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	0	93	0	0	0	0	1001	451	158	2133	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.31	0.28	0.10	0.67	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.389
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	29	7	150	10	0	8	13	206	24	64	480	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	7	150	10	0	8	13	206	24	64	480	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	70	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	7	150	10	0	8	13	206	24	64	550	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	7	150	10	0	8	13	206	24	64	550	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	7	150	10	0	8	13	206	24	64	550	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	7	150	10	0	8	13	206	24	64	550	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.04	0.96	1.00	0.11	0.89	1.00	1.79	0.21	1.00	1.94	0.06
Final Sat.:	1600	71	1529	1600	178	1422	1600	2866	334	1600	3110	90
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.10	0.01	0.00	0.01	0.01	0.07	0.07	0.04	0.18	0.18
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	73	167	209	26	441	105	98	784	90	294	1200	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	167	209	26	441	105	98	784	90	294	1200	30
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	167	209	56	455	131	98	786	90	294	1254	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	167	209	56	455	131	98	786	90	294	1254	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	167	209	56	455	131	98	786	90	294	1254	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	167	209	56	455	131	98	786	90	294	1254	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.13	0.04	0.14	0.08	0.06	0.25	0.06	0.18	0.39	0.02
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.945
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	129	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	270	120	40	13	37	53	14	853	33	29	1711	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	120	40	13	37	53	14	853	33	29	1711	29
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	296	120	40	13	37	53	14	869	49	29	1739	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	296	120	40	13	37	53	14	869	49	29	1739	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	296	120	40	13	37	53	14	869	49	29	1739	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	296	120	40	13	37	53	14	869	49	29	1739	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.26	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1039	421	140	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.19	0.29	0.28	0.01	0.02	0.03	0.01	0.27	0.03	0.02	0.54	0.02
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0	2	0 0
Volume Module:																
Base Vol:	340	0	294		0	0	0		0	831	101		190	1296	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	340	0	294		0	0	0		0	831	101		190	1296	0	
Added Vol:	26	0	0		0	0	0		0	0	16		0	2	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	366	0	294		0	0	0		0	831	117		190	1298	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	366	0	294		0	0	0		0	831	117		190	1298	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	366	0	294		0	0	0		0	831	117		190	1298	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	366	0	294		0	0	0		0	831	117		190	1298	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.00	0.18		0.00	0.00	0.00		0.00	0.26	0.07		0.12	0.41	0.00	
Crit Moves:			****						****					****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	377	0	86	146	905	0	0	1381	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	377	0	86	146	905	0	0	1381	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	413	0	86	146	905	0	0	1383	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	413	0	86	146	905	0	0	1383	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	413	0	86	146	905	0	0	1383	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	413	0	86	146	905	0	0	1383	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.05	0.09	0.28	0.00	0.00	0.43	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	697	0	114	0	0	0	0	1194	208	69	2722	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	697	0	114	0	0	0	0	1194	208	69	2722	0
Added Vol:	26	0	0	0	0	0	0	21	16	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	723	0	114	0	0	0	0	1215	224	69	2765	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	723	0	114	0	0	0	0	1215	224	69	2765	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	723	0	114	0	0	0	0	1215	224	69	2765	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	723	0	114	0	0	0	0	1215	224	69	2765	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.23	0.00	0.07	0.00	0.00	0.00	0.00	0.38	0.14	0.04	0.58	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.983
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	171	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	90	730	50	339	1069	64	88	618	85	22	390	283
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	730	50	339	1069	64	88	618	85	22	390	283
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	730	50	360	1069	64	88	641	85	22	420	308
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	730	50	360	1069	64	88	641	85	22	420	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	730	50	360	1069	64	88	641	85	22	420	308
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	730	50	360	1069	64	88	641	85	22	420	308
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.15	0.85
Final Sat.:	1600	2995	205	1600	3200	1600	1600	1600	1600	1600	1846	1354
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.24	0.23	0.33	0.04	0.06	0.40	0.05	0.01	0.23	0.23
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.981
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	168	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	201	738	190	267	709	154	117	1246	201	109	641	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	738	190	267	709	154	117	1246	201	109	641	13
Added Vol:	0	0	23	0	0	0	0	22	0	30	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	201	738	213	267	709	154	117	1268	201	139	668	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	738	213	267	709	154	117	1268	201	139	668	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	738	213	267	709	154	117	1268	201	139	668	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	738	213	267	709	154	117	1268	201	139	668	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3139	61
Capacity Analysis Module:												
Vol/Sat:	0.13	0.23	0.13	0.17	0.22	0.10	0.07	0.40	0.13	0.09	0.21	0.21
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.993
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	1014	0	8	15	1749	0	2	847	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1014	0	8	15	1749	0	2	847	0
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1059	0	8	15	1795	0	2	904	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1059	0	8	15	1795	0	2	904	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1059	0	8	15	1795	0	2	904	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1059	0	8	15	1795	0	2	904	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.33	0.00	0.01	0.01	0.56	0.00	0.00	0.28	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.848
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	1 1 0	2 0	2	0 0
Volume Module:												
Base Vol:	905	0	336	0	0	0	0	807	1990	606	866	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	905	0	336	0	0	0	0	807	1990	606	866	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1006	0	347	0	0	0	0	852	1990	606	878	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1006	0	347	0	0	0	0	852	1990	606	878	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1006	0	347	0	0	0	0	852	1990	606	878	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1006	0	347	0	0	0	0	852	1990	606	878	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	1600	1600	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.31	0.00	0.22	0.00	0.00	0.00	0.00	0.53	1.24	0.19	0.27	0.00
Crit Moves:	****								****	****		

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1146	115	0	1561	0	119
Future Vol, veh/h	1146	115	0	1561	0	119
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	1246	125	0	1697	0	129

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	686
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	338
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	338
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	338	-	-	-
HCM Lane V/C Ratio	0.383	-	-	-
HCM Control Delay (s)	22.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.7	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2788	1279	125	0	137
Future Vol, veh/h	0	2788	1279	125	0	137
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	3030	1390	136	0	149

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	763
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	301
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	28.1
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	301
HCM Lane V/C Ratio	-	-	-	0.495
HCM Control Delay (s)	-	-	-	28.1
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.6

Intersection	
Int Delay, s/veh	81.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2674	114	116	1293	111	170
Future Vol, veh/h	2674	114	116	1293	111	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2785	119	121	1347	116	177

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2904	0	3626	1452
Stage 1	-	-	-	-	2845	-
Stage 2	-	-	-	-	781	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	~ 44	-	~ 12	~ 105
Stage 1	-	-	-	-	~ 16	-
Stage 2	-	-	-	-	378	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	~ 44	-	0	~ 105
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	378	-

Approach	EB	WB	NB
HCM Control Delay, s	0	81.1	$ 894.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	105	-	-	~ 44	-
HCM Lane V/C Ratio	2.788	-	-	2.746	-
HCM Control Delay (s)	$ 894.1	-	-	$ 985.2	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	27.5	-	-	13.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1264	2	0	1561	0	19
Future Vol, veh/h	1264	2	0	1561	0	19
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	1374	2	0	1697	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	688
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	337
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	337
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	337	-	-	-
HCM Lane V/C Ratio	0.061	-	-	-
HCM Control Delay (s)	16.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2841	1403	5	0	6
Future Vol, veh/h	2	2841	1403	5	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	2	3088	1525	5	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1530	0	-	0	-	765
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	220	-	-	-	0	300
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	220	-	-	-	-	300
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	220	-	-	-	300
HCM Lane V/C Ratio	0.01	-	-	-	0.022
HCM Control Delay (s)	21.5	-	-	-	17.3
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2841	1402	2	0	5
Future Vol, veh/h	0	2841	1402	2	0	5
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	3088	1524	2	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	763
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	301
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	301
HCM Lane V/C Ratio	-	-	-	0.018
HCM Control Delay (s)	-	-	-	17.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1282	0	21	1554	1	6	0	32	0	0	1
Future Vol, veh/h	0	1282	0	21	1554	1	6	0	32	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1322	0	22	1602	1	6	0	33	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1603	0	0	1322	0	0	2007	2969	661	2176	2969	802
Stage 1	-	-	-	-	-	-	1322	1322	-	1647	1647	-
Stage 2	-	-	-	-	-	-	685	1647	-	529	1322	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	202	-	-	278	-	-	64	14	351	51	14	284
Stage 1	-	-	-	-	-	-	120	228	-	71	158	-
Stage 2	-	-	-	-	-	-	372	158	-	462	228	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	202	-	-	278	-	-	60	13	351	43	13	284
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	87	-	63	84	-
Stage 1	-	-	-	-	-	-	120	228	-	71	146	-
Stage 2	-	-	-	-	-	-	341	146	-	419	228	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	22	17.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	251	202	-	-	278	-	-	284
HCM Lane V/C Ratio	0.156	-	-	-	0.078	-	-	0.004
HCM Control Delay (s)	22	0	-	-	19	-	-	17.7
HCM Lane LOS	C	A	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1314	0	0	1576	0	13
Future Vol, veh/h	1314	0	0	1576	0	13
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	1428	0	0	1713	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	714
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	324
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	324
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	324	-	-	-
HCM Lane V/C Ratio	0.044	-	-	-
HCM Control Delay (s)	16.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	113	0	112	0	0	0	0	2635	86	87	1133	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	113	0	112	0	0	0	0	2635	86	87	1133	0
Added Vol:	0	0	0	67	0	39	39	4	0	0	56	66
PasserByVol:	0	0	0	32	0	19	32	-32	0	0	-19	19
Initial Fut:	113	0	112	99	0	58	71	2607	86	87	1170	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	0	112	99	0	58	71	2607	86	87	1170	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	0	112	99	0	58	71	2607	86	87	1170	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	0	112	99	0	58	71	2607	86	87	1170	85
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	2.90	0.10	1.00	2.80	0.20
Final Sat.:	3200	0	1600	1009	0	591	1600	4647	153	1600	4475	325
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.07	0.10	0.00	0.10	0.04	0.56	0.56	0.05	0.26	0.26
Crit Moves:			****			****			****			

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0 2	0 1	2	0 1	0 1
Volume Module:												
Base Vol:	10	165	371	11	428	6	4	16	88	537	10	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	165	371	11	428	6	4	16	88	537	10	16
Added Vol:	0	35	0	0	25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	200	371	11	453	6	4	16	88	537	10	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	200	371	11	453	6	4	16	88	537	10	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	200	371	11	453	6	4	16	88	537	10	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	200	371	11	453	6	4	16	88	537	10	16
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.95	2.00	0.02	0.98	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	76	1524	3200	38	1562	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.12	0.29	0.29	0.00	0.00	0.01	0.06	0.17	0.01	0.01
OvlAdjV/S:			0.00									
Crit Moves:	****			****					****	****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.048
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	0 1	0	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	698	0	448	251	891	0	0	1025	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	698	0	448	251	891	0	0	1025	253
Added Vol:	6	16	269	19	6	0	20	102	0	225	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	16	269	717	6	448	271	993	0	225	1046	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	16	269	717	6	448	271	993	0	225	1046	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	16	269	717	6	448	271	993	0	225	1046	253
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	16	269	717	6	448	271	993	0	225	1046	253
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.01	0.99	1.00	3.00	0.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	3200	21	1579	1600	4800	0	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.17	0.22	0.28	0.28	0.17	0.21	0.00	0.14	0.33	0.16
Crit Moves:			****		****			****				****

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	2747	0	0	1220	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	2747	0	0	1220	0
Added Vol:	0	0	0	249	0	11	4	67	0	0	111	130
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	249	0	11	4	2814	0	0	1331	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	249	0	11	4	2814	0	0	1331	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	249	0	11	4	2814	0	0	1331	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	249	0	11	4	2814	0	0	1331	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.73	0.27
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4373	427
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.01	0.00	0.59	0.00	0.00	0.30	0.30
Crit Moves:				****				****				

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Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱		↑↑↑		↱
Traffic Vol, veh/h	1991	191	0	1600	0	193
Future Vol, veh/h	1991	191	0	1600	0	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	2164	208	0	1739	0	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1082
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	405
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	405
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	405	-	-	-
HCM Lane V/C Ratio	0.518	-	-	-
HCM Control Delay (s)	23.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.9	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1953	231	0	1600	0	232
Future Vol, veh/h	1953	231	0	1600	0	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	2123	251	0	1739	0	252

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1062
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	414
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	414
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	26.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	414	-	-	-
HCM Lane V/C Ratio	0.609	-	-	-
HCM Control Delay (s)	26.3	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	3.9	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↱			↱
Traffic Vol, veh/h	0	3156	1487	41	0	30
Future Vol, veh/h	0	3156	1487	41	0	30
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	3430	1616	45	0	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	831
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	317
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	317
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

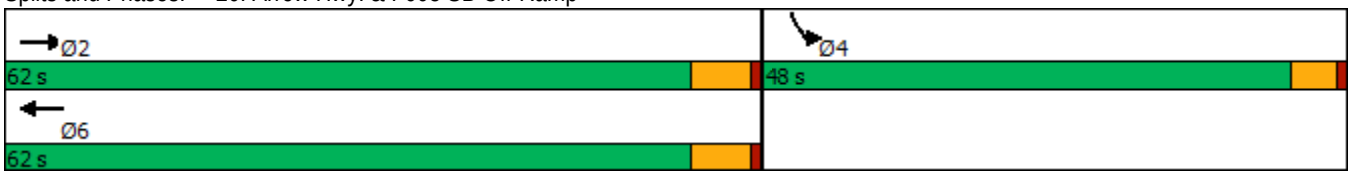
Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.7
HCM LOS			C

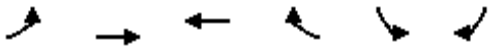
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	317
HCM Lane V/C Ratio	-	-	-	0.103
HCM Control Delay (s)	-	-	-	17.7
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2185	865	306	526
Future Volume (vph)	2185	865	306	526
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 81.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	2185	865	0	306	526
Future Volume (veh/h)	0	2185	865	0	306	526
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	2276	901	0	319	0
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	0	3318	2309	0	382	
Arrive On Green	0.00	0.64	0.64	0.00	0.21	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	2276	901	0	319	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	19.8	8.4	0.0	11.9	0.0
Cycle Q Clear(g_c), s	0.0	19.8	8.4	0.0	11.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3318	2309	0	382	
V/C Ratio(X)	0.00	0.69	0.39	0.00	0.84	
Avail Cap(c_a), veh/h	0	4143	2884	0	1114	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.1	6.1	0.0	26.6	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	4.8	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	0.0	4.8	2.1	0.0	5.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.5	6.2	0.0	31.4	0.0
LnGrp LOS	A	A	A	A	C	
Approach Vol, veh/h		2276	901		319	A
Approach Delay, s/veh		8.5	6.2		31.4	
Approach LOS		A	A		C	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	50.8		19.6		50.8
Change Period (Y+Rc), s	5.8		* 4.7		5.8
Max Green Setting (Gmax), s	56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s	21.8		13.9		10.4
Green Ext Time (p_c), s	23.2		1.0		6.9

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

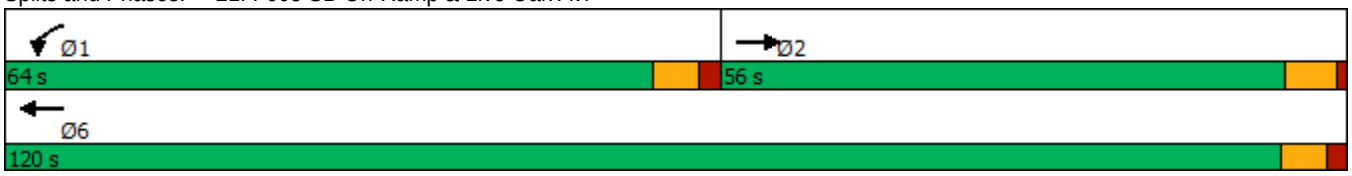
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1322	1562	741	1529
Future Volume (vph)	1322	1562	741	1529
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	56.0		64.0	120.0
Total Split (%)	46.7%		53.3%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 110.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1322	1562	741	1529	0	0
Future Volume (veh/h)	1322	1562	741	1529	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	1377	0	772	1593		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1515		844	3404		
Arrive On Green	0.42	0.00	0.47	0.94		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1377	0	772	1593		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	38.2	0.0	42.4	4.8		
Cycle Q Clear(g_c), s	38.2	0.0	42.4	4.8		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1515		844	3404		
V/C Ratio(X)	0.91		0.92	0.47		
Avail Cap(c_a), veh/h	1697		981	3850		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	29.1	0.0	26.5	0.3		
Incr Delay (d2), s/veh	6.7	0.0	13.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	16.6	0.0	19.6	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	0.0	39.7	0.5		
LnGrp LOS	D		D	A		
Approach Vol, veh/h	1377	A		2365		
Approach Delay, s/veh	35.8			13.3		
Approach LOS	D			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	55.9	50.9				106.8
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	57.9	* 50				113.9
Max Q Clear Time (g_c+I1), s	44.4	40.2				6.8
Green Ext Time (p_c), s	5.4	4.6				49.4

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1768	373	0	865	315	0	0	46	0	0	0
Future Vol, veh/h	0	1768	373	0	865	315	0	0	46	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1842	389	0	901	328	0	0	48	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	921
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	-	-	0	0	276
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	276
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	276	-	-	-	-
HCM Lane V/C Ratio	0.174	-	-	-	-
HCM Control Delay (s)	20.8	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-

Intersection	
Int Delay, s/veh	138.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1322	0	0	1270	0	0	0	705	0	0	999
Future Vol, veh/h	0	1322	0	0	1270	0	0	0	705	0	0	999
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1363	0	0	1309	0	0	0	727	0	0	1030

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	682	-	-	655
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 518	0	0	~ 533
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 518	-	-	~ 533
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	215	$ 444.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	518	-	-	533
HCM Lane V/C Ratio	1.403	-	-	1.932
HCM Control Delay (s)	215	-	-	$ 444.8
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	34.1	-	-	67.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	206	0	92	0	0	0	0	1510	196	70	614	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	0	92	0	0	0	0	1510	196	70	614	0
Added Vol:	0	0	0	0	0	0	0	76	108	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	0	92	0	0	0	0	1586	304	70	667	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	0	92	0	0	0	0	1586	304	70	667	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	0	92	0	0	0	0	1586	304	70	667	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	0	92	0	0	0	0	1586	304	70	667	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.50	0.19	0.04	0.21	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	0	1 0	1	1 0
Volume Module:												
Base Vol:	8	4	57	22	4	12	8	260	36	168	139	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	4	57	22	4	12	8	260	36	168	139	31
Added Vol:	0	0	0	0	0	0	0	0	0	0	108	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	4	57	22	4	12	8	260	36	168	247	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	4	57	22	4	12	8	260	36	168	247	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	4	57	22	4	12	8	260	36	168	247	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	4	57	22	4	12	8	260	36	168	247	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.07	0.93	1.00	0.37	0.63	1.00	1.76	0.24	1.00	1.78	0.22
Final Sat.:	1600	105	1495	1600	589	1011	1600	2811	389	1600	2843	357
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.09	0.09	0.11	0.09	0.09
Crit Moves:	****		****				****			****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.080
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	186	277	528	27	109	73	42	1678	35	129	861	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	277	528	27	109	73	42	1678	35	129	861	20
Added Vol:	20	0	0	39	26	42	0	12	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	277	528	66	135	115	42	1690	35	129	904	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	277	528	66	135	115	42	1690	35	129	904	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	277	528	66	135	115	42	1690	35	129	904	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	277	528	66	135	115	42	1690	35	129	904	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.17	0.33	0.04	0.04	0.07	0.03	0.53	0.02	0.08	0.28	0.01
Crit Moves:		****	****					****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	68	29	11	38	120	8	41	1917	338	44	841	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	29	11	38	120	8	41	1917	338	44	841	10
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	29	11	38	120	8	41	1944	363	44	863	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	29	11	38	120	8	41	1944	363	44	863	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	29	11	38	120	8	41	1944	363	44	863	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	29	11	38	120	8	41	1944	363	44	863	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.22	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1104	360	136	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.08	0.08	0.02	0.08	0.01	0.03	0.61	0.23	0.03	0.27	0.01
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	91	0	127	0	0	0	0	1430	675	333	780	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	0	127	0	0	0	0	1430	675	333	780	0
Added Vol:	21	0	0	0	0	0	0	2	25	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	127	0	0	0	0	1432	700	333	781	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	0	127	0	0	0	0	1432	700	333	781	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	127	0	0	0	0	1432	700	333	781	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	0	127	0	0	0	0	1432	700	333	781	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.08	0.00	0.00	0.00	0.00	0.45	0.44	0.21	0.24	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.973
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	157	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1280	0	159	63	1512	0	0	1011	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1280	0	159	63	1512	0	0	1011	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1280	0	159	63	1512	0	0	1011	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1280	0	159	63	1512	0	0	1011	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.40	0.00	0.10	0.04	0.47	0.00	0.00	0.32	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.478
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	293	0	70	0	0	0	0	0	0	85	1310	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	0	70	0	0	0	0	0	0	85	1310	0
Added Vol:	21	0	0	0	0	0	0	53	25	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	314	0	70	0	0	0	0	53	25	85	1342	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	314	0	70	0	0	0	0	53	25	85	1342	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	0	70	0	0	0	0	53	25	85	1342	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	314	0	70	0	0	0	0	53	25	85	1342	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.02	0.05	0.28	0.00
Crit Moves:	****						****				****	

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APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		2020 WP
				CALC CHS	DATE	03/22/18
Jurisdiction: City of Irwindale				CHK CHS	DATE	03/22/18
Major Street: Arrow Hwy.				Critical Approach Speed (Major)		45 mph
Minor Street: Driveway B				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **3** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **33,614** vpd Minor Street Future ADT = **311** 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		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	1	8,000	5,600	2,400	1,680
2 + **33,614**	1 **311**	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	1	12,000	8,400	1,200	850
2 + **33,614**	1 **311**	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 19% B 37%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

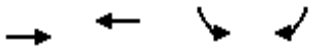
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	761	1940	504	879
v/c Ratio	0.26	0.94	0.86	0.54
Control Delay	11.9	32.2	47.0	1.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.9	32.2	47.0	1.3
Queue Length 50th (ft)	83	564	295	0
Queue Length 95th (ft)	135	#927	422	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	2957	2058	793	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.94	0.64	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	82.7

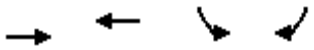
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	366	0	0	1568	0	0	0	666	0	0	690
Future Vol, veh/h	0	366	0	0	1568	0	0	0	666	0	0	690
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	398	0	0	1704	0	0	0	724	0	0	750

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	199	-	-	852
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	881	0	0	~ 428
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	881	-	-	~ 428
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	24.8	$ 370.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	881	-	-	428
HCM Lane V/C Ratio	0.822	-	-	1.752
HCM Control Delay (s)	24.8	-	-	$ 370.5
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	9.4	-	-	46.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1655	846	319	484
v/c Ratio	0.61	0.45	0.60	0.30
Control Delay	11.5	10.2	25.1	0.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.5	10.2	25.1	0.5
Queue Length 50th (ft)	134	87	96	0
Queue Length 95th (ft)	243	173	215	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	4619	3215	1351	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.26	0.24	0.30

Intersection Summary

Intersection	
Int Delay, s/veh	74.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1310	0	0	1165	0	0	0	705	0	0	746
Future Vol, veh/h	0	1310	0	0	1165	0	0	0	705	0	0	746
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1351	0	0	1201	0	0	0	727	0	0	769

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	676	-	-	601
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 521	0	0	~ 566
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 521	-	-	~ 566
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	211.4	194.1
HCM LOS			F	F

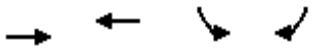
Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	521	-	-	566
HCM Lane V/C Ratio	1.395	-	-	1.359
HCM Control Delay (s)	211.4	-	-	194.1
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	33.8	-	-	33.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	998	2009	504	1177
v/c Ratio	0.34	0.98	0.86	0.73
Control Delay	12.7	37.6	47.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.7	37.6	47.0	2.9
Queue Length 50th (ft)	115	610	295	0
Queue Length 95th (ft)	183	#981	422	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	2957	2058	793	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.98	0.64	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	207.8

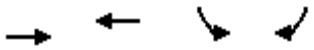
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	368	0	0	1672	0	0	0	666	0	0	975
Future Vol, veh/h	0	368	0	0	1672	0	0	0	666	0	0	975
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	400	0	0	1817	0	0	0	724	0	0	1060

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	200	-	-	909
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	880	0	0	~ 401
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	880	-	-	~ 401
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	24.9	$ 767.4
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	880	-	-	401
HCM Lane V/C Ratio	0.823	-	-	2.643
HCM Control Delay (s)	24.9	-	-	$ 767.4
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	9.4	-	-	86.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	2276	901	319	548
v/c Ratio	0.71	0.40	0.71	0.34
Control Delay	12.6	9.0	38.2	0.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.6	9.0	38.2	0.6
Queue Length 50th (ft)	255	108	161	0
Queue Length 95th (ft)	399	186	253	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	3691	2569	989	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.35	0.32	0.34

Intersection Summary

Intersection	
Int Delay, s/veh	138.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1322	0	0	1270	0	0	0	705	0	0	999
Future Vol, veh/h	0	1322	0	0	1270	0	0	0	705	0	0	999
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1363	0	0	1309	0	0	0	727	0	0	1030

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	682	-	-	655
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 518	0	0	~ 533
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 518	-	-	~ 533
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	215	$ 444.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	518	-	-	533
HCM Lane V/C Ratio	1.403	-	-	1.932
HCM Control Delay (s)	215	-	-	$ 444.8
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	34.1	-	-	67.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6450	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1841
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)	0.77
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	28.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5197	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1484
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	21.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6243	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1814
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)	0.76
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4913	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1469
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	21.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4225	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1263
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)	0.53
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	18.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5375	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1607
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)	0.67
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5512	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1557
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)	0.65
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		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4721	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1334
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	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6813	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1924
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	63.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Project Information

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4855	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1491
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)	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		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4220	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1318
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)	0.55
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5652	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1720
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)	0.72
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6709	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1915
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	64.1
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		

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Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5197	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1484
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	21.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6356	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1847
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)	0.77
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		

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Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5029	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1504
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)	0.63
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4225	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1263
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)	0.53
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	18.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5629	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1683
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)	0.70
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	25.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5698	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1610
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)	0.67
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4721	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1334
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	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/12/2018
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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	7136	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	2016
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)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5182	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1591
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)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4220	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1318
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)	0.55
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5835	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor (PHF)	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		

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APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	6450	1254
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 (f_{HV})	0.952	0.952
Flow Rate (v_i), pc/h	7364	1432
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.77	0.72

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	36.6
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.557
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1673
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	79.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	4018	Ramp Junction Speed (S), mi/h	65.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	28.2
Level of Service (LOS)	E		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5197	1046
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	22.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.820
Flow Rate (v_i), pc/h	5934	1387
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.76	0.69

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	30.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.447
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1780
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	60.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.044	Outer Lanes Freeway Speed (S_O), mi/h	70.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2374	Ramp Junction Speed (S), mi/h	64.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3761	Average Density (D), pc/mi/ln	28.2
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4520	393
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	5405	474
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.24

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	23.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.345
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1622
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.159	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2162	Ramp Junction Speed (S), mi/h	67.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2636	Average Density (D), pc/mi/ln	21.8
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4225	295
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	20.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.833
Flow Rate (v_i), pc/h	5052	385
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.57	0.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	21.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.333
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1516
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	64.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.170	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2021	Ramp Junction Speed (S), mi/h	67.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2406	Average Density (D), pc/mi/ln	20.0
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5375	1150
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.893
Flow Rate (v_i), pc/h	6427	1400
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.70

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	33.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.554
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1418
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.6
Flow in Lanes 1 and 2 (v_{12}), pc/h	3592	Ramp Junction Speed (S), mi/h	65.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	D		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	5512	791
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	6228	912
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.46

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	29.8
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.510
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1499
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	58.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3230	Ramp Junction Speed (S), mi/h	67.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	23.2
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4721	2092
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 (f_{HV})	0.962	0.952
Flow Rate (v_i), pc/h	5334	2389
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.80	1.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	-
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	-
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1600
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2134	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4523	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4551	304
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.877	0.980
Flow Rate (v_i), pc/h	5641	337
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.62	0.17

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.342
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1693
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.176	Outer Lanes Freeway Speed (S_O), mi/h	70.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2256	Ramp Junction Speed (S), mi/h	67.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2593	Average Density (D), pc/mi/ln	22.1
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4220	331
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.962
Flow Rate (v_i), pc/h	5272	374
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.337
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1582
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.171	Outer Lanes Freeway Speed (S_O), mi/h	71.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	2109	Ramp Junction Speed (S), mi/h	67.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2483	Average Density (D), pc/mi/ln	20.8
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5652	1432
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 (f_{HV})	0.893	0.952
Flow Rate (v_i), pc/h	6880	1635
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.82

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	36.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.575
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1479
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	3922	Ramp Junction Speed (S), mi/h	64.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	26.7
Level of Service (LOS)	E		

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APPENDIX 6.9:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	6709	1513
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 (f_{HV})	0.952	0.943
Flow Rate (v_i), pc/h	7660	1744
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.80	0.87

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	39.2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.585
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1669
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	79.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	4323	Ramp Junction Speed (S), mi/h	64.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.9
Level of Service (LOS)	E		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5197	1519
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	20.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.833
Flow Rate (v_i), pc/h	5934	1982
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.99

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	34.9
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.583
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1780
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	55.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	70.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2374	Ramp Junction Speed (S), mi/h	61.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4356	Average Density (D), pc/mi/ln	32.2
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4636	393
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	5544	474
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.24

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	23.6
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.348
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1663
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.159	Outer Lanes Freeway Speed (S_O), mi/h	70.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	2218	Ramp Junction Speed (S), mi/h	67.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2692	Average Density (D), pc/mi/ln	22.4
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4225	411
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	20.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.833
Flow Rate (v_i), pc/h	5052	536
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.58	0.27

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.340
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1516
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.151	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2021	Ramp Junction Speed (S), mi/h	67.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2557	Average Density (D), pc/mi/ln	20.6
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5629	1404
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.893
Flow Rate (v_i), pc/h	6731	1709
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.70	0.85

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	36.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.582
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1416
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	3899	Ramp Junction Speed (S), mi/h	64.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	26.3
Level of Service (LOS)	E		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	5698	977
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	6438	1126
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.56

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	31.6
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.529
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1498
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3442	Ramp Junction Speed (S), mi/h	66.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.3
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	4721	2415
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 (f_{HV})	0.962	0.952
Flow Rate (v_i), pc/h	5334	2757
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.84	1.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	-
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	-
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1600
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2134	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4891	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4878	304
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.877	0.980
Flow Rate (v_i), pc/h	6046	337
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.17

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.352
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1814
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.176	Outer Lanes Freeway Speed (S_O), mi/h	70.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2418	Ramp Junction Speed (S), mi/h	67.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2755	Average Density (D), pc/mi/ln	23.8
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4220	658
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.962
Flow Rate (v_i), pc/h	5272	743
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.357
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1582
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.125	Outer Lanes Freeway Speed (S_O), mi/h	71.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	2109	Ramp Junction Speed (S), mi/h	67.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2852	Average Density (D), pc/mi/ln	22.4
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/12/2018
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2020 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5835	1615
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.893	0.962
Flow Rate (v_i), pc/h	7102	1825
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.74	0.91

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	38.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.592
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1488
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	4126	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	27.8
Level of Service (LOS)	E		

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APPENDIX 6.10:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WITH IMPROVEMENTS

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.836
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	120	684	10	153	729	60	52	257	86	122	831	334
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	120	684	10	153	729	60	52	257	86	122	831	334
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	684	10	179	729	60	52	286	86	122	848	350
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	684	10	179	729	60	52	286	86	122	848	350
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	684	10	179	729	60	52	286	86	122	848	350
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	684	10	179	729	60	52	286	86	122	848	350
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.54	0.46	1.00	1.42	0.58
Final Sat.:	1600	3154	46	1600	3200	1600	1600	2460	740	1600	2265	935
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.11	0.23	0.04	0.03	0.12	0.12	0.08	0.37	0.37
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	256	702	177	30	612	249	141	605	253	209	1152	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	702	177	30	612	249	141	605	253	209	1152	14
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	702	206	30	612	249	141	634	253	226	1169	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	702	206	30	612	249	141	634	253	226	1169	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	702	206	30	612	249	141	634	253	226	1169	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	702	206	30	612	249	141	634	253	226	1169	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	3200	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.13	0.01	0.19	0.16	0.09	0.20	0.16	0.14	0.37	0.37
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.812
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1 0	2	1	0
Volume Module:												
Base Vol:	5	7	8	416	5	18	28	708	0	10	1672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	7	8	416	5	18	28	708	0	10	1672	0
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	7	8	471	5	18	28	766	0	10	1706	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	7	8	471	5	18	28	766	0	10	1706	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	7	8	471	5	18	28	766	0	10	1706	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	7	8	471	5	18	28	766	0	10	1706	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.35	0.40	1.98	0.02	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	400	560	640	3166	34	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.15	0.15	0.01	0.02	0.16	0.00	0.01	0.53	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.863
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	3 0 0	2 0	3	0 0
Volume Module:												
Base Vol:	1090	0	313	0	0	0	0	539	0	291	1931	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1090	0	313	0	0	0	0	539	0	291	1931	0
Added Vol:	64	0	2	0	0	0	0	57	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1154	0	315	0	0	0	0	596	0	291	1933	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1154	0	315	0	0	0	0	596	0	291	1933	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1154	0	315	0	0	0	0	596	0	291	1933	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1154	0	315	0	0	0	0	596	0	291	1933	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4800	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.36	0.00	0.20	0.00	0.00	0.00	0.00	0.12	0.00	0.09	0.40	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Driveway / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.116
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	56	0	0	75	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	56	0	0	75	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	56	0	0	75	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	56	0	0	75	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	56	0	0	75	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4800	0	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00
Crit Moves:											****	

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

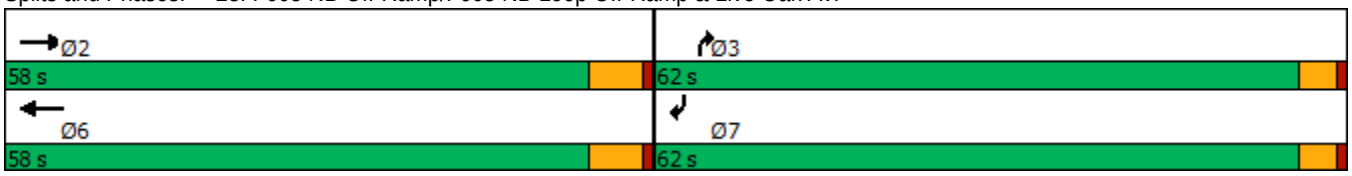
Cycle (sec):	100	Critical Vol./Cap.(X):	0.893
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	D

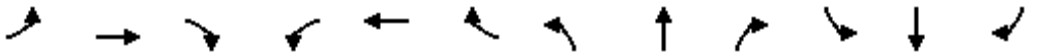
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	1 0	1	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	220	0	194	334	518	0	0	2038	698
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	220	0	194	334	518	0	0	2038	698
Added Vol:	1	3	101	23	9	0	15	26	1	307	48	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	3	101	243	9	194	349	544	1	307	2086	698
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	3	101	243	9	194	349	544	1	307	2086	698
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	3	101	243	9	194	349	544	1	307	2086	698
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	3	101	243	9	194	349	544	1	307	2086	698
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	1600	4791	9	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.06	0.08	0.01	0.12	0.22	0.11	0.11	0.19	0.43	0.44
Crit Moves:			****	****			****					****

Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	368	1672	666	975
Future Volume (vph)	368	1672	666	975
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	58.0	58.0	62.0	62.0
Total Split (%)	48.3%	48.3%	51.7%	51.7%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	368	0	0	1672	0	0	0	666	0	0	975
Future Volume (veh/h)	0	368	0	0	1672	0	0	0	666	0	0	975
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	400	0	0	1817	0	0	0	0	0	0	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	0	3178	0	0	3178	0	0	0		0	0	
Arrive On Green	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	400	0	0	1817	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	0.7	0.0	0.0	5.9	0.0						
Cycle Q Clear(g_c), s	0.0	0.7	0.0	0.0	5.9	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	3178	0	0	3178	0						
V/C Ratio(X)	0.00	0.13	0.00	0.00	0.57	0.00						
Avail Cap(c_a), veh/h	0	3890	0	0	3890	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.4	0.0	0.0	0.7	0.0						
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.2	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.4	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		400			1817							
Approach Delay, s/veh		0.4			1.0							
Approach LOS		A			A							

Timer - Assigned Phs		2				6						
Phs Duration (G+Y+Rc), s		48.4				48.4						
Change Period (Y+Rc), s		5.8				5.8						
Max Green Setting (Gmax), s		52.2				52.2						
Max Q Clear Time (g_c+I1), s		2.7				7.9						
Green Ext Time (p_c), s		5.3				34.8						

Intersection Summary												
HCM 6th Ctrl Delay			0.9									
HCM 6th LOS			A									

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	73	167	209	26	441	105	98	784	90	294	1200	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	167	209	26	441	105	98	784	90	294	1200	30
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	167	209	56	455	131	98	786	90	294	1254	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	97	167	209	56	455	131	98	786	90	294	1254	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	167	209	56	455	131	98	786	90	294	1254	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	167	209	56	455	131	98	786	90	294	1254	30
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.13	0.04	0.14	0.08	0.06	0.25	0.06	0.18	0.39	0.02
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.770
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 1 0
Volume Module:												
Base Vol:	270	120	40	13	37	53	14	853	33	29	1711	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	120	40	13	37	53	14	853	33	29	1711	29
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	296	120	40	13	37	53	14	869	49	29	1739	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	296	120	40	13	37	53	14	869	49	29	1739	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	296	120	40	13	37	53	14	869	49	29	1739	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	296	120	40	13	37	53	14	869	49	29	1739	29
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.26	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.95	0.05
Final Sat.:	1039	421	140	1600	1600	1600	1600	3200	1600	1600	4721	79
Capacity Analysis Module:												
Vol/Sat:	0.19	0.29	0.28	0.01	0.02	0.03	0.01	0.27	0.03	0.02	0.37	0.37
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	377	0	86	146	905	0	0	1381	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	377	0	86	146	905	0	0	1381	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	413	0	86	146	905	0	0	1383	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	413	0	86	146	905	0	0	1383	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	413	0	86	146	905	0	0	1383	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	413	0	86	146	905	0	0	1383	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.05	0.09	0.19	0.00	0.00	0.43	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	697	0	114	0	0	0	0	1194	208	69	2722	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	697	0	114	0	0	0	0	1194	208	69	2722	0
Added Vol:	26	0	0	0	0	0	0	21	16	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	723	0	114	0	0	0	0	1215	224	69	2765	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	723	0	114	0	0	0	0	1215	224	69	2765	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	723	0	114	0	0	0	0	1215	224	69	2765	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	723	0	114	0	0	0	0	1215	224	69	2765	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.53	0.47	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4053	747	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.23	0.00	0.07	0.00	0.00	0.00	0.00	0.30	0.30	0.04	0.58	0.00
Crit Moves:	****						****				****	

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	90	730	50	339	1069	64	88	618	85	22	390	283
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	730	50	339	1069	64	88	618	85	22	390	283
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	730	50	360	1069	64	88	641	85	22	420	308
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	730	50	360	1069	64	88	641	85	22	420	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	730	50	360	1069	64	88	641	85	22	420	308
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	730	50	360	1069	64	88	641	85	22	420	308
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.77	0.23	1.00	1.15	0.85
Final Sat.:	1600	2995	205	1600	3200	1600	1600	2825	375	1600	1846	1354
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.24	0.23	0.33	0.04	0.06	0.23	0.23	0.01	0.23	0.23
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.930
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	201	738	190	267	709	154	117	1246	201	109	641	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	738	190	267	709	154	117	1246	201	109	641	13
Added Vol:	0	0	23	0	0	0	0	22	0	30	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	201	738	213	267	709	154	117	1268	201	139	668	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	738	213	267	709	154	117	1268	201	139	668	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	738	213	267	709	154	117	1268	201	139	668	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	738	213	267	709	154	117	1268	201	139	668	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	3200	3200	1600	1600	3200	1600	1600	3139	61
Capacity Analysis Module:												
Vol/Sat:	0.13	0.23	0.13	0.08	0.22	0.10	0.07	0.40	0.13	0.09	0.21	0.21
Crit Moves:	****				****			****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	1 0
Volume Module:												
Base Vol:	0	0	0	1014	0	8	15	1749	0	2	847	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1014	0	8	15	1749	0	2	847	0
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1059	0	8	15	1795	0	2	904	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1059	0	8	15	1795	0	2	904	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1059	0	8	15	1795	0	2	904	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1059	0	8	15	1795	0	2	904	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.33	0.00	0.01	0.01	0.37	0.00	0.00	0.28	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.781
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	3	0 0	2 0	3	0 0
Volume Module:												
Base Vol:	905	0	336	0	0	0	0	807	0	606	866	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	905	0	336	0	0	0	0	807	0	606	866	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1006	0	347	0	0	0	0	852	0	606	878	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1006	0	347	0	0	0	0	852	0	606	878	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1006	0	347	0	0	0	0	852	0	606	878	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1006	0	347	0	0	0	0	852	0	606	878	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4800	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.31	0.00	0.22	0.00	0.00	0.00	0.00	0.18	0.00	0.19	0.18	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Driveway / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.121
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	45	0	0	100	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	45	0	0	100	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	45	0	0	100	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	45	0	0	100	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	45	0	0	100	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4800	0	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00
Crit Moves:											****	

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.879
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

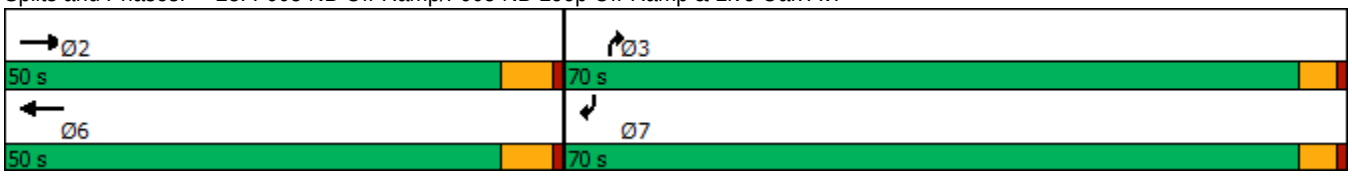
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	1 0	1	1 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	698	0	448	251	891	0	0	1025	253
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	698	0	448	251	891	0	0	1025	253
Added Vol:	6	16	269	19	6	0	20	102	0	225	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	16	269	717	6	448	271	993	0	225	1046	253
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	16	269	717	6	448	271	993	0	225	1046	253
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	16	269	717	6	448	271	993	0	225	1046	253
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	16	269	717	6	448	271	993	0	225	1046	253
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	3.00	0.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	1600	4800	0	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.17	0.22	0.00	0.28	0.17	0.21	0.00	0.14	0.22	0.16
Crit Moves:			****	****			****				****	

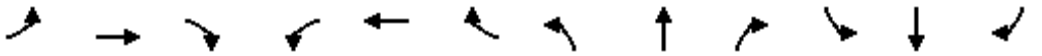
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Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	1322	1270	705	999
Future Volume (vph)	1322	1270	705	999
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	50.0	50.0	70.0	70.0
Total Split (%)	41.7%	41.7%	58.3%	58.3%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	1322	0	0	1270	0	0	0	705	0	0	999
Future Volume (veh/h)	0	1322	0	0	1270	0	0	0	705	0	0	999
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	1363	0	0	1309	0	0	0	0	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	3003	0	0	3003	0	0	0		0	0	
Arrive On Green	0.00	0.83	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	1363	0	0	1309	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	3.5	0.0	0.0	3.3	0.0						
Cycle Q Clear(g_c), s	0.0	3.5	0.0	0.0	3.3	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	3003	0	0	3003	0						
V/C Ratio(X)	0.00	0.45	0.00	0.00	0.44	0.00						
Avail Cap(c_a), veh/h	0	4627	0	0	4627	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.8	0.0	0.0	0.8	0.0						
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	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	0.0	0.1	0.0	0.0	0.1	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.0	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		1363			1309							
Approach Delay, s/veh		1.0			1.0							
Approach LOS		A			A							

Timer - Assigned Phs	2	6
Phs Duration (G+Y+Rc), s	34.5	34.5
Change Period (Y+Rc), s	5.8	5.8
Max Green Setting (Gmax), s	44.2	44.2
Max Q Clear Time (g_c+I1), s	5.5	5.3
Green Ext Time (p_c), s	23.2	22.1

Intersection Summary	
HCM 6th Ctrl Delay	1.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.999
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	186	277	528	27	109	73	42	1678	35	129	861	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	277	528	27	109	73	42	1678	35	129	861	20
Added Vol:	20	0	0	39	26	42	0	12	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	277	528	66	135	115	42	1690	35	129	904	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	277	528	66	135	115	42	1690	35	129	904	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	277	528	66	135	115	42	1690	35	129	904	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	277	528	66	135	115	42	1690	35	129	904	20
OvlAdjVol:			399									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.17	0.33	0.04	0.04	0.07	0.03	0.53	0.02	0.08	0.28	0.01
OvlAdjV/S:			0.25									
Crit Moves:			****	****				****		****		

The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 1 0
Volume Module:												
Base Vol:	68	29	11	38	120	8	41	1917	338	44	841	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	29	11	38	120	8	41	1917	338	44	841	10
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	29	11	38	120	8	41	1944	363	44	863	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	29	11	38	120	8	41	1944	363	44	863	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	29	11	38	120	8	41	1944	363	44	863	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	29	11	38	120	8	41	1944	363	44	863	10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.22	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.97	0.03
Final Sat.:	1104	360	136	1600	1600	1600	1600	3200	1600	1600	4745	55
Capacity Analysis Module:												
Vol/Sat:	0.06	0.08	0.08	0.02	0.08	0.01	0.03	0.61	0.23	0.03	0.18	0.18
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1204	0	159	63	1510	0	0	1010	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1280	0	159	63	1512	0	0	1011	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1280	0	159	63	1512	0	0	1011	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1280	0	159	63	1512	0	0	1011	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1280	0	159	63	1512	0	0	1011	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.40	0.00	0.10	0.04	0.32	0.00	0.00	0.32	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Opening Year Cumulative (2020) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.478
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	293	0	70	0	0	0	0	0	0	85	1310	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	0	70	0	0	0	0	0	0	85	1310	0
Added Vol:	21	0	0	0	0	0	0	53	25	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	314	0	70	0	0	0	0	53	25	85	1342	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	314	0	70	0	0	0	0	53	25	85	1342	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	0	70	0	0	0	0	53	25	85	1342	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	314	0	70	0	0	0	0	53	25	85	1342	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.04	0.96	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3262	1538	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.02	0.05	0.28	0.00
Crit Moves:	****						****				****	

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APPENDIX 7.1:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	127	727	11	163	775	64	55	273	91	129	883	355
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	727	11	163	775	64	55	273	91	129	883	355
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	727	11	163	775	64	55	273	91	129	883	355
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	727	11	163	775	64	55	273	91	129	883	355
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	727	11	163	775	64	55	273	91	129	883	355
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.43	0.57
Final Sat.:	1600	3152	48	1600	3200	1600	1600	1600	1600	1600	2282	918
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.23	0.10	0.24	0.04	0.03	0.17	0.06	0.08	0.39	0.39
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.954
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	137	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	272	746	188	32	650	264	150	640	268	222	1223	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	272	746	188	32	650	264	150	640	268	222	1223	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	272	746	188	32	650	264	150	640	268	222	1223	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	746	188	32	650	264	150	640	268	222	1223	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	272	746	188	32	650	264	150	640	268	222	1223	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3161	39
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.12	0.02	0.20	0.17	0.09	0.20	0.17	0.14	0.39	0.39
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.244
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	5	8	8	441	6	19	30	749	0	10	1771	1341
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	8	8	441	6	19	30	749	0	10	1771	1341
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	8	8	441	6	19	30	749	0	10	1771	1341
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	8	8	441	6	19	30	749	0	10	1771	1341
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	8	8	441	6	19	30	749	0	10	1771	1341
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.38	0.38	1.97	0.03	1.00	1.00	2.00	1.00	1.00	1.14	0.86
Final Sat.:	381	610	610	3157	43	1600	1600	3200	1600	1600	1821	1379
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.14	0.14	0.01	0.02	0.23	0.00	0.01	0.97	0.97
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.101
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2 0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0
Volume Module:																
Base Vol:	1155	0	330		0	0	0		0	572	0		301	2049	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	1155	0	330		0	0	0		0	572	0		301	2049	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	1155	0	330		0	0	0		0	572	0		301	2049	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1155	0	330		0	0	0		0	572	0		301	2049	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	1155	0	330		0	0	0		0	572	0		301	2049	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		2.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	0		3200	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.00	0.21		0.00	0.00	0.00		0.00	0.18	0.00		0.09	0.64	0.00	
Crit Moves:	****								****					****		

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Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1057	76	71	1454	31	48
Future Vol, veh/h	1057	76	71	1454	31	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1090	78	73	1499	32	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1168	0	2025	584
Stage 1	-	-	-	-	1129	-
Stage 2	-	-	-	-	896	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	330	-	69	394
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	354	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	330	-	54	394
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	354	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	91.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	114	-	-	330	-
HCM Lane V/C Ratio	0.714	-	-	0.222	-
HCM Control Delay (s)	91.8	-	-	19	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	3.9	-	-	0.8	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑↑↱							↱
Traffic Vol, veh/h	0	902	0	0	2339	21	0	0	0	0	0	10
Future Vol, veh/h	0	902	0	0	2339	21	0	0	0	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	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	0	980	0	0	2542	23	0	0	0	0	0	11

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	-	-	-	0			-	-	1283
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	-	-	-			-	-	-
Critical Hdwy	-	-	-	-	-	-			-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			-	-	-
Follow-up Hdwy	-	-	-	-	-	-			-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-			0	0	136
Stage 1	0	-	0	0	-	-			0	0	-
Stage 2	0	-	0	0	-	-			0	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	-	-	-	-	-	-			-	0	136
Mov Cap-2 Maneuver	-	-	-	-	-	-			-	0	-
Stage 1	-	-	-	-	-	-			-	0	-
Stage 2	-	-	-	-	-	-			-	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	33.8
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	136
HCM Lane V/C Ratio	-	-	-	0.08
HCM Control Delay (s)	-	-	-	33.8
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.3

The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.587
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 1 0	1	0	2 0 0
Volume Module:												
Base Vol:	32	0	33	0	0	0	0	1017	88	93	1493	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	0	33	0	0	0	0	1017	88	93	1493	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	0	33	0	0	0	0	1017	88	93	1493	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	0	33	0	0	0	0	1017	88	93	1493	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	0	33	0	0	0	0	1017	88	93	1493	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.76	0.24	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4418	382	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.23	0.23	0.06	0.47	0.00
Crit Moves:			****				****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.510
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0	2 0 1	2	0	1 0 1
Volume Module:												
Base Vol:	59	362	683	2	117	8	2	2	10	213	7	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	362	683	2	117	8	2	2	10	213	7	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	362	683	2	117	8	2	2	10	213	7	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	362	683	2	117	8	2	2	10	213	7	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	362	683	2	117	8	2	2	10	213	7	20
OvlAdjVol:			470									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.86	2.00	0.02	0.98	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	224	1376	3200	27	1573	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.21	0.07	0.07	0.01	0.00	0.00	0.01	0.07	0.00	0.01
OvlAdjV/S:			0.15									
Crit Moves:	****			****					****	****		

The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.124
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

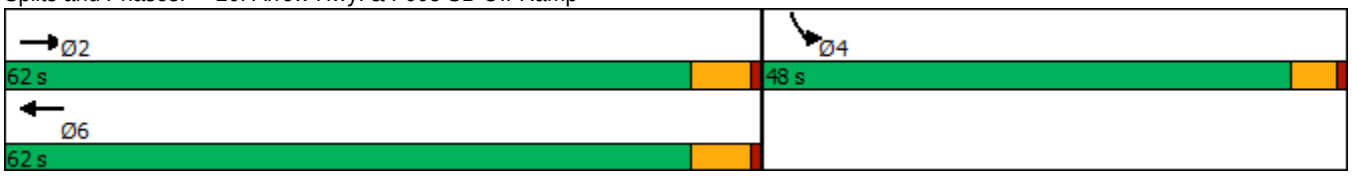
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0	2	0	0 0	1	0	2 0	0	0	2 0 1
Volume Module:												
Base Vol:	0	0	0	233	0	206	355	547	0	0	2155	741
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	233	0	206	355	547	0	0	2155	741
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	233	0	206	355	547	0	0	2155	741
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	233	0	206	355	547	0	0	2155	741
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	233	0	206	355	547	0	0	2155	741
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.13	0.22	0.17	0.00	0.00	0.67	0.46
Crit Moves:						****	****				****	

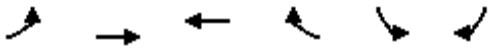
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Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	780	1999	518	896
Future Volume (vph)	780	1999	518	896
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 100.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	780	1999	0	518	896
Future Volume (veh/h)	0	780	1999	0	518	896
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	804	2061	0	534	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	2970	2067	0	580	
Arrive On Green	0.00	0.57	0.57	0.00	0.32	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	804	2061	0	534	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	7.7	55.8	0.0	27.9	0.0
Cycle Q Clear(g_c), s	0.0	7.7	55.8	0.0	27.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2970	2067	0	580	
V/C Ratio(X)	0.00	0.27	1.00	0.00	0.92	
Avail Cap(c_a), veh/h	0	2970	2067	0	798	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.6	20.9	0.0	32.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	19.1	0.0	12.8	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	0.0	2.6	24.9	0.0	13.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.7	40.0	0.0	44.9	0.0
LnGrp LOS	A	B	D	A	D	
Approach Vol, veh/h		804	2061		534	A
Approach Delay, s/veh		10.7	40.0		44.9	
Approach LOS		B	D		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		62.0		36.2		62.0
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		9.7		29.9		57.8
Green Ext Time (p_c), s		5.9		1.5		0.0

Intersection Summary		
HCM 6th Ctrl Delay		33.8
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	387	639	769	1615
Future Volume (vph)	387	639	769	1615
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	35.0		85.0	120.0
Total Split (%)	29.2%		70.8%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 64.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	387	639	769	1615	0	0
Future Volume (veh/h)	387	639	769	1615	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	407	0	809	1700		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1040		971	3294		
Arrive On Green	0.29	0.00	0.54	0.91		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	407	0	809	1700		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	6.3	0.0	26.1	5.4		
Cycle Q Clear(g_c), s	6.3	0.0	26.1	5.4		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1040		971	3294		
V/C Ratio(X)	0.39		0.83	0.52		
Avail Cap(c_a), veh/h	1513		2049	5902		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	19.9	0.0	13.5	0.5		
Incr Delay (d2), s/veh	0.1	0.0	4.1	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.4	0.0	9.0	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.0	0.0	17.6	0.8		
LnGrp LOS	B		B	A		
Approach Vol, veh/h	407	A		2509		
Approach Delay, s/veh	20.0			6.2		
Approach LOS	B			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	43.5	26.2				69.7
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	78.9	* 29				113.9
Max Q Clear Time (g_c+I1), s	28.1	8.3				7.4
Green Ext Time (p_c), s	9.3	1.5				56.1

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	888	21	0	1999	462	0	0	14	0	0	0
Future Vol, veh/h	0	888	21	0	1999	462	0	0	14	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	965	23	0	2173	502	0	0	15	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	483
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	-	-	0	0	535
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	535	-	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	11.9	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	101.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	387	0	0	1662	0	0	0	705	0	0	723
Future Vol, veh/h	0	387	0	0	1662	0	0	0	705	0	0	723
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	421	0	0	1807	0	0	0	766	0	0	786

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	211	-	-	904
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	869	0	0	~ 403
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	869	-	-	~ 403
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	31	$ 459.1
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	869	-	-	403
HCM Lane V/C Ratio	0.882	-	-	1.95
HCM Control Delay (s)	31	-	-	$ 459.1
HCM Lane LOS	D	-	-	F
HCM 95th %tile Q(veh)	11.7	-	-	53.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.865
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	256	0	94	0	0	0	0	1023	405	164	2193	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	0	94	0	0	0	0	1023	405	164	2193	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	0	94	0	0	0	0	1023	405	164	2193	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	0	94	0	0	0	0	1023	405	164	2193	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	0	94	0	0	0	0	1023	405	164	2193	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.32	0.25	0.10	0.69	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.382
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	31	7	159	11	0	8	14	214	26	68	505	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	7	159	11	0	8	14	214	26	68	505	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	7	159	11	0	8	14	214	26	68	505	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	7	159	11	0	8	14	214	26	68	505	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	7	159	11	0	8	14	214	26	68	505	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.04	0.96	1.00	0.16	0.84	1.00	1.78	0.22	1.00	1.93	0.07
Final Sat.:	1600	67	1533	1600	253	1347	1600	2853	347	1600	3096	104
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.10	0.01	0.00	0.01	0.01	0.08	0.07	0.04	0.16	0.16
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	77	173	222	28	465	112	104	828	95	312	1272	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	173	222	28	465	112	104	828	95	312	1272	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	173	222	28	465	112	104	828	95	312	1272	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	173	222	28	465	112	104	828	95	312	1272	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	173	222	28	465	112	104	828	95	312	1272	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.14	0.02	0.15	0.07	0.07	0.26	0.06	0.20	0.40	0.02
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.970
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2	0 1
Volume Module:												
Base Vol:	286	127	42	14	39	56	15	903	35	31	1815	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	127	42	14	39	56	15	903	35	31	1815	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	286	127	42	14	39	56	15	903	35	31	1815	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	127	42	14	39	56	15	903	35	31	1815	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	127	42	14	39	56	15	903	35	31	1815	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.63	0.28	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1006	447	148	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.18	0.28	0.28	0.01	0.02	0.04	0.01	0.28	0.02	0.02	0.57	0.02
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	361	0	311	0	0	0	0	878	107	200	1375	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	361	0	311	0	0	0	0	878	107	200	1375	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	361	0	311	0	0	0	0	878	107	200	1375	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	0	311	0	0	0	0	878	107	200	1375	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	361	0	311	0	0	0	0	878	107	200	1375	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.19	0.00	0.00	0.00	0.00	0.27	0.07	0.13	0.43	0.00
Crit Moves:			****				****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	397	0	90	154	957	0	0	1465	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	90	154	957	0	0	1465	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	397	0	90	154	957	0	0	1465	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	397	0	90	154	957	0	0	1465	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	397	0	90	154	957	0	0	1465	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.06	0.10	0.30	0.00	0.00	0.46	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	119	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	739	0	121	0	0	0	0	1262	219	73	2888	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	739	0	121	0	0	0	0	1262	219	73	2888	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	739	0	121	0	0	0	0	1262	219	73	2888	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	739	0	121	0	0	0	0	1262	219	73	2888	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	739	0	121	0	0	0	0	1262	219	73	2888	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.23	0.00	0.08	0.00	0.00	0.00	0.00	0.39	0.14	0.05	0.60	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	1.008
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	95	775	54	359	1136	68	93	656	90	24	414	300
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	775	54	359	1136	68	93	656	90	24	414	300
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	775	54	359	1136	68	93	656	90	24	414	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	775	54	359	1136	68	93	656	90	24	414	300
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	775	54	359	1136	68	93	656	90	24	414	300
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.16	0.84
Final Sat.:	1600	2992	208	1600	3200	1600	1600	1600	1600	1600	1855	1345
Capacity Analysis Module:												
Vol/Sat:	0.06	0.26	0.26	0.22	0.36	0.04	0.06	0.41	0.06	0.02	0.22	0.22
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.008
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	213	784	201	284	753	164	124	1323	214	115	678	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	213	784	201	284	753	164	124	1323	214	115	678	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	213	784	201	284	753	164	124	1323	214	115	678	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	213	784	201	284	753	164	124	1323	214	115	678	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	213	784	201	284	753	164	124	1323	214	115	678	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3135	65
Capacity Analysis Module:												
Vol/Sat:	0.13	0.25	0.13	0.18	0.24	0.10	0.08	0.41	0.13	0.07	0.22	0.22
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.016
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	1076	0	8	16	1852	0	2	897	730
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1076	0	8	16	1852	0	2	897	730
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1076	0	8	16	1852	0	2	897	730
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1076	0	8	16	1852	0	2	897	730
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1076	0	8	16	1852	0	2	897	730
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	1.10	0.90
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	1764	1436
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.34	0.00	0.01	0.01	0.58	0.00	0.00	0.51	0.51
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2 0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0
Volume Module:																
Base Vol:	958	0	409		0	0	0		0	855	0		713	920	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	958	0	409		0	0	0		0	855	0		713	920	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	958	0	409		0	0	0		0	855	0		713	920	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	958	0	409		0	0	0		0	855	0		713	920	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	958	0	409		0	0	0		0	855	0		713	920	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		2.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	0		3200	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.30	0.00	0.26		0.00	0.00	0.00		0.00	0.27	0.00		0.22	0.29	0.00	
Crit Moves:	****									****			****			

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Intersection	
Int Delay, s/veh	97.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2782	115	119	1255	112	174
Future Vol, veh/h	2782	115	119	1255	112	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2898	120	124	1307	117	181

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3018	0	3860	1509
Stage 1	-	-	-	-	2958	-
Stage 2	-	-	-	-	902	-
Critical Hdwy	-	-	5.3	-	6.25	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	3.1	-	3.65	3.9
Pot Cap-1 Maneuver	-	-	~ 38	-	~ 5	~ 96
Stage 1	-	-	-	-	~ 14	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	~ 38	-	0	~ 96
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	NB
HCM Control Delay, s	0	107.4	$ 1041.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	96	-	-	~ 38	-
HCM Lane V/C Ratio	3.103	-	-	3.262	-
HCM Control Delay (s)	$ 1041.4	-	-	$ 1239.7	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	29.1	-	-	14.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑↑							↱
Traffic Vol, veh/h	0	1263	0	0	1631	1	0	0	0	0	0	1
Future Vol, veh/h	0	1263	0	0	1631	1	0	0	0	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1302	0	0	1681	1	0	0	0	0	0	1

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	-	-	-	0			-	-	841
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	-	-	-			-	-	-
Critical Hdwy	-	-	-	-	-	-			-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			-	-	-
Follow-up Hdwy	-	-	-	-	-	-			-	-	3.9
Pot Cap-1 Maneuver	0	-	0	0	-	-			0	0	268
Stage 1	0	-	0	0	-	-			0	0	-
Stage 2	0	-	0	0	-	-			0	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	-	-	-	-	-	-			-	0	268
Mov Cap-2 Maneuver	-	-	-	-	-	-			-	0	-
Stage 1	-	-	-	-	-	-			-	0	-
Stage 2	-	-	-	-	-	-			-	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	268
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	18.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.982
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	169	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 0	1 0	0	0	1! 0	0	1	0 2 1 0	1	0	2 1 0
Volume Module:												
Base Vol:	203	0	249	0	0	0	0	2732	223	177	1260	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	203	0	249	0	0	0	0	2732	223	177	1260	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	203	0	249	0	0	0	0	2732	223	177	1260	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	0	249	0	0	0	0	2732	223	177	1260	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	203	0	249	0	0	0	0	2732	223	177	1260	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	1.00	0.00	1.00	2.77	0.23	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	1600	0	1600	4438	362	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.16	0.00	0.00	0.00	0.00	0.62	0.62	0.11	0.26	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:		Ovl				Include				Include				Include		
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	0	1 0	0	2	0	1 0	0	1	1	0	2 0	1	2	0	1 0	1
Volume Module:																
Base Vol:	11	174	394		12	454	7		5	17	94		570	10	17	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	11	174	394		12	454	7		5	17	94		570	10	17	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	11	174	394		12	454	7		5	17	94		570	10	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	11	174	394		12	454	7		5	17	94		570	10	17	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	11	174	394		12	454	7		5	17	94		570	10	17	
OvlAdjVol:			0													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.06	0.94	2.00		0.03	0.97	1.00		1.00	2.00	1.00		2.00	1.00	1.00	
Final Sat.:	95	1505	3200		41	1559	1600		1600	3200	1600		3200	1600	1600	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.12	0.12		0.29	0.29	0.00		0.00	0.01	0.06		0.18	0.01	0.01	
OvlAdjV/S:			0.00													
Crit Moves:		****				****					****	****				

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.925
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

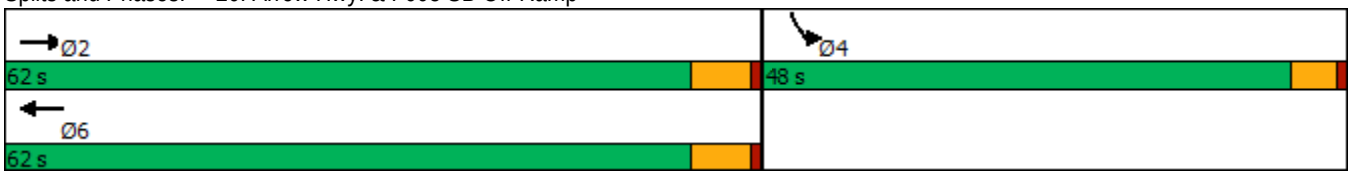
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	741	0	475	266	997	0	0	1157	268
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	741	0	475	266	997	0	0	1157	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	741	0	475	266	997	0	0	1157	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	741	0	475	266	997	0	0	1157	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	741	0	475	266	997	0	0	1157	268
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.30	0.17	0.31	0.00	0.00	0.36	0.17
Crit Moves:						****	****				****	

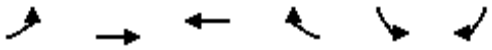
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Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1738	862	324	354
Future Volume (vph)	1738	862	324	354
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 68.3
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	1738	862	0	324	354
Future Volume (veh/h)	0	1738	862	0	324	354
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	1810	898	0	338	0
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	0	3033	2111	0	417	
Arrive On Green	0.00	0.58	0.58	0.00	0.23	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	1810	898	0	338	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	12.6	7.8	0.0	10.0	0.0
Cycle Q Clear(g_c), s	0.0	12.6	7.8	0.0	10.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3033	2111	0	417	
V/C Ratio(X)	0.00	0.60	0.43	0.00	0.81	
Avail Cap(c_a), veh/h	0	5130	3571	0	1379	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.5	6.5	0.0	20.7	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	3.8	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	0.0	2.8	1.8	0.0	4.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.7	6.7	0.0	24.5	0.0
LnGrp LOS	A	A	A	A	C	
Approach Vol, veh/h		1810	898		338	A
Approach Delay, s/veh		7.7	6.7		24.5	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	39.0	17.8	39.0
Change Period (Y+Rc), s	5.8	* 4.7	5.8
Max Green Setting (Gmax), s	56.2	* 43	56.2
Max Q Clear Time (g_c+I1), s	14.6	12.0	9.8
Green Ext Time (p_c), s	18.6	1.0	6.9

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

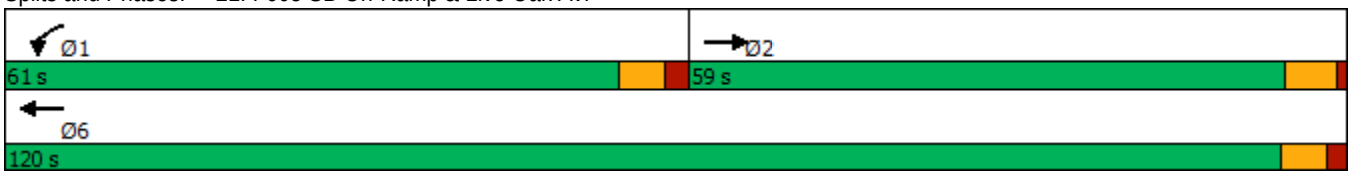
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1388	1337	740	1341
Future Volume (vph)	1388	1337	740	1341
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	59.0		61.0	120.0
Total Split (%)	49.2%		50.8%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 113.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1388	1337	740	1341	0	0
Future Volume (veh/h)	1388	1337	740	1341	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	1446	0	771	1397		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1573		824	3413		
Arrive On Green	0.44	0.00	0.46	0.95		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1446	0	771	1397		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	42.1	0.0	45.2	3.9		
Cycle Q Clear(g_c), s	42.1	0.0	45.2	3.9		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1573		824	3413		
V/C Ratio(X)	0.92		0.94	0.41		
Avail Cap(c_a), veh/h	1719		889	3680		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	29.7	0.0	28.9	0.3		
Incr Delay (d2), s/veh	7.6	0.0	17.2	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	18.5	0.0	21.9	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.3	0.0	46.1	0.4		
LnGrp LOS	D		D	A		
Approach Vol, veh/h	1446	A		2168		
Approach Delay, s/veh	37.3			16.7		
Approach LOS	D			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	57.0	54.8				111.7
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	54.9	* 53				113.9
Max Q Clear Time (g_c+I1), s	47.2	44.1				5.9
Green Ext Time (p_c), s	3.7	4.6				37.7

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1682	25	0	862	334	0	0	48	0	0	0
Future Vol, veh/h	0	1682	25	0	862	334	0	0	48	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1752	26	0	898	348	0	0	50	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	876
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	-	-	0	0	296
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	296
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	296	-	-	-	-
HCM Lane V/C Ratio	0.169	-	-	-	-
HCM Control Delay (s)	19.6	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-

Intersection	
Int Delay, s/veh	109.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1388	0	0	1232	0	0	0	748	0	0	847
Future Vol, veh/h	0	1388	0	0	1232	0	0	0	748	0	0	847
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1431	0	0	1270	0	0	0	771	0	0	873

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	716	-	-	635
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 498	0	0	~ 545
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 498	-	-	~ 545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	278	299.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	498	-	-	545
HCM Lane V/C Ratio	1.548	-	-	1.602
HCM Control Delay (s)	278	-	-	299.2
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	41.2	-	-	47.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.713
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0	2	0 0
Volume Module:																
Base Vol:	219	0	93		0	0	0		0	1602	209		71	651	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	219	0	93		0	0	0		0	1602	209		71	651	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	219	0	93		0	0	0		0	1602	209		71	651	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	219	0	93		0	0	0		0	1602	209		71	651	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	219	0	93		0	0	0		0	1602	209		71	651	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.00	0.06		0.00	0.00	0.00		0.00	0.50	0.13		0.04	0.20	0.00	
Crit Moves:	****									****			****			

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.365
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	8	5	61	23	5	12	9	273	38	179	144	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	5	61	23	5	12	9	273	38	179	144	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	5	61	23	5	12	9	273	38	179	144	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	5	61	23	5	12	9	273	38	179	144	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	5	61	23	5	12	9	273	38	179	144	33
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.08	0.92	1.00	0.40	0.60	1.00	1.76	0.24	1.00	1.63	0.37
Final Sat.:	1600	121	1479	1600	640	960	1600	2809	391	1600	2603	597
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.10	0.10	0.11	0.06	0.06
Crit Moves:		****		****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.111
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	197	291	562	29	112	78	45	1779	37	137	910	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	197	291	562	29	112	78	45	1779	37	137	910	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	197	291	562	29	112	78	45	1779	37	137	910	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	291	562	29	112	78	45	1779	37	137	910	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	197	291	562	29	112	78	45	1779	37	137	910	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.18	0.35	0.02	0.04	0.05	0.03	0.56	0.02	0.09	0.28	0.01
Crit Moves:			****	****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2	0 1
Volume Module:												
Base Vol:	71	30	12	40	128	8	43	2034	358	46	889	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	30	12	40	128	8	43	2034	358	46	889	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	71	30	12	40	128	8	43	2034	358	46	889	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	30	12	40	128	8	43	2034	358	46	889	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	30	12	40	128	8	43	2034	358	46	889	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.63	0.26	0.11	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1005	425	170	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.07	0.03	0.08	0.01	0.03	0.64	0.22	0.03	0.28	0.01
Crit Moves:	****			****			****			****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.878
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	96	0	134	0	0	0	0	1517	717	352	824	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	96	0	134	0	0	0	0	1517	717	352	824	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	96	0	134	0	0	0	0	1517	717	352	824	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	0	134	0	0	0	0	1517	717	352	824	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	0	134	0	0	0	0	1517	717	352	824	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.08	0.00	0.00	0.00	0.00	0.47	0.45	0.22	0.26	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.000
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1277	0	168	66	1602	0	0	1067	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1277	0	168	66	1602	0	0	1067	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.40	0.00	0.11	0.04	0.50	0.00	0.00	0.33	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) Without Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.894
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	3 0 0
Volume Module:												
Base Vol:	310	0	74	0	0	0	0	2231	658	90	1385	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	0	74	0	0	0	0	2231	658	90	1385	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	310	0	74	0	0	0	0	2231	658	90	1385	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	0	74	0	0	0	0	2231	658	90	1385	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	310	0	74	0	0	0	0	2231	658	90	1385	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.70	0.41	0.06	0.29	0.00
Crit Moves:	****							****				

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APPENDIX 7.2:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	127	727	11	163	775	64	55	273	91	129	883	355
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	727	11	163	775	64	55	273	91	129	883	355
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	127	727	11	189	775	64	55	302	91	129	900	371
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	727	11	189	775	64	55	302	91	129	900	371
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	727	11	189	775	64	55	302	91	129	900	371
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	727	11	189	775	64	55	302	91	129	900	371
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.42	0.58
Final Sat.:	1600	3152	48	1600	3200	1600	1600	1600	1600	1600	2266	934
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.23	0.12	0.24	0.04	0.03	0.19	0.06	0.08	0.40	0.40
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.959
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	142	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	272	746	188	32	650	264	150	640	268	222	1223	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	272	746	188	32	650	264	150	640	268	222	1223	15
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	272	746	217	32	650	264	150	669	268	239	1240	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	272	746	217	32	650	264	150	669	268	239	1240	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	746	217	32	650	264	150	669	268	239	1240	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	272	746	217	32	650	264	150	669	268	239	1240	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.14	0.02	0.20	0.17	0.09	0.21	0.17	0.15	0.39	0.39
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.272
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	5	8	8	441	6	19	30	749	0	10	1771	1341
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	8	8	441	6	19	30	749	0	10	1771	1341
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	8	8	496	6	19	30	807	0	10	1805	1341
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	8	8	496	6	19	30	807	0	10	1805	1341
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	8	8	496	6	19	30	807	0	10	1805	1341
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	8	8	496	6	19	30	807	0	10	1805	1341
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.38	0.38	1.98	0.02	1.00	1.00	2.00	1.00	1.00	1.15	0.85
Final Sat.:	381	610	610	3162	38	1600	1600	3200	1600	1600	1836	1364
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.16	0.16	0.01	0.02	0.25	0.00	0.01	0.98	0.98
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.122
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 0	2 0	2	0 0
Volume Module:												
Base Vol:	1155	0	330	0	0	0	0	572	0	301	2049	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1155	0	330	0	0	0	0	572	0	301	2049	0
Added Vol:	64	0	2	0	0	0	0	57	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1219	0	332	0	0	0	0	629	0	301	2051	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1219	0	332	0	0	0	0	629	0	301	2051	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1219	0	332	0	0	0	0	629	0	301	2051	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1219	0	332	0	0	0	0	629	0	301	2051	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.38	0.00	0.21	0.00	0.00	0.00	0.00	0.20	0.00	0.09	0.64	0.00
Crit Moves:	****						****				****	

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Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	843	118	0	2351	0	93
Future Vol, veh/h	843	118	0	2351	0	93
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	916	128	0	2555	0	101

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	522
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	432
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	432
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	432	-	-	-
HCM Lane V/C Ratio	0.234	-	-	-
HCM Control Delay (s)	15.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1189	1434	125	0	116
Future Vol, veh/h	0	1189	1434	125	0	116
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	1292	1559	136	0	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	848
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	265
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	265
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.3
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	265
HCM Lane V/C Ratio	-	-	-	0.476
HCM Control Delay (s)	-	-	-	30.3
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.4

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1113	76	71	1529	31	48
Future Vol, veh/h	1113	76	71	1529	31	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1147	78	73	1576	32	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1225	0	1962	613
Stage 1	-	-	-	-	1186	-
Stage 2	-	-	-	-	776	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	310	-	100	377
Stage 1	-	-	-	-	189	-
Stage 2	-	-	-	-	381	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	310	-	77	377
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	381	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	55
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	149	-	-	310	-
HCM Lane V/C Ratio	0.547	-	-	0.236	-
HCM Control Delay (s)	55	-	-	20.2	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	2.7	-	-	0.9	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	933	3	0	2351	0	4
Future Vol, veh/h	933	3	0	2351	0	4
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	1014	3	0	2555	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	509
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	440
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	440
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	440	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-
HCM Control Delay (s)	13.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1158	1599	9	0	1
Future Vol, veh/h	4	1158	1599	9	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	4	1259	1738	10	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1748	0	-	0	-	874
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	171	-	-	-	0	255
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	171	-	-	-	-	255
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	171	-	-	-	255
HCM Lane V/C Ratio	0.025	-	-	-	0.004
HCM Control Delay (s)	26.6	-	-	-	19.2
HCM Lane LOS	D	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1158	1607	3	0	1
Future Vol, veh/h	0	1158	1607	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1259	1747	3	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	875
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	254
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	254
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	254
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	19.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	936	1	48	2340	21	1	0	6	0	0	10
Future Vol, veh/h	0	936	1	48	2340	21	1	0	6	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
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	0	1017	1	52	2543	23	1	0	7	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2566	0	0	1018	0	0	2139	3688	509	3066	3677	1283
Stage 1	-	-	-	-	-	-	1018	1018	-	2659	2659	-
Stage 2	-	-	-	-	-	-	1121	2670	-	407	1018	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	66	-	-	390	-	-	53	5	440	14	5	136
Stage 1	-	-	-	-	-	-	196	317	-	13	48	-
Stage 2	-	-	-	-	-	-	201	48	-	546	317	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	66	-	-	390	-	-	44	4	440	12	4	136
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	35	-	12	34	-
Stage 1	-	-	-	-	-	-	196	317	-	13	42	-
Stage 2	-	-	-	-	-	-	160	42	-	538	317	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	17.5	33.8
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	296	66	-	-	390	-	-	136
HCM Lane V/C Ratio	0.026	-	-	-	0.134	-	-	0.08
HCM Control Delay (s)	17.5	0	-	-	15.7	-	-	33.8
HCM Lane LOS	C	A	-	-	C	-	-	D
HCM 95th %tile Q(veh)	0.1	0	-	-	0.5	-	-	0.3

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	941	0	0	2409	0	3
Future Vol, veh/h	941	0	0	2409	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1023	0	0	2618	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	512
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	438
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	438
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	438	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-
HCM Control Delay (s)	13.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.539
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	0	0	1! 0	1 0		2 1 0	1 0		2 1 0
Volume Module:												
Base Vol:	32	0	33	0	0	0	0	1017	88	93	1493	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	0	33	0	0	0	0	1017	88	93	1493	0
Added Vol:	0	0	0	52	0	30	46	6	0	0	54	78
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	0	33	52	0	30	46	1023	88	93	1547	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	0	33	52	0	30	46	1023	88	93	1547	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	0	33	52	0	30	46	1023	88	93	1547	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	0	33	52	0	30	46	1023	88	93	1547	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	2.76	0.24	1.00	2.86	0.14
Final Sat.:	3200	0	1600	1015	0	585	1600	4420	380	1600	4570	230
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.05	0.00	0.05	0.03	0.23	0.23	0.06	0.34	0.34
Crit Moves:			****			****	****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.542
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:		Ovl				Include				Include				Include		
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	0	1 0	0	2	0	1 0	0	1	1	0	2 0	1	2	0	1 0	1
Volume Module:																
Base Vol:	59	362	683		2	117	8		2	2	10		213	7	20	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	59	362	683		2	117	8		2	2	10		213	7	20	
Added Vol:	0	18	0		0	32	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	59	380	683		2	149	8		2	2	10		213	7	20	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	59	380	683		2	149	8		2	2	10		213	7	20	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	59	380	683		2	149	8		2	2	10		213	7	20	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	59	380	683		2	149	8		2	2	10		213	7	20	
OvlAdjVol:			470													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.13	0.87	2.00		0.01	0.99	1.00		1.00	2.00	1.00		2.00	1.00	1.00	
Final Sat.:	215	1385	3200		21	1579	1600		1600	3200	1600		3200	1600	1600	
Capacity Analysis Module:																
Vol/Sat:	0.27	0.27	0.21		0.09	0.09	0.01		0.00	0.00	0.01		0.07	0.00	0.01	
OvlAdjV/S:			0.15													
Crit Moves:	****				****						****		****			

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.217
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	0 1	0	1 0	2 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	233	0	206	355	547	0	0	2155	741
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	233	0	206	355	547	0	0	2155	741
Added Vol:	1	3	101	23	9	0	15	26	1	307	48	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	3	101	256	9	206	370	573	1	307	2203	741
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	3	101	256	9	206	370	573	1	307	2203	741
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	3	101	256	9	206	370	573	1	307	2203	741
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	3	101	256	9	206	370	573	1	307	2203	741
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.04	0.96	1.00	2.99	0.01	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	3200	67	1533	1600	4792	8	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.06	0.08	0.13	0.13	0.23	0.12	0.12	0.19	0.69	0.46
Crit Moves:			****		****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.525
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1050	0	0	1586	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	1050	0	0	1586	0
Added Vol:	0	0	0	44	0	2	6	52	0	0	131	173
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	44	0	2	6	1102	0	0	1717	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	44	0	2	6	1102	0	0	1717	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	44	0	2	6	1102	0	0	1717	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	44	0	2	6	1102	0	0	1717	173
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.73	0.27
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4361	439
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.23	0.00	0.00	0.39	0.39
Crit Moves:				****			****				****	

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Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	893	202	0	3251	0	163
Future Vol, veh/h	893	202	0	3251	0	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	971	220	0	3534	0	177

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	486
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	743
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	743
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	743	-	-	-
HCM Lane V/C Ratio	0.238	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	812	244	0	3251	0	197
Future Vol, veh/h	812	244	0	3251	0	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	883	265	0	3534	0	214

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	442
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	776
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	776
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	776	-	-	-
HCM Lane V/C Ratio	0.276	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↱			↱
Traffic Vol, veh/h	0	1122	1913	65	0	5
Future Vol, veh/h	0	1122	1913	65	0	5
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	1220	2079	71	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1075
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	219
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	219
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

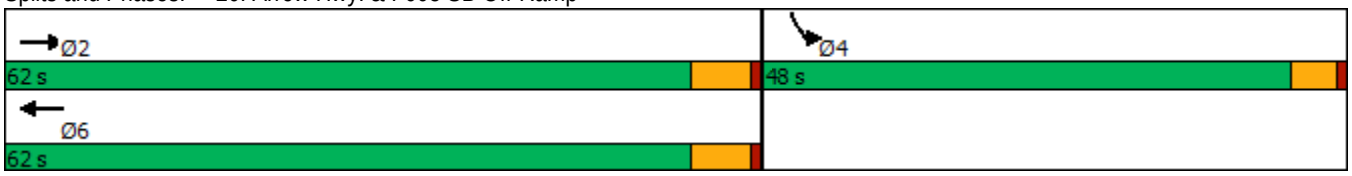
Approach	EB	WB	SB
HCM Control Delay, s	0	0	21.9
HCM LOS			C

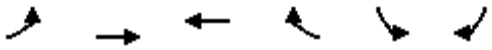
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	219
HCM Lane V/C Ratio	-	-	-	0.025
HCM Control Delay (s)	-	-	-	21.9
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1010	2066	518	1185
Future Volume (vph)	1010	2066	518	1185
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 100.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	1010	2066	0	518	1185
Future Volume (veh/h)	0	1010	2066	0	518	1185
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	1041	2130	0	534	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	2970	2067	0	580	
Arrive On Green	0.00	0.57	0.57	0.00	0.32	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	1041	2130	0	534	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	10.5	56.2	0.0	27.9	0.0
Cycle Q Clear(g_c), s	0.0	10.5	56.2	0.0	27.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2970	2067	0	580	
V/C Ratio(X)	0.00	0.35	1.03	0.00	0.92	
Avail Cap(c_a), veh/h	0	2970	2067	0	798	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.2	21.0	0.0	32.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	28.1	0.0	12.8	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	0.0	3.5	27.7	0.0	13.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.3	49.1	0.0	44.9	0.0
LnGrp LOS	A	B	F	A	D	
Approach Vol, veh/h		1041	2130		534	A
Approach Delay, s/veh		11.3	49.1		44.9	
Approach LOS		B	D		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		62.0		36.2		62.0
Change Period (Y+Rc), s		5.8		* 4.7		5.8
Max Green Setting (Gmax), s		56.2		* 43		56.2
Max Q Clear Time (g_c+I1), s		12.5		29.9		58.2
Green Ext Time (p_c), s		8.2		1.5		0.0

Intersection Summary		
HCM 6th Ctrl Delay	37.9	
HCM 6th LOS	D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	389	733	795	1979
Future Volume (vph)	389	733	795	1979
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	30.0		90.0	120.0
Total Split (%)	25.0%		75.0%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 99.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	389	733	795	1979	0	0
Future Volume (veh/h)	389	733	795	1979	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	409	0	837	2083		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1231		958	3376		
Arrive On Green	0.34	0.00	0.53	0.94		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	409	0	837	2083		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	7.9	0.0	38.1	8.3		
Cycle Q Clear(g_c), s	7.9	0.0	38.1	8.3		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1231		958	3376		
V/C Ratio(X)	0.33		0.87	0.62		
Avail Cap(c_a), veh/h	1231		1614	4372		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	23.0	0.0	19.4	0.5		
Incr Delay (d2), s/veh	0.1	0.0	5.7	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.2	0.0	15.1	0.2		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.1	0.0	25.1	0.9		
LnGrp LOS	C		C	A		
Approach Vol, veh/h	409	A		2920		
Approach Delay, s/veh	23.1			7.8		
Approach LOS	C			A		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	55.9	38.2				94.1
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	83.9	* 24				113.9
Max Q Clear Time (g_c+I1), s	40.1	9.9				10.3
Green Ext Time (p_c), s	9.7	1.3				77.6

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	995	144	0	2066	462	0	0	14	0	0	0
Future Vol, veh/h	0	995	144	0	2066	462	0	0	14	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
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	0	1082	157	0	2246	502	0	0	15	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	541
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	-	-	0	0	491
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	491	-	-	-	-
HCM Lane V/C Ratio	0.031	-	-	-	-
HCM Control Delay (s)	12.6	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	235.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	389	0	0	1766	0	0	0	705	0	0	1008
Future Vol, veh/h	0	389	0	0	1766	0	0	0	705	0	0	1008
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	423	0	0	1920	0	0	0	766	0	0	1096

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	212	-	-	960
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	868	0	0	~ 378
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	868	-	-	~ 378
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	31.2	$ 883.2
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	868	-	-	378
HCM Lane V/C Ratio	0.883	-	-	2.899
HCM Control Delay (s)	31.2	-	-	$ 883.2
HCM Lane LOS	D	-	-	F
HCM 95th %tile Q(veh)	11.7	-	-	94.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	256	0	94	0	0	0	0	1023	405	164	2193	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	256	0	94	0	0	0	0	1023	405	164	2193	0
Added Vol:	0	0	0	0	0	0	0	36	70	0	67	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	0	94	0	0	0	0	1059	475	164	2260	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	0	94	0	0	0	0	1059	475	164	2260	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	0	94	0	0	0	0	1059	475	164	2260	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	0	94	0	0	0	0	1059	475	164	2260	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.33	0.30	0.10	0.71	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.404
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	31	7	159	11	0	8	14	214	26	68	505	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	7	159	11	0	8	14	214	26	68	505	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	70	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	7	159	11	0	8	14	214	26	68	575	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	7	159	11	0	8	14	214	26	68	575	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	7	159	11	0	8	14	214	26	68	575	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	7	159	11	0	8	14	214	26	68	575	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.04	0.96	1.00	0.16	0.84	1.00	1.78	0.22	1.00	1.94	0.06
Final Sat.:	1600	67	1533	1600	253	1347	1600	2853	347	1600	3108	92
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.10	0.01	0.00	0.01	0.01	0.08	0.07	0.04	0.18	0.19
Crit Moves:	****			****			****					****

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	77	173	222	28	465	112	104	828	95	312	1272	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	173	222	28	465	112	104	828	95	312	1272	32
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	173	222	58	479	138	104	830	95	312	1326	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	173	222	58	479	138	104	830	95	312	1326	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	173	222	58	479	138	104	830	95	312	1326	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	173	222	58	479	138	104	830	95	312	1326	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.11	0.14	0.04	0.15	0.09	0.07	0.26	0.06	0.20	0.41	0.02
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.995
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	286	127	42	14	39	56	15	903	35	31	1815	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	127	42	14	39	56	15	903	35	31	1815	30
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	312	127	42	14	39	56	15	919	51	31	1843	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	312	127	42	14	39	56	15	919	51	31	1843	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	312	127	42	14	39	56	15	919	51	31	1843	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	312	127	42	14	39	56	15	919	51	31	1843	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.26	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1038	422	140	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.20	0.30	0.30	0.01	0.02	0.04	0.01	0.29	0.03	0.02	0.58	0.02
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.725
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0	2	0 0
Volume Module:																
Base Vol:	361	0	311		0	0	0		0	878	107		200	1375	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	361	0	311		0	0	0		0	878	107		200	1375	0	
Added Vol:	26	0	0		0	0	0		0	0	16		0	2	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	387	0	311		0	0	0		0	878	123		200	1377	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	387	0	311		0	0	0		0	878	123		200	1377	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	387	0	311		0	0	0		0	878	123		200	1377	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	387	0	311		0	0	0		0	878	123		200	1377	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.00	0.19		0.00	0.00	0.00		0.00	0.27	0.08		0.13	0.43	0.00	
Crit Moves:			****						****					****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	2	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	397	0	90	154	957	0	0	1465	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	90	154	957	0	0	1465	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	433	0	90	154	957	0	0	1467	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	433	0	90	154	957	0	0	1467	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	433	0	90	154	957	0	0	1467	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	433	0	90	154	957	0	0	1467	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.06	0.10	0.30	0.00	0.00	0.46	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.950
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	133	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	3	0 0
Volume Module:												
Base Vol:	739	0	121	0	0	0	0	1262	219	73	2888	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	739	0	121	0	0	0	0	1262	219	73	2888	0
Added Vol:	26	0	0	0	0	0	0	21	16	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	765	0	121	0	0	0	0	1283	235	73	2931	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	765	0	121	0	0	0	0	1283	235	73	2931	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	765	0	121	0	0	0	0	1283	235	73	2931	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	765	0	121	0	0	0	0	1283	235	73	2931	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.00	0.08	0.00	0.00	0.00	0.00	0.40	0.15	0.05	0.61	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	1.036
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	95	775	54	359	1136	68	93	656	90	24	414	300
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	775	54	359	1136	68	93	656	90	24	414	300
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	775	54	380	1136	68	93	679	90	24	444	325
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	775	54	380	1136	68	93	679	90	24	444	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	775	54	380	1136	68	93	679	90	24	444	325
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	775	54	380	1136	68	93	679	90	24	444	325
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.15	0.85
Final Sat.:	1600	2992	208	1600	3200	1600	1600	1600	1600	1600	1848	1352
Capacity Analysis Module:												
Vol/Sat:	0.06	0.26	0.26	0.24	0.36	0.04	0.06	0.42	0.06	0.02	0.24	0.24
Crit Moves:	****		****					****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.033
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1	1	0 1	1	0
Volume Module:																
Base Vol:	213	784	201		284	753	164		124	1323	214		115	678	14	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	213	784	201		284	753	164		124	1323	214		115	678	14	
Added Vol:	0	0	23		0	0	0		0	22	0		30	27	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	213	784	224		284	753	164		124	1345	214		145	705	14	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	213	784	224		284	753	164		124	1345	214		145	705	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	213	784	224		284	753	164		124	1345	214		145	705	14	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	213	784	224		284	753	164		124	1345	214		145	705	14	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	1.96	0.04	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3200	1600		1600	3138	62	
Capacity Analysis Module:																
Vol/Sat:	0.13	0.25	0.14		0.18	0.24	0.10		0.08	0.42	0.13		0.09	0.22	0.22	
Crit Moves:		****				****					****			****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.045
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	0 1
Volume Module:												
Base Vol:	0	0	0	1076	0	8	16	1852	0	2	897	730
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1076	0	8	16	1852	0	2	897	730
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1121	0	8	16	1898	0	2	954	730
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1121	0	8	16	1898	0	2	954	730
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1121	0	8	16	1898	0	2	954	730
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1121	0	8	16	1898	0	2	954	730
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	2.00	1.00	1.00	1.13	0.87
Final Sat.:	0	1600	0	3200	0	1600	1600	3200	1600	1600	1813	1387
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.35	0.00	0.01	0.01	0.59	0.00	0.00	0.53	0.53
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.935
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 0	2 0	2 0	0
Volume Module:												
Base Vol:	958	0	409	0	0	0	0	855	0	713	920	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	958	0	409	0	0	0	0	855	0	713	920	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1059	0	420	0	0	0	0	900	0	713	932	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1059	0	420	0	0	0	0	900	0	713	932	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1059	0	420	0	0	0	0	900	0	713	932	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1059	0	420	0	0	0	0	900	0	713	932	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	0	3200	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.33	0.00	0.26	0.00	0.00	0.00	0.00	0.28	0.00	0.22	0.29	0.00
Crit Moves:	****							****		****		

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1204	115	0	1644	0	119
Future Vol, veh/h	1204	115	0	1644	0	119
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	1309	125	0	1787	0	129

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	717
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	323
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	323
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	323	-	-	-
HCM Lane V/C Ratio	0.4	-	-	-
HCM Control Delay (s)	23.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1.9	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2942	1342	125	0	137
Future Vol, veh/h	0	2942	1342	125	0	137
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	3198	1459	136	0	149

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	798
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	286
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	286
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.5
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	286
HCM Lane V/C Ratio	-	-	-	0.521
HCM Control Delay (s)	-	-	-	30.5
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	2.8

Intersection	
Int Delay, s/veh	100.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2827	115	119	1355	112	174
Future Vol, veh/h	2827	115	119	1355	112	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	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	2945	120	124	1411	117	181

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3065	0	3817	1533
Stage 1	-	-	-	-	3005	-
Stage 2	-	-	-	-	812	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	~ 36	-	~ 9	~ 92
Stage 1	-	-	-	-	~ 13	-
Stage 2	-	-	-	-	364	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	~ 36	-	0	~ 92
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	364	-

Approach	EB	WB	NB
HCM Control Delay, s	0	107.4	$ 1105.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	92	-	-	~ 36	-
HCM Lane V/C Ratio	3.238	-	-	3.443	-
HCM Control Delay (s)	$ 1105.1	-	-	$ 1330.9	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	29.5	-	-	14.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1322	2	0	1644	0	19
Future Vol, veh/h	1322	2	0	1644	0	19
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	1437	2	0	1787	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	720
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	321
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	321
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)	321	-	-	-
HCM Lane V/C Ratio	0.064	-	-	-
HCM Control Delay (s)	17	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2998	1468	5	0	6
Future Vol, veh/h	2	2998	1468	5	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	2	3259	1596	5	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1601	0	-	0	-	801
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	-	-	3.9
Pot Cap-1 Maneuver	203	-	-	-	0	284
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	203	-	-	-	-	284
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	203	-	-	-	284
HCM Lane V/C Ratio	0.011	-	-	-	0.023
HCM Control Delay (s)	22.9	-	-	-	18
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2998	1467	2	0	5
Future Vol, veh/h	0	2998	1467	2	0	5
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	3259	1595	2	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	799
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	285
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	285
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	285
HCM Lane V/C Ratio	-	-	-	0.019
HCM Control Delay (s)	-	-	-	17.9
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1340	0	21	1637	1	6	0	32	0	0	1
Future Vol, veh/h	0	1340	0	21	1637	1	6	0	32	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1381	0	22	1688	1	6	0	33	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1689	0	0	1381	0	0	2100	3114	691	2285	3114	845
Stage 1	-	-	-	-	-	-	1381	1381	-	1733	1733	-
Stage 2	-	-	-	-	-	-	719	1733	-	552	1381	-
Critical Hdwy	5.3	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	183	-	-	260	-	-	56	12	336	43	12	266
Stage 1	-	-	-	-	-	-	109	213	-	61	144	-
Stage 2	-	-	-	-	-	-	355	144	-	447	213	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	183	-	-	260	-	-	52	11	336	36	11	266
Mov Cap-2 Maneuver	-	-	-	-	-	-	91	79	-	54	76	-
Stage 1	-	-	-	-	-	-	109	213	-	61	132	-
Stage 2	-	-	-	-	-	-	324	132	-	403	213	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	23.3	18.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	236	183	-	-	260	-	-	266
HCM Lane V/C Ratio	0.166	-	-	-	0.083	-	-	0.004
HCM Control Delay (s)	23.3	0	-	-	20.1	-	-	18.6
HCM Lane LOS	C	A	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.3	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1372	0	0	1659	0	13
Future Vol, veh/h	1372	0	0	1659	0	13
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	1491	0	0	1803	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	746
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	309
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	309
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	309	-	-	-
HCM Lane V/C Ratio	0.046	-	-	-
HCM Control Delay (s)	17.2	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.074
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	0	0	1! 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	203	0	249	0	0	0	0	2732	223	177	1260	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	203	0	249	0	0	0	0	2732	223	177	1260	0
Added Vol:	0	0	0	67	0	39	39	4	0	0	56	66
PasserByVol:	0	0	0	32	0	19	32	-32	0	0	-19	19
Initial Fut:	203	0	249	99	0	58	71	2704	223	177	1297	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	203	0	249	99	0	58	71	2704	223	177	1297	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	0	249	99	0	58	71	2704	223	177	1297	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	203	0	249	99	0	58	71	2704	223	177	1297	85
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.63	0.00	0.37	1.00	2.77	0.23	1.00	2.82	0.18
Final Sat.:	3200	0	1600	1009	0	591	1600	4434	366	1600	4505	295
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.16	0.10	0.00	0.10	0.04	0.61	0.61	0.11	0.29	0.29
Crit Moves:			****			****			****			

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Avenida Barbosa / Alpha/Buena Vista

Cycle (sec):	100	Critical Vol./Cap.(X):	0.781
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 2	0 1	0	0 1	1	0	2 0 1	2	0	1 0 1
Volume Module:												
Base Vol:	11	174	394	12	454	7	5	17	94	570	10	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	174	394	12	454	7	5	17	94	570	10	17
Added Vol:	0	35	0	0	25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	209	394	12	479	7	5	17	94	570	10	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	209	394	12	479	7	5	17	94	570	10	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	209	394	12	479	7	5	17	94	570	10	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	209	394	12	479	7	5	17	94	570	10	17
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.95	2.00	0.02	0.98	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	80	1520	3200	39	1561	1600	1600	3200	1600	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.12	0.31	0.31	0.00	0.00	0.01	0.06	0.18	0.01	0.01
OvlAdjV/S:			0.00									
Crit Moves:	****			****					****	****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	1.116
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	2	0 0	1	0	1	0 2	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	0	0	0		741	0	475		266	997	0		0	1157	268	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0		741	0	475		266	997	0		0	1157	268	
Added Vol:	6	16	269		19	6	0		20	102	0		225	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	6	16	269		760	6	475		286	1099	0		225	1178	268	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	6	16	269		760	6	475		286	1099	0		225	1178	268	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	6	16	269		760	6	475		286	1099	0		225	1178	268	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	6	16	269		760	6	475		286	1099	0		225	1178	268	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	0.01	0.99		1.00	3.00	0.00		1.00	2.00	1.00	
Final Sat.:	1600	1600	1600		3200	20	1580		1600	4800	0		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.01	0.17		0.24	0.30	0.30		0.18	0.23	0.00		0.14	0.37	0.17	
Crit Moves:			****				****		****					****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Dwy A / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	3	0 0	0 0	2	1 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	2981	0	0	1348	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	2981	0	0	1348	0
Added Vol:	0	0	0	249	0	11	4	67	0	0	111	130
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	249	0	11	4	3048	0	0	1459	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	249	0	11	4	3048	0	0	1459	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	249	0	11	4	3048	0	0	1459	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	249	0	11	4	3048	0	0	1459	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	3.00	0.00	0.00	2.75	0.25
Final Sat.:	0	0	0	1600	0	1600	1600	4800	0	0	4407	393
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.01	0.00	0.64	0.00	0.00	0.33	0.33
Crit Moves:				****				****				

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Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱		↑↑↑		↱
Traffic Vol, veh/h	2077	191	0	1671	0	193
Future Vol, veh/h	2077	191	0	1671	0	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	200	-	-	-	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	2258	208	0	1816	0	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1129
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	386
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	386	-	-	-
HCM Lane V/C Ratio	0.543	-	-	-
HCM Control Delay (s)	24.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	3.1	-	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱		↑↑↑		↱
Traffic Vol, veh/h	2039	231	0	1671	0	232
Future Vol, veh/h	2039	231	0	1671	0	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	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	2216	251	0	1816	0	252

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1108
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3
Pot Cap-1 Maneuver	-	-	0	-	0	394
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	394
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	29
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	394	-	-	-
HCM Lane V/C Ratio	0.64	-	-	-
HCM Control Delay (s)	29	-	-	-
HCM Lane LOS	D	-	-	-
HCM 95th %tile Q(veh)	4.3	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3313	1552	41	0	30
Future Vol, veh/h	0	3313	1552	41	0	30
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	3601	1687	45	0	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	866
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	301
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	301
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

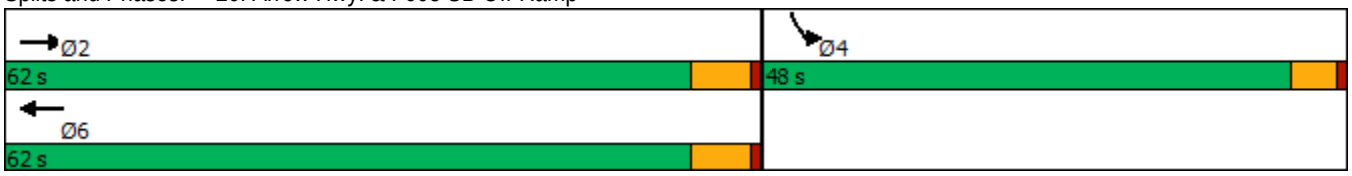
Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

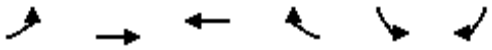
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	301
HCM Lane V/C Ratio	-	-	-	0.108
HCM Control Delay (s)	-	-	-	18.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.4

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2271	915	324	547
Future Volume (vph)	2271	915	324	547
Turn Type	NA	NA	Prot	Free
Protected Phases	2	6	4	
Permitted Phases				Free
Detector Phase	2	6	4	
Switch Phase				
Minimum Initial (s)	15.0	15.0	9.0	
Minimum Split (s)	22.5	22.8	22.5	
Total Split (s)	62.0	62.0	48.0	
Total Split (%)	56.4%	56.4%	43.6%	
Yellow Time (s)	4.8	4.8	3.7	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	Min	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 84.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 20: Arrow Hwy. & I-605 SB Off-Ramp





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	2271	915	0	324	547
Future Volume (veh/h)	0	2271	915	0	324	547
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	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	0	2366	953	0	338	0
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	0	3312	2305	0	398	
Arrive On Green	0.00	0.64	0.64	0.00	0.22	0.00
Sat Flow, veh/h	0	5529	3800	0	1810	1610
Grp Volume(v), veh/h	0	2366	953	0	338	0
Grp Sat Flow(s),veh/h/ln	0	1729	1805	0	1810	1610
Q Serve(g_s), s	0.0	22.5	9.6	0.0	13.3	0.0
Cycle Q Clear(g_c), s	0.0	22.5	9.6	0.0	13.3	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3312	2305	0	398	
V/C Ratio(X)	0.00	0.71	0.41	0.00	0.85	
Avail Cap(c_a), veh/h	0	3927	2733	0	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.9	6.6	0.0	27.8	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.1	0.0	5.1	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	5.8	2.6	0.0	6.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.4	6.7	0.0	32.9	0.0
LnGrp LOS	A	A	A	A	C	
Approach Vol, veh/h		2366	953		338	A
Approach Delay, s/veh		9.4	6.7		32.9	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	53.2	21.0	53.2
Change Period (Y+Rc), s	5.8	* 4.7	5.8
Max Green Setting (Gmax), s	56.2	* 43	56.2
Max Q Clear Time (g_c+I1), s	24.5	15.3	11.6
Green Ext Time (p_c), s	22.9	1.0	7.4

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

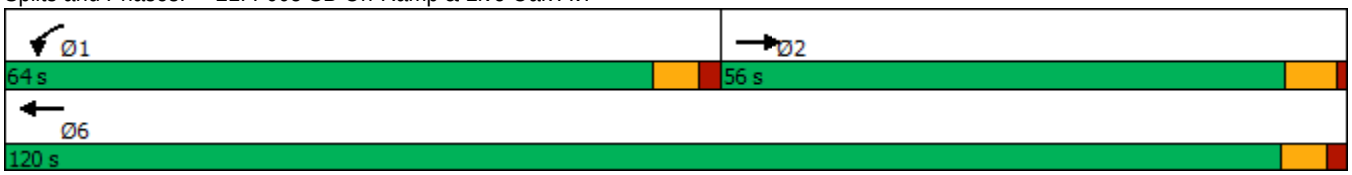
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT
Lane Configurations				
Traffic Volume (vph)	1400	1641	782	1594
Future Volume (vph)	1400	1641	782	1594
Turn Type	NA	Free	Prot	NA
Protected Phases	2		1	6
Permitted Phases		Free		
Detector Phase	2		1	6
Switch Phase				
Minimum Initial (s)	10.0		30.0	10.0
Minimum Split (s)	22.8		36.1	16.1
Total Split (s)	56.0		64.0	120.0
Total Split (%)	46.7%		53.3%	100.0%
Yellow Time (s)	4.8		4.1	4.1
All-Red Time (s)	1.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.8		6.1	6.1
Lead/Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None		None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: I-605 SB On-Ramp & Live Oak Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1400	1641	782	1594	0	0
Future Volume (veh/h)	1400	1641	782	1594	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	1458	0	815	1660		
Peak Hour Factor	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	1524		857	3422		
Arrive On Green	0.42	0.00	0.47	0.95		
Sat Flow, veh/h	3705	1610	1810	3705		
Grp Volume(v), veh/h	1458	0	815	1660		
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805		
Q Serve(g_s), s	45.8	0.0	50.5	5.2		
Cycle Q Clear(g_c), s	45.8	0.0	50.5	5.2		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	1524		857	3422		
V/C Ratio(X)	0.96		0.95	0.49		
Avail Cap(c_a), veh/h	1549		896	3515		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	32.8	0.0	29.5	0.3		
Incr Delay (d2), s/veh	13.7	0.0	19.5	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	21.5	0.0	24.7	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.5	0.0	49.0	0.5		
LnGrp LOS	D		D	A		
Approach Vol, veh/h	1458	A		2475		
Approach Delay, s/veh	46.5			16.5		
Approach LOS	D			B		

Timer - Assigned Phs	1	2				6
Phs Duration (G+Y+Rc), s	61.5	55.5				117.0
Change Period (Y+Rc), s	6.1	* 6.1				6.1
Max Green Setting (Gmax), s	57.9	* 50				113.9
Max Q Clear Time (g_c+I1), s	52.5	47.8				7.2
Green Ext Time (p_c), s	2.9	1.6				53.6

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱		↑↑	↱			↱			
Traffic Vol, veh/h	0	1866	374	0	915	334	0	0	48	0	0	0
Future Vol, veh/h	0	1866	374	0	915	334	0	0	48	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1944	390	0	953	348	0	0	50	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	-	-	0	-	-	972
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	-	-	0	0	256
Stage 1	0	-	-	0	-	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	0	256
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-
Stage 1	-	-	-	-	-	-	-	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR
Capacity (veh/h)	256	-	-	-	-
HCM Lane V/C Ratio	0.195	-	-	-	-
HCM Control Delay (s)	22.4	-	-	-	-
HCM Lane LOS	C	-	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	-

Intersection	
Int Delay, s/veh	163.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1400	0	0	1337	0	0	0	748	0	0	1037
Future Vol, veh/h	0	1400	0	0	1337	0	0	0	748	0	0	1037
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1443	0	0	1378	0	0	0	771	0	0	1069

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	722	-	-	689
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 495	0	0	~ 514
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 495	-	-	~ 514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	282.2	$ 511.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	495	-	-	514
HCM Lane V/C Ratio	1.558	-	-	2.08
HCM Control Delay (s)	282.2	-	-	$ 511.1
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	41.5	-	-	74.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #24 Rivergrade / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	219	0	93	0	0	0	0	1602	209	71	651	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	219	0	93	0	0	0	0	1602	209	71	651	0
Added Vol:	0	0	0	0	0	0	0	76	108	0	53	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	219	0	93	0	0	0	0	1678	317	71	704	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	219	0	93	0	0	0	0	1678	317	71	704	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	0	93	0	0	0	0	1678	317	71	704	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	219	0	93	0	0	0	0	1678	317	71	704	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.52	0.20	0.04	0.22	0.00
Crit Moves:	****							****		****		

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #25 Stewart / Rivergrade

Cycle (sec):	100	Critical Vol./Cap.(X):	0.365
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	0	1 0	1 0	1 0	1	0	1 0	1	1 0
Volume Module:												
Base Vol:	8	5	61	23	5	12	9	273	38	179	144	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	5	61	23	5	12	9	273	38	179	144	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	108	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	5	61	23	5	12	9	273	38	179	252	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	5	61	23	5	12	9	273	38	179	252	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	5	61	23	5	12	9	273	38	179	252	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	5	61	23	5	12	9	273	38	179	252	33
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.08	0.92	1.00	0.40	0.60	1.00	1.76	0.24	1.00	1.77	0.23
Final Sat.:	1600	121	1479	1600	640	960	1600	2809	391	1600	2829	371
Capacity Analysis Module:												
Vol/Sat:	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.10	0.10	0.11	0.09	0.09
Crit Moves:	****		****				****			****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.139
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	197	291	562	29	112	78	45	1779	37	137	910	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	197	291	562	29	112	78	45	1779	37	137	910	21
Added Vol:	20	0	0	39	26	42	0	12	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	217	291	562	68	138	120	45	1791	37	137	953	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	217	291	562	68	138	120	45	1791	37	137	953	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	217	291	562	68	138	120	45	1791	37	137	953	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	217	291	562	68	138	120	45	1791	37	137	953	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.18	0.35	0.04	0.04	0.08	0.03	0.56	0.02	0.09	0.30	0.01
Crit Moves:			****	****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.910
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	105	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0 2	0 1	1	0 2 0 1
Volume Module:												
Base Vol:	71	30	12	40	128	8	43	2034	358	46	889	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	30	12	40	128	8	43	2034	358	46	889	11
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	30	12	40	128	8	43	2061	383	46	911	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	30	12	40	128	8	43	2061	383	46	911	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	30	12	40	128	8	43	2061	383	46	911	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	30	12	40	128	8	43	2061	383	46	911	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.22	0.09	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1099	358	143	1600	1600	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.08	0.08	0.03	0.08	0.01	0.03	0.64	0.24	0.03	0.28	0.01
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #28 Baldwin Park / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.878
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	0 0	2	0 1	1	0	2	0 0
Volume Module:																
Base Vol:	96	0	134		0	0	0		0	1517	717		352	824	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	96	0	134		0	0	0		0	1517	717		352	824	0	
Added Vol:	21	0	0		0	0	0		0	2	25		0	1	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	117	0	134		0	0	0		0	1519	742		352	825	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	117	0	134		0	0	0		0	1519	742		352	825	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	117	0	134		0	0	0		0	1519	742		352	825	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	117	0	134		0	0	0		0	1519	742		352	825	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	3200	0	1600		0	0	0		0	3200	1600		1600	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.00	0.08		0.00	0.00	0.00		0.00	0.47	0.46		0.22	0.26	0.00	
Crit Moves:			****							****			****			

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.024
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1353	0	168	66	1604	0	0	1068	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1353	0	168	66	1604	0	0	1068	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1353	0	168	66	1604	0	0	1068	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1353	0	168	66	1604	0	0	1068	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.42	0.00	0.11	0.04	0.50	0.00	0.00	0.33	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.917
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2 0	1	1 0	3 0	0
Volume Module:												
Base Vol:	310	0	74	0	0	0	0	2231	658	90	1385	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	0	74	0	0	0	0	2231	658	90	1385	0
Added Vol:	21	0	0	0	0	0	0	53	25	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	331	0	74	0	0	0	0	2284	683	90	1417	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	331	0	74	0	0	0	0	2284	683	90	1417	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	331	0	74	0	0	0	0	2284	683	90	1417	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	331	0	74	0	0	0	0	2284	683	90	1417	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.71	0.43	0.06	0.30	0.00
Crit Moves:	****							****				

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APPENDIX 7.3:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2040 WP
				CALC	CHS	DATE	03/22/18
Jurisdiction:	City of Irwindale			CHK	CHS	DATE	03/22/18
Major Street:	Arrow Hwy.				Critical Approach Speed (Major)		45 mph
Minor Street:	Driveway B				Critical Approach Speed (Minor)		15 mph

Major Street Approach Lanes = **3** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **35,134** vpd

Minor Street Future ADT = **311** 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		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	1	8,000	5,600	2,400	1,680
2 + **35,134**	1 **311**	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	1	12,000	8,400	1,200	850
2 + **35,134**	1 **311**	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 19% B 37%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

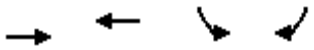
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 7.4:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	804	2061	534	924
v/c Ratio	0.28	1.02	0.88	0.57
Control Delay	12.7	48.9	48.8	1.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.7	48.9	48.8	1.5
Queue Length 50th (ft)	94	~752	320	0
Queue Length 95th (ft)	143	#1021	456	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	2907	2023	779	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.28	1.02	0.69	0.57

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.

Intersection	
Int Delay, s/veh	101.7

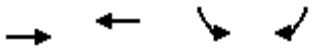
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	387	0	0	1662	0	0	0	705	0	0	723
Future Vol, veh/h	0	387	0	0	1662	0	0	0	705	0	0	723
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	421	0	0	1807	0	0	0	766	0	0	786

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	211	-	-	904
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	869	0	0	~ 403
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	869	-	-	~ 403
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	31	$ 459.1
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	869	-	-	403
HCM Lane V/C Ratio	0.882	-	-	1.95
HCM Control Delay (s)	31	-	-	$ 459.1
HCM Lane LOS	D	-	-	F
HCM 95th %tile Q(veh)	11.7	-	-	53.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1810	898	338	369
v/c Ratio	0.64	0.46	0.65	0.23
Control Delay	12.2	10.5	29.1	0.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.2	10.5	29.1	0.3
Queue Length 50th (ft)	169	104	117	0
Queue Length 95th (ft)	289	195	261	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	4318	3005	1214	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.30	0.28	0.23

Intersection Summary

Intersection	
Int Delay, s/veh	109.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1388	0	0	1232	0	0	0	748	0	0	847
Future Vol, veh/h	0	1388	0	0	1232	0	0	0	748	0	0	847
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1431	0	0	1270	0	0	0	771	0	0	873

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	716	-	-	635
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 498	0	0	~ 545
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 498	-	-	~ 545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	278	299.2
HCM LOS			F	F

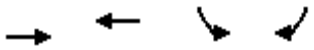
Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	498	-	-	545
HCM Lane V/C Ratio	1.548	-	-	1.602
HCM Control Delay (s)	278	-	-	299.2
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	41.2	-	-	47.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 7.5:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS FREEWAY OFF-RAMP QUEUING ANALYSIS

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Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1041	2130	534	1222
v/c Ratio	0.36	1.05	0.88	0.76
Control Delay	13.5	59.7	48.8	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.5	59.7	48.8	3.4
Queue Length 50th (ft)	128	~801	320	0
Queue Length 95th (ft)	191	#1074	456	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	2907	2023	779	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	1.05	0.69	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.

Intersection	
Int Delay, s/veh	235.8

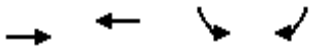
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	389	0	0	1766	0	0	0	705	0	0	1008
Future Vol, veh/h	0	389	0	0	1766	0	0	0	705	0	0	1008
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	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	0	423	0	0	1920	0	0	0	766	0	0	1096

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	212	-	-	960
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	868	0	0	~ 378
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	868	-	-	~ 378
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	31.2	$ 883.2
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	868	-	-	378
HCM Lane V/C Ratio	0.883	-	-	2.899
HCM Control Delay (s)	31.2	-	-	$ 883.2
HCM Lane LOS	D	-	-	F
HCM 95th %tile Q(veh)	11.7	-	-	94.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	2366	953	338	570
v/c Ratio	0.74	0.43	0.74	0.35
Control Delay	13.6	9.6	40.0	0.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.6	9.6	40.0	0.6
Queue Length 50th (ft)	286	122	175	0
Queue Length 95th (ft)	447	209	269	0
Internal Link Dist (ft)	162	578	944	
Turn Bay Length (ft)				600
Base Capacity (vph)	3525	2453	945	1615
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.39	0.36	0.35

Intersection Summary

Intersection	
Int Delay, s/veh	163.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Vol, veh/h	0	1400	0	0	1337	0	0	0	748	0	0	1037
Future Vol, veh/h	0	1400	0	0	1337	0	0	0	748	0	0	1037
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1443	0	0	1378	0	0	0	771	0	0	1069

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	-	-	-	0	-	-	722	-	-	689
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	5.5	-	-	5.5
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	0	0	-	0	0	0	~ 495	0	0	~ 514
Stage 1	0	-	0	0	-	0	0	0	-	0	0	-
Stage 2	0	-	0	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 495	-	-	~ 514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	282.2	$ 511.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	WBT	SBLn1
Capacity (veh/h)	495	-	-	514
HCM Lane V/C Ratio	1.558	-	-	2.08
HCM Control Delay (s)	282.2	-	-	$ 511.1
HCM Lane LOS	F	-	-	F
HCM 95th %tile Q(veh)	41.5	-	-	74.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX 7.6:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6837	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1952
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	63.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5516	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1574
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)	0.66
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6623	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1925
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)	0.80
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	30.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5210	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1558
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		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4484	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1340
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	19.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5693	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5837	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1649
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	67.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5011	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1416
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)	0.59
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	20.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	7213	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	2038
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	61.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5137	Heavy Vehicle Adjustment Factor (f_{HV})	0.877
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1592
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)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4480	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1399
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)	0.58
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	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5986	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1822
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)	0.76
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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APPENDIX 7.7:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	7096	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	2026
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)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5516	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1574
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)	0.66
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6736	Heavy Vehicle Adjustment Factor (f_{HV})	0.935
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1958
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)	0.82
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.3
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5326	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1592
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)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4484	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1340
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	19.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5947	Heavy Vehicle Adjustment Factor (f_{HV})	0.909
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1778
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)	0.74
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		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6023	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1701
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)	0.71
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		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5011	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1416
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)	0.59
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	20.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	7536	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	2129
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)	0.89
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	35.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	5464	Heavy Vehicle Adjustment Factor (f_{HV})	0.885
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1678
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)	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	24.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	4480	Heavy Vehicle Adjustment Factor (f_{HV})	0.870
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1399
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)	0.58
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	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

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	6169	Heavy Vehicle Adjustment Factor (f_{HV})	0.893
Peak Hour Factor (PHF)	0.92	Flow Rate (v_p), pc/h/ln	1877
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)	0.78
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	70.0		

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APPENDIX 7.8:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	6837	1321
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 (f_{HV})	0.952	0.952
Flow Rate (v_i), pc/h	7806	1508
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.81	0.75

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	38.6
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.564
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1776
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	79.2
Flow in Lanes 1 and 2 (v_{12}), pc/h	4254	Ramp Junction Speed (S), mi/h	64.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	30.1
Level of Service (LOS)	E		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5516	1107
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	22.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.820
Flow Rate (v_i), pc/h	6298	1467
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.81	0.73

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	32.2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.489
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1890
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})	0.034	Outer Lanes Freeway Speed (S_O), mi/h	70.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2519	Ramp Junction Speed (S), mi/h	63.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	3986	Average Density (D), pc/mi/ln	30.4
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4794	416
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	5733	502
Capacity (c), pc/h	9600	2000
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	24.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.354
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1720
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.3
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.155	Outer Lanes Freeway Speed (S_O), mi/h	70.6
Flow in Lanes 1 and 2 (v_{12}), pc/h	2293	Ramp Junction Speed (S), mi/h	67.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2795	Average Density (D), pc/mi/ln	23.2
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4484	310
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	20.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.833
Flow Rate (v_i), pc/h	5362	405
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.60	0.20

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	22.5
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.340
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1609
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.167	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2145	Ramp Junction Speed (S), mi/h	67.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2550	Average Density (D), pc/mi/ln	21.3
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5693	1209
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	12.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.893
Flow Rate (v_i), pc/h	6808	1472
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.71	0.74

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	35.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.560
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1505
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	56.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3798	Ramp Junction Speed (S), mi/h	65.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	26.2
Level of Service (LOS)	E		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	5837	826
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	6595	952
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.69	0.48

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	31.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.514
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1592
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})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3412	Ramp Junction Speed (S), mi/h	66.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5011	2201
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 (f_{HV})	0.962	0.952
Flow Rate (v_i), pc/h	5662	2513
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.85	1.26

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	-
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	-
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1699
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	70.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2265	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4778	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

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HCS7 Freeway Merge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	4816	322
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.877	0.980
Flow Rate (v_i), pc/h	5969	357
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.18

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.351
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1791
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.173	Outer Lanes Freeway Speed (S_O), mi/h	70.4
Flow in Lanes 1 and 2 (v_{12}), pc/h	2388	Ramp Junction Speed (S), mi/h	67.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2745	Average Density (D), pc/mi/ln	23.5
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4480	336
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.962
Flow Rate (v_i), pc/h	5597	380
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.62	0.19

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)	0.343
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1679
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.170	Outer Lanes Freeway Speed (S_O), mi/h	70.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	2239	Ramp Junction Speed (S), mi/h	67.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2619	Average Density (D), pc/mi/ln	22.1
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	BA	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 NP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5986	1507
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 (f_{HV})	0.893	0.952
Flow Rate (v_i), pc/h	7286	1721
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.76	0.86

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	38.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.583
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1570
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	4147	Ramp Junction Speed (S), mi/h	64.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	28.4
Level of Service (LOS)	E		

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APPENDIX 7.9:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS FREEWAY RAMP JUNCTION ANALYSIS

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	7096	1580
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 (f_{HV})	0.952	0.952
Flow Rate (v_i), pc/h	8102	1804
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.84	0.90

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	41.1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.590
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1776
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	79.2
Flow in Lanes 1 and 2 (v_{12}), pc/h	4550	Ramp Junction Speed (S), mi/h	63.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	31.7
Level of Service (LOS)	E		

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5516	1220
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	5.00	20.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.833
Flow Rate (v_i), pc/h	6298	1592
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.80

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 (M_S)	0.517
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1890
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.019	Outer Lanes Freeway Speed (S_O), mi/h	70.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2519	Ramp Junction Speed (S), mi/h	63.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	4111	Average Density (D), pc/mi/ln	31.3
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

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Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

	Freeway	Ramp
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

	Freeway	Ramp
Demand Volume (V_i), veh/h	4910	416
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	5871	502
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.25

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	24.8
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.358
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1762
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.155	Outer Lanes Freeway Speed (S_O), mi/h	70.5
Flow in Lanes 1 and 2 (v_{12}), pc/h	2348	Ramp Junction Speed (S), mi/h	67.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2850	Average Density (D), pc/mi/ln	23.8
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

	Freeway	Ramp
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

	Freeway	Ramp
Demand Volume (V_i), veh/h	4484	426
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.909	0.870
Flow Rate (v_i), pc/h	5362	532
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.27

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	23.4
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	1609
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.151	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	2145	Ramp Junction Speed (S), mi/h	67.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2677	Average Density (D), pc/mi/ln	21.9
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	AM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	5947	1463
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	7111	1765
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.74	0.88

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	38.2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.587
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1508
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	4096	Ramp Junction Speed (S), mi/h	63.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	27.8
Level of Service (LOS)	E		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Deceleration Length (L_D), 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	6023	1012
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 (f_{HV})	0.962	0.952
Flow Rate (v_i), pc/h	6805	1155
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.71	0.58

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)	0.532
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1594
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	3618	Ramp Junction Speed (S), mi/h	66.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.7
Level of Service (LOS)	D		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	600
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	5011	2524
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 (f_{HV})	0.962	0.952
Flow Rate (v_i), pc/h	5662	2882
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.89	1.44

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	-
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	-
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1699
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	-
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.000	Outer Lanes Freeway Speed (S_O), mi/h	70.7
Flow in Lanes 1 and 2 (v_{12}), pc/h	2265	Ramp Junction Speed (S), mi/h	-
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	5147	Average Density (D), pc/mi/ln	-
Level of Service (LOS)	F		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	440
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	5143	322
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	14.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.877	0.980
Flow Rate (v_i), pc/h	6374	357
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.70	0.18

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	25.3
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.362
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1912
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	63.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.173	Outer Lanes Freeway Speed (S_O), mi/h	69.9
Flow in Lanes 1 and 2 (v_{12}), pc/h	2550	Ramp Junction Speed (S), mi/h	66.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2907	Average Density (D), pc/mi/ln	25.2
Level of Service (LOS)	C		

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HCS7 Freeway Merge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
Segment Length (L) / Acceleration Length (L_A), ft	1500	445
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	4480	663
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	15.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.870	0.962
Flow Rate (v_i), pc/h	5597	749
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	25.7
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (M_S)	0.367
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1679
Distance to Downstream Ramp (L_{DOWN}), ft	-	On-Ramp Influence Area Speed (S_R), mi/h	62.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FM})	0.124	Outer Lanes Freeway Speed (S_O), mi/h	70.8
Flow in Lanes 1 and 2 (v_{12}), pc/h	2239	Ramp Junction Speed (S), mi/h	66.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	2988	Average Density (D), pc/mi/ln	23.8
Level of Service (LOS)	C		

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HCS7 Freeway Diverge Report

Project Information

Analyst	CP	Date	3/13/2018
Agency	Urban Crossroads, Inc.	Analysis Year	HY 2040 WP
Jurisdiction	Urban Crossroads, Inc.	Time Period Analyzed	PM Peak Hour
Project Description	The Park @ Live Oak Traffic Impact Analysis (JN 11110)		

Geometric Data

	Freeway	Ramp
Number of Lanes (N)	4	1
Free-Flow Speed (FFS), mi/h	75.0	35.0
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	6169	1690
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	12.00	4.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.893	0.962
Flow Rate (v_i), pc/h	7509	1910
Capacity (c), pc/h	9600	2000
Volume-to-Capacity Ratio (v/c)	0.78	0.96

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Density in Ramp Influence Area (D_R), pc/mi/ln	40.4
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.600
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1579
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	55.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	80.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	4351	Ramp Junction Speed (S), mi/h	63.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.6
Level of Service (LOS)	E		

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APPENDIX 7.10:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WITH IMPROVEMENTS

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	127	727	11	163	775	64	55	273	91	129	883	355
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	727	11	163	775	64	55	273	91	129	883	355
Added Vol:	0	0	0	26	0	0	0	29	0	0	17	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	127	727	11	189	775	64	55	302	91	129	900	371
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	127	727	11	189	775	64	55	302	91	129	900	371
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	727	11	189	775	64	55	302	91	129	900	371
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	727	11	189	775	64	55	302	91	129	900	371
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.97	0.03	1.00	2.00	1.00	1.00	1.54	0.46	1.00	1.42	0.58
Final Sat.:	1600	3152	48	1600	3200	1600	1600	2459	741	1600	2266	934
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.23	0.12	0.24	0.04	0.03	0.12	0.12	0.08	0.40	0.40
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.959
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	142	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	272	746	188	32	650	264	150	640	268	222	1223	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	272	746	188	32	650	264	150	640	268	222	1223	15
Added Vol:	0	0	29	0	0	0	0	29	0	17	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	272	746	217	32	650	264	150	669	268	239	1240	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	272	746	217	32	650	264	150	669	268	239	1240	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	746	217	32	650	264	150	669	268	239	1240	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	272	746	217	32	650	264	150	669	268	239	1240	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	3200	3200	1600	1600	3200	1600	1600	3162	38
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.14	0.01	0.20	0.17	0.09	0.21	0.17	0.15	0.39	0.39
Crit Moves:	****				****		****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1 0	2	1	0
Volume Module:												
Base Vol:	5	8	8	441	6	19	30	749	0	10	1771	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	8	8	441	6	19	30	749	0	10	1771	0
Added Vol:	0	0	0	55	0	0	0	58	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	8	8	496	6	19	30	807	0	10	1805	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	8	8	496	6	19	30	807	0	10	1805	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	8	8	496	6	19	30	807	0	10	1805	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	8	8	496	6	19	30	807	0	10	1805	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.38	0.38	1.98	0.02	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	381	610	610	3162	38	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.16	0.16	0.01	0.02	0.17	0.00	0.01	0.56	0.00
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.908
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	3 0 0	2 0	3	0 0
Volume Module:												
Base Vol:	1155	0	330	0	0	0	0	572	0	301	2049	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1155	0	330	0	0	0	0	572	0	301	2049	0
Added Vol:	64	0	2	0	0	0	0	57	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1219	0	332	0	0	0	0	629	0	301	2051	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1219	0	332	0	0	0	0	629	0	301	2051	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1219	0	332	0	0	0	0	629	0	301	2051	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1219	0	332	0	0	0	0	629	0	301	2051	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4800	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.38	0.00	0.21	0.00	0.00	0.00	0.00	0.13	0.00	0.09	0.43	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Driveway / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	31	0	48	0	0	0	0	1057	76	71	1454	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	0	48	0	0	0	0	1057	76	71	1454	0
Added Vol:	0	0	0	0	0	0	0	56	0	0	75	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	0	48	0	0	0	0	1113	76	71	1529	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	0	48	0	0	0	0	1113	76	71	1529	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	0	48	0	0	0	0	1113	76	71	1529	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	0	48	0	0	0	0	1113	76	71	1529	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.81	0.19	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4493	307	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.25	0.25	0.04	0.32	0.00
Crit Moves:			****								****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.520
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	0 1	0	1 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	32	0	33	0	0	0	0	1017	88	93	1493	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	0	33	0	0	0	0	1017	88	93	1493	0
Added Vol:	0	0	0	52	0	30	46	6	0	0	54	78
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	0	33	52	0	30	46	1023	88	93	1547	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	0	33	52	0	30	46	1023	88	93	1547	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	0	33	52	0	30	46	1023	88	93	1547	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	0	33	52	0	30	46	1023	88	93	1547	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	1.00	0.00	1.00	1.00	3.00	1.00	1.00	2.86	0.14
Final Sat.:	3200	0	1600	1600	0	1600	1600	4800	1600	1600	4570	230
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.02	0.03	0.00	0.02	0.03	0.21	0.06	0.06	0.34	0.34
Crit Moves:			****	****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

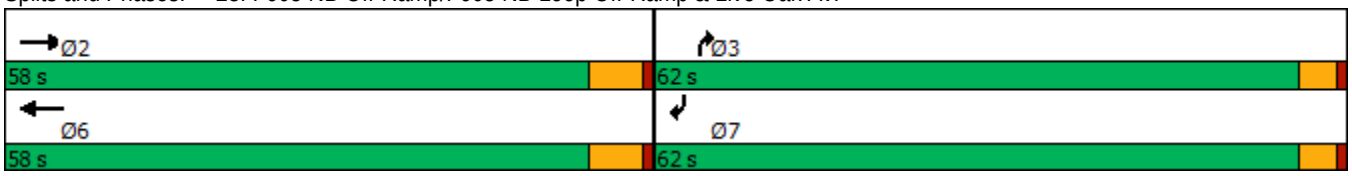
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 1		0 1	2 0 1		0 1	2 0 2		1 0	1 0 3		0 1
Volume Module:												
Base Vol:	0	0	0	233	0	206	355	547	0	0	2155	741
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	233	0	206	355	547	0	0	2155	741
Added Vol:	1	3	101	23	9	0	15	26	1	307	48	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	3	101	256	9	206	370	573	1	307	2203	741
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	3	101	256	9	206	370	573	1	307	2203	741
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	3	101	256	9	206	370	573	1	307	2203	741
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	3	101	256	9	206	370	573	1	307	2203	741
OvlAdjVol:												613
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4792	8	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.06	0.08	0.01	0.13	0.12	0.12	0.12	0.19	0.46	0.46
OvlAdjV/S:												0.38
Crit Moves:			****	****			****			****		

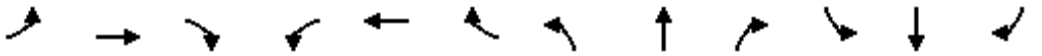
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Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	389	1766	705	1008
Future Volume (vph)	389	1766	705	1008
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	58.0	58.0	62.0	62.0
Total Split (%)	48.3%	48.3%	51.7%	51.7%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	389	0	0	1766	0	0	0	705	0	0	1008
Future Volume (veh/h)	0	389	0	0	1766	0	0	0	705	0	0	1008
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	423	0	0	1920	0	0	0	0	0	0	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	0	3194	0	0	3194	0	0	0		0	0	
Arrive On Green	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	423	0	0	1920	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	0.8	0.0	0.0	6.6	0.0						
Cycle Q Clear(g_c), s	0.0	0.8	0.0	0.0	6.6	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	3194	0	0	3194	0						
V/C Ratio(X)	0.00	0.13	0.00	0.00	0.60	0.00						
Avail Cap(c_a), veh/h	0	3741	0	0	3741	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.4	0.0	0.0	0.7	0.0						
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.2	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.4	0.0	0.0	1.1	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		423			1920							
Approach Delay, s/veh		0.4			1.1							
Approach LOS		A			A							

Timer - Assigned Phs	2	6
Phs Duration (G+Y+Rc), s	50.4	50.4
Change Period (Y+Rc), s	5.8	5.8
Max Green Setting (Gmax), s	52.2	52.2
Max Q Clear Time (g_c+I1), s	2.8	8.6
Green Ext Time (p_c), s	5.6	36.0

Intersection Summary	
HCM 6th Ctrl Delay	1.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 1		0 1	1 0 2		0 1	1 0 2		0 1	1 0 2		0 1
Volume Module:												
Base Vol:	77	173	222	28	465	112	104	828	95	312	1272	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	173	222	28	465	112	104	828	95	312	1272	32
Added Vol:	24	0	0	30	14	26	0	2	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	173	222	58	479	138	104	830	95	312	1326	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	173	222	58	479	138	104	830	95	312	1326	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	173	222	58	479	138	104	830	95	312	1326	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	173	222	58	479	138	104	830	95	312	1326	32
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.11	0.14	0.04	0.15	0.09	0.07	0.26	0.06	0.20	0.41	0.02
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****				****	

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0	2 1	0	1 0 2 1 0
Volume Module:												
Base Vol:	286	127	42	14	39	56	15	903	35	31	1815	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	286	127	42	14	39	56	15	903	35	31	1815	30
Added Vol:	26	0	0	0	0	0	0	16	16	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	312	127	42	14	39	56	15	919	51	31	1843	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	312	127	42	14	39	56	15	919	51	31	1843	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	312	127	42	14	39	56	15	919	51	31	1843	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	312	127	42	14	39	56	15	919	51	31	1843	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	0.26	0.09	1.00	1.00	1.00	1.00	2.84	0.16	1.00	2.95	0.05
Final Sat.:	1038	422	140	1600	1600	1600	1600	4548	252	1600	4723	77
Capacity Analysis Module:												
Vol/Sat:	0.20	0.30	0.30	0.01	0.02	0.04	0.01	0.20	0.20	0.02	0.39	0.39
Crit Moves:	****			****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	397	0	90	154	957	0	0	1465	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	397	0	90	154	957	0	0	1465	0
Added Vol:	0	0	0	36	0	0	0	0	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	433	0	90	154	957	0	0	1467	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	433	0	90	154	957	0	0	1467	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	433	0	90	154	957	0	0	1467	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	433	0	90	154	957	0	0	1467	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.06	0.10	0.20	0.00	0.00	0.46	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.950
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	133	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	739	0	121	0	0	0	0	1262	219	73	2888	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	739	0	121	0	0	0	0	1262	219	73	2888	0
Added Vol:	26	0	0	0	0	0	0	21	16	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	765	0	121	0	0	0	0	1283	235	73	2931	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	765	0	121	0	0	0	0	1283	235	73	2931	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	765	0	121	0	0	0	0	1283	235	73	2931	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	765	0	121	0	0	0	0	1283	235	73	2931	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.54	0.46	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4057	743	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.00	0.08	0.00	0.00	0.00	0.00	0.32	0.32	0.05	0.61	0.00
Crit Moves:	****						****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Myrtle / Longden

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	95	775	54	359	1136	68	93	656	90	24	414	300
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	775	54	359	1136	68	93	656	90	24	414	300
Added Vol:	0	0	0	21	0	0	0	23	0	0	30	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	775	54	380	1136	68	93	679	90	24	444	325
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	775	54	380	1136	68	93	679	90	24	444	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	775	54	380	1136	68	93	679	90	24	444	325
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	775	54	380	1136	68	93	679	90	24	444	325
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.87	0.13	1.00	2.00	1.00	1.00	1.77	0.23	1.00	1.15	0.85
Final Sat.:	1600	2992	208	1600	3200	1600	1600	2825	375	1600	1848	1352
Capacity Analysis Module:												
Vol/Sat:	0.06	0.26	0.26	0.24	0.36	0.04	0.06	0.24	0.24	0.02	0.24	0.24
Crit Moves:		****			****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Myrtle/Peck / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.979
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	166	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0	1	2	0	2	0	1	1	0	2	0	1	
Volume Module:																
Base Vol:	213	784	201		284	753	164		124	1323	214		115	678	14	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	213	784	201		284	753	164		124	1323	214		115	678	14	
Added Vol:	0	0	23		0	0	0		0	22	0		30	27	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	213	784	224		284	753	164		124	1345	214		145	705	14	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	213	784	224		284	753	164		124	1345	214		145	705	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	213	784	224		284	753	164		124	1345	214		145	705	14	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	213	784	224		284	753	164		124	1345	214		145	705	14	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		2.00	2.00	1.00		1.00	2.00	1.00		1.00	1.96	0.04	
Final Sat.:	1600	3200	1600		3200	3200	1600		1600	3200	1600		1600	3138	62	
Capacity Analysis Module:																
Vol/Sat:	0.13	0.25	0.14		0.09	0.24	0.10		0.08	0.42	0.13		0.09	0.22	0.22	
Crit Moves:	****					****				****				****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Longden / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	1 0	0	1	1	0	2	1 0
Volume Module:												
Base Vol:	0	0	0	1076	0	8	16	1852	0	2	897	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1076	0	8	16	1852	0	2	897	0
Added Vol:	0	0	0	45	0	0	0	46	0	0	57	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1121	0	8	16	1898	0	2	954	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1121	0	8	16	1898	0	2	954	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1121	0	8	16	1898	0	2	954	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1121	0	8	16	1898	0	2	954	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	1.00	2.00	0.00
Final Sat.:	0	1600	0	3200	0	1600	1600	4800	0	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.35	0.00	0.01	0.01	0.40	0.00	0.00	0.30	0.00
Crit Moves:				****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Live Oak / Arrow (West)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.841
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	3	0 0	2 0	3	0 0
Volume Module:												
Base Vol:	958	0	409	0	0	0	0	855	0	713	920	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	958	0	409	0	0	0	0	855	0	713	920	0
Added Vol:	101	0	11	0	0	0	0	45	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1059	0	420	0	0	0	0	900	0	713	932	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1059	0	420	0	0	0	0	900	0	713	932	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1059	0	420	0	0	0	0	900	0	713	932	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1059	0	420	0	0	0	0	900	0	713	932	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4800	0	3200	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.33	0.00	0.26	0.00	0.00	0.00	0.00	0.19	0.00	0.22	0.19	0.00
Crit Moves:	****							****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Driveway / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	112	0	174	0	0	0	0	2782	115	119	1255	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	0	174	0	0	0	0	2782	115	119	1255	0
Added Vol:	0	0	0	0	0	0	0	45	0	0	100	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	174	0	0	0	0	2827	115	119	1355	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	112	0	174	0	0	0	0	2827	115	119	1355	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	174	0	0	0	0	2827	115	119	1355	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	0	174	0	0	0	0	2827	115	119	1355	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.88	0.12	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4612	188	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.11	0.00	0.00	0.00	0.00	0.61	0.61	0.07	0.28	0.00
Crit Moves:			****					****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Dwy 7 / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.991
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	0 1	0	1 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	203	0	249	0	0	0	0	2732	223	177	1260	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	203	0	249	0	0	0	0	2732	223	177	1260	0
Added Vol:	0	0	0	67	0	39	39	4	0	0	56	66
PasserByVol:	0	0	0	32	0	19	32	-32	0	0	-19	19
Initial Fut:	203	0	249	99	0	58	71	2704	223	177	1297	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	203	0	249	99	0	58	71	2704	223	177	1297	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	0	249	99	0	58	71	2704	223	177	1297	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	203	0	249	99	0	58	71	2704	223	177	1297	85
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	1.00	0.00	1.00	1.00	3.00	1.00	1.00	2.82	0.18
Final Sat.:	3200	0	1600	1600	0	1600	1600	4800	1600	1600	4505	295
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.16	0.06	0.00	0.04	0.04	0.56	0.14	0.11	0.29	0.29
Crit Moves:			****	****				****		****		

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Avenida Barbosa/Dwy A / Arrow

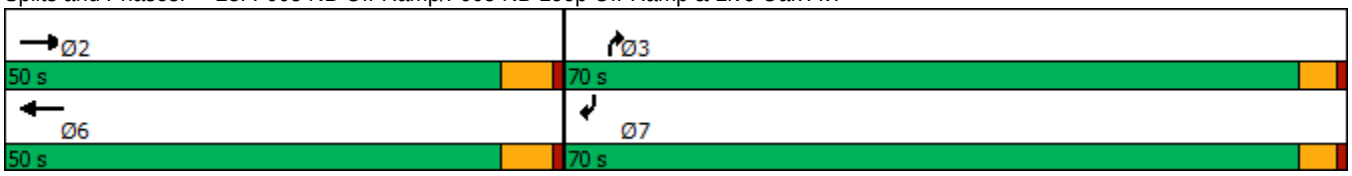
Cycle (sec):	100	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

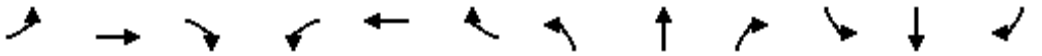
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	2 0	1 0	1	2 0	2 1	0	1 0	3 0	1
Volume Module:												
Base Vol:	0	0	0	741	0	475	266	997	0	0	1157	268
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	741	0	475	266	997	0	0	1157	268
Added Vol:	6	16	269	19	6	0	20	102	0	225	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	16	269	760	6	475	286	1099	0	225	1178	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	16	269	760	6	475	286	1099	0	225	1178	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	16	269	760	6	475	286	1099	0	225	1178	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	16	269	760	6	475	286	1099	0	225	1178	268
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	0.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	0	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.17	0.24	0.00	0.30	0.09	0.23	0.00	0.14	0.25	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

Lane Group	EBT	WBT	NBR	SBR
Lane Configurations				
Traffic Volume (vph)	1400	1337	748	1037
Future Volume (vph)	1400	1337	748	1037
Turn Type	NA	NA	Prot	Prot
Protected Phases	2	6	3	7
Permitted Phases				
Detector Phase	2	6	3	7
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	22.8	22.8	9.5	9.5
Total Split (s)	50.0	50.0	70.0	70.0
Total Split (%)	41.7%	41.7%	58.3%	58.3%
Yellow Time (s)	4.8	4.8	3.5	3.5
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)	5.8	5.8	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: I-605 NB Off-Ramp/I-605 NB Loop Off-Ramp & Live Oak Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↱			↱
Traffic Volume (veh/h)	0	1400	0	0	1337	0	0	0	748	0	0	1037
Future Volume (veh/h)	0	1400	0	0	1337	0	0	0	748	0	0	1037
Initial Q (Qb), 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	0	0	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	1443	0	0	1378	0	0	0	0	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	3033	0	0	3033	0	0	0		0	0	
Arrive On Green	0.00	0.84	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	0	0	3800	0		0			0	
Grp Volume(v), veh/h	0	1443	0	0	1378	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	0	0	1805	0						
Q Serve(g_s), s	0.0	3.9	0.0	0.0	3.6	0.0						
Cycle Q Clear(g_c), s	0.0	3.9	0.0	0.0	3.6	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	3033	0	0	3033	0						
V/C Ratio(X)	0.00	0.48	0.00	0.00	0.45	0.00						
Avail Cap(c_a), veh/h	0	4399	0	0	4399	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.8	0.0	0.0	0.7	0.0						
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	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	0.0	0.1	0.0	0.0	0.1	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.0	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		1443			1378							
Approach Delay, s/veh		1.0			1.0							
Approach LOS		A			A							

Timer - Assigned Phs	2	6
Phs Duration (G+Y+Rc), s	36.3	36.3
Change Period (Y+Rc), s	5.8	5.8
Max Green Setting (Gmax), s	44.2	44.2
Max Q Clear Time (g_c+I1), s	5.9	5.6
Green Ext Time (p_c), s	24.6	23.4

Intersection Summary	
HCM 6th Ctrl Delay	1.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Rivergrade / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	1.053
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:		Ovl				Include				Include				Include		
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0 1	0	1	1	0 2	0	1	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	197	291	562		29	112	78		45	1779	37		137	910	21	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	197	291	562		29	112	78		45	1779	37		137	910	21	
Added Vol:	20	0	0		39	26	42		0	12	0		0	43	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	217	291	562		68	138	120		45	1791	37		137	953	21	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	217	291	562		68	138	120		45	1791	37		137	953	21	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	217	291	562		68	138	120		45	1791	37		137	953	21	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	217	291	562		68	138	120		45	1791	37		137	953	21	
OvlAdjVol:			425													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	1600	1600		1600	3200	1600		1600	3200	1600		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.18	0.35		0.04	0.04	0.08		0.03	0.56	0.02		0.09	0.30	0.01	
OvlAdjV/S:			0.27													
Crit Moves:			****	****						****			****			

The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Stewart / Live Oak

Cycle (sec):	100	Critical Vol./Cap.(X):	0.775
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1	0 1	1	0	2 1	0	1 0 2 1 0
Volume Module:												
Base Vol:	71	30	12	40	128	8	43	2034	358	46	889	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	30	12	40	128	8	43	2034	358	46	889	11
Added Vol:	21	0	0	0	0	0	0	27	25	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	30	12	40	128	8	43	2061	383	46	911	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	30	12	40	128	8	43	2061	383	46	911	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	30	12	40	128	8	43	2061	383	46	911	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	30	12	40	128	8	43	2061	383	46	911	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.69	0.22	0.09	1.00	1.00	1.00	1.00	2.53	0.47	1.00	2.96	0.04
Final Sat.:	1099	358	143	1600	1600	1600	1600	4048	752	1600	4743	57
Capacity Analysis Module:												
Vol/Sat:	0.06	0.08	0.08	0.03	0.08	0.01	0.03	0.51	0.51	0.03	0.19	0.19
Crit Moves:	****				****			****			****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #29 Arrow / Live Oak (East)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1277	0	168	66	1602	0	0	1067	0
Added Vol:	0	0	0	76	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1353	0	168	66	1604	0	0	1068	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1353	0	168	66	1604	0	0	1068	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1353	0	168	66	1604	0	0	1068	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1353	0	168	66	1604	0	0	1068	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	1600	4800	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.42	0.00	0.11	0.04	0.33	0.00	0.00	0.33	0.00
Crit Moves:				****			****				****	

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The Park @ Live Oak (JN 11110)
Horizon Year (2040) With Project Conditions WITH IMPROVEMENTS
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #30 Maine / Arrow

Cycle (sec):	100	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	310	0	74	0	0	0	0	2231	658	90	1385	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	310	0	74	0	0	0	0	2231	658	90	1385	0
Added Vol:	21	0	0	0	0	0	0	53	25	0	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	331	0	74	0	0	0	0	2284	683	90	1417	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	331	0	74	0	0	0	0	2284	683	90	1417	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	331	0	74	0	0	0	0	2284	683	90	1417	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	331	0	74	0	0	0	0	2284	683	90	1417	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.31	0.69	1.00	3.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3695	1105	1600	4800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.62	0.62	0.06	0.30	0.00
Crit Moves:	****							****				

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