

CENTER STREET
DEVELOPMENT
TRAFFIC IMPACT ANALYSIS

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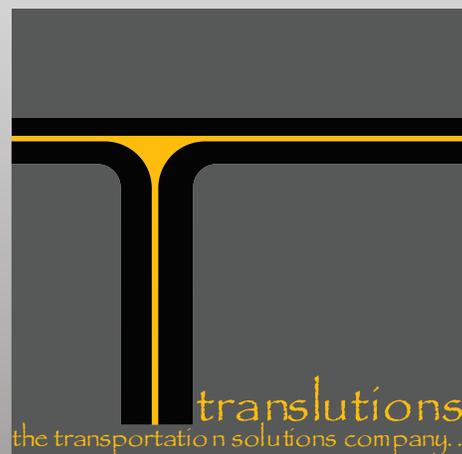
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TABLE OF CONTENTS

1.0 INTRODUCTION2
1.1 Purpose of the Traffic Study and Study Objectives2
1.2 Project Location & Study Area.....2
1.3 Analysis Scenarios2
2.0 PROJECT DESCRIPTION5
2.1 Project Trip Generation.....5
2.2 Project Trip Distribution & Assignment7
3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS.....7
3.1 Levels of Service7
3.2 Levels of Service Thresholds.....13
4.0 VOLUME DEVELOPMENT METHODOLOGY13
4.1 Existing Traffic Volumes13
4.2 Opening Year (2018) Traffic Volumes.....13
4.3 Existing and Opening Year (2018) With Project Traffic Volumes.....13
5.0 EXISTING CONDITIONS.....13
5.1 Existing Roadway Conditions13
5.2 Existing Transit Service.....15
5.3 Existing Pedestrian & Bicycle Facilities15
5.4 Existing Intersections Levels of Service15
5.5 Existing Plus Project Intersections Levels of Service.....15
6.0 OPENING YEAR (2018) CONDITIONS22
6.1 Opening Year (2018) Roadway Conditions.....22
6.2 Opening Year (2018) Transit Service.....22
6.3 Opening Year (2018) Pedestrian & Bicycle Facilities.....22
6.4 Opening Year (2018) Intersections Levels of Service.....22
6.5 Opening Year (2018) With Project Intersections Levels of Service.....22
7.0 CIRCULATION IMPROVEMENTS22
7.1 Existing and Opening Year (2018) With Project Circulation Improvements.....22
8.0 IMPACT ANALYSIS FOR CEQA DETERMINATION26
9.0 SUMMARY & CONCLUSIONS.....30

APPENDICES

Appendix A1: Alternative Site Plan

Appendix A2: Traffic Counts

Appendix B: Detailed Volume Development Worksheets

Appendix C: Level of Service Worksheets
 Appendix D: Peak Hour Signal Warrant Analysis
 Appendix E: Project Fair-Share Calculation

FIGURES AND TABLES

FIGURES

Figure 1: Regional Project Location2
 Figure 2: Site Plan.....3
 Figure 3: Study Area Intersections4
 Figure 4: Project Trip Distribution - Cars8
 Figure 5: Project Trip Assignment – Cars9
 Figure 6: Project Trip Distribution – Trucks10
 Figure 7: Project Trip Assignment – Trucks (PCEs).....11
 Figure 8: Project Trip Assignment – Total Trips (PCEs).....12
 Figure 9: City of Colton's Bicycle Plan16
 Figure 10: Existing Bicycle Facilities and Sidewalks17
 Figure 11: Intersection Lane Geometrics and Stop Control18
 Figure 12: Existing Peak Hour Traffic Volumes.....19
 Figure 13: Existing Plus Project Peak Hour Traffic Volumes.....21
 Figure 14: Opening Year (2018) Peak Hour Traffic Volumes.....23
 Figure 15: Opening Year (2018) With Project Peak Hour Traffic Volumes25
 Figure 16: Existing/Opening Year (2018) With Project With Improvements Intersection Lane Geometrics and Stop Control ...29

TABLES

Table A: Project Trip Generation.....6
 Table B: Level Of Service Criteria7
 Table C: Cumulative Projects Trip Generation.....14
 Table D: Existing Intersection Levels of Service20
 Table E: Opening Year (2018) Intersection Levels of Service.....24
 Table F: Existing With Project With Improvements Levels of Service27
 Table G: Opening Year (2018) With Project With Improvements Levels of Service.....28

1.0 INTRODUCTION

This report presents the methodology, findings and conclusions of the traffic impact analysis (TIA) prepared for the proposed Center Street development project. The proposed project will be located on the northeast corner of Placentia Lane/Center Street in the City of Colton (City). The project proposes the construction of approximately 236,512 square feet of high-cube warehousing uses on 11.36 acres.

1.1 Purpose of the Traffic Study and Study Objectives

This report is intended to satisfy the requirements for a TIA established by the San Bernardino County Congestion Management Program (CMP), adopted November 3, 1993, and last revised in 2016, as well as the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA). The San Bernardino County CMP is implemented by the San Bernardino County Transportation Authority (SBCTA). The CMP requires analysis of off-site intersections potentially affected by the project, which the CMP defines as intersections at which the project is forecast to add 50 or more peak hour trips. It should be noted that the project adds less than 50 trips to off-site intersections and is exempt from CMP requirements, however, the analysis scenarios and study area intersections are based on discussion with City staff. This report evaluates four intersections under four analysis scenarios, and proposes circulation improvements for intersections that operate or are forecast to operate at unsatisfactory levels of service.

1.2 Project Location & Study Area

As stated earlier, the project is located on the northeast corner of Placentia Lane/Center Street in the City of Colton in San Bernardino County. The project proposes the construction of an approximately 236,512 square foot high-cube warehouse building. Figure 1 shows the regional location of the project. The project is planned to open in 2018. Figure 2 illustrates the site plan of the proposed project. It should be noted that an additional alternative is being considered wherein a future connection to the across the channel could be built. Under this alternative, the trip generation and distribution would remain the same as the area of the building is the same, and the warehouse would be single loaded instead of double loaded. The alternative site plan is included in Appendix A1.

Based on discussion with City staff, this report analyzes the following four intersections for traffic operations:

1. Riverside Avenue/Placentia Lane;
2. Placentia Lane-Driveway 1/Center Street;
3. Driveway 2/Center Street; and
4. Orange Street/Center Street.

Figure 3 illustrates intersections included in the TIA.

1.3 Analysis Scenarios

Based on discussion with City staff, this report analyzes traffic conditions for the following four scenarios:

1. Existing Conditions;
2. Existing Plus Project Conditions;
3. Opening Year (2018) Conditions; and
4. Opening Year (2018) With Project Conditions.



FIGURE 1

Legend

-  Project Boundary

Center Street Development
Regional Project Location





FIGURE 3

Legend

- Study Area Intersections
- ▭ Project Boundary

Center Street Development
Study Area Intersections

Consistent with the CMP, this report analyzes weekday a.m. and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 a.m. and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m.

2.0 PROJECT DESCRIPTION

The project site is currently an undeveloped lot consisting of 11.36 acres. As shown in previously referenced Figure 2 – Site Plan, the majority of the site is planned to accommodate 236,512 square feet of high-cube warehousing with approximately 192 standard parking stalls and 50 trailer stalls. High-Cube warehouses are modern warehousing buildings that are generally greater than 200,000 square feet in floor area, with a minimum ceiling height of 24 feet, more than one dock door per 10,000 square feet of floor area, used primarily for the distribution of goods, low employee count, and high levels of automation/mechanization. Access to the project site will be provided via two project driveways. Project Driveway 1 includes the addition of the north leg approach/departure at the existing intersection of Placentia Lane/Center Street. Project Driveway 2 will be located to the east of Project Driveway 1 and includes full-access ingress/egress movements.

2.1 Project Trip Generation

Trip generation for the project is based on trip generation rates from the Institute of Transportation Engineers' (ITE) *Trip Generation* (9th Edition) and are based on Land Use 152 - "High-Cube Warehouse". Typically, in the Inland Empire, traffic generated by warehousing projects is further classified into automobile and truck traffic using trip generation rates included in the Fontana Truck Study (2003) or the National Association of Industrial and Office Properties (NAIOP) study (2005). These studies show that approximately 20.43% of the total traffic is truck traffic and the remaining is passenger car traffic.

Subsequent to these studies, the South Coast Air Quality Management District (AQMD) has submitted comments to several projects involving high-cube warehouses in the area, contending that the trip generation is likely to be higher than those obtained from the ITE Trip Generation Manual. The AQMD had also commissioned a trip generation study to identify trip generation rates for high-cube uses. Although the AQMD survey showed that the trips were similar to those identified in the ITE Trip Generation Manual, the AQMD has made an interim recommendation that for high-cube warehousing uses, the ITE trip generation rates be used for total vehicles, and truck traffic be forecast based on the AQMD surveys. The truck splits from the AQMD truck study result in a higher truck percentage. Based on the AQMD survey, of the total trip generation, approximately 38.1% are trucks and the remaining 61.9% is automobile traffic. Based on the above recommendations, the trip generation for high-cube warehouses have been converted to trucks and passenger cars based on the vehicle splits recommended by the AQMD. Further, SBCTA requires that trucks be classified based on axle-type. Typically, the Fontana Truck Study is used to develop these forecasts. The Fontana Truck Study shows that approximately 17% of the truck traffic is comprised of 2-axle trucks, 23% of 3-axle trucks, and the remaining 60% of 4+-axle trucks. The truck trips were converted to axle type based on the above truck splits. Table A shows the project trip generation.

As shown in Table A, the project is expected to generate 27 trips in the a.m. peak hour, 30 trips in the p.m. peak hour, and 415 daily trips. Truck trips were converted to Passenger Car Equivalents (PCEs) using the SBCTA recommended conversion rates of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+ axle trucks. Previously referenced Table A also shows the summary PCE trip generation for the project. As shown in Table A, the project will generate 44 PCE trips during the a.m. peak hour, 46 PCE trips during the p.m. peak hour, and 655 daily PCE trips.

Table A - Project Trip Generation

Land Use	Units ¹	Peak Hour						Daily	
		AM Peak Hour			PM Peak Hour				
		In	Out	Total	In	Out	Total		
High-Cube Warehouse ²	247	TSF							
Trip Generation Rates ³			0.076	0.034	0.110	0.037	0.083	0.120	1.680
PCE Inbound/Outbound Splits			69%	31%	100%	31%	69%	100%	50%/50%
Passenger Car Equivalent Rates Calculations - Rates									
Passenger Cars									
Recommended Mix (%) ⁴			61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor ⁵			1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates			0.047	0.021	0.068	0.023	0.051	0.074	1.040
2-Axle Trucks									
Recommended Mix (%) ⁴			6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor ⁵			1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates			0.007	0.003	0.011	0.004	0.008	0.012	0.163
3-Axle Trucks									
Recommended Mix (%) ⁴			8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor ⁵			2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates			0.013	0.006	0.019	0.006	0.014	0.021	0.291
4-Axle Trucks									
Recommended Mix (%) ⁴			22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor ⁵			3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates			0.052	0.024	0.076	0.026	0.057	0.083	1.159
Total Trips									
Passenger Cars			12	5	17	5	13	18	257
2-Axle Trucks			1	1	2	1	1	2	27
3-Axle Trucks			1	1	2	1	2	3	36
4-Axle+ Trucks			4	2	6	2	5	7	95
Total Vehicle Trips			18	9	27	9	21	30	415
Final Rates (In Passenger Car Equivalents)									
Passenger Cars			0.047	0.021	0.068	0.023	0.051	0.074	1.040
2-Axle Trucks			0.007	0.003	0.011	0.004	0.008	0.012	0.163
3-Axle Trucks			0.013	0.006	0.019	0.006	0.014	0.021	0.291
4-Axle+ Trucks			0.052	0.024	0.076	0.026	0.057	0.083	1.159
Total PCE Rate			0.120	0.054	0.174	0.059	0.131	0.189	2.652
Total PCE Trips									
Passenger Cars			12	5	17	5	13	18	257
Truck PCE									
2-Axle Trucks			2	1	3	1	2	3	40
3-Axle Trucks			4	1	5	1	4	5	72
4-Axle+ Trucks			13	6	19	6	14	20	286
Truck PCE			19	8	27	8	20	28	398
Total PCE			31	13	44	13	33	46	655

¹ TSF = Thousand Square Feet

² To provide flexibility as the project is finalized, this analysis is based on 247 Thousand Square Feet.

³ Rates based on Land Use 152 - "High-Cube Warehouse" from Institute of Transportation Engineers (ITE) *Trip Generation*, (9th Ed.)

⁴ Recommended Truck Percentage from SCAQMD, Truck Mix Percentages per City of Fontana Truck Trip Generation Study for Heavy Warehouse uses, August 2003

⁵ Recommended PCE Factor per San Bernardino County CMP

2.2 Project Trip Distribution & Assignment

Trip distribution patterns for project trips were developed separately for autos and trucks based on location of local and regional destinations. The project trip generation was applied to the trip distribution patterns for the proposed project to develop trip assignments for new project trips. Figure 4 shows the trip distribution for project car trips, and Figure 5 shows the car trip assignment. Figure 6 shows the trip distribution of truck trips and Figure 7 shows the assignment of truck trips in Passenger Car Equivalents (PCEs). Figure 8 shows the total project trip assignment (in PCEs) at the study intersections.

3.0 LOS DEFINITIONS, PROCEDURES, AND THRESHOLDS

Level of service (LOS) is a measure of the quality of operational conditions within a traffic stream, and is generally expressed in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels range from A to F, with LOS A representing excellent (free-flow) conditions and LOS F representing extreme congestion. Consistent to the guidelines, the Highway Capacity Manual (HCM) procedures have been used to evaluate levels of service. This section discusses the LOS definitions, procedures, and thresholds used in this report.

3.1 Levels of Service

The analysis of traffic operations at intersections was conducted according to the Highway Capacity Manual 6th Edition (HCM) delay methodologies, which is described in the Highway Capacity Manual (Transportation Research Board, Washington, D.C., November 2016). Under the HCM methodology, LOS for signalized intersections is based on the average delay experienced by vehicles traveling through an intersection, whereas for un-signalized intersections, the LOS is based on the worst approach where the minor leg has a shared lane and on the worst movement where the minor leg has dedicated turn lanes. Table B presents a brief description of each level of service letter grade, as well as the range of delays associated with each grade.

Table B: Level Of Service Criteria

LOS	Description of Drivers' Perception and Traffic Operation	Delay in Seconds	
		Un-signalized	Signalized
A	This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	> 10 and ≤ 15	> 10 and ≤ 20
C	This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 15 and ≤ 25	> 20 and ≤ 35
D	This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 50	> 80

Source: *Highway Capacity Manual, 6th Edition*

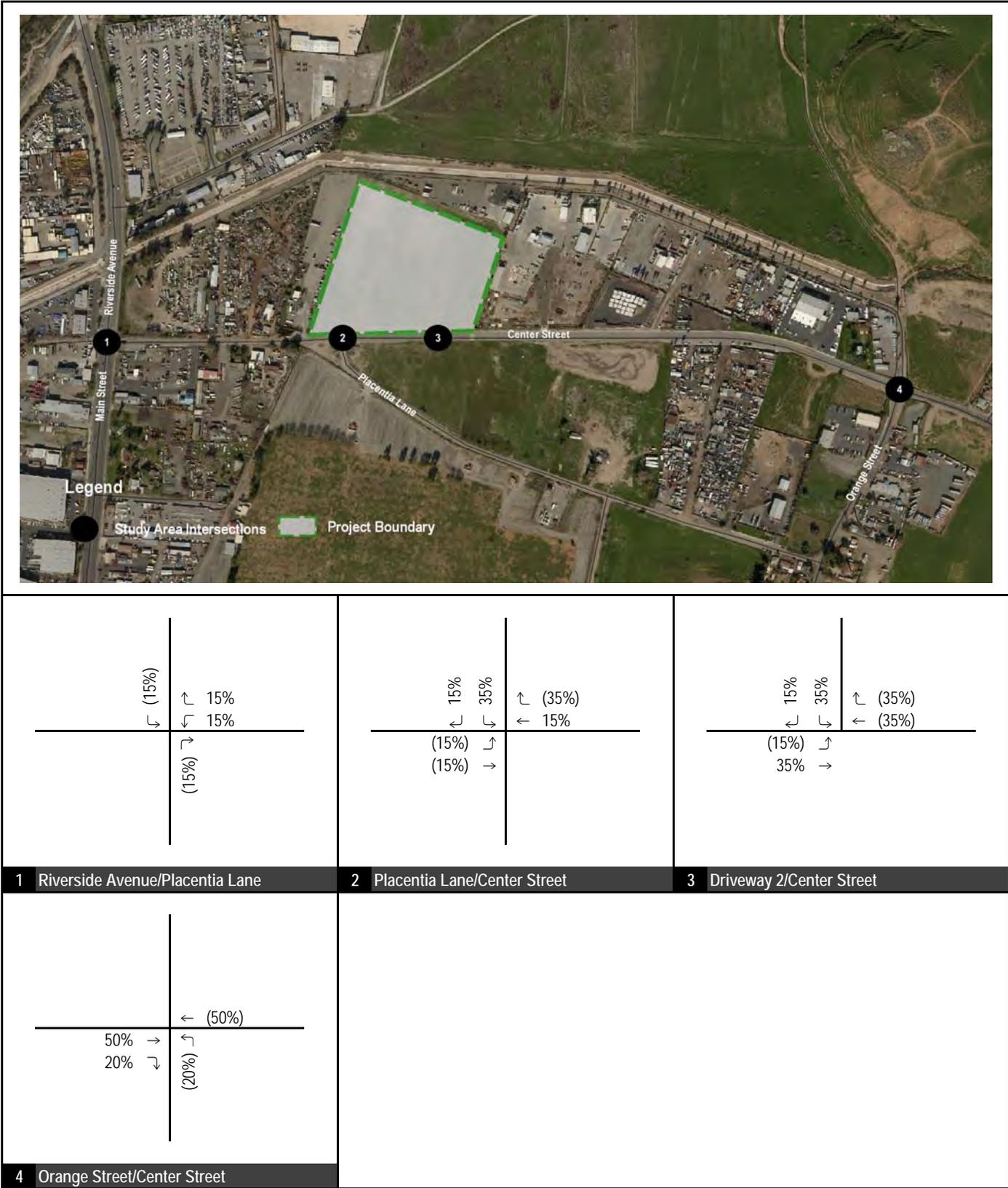


FIGURE 4

(XXX%)YYY% (Inbound%)Outbound% Percent



Center Street Development
 Project Trip Distribution - Cars

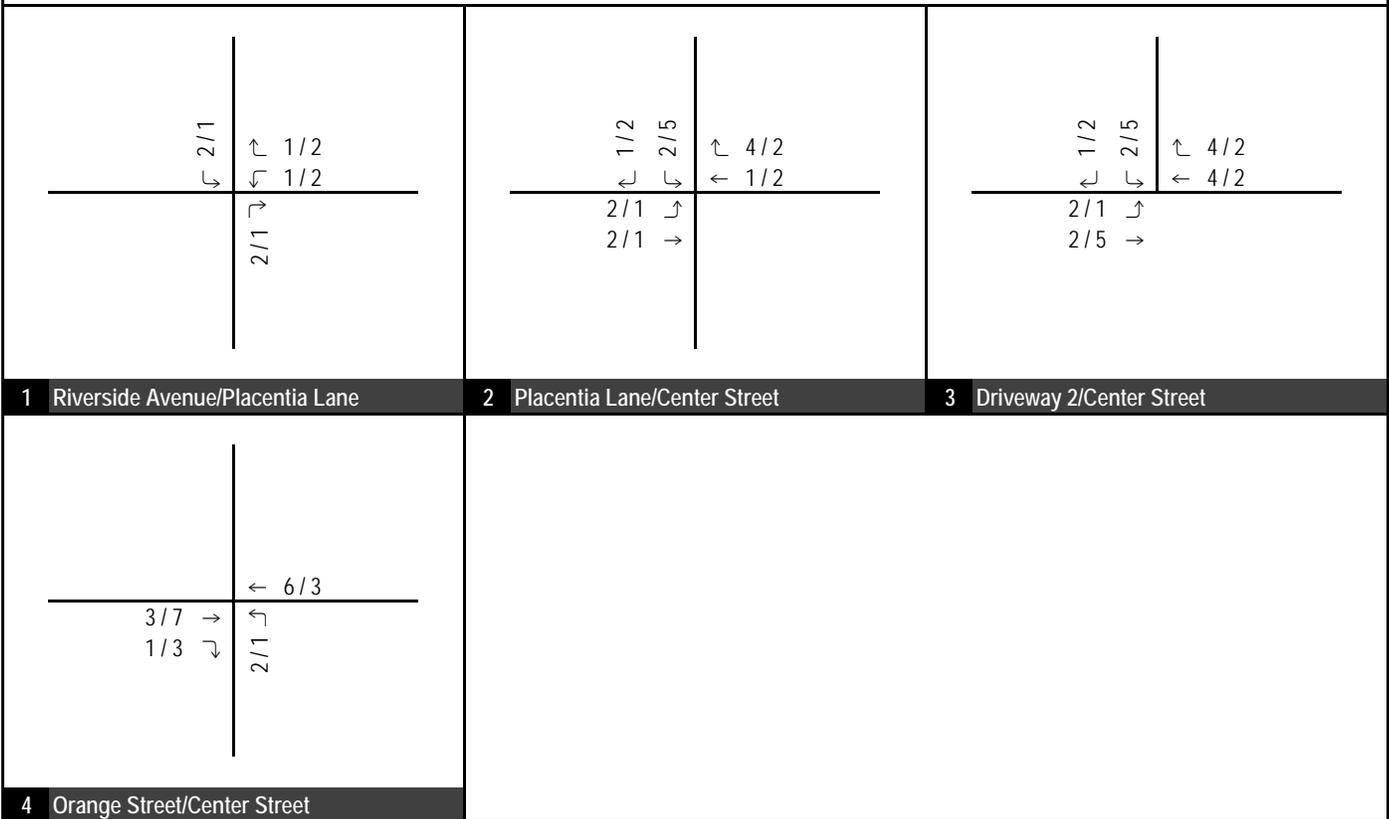


FIGURE 5

XXX / YYY AM / PM Volumes



Center Street Development
Project Trip Assignment - Cars

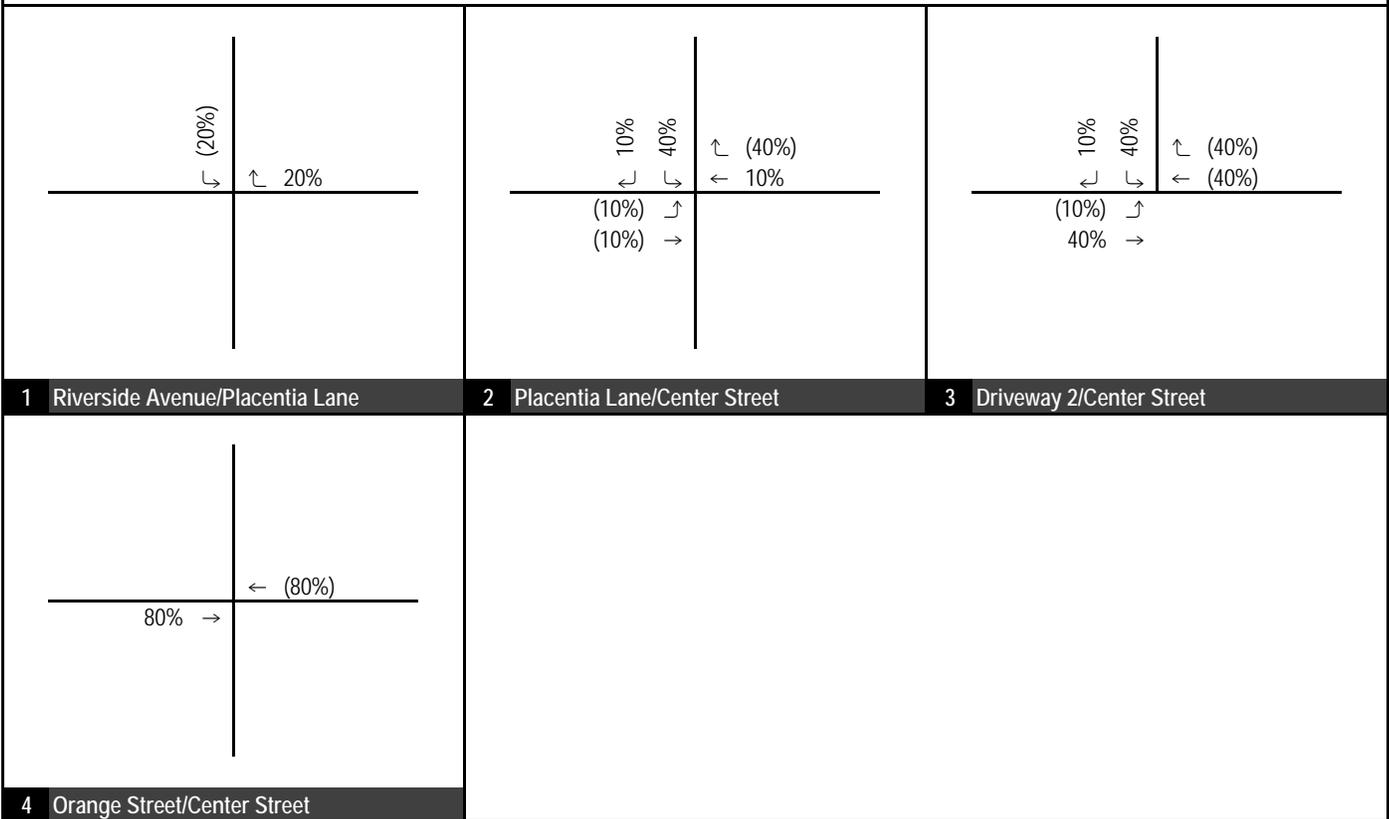


FIGURE 6

(XXX%)YYY% (Inbound%)Outbound% Percent



Center Street Development
Project Trip Distribution - Trucks

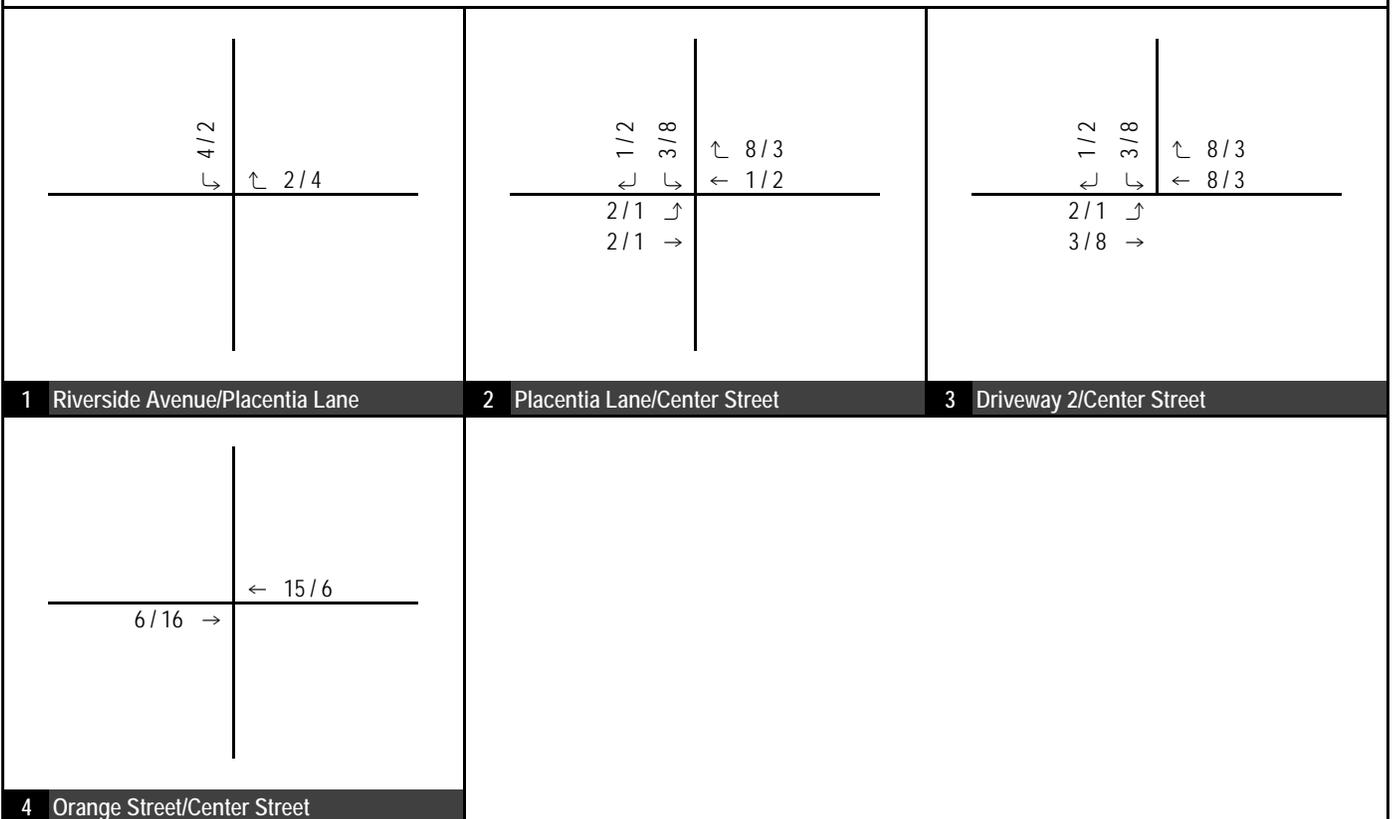


FIGURE 7

XXX / YYY AM / PM Volumes



Center Street Development
Project Trip Assignment - Trucks (PCEs)

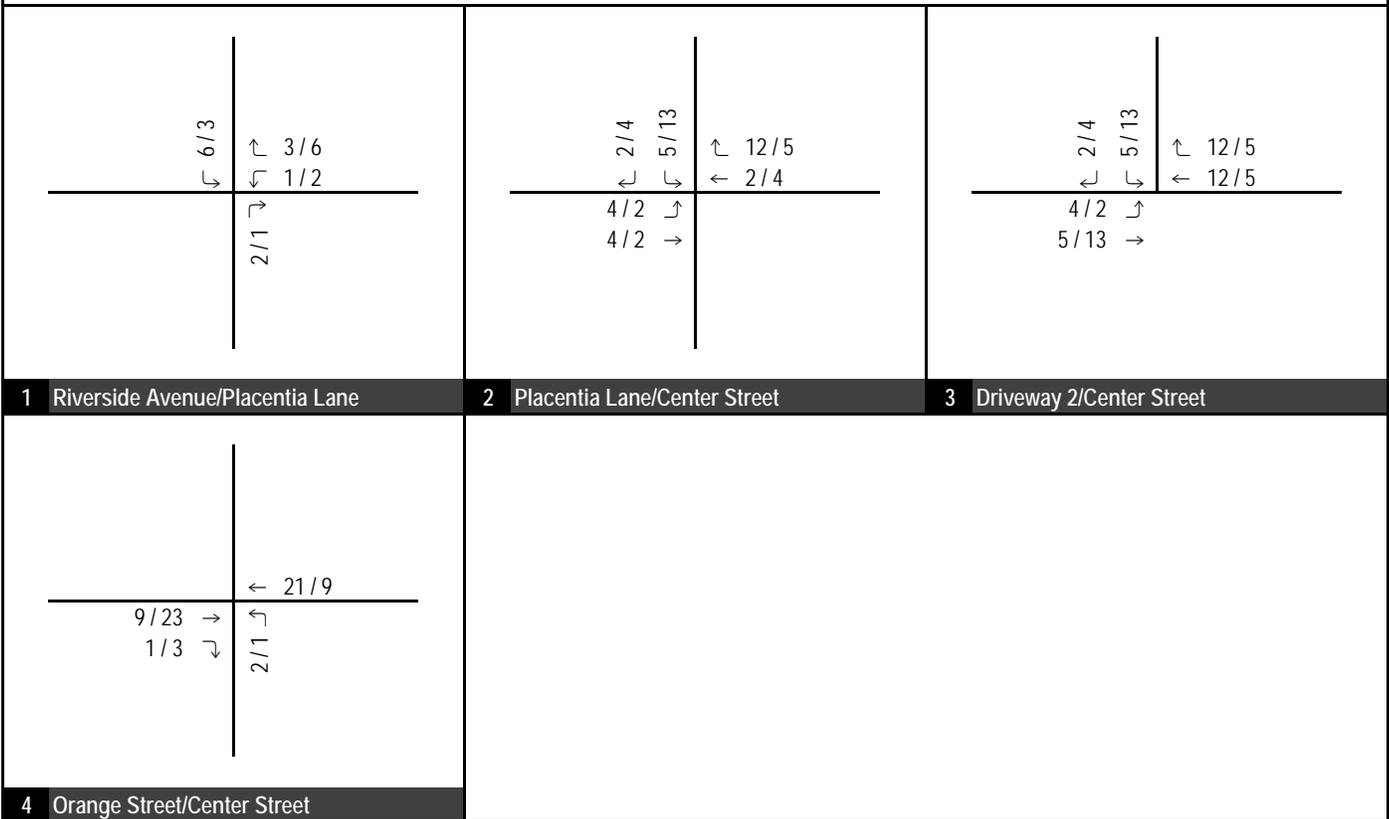


FIGURE 8

XXX / YYY AM / PM Volumes



Center Street Development
Project Trip Assignment - Total Trips (PCE)

3.2 Levels of Service Thresholds

The intersections of Riverside Avenue/Placentia Lane, Placentia Lane-Driveway 1/Center Street, and Driveway 2/Center Street are under the jurisdiction of the City of Colton, which uses LOS D as the minimum level of service standard for intersection operations. Study intersections operating at LOS E, or F are required to be mitigated to LOS D or better. The intersection of Orange Street/Center Street is under the jurisdiction of the City of Riverside, which uses LOS D as the minimum level of service standard for roadways of Collector or higher classification. Therefore, Study intersections operating at LOS E, or F are required to be mitigated to LOS D or better.

4.0 VOLUME DEVELOPMENT METHODOLOGY

Forecast traffic volumes at study intersections were developed based on discussion with City staff and consistent with CMP guidelines.

4.1 Existing Traffic Volumes

Existing traffic volumes are based on peak hour intersection turn movement counts collected by Counts Unlimited Inc. in July 2017. Vehicle classification counts (e.g., passenger vehicle, 2-axle truck, 3-axle truck, and 4 or more axle truck), were conducted at the intersections of Riverside Avenue/Placentia Lane, Placentia Lane/Center Street, and Orange Street/Center Street. Consistent to the CMP guidelines, PCE volumes at these intersections were computed using a PCE factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with 4 or more axles. Count sheets are contained in Appendix A2. Detailed volume development worksheets are included in Appendix B.

4.2 Opening Year (2018) Traffic Volumes

Opening year (2018) peak hour traffic volumes were developed by applying an annual growth rate of 2 percent per year (2017 to 2018) to the existing volumes and adding cumulative project trips at each study intersection. Table C lists the cumulative projects included in the analysis. As shown in Table C, the cumulative projects are anticipated to generate 2,057 a.m. peak hour trips, 2,312 p.m. peak hour trips, and 23,535 daily trips. Detailed volume development worksheets are included in Appendix B.

4.3 Existing and Opening Year (2018) With Project Traffic Volumes

Traffic volumes for existing and opening year (2018) with project conditions were developed by adding the trip assignment to the corresponding (i.e. existing and opening year) without project peak hour traffic volumes.

5.0 EXISTING CONDITIONS

This section discusses the existing transportation conditions in the study area.

5.1 Existing Roadway Conditions

Regional access to the project site is provided by Interstate 215 to the east and State Route 60 to the south. Local access to the project will be provided by the following roadways:

- **Riverside Avenue** is oriented in the north-south direction and is classified as a 4-lane Major Arterial. The posted speed limit is 50 miles per hour adjacent to the project area.
- **Main Street** is oriented in the north-south direction and is classified as a 4-lane Arterial. The posted speed limit is 50 miles per hour adjacent to the project area.
- **Center Street** is oriented in the east-west direction and is classified as a 2-lane Arterial. The posted speed limit is 25 miles per hour adjacent to the project area.
- **Orange Street** is oriented in the north-south direction and is classified as a 2-lane Collector. The posted speed limit is 35 miles per hour adjacent to the project area.

Table C - Cumulative Projects Trip Generation

Project	Land Use	Location	Units ¹	Peak Hour						Daily	
				AM Peak Hour			PM Peak Hour				
				In	Out	Total	In	Out	Total		
1	Roquet Ranch Specific Plan Trip Generation ¹	West of La Cadena Drive and north of Pellissier Road, Colton CA.	-	-	238	581	819	617	374	991	10,021
2	Warehouse Passenger Cars Truck PCE Total PCE ²	Northeast corner of Riverside Avenue/Miguel Bustamante Parkway, Colton CA.	-	-	85	32	117	43	85	128	1,800
					54	21	75	18	56	74	1,164
					139	53	192	61	141	202	2,964
3	Wildrose Village ³ Trip Generation	South of San Bernardino Ave, east of Wildrose Ave, and west of Eucalyptus Ave, Colton CA.	-	-	16	48	64	53	32	85	830
4	Single-Family Residential Trip Generation Rates ⁴ Trip Generation	300 Lilton Ave., Colton CA.	89	DU	0.188	0.563	0.750	0.630	0.370	1.000	9,520
					17	50	67	56	33	89	847
5	Retail Trip Generation ⁵	Southeast corner of Michigan Ave/Barton Rd., Grand Terrace CA.	-	-	83	68	151	107	115	222	2,160
6	Single-Family Residential Trip Generation Rates ⁴ Trip Generation	22394 and 22040 Van Buren St., Grand Terrace CA.	17	DU	0.188	0.563	0.750	0.630	0.370	1.000	9,520
					3	10	13	11	6	17	162
7	Medical Office/Outpatient Center Trip Generation Rates ⁶ Trip Generation Coffee Shop without Drive-Thru Trip Generation Rates ⁷ Trip Generation Total Project Trip Generation	22805 Barton Rd. Grand Terrace CA.	2.86	TSF	1.888	0.502	2.390	1.000	2.570	3.570	36,130
					5	1	7	3	7	10	103
			0.32	TSF	20.375	20.375	40.750	32.747	31.463	64.210	108,380
					0	6	13	10	10	20	34
					5	7	20	13	17	30	137
8	Animal Clinic Trip Generation Rates ⁸ Trip Generation Shopping Center Trip Generation Rates ⁵ Trip Generation Total Project Trip Generation	22085 Commerce Way, Grand Terrace CA.	7.40	TSF	2.94	1.14	4.08	1.84	2.88	4.72	47.20
					22	8	30	14	21	35	349
			2.59	TSF	0.60	0.36	0.96	1.78	1.93	3.71	42.7
					2	1	2	5	5	10	111
					24	9	32	19	26	45	460
9	Coffee Shop with Drive-Thru Trip Generation Rates ⁹ Trip Generation Shopping Center Trip Generation Rates ⁵ Trip Generation Total Project Trip Generation	22881 Barton Rd., Grand Terrace CA.	2.00	TSF	51.30	49.28	100.58	21.40	21.40	42.80	818.58
					103	99	201	43	43	86	1,637
			2.00	TSF	0.60	0.36	0.96	1.78	1.93	3.71	42.7
					1	1	2	4	4	7	85
					104	100	203	47	47	93	1,722
10	Center Park Mobile Homes Trip Generation Rates ¹⁰ Trip Generation	3444 Center St., Riverside CA.	108	TSF	0.09	0.35	0.44	0.37	0.22	0.59	4.99
					10	38	48	40	24	64	539
11	Warehouse Passenger Cars Truck PCE Total PCE ¹¹	Southwest corner of La Cadena Drive/Tropica Rancho Rd., Colton CA.	266	TSF	13	6	19	6	14	20	277
					17	13	30	10	25	35	431
					30	19	49	16	39	55	708
12	Warehouse Passenger Cars Truck PCE Total PCE ¹²	South of Center St. and north of Placentia Ln., Riverside CA.	308	TSF	131	37	168	60	108	168	875
					105	28	133	49	86	135	701
					236	65	301	109	194	303	1,576
13	Warehouse Passenger Cars Truck PCE Total PCE ¹¹	Southeast corner of Miguel Bustamante Parkway/Agua Mansa Rd., Colton CA.	300	TSF	14	7	21	7	16	23	312
					22	13	35	13	27	40	486
					36	20	56	20	43	63	798
14	Condominium Trip Generation Rates ¹³ Trip Generation	East of Viola Dr. and south of Center St., R	61	DU	0.075	0.365	0.440	0.348	0.172	0.520	5,810
					5	22	27	21	10	32	354
15	Truck Sales Trip Generation Rates ¹⁴ Trip Generation	Southeast corner of Stephens Ave./Center St., Riverside County	8	TSF	1.440	0.480	1.920	1.048	1.572	2.620	32,300
					11	4	15	8	13	21	257
Total PCE Trip Generation					957	1,094	2,057	1,198	1,114	2,312	23,535

DU = Dwelling Units, TSF = Thousand Square Feet DU = Dwelling Units, TSF = Thousand Square Feet

¹ Trip Generation from "Roquet Ranch Specific Plan Traffic Impact Analysis" from Urban Crossroads, November 2016.

² Trip Generation from "Agua Mansa Commerce Center" from Kunzman Associates, May 2014.

³ Trip Generation from "Colton Hub City Centre Specific Plan Amendment Traffic Impact Analysis" from Kunzman Associates, August 2016.

⁴ Rates based on Land Use 210 "Single-Family Detached Housing" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

⁵ Rates based on Land Use 820 "Shopping Center" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

⁶ Rates based on Land Use 720 "Medical-Dental Office Building" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

⁷ Rates based on Land Use 936 "Coffee/Donut Shop without Drive-Through Window" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

⁸ Rates based on Land Use 640 "Animal Hospital/Veterinary Clinic" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

⁹ Rates based on Land Use 937 "Coffee/Donut Shop with Drive-Through Window" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

¹⁰ Rates based on Land Use 240 "Mobile Home Park" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

¹¹ Rates based on Land Use 150 - "Warehousing" from Institute of Transportation Engineers (ITE) *Trip Generation* (9th Ed.), truck mix percentages per City of Fontana Truck Trip Generation Study for Heavy Warehouse uses, August 2003. Recommended PCE factor per SBCTA. August 2003. Recommended PCE factor per San Bernardino County CMP.

¹² Trip Generation from "Center Street Warehouse Project Traffic Impact Analysis" from Kunzman Associates, January 2016.

¹³ Rates based on Land Use 230 "Residential Condominium" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

¹⁴ Rates based on Land Use 841 "Automobile Sales" from Institute of Traffic Engineers (ITE) *Trip Generation*, 9th Edition.

5.2 Existing Transit Service

Public transportation services near the proposed project includes bus transit service provided by the Riverside Transit Agency. Route 12 travels on Main Street, Orange Street, and Center Street, with the nearest bus stop at the intersection of Orange Street/Placentia Lane. This bus stop has approximately 60-minute headways on weekdays.

5.3 Existing Pedestrian & Bicycle Facilities

The City's bikeway network includes three types of facilities and are discussed below:

- **Class I (Bicycle Path)** These facilities are intended for the exclusive use of bicycles. While it may parallel a roadway, a Class I bike facility is physically separated by distance or a vertical barrier.
- **Class II (Bicycle Lane)** These facilities share the right of way with a roadway or walkway. Class II facilities are indicated by a bikeway pictograph on the pavement and a continuous stripe on the pavement, or are separated by a continuous or intermittent curb, or other low barrier.
- **Class III (Bike Routes)** These facilities share the right of way with a roadway or walkway. Not indicated by a continuous stripe on the pavement or separated by any type of barrier, a Class III facility is instead identified as a bikeway with signage.

Figure 9 illustrates the City of Colton's Bicycle Plan, which includes existing and future bicycle facilities. Figure 10 illustrates the existing bicycle facilities adjacent to the project location. As shown in Figure 10, existing Class I bicycle facilities are located on the Santa Ana River Trail and Pellisier Road to the west of Riverside Avenue. Pedestrian circulation in Colton is primarily provided via sidewalks. Figure 10 illustrates the existing sidewalks near the project. As illustrated in Figure 10, there are sidewalks to the east of the project on Center Street, but are generally discontinuous in the area adjacent to the project site.

5.4 Existing Intersections Levels of Service

An intersection level of service analysis was conducted for existing conditions to determine current circulation system performance. Figure 11 shows the lane geometrics and stop controls at the study intersections. The existing traffic volumes at study intersections are illustrated in Figure 12. Detailed volume development worksheets are included in Appendix B. The existing levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix C. As shown in Table D, all study area intersections are currently operating at satisfactory levels of service with the exception of Riverside Avenue/Placentia Lane during the p.m. peak hour.

5.5 Existing Plus Project Intersections Levels of Service

An intersection level of service analysis was conducted for existing plus project conditions to determine circulation system performance. Existing plus project traffic volumes at study intersections are shown in Figure 13. Roadway geometrics under existing plus project conditions have been assumed to be the same as under existing conditions. The existing plus project levels of service for the study area intersections are summarized in Table D. Level of service calculation worksheets are contained in Appendix C. As shown in Table D, all study area intersections are forecast to operate at satisfactory levels of service with the exception of Riverside Avenue/Placentia Lane during the p.m. peak hour. The project does not create the deficiency at this intersection, since it also operates at unsatisfactory LOS under existing conditions

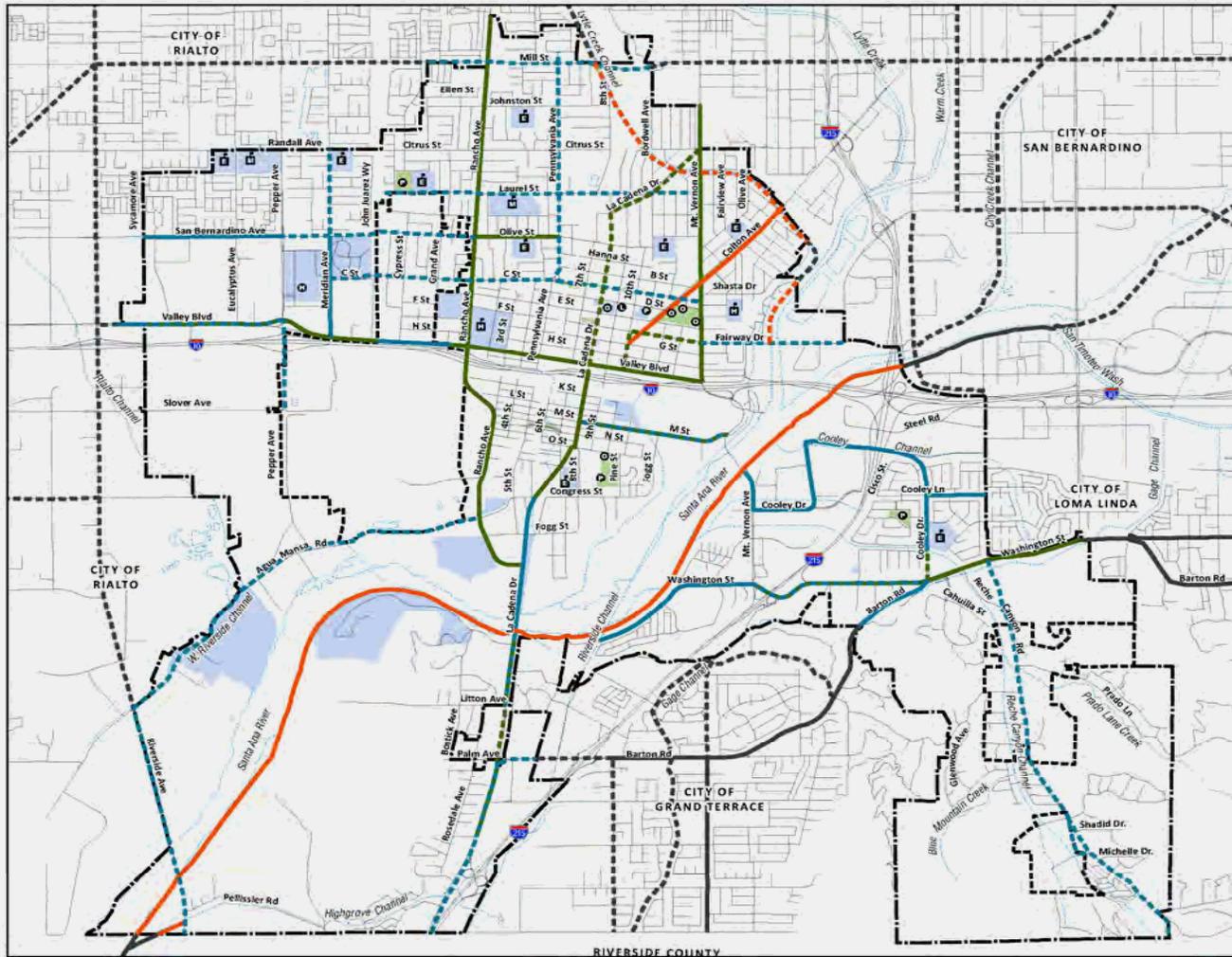
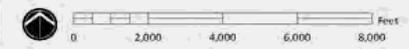


Figure M-7:
Bicycle Plan

- Bicycle Classifications**
- Class I
 - Planned Class I
 - Class II
 - Planned Class II
 - Class III
 - Planned Class III
 - Outside City of Colton
 - Planned Outside City of Colton
- Parks and Schools**
- Land Use**
- Open Space - Recreation
 - Public/Institution
- Base Map**
- City Boundary
 - Sphere of Influence
 - Watercourse
- Public Facilities/Institutions**
- Elementary School
 - Middle School
 - High School
 - Community Center
 - City Hall
 - Hospital (Private)
 - Library
 - Parks

Date: January 5, 2012
 Prepared by: HPA-veland, inc.
 Source: San Bernardino Association of Governments, March 2011.



Source: HPA Architecture

FIGURE 9

Center Street Development
 City of Colton's Bicycle Plan





FIGURE 10

**Center Street Development
Existing Bicycle Facilities and Sidewalks**

Legend

- Project Boundary
- Existing Sidewalks
- Class I Bike Lanes



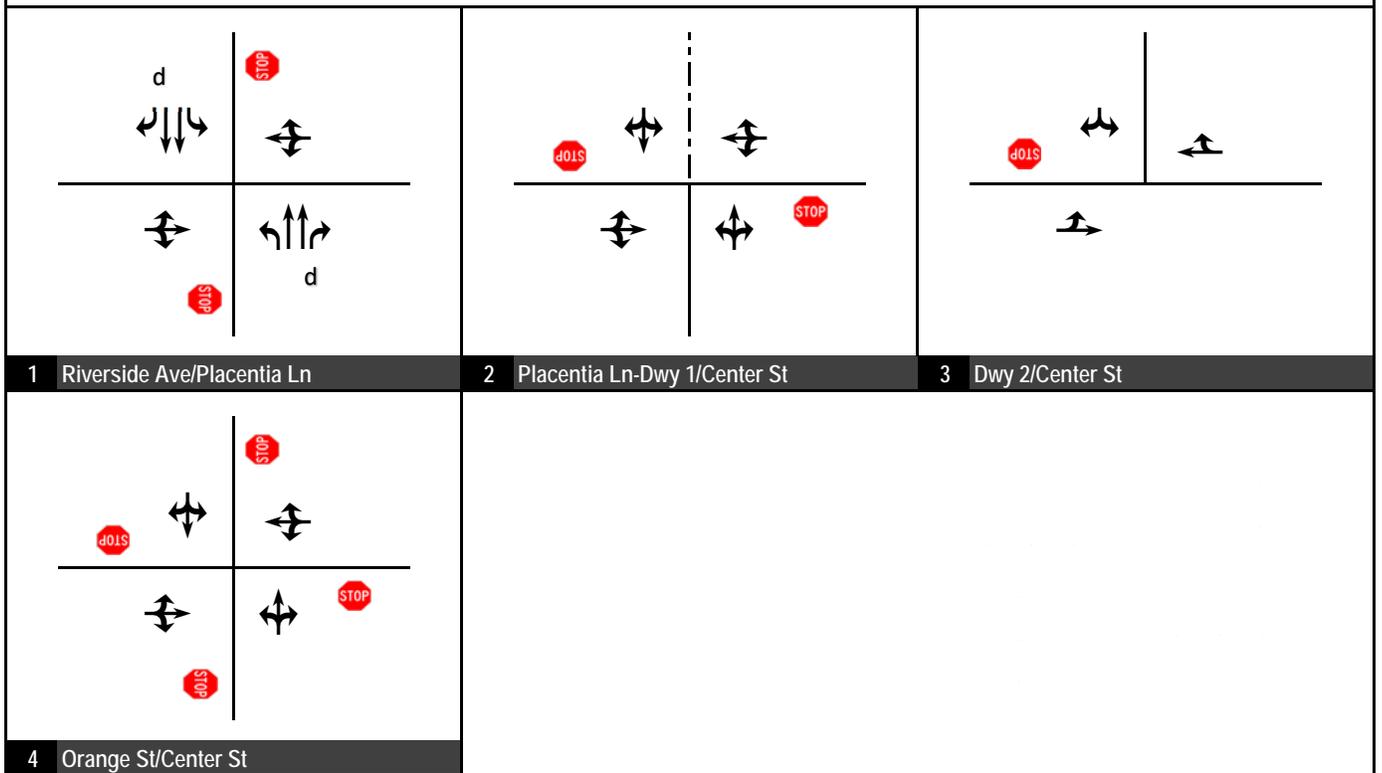


FIGURE 11

Legend

- Additional Leg With Project
- Defacto right-turn
- Stop Sign

Center Street Development Intersection Lane Geometrics and Stop Control



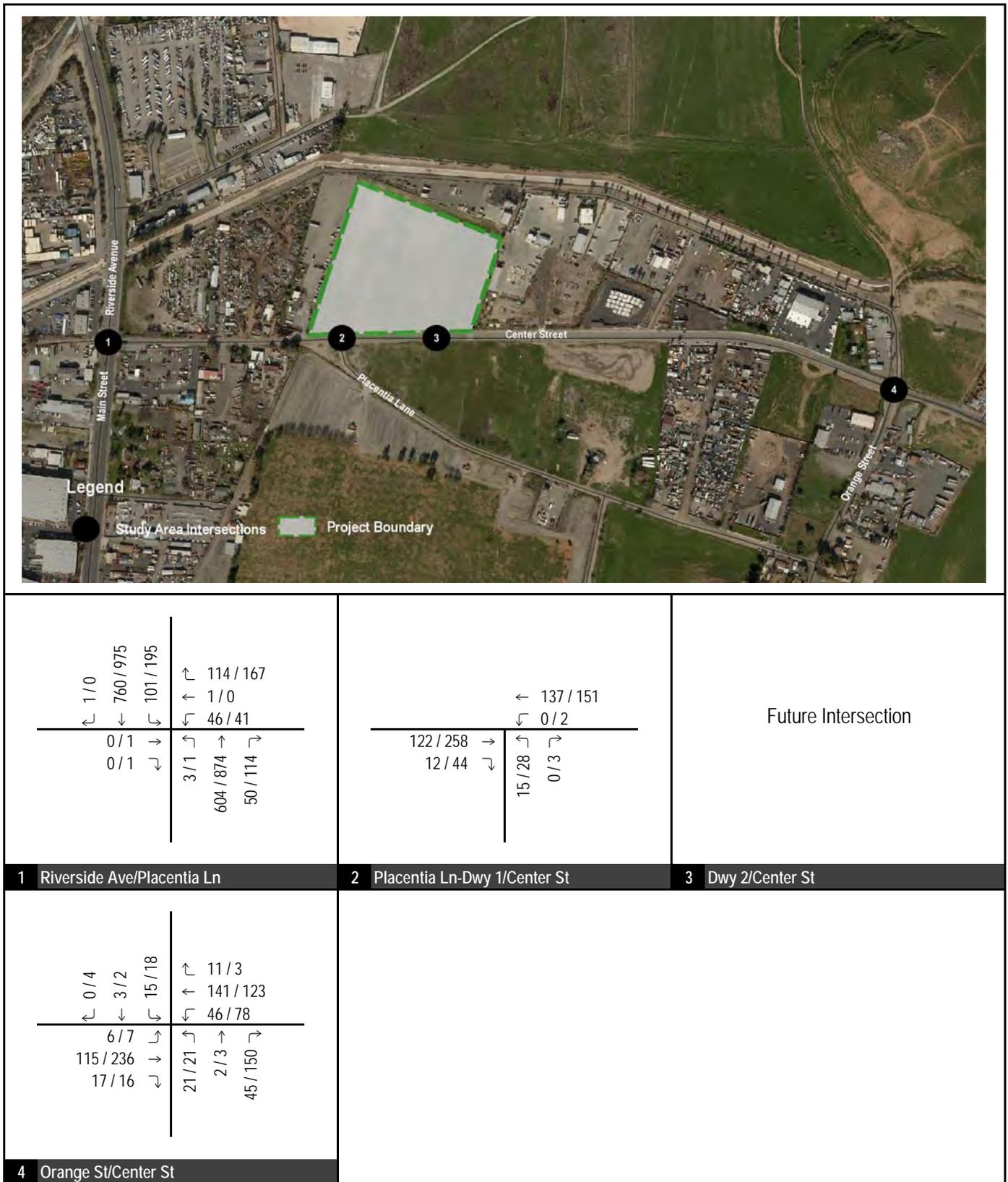


FIGURE 12

XXXX / YYYY AM / PM Peak Hour Traffic Volumes

Center Street Development
 Existing Peak Hour Traffic Volumes (In PCEs)



Table D: Existing Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Direct Project Impact
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Riverside Ave/Placentia Ln	D	TWSC	18.0	C	41.1	E *	18.4	C	43.0	E *	NO
2 . Placentia Ln-Dwy 1/Center St	D	TWSC	10.6	B	12.3	B	10.8	B	12.5	B	NO
3 . Dwy 2/Center St	D	TWSC	<i>Future Intersection</i>				10.0	A	11.2	B	NO
4 . Orange St/Center St	D	AWSC	8.4	A	9.5	A	8.7	A	9.8	A	NO

Notes:

* Exceeds LOS Standard

AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service



<table border="1"> <tr> <td>↖ 1/0</td> <td>↗ 760/975</td> <td>↖ 107/198</td> <td>↖ 117/173</td> </tr> <tr> <td>↘ 0/1</td> <td>↘ 0/1</td> <td>↘ 3/1</td> <td>↘ 47/43</td> </tr> <tr> <td>↙ 0/1</td> <td>↙ 604/874</td> <td>↙ 52/115</td> <td>↙ 1/0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>↘ 604/874</td> </tr> <tr> <td></td> <td></td> <td></td> <td>↘ 52/115</td> </tr> </table>	↖ 1/0	↗ 760/975	↖ 107/198	↖ 117/173	↘ 0/1	↘ 0/1	↘ 3/1	↘ 47/43	↙ 0/1	↙ 604/874	↙ 52/115	↙ 1/0				↘ 604/874				↘ 52/115	<table border="1"> <tr> <td>↖ 2/4</td> <td>↗ 5/13</td> <td>↖ 12/5</td> </tr> <tr> <td>↘ 4/2</td> <td>↘ 126/260</td> <td>↘ 0/2</td> </tr> <tr> <td>↙ 12/44</td> <td>↙ 15/28</td> <td>↙ 0/3</td> </tr> <tr> <td></td> <td></td> <td>↘ 139/155</td> </tr> <tr> <td></td> <td></td> <td>↘ 12/5</td> </tr> </table>	↖ 2/4	↗ 5/13	↖ 12/5	↘ 4/2	↘ 126/260	↘ 0/2	↙ 12/44	↙ 15/28	↙ 0/3			↘ 139/155			↘ 12/5	<table border="1"> <tr> <td>↖ 2/4</td> <td>↗ 5/13</td> <td>↖ 12/5</td> </tr> <tr> <td>↘ 4/2</td> <td>↘ 127/274</td> <td>↘ 149/158</td> </tr> <tr> <td></td> <td></td> <td>↘ 12/5</td> </tr> </table>	↖ 2/4	↗ 5/13	↖ 12/5	↘ 4/2	↘ 127/274	↘ 149/158			↘ 12/5
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FIGURE 13

XXXX / YYYY AM / PM Peak Hour Traffic Volumes

Center Street Development
Existing Plus Project Peak Hour Traffic Volumes (In PCEs)



6.0 OPENING YEAR (2018) CONDITIONS

This section discusses opening year (2018) transportation conditions in the study area. It is anticipated that the project will open in 2018.

6.1 Opening Year (2018) Roadway Conditions

Opening year (2018) roadway conditions are assumed to be the same as those under existing conditions.

6.2 Opening Year (2018) Transit Service

Transit service under opening year (2018) conditions are anticipated to remain the same as under existing conditions.

6.3 Opening Year (2018) Pedestrian & Bicycle Facilities

Pedestrian and bicycle facilities under opening year (2018) conditions are anticipated to remain the same as under existing conditions.

6.4 Opening Year (2018) Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2018) conditions to determine circulation system performance. Opening year (2018) traffic volumes at study intersections are shown in Figure 14. Opening year (2018) levels of service for the study area intersections are summarized in Table E. Detailed volume development worksheets are included in Appendix B. Level of service calculation worksheets are contained in Appendix C. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service with the exception of Riverside Avenue/Placentia Lane during the a.m. and p.m. peak hours.

6.5 Opening Year (2018) With Project Intersections Levels of Service

An intersection level of service analysis was conducted for opening year (2018) with project conditions to determine circulation system performance. Opening year (2018) with project traffic volumes at study intersections are shown in Figure 15. The opening year (2018) with project levels of service for the study area intersections are summarized in Table E. Level of service calculation worksheets are contained in Appendix C. As shown in Table E, all study area intersections are forecast to operate at satisfactory levels of service with the exception of Riverside Avenue/Placentia Lane during the a.m. and p.m. peak hours. The project does not create the deficiency at this intersection, since it also operates at unsatisfactory LOS under existing and opening year (2018) conditions

7.0 CIRCULATION IMPROVEMENTS

The CMP requires that circulation improvements be recommended at any intersection which operates at unsatisfactory level of service. For intersections that meet a jurisdiction's minimum level of service standard under existing conditions, circulation improvements must maintain conformance with that standard. For intersections that fail to meet a jurisdiction's minimum level of service standard under existing conditions, circulation improvements must maintain the existing level of service. These include conversion of stop control, signalization, changes to signal phasing, and/or addition of lanes as appropriate.

7.1 Existing and Opening Year (2018) With Project Circulation Improvements

Under existing and opening year (2018) with project conditions, the intersection of Riverside Avenue/Placentia Lane will not meet the relevant jurisdiction's minimum level of service standard under with project scenarios. Modifications to intersection configurations are recommended as mitigation measures in accord with CMP requirements as follows:



<table border="1"> <tr> <td>↖ 1 / 0</td> <td>↘ 792 / 1036</td> <td>↙ 149 / 256</td> <td>↗ 162 / 220</td> </tr> <tr> <td>↖ 0 / 1</td> <td>↘ 0 / 1</td> <td>↙ 3 / 1</td> <td>↗ 131 / 124</td> </tr> <tr> <td>↖ 0 / 1</td> <td>↘ 3 / 1</td> <td>↙ 655 / 911</td> <td>↗ 114 / 217</td> </tr> </table>	↖ 1 / 0	↘ 792 / 1036	↙ 149 / 256	↗ 162 / 220	↖ 0 / 1	↘ 0 / 1	↙ 3 / 1	↗ 131 / 124	↖ 0 / 1	↘ 3 / 1	↙ 655 / 911	↗ 114 / 217	<table border="1"> <tr> <td>↖ 234 / 427</td> <td>↘ 12 / 45</td> <td>↙ 15 / 29</td> <td>↗ 0 / 3</td> </tr> <tr> <td>↖ 275 / 287</td> <td>↘ 0 / 2</td> <td></td> <td></td> </tr> </table>	↖ 234 / 427	↘ 12 / 45	↙ 15 / 29	↗ 0 / 3	↖ 275 / 287	↘ 0 / 2			<p>Future Intersection</p>
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↖ 0 / 1	↘ 0 / 1	↙ 3 / 1	↗ 131 / 124																			
↖ 0 / 1	↘ 3 / 1	↙ 655 / 911	↗ 114 / 217																			
↖ 234 / 427	↘ 12 / 45	↙ 15 / 29	↗ 0 / 3																			
↖ 275 / 287	↘ 0 / 2																					
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↖ 34 / 27	↘ 20 / 51	↙ 46 / 153	↗ 343 / 227																			

FIGURE 14

XXXX / YYYY AM / PM Peak Hour Traffic Volumes

Center Street Development
Opening Year (2018) Peak Hour Traffic Volumes (In PCEs)



Table E: Opening Year (2018) Levels of Service

Intersection	LOS Standard	Control	Without Project				With Project				Direct Project Impact
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
1 . Riverside Ave/Placentia Ln	D	TWSC	86.7	F *	>100	F *	94.3	F *	>100	F *	NO
2 . Placentia Ln-Dwy 1/Center St	D	TWSC	13.6	B	17.4	C	14.0	B	17.8	C	NO
3 . Dwy 2/Center St	D	TWSC	<i>Future Intersection</i>				12.0	B	14.4	B	NO
4 . Orange St/Center St	D	AWSC	14.0	B	27.1	D	15.0	B	32.3	D	NO

Notes:

* Exceeds LOS Standard

AWSC = All-Way Stop Control; TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service



<table border="1"> <tr> <td>↖ 1 / 0</td> <td>↗ 792 / 1036</td> <td>↖ 155 / 259</td> <td>↖ 165 / 226</td> </tr> <tr> <td>↘ 0 / 1</td> <td>↘ 1 / 0</td> <td>↘ 132 / 126</td> <td>↘ 1 / 0</td> </tr> <tr> <td>↙ 0 / 1</td> <td>↙ 3 / 1</td> <td>↙ 655 / 911</td> <td>↙ 116 / 218</td> </tr> <tr> <td></td> <td>↘ 4 / 2</td> <td>↘ 238 / 429</td> <td>↘ 12 / 45</td> </tr> <tr> <td></td> <td>↘ 15 / 29</td> <td>↘ 0 / 3</td> <td></td> </tr> </table>	↖ 1 / 0	↗ 792 / 1036	↖ 155 / 259	↖ 165 / 226	↘ 0 / 1	↘ 1 / 0	↘ 132 / 126	↘ 1 / 0	↙ 0 / 1	↙ 3 / 1	↙ 655 / 911	↙ 116 / 218		↘ 4 / 2	↘ 238 / 429	↘ 12 / 45		↘ 15 / 29	↘ 0 / 3		<table border="1"> <tr> <td>↖ 2 / 4</td> <td>↗ 5 / 13</td> <td>↖ 12 / 5</td> <td>↖ 277 / 291</td> </tr> <tr> <td>↘ 4 / 2</td> <td>↘ 0 / 2</td> <td>↘ 0 / 2</td> <td></td> </tr> <tr> <td>↙ 238 / 429</td> <td>↙ 15 / 29</td> <td>↙ 0 / 3</td> <td></td> </tr> <tr> <td>↘ 12 / 45</td> <td></td> <td></td> <td></td> </tr> </table>	↖ 2 / 4	↗ 5 / 13	↖ 12 / 5	↖ 277 / 291	↘ 4 / 2	↘ 0 / 2	↘ 0 / 2		↙ 238 / 429	↙ 15 / 29	↙ 0 / 3		↘ 12 / 45				<table border="1"> <tr> <td>↖ 2 / 4</td> <td>↗ 5 / 13</td> <td>↖ 12 / 5</td> <td>↖ 287 / 294</td> </tr> <tr> <td>↘ 4 / 2</td> <td>↘ 0 / 2</td> <td>↘ 0 / 2</td> <td></td> </tr> <tr> <td>↙ 239 / 443</td> <td>↙ 15 / 29</td> <td>↙ 0 / 3</td> <td></td> </tr> <tr> <td>↘ 12 / 45</td> <td></td> <td></td> <td></td> </tr> </table>	↖ 2 / 4	↗ 5 / 13	↖ 12 / 5	↖ 287 / 294	↘ 4 / 2	↘ 0 / 2	↘ 0 / 2		↙ 239 / 443	↙ 15 / 29	↙ 0 / 3		↘ 12 / 45			
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FIGURE 15

XXXX / YYYY AM / PM Peak Hour Traffic Volumes

Center Street Development
Opening Year (2018) With Project Peak Hour Traffic Volumes



1. Riverside Avenue/Placentia Lane – Installation of a traffic signal. An intersection signal warrant analysis was conducted at this intersection for the a.m. and p.m. peak hours. This analysis is based on the *2012 California Manual of Uniform Traffic Control Devices* (Warrant 3 – Peak Hour). The analysis is included in Appendix D, and shows that a traffic signal would be ultimately needed at this intersection to maintain satisfactory operations. This intersection operates at unsatisfactory LOS under existing and would continue to operate at unsatisfactory LOS in the opening year (2018) without the project. The project adds an incremental delay of 7.6 seconds to the movement with highest delay under opening year conditions. The project contributes less than one percent (0.7%) of additional traffic to this already congested intersection, and the City has determined that it does not represent a significant or substantial increase over current levels.

Also, this improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated and included in Appendix E. The fair share is based on year 2040 background traffic volumes at Riverside Avenue/Placentia Lane provided in the *Roquet Ranch Specific Plan Traffic Impact Analysis by Urban Crossroads (November 2016)*. The fair share was calculated based on project traffic as a percentage of total growth from existing to year 2040. As shown in Appendix E, the project fair share at the intersection of Riverside Avenue/Placentia Lane is 1.015 percent. Construction of these improvements will restore satisfactory operations. Tables F and G show the resulting levels of service for existing and opening year (2018) with project scenarios and Figure 16 illustrates the existing and opening year (2018) with project recommended improvements.

8.0 IMPACT ANALYSIS FOR CEQA DETERMINATION

This section evaluates the CEQA checklist for impact evaluation.

- A. **Will the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system?**

Based on the results of the analysis, the project does not degrade traffic operations below those acceptable in the City's General Plan after implementation of circulation improvements. The project is consistent with the City's adopted plans and policies. Therefore, the project impact is considered less than significant.

- B. **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

The County's CMP requires the analysis of traffic impacts to CMP roadways if a project adds 50 or more trips during the a.m. or p.m. weekday peak hours. The project does not add 50 or more trips to any CMP roadway. The project does not conflict with the County's CMP and does not propose changes to the City's LOS standards. The project does not have a significant impact at any analysis intersection based on the thresholds adopted by the City. After improvements are constructed, all study intersections will operate at satisfactory conditions. Therefore, the project impact is considered less than significant after mitigation.

- C. **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The nearest airports to the project location is the Flabob Airport in Riverside, approximately 4 miles to the southwest, the San Bernardino International Airport in Ontario, approximately 14 miles to the northwest, and the Riverside Municipal Airport in Riverside, approximately 7 miles to the southwest. The project does not propose any use that would affect or conflict with air traffic patterns. Therefore, the project impact is considered less than-significant.

Table F: Existing With Project With Improvements Levels of Service

Intersection	LOS Standard	Control	With Project				Control	With Project With Improvements			
			AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
1 . Riverside Ave/Placentia Ln	D	TWSC	18.4	C	43.0	E *	Signal	10.6	B	13.9	B

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

Table G: Opening Year (2018) With Project With Improvements Levels of Service

Intersection	LOS Standard	Control	With Project				Control	With Project With Improvements			
			AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
1 . Riverside Ave/Placentia Ln	D	TWSC	94.3	F *	>100	F *	Signal	16.0	B	21.6	C

Notes:

* Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

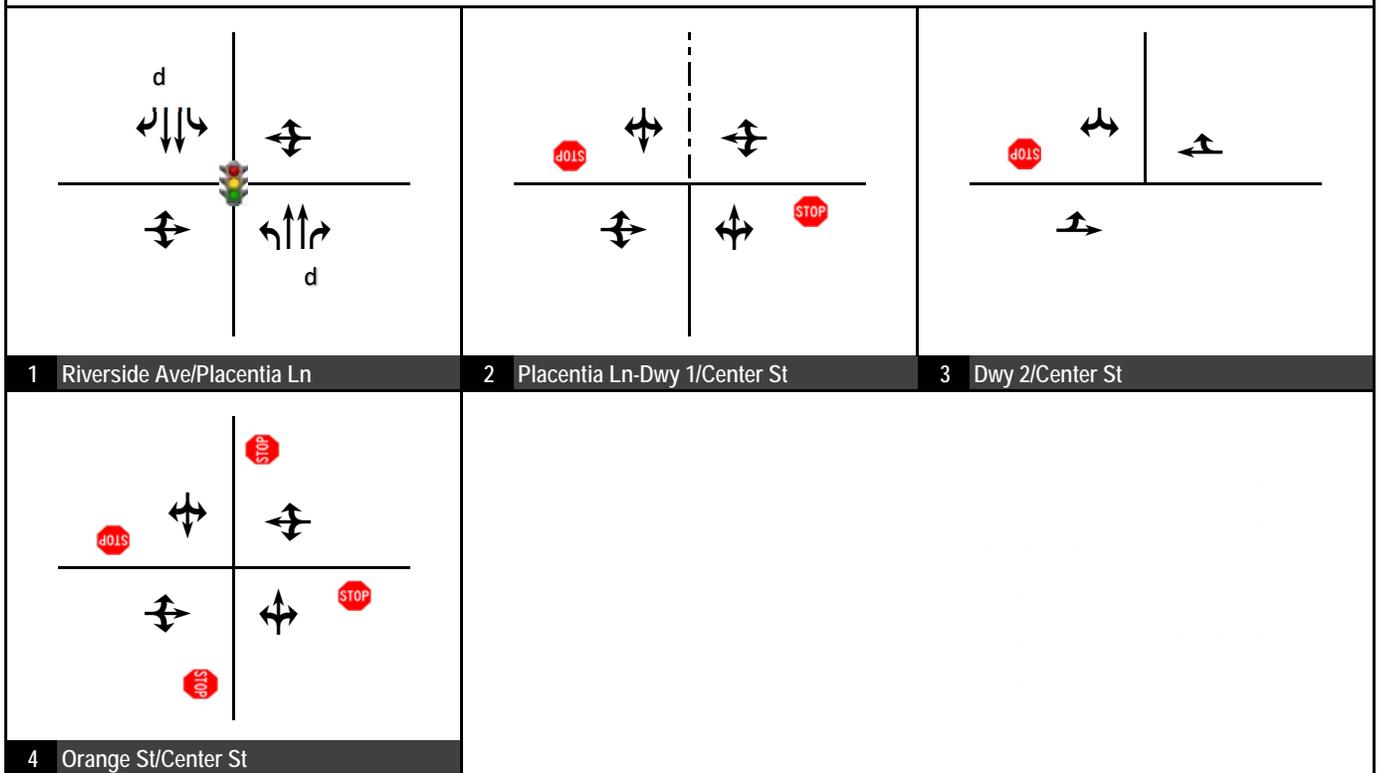


FIGURE 16

Legend

- Additional Leg With Project
- Stop Sign
- Defacto right-turn

Center Street Development
 Existing/Opening Year (2018) With Project With Improvements
 Intersection Lane Geometrics and Stop Control



D. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Design of driveways will be based on City Code, which sets the standard for such design. Project driveways would intersect perpendicularly with Center Street and would not create conflicts for motorists, pedestrians, or bicyclists traveling on Center Street. It is not anticipated that traffic hazards will increase. Therefore, the project impact is considered less than significant.

E. Result in inadequate emergency access?

The proposed driveways on Center Street will be designed in accordance with all applicable design and safety standards required by adopted fire codes, safety codes, and building codes established by the City's Engineering and Fire Departments. The parking lot layout will be designed to meet City requirements to allow emergency vehicles adequate access. The project will not result in inadequate emergency access. Therefore, the project impact is considered less than significant.

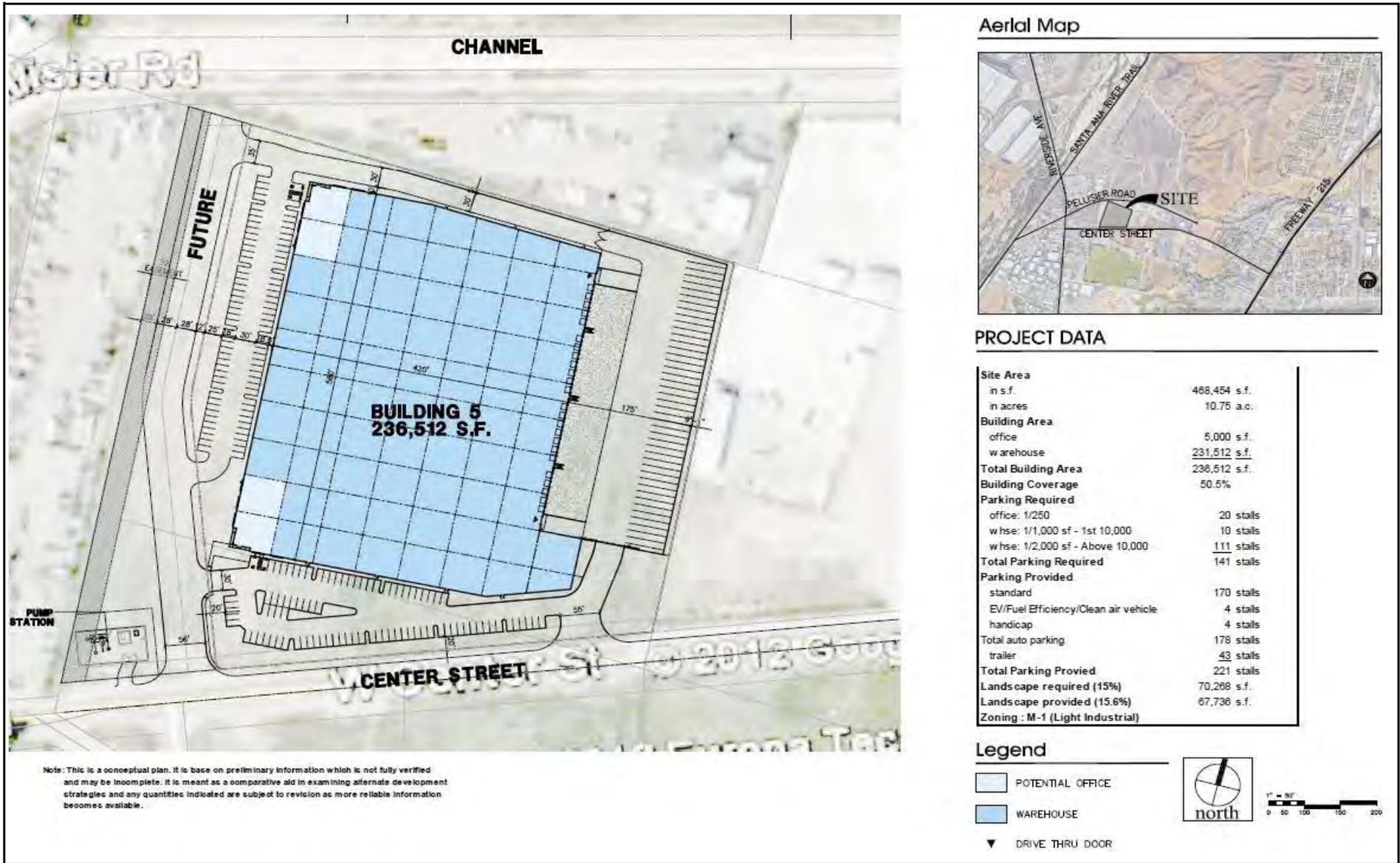
F. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The project would not conflict with adopted policies supporting alternative transportation modes. The project will not change roadway designations from those in the City's General Plan. The project will also not result in removal of any of the facilities listed above. Therefore, the project impact is considered less than significant.

9.0 SUMMARY & CONCLUSIONS

The proposed project is forecast to generate 44 new PCE trips in the a.m. peak hour, 46 new PCE trips in the p.m. peak hour, and 655 new PCE daily trips. Based on the LOS analysis, the intersection of Riverside Avenue/Placentia Lane is projected to operate at unsatisfactory LOS in the existing and opening year (2018) without and with project conditions. The project adds an incremental delay of 7.6 seconds to the movement with highest delay under opening year conditions. The project contributes less than one percent (0.7%) of additional traffic to this already congested intersection, and the City has determined that it does not represent a significant or substantial increase over current levels. With the construction of the circulation improvements, the intersection of Riverside Avenue/Placentia Lane will operate at satisfactory LOS. This improvement is not included in the 2016 SBCTA Development Mitigation Nexus Study; therefore, the project's fair share has been calculated. The project's fair share at this intersection is 1.015 percent.

APPENDIX A1: ALTERNATIVE SITE PLAN



Source: HPA Architecture, August 2017

FIGURE A1

Center Street Development
Alternative Site Plan



APPENDIX A2: TRAFFIC COUNTS

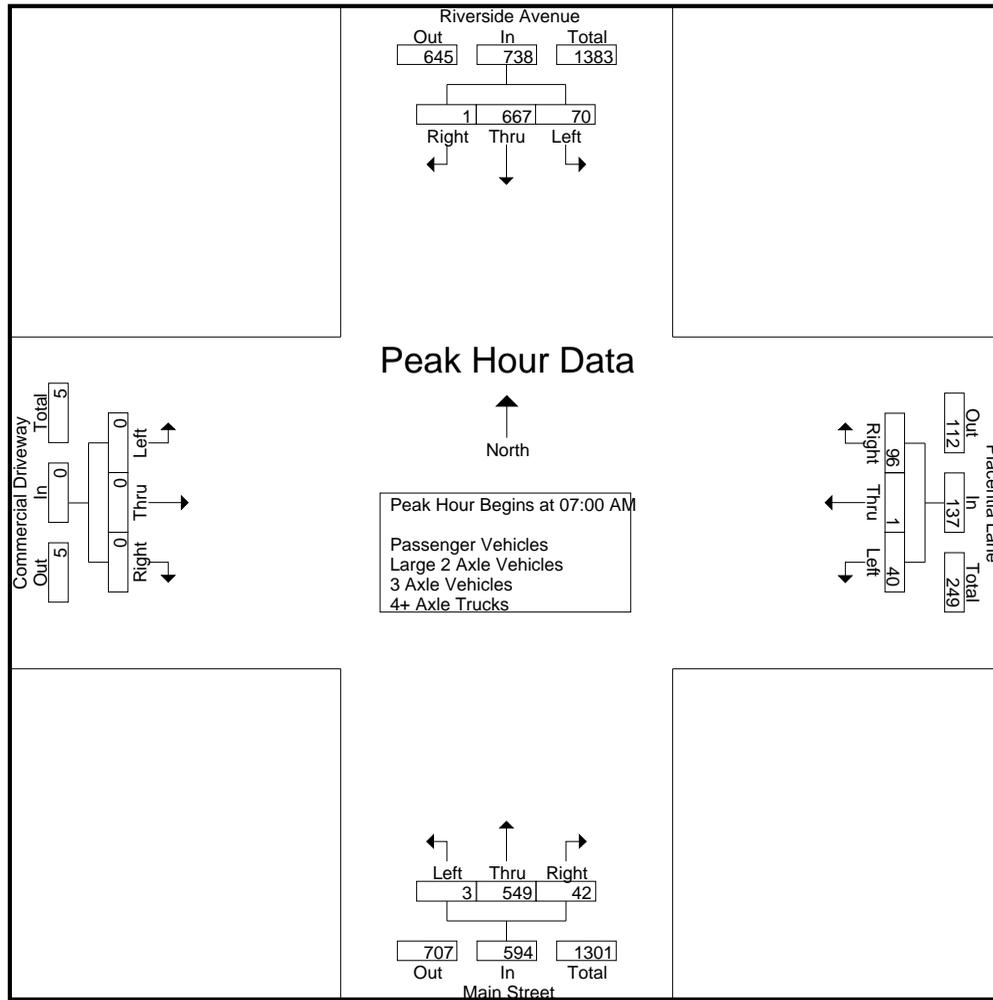
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	15	159	0	174	11	0	34	45	1	128	7	136	0	0	0	0	355
07:15 AM	19	153	0	172	12	1	22	35	1	113	6	120	0	0	0	0	327
07:30 AM	17	173	0	190	7	0	14	21	0	145	10	155	0	0	0	0	366
07:45 AM	19	182	1	202	10	0	26	36	1	163	19	183	0	0	0	0	421
Total	70	667	1	738	40	1	96	137	3	549	42	594	0	0	0	0	1469
08:00 AM	22	158	0	180	11	0	20	31	0	122	11	133	0	0	0	0	344
08:15 AM	16	136	0	152	8	2	14	24	1	127	11	139	0	0	0	0	315
08:30 AM	15	134	0	149	13	0	20	33	0	131	12	143	0	0	0	0	325
08:45 AM	28	120	0	148	12	0	25	37	0	115	11	126	0	0	0	0	311
Total	81	548	0	629	44	2	79	125	1	495	45	541	0	0	0	0	1295
Grand Total	151	1215	1	1367	84	3	175	262	4	1044	87	1135	0	0	0	0	2764
Apprch %	11	88.9	0.1		32.1	1.1	66.8		0.4	92	7.7		0	0	0		
Total %	5.5	44	0	49.5	3	0.1	6.3	9.5	0.1	37.8	3.1	41.1	0	0	0	0	
Passenger Vehicles	107	1003	1	1111	71	3	134	208	4	914	67	985	0	0	0	0	2304
% Passenger Vehicles	70.9	82.6	100	81.3	84.5	100	76.6	79.4	100	87.5	77	86.8	0	0	0	0	83.4
Large 2 Axle Vehicles	11	100	0	111	9	0	20	29	0	51	14	65	0	0	0	0	205
% Large 2 Axle Vehicles	7.3	8.2	0	8.1	10.7	0	11.4	11.1	0	4.9	16.1	5.7	0	0	0	0	7.4
3 Axle Vehicles	9	41	0	50	3	0	8	11	0	34	5	39	0	0	0	0	100
% 3 Axle Vehicles	6	3.4	0	3.7	3.6	0	4.6	4.2	0	3.3	5.7	3.4	0	0	0	0	3.6
4+ Axle Trucks	24	71	0	95	1	0	13	14	0	45	1	46	0	0	0	0	155
% 4+ Axle Trucks	15.9	5.8	0	6.9	1.2	0	7.4	5.3	0	4.3	1.1	4.1	0	0	0	0	5.6

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	159	0	174	11	0	34	45	1	128	7	136	0	0	0	0	355
07:15 AM	19	153	0	172	12	1	22	35	1	113	6	120	0	0	0	0	327
07:30 AM	17	173	0	190	7	0	14	21	0	145	10	155	0	0	0	0	366
07:45 AM	19	182	1	202	10	0	26	36	1	163	19	183	0	0	0	0	421
Total Volume	70	667	1	738	40	1	96	137	3	549	42	594	0	0	0	0	1469
% App. Total	9.5	90.4	0.1		29.2	0.7	70.1		0.5	92.4	7.1		0	0	0		
PHF	.921	.916	.250	.913	.833	.250	.706	.761	.750	.842	.553	.811	.000	.000	.000	.000	.872



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				07:00 AM			
+0 mins.	19	153	0	172	11	0	34	45	0	145	10	155	0	0	0	0
+15 mins.	17	173	0	190	12	1	22	35	1	163	19	183	0	0	0	0
+30 mins.	19	182	1	202	7	0	14	21	0	122	11	133	0	0	0	0
+45 mins.	22	158	0	180	10	0	26	36	1	127	11	139	0	0	0	0
Total Volume	77	666	1	744	40	1	96	137	2	557	51	610	0	0	0	0
% App. Total	10.3	89.5	0.1		29.2	0.7	70.1		0.3	91.3	8.4		0	0	0	
PHF	.875	.915	.250	.921	.833	.250	.706	.761	.500	.854	.671	.833	.000	.000	.000	.000

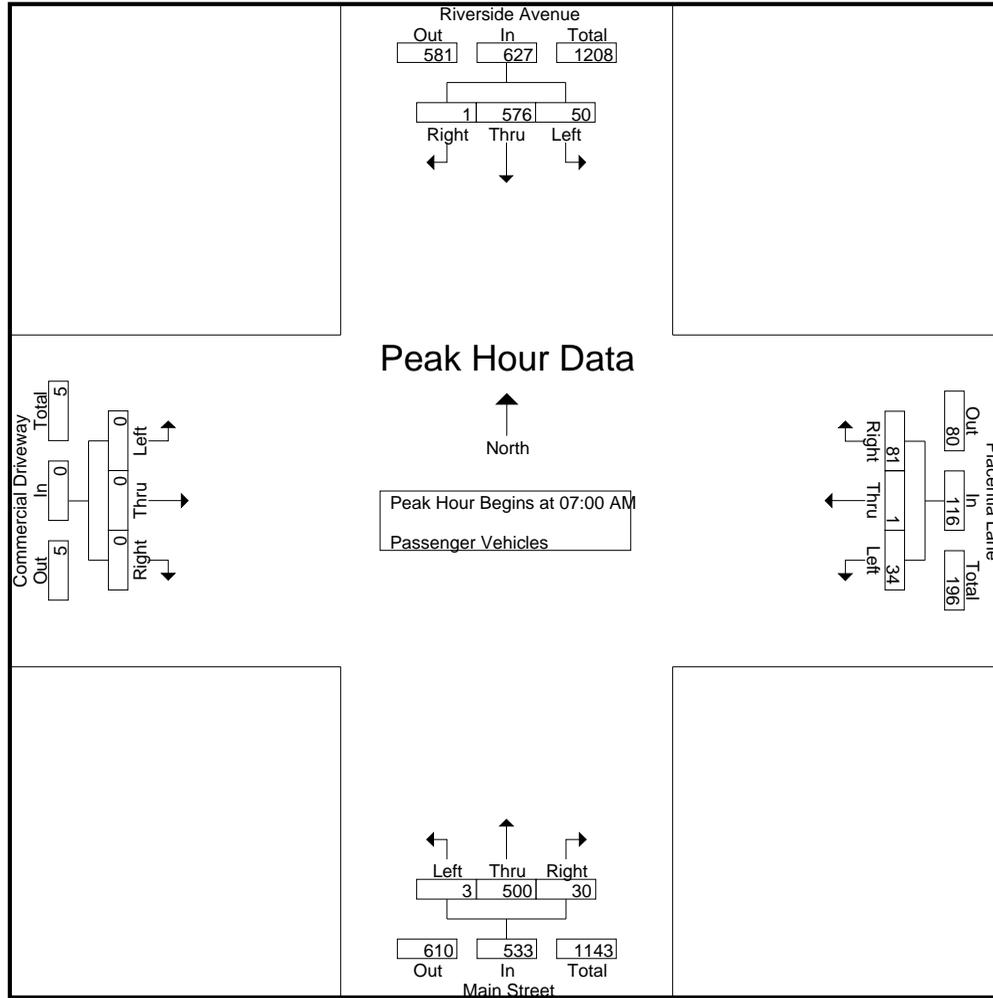
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	10	132	0	142	11	0	28	39	1	118	6	125	0	0	0	0	306
07:15 AM	12	130	0	142	10	1	17	28	1	99	5	105	0	0	0	0	275
07:30 AM	12	157	0	169	5	0	11	16	0	129	9	138	0	0	0	0	323
07:45 AM	16	157	1	174	8	0	25	33	1	154	10	165	0	0	0	0	372
Total	50	576	1	627	34	1	81	116	3	500	30	533	0	0	0	0	1276
08:00 AM	14	126	0	140	11	0	12	23	0	106	11	117	0	0	0	0	280
08:15 AM	12	103	0	115	7	2	10	19	1	107	9	117	0	0	0	0	251
08:30 AM	13	107	0	120	8	0	12	20	0	107	8	115	0	0	0	0	255
08:45 AM	18	91	0	109	11	0	19	30	0	94	9	103	0	0	0	0	242
Total	57	427	0	484	37	2	53	92	1	414	37	452	0	0	0	0	1028
Grand Total	107	1003	1	1111	71	3	134	208	4	914	67	985	0	0	0	0	2304
Apprch %	9.6	90.3	0.1		34.1	1.4	64.4		0.4	92.8	6.8		0	0	0		
Total %	4.6	43.5	0	48.2	3.1	0.1	5.8	9	0.2	39.7	2.9	42.8	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	10	132	0	142	11	0	28	39	1	118	6	125	0	0	0	0	306
07:15 AM	12	130	0	142	10	1	17	28	1	99	5	105	0	0	0	0	275
07:30 AM	12	157	0	169	5	0	11	16	0	129	9	138	0	0	0	0	323
07:45 AM	16	157	1	174	8	0	25	33	1	154	10	165	0	0	0	0	372
Total Volume	50	576	1	627	34	1	81	116	3	500	30	533	0	0	0	0	1276
% App. Total	8	91.9	0.2		29.3	0.9	69.8		0.6	93.8	5.6		0	0	0		
PHF	.781	.917	.250	.901	.773	.250	.723	.744	.750	.812	.750	.808	.000	.000	.000	.000	.858



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.	10	132	0	142	11	0	28	39	1	118	6	125	0	0	0	0
+15 mins.	12	130	0	142	10	1	17	28	1	99	5	105	0	0	0	0
+30 mins.	12	157	0	169	5	0	11	16	0	129	9	138	0	0	0	0
+45 mins.	16	157	1	174	8	0	25	33	1	154	10	165	0	0	0	0
Total Volume	50	576	1	627	34	1	81	116	3	500	30	533	0	0	0	0
% App. Total	8	91.9	0.2		29.3	0.9	69.8		0.6	93.8	5.6		0	0	0	
PHF	.781	.917	.250	.901	.773	.250	.723	.744	.750	.812	.750	.808	.000	.000	.000	.000

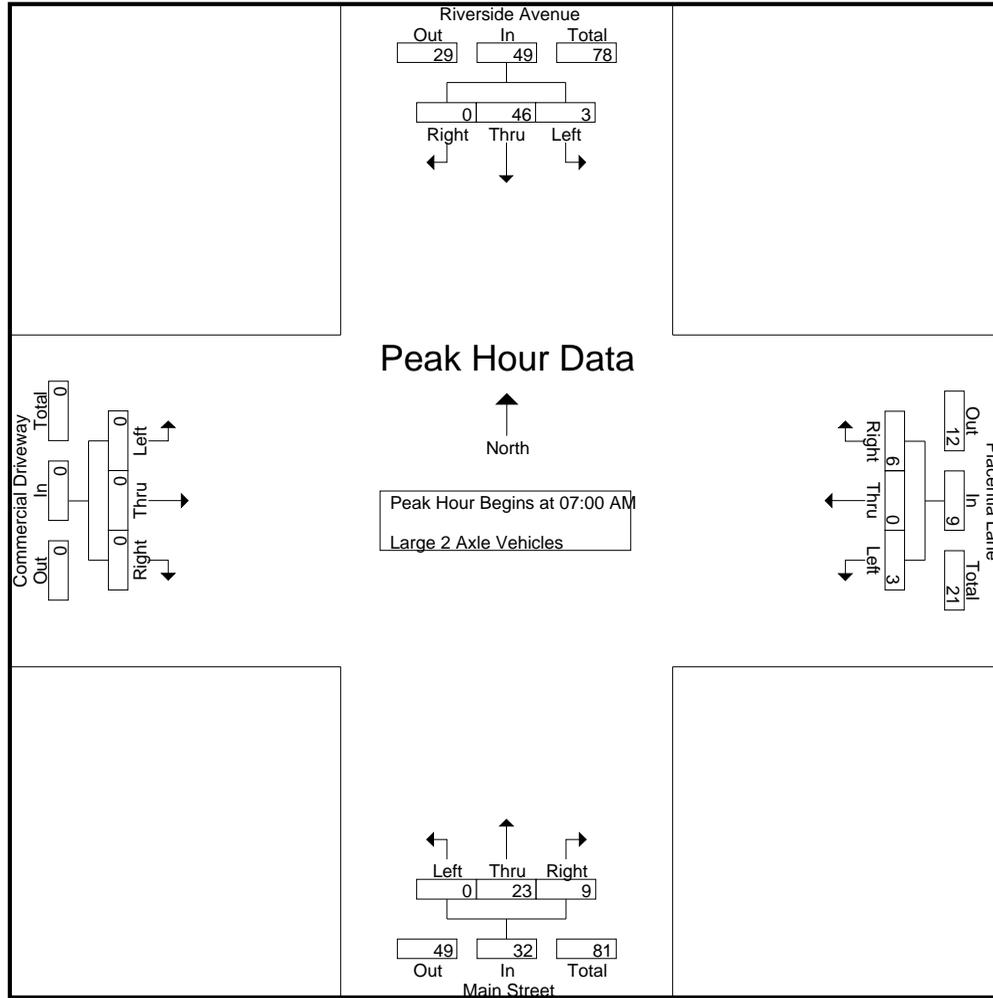
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	17	0	18	0	0	2	2	0	7	1	8	0	0	0	0	28
07:15 AM	0	11	0	11	1	0	3	4	0	6	0	6	0	0	0	0	21
07:30 AM	1	6	0	7	1	0	1	2	0	5	0	5	0	0	0	0	14
07:45 AM	1	12	0	13	1	0	0	1	0	5	8	13	0	0	0	0	27
Total	3	46	0	49	3	0	6	9	0	23	9	32	0	0	0	0	90
08:00 AM	1	10	0	11	0	0	5	5	0	9	0	9	0	0	0	0	25
08:15 AM	2	11	0	13	1	0	2	3	0	4	1	5	0	0	0	0	21
08:30 AM	2	15	0	17	5	0	4	9	0	11	3	14	0	0	0	0	40
08:45 AM	3	18	0	21	0	0	3	3	0	4	1	5	0	0	0	0	29
Total	8	54	0	62	6	0	14	20	0	28	5	33	0	0	0	0	115
Grand Total	11	100	0	111	9	0	20	29	0	51	14	65	0	0	0	0	205
Apprch %	9.9	90.1	0		31	0	69		0	78.5	21.5		0	0	0		
Total %	5.4	48.8	0	54.1	4.4	0	9.8	14.1	0	24.9	6.8	31.7	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	17	0	18	0	0	2	2	0	7	1	8	0	0	0	0	28
07:15 AM	0	11	0	11	1	0	3	4	0	6	0	6	0	0	0	0	21
07:30 AM	1	6	0	7	1	0	1	2	0	5	0	5	0	0	0	0	14
07:45 AM	1	12	0	13	1	0	0	1	0	5	8	13	0	0	0	0	27
Total Volume	3	46	0	49	3	0	6	9	0	23	9	32	0	0	0	0	90
% App. Total	6.1	93.9	0		33.3	0	66.7		0	71.9	28.1		0	0	0		
PHF	.750	.676	.000	.681	.750	.000	.500	.563	.000	.821	.281	.615	.000	.000	.000	.000	.804



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	17	0	18	0	0	2	2	0	7	1	8	0	0	0	0
+15 mins.	0	11	0	11	1	0	3	4	0	6	0	6	0	0	0	0
+30 mins.	1	6	0	7	1	0	1	2	0	5	0	5	0	0	0	0
+45 mins.	1	12	0	13	1	0	0	1	0	5	8	13	0	0	0	0
Total Volume	3	46	0	49	3	0	6	9	0	23	9	32	0	0	0	0
% App. Total	6.1	93.9	0		33.3	0	66.7		0	71.9	28.1		0	0	0	
PHF	.750	.676	.000	.681	.750	.000	.500	.563	.000	.821	.281	.615	.000	.000	.000	.000

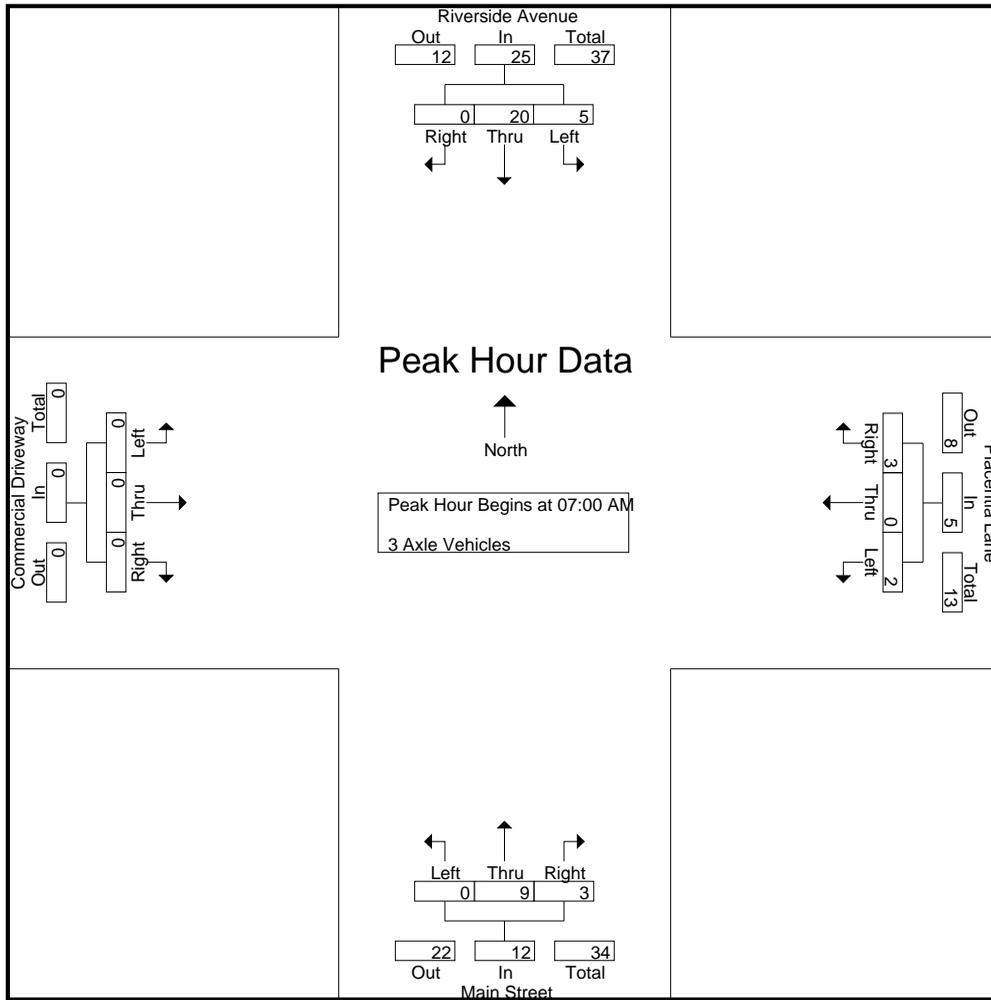
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	4	0	5	0	0	1	1	0	2	0	2	0	0	0	0	8
07:15 AM	2	6	0	8	1	0	1	2	0	1	1	2	0	0	0	0	12
07:30 AM	1	6	0	7	1	0	1	2	0	6	1	7	0	0	0	0	16
07:45 AM	1	4	0	5	0	0	0	0	0	0	1	1	0	0	0	0	6
Total	5	20	0	25	2	0	3	5	0	9	3	12	0	0	0	0	42
08:00 AM	2	8	0	10	0	0	1	1	0	1	0	1	0	0	0	0	12
08:15 AM	0	4	0	4	0	0	2	2	0	12	1	13	0	0	0	0	19
08:30 AM	0	6	0	6	0	0	1	1	0	5	1	6	0	0	0	0	13
08:45 AM	2	3	0	5	1	0	1	2	0	7	0	7	0	0	0	0	14
Total	4	21	0	25	1	0	5	6	0	25	2	27	0	0	0	0	58
Grand Total	9	41	0	50	3	0	8	11	0	34	5	39	0	0	0	0	100
Apprch %	18	82	0		27.3	0	72.7		0	87.2	12.8		0	0	0		
Total %	9	41	0	50	3	0	8	11	0	34	5	39	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	4	0	5	0	0	1	1	0	2	0	2	0	0	0	0	8
07:15 AM	2	6	0	8	1	0	1	2	0	1	1	2	0	0	0	0	12
07:30 AM	1	6	0	7	1	0	1	2	0	6	1	7	0	0	0	0	16
07:45 AM	1	4	0	5	0	0	0	0	0	0	1	1	0	0	0	0	6
Total Volume	5	20	0	25	2	0	3	5	0	9	3	12	0	0	0	0	42
% App. Total	20	80	0		40	0	60		0	75	25		0	0	0		
PHF	.625	.833	.000	.781	.500	.000	.750	.625	.000	.375	.750	.429	.000	.000	.000	.000	.656



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	4	0	5	0	0	1	1	0	2	0	2	0	0	0	0
+15 mins.	2	6	0	8	1	0	1	2	0	1	1	2	0	0	0	0
+30 mins.	1	6	0	7	1	0	1	2	0	6	1	7	0	0	0	0
+45 mins.	1	4	0	5	0	0	0	0	0	0	1	1	0	0	0	0
Total Volume	5	20	0	25	2	0	3	5	0	9	3	12	0	0	0	0
% App. Total	20	80	0		40	0	60		0	75	25		0	0	0	
PHF	.625	.833	.000	.781	.500	.000	.750	.625	.000	.375	.750	.429	.000	.000	.000	.000

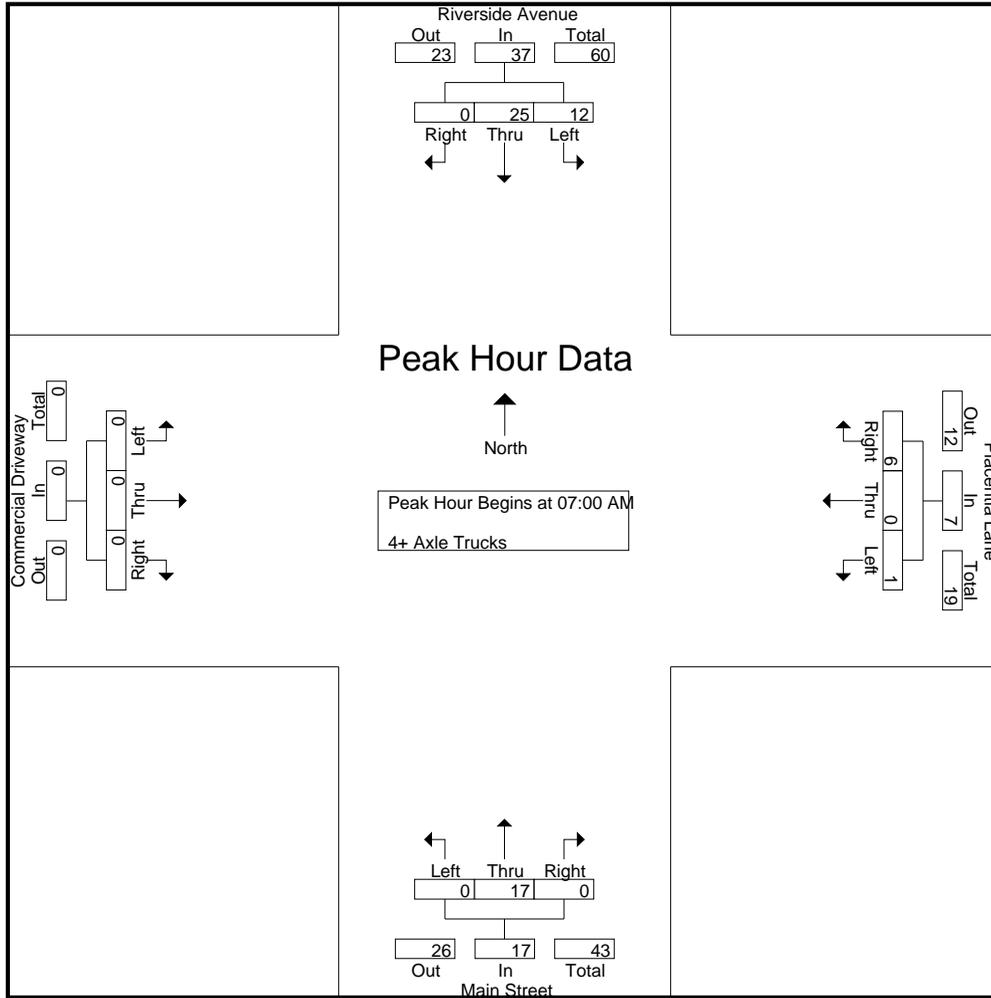
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	6	0	9	0	0	3	3	0	1	0	1	0	0	0	0	13
07:15 AM	5	6	0	11	0	0	1	1	0	7	0	7	0	0	0	0	19
07:30 AM	3	4	0	7	0	0	1	1	0	5	0	5	0	0	0	0	13
07:45 AM	1	9	0	10	1	0	1	2	0	4	0	4	0	0	0	0	16
Total	12	25	0	37	1	0	6	7	0	17	0	17	0	0	0	0	61
08:00 AM	5	14	0	19	0	0	2	2	0	6	0	6	0	0	0	0	27
08:15 AM	2	18	0	20	0	0	0	0	0	4	0	4	0	0	0	0	24
08:30 AM	0	6	0	6	0	0	3	3	0	8	0	8	0	0	0	0	17
08:45 AM	5	8	0	13	0	0	2	2	0	10	1	11	0	0	0	0	26
Total	12	46	0	58	0	0	7	7	0	28	1	29	0	0	0	0	94
Grand Total	24	71	0	95	1	0	13	14	0	45	1	46	0	0	0	0	155
Apprch %	25.3	74.7	0		7.1	0	92.9		0	97.8	2.2		0	0	0		
Total %	15.5	45.8	0	61.3	0.6	0	8.4	9	0	29	0.6	29.7	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	6	0	9	0	0	3	3	0	1	0	1	0	0	0	0	13
07:15 AM	5	6	0	11	0	0	1	1	0	7	0	7	0	0	0	0	19
07:30 AM	3	4	0	7	0	0	1	1	0	5	0	5	0	0	0	0	13
07:45 AM	1	9	0	10	1	0	1	2	0	4	0	4	0	0	0	0	16
Total Volume	12	25	0	37	1	0	6	7	0	17	0	17	0	0	0	0	61
% App. Total	32.4	67.6	0		14.3	0	85.7		0	100	0		0	0	0		
PHF	.600	.694	.000	.841	.250	.000	.500	.583	.000	.607	.000	.607	.000	.000	.000	.000	.803



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.	3	6	0	9	0	0	3	3	0	1	0	1	0	0	0	0
+15 mins.	5	6	0	11	0	0	1	1	0	7	0	7	0	0	0	0
+30 mins.	3	4	0	7	0	0	1	1	0	5	0	5	0	0	0	0
+45 mins.	1	9	0	10	1	0	1	2	0	4	0	4	0	0	0	0
Total Volume	12	25	0	37	1	0	6	7	0	17	0	17	0	0	0	0
% App. Total	32.4	67.6	0		14.3	0	85.7		0	100	0		0	0	0	
PHF	.600	.694	.000	.841	.250	.000	.500	.583	.000	.607	.000	.607	.000	.000	.000	.000

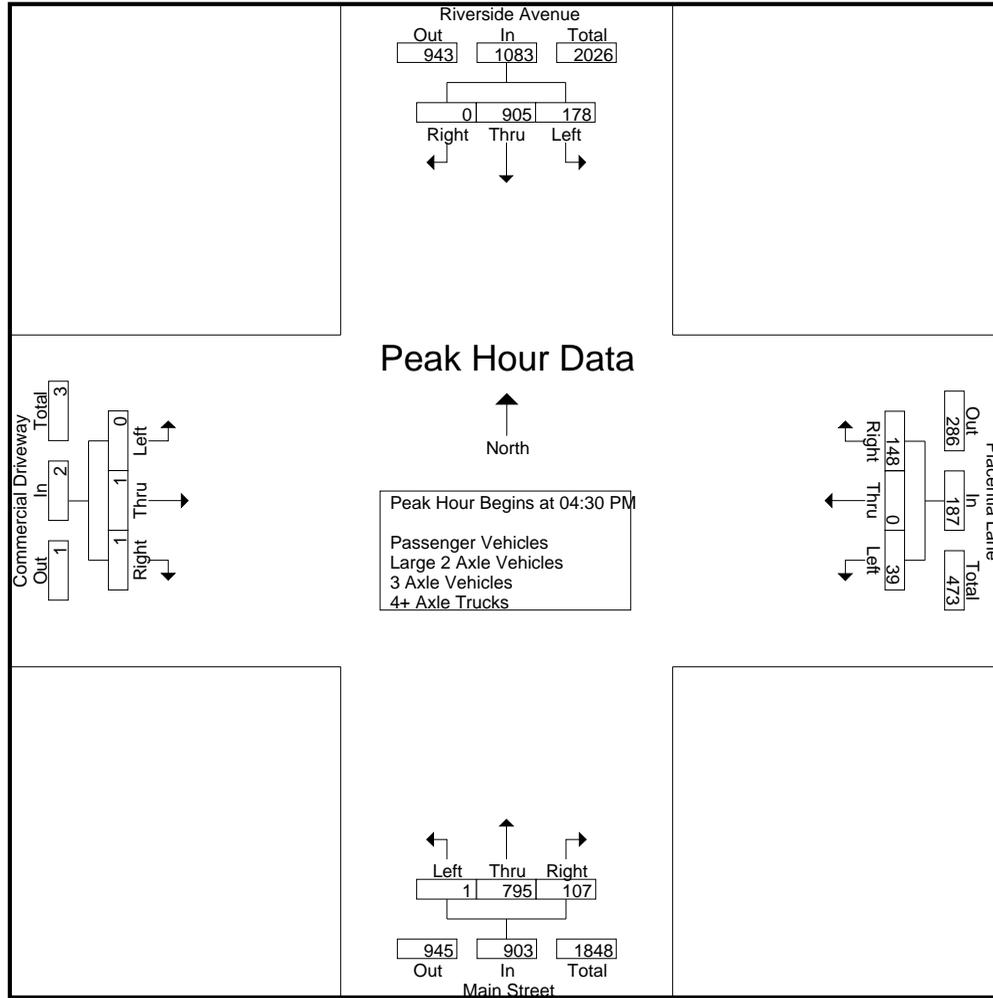
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	45	245	0	290	19	0	33	52	1	146	29	176	0	0	2	2	520
04:15 PM	47	221	0	268	8	0	20	28	0	157	17	174	0	0	0	0	470
04:30 PM	43	227	0	270	14	0	33	47	1	201	28	230	0	0	0	0	547
04:45 PM	48	219	0	267	7	0	29	36	0	156	25	181	0	1	1	2	486
Total	183	912	0	1095	48	0	115	163	2	660	99	761	0	1	3	4	2023
05:00 PM	38	224	0	262	6	0	31	37	0	197	35	232	0	0	0	0	531
05:15 PM	49	235	0	284	12	0	55	67	0	241	19	260	0	0	0	0	611
05:30 PM	36	193	0	229	3	0	17	20	0	176	19	195	0	0	0	0	444
05:45 PM	28	198	0	226	5	0	22	27	0	140	13	153	0	0	0	0	406
Total	151	850	0	1001	26	0	125	151	0	754	86	840	0	0	0	0	1992
Grand Total	334	1762	0	2096	74	0	240	314	2	1414	185	1601	0	1	3	4	4015
Apprch %	15.9	84.1	0		23.6	0	76.4		0.1	88.3	11.6		0	25	75		
Total %	8.3	43.9	0	52.2	1.8	0	6	7.8	0	35.2	4.6	39.9	0	0	0.1	0.1	
Passenger Vehicles	297	1629	0	1926	67	0	214	281	2	1276	172	1450	0	1	3	4	3661
% Passenger Vehicles	88.9	92.5	0	91.9	90.5	0	89.2	89.5	100	90.2	93	90.6	0	100	100	100	91.2
Large 2 Axle Vehicles	7	60	0	67	6	0	14	20	0	78	9	87	0	0	0	0	174
% Large 2 Axle Vehicles	2.1	3.4	0	3.2	8.1	0	5.8	6.4	0	5.5	4.9	5.4	0	0	0	0	4.3
3 Axle Vehicles	16	28	0	44	1	0	5	6	0	21	0	21	0	0	0	0	71
% 3 Axle Vehicles	4.8	1.6	0	2.1	1.4	0	2.1	1.9	0	1.5	0	1.3	0	0	0	0	1.8
4+ Axle Trucks	14	45	0	59	0	0	7	7	0	39	4	43	0	0	0	0	109
% 4+ Axle Trucks	4.2	2.6	0	2.8	0	0	2.9	2.2	0	2.8	2.2	2.7	0	0	0	0	2.7

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	43	227	0	270	14	0	33	47	1	201	28	230	0	0	0	0	547
04:45 PM	48	219	0	267	7	0	29	36	0	156	25	181	0	1	1	2	486
05:00 PM	38	224	0	262	6	0	31	37	0	197	35	232	0	0	0	0	531
05:15 PM	49	235	0	284	12	0	55	67	0	241	19	260	0	0	0	0	611
Total Volume	178	905	0	1083	39	0	148	187	1	795	107	903	0	1	1	2	2175
% App. Total	16.4	83.6	0		20.9	0	79.1		0.1	88	11.8		0	50	50		
PHF	.908	.963	.000	.953	.696	.000	.673	.698	.250	.825	.764	.868	.000	.250	.250	.250	.890



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

	04:00 PM				04:30 PM				04:30 PM				04:00 PM			
+0 mins.	45	245	0	290	14	0	33	47	1	201	28	230	0	0	2	2
+15 mins.	47	221	0	268	7	0	29	36	0	156	25	181	0	0	0	0
+30 mins.	43	227	0	270	6	0	31	37	0	197	35	232	0	0	0	0
+45 mins.	48	219	0	267	12	0	55	67	0	241	19	260	0	1	1	2
Total Volume	183	912	0	1095	39	0	148	187	1	795	107	903	0	1	3	4
% App. Total	16.7	83.3	0		20.9	0	79.1		0.1	88	11.8		0	25	75	
PHF	.953	.931	.000	.944	.696	.000	.673	.698	.250	.825	.764	.868	.000	.250	.375	.500

City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

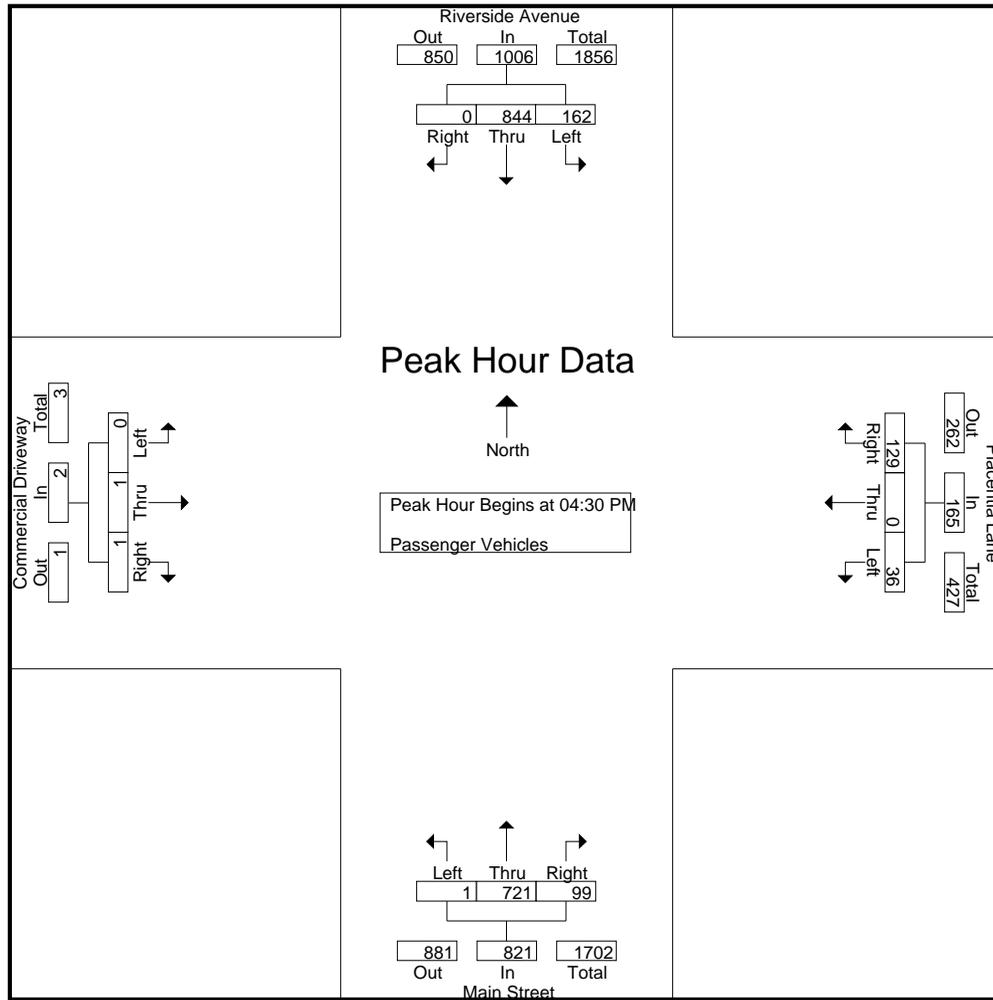
Groups Printed- Passenger Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	37	220	0	257	17	0	29	46	1	127	28	156	0	0	2	2	461
04:15 PM	42	203	0	245	6	0	19	25	0	142	15	157	0	0	0	0	427
04:30 PM	37	207	0	244	13	0	29	42	1	182	24	207	0	0	0	0	493
04:45 PM	42	205	0	247	7	0	24	31	0	141	24	165	0	1	1	2	445
Total	158	835	0	993	43	0	101	144	2	592	91	685	0	1	3	4	1826
05:00 PM	37	211	0	248	4	0	28	32	0	185	33	218	0	0	0	0	498
05:15 PM	46	221	0	267	12	0	48	60	0	213	18	231	0	0	0	0	558
05:30 PM	32	182	0	214	3	0	16	19	0	160	17	177	0	0	0	0	410
05:45 PM	24	180	0	204	5	0	21	26	0	126	13	139	0	0	0	0	369
Total	139	794	0	933	24	0	113	137	0	684	81	765	0	0	0	0	1835
Grand Total	297	1629	0	1926	67	0	214	281	2	1276	172	1450	0	1	3	4	3661
Apprch %	15.4	84.6	0		23.8	0	76.2		0.1	88	11.9		0	25	75		
Total %	8.1	44.5	0	52.6	1.8	0	5.8	7.7	0.1	34.9	4.7	39.6	0	0	0.1	0.1	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	37	207	0	244	13	0	29	42	1	182	24	207	0	0	0	0	493
04:45 PM	42	205	0	247	7	0	24	31	0	141	24	165	0	1	1	2	445
05:00 PM	37	211	0	248	4	0	28	32	0	185	33	218	0	0	0	0	498
05:15 PM	46	221	0	267	12	0	48	60	0	213	18	231	0	0	0	0	558
Total Volume	162	844	0	1006	36	0	129	165	1	721	99	821	0	1	1	2	1994
% App. Total	16.1	83.9	0		21.8	0	78.2		0.1	87.8	12.1		0	50	50		
PHF	.880	.955	.000	.942	.692	.000	.672	.688	.250	.846	.750	.889	.000	.250	.250	.250	.893

City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				04:30 PM			
+0 mins.	37	207	0	244	13	0	29	42	1	182	24	207	0	0	0	0
+15 mins.	42	205	0	247	7	0	24	31	0	141	24	165	0	1	1	2
+30 mins.	37	211	0	248	4	0	28	32	0	185	33	218	0	0	0	0
+45 mins.	46	221	0	267	12	0	48	60	0	213	18	231	0	0	0	0
Total Volume	162	844	0	1006	36	0	129	165	1	721	99	821	0	1	1	2
% App. Total	16.1	83.9	0		21.8	0	78.2		0.1	87.8	12.1		0	50	50	
PHF	.880	.955	.000	.942	.692	.000	.672	.688	.250	.846	.750	.889	.000	.250	.250	.250

City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

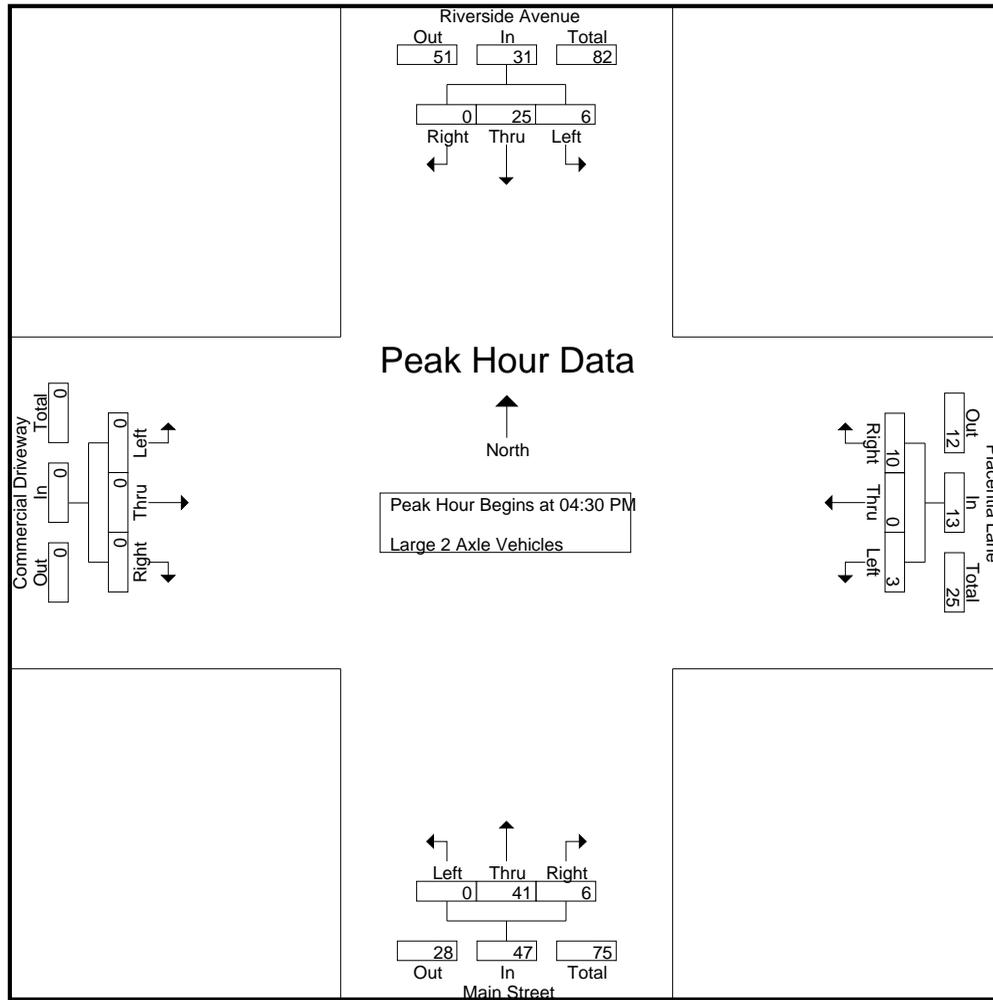
Groups Printed- Large 2 Axle Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	15	0	16	1	0	2	3	0	8	1	9	0	0	0	0	28
04:15 PM	0	8	0	8	2	0	1	3	0	13	1	14	0	0	0	0	25
04:30 PM	1	7	0	8	1	0	2	3	0	10	4	14	0	0	0	0	25
04:45 PM	3	9	0	12	0	0	2	2	0	6	1	7	0	0	0	0	21
Total	5	39	0	44	4	0	7	11	0	37	7	44	0	0	0	0	99
05:00 PM	1	5	0	6	2	0	1	3	0	7	0	7	0	0	0	0	16
05:15 PM	1	4	0	5	0	0	5	5	0	18	1	19	0	0	0	0	29
05:30 PM	0	5	0	5	0	0	1	1	0	7	1	8	0	0	0	0	14
05:45 PM	0	7	0	7	0	0	0	0	0	9	0	9	0	0	0	0	16
Total	2	21	0	23	2	0	7	9	0	41	2	43	0	0	0	0	75
Grand Total	7	60	0	67	6	0	14	20	0	78	9	87	0	0	0	0	174
Apprch %	10.4	89.6	0		30	0	70		0	89.7	10.3		0	0	0		
Total %	4	34.5	0	38.5	3.4	0	8	11.5	0	44.8	5.2	50	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	0	8	1	0	2	3	0	10	4	14	0	0	0	0	25
04:45 PM	3	9	0	12	0	0	2	2	0	6	1	7	0	0	0	0	21
05:00 PM	1	5	0	6	2	0	1	3	0	7	0	7	0	0	0	0	16
05:15 PM	1	4	0	5	0	0	5	5	0	18	1	19	0	0	0	0	29
Total Volume	6	25	0	31	3	0	10	13	0	41	6	47	0	0	0	0	91
% App. Total	19.4	80.6	0		23.1	0	76.9		0	87.2	12.8		0	0	0		
PHF	.500	.694	.000	.646	.375	.000	.500	.650	.000	.569	.375	.618	.000	.000	.000	.000	.784

City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				04:30 PM			
+0 mins.	1	7	0	8	1	0	2	3	0	10	4	14	0	0	0	0
+15 mins.	3	9	0	12	0	0	2	2	0	6	1	7	0	0	0	0
+30 mins.	1	5	0	6	2	0	1	3	0	7	0	7	0	0	0	0
+45 mins.	1	4	0	5	0	0	5	5	0	18	1	19	0	0	0	0
Total Volume	6	25	0	31	3	0	10	13	0	41	6	47	0	0	0	0
% App. Total	19.4	80.6	0		23.1	0	76.9		0	87.2	12.8		0	0	0	
PHF	.500	.694	.000	.646	.375	.000	.500	.650	.000	.569	.375	.618	.000	.000	.000	.000

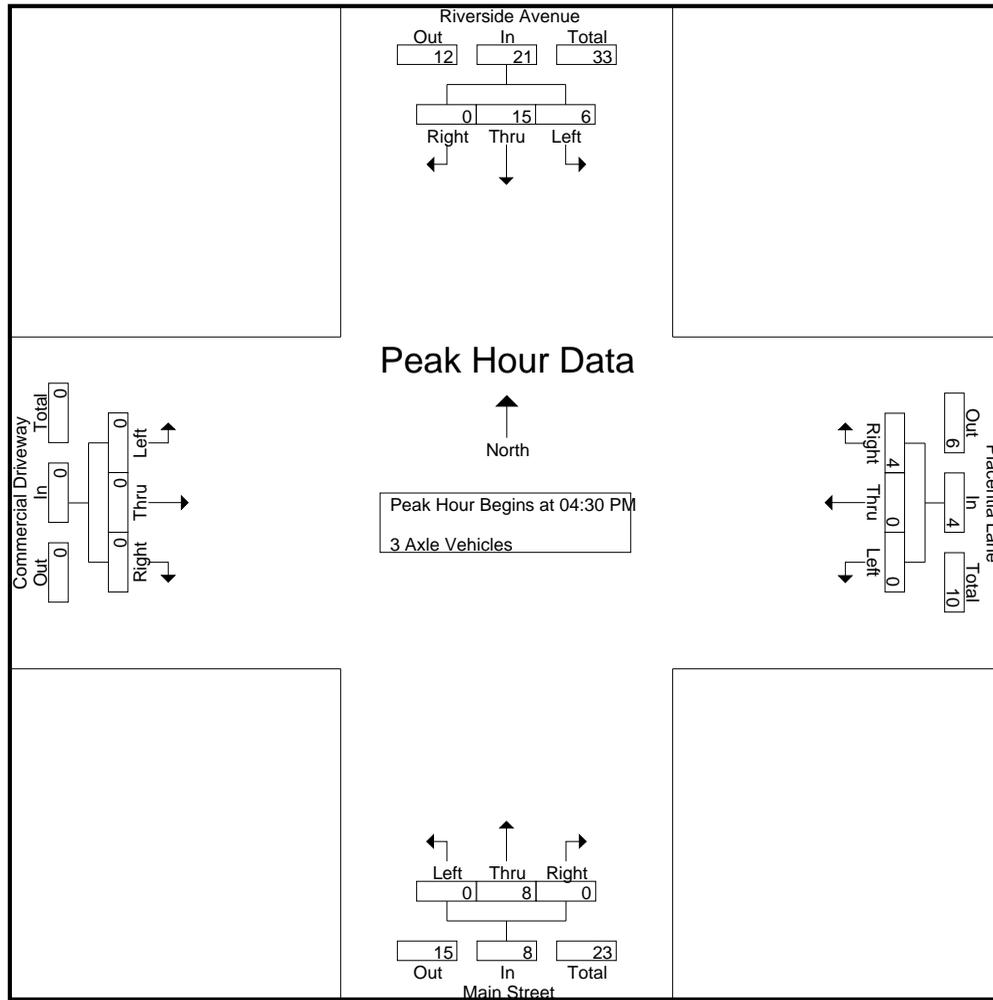
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	5	5	0	10	1	0	0	1	0	4	0	4	0	0	0	0	15
04:15 PM	2	3	0	5	0	0	0	0	0	1	0	1	0	0	0	0	6
04:30 PM	3	7	0	10	0	0	1	1	0	1	0	1	0	0	0	0	12
04:45 PM	2	2	0	4	0	0	2	2	0	4	0	4	0	0	0	0	10
Total	12	17	0	29	1	0	3	4	0	10	0	10	0	0	0	0	43
05:00 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
05:15 PM	1	3	0	4	0	0	1	1	0	1	0	1	0	0	0	0	6
05:30 PM	2	1	0	3	0	0	0	0	0	6	0	6	0	0	0	0	9
05:45 PM	1	4	0	5	0	0	1	1	0	2	0	2	0	0	0	0	8
Total	4	11	0	15	0	0	2	2	0	11	0	11	0	0	0	0	28
Grand Total	16	28	0	44	1	0	5	6	0	21	0	21	0	0	0	0	71
Apprch %	36.4	63.6	0		16.7	0	83.3		0	100	0		0	0	0		
Total %	22.5	39.4	0	62	1.4	0	7	8.5	0	29.6	0	29.6	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	3	7	0	10	0	0	1	1	0	1	0	1	0	0	0	0	12
04:45 PM	2	2	0	4	0	0	2	2	0	4	0	4	0	0	0	0	10
05:00 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
05:15 PM	1	3	0	4	0	0	1	1	0	1	0	1	0	0	0	0	6
Total Volume	6	15	0	21	0	0	4	4	0	8	0	8	0	0	0	0	33
% App. Total	28.6	71.4	0		0	0	100		0	100	0		0	0	0		
PHF	.500	.536	.000	.525	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000	.688



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.	3	7	0	10	0	0	1	1	0	1	0	1	0	0	0	0
+15 mins.	2	2	0	4	0	0	2	2	0	4	0	4	0	0	0	0
+30 mins.	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0
+45 mins.	1	3	0	4	0	0	1	1	0	1	0	1	0	0	0	0
Total Volume	6	15	0	21	0	0	4	4	0	8	0	8	0	0	0	0
% App. Total	28.6	71.4	0		0	0	100		0	100	0		0	0	0	
PHF	.500	.536	.000	.525	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000

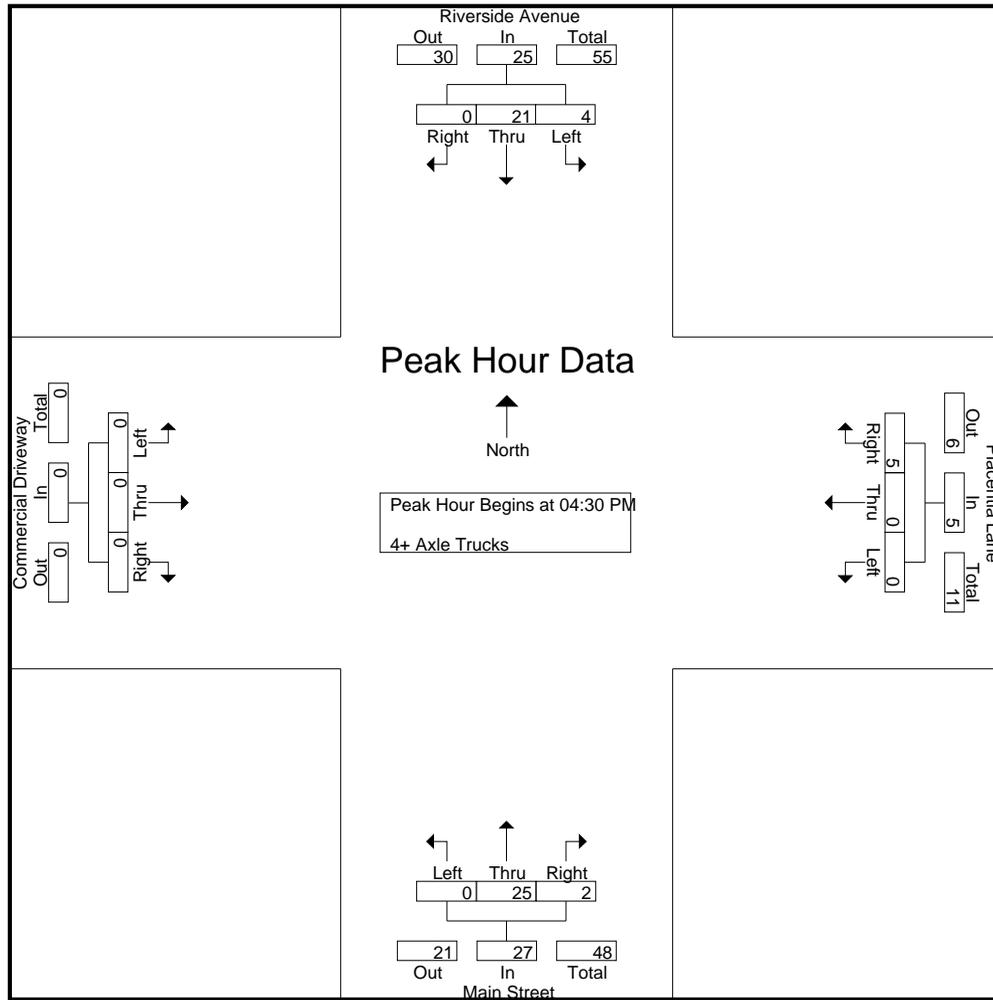
City of Riverside
 N/S: Riverside Avenue/Main Street
 E/W: Placentia Lane
 Weather: Clear

File Name : 01_RIVMAPL PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	5	0	7	0	0	2	2	0	7	0	7	0	0	0	0	16
04:15 PM	3	7	0	10	0	0	0	0	0	1	1	2	0	0	0	0	12
04:30 PM	2	6	0	8	0	0	1	1	0	8	0	8	0	0	0	0	17
04:45 PM	1	3	0	4	0	0	1	1	0	5	0	5	0	0	0	0	10
Total	8	21	0	29	0	0	4	4	0	21	1	22	0	0	0	0	55
05:00 PM	0	5	0	5	0	0	2	2	0	3	2	5	0	0	0	0	12
05:15 PM	1	7	0	8	0	0	1	1	0	9	0	9	0	0	0	0	18
05:30 PM	2	5	0	7	0	0	0	0	0	3	1	4	0	0	0	0	11
05:45 PM	3	7	0	10	0	0	0	0	0	3	0	3	0	0	0	0	13
Total	6	24	0	30	0	0	3	3	0	18	3	21	0	0	0	0	54
Grand Total	14	45	0	59	0	0	7	7	0	39	4	43	0	0	0	0	109
Apprch %	23.7	76.3	0		0	0	100		0	90.7	9.3		0	0	0		
Total %	12.8	41.3	0	54.1	0	0	6.4	6.4	0	35.8	3.7	39.4	0	0	0	0	

Start Time	Riverside Avenue Southbound				Placentia Lane Westbound				Main Street Northbound				Commercial Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	6	0	8	0	0	1	1	0	8	0	8	0	0	0	0	17
04:45 PM	1	3	0	4	0	0	1	1	0	5	0	5	0	0	0	0	10
05:00 PM	0	5	0	5	0	0	2	2	0	3	2	5	0	0	0	0	12
05:15 PM	1	7	0	8	0	0	1	1	0	9	0	9	0	0	0	0	18
Total Volume	4	21	0	25	0	0	5	5	0	25	2	27	0	0	0	0	57
% App. Total	16	84	0		0	0	100		0	92.6	7.4		0	0	0		
PHF	.500	.750	.000	.781	.000	.000	.625	.625	.000	.694	.250	.750	.000	.000	.000	.000	.792



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	6	0	8	0	0	1	1	0	8	0	8	0	0	0	0
+15 mins.	1	3	0	4	0	0	1	1	0	5	0	5	0	0	0	0
+30 mins.	0	5	0	5	0	0	2	2	0	3	2	5	0	0	0	0
+45 mins.	1	7	0	8	0	0	1	1	0	9	0	9	0	0	0	0
Total Volume	4	21	0	25	0	0	5	5	0	25	2	27	0	0	0	0
% App. Total	16	84	0	100	0	0	100	100	0	92.6	7.4	100	0	0	0	0
PHF	.500	.750	.000	.781	.000	.000	.625	.625	.000	.694	.250	.750	.000	.000	.000	.000

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

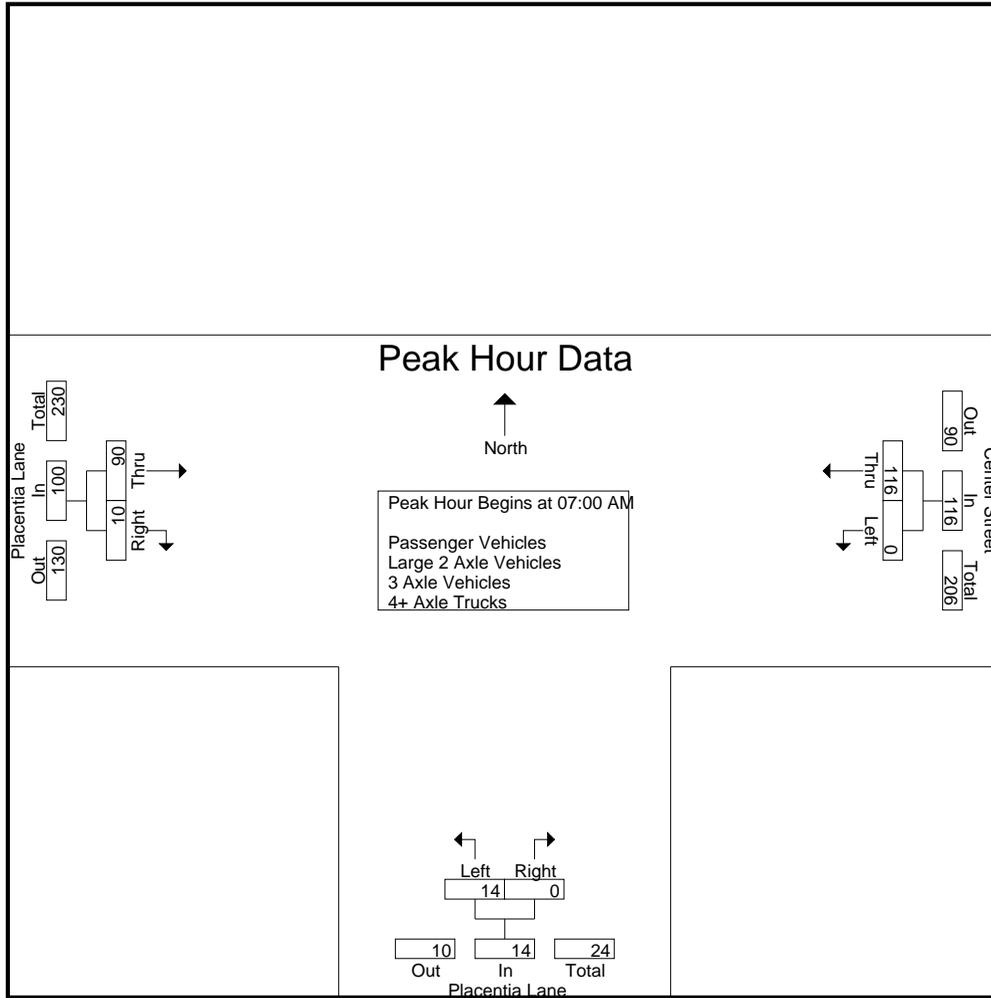
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	38	38	4	0	4	19	1	20	62
07:15 AM	0	34	34	0	0	0	19	5	24	58
07:30 AM	0	16	16	3	0	3	23	4	27	46
07:45 AM	0	28	28	7	0	7	29	0	29	64
Total	0	116	116	14	0	14	90	10	100	230
08:00 AM	0	30	30	1	0	1	25	3	28	59
08:15 AM	0	22	22	0	1	1	23	2	25	48
08:30 AM	0	24	24	3	0	3	27	0	27	54
08:45 AM	0	28	28	3	0	3	34	0	34	65
Total	0	104	104	7	1	8	109	5	114	226
Grand Total	0	220	220	21	1	22	199	15	214	456
Apprch %	0	100		95.5	4.5		93	7		
Total %	0	48.2	48.2	4.6	0.2	4.8	43.6	3.3	46.9	
Passenger Vehicles	0	171	171	19	1	20	143	14	157	348
% Passenger Vehicles	0	77.7	77.7	90.5	100	90.9	71.9	93.3	73.4	76.3
Large 2 Axle Vehicles	0	28	28	1	0	1	22	0	22	51
% Large 2 Axle Vehicles	0	12.7	12.7	4.8	0	4.5	11.1	0	10.3	11.2
3 Axle Vehicles	0	9	9	0	0	0	13	0	13	22
% 3 Axle Vehicles	0	4.1	4.1	0	0	0	6.5	0	6.1	4.8
4+ Axle Trucks	0	12	12	1	0	1	21	1	22	35
% 4+ Axle Trucks	0	5.5	5.5	4.8	0	4.5	10.6	6.7	10.3	7.7

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	38	38	4	0	4	19	1	20	62
07:15 AM	0	34	34	0	0	0	19	5	24	58
07:30 AM	0	16	16	3	0	3	23	4	27	46
07:45 AM	0	28	28	7	0	7	29	0	29	64
Total Volume	0	116	116	14	0	14	90	10	100	230
% App. Total	0	100		100	0		90	10		
PHF	.000	.763	.763	.500	.000	.500	.776	.500	.862	.898

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 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			07:00 AM			08:00 AM		
+0 mins.	0	38	38	4	0	4	25	3	28
+15 mins.	0	34	34	0	0	0	23	2	25
+30 mins.	0	16	16	3	0	3	27	0	27
+45 mins.	0	28	28	7	0	7	34	0	34
Total Volume	0	116	116	14	0	14	109	5	114
% App. Total	0	100		100	0		95.6	4.4	
PHF	.000	.763	.763	.500	.000	.500	.801	.417	.838

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

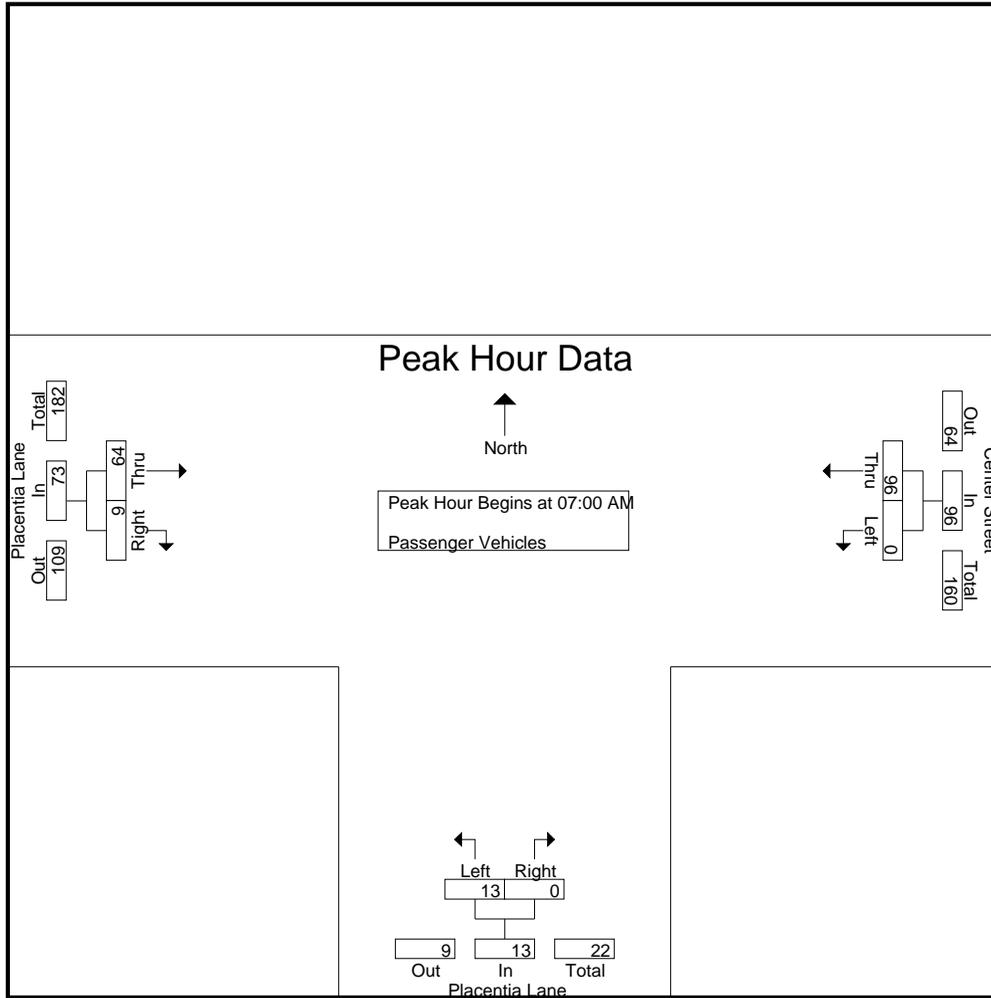
File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	33	33	3	0	3	11	1	12	48
07:15 AM	0	27	27	0	0	0	14	4	18	45
07:30 AM	0	12	12	3	0	3	16	4	20	35
07:45 AM	0	24	24	7	0	7	23	0	23	54
Total	0	96	96	13	0	13	64	9	73	182
08:00 AM	0	22	22	1	0	1	18	3	21	44
08:15 AM	0	15	15	0	1	1	17	2	19	35
08:30 AM	0	15	15	3	0	3	21	0	21	39
08:45 AM	0	23	23	2	0	2	23	0	23	48
Total	0	75	75	6	1	7	79	5	84	166
Grand Total	0	171	171	19	1	20	143	14	157	348
Apprch %	0	100		95	5		91.1	8.9		
Total %	0	49.1	49.1	5.5	0.3	5.7	41.1	4	45.1	

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	33	33	3	0	3	11	1	12	48
07:15 AM	0	27	27	0	0	0	14	4	18	45
07:30 AM	0	12	12	3	0	3	16	4	20	35
07:45 AM	0	24	24	7	0	7	23	0	23	54
Total Volume	0	96	96	13	0	13	64	9	73	182
% App. Total	0	100		100	0		87.7	12.3		
PHF	.000	.727	.727	.464	.000	.464	.696	.563	.793	.843

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



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	33	33	3	0	3	11	1	12
+15 mins.	0	27	27	0	0	0	14	4	18
+30 mins.	0	12	12	3	0	3	16	4	20
+45 mins.	0	24	24	7	0	7	23	0	23
Total Volume	0	96	96	13	0	13	64	9	73
% App. Total	0	100		100	0		87.7	12.3	
PHF	.000	.727	.727	.464	.000	.464	.696	.563	.793

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

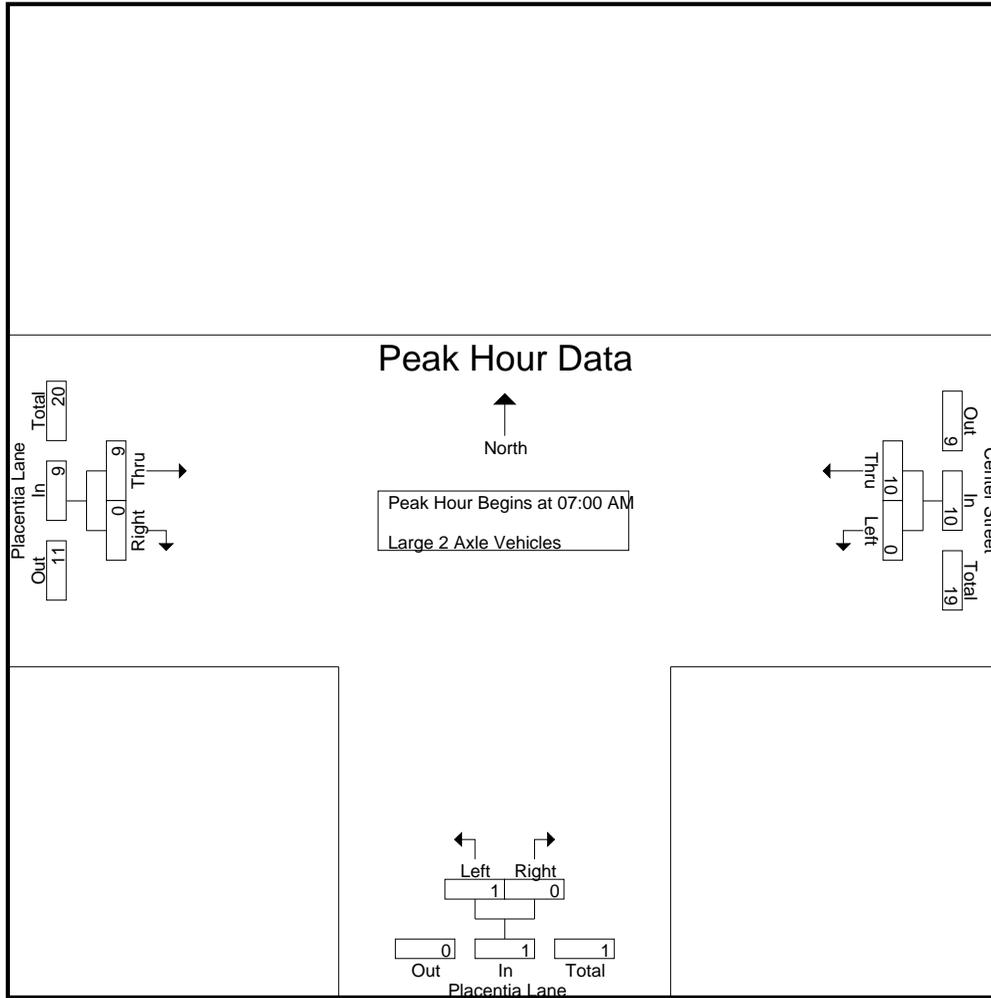
File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	1	0	1	4	0	4	6
07:15 AM	0	5	5	0	0	0	0	0	0	5
07:30 AM	0	2	2	0	0	0	2	0	2	4
07:45 AM	0	2	2	0	0	0	3	0	3	5
Total	0	10	10	1	0	1	9	0	9	20
08:00 AM	0	5	5	0	0	0	0	0	0	5
08:15 AM	0	4	4	0	0	0	4	0	4	8
08:30 AM	0	5	5	0	0	0	5	0	5	10
08:45 AM	0	4	4	0	0	0	4	0	4	8
Total	0	18	18	0	0	0	13	0	13	31
Grand Total	0	28	28	1	0	1	22	0	22	51
Apprch %	0	100		100	0		100	0		
Total %	0	54.9	54.9	2	0	2	43.1	0	43.1	

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	1	0	1	4	0	4	6
07:15 AM	0	5	5	0	0	0	0	0	0	5
07:30 AM	0	2	2	0	0	0	2	0	2	4
07:45 AM	0	2	2	0	0	0	3	0	3	5
Total Volume	0	10	10	1	0	1	9	0	9	20
% App. Total	0	100		100	0		100	0		
PHF	.000	.500	.500	.250	.000	.250	.563	.000	.563	.833

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



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	1	0	1	4	0	4
+15 mins.	0	5	5	0	0	0	0	0	0
+30 mins.	0	2	2	0	0	0	2	0	2
+45 mins.	0	2	2	0	0	0	3	0	3
Total Volume	0	10	10	1	0	1	9	0	9
% App. Total	0	100	100	100	0	100	100	0	100
PHF	.000	.500	.500	.250	.000	.250	.563	.000	.563

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	0	0	0	1	0	1	2
07:15 AM	0	1	1	0	0	0	2	0	2	3
07:30 AM	0	2	2	0	0	0	2	0	2	4
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total	0	4	4	0	0	0	7	0	7	11
08:00 AM	0	1	1	0	0	0	2	0	2	3
08:15 AM	0	2	2	0	0	0	0	0	0	2
08:30 AM	0	1	1	0	0	0	1	0	1	2
08:45 AM	0	1	1	0	0	0	3	0	3	4
Total	0	5	5	0	0	0	6	0	6	11
Grand Total	0	9	9	0	0	0	13	0	13	22
Apprch %	0	100		0	0		100	0		
Total %	0	40.9	40.9	0	0	0	59.1	0	59.1	

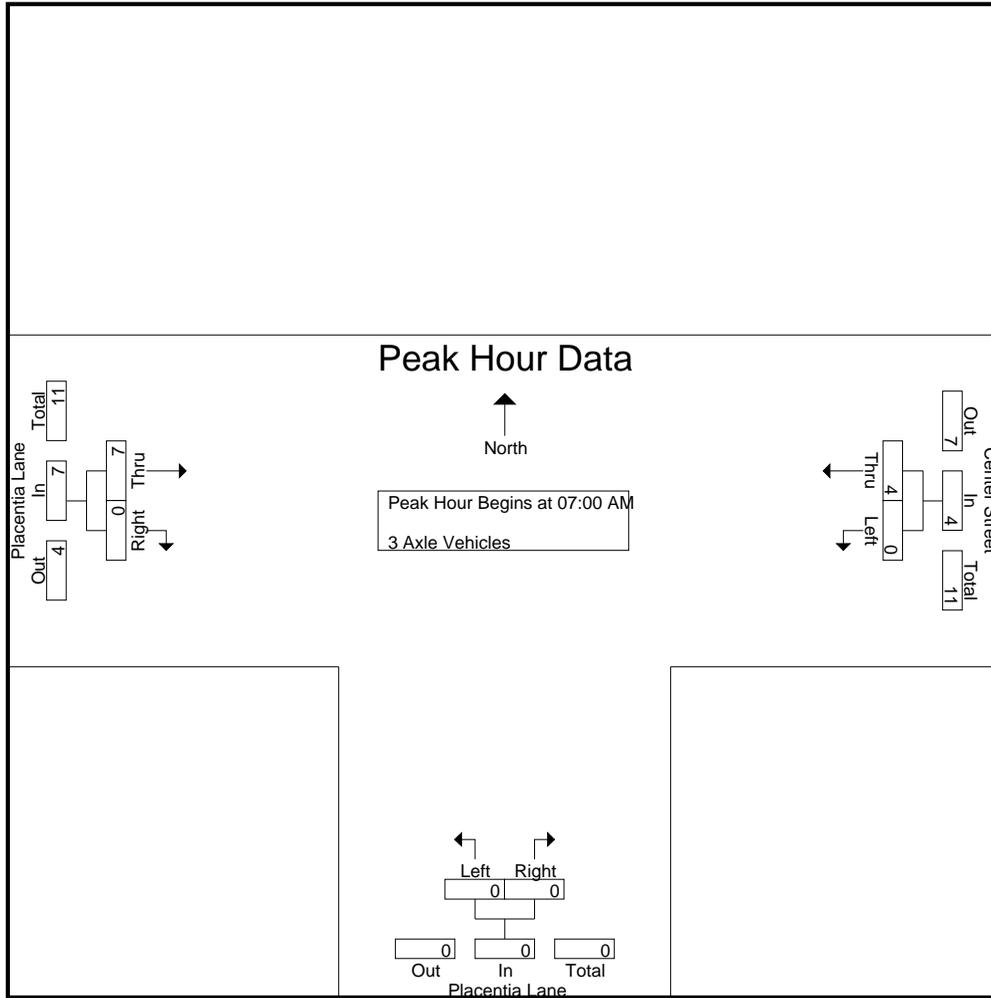
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	1	1	0	0	0	1	0	1	2
07:15 AM	0	1	1	0	0	0	2	0	2	3
07:30 AM	0	2	2	0	0	0	2	0	2	4
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total Volume	0	4	4	0	0	0	7	0	7	11
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.875	.000	.875	.688

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 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.	0	1	1	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	2	0	2
+30 mins.	0	2	2	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	0	2	0	2
Total Volume	0	4	4	0	0	0	7	0	7
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.875	.000	.875

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	3	3	0	0	0	3	0	3	6
07:15 AM	0	1	1	0	0	0	3	1	4	5
07:30 AM	0	0	0	0	0	0	3	0	3	3
07:45 AM	0	2	2	0	0	0	1	0	1	3
Total	0	6	6	0	0	0	10	1	11	17
08:00 AM	0	2	2	0	0	0	5	0	5	7
08:15 AM	0	1	1	0	0	0	2	0	2	3
08:30 AM	0	3	3	0	0	0	0	0	0	3
08:45 AM	0	0	0	1	0	1	4	0	4	5
Total	0	6	6	1	0	1	11	0	11	18
Grand Total	0	12	12	1	0	1	21	1	22	35
Apprch %	0	100		100	0		95.5	4.5		
Total %	0	34.3	34.3	2.9	0	2.9	60	2.9	62.9	

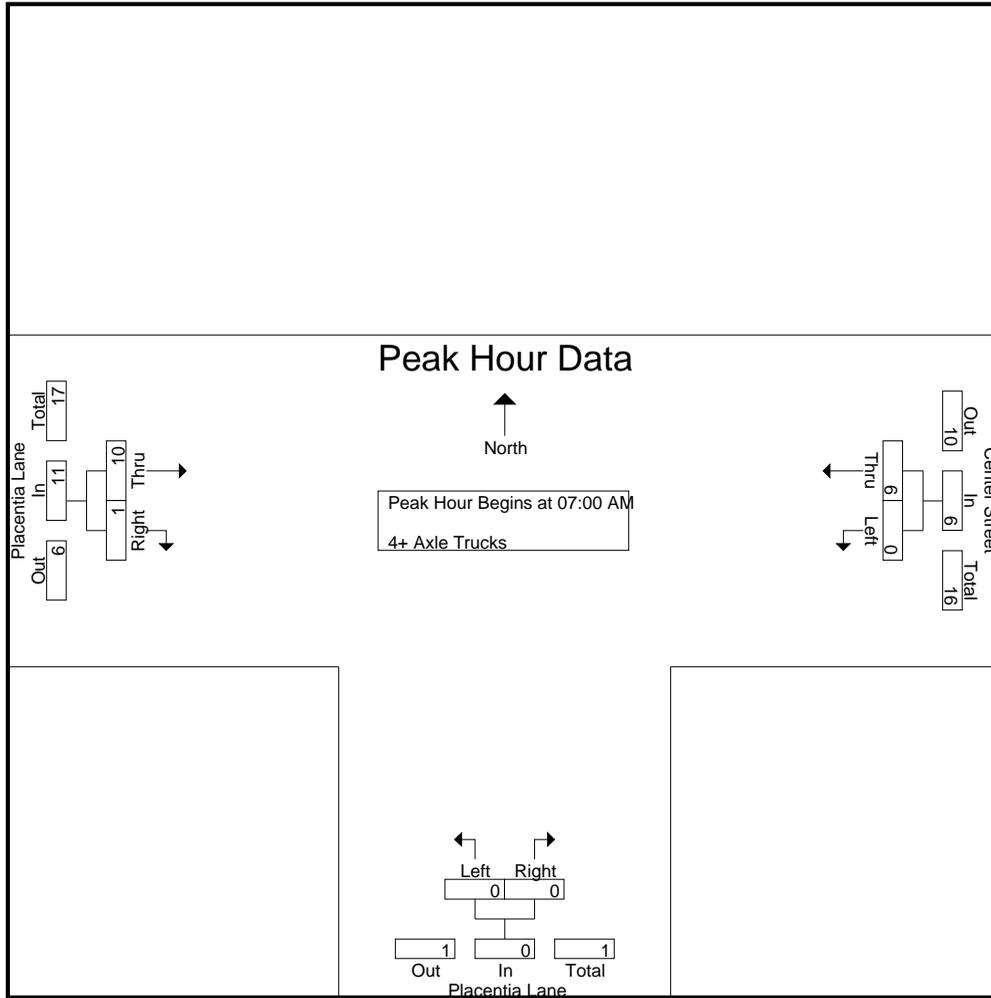
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	3	3	0	0	0	3	0	3	6
07:15 AM	0	1	1	0	0	0	3	1	4	5
07:30 AM	0	0	0	0	0	0	3	0	3	3
07:45 AM	0	2	2	0	0	0	1	0	1	3
Total Volume	0	6	6	0	0	0	10	1	11	17
% App. Total	0	100		0	0		90.9	9.1		
PHF	.000	.500	.500	.000	.000	.000	.833	.250	.688	.708

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 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.	0	3	3	0	0	0	3	0	3
+15 mins.	0	1	1	0	0	0	3	1	4
+30 mins.	0	0	0	0	0	0	3	0	3
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	6	6	0	0	0	10	1	11
% App. Total	0	100		0	0		90.9	9.1	
PHF	.000	.500	.500	.000	.000	.000	.833	.250	.688

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

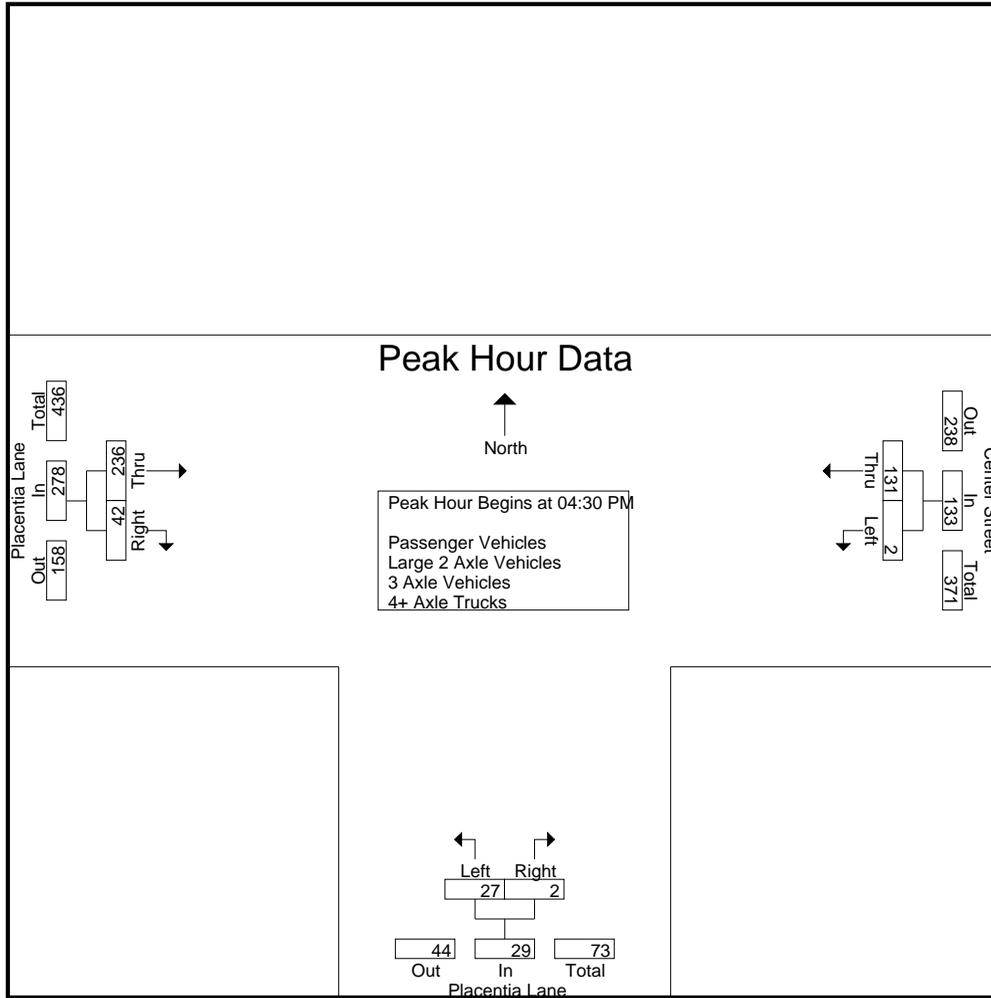
File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	34	35	9	0	9	63	11	74	118
04:15 PM	0	22	22	8	0	8	56	8	64	94
04:30 PM	1	35	36	6	0	6	57	11	68	110
04:45 PM	1	29	30	5	0	5	66	7	73	108
Total	3	120	123	28	0	28	242	37	279	430
05:00 PM	0	24	24	6	1	7	61	13	74	105
05:15 PM	0	43	43	10	1	11	52	11	63	117
05:30 PM	2	16	18	5	2	7	40	14	54	79
05:45 PM	2	17	19	5	0	5	38	3	41	65
Total	4	100	104	26	4	30	191	41	232	366
Grand Total	7	220	227	54	4	58	433	78	511	796
Apprch %	3.1	96.9		93.1	6.9		84.7	15.3		
Total %	0.9	27.6	28.5	6.8	0.5	7.3	54.4	9.8	64.2	
Passenger Vehicles	7	191	198	47	3	50	389	71	460	708
% Passenger Vehicles	100	86.8	87.2	87	75	86.2	89.8	91	90	88.9
Large 2 Axle Vehicles	0	16	16	7	1	8	16	6	22	46
% Large 2 Axle Vehicles	0	7.3	7	13	25	13.8	3.7	7.7	4.3	5.8
3 Axle Vehicles	0	7	7	0	0	0	13	1	14	21
% 3 Axle Vehicles	0	3.2	3.1	0	0	0	3	1.3	2.7	2.6
4+ Axle Trucks	0	6	6	0	0	0	15	0	15	21
% 4+ Axle Trucks	0	2.7	2.6	0	0	0	3.5	0	2.9	2.6

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	1	35	36	6	0	6	57	11	68	110
04:45 PM	1	29	30	5	0	5	66	7	73	108
05:00 PM	0	24	24	6	1	7	61	13	74	105
05:15 PM	0	43	43	10	1	11	52	11	63	117
Total Volume	2	131	133	27	2	29	236	42	278	440
% App. Total	1.5	98.5		93.1	6.9		84.9	15.1		
PHF	.500	.762	.773	.675	.500	.659	.894	.808	.939	.940

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



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			04:45 PM			04:00 PM		
+0 mins.	1	35	36	5	0	5	63	11	74
+15 mins.	1	29	30	6	1	7	56	8	64
+30 mins.	0	24	24	10	1	11	57	11	68
+45 mins.	0	43	43	5	2	7	66	7	73
Total Volume	2	131	133	26	4	30	242	37	279
% App. Total	1.5	98.5		86.7	13.3		86.7	13.3	
PHF	.500	.762	.773	.650	.500	.682	.917	.841	.943

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

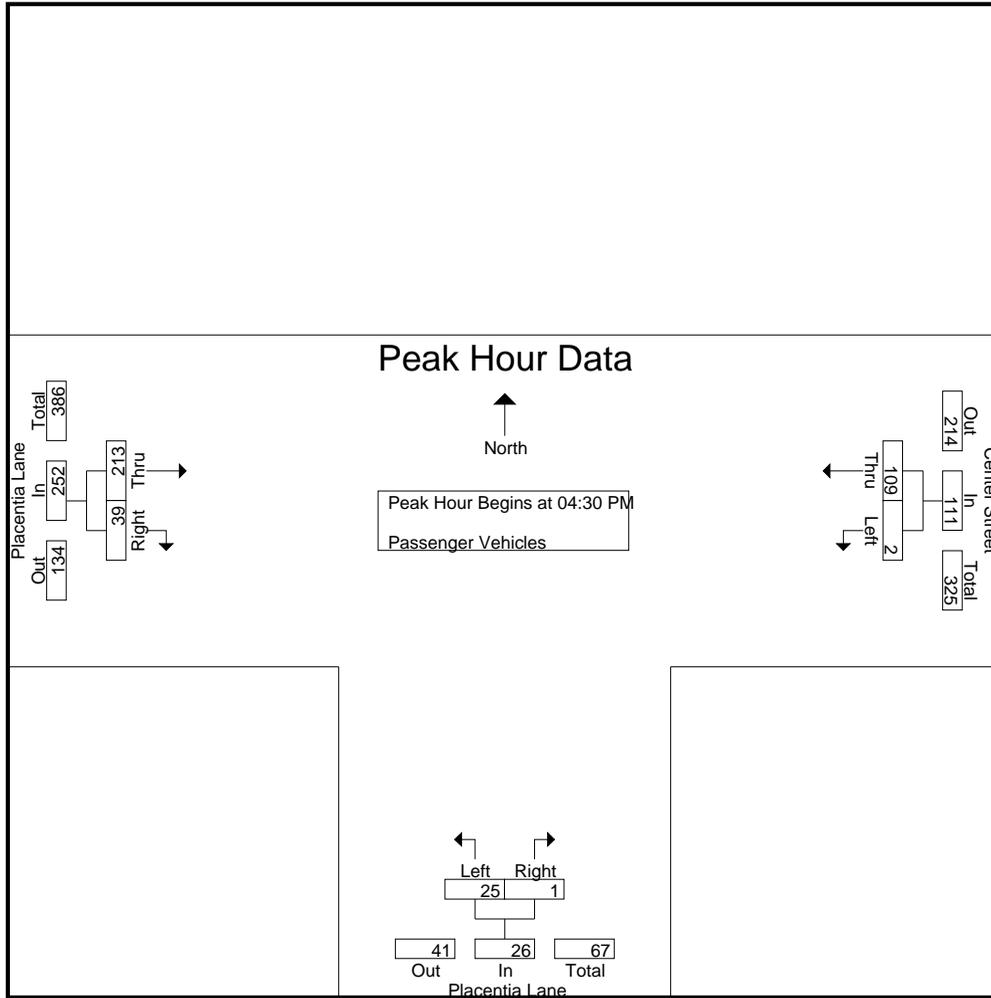
File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	31	32	7	0	7	57	9	66	105
04:15 PM	0	20	20	6	0	6	50	7	57	83
04:30 PM	1	28	29	6	0	6	48	8	56	91
04:45 PM	1	22	23	5	0	5	59	7	66	94
Total	3	101	104	24	0	24	214	31	245	373
05:00 PM	0	23	23	5	0	5	58	13	71	99
05:15 PM	0	36	36	9	1	10	48	11	59	105
05:30 PM	2	15	17	4	2	6	36	13	49	72
05:45 PM	2	16	18	5	0	5	33	3	36	59
Total	4	90	94	23	3	26	175	40	215	335
Grand Total	7	191	198	47	3	50	389	71	460	708
Apprch %	3.5	96.5		94	6		84.6	15.4		
Total %	1	27	28	6.6	0.4	7.1	54.9	10	65	

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	1	28	29	6	0	6	48	8	56	91
04:45 PM	1	22	23	5	0	5	59	7	66	94
05:00 PM	0	23	23	5	0	5	58	13	71	99
05:15 PM	0	36	36	9	1	10	48	11	59	105
Total Volume	2	109	111	25	1	26	213	39	252	389
% App. Total	1.8	98.2		96.2	3.8		84.5	15.5		
PHF	.500	.757	.771	.694	.250	.650	.903	.750	.887	.926

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



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	28	29	6	0	6	48	8	56
+15 mins.	1	22	23	5	0	5	59	7	66
+30 mins.	0	23	23	5	0	5	58	13	71
+45 mins.	0	36	36	9	1	10	48	11	59
Total Volume	2	109	111	25	1	26	213	39	252
% App. Total	1.8	98.2		96.2	3.8		84.5	15.5	
PHF	.500	.757	.771	.694	.250	.650	.903	.750	.887

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	1	1	2	0	2	1	1	2	5
04:15 PM	0	2	2	2	0	2	1	1	2	6
04:30 PM	0	4	4	0	0	0	3	3	6	10
04:45 PM	0	2	2	0	0	0	5	0	5	7
Total	0	9	9	4	0	4	10	5	15	28
05:00 PM	0	1	1	1	1	2	2	0	2	5
05:15 PM	0	5	5	1	0	1	2	0	2	8
05:30 PM	0	1	1	1	0	1	1	1	2	4
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	7	7	3	1	4	6	1	7	18
Grand Total	0	16	16	7	1	8	16	6	22	46
Apprch %	0	100		87.5	12.5		72.7	27.3		
Total %	0	34.8	34.8	15.2	2.2	17.4	34.8	13	47.8	

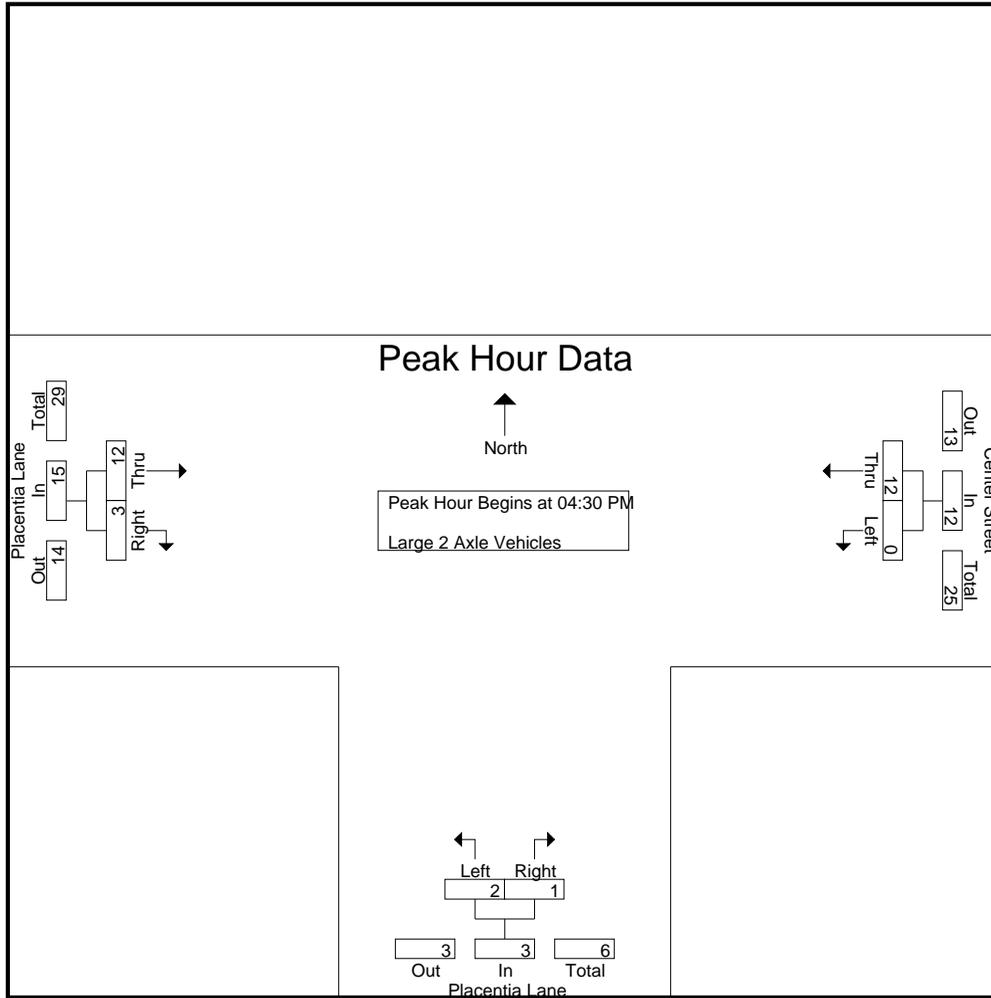
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	0	4	4	0	0	0	3	3	6	10
04:45 PM	0	2	2	0	0	0	5	0	5	7
05:00 PM	0	1	1	1	1	2	2	0	2	5
05:15 PM	0	5	5	1	0	1	2	0	2	8
Total Volume	0	12	12	2	1	3	12	3	15	30
% App. Total	0	100		66.7	33.3		80	20		
PHF	.000	.600	.600	.500	.250	.375	.600	.250	.625	.750

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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	4	4	0	0	0	3	3	6
+15 mins.	0	2	2	0	0	0	5	0	5
+30 mins.	0	1	1	1	1	2	2	0	2
+45 mins.	0	5	5	1	0	1	2	0	2
Total Volume	0	12	12	2	1	3	12	3	15
% App. Total	0	100		66.7	33.3		80	20	
PHF	.000	.600	.600	.500	.250	.375	.600	.250	.625

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 3 Axle Vehicles

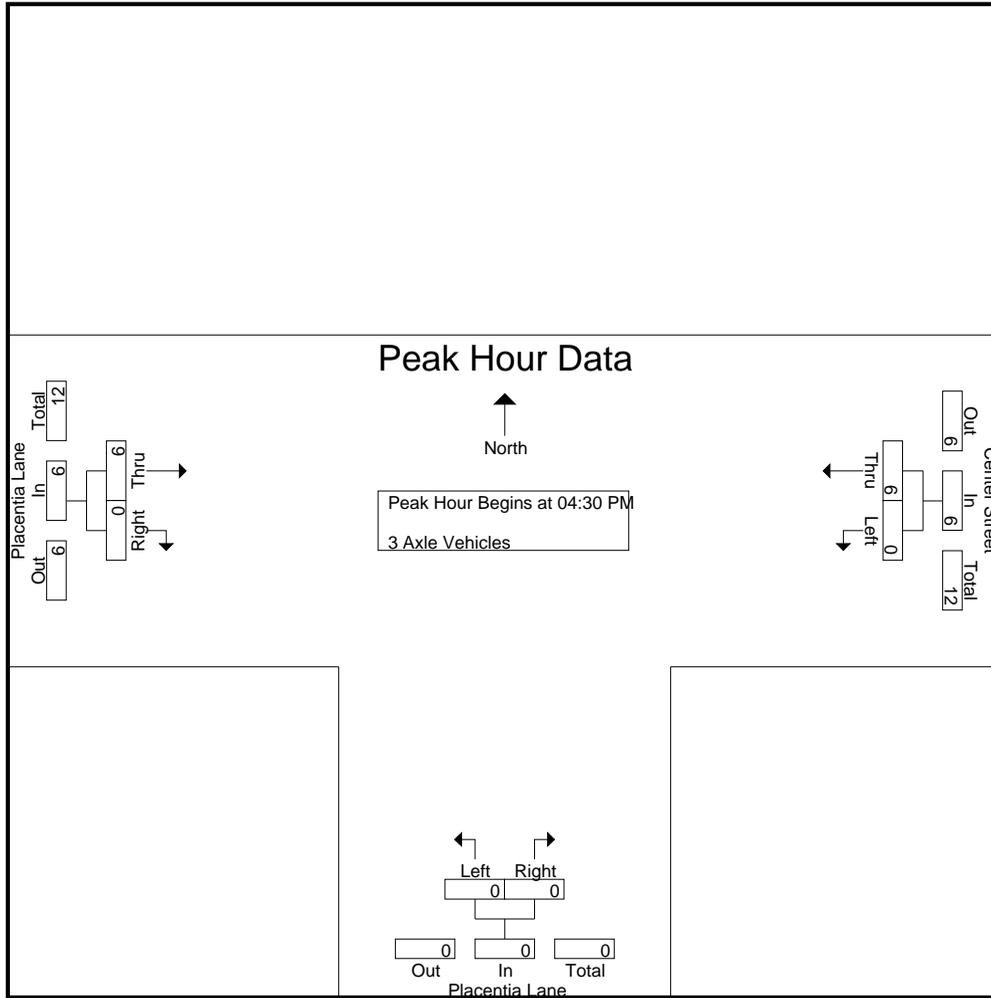
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	3	1	4	4
04:15 PM	0	0	0	0	0	0	2	0	2	2
04:30 PM	0	2	2	0	0	0	3	0	3	5
04:45 PM	0	3	3	0	0	0	2	0	2	5
Total	0	5	5	0	0	0	10	1	11	16
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	2	0	2	2
05:45 PM	0	1	1	0	0	0	0	0	0	1
Total	0	2	2	0	0	0	3	0	3	5
Grand Total	0	7	7	0	0	0	13	1	14	21
Apprch %	0	100		0	0		92.9	7.1		
Total %	0	33.3	33.3	0	0	0	61.9	4.8	66.7	

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	0	2	2	0	0	0	3	0	3	5
04:45 PM	0	3	3	0	0	0	2	0	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	6	6	0	0	0	6	0	6	12
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.600

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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	2	2	0	0	0	3	0	3
+15 mins.	0	3	3	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	6	6	0	0	0	6	0	6
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	2	2	0	0	0	2	0	2	4
04:15 PM	0	0	0	0	0	0	3	0	3	3
04:30 PM	0	1	1	0	0	0	3	0	3	4
04:45 PM	0	2	2	0	0	0	0	0	0	2
Total	0	5	5	0	0	0	8	0	8	13
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	4	0	4	4
Total	0	1	1	0	0	0	7	0	7	8
Grand Total	0	6	6	0	0	0	15	0	15	21
Apprch %	0	100		0	0		100	0		
Total %	0	28.6	28.6	0	0	0	71.4	0	71.4	

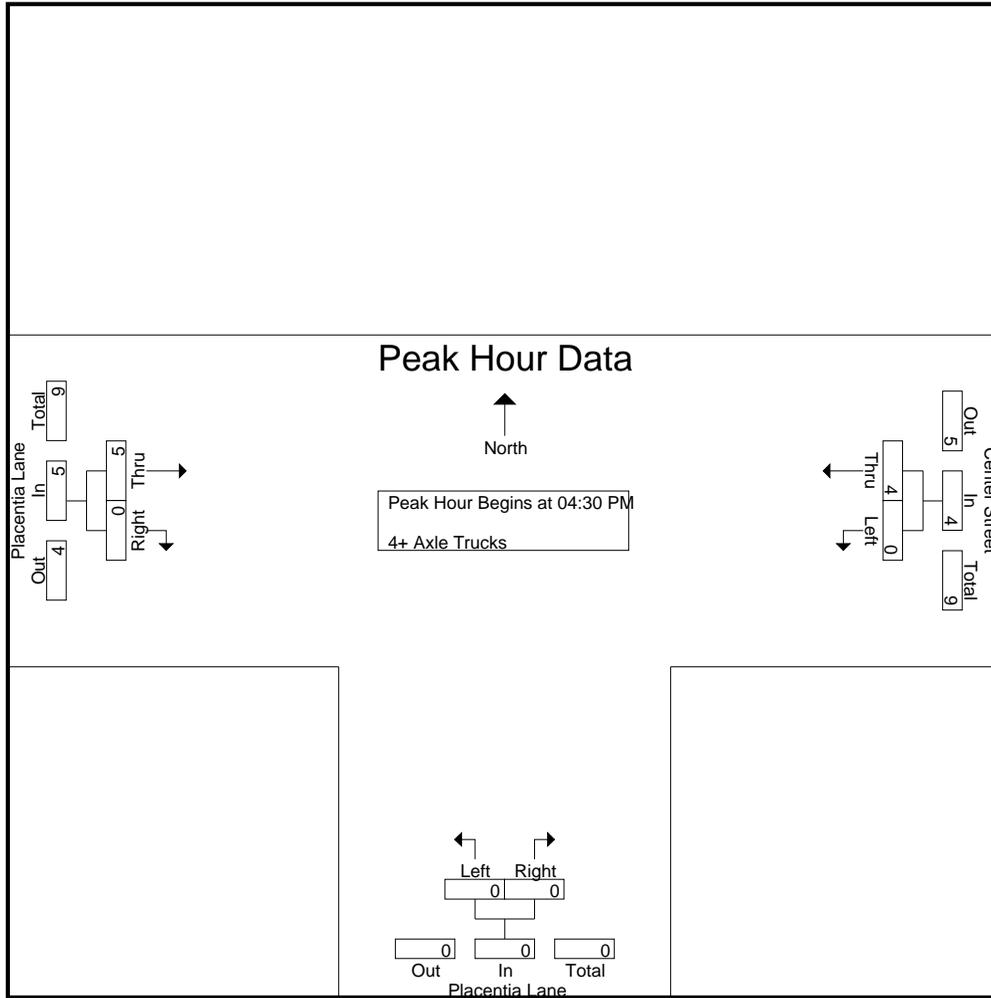
Start Time	Center Street Westbound			Placentia Lane Northbound			Placentia Lane Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	0	1	1	0	0	0	3	0	3	4
04:45 PM	0	2	2	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	4	4	0	0	0	5	0	5	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.417	.000	.417	.563

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

City of Riverside
 N/S: Placentia Lane
 E/W: Placentia Lane/Center Street
 Weather: Clear

File Name : 02_RIVPLCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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	1	1	0	0	0	3	0	3
+15 mins.	0	2	2	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	4	4	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.417	.000	.417

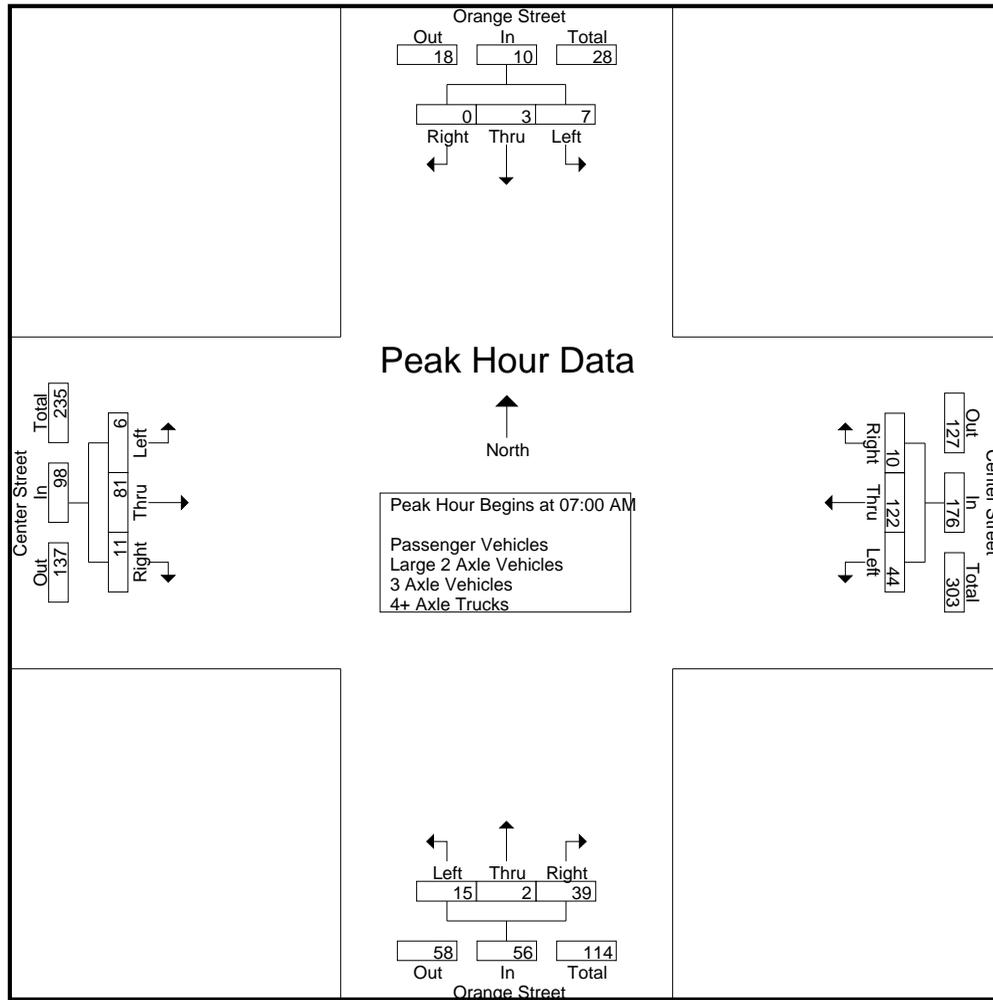
City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	1	0	2	12	32	1	45	8	1	7	16	3	13	6	22	85
07:15 AM	3	1	0	4	11	35	4	50	3	1	7	11	2	19	1	22	87
07:30 AM	1	0	0	1	12	31	1	44	1	0	9	10	0	18	2	20	75
07:45 AM	2	1	0	3	9	24	4	37	3	0	16	19	1	31	2	34	93
Total	7	3	0	10	44	122	10	176	15	2	39	56	6	81	11	98	340
08:00 AM	0	0	0	0	9	28	1	38	3	0	7	10	0	22	3	25	73
08:15 AM	1	0	0	1	8	24	4	36	2	3	9	14	0	21	7	28	79
08:30 AM	1	0	3	4	17	26	5	48	2	0	4	6	3	19	6	28	86
08:45 AM	3	0	1	4	9	27	0	36	5	1	12	18	1	31	4	36	94
Total	5	0	4	9	43	105	10	158	12	4	32	48	4	93	20	117	332
Grand Total	12	3	4	19	87	227	20	334	27	6	71	104	10	174	31	215	672
Apprch %	63.2	15.8	21.1		26	68	6		26	5.8	68.3		4.7	80.9	14.4		
Total %	1.8	0.4	0.6	2.8	12.9	33.8	3	49.7	4	0.9	10.6	15.5	1.5	25.9	4.6	32	
Passenger Vehicles	6	3	3	12	76	177	17	270	11	5	61	77	8	115	10	133	492
% Passenger Vehicles	50	100	75	63.2	87.4	78	85	80.8	40.7	83.3	85.9	74	80	66.1	32.3	61.9	73.2
Large 2 Axle Vehicles	1	0	1	2	7	28	2	37	14	0	5	19	1	23	17	41	99
% Large 2 Axle Vehicles	8.3	0	25	10.5	8	12.3	10	11.1	51.9	0	7	18.3	10	13.2	54.8	19.1	14.7
3 Axle Vehicles	0	0	0	0	0	10	0	10	1	1	2	4	0	16	2	18	32
% 3 Axle Vehicles	0	0	0	0	0	4.4	0	3	3.7	16.7	2.8	3.8	0	9.2	6.5	8.4	4.8
4+ Axle Trucks	5	0	0	5	4	12	1	17	1	0	3	4	1	20	2	23	49
% 4+ Axle Trucks	41.7	0	0	26.3	4.6	5.3	5	5.1	3.7	0	4.2	3.8	10	11.5	6.5	10.7	7.3

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	1	0	2	12	32	1	45	8	1	7	16	3	13	6	22	85
07:15 AM	3	1	0	4	11	35	4	50	3	1	7	11	2	19	1	22	87
07:30 AM	1	0	0	1	12	31	1	44	1	0	9	10	0	18	2	20	75
07:45 AM	2	1	0	3	9	24	4	37	3	0	16	19	1	31	2	34	93
Total Volume	7	3	0	10	44	122	10	176	15	2	39	56	6	81	11	98	340
% App. Total	70	30	0		25	69.3	5.7		26.8	3.6	69.6		6.1	82.7	11.2		
PHF	.583	.750	.000	.625	.917	.871	.625	.880	.469	.500	.609	.737	.500	.653	.458	.721	.914



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				08:00 AM			
+0 mins.	1	1	0	2	12	32	1	45	8	1	7	16	0	22	3	25
+15 mins.	3	1	0	4	11	35	4	50	3	1	7	11	0	21	7	28
+30 mins.	1	0	0	1	12	31	1	44	1	0	9	10	3	19	6	28
+45 mins.	2	1	0	3	9	24	4	37	3	0	16	19	1	31	4	36
Total Volume	7	3	0	10	44	122	10	176	15	2	39	56	4	93	20	117
% App. Total	70	30	0		25	69.3	5.7		26.8	3.6	69.6		3.4	79.5	17.1	
PHF	.583	.750	.000	.625	.917	.871	.625	.880	.469	.500	.609	.737	.333	.750	.714	.813

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

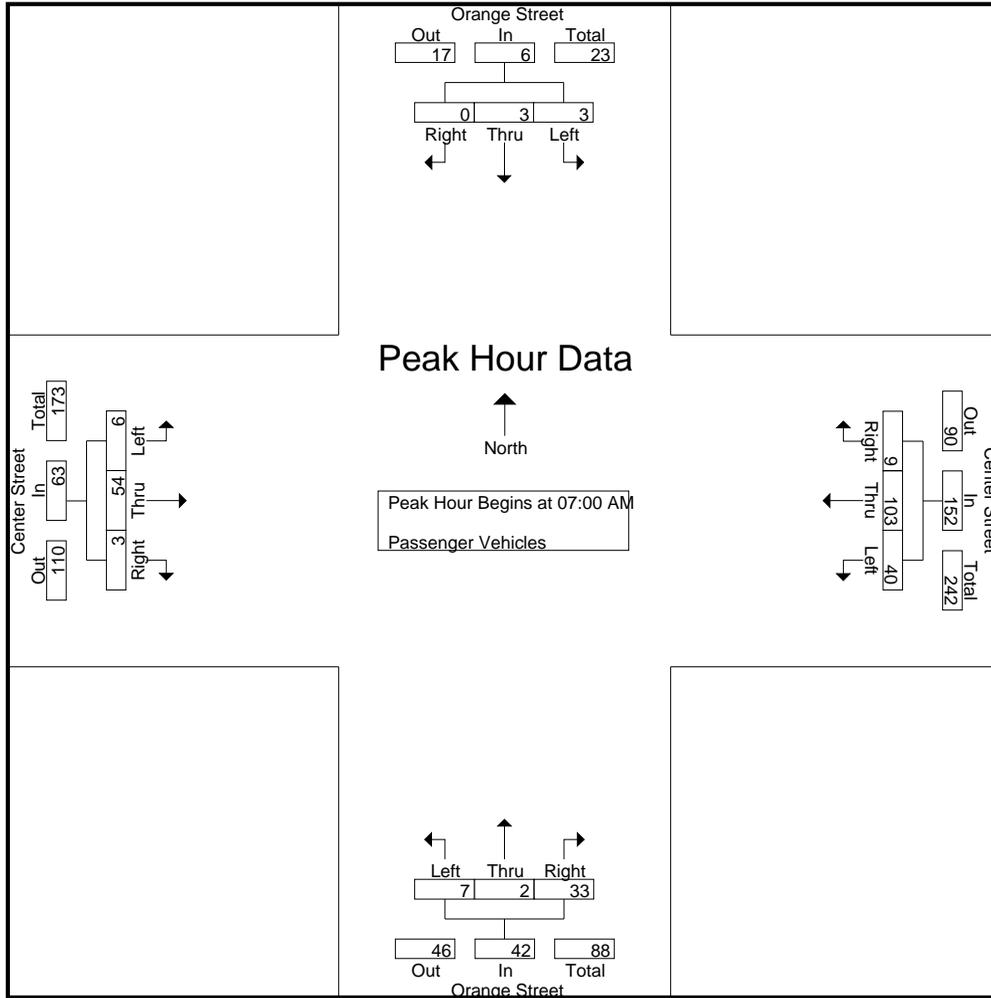
Groups Printed- Passenger Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	0	1	11	29	0	40	3	1	5	9	3	7	0	10	60
07:15 AM	2	1	0	3	11	28	4	43	1	1	6	8	2	11	0	13	67
07:30 AM	0	0	0	0	10	27	1	38	1	0	9	10	0	10	2	12	60
07:45 AM	1	1	0	2	8	19	4	31	2	0	13	15	1	26	1	28	76
Total	3	3	0	6	40	103	9	152	7	2	33	42	6	54	3	63	263
08:00 AM	0	0	0	0	7	22	1	30	2	0	6	8	0	14	1	15	53
08:15 AM	1	0	0	1	8	14	3	25	0	2	7	9	0	12	2	14	49
08:30 AM	0	0	2	2	13	16	4	33	0	0	4	4	2	15	3	20	59
08:45 AM	2	0	1	3	8	22	0	30	2	1	11	14	0	20	1	21	68
Total	3	0	3	6	36	74	8	118	4	3	28	35	2	61	7	70	229
Grand Total	6	3	3	12	76	177	17	270	11	5	61	77	8	115	10	133	492
Apprch %	50	25	25		28.1	65.6	6.3		14.3	6.5	79.2		6	86.5	7.5		
Total %	1.2	0.6	0.6	2.4	15.4	36	3.5	54.9	2.2	1	12.4	15.7	1.6	23.4	2	27	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	0	1	11	29	0	40	3	1	5	9	3	7	0	10	60
07:15 AM	2	1	0	3	11	28	4	43	1	1	6	8	2	11	0	13	67
07:30 AM	0	0	0	0	10	27	1	38	1	0	9	10	0	10	2	12	60
07:45 AM	1	1	0	2	8	19	4	31	2	0	13	15	1	26	1	28	76
Total Volume	3	3	0	6	40	103	9	152	7	2	33	42	6	54	3	63	263
% App. Total	50	50	0		26.3	67.8	5.9		16.7	4.8	78.6		9.5	85.7	4.8		
PHF	.375	.750	.000	.500	.909	.888	.563	.884	.583	.500	.635	.700	.500	.519	.375	.563	.865

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				07:00 AM			
+0 mins.	0	1	0	1	11	29	0	40	3	1	5	9	3	7	0	10
+15 mins.	2	1	0	3	11	28	4	43	1	1	6	8	2	11	0	13
+30 mins.	0	0	0	0	10	27	1	38	1	0	9	10	0	10	2	12
+45 mins.	1	1	0	2	8	19	4	31	2	0	13	15	1	26	1	28
Total Volume	3	3	0	6	40	103	9	152	7	2	33	42	6	54	3	63
% App. Total	50	50	0		26.3	67.8	5.9		16.7	4.8	78.6		9.5	85.7	4.8	
PHF	.375	.750	.000	.500	.909	.888	.563	.884	.583	.500	.635	.700	.500	.519	.375	.563

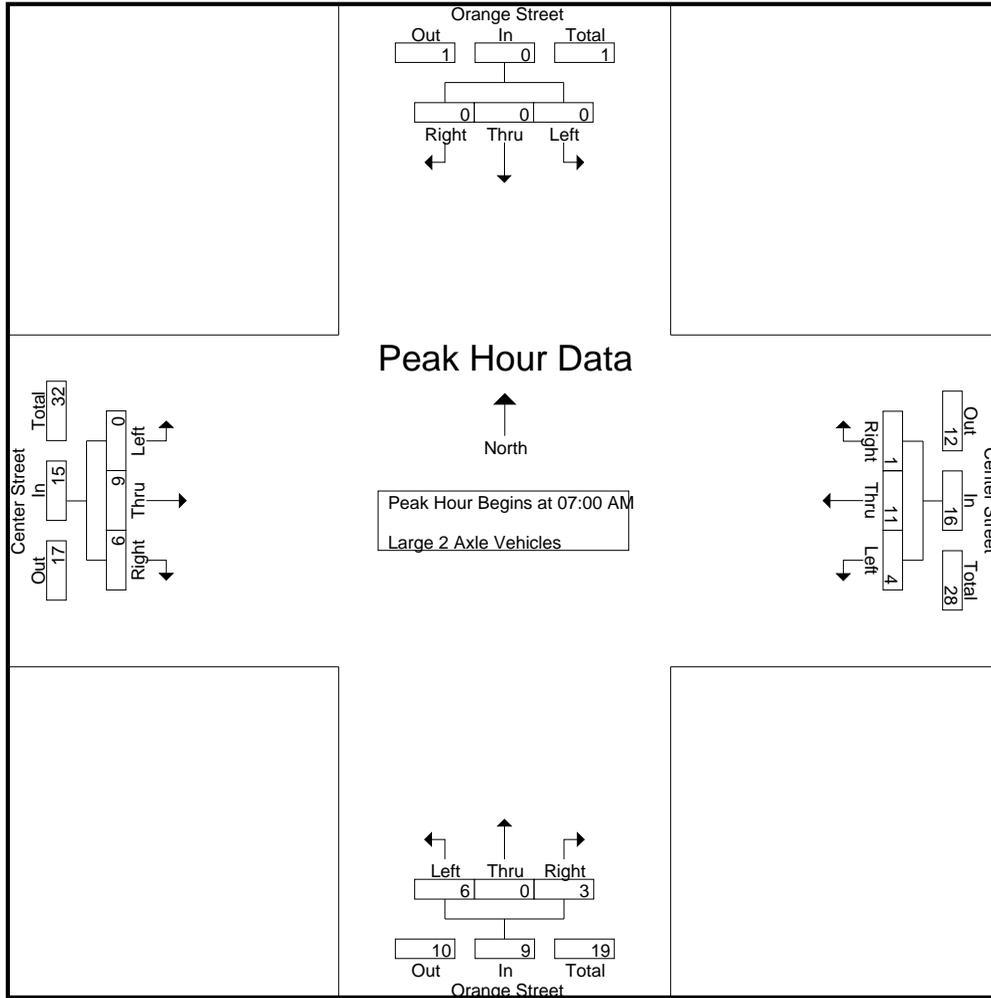
City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	1	1	3	4	0	2	6	0	2	5	7	16
07:15 AM	0	0	0	0	0	5	0	5	2	0	0	2	0	2	1	3	10
07:30 AM	0	0	0	0	2	2	0	4	0	0	0	0	0	2	0	2	6
07:45 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	3	0	3	8
Total	0	0	0	0	4	11	1	16	6	0	3	9	0	9	6	15	40
08:00 AM	0	0	0	0	2	5	0	7	1	0	1	2	0	1	1	2	11
08:15 AM	0	0	0	0	0	2	0	2	2	0	1	3	0	4	5	9	14
08:30 AM	0	0	1	1	1	6	1	8	2	0	0	2	1	4	2	7	18
08:45 AM	1	0	0	1	0	4	0	4	3	0	0	3	0	5	3	8	16
Total	1	0	1	2	3	17	1	21	8	0	2	10	1	14	11	26	59
Grand Total	1	0	1	2	7	28	2	37	14	0	5	19	1	23	17	41	99
Apprch %	50	0	50		18.9	75.7	5.4		73.7	0	26.3		2.4	56.1	41.5		
Total %	1	0	1	2	7.1	28.3	2	37.4	14.1	0	5.1	19.2	1	23.2	17.2	41.4	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	1	1	1	3	4	0	2	6	0	2	5	7	16
07:15 AM	0	0	0	0	0	5	0	5	2	0	0	2	0	2	1	3	10
07:30 AM	0	0	0	0	2	2	0	4	0	0	0	0	0	2	0	2	6
07:45 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	3	0	3	8
Total Volume	0	0	0	0	4	11	1	16	6	0	3	9	0	9	6	15	40
% App. Total	0	0	0		25	68.8	6.2		66.7	0	33.3		0	60	40		
PHF	.000	.000	.000	.000	.500	.550	.250	.800	.375	.000	.375	.375	.000	.750	.300	.536	.625



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	1	1	1	3	4	0	2	6	0	2	5	7
+15 mins.	0	0	0	0	0	5	0	5	2	0	0	2	0	2	1	3
+30 mins.	0	0	0	0	2	2	0	4	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	1	3	0	4	0	0	1	1	0	3	0	3
Total Volume	0	0	0	0	4	11	1	16	6	0	3	9	0	9	6	15
% App. Total	0	0	0	0	25	68.8	6.2		66.7	0	33.3		0	60	40	
PHF	.000	.000	.000	.000	.500	.550	.250	.800	.375	.000	.375	.375	.000	.750	.300	.536

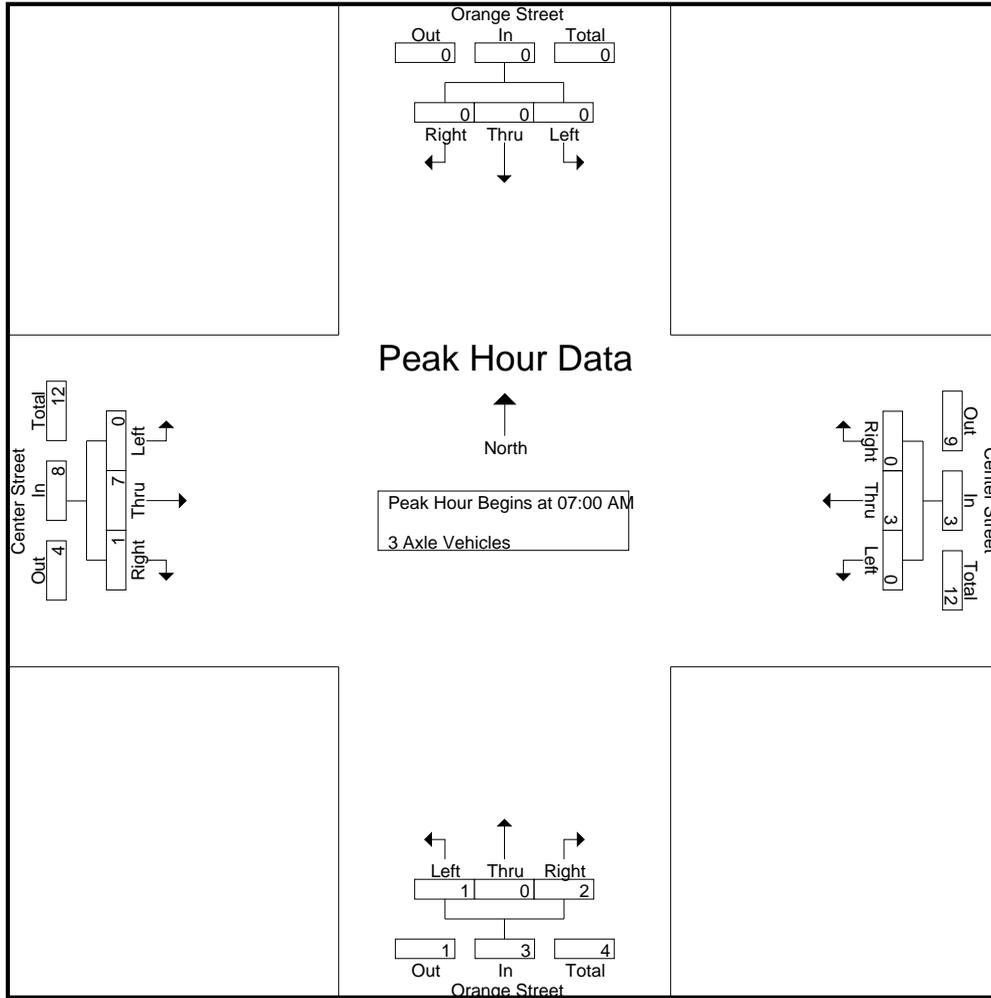
City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:45 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	1	1	2	4
Total	0	0	0	0	0	3	0	3	1	0	2	3	0	7	1	8	14
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
08:15 AM	0	0	0	0	0	4	0	4	0	1	0	1	0	4	0	4	9
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
Total	0	0	0	0	0	7	0	7	0	1	0	1	0	9	1	10	18
Grand Total	0	0	0	0	0	10	0	10	1	1	2	4	0	16	2	18	32
Apprch %	0	0	0		0	100	0		25	25	50		0	88.9	11.1		
Total %	0	0	0	0	0	31.2	0	31.2	3.1	3.1	6.2	12.5	0	50	6.2	56.2	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:45 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	1	1	2	4
Total Volume	0	0	0	0	0	3	0	3	1	0	2	3	0	7	1	8	14
% App. Total	0	0	0		0	100	0		33.3	0	66.7		0	87.5	12.5		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.250	.000	.500	.375	.000	.875	.250	1.00	.875



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	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	0	0	0	1	0	1	2	0	1	1	2
Total Volume	0	0	0	0	0	3	0	3	1	0	2	3	0	7	1	8
% App. Total	0	0	0	0	0	100	0	0	33.3	0	66.7	0	0	87.5	12.5	0
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.250	.000	.500	.375	.000	.875	.250	1.000

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

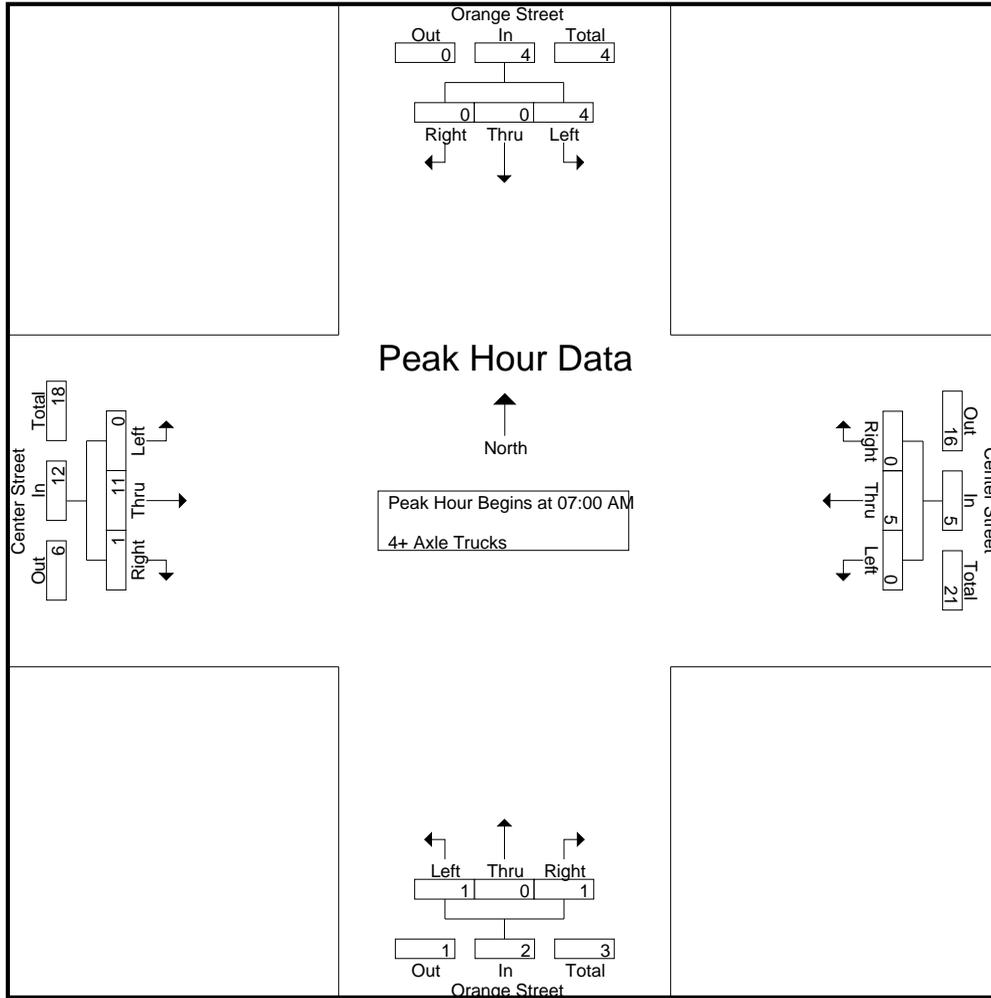
Groups Printed- 4+ Axle Trucks

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	0	1	0	2	0	2	1	0	0	1	0	2	1	3	7
07:15 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	4	0	4	6
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	4	0	4	5
07:45 AM	1	0	0	1	0	2	0	2	0	0	1	1	0	1	0	1	5
Total	4	0	0	4	0	5	0	5	1	0	1	2	0	11	1	12	23
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	1	6	7
08:15 AM	0	0	0	0	0	4	1	5	0	0	1	1	0	1	0	1	7
08:30 AM	1	0	0	1	3	2	0	5	0	0	0	0	0	0	0	0	6
08:45 AM	0	0	0	0	1	0	0	1	0	0	1	1	1	3	0	4	6
Total	1	0	0	1	4	7	1	12	0	0	2	2	1	9	1	11	26
Grand Total	5	0	0	5	4	12	1	17	1	0	3	4	1	20	2	23	49
Apprch %	100	0	0		23.5	70.6	5.9		25	0	75		4.3	87	8.7		
Total %	10.2	0	0	10.2	8.2	24.5	2	34.7	2	0	6.1	8.2	2	40.8	4.1	46.9	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	0	1	0	2	0	2	1	0	0	1	0	2	1	3	7
07:15 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	4	0	4	6
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	4	0	4	5
07:45 AM	1	0	0	1	0	2	0	2	0	0	1	1	0	1	0	1	5
Total Volume	4	0	0	4	0	5	0	5	1	0	1	2	0	11	1	12	23
% App. Total	100	0	0		0	100	0		50	0	50		0	91.7	8.3		
PHF	1.00	.000	.000	1.00	.000	.625	.000	.625	.250	.000	.250	.500	.000	.688	.250	.750	.821

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE AM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				07:00 AM			
+0 mins.	1	0	0	1	0	2	0	2	1	0	0	1	0	2	1	3
+15 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	4	0	4
+30 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	4	0	4
+45 mins.	1	0	0	1	0	2	0	2	0	0	1	1	0	1	0	1
Total Volume	4	0	0	4	0	5	0	5	1	0	1	2	0	11	1	12
% App. Total	100	0	0	100	0	100	0	100	50	0	50	50	0	91.7	8.3	91.7
PHF	1.000	.000	.000	1.000	.000	.625	.000	.625	.250	.000	.250	.500	.000	.688	.250	.750

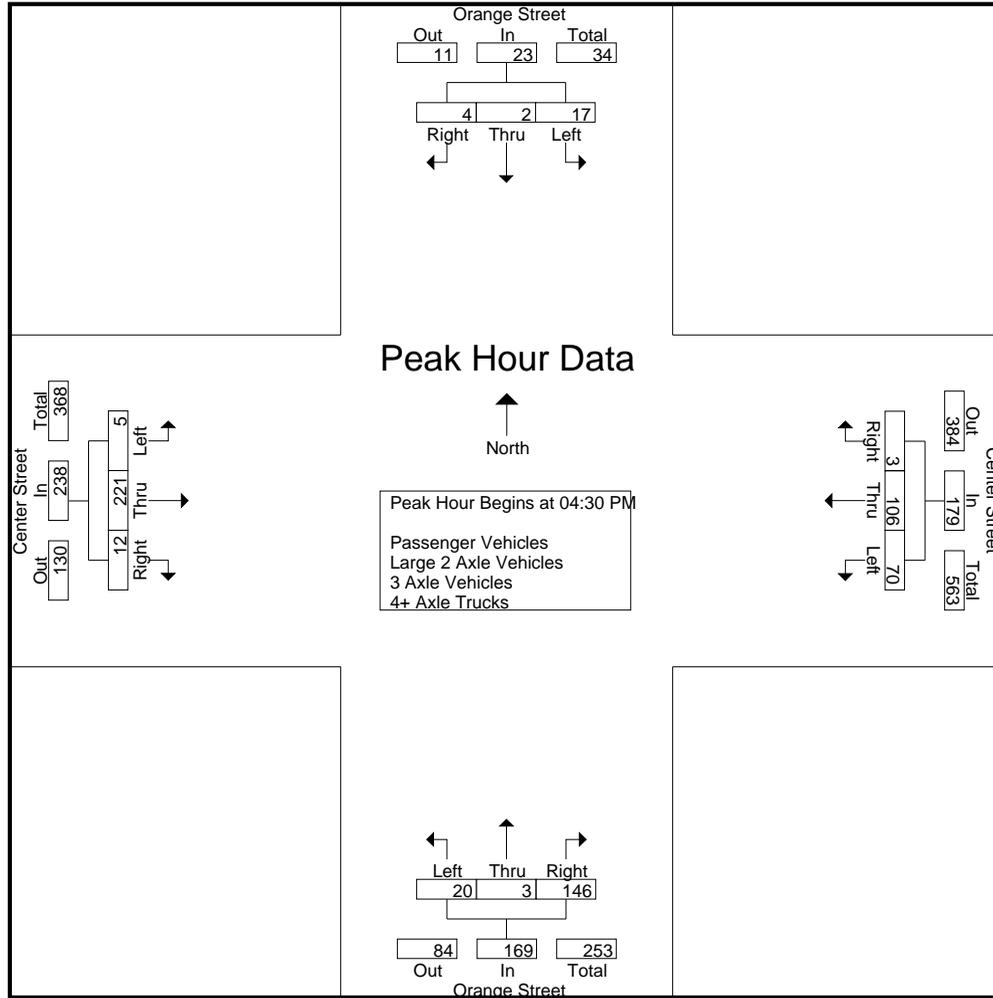
City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

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

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	1	5	13	13	21	0	34	6	0	28	34	0	61	3	64	145
04:15 PM	3	0	2	5	14	18	2	34	3	0	35	38	0	54	3	57	134
04:30 PM	7	1	1	9	16	24	0	40	10	0	34	44	2	52	6	60	153
04:45 PM	3	0	1	4	18	29	3	50	2	0	28	30	1	63	3	67	151
Total	20	2	9	31	61	92	5	158	21	0	125	146	3	230	15	248	583
05:00 PM	1	1	1	3	21	20	0	41	5	2	43	50	1	54	1	56	150
05:15 PM	6	0	1	7	15	33	0	48	3	1	41	45	1	52	2	55	155
05:30 PM	0	1	0	1	26	16	0	42	1	1	25	27	0	39	1	40	110
05:45 PM	2	0	1	3	14	14	0	28	4	0	34	38	0	41	3	44	113
Total	9	2	3	14	76	83	0	159	13	4	143	160	2	186	7	195	528
Grand Total	29	4	12	45	137	175	5	317	34	4	268	306	5	416	22	443	1111
Apprch %	64.4	8.9	26.7		43.2	55.2	1.6		11.1	1.3	87.6		1.1	93.9	5		
Total %	2.6	0.4	1.1	4.1	12.3	15.8	0.5	28.5	3.1	0.4	24.1	27.5	0.5	37.4	2	39.9	
Passenger Vehicles	26	4	11	41	126	149	3	278	33	4	262	299	3	381	16	400	1018
% Passenger Vehicles	89.7	100	91.7	91.1	92	85.1	60	87.7	97.1	100	97.8	97.7	60	91.6	72.7	90.3	91.6
Large 2 Axle Vehicles	1	0	0	1	5	13	0	18	1	0	5	6	1	13	2	16	41
% Large 2 Axle Vehicles	3.4	0	0	2.2	3.6	7.4	0	5.7	2.9	0	1.9	2	20	3.1	9.1	3.6	3.7
3 Axle Vehicles	1	0	0	1	2	5	2	9	0	0	0	0	1	10	1	12	22
% 3 Axle Vehicles	3.4	0	0	2.2	1.5	2.9	40	2.8	0	0	0	0	20	2.4	4.5	2.7	2
4+ Axle Trucks	1	0	1	2	4	8	0	12	0	0	1	1	0	12	3	15	30
% 4+ Axle Trucks	3.4	0	8.3	4.4	2.9	4.6	0	3.8	0	0	0.4	0.3	0	2.9	13.6	3.4	2.7

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	7	1	1	9	16	24	0	40	10	0	34	44	2	52	6	60	153
04:45 PM	3	0	1	4	18	29	3	50	2	0	28	30	1	63	3	67	151
05:00 PM	1	1	1	3	21	20	0	41	5	2	43	50	1	54	1	56	150
05:15 PM	6	0	1	7	15	33	0	48	3	1	41	45	1	52	2	55	155
Total Volume	17	2	4	23	70	106	3	179	20	3	146	169	5	221	12	238	609
% App. Total	73.9	8.7	17.4		39.1	59.2	1.7		11.8	1.8	86.4		2.1	92.9	5		
PHF	.607	.500	1.00	.639	.833	.803	.250	.895	.500	.375	.849	.845	.625	.877	.500	.888	.982



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				04:30 PM				04:00 PM			
+0 mins.	7	1	5	13	18	29	3	50	10	0	34	44	0	61	3	64
+15 mins.	3	0	2	5	21	20	0	41	2	0	28	30	0	54	3	57
+30 mins.	7	1	1	9	15	33	0	48	5	2	43	50	2	52	6	60
+45 mins.	3	0	1	4	26	16	0	42	3	1	41	45	1	63	3	67
Total Volume	20	2	9	31	80	98	3	181	20	3	146	169	3	230	15	248
% App. Total	64.5	6.5	29		44.2	54.1	1.7		11.8	1.8	86.4		1.2	92.7	6	
PHF	.714	.500	.450	.596	.769	.742	.250	.905	.500	.375	.849	.845	.375	.913	.625	.925

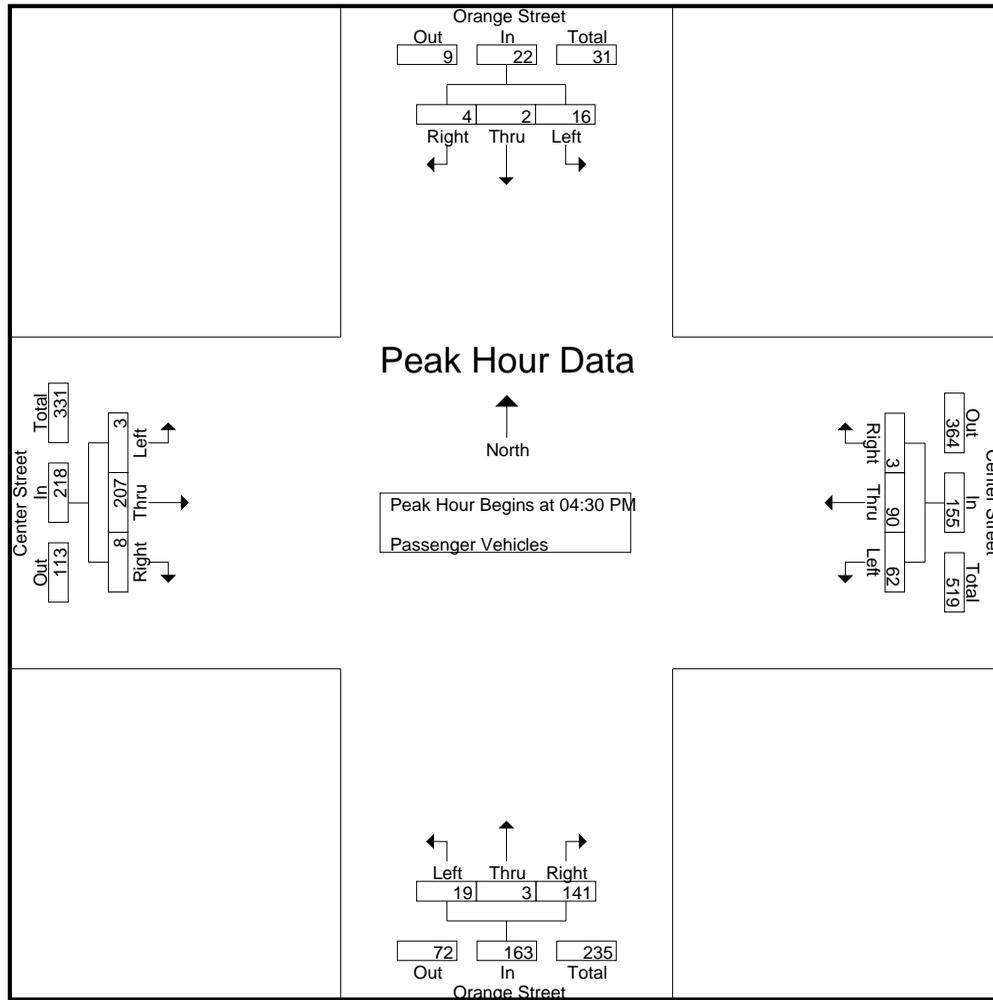
City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	6	1	4	11	13	18	0	31	6	0	28	34	0	55	2	57	133
04:15 PM	2	0	2	4	13	15	0	28	3	0	35	38	0	46	3	49	119
04:30 PM	6	1	1	8	15	20	0	35	9	0	33	42	1	48	3	52	137
04:45 PM	3	0	1	4	15	23	3	41	2	0	27	29	1	58	2	61	135
Total	17	2	8	27	56	76	3	135	20	0	123	143	2	207	10	219	524
05:00 PM	1	1	1	3	18	18	0	36	5	2	40	47	1	52	1	54	140
05:15 PM	6	0	1	7	14	29	0	43	3	1	41	45	0	49	2	51	146
05:30 PM	0	1	0	1	24	13	0	37	1	1	25	27	0	37	1	38	103
05:45 PM	2	0	1	3	14	13	0	27	4	0	33	37	0	36	2	38	105
Total	9	2	3	14	70	73	0	143	13	4	139	156	1	174	6	181	494
Grand Total	26	4	11	41	126	149	3	278	33	4	262	299	3	381	16	400	1018
Apprch %	63.4	9.8	26.8		45.3	53.6	1.1		11	1.3	87.6		0.8	95.2	4		
Total %	2.6	0.4	1.1	4	12.4	14.6	0.3	27.3	3.2	0.4	25.7	29.4	0.3	37.4	1.6	39.3	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	1	1	8	15	20	0	35	9	0	33	42	1	48	3	52	137
04:45 PM	3	0	1	4	15	23	3	41	2	0	27	29	1	58	2	61	135
05:00 PM	1	1	1	3	18	18	0	36	5	2	40	47	1	52	1	54	140
05:15 PM	6	0	1	7	14	29	0	43	3	1	41	45	0	49	2	51	146
Total Volume	16	2	4	22	62	90	3	155	19	3	141	163	3	207	8	218	558
% App. Total	72.7	9.1	18.2		40	58.1	1.9		11.7	1.8	86.5		1.4	95	3.7		
PHF	.667	.500	1.00	.688	.861	.776	.250	.901	.528	.375	.860	.867	.750	.892	.667	.893	.955



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.	6	1	1	8	15	20	0	35	9	0	33	42	1	48	3	52
+15 mins.	3	0	1	4	15	23	3	41	2	0	27	29	1	58	2	61
+30 mins.	1	1	1	3	18	18	0	36	5	2	40	47	1	52	1	54
+45 mins.	6	0	1	7	14	29	0	43	3	1	41	45	0	49	2	51
Total Volume	16	2	4	22	62	90	3	155	19	3	141	163	3	207	8	218
% App. Total	72.7	9.1	18.2		40	58.1	1.9		11.7	1.8	86.5		1.4	95	3.7	
PHF	.667	.500	1.000	.688	.861	.776	.250	.901	.528	.375	.860	.867	.750	.892	.667	.893

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

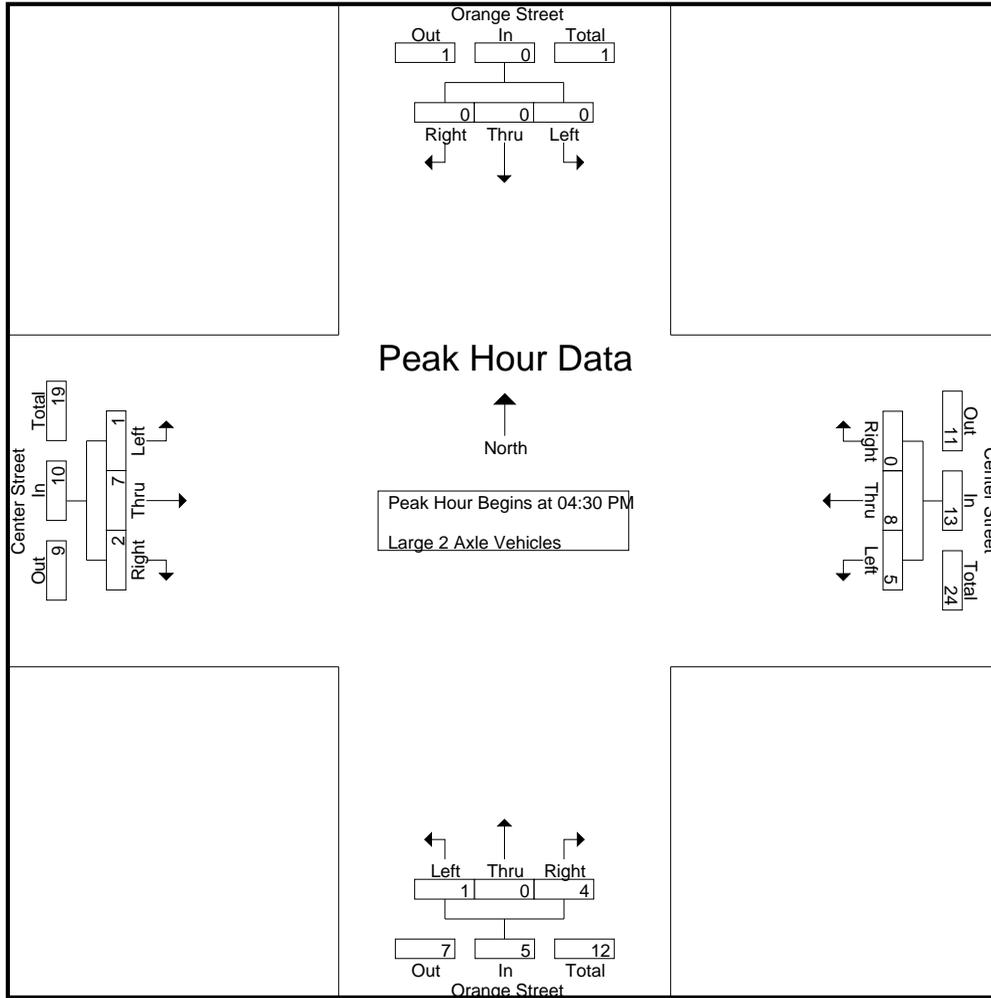
Groups Printed- Large 2 Axle Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
04:15 PM	1	0	0	1	0	2	0	2	0	0	0	0	0	2	0	2	5
04:30 PM	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3	9
04:45 PM	0	0	0	0	3	1	0	4	0	0	1	1	0	4	0	4	9
Total	1	0	0	1	4	7	0	11	1	0	2	3	0	9	2	11	26
05:00 PM	0	0	0	0	1	2	0	3	0	0	2	2	0	1	0	1	6
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	1	0	2	4
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
Total	0	0	0	0	1	6	0	7	0	0	3	3	1	4	0	5	15
Grand Total	1	0	0	1	5	13	0	18	1	0	5	6	1	13	2	16	41
Apprch %	100	0	0		27.8	72.2	0		16.7	0	83.3		6.2	81.2	12.5		
Total %	2.4	0	0	2.4	12.2	31.7	0	43.9	2.4	0	12.2	14.6	2.4	31.7	4.9	39	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	3	0	4	1	0	1	2	0	1	2	3	9
04:45 PM	0	0	0	0	3	1	0	4	0	0	1	1	0	4	0	4	9
05:00 PM	0	0	0	0	1	2	0	3	0	0	2	2	0	1	0	1	6
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	1	0	2	4
Total Volume	0	0	0	0	5	8	0	13	1	0	4	5	1	7	2	10	28
% App. Total	0	0	0		38.5	61.5	0		20	0	80		10	70	20		
PHF	.000	.000	.000	.000	.417	.667	.000	.813	.250	.000	.500	.625	.250	.438	.250	.625	.778

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				04:30 PM			
+0 mins.	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3
+15 mins.	0	0	0	0	3	1	0	4	0	0	1	1	0	4	0	4
+30 mins.	0	0	0	0	1	2	0	3	0	0	2	2	0	1	0	1
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	1	1	0	2
Total Volume	0	0	0	0	5	8	0	13	1	0	4	5	1	7	2	10
% App. Total	0	0	0	0	38.5	61.5	0	0	20	0	80	0	10	70	20	0
PHF	.000	.000	.000	.000	.417	.667	.000	.813	.250	.000	.500	.625	.250	.438	.250	.625

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

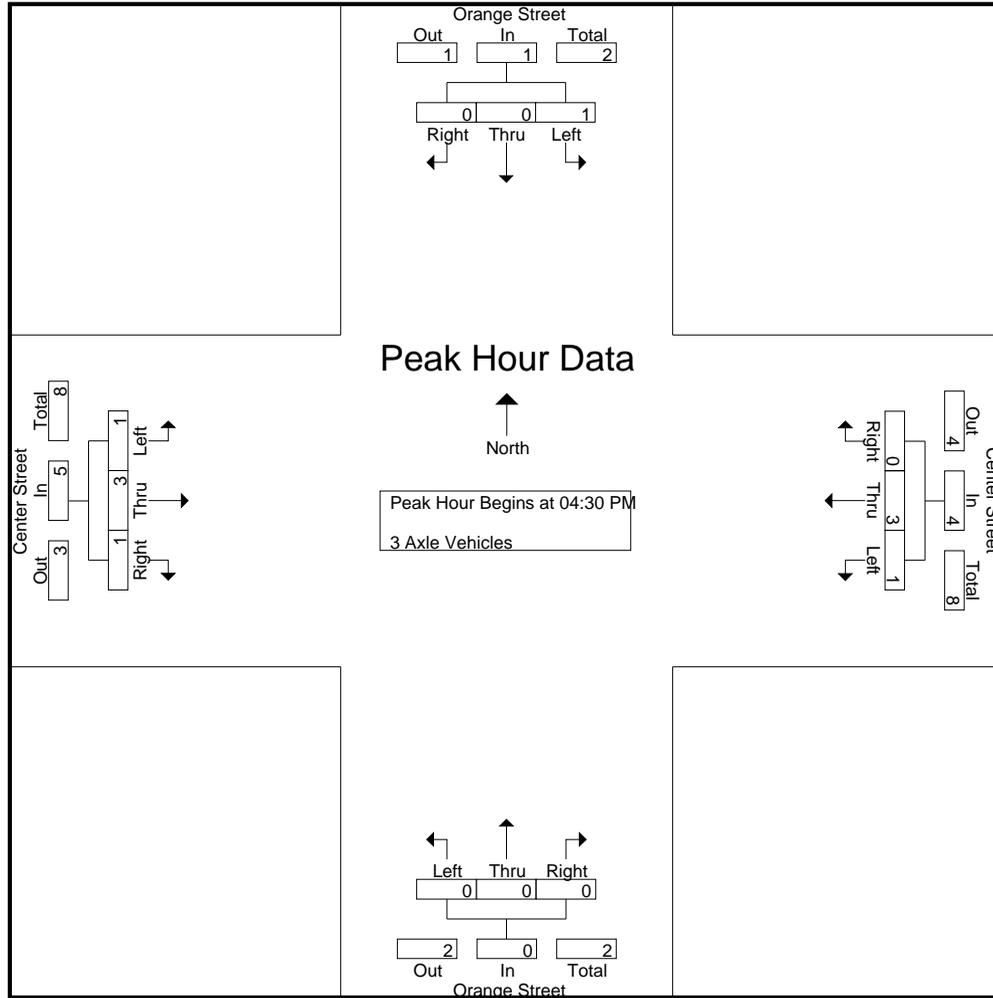
Groups Printed- 3 Axle Vehicles

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
04:15 PM	0	0	0	0	0	1	2	3	0	0	0	0	0	3	0	3	6
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	3
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	1	2	5
Total	1	0	0	1	0	4	2	6	0	0	0	0	1	8	1	10	17
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	2	1	0	3	0	0	0	0	0	2	0	2	5
Grand Total	1	0	0	1	2	5	2	9	0	0	0	0	1	10	1	12	22
Apprch %	100	0	0		22.2	55.6	22.2		0	0	0		8.3	83.3	8.3		
Total %	4.5	0	0	4.5	9.1	22.7	9.1	40.9	0	0	0	0	4.5	45.5	4.5	54.5	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	0	0	0	0	0	0	1	1	0	2	3
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	1	2	5
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	1	0	0	1	1	3	0	4	0	0	0	0	1	3	1	5	10
% App. Total	100	0	0		25	75	0		0	0	0		20	60	20		
PHF	.250	.000	.000	.250	.250	.250	.000	.333	.000	.000	.000	.000	.250	.750	.250	.625	.500

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				04:30 PM			
+0 mins.	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	1	2
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	1	0	0	1	1	3	0	4	0	0	0	0	1	3	1	5
% App. Total	100	0	0		25	75	0		0	0	0		20	60	20	
PHF	.250	.000	.000	.250	.250	.250	.000	.333	.000	.000	.000	.000	.250	.750	.250	.625

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 Page No : 1

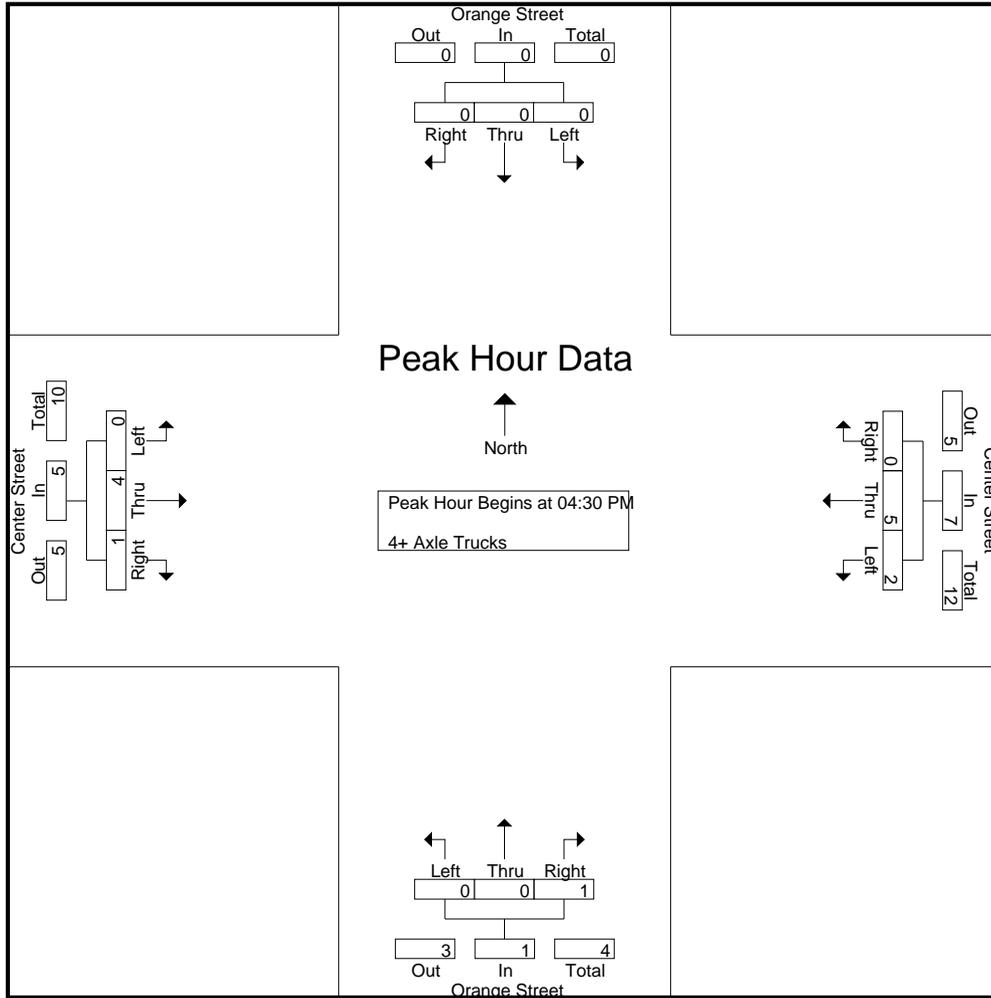
Groups Printed- 4+ Axle Trucks

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	1	2	0	2	0	2	0	0	0	0	0	1	1	2	6
04:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0	3	4
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3	4
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	1	0	1	2	1	5	0	6	0	0	0	0	0	6	2	8	16
05:00 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1	3
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	4
05:30 PM	0	0	0	0	1	0	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	3	1	4	5
Total	0	0	0	0	3	3	0	6	0	0	1	1	0	6	1	7	14
Grand Total	1	0	1	2	4	8	0	12	0	0	1	1	0	12	3	15	30
Apprch %	50	0	50		33.3	66.7	0		0	0	100		0	80	20		
Total %	3.3	0	3.3	6.7	13.3	26.7	0	40	0	0	3.3	3.3	0	40	10	50	

Start Time	Orange Street Southbound				Center Street Westbound				Orange Street Northbound				Center Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 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	2	1	3	4
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1	3
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	4
Total Volume	0	0	0	0	2	5	0	7	0	0	1	1	0	4	1	5	13
% App. Total	0	0	0		28.6	71.4	0		0	0	100		0	80	20		
PHF	.000	.000	.000	.000	.500	.625	.000	.583	.000	.000	.250	.250	.000	.500	.250	.417	.813

City of Riverside
 N/S: Orange Street
 E/W: Center Street
 Weather: Clear

File Name : 03_RIVORCE PM
 Site Code : 99917489
 Start Date : 7/27/2017
 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				04:30 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1
+45 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	2	5	0	7	0	0	1	1	0	4	1	5
% App. Total	0	0	0	0	28.6	71.4	0	0	0	0	100	0	0	80	20	0
PHF	.000	.000	.000	.000	.500	.625	.000	.583	.000	.000	.250	.250	.000	.500	.250	.417

APPENDIX B: VOLUME DEVELOPMENT WORKSHEETS

Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour					Total PCE Volume	PM Peak Hour					Total PCE Volume
	Pass. Veh.	Trucks			PCE		Pass. Veh.	Trucks			PCE	
		2 Axle	3 Axle	4 Axle				2 Axle	3 Axle	4 Axle		
1 . Riverside Ave/Placentia Ln												
NBL	3	0	0	0	0	3	1	0	0	0	0	1
NBT	500	23	9	17	104	604	721	41	8	25	153	874
NBR	30	9	3	0	20	50	99	6	0	2	15	114
SBL	50	3	5	12	51	101	162	6	6	4	33	195
SBT	576	46	20	25	184	760	844	25	15	21	131	975
SBR	1	0	0	0	0	1	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	1	0	0	0	0	1
EBR	0	0	0	0	0	0	1	0	0	0	0	1
WBL	34	3	2	1	12	46	36	3	0	0	5	41
WBT	1	0	0	0	0	1	0	0	0	0	0	0
WBR	81	6	3	6	33	114	129	10	4	5	38	167
North Leg												
Approach	627	49	25	37	235	862	1,006	31	21	25	164	1,170
Departure	581	29	12	23	137	718	850	51	12	30	191	1,041
Total	1,208	78	37	60	372	1,580	1,856	82	33	55	355	2,211
South Leg												
Approach	533	32	12	17	124	657	821	47	8	27	168	989
Departure	610	49	22	26	196	806	881	28	15	21	136	1,017
Total	1,143	81	34	43	320	1,463	1,702	75	23	48	304	2,006
East Leg												
Approach	116	9	5	7	45	161	165	13	4	5	43	208
Departure	80	12	8	12	71	151	262	12	6	6	48	310
Total	196	21	13	19	116	312	427	25	10	11	91	518
West Leg												
Approach	0	0	0	0	0	0	2	0	0	0	0	2
Departure	5	0	0	0	0	5	1	0	0	0	0	1
Total	5	0	0	0	0	5	3	0	0	0	0	3
Total Approaches												
Approach	1,276	90	42	61	404	1,680	1,994	91	33	57	375	2,369
Departure	1,276	90	42	61	404	1,680	1,994	91	33	57	375	2,369
Total	2,552	180	84	122	808	3,360	3,988	182	66	114	750	4,738

Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour						PM Peak Hour					
	Pass. Veh.	Trucks				Total PCE Volume	Pass. Veh.	Trucks				Total PCE Volume
		2 Axle	3 Axle	4 Axle	PCE			2 Axle	3 Axle	4 Axle	PCE	
2 . Placentia Ln-Dwy 1/Center St												
NBL	13	1	0	0	2	15	25	2	0	0	3	28
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	1	1	0	0	2	3
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	64	9	7	10	58	122	213	12	6	5	45	258
EBR	9	0	0	1	3	12	39	3	0	0	5	44
WBL	0	0	0	0	0	0	2	0	0	0	0	2
WBT	96	10	4	6	41	137	109	12	6	4	42	151
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	13	1	0	0	2	15	26	3	0	0	5	31
Departure	9	0	0	1	3	12	41	3	0	0	5	46
Total	22	1	0	1	5	27	67	6	0	0	10	77
East Leg												
Approach	96	10	4	6	41	137	111	12	6	4	42	153
Departure	64	9	7	10	58	122	214	13	6	5	47	261
Total	160	19	11	16	99	259	325	25	12	9	89	414
West Leg												
Approach	73	9	7	11	61	134	252	15	6	5	50	302
Departure	109	11	4	6	43	152	134	14	6	4	45	179
Total	182	20	11	17	104	286	386	29	12	9	95	481
Total Approaches												
Approach	182	20	11	17	104	286	389	30	12	9	97	486
Departure	182	20	11	17	104	286	389	30	12	9	97	486
Total	364	40	22	34	208	572	778	60	24	18	194	972

Table B-1 - Existing Peak Hour Volumes
(Intersections With Classification Counts)

	AM Peak Hour						PM Peak Hour					
	Pass. Veh.	Trucks				Total PCE Volume	Pass. Veh.	Trucks				Total PCE Volume
		2 Axle	3 Axle	4 Axle	PCE			2 Axle	3 Axle	4 Axle	PCE	
4 . Orange St/Center St												
NBL	7	6	1	1	14	21	19	1	0	0	2	21
NBT	2	0	0	0	0	2	3	0	0	0	0	3
NBR	33	3	2	1	12	45	141	4	0	1	9	150
SBL	3	0	0	4	12	15	16	0	1	0	2	18
SBT	3	0	0	0	0	3	2	0	0	0	0	2
SBR	0	0	0	0	0	0	4	0	0	0	0	4
EBL	6	0	0	0	0	6	3	1	1	0	4	7
EBT	54	9	7	11	61	115	207	7	3	4	29	236
EBR	3	6	1	1	14	17	8	2	1	1	8	16
WBL	40	4	0	0	6	46	62	5	1	2	16	78
WBT	103	11	3	5	38	141	90	8	3	5	33	123
WBR	9	1	0	0	2	11	3	0	0	0	0	3
North Leg												
Approach	6	0	0	4	12	18	22	0	1	0	2	24
Departure	17	1	0	0	2	19	9	1	1	0	4	13
Total	23	1	0	4	14	37	31	1	2	0	6	37
South Leg												
Approach	42	9	3	2	26	68	163	5	0	1	11	174
Departure	46	10	1	1	20	66	72	7	2	3	24	96
Total	88	19	4	3	46	134	235	12	2	4	35	270
East Leg												
Approach	152	16	3	5	46	198	155	13	4	7	49	204
Departure	90	12	9	16	85	175	364	11	4	5	40	404
Total	242	28	12	21	131	373	519	24	8	12	89	608
West Leg												
Approach	63	15	8	12	75	138	218	10	5	5	41	259
Departure	110	17	4	6	52	162	113	9	3	5	35	148
Total	173	32	12	18	127	300	331	19	8	10	76	407
Total Approaches												
Approach	263	40	14	23	159	422	558	28	10	13	103	661
Departure	263	40	14	23	159	422	558	28	10	13	103	661
Total	526	80	28	46	318	844	1,116	56	20	26	206	1,322

Table B-2 - Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
1 . Riverside Ave/Placentia Ln								
NBL	3	0	3		1	0	1	
NBT	500	49	549		721	74	795	
NBR	30	12	42		99	8	107	
SBL	50	20	70		162	16	178	
SBT	576	91	667		844	61	905	
SBR	1	0	1		0	0	0	
EBL	0	0	0		0	0	0	
EBT	0	0	0		1	0	1	
EBR	0	0	0		1	0	1	
WBL	34	6	40		36	3	39	
WBT	1	0	1		0	0	0	
WBR	81	15	96		129	19	148	
North Leg								
Approach	627	111	738	15.0%	1,006	77	1,083	7.1%
Departure	581	64	645	9.9%	850	93	943	9.9%
Total	1,208	175	1,383	12.7%	1,856	170	2,026	8.4%
South Leg								
Approach	533	61	594	10.3%	821	82	903	9.1%
Departure	610	97	707	13.7%	881	64	945	6.8%
Total	1,143	158	1,301	12.1%	1,702	146	1,848	7.9%
East Leg								
Approach	116	21	137	15.3%	165	22	187	11.8%
Departure	80	32	112	28.6%	262	24	286	8.4%
Total	196	53	249	21.3%	427	46	473	9.7%
West Leg								
Approach	0	0	0	0.0%	2	0	2	0.0%
Departure	5	0	5	0.0%	1	0	1	0.0%
Total	5	0	5	0.0%	3	0	3	0.0%
Total Approaches								
Approach	1,276	193	1,469		1,994	181	2,175	
Departure	1,276	193	1,469		1,994	181	2,175	
Total	2,552	386	2,938	13.1%	3,988	362	4,350	8.3%

Table B-2 - Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
2 . Placentia Ln-Dwy 1/Center St								
NBL	13	1	14		25	2	27	
NBT	0	0	0		0	0	0	
NBR	0	0	0		1	1	2	
SBL	0	0	0		0	0	0	
SBT	0	0	0		0	0	0	
SBR	0	0	0		0	0	0	
EBL	0	0	0		0	0	0	
EBT	64	26	90		213	23	236	
EBR	9	1	10		39	3	42	
WBL	0	0	0		2	0	2	
WBT	96	20	116		109	22	131	
WBR	0	0	0		0	0	0	
North Leg								
Approach	0	0	0		0	0	0	
Departure	0	0	0		0	0	0	
Total	0	0	0	0.0%	0	0	0	0.0%
South Leg								
Approach	13	1	14		26	3	29	
Departure	9	1	10		41	3	44	
Total	22	2	24	8.3%	67	6	73	8.2%
East Leg								
Approach	96	20	116		111	22	133	
Departure	64	26	90		214	24	238	
Total	160	46	206	22.3%	325	46	371	12.4%
West Leg								
Approach	73	27	100		252	26	278	
Departure	109	21	130		134	24	158	
Total	182	48	230	20.9%	386	50	436	11.5%
Total Approaches								
Approach	182	48	230		389	51	440	
Departure	182	48	230		389	51	440	
Total	364	96	460	20.9%	778	102	880	11.6%

Table B-2 - Existing Peak Hour Truck Percentages

	AM Peak Hour				PM Peak Hour			
	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %	Passenger Vehicles	Total Trucks	Total Vehicle Volume	Truck %
4 . Orange St/Center St								
NBL	7	8	15		19	1	20	
NBT	2	0	2		3	0	3	
NBR	33	6	39		141	5	146	
SBL	3	4	7		16	1	17	
SBT	3	0	3		2	0	2	
SBR	0	0	0		4	0	4	
EBL	6	0	6		3	2	5	
EBT	54	27	81		207	14	221	
EBR	3	8	11		8	4	12	
WBL	40	4	44		62	8	70	
WBT	103	19	122		90	16	106	
WBR	9	1	10		3	0	3	
North Leg								
Approach	6	4	10		22	1	23	
Departure	17	1	18		9	2	11	
Total	23	5	28	17.9%	31	3	34	8.8%
South Leg								
Approach	42	14	56		163	6	169	
Departure	46	12	58		72	12	84	
Total	88	26	114	22.8%	235	18	253	7.1%
East Leg								
Approach	152	24	176		155	24	179	
Departure	90	37	127		364	20	384	
Total	242	61	303	20.1%	519	44	563	7.8%
West Leg								
Approach	63	35	98		218	20	238	
Departure	110	27	137		113	17	130	
Total	173	62	235	26.4%	331	37	368	10.1%
Total Approaches								
Approach	263	77	340		558	51	609	
Departure	263	77	340		558	51	609	
Total	526	154	680	22.6%	1,116	102	1,218	8.4%

Table B-3 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Without Project	Project Trips	Existing Plus Project	Existing Without Project	Project Trips	Existing Plus Project
1 . Riverside Avenue/Placentia Lane						
NBL	3	0	3	1	0	1
NBT	604	0	604	874	0	874
NBR	50	2	52	114	1	115
SBL	101	6	107	195	3	198
SBT	760	0	760	975	0	975
SBR	1	0	1	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	1	0	1
EBR	0	0	0	1	0	1
WBL	46	1	47	41	2	43
WBT	1	0	1	0	0	0
WBR	114	3	117	167	6	173
North Leg						
Approach	862	6	868	1,170	3	1,173
Departure	718	3	721	1,041	6	1,047
Total	1,580	9	1,589	2,211	9	2,220
South Leg						
Approach	657	2	659	989	1	990
Departure	806	1	807	1,017	2	1,019
Total	1,463	3	1,466	2,006	3	2,009
East Leg						
Approach	161	4	165	208	8	216
Departure	151	8	159	310	4	314
Total	312	12	324	518	12	530
West Leg						
Approach	0	0	0	2	0	2
Departure	5	0	5	1	0	1
Total	5	0	5	3	0	3
Total Approaches						
Approach	1,680	12	1,692	2,369	12	2,381
Departure	1,680	12	1,692	2,369	12	2,381
Total	3,360	24	3,384	4,738	24	4,762

Table B-3 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Without Project	Project Trips	Existing Plus Project	Existing Without Project	Project Trips	Existing Plus Project
2 Placentia Lane-Driveway 1/Center Street						
NBL	15	0	15	28	0	28
NBT	0	0	0	0	0	0
NBR	0	0	0	3	0	3
SBL	0	5	5	0	13	13
SBT	0	0	0	0	0	0
SBR	0	2	2	0	4	4
EBL	0	4	4	0	2	2
EBT	122	4	126	258	2	260
EBR	12	0	12	44	0	44
WBL	0	0	0	2	0	2
WBT	137	2	139	151	4	155
WBR	0	12	12	0	5	5
North Leg						
Approach	0	7	7	0	17	17
Departure	0	16	16	0	7	7
Total	0	23	23	0	24	24
South Leg						
Approach	15	0	15	31	0	31
Departure	12	0	12	46	0	46
Total	27	0	27	77	0	77
East Leg						
Approach	137	14	151	153	9	162
Departure	122	9	131	261	15	276
Total	259	23	282	414	24	438
West Leg						
Approach	134	8	142	302	4	306
Departure	152	4	156	179	8	187
Total	286	12	298	481	12	493
Total Approaches						
Approach	286	29	315	486	30	516
Departure	286	29	315	486	30	516
Total	572	58	630	972	60	1,032

Table B-3 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Without Project	Project Trips	Existing Plus Project	Existing Without Project	Project Trips	Existing Plus Project
3 Driveway 2/Center Street						
NBL		0	0		0	0
NBT		0	0		0	0
NBR		0	0		0	0
SBL		5	5		13	13
SBT		0	0		0	0
SBR		2	2		4	4
EBL		4	4		2	2
EBT	122	5	127	261	13	274
EBR		0	0		0	0
WBL		0	0		0	0
WBT	137	12	149	153	5	158
WBR		12	12		5	5
North Leg						
Approach	0	7	7	0	17	17
Departure	0	16	16	0	7	7
Total	0	23	23	0	24	24
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	137	24	161	153	10	163
Departure	122	10	132	261	26	287
Total	259	34	293	414	36	450
West Leg						
Approach	122	9	131	261	15	276
Departure	137	14	151	153	9	162
Total	259	23	282	414	24	438
Total Approaches						
Approach	259	40	299	414	42	456
Departure	259	40	299	414	42	456
Total	518	80	598	828	84	912

Table B-3 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Without Project	Project Trips	Existing Plus Project	Existing Without Project	Project Trips	Existing Plus Project
4 Orange Street/Center Street						
NBL	21	2	23	21	1	22
NBT	2	0	2	3	0	3
NBR	45	0	45	150	0	150
SBL	15	0	15	18	0	18
SBT	3	0	3	2	0	2
SBR	0	0	0	4	0	4
EBL	6	0	6	7	0	7
EBT	115	9	124	236	23	259
EBR	17	1	18	16	3	19
WBL	46	0	46	78	0	78
WBT	141	21	162	123	9	132
WBR	11	0	11	3	0	3
North Leg						
Approach	18	0	18	24	0	24
Departure	19	0	19	13	0	13
Total	37	0	37	37	0	37
South Leg						
Approach	68	2	70	174	1	175
Departure	66	1	67	96	3	99
Total	134	3	137	270	4	274
East Leg						
Approach	198	21	219	204	9	213
Departure	175	9	184	404	23	427
Total	373	30	403	608	32	640
West Leg						
Approach	138	10	148	259	26	285
Departure	162	23	185	148	10	158
Total	300	33	333	407	36	443
Total Approaches						
Approach	422	33	455	661	36	697
Departure	422	33	455	661	36	697
Total	844	66	910	1,322	72	1,394

Table B-4 - Opening (2018) Year Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing		Cumul. Projects	OY		OY With Project	Existing		Cumul. Projects	OY		OY With Project
	W/O Proj Volumes	Growth		W/O Proj Volumes	Project Trips		W/O Proj Volumes	Growth		W/O Proj Volumes	Project Trips	
1. Riverside Avenue/Placentia Lane												
NBL	3	0	0	3	0	3	1	0	0	1	0	1
NBT	604	12	39	655	0	655	874	17	20	911	0	911
NBR	50	1	63	114	2	116	114	2	101	217	1	218
SBL	101	2	46	149	6	155	195	4	57	256	3	259
SBT	760	15	17	792	0	792	975	20	41	1,036	0	1,036
SBR	1	0	0	1	0	1	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	1	0	0	1	0	1
EBR	0	0	0	0	0	0	1	0	0	1	0	1
WBL	46	1	84	131	1	132	41	1	82	124	2	126
WBT	1	0	0	1	0	1	0	0	0	0	0	0
WBR	114	2	46	162	3	165	167	3	50	220	6	226
North Leg												
Approach	862	17	63	942	6	948	1,170	24	98	1,292	3	1,295
Departure	718	14	85	817	3	820	1,041	20	70	1,131	6	1,137
Total	1,580	31	148	1,759	9	1,768	2,211	44	168	2,423	9	2,432
South Leg												
Approach	657	13	102	772	2	774	989	19	121	1,129	1	1,130
Departure	806	16	101	923	1	924	1,017	21	123	1,161	2	1,163
Total	1,463	29	203	1,695	3	1,698	2,006	40	244	2,290	3	2,293
East Leg												
Approach	161	3	130	294	4	298	208	4	132	344	8	352
Departure	151	3	109	263	8	271	310	6	158	474	4	478
Total	312	6	239	557	12	569	518	10	290	818	12	830
West Leg												
Approach	0	0	0	0	0	0	2	0	0	2	0	2
Departure	5	0	0	5	0	5	1	0	0	1	0	1
Total	5	0	0	5	0	5	3	0	0	3	0	3
Total Approaches												
Approach	1,680	33	295	2,008	12	2,020	2,369	47	351	2,767	12	2,779
Departure	1,680	33	295	2,008	12	2,020	2,369	47	351	2,767	12	2,779
Total	3,360	66	590	4,016	24	4,040	4,738	94	702	5,534	24	5,558

Table B-4 - Opening (2018) Year Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing		OY		OY	Existing		OY		OY		
	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project
2 . Placentia Lane-Driveway 1/Center Street												
NBL	15	0	0	15	0	15	28	1	0	29	0	29
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	3	0	0	3	0	3
SBL	0	0	0	0	5	5	0	0	0	0	13	13
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	2	2	0	0	0	0	4	4
EBL	0	0	0	0	4	4	0	0	0	0	2	2
EBT	122	2	110	234	4	238	258	5	164	427	2	429
EBR	12	0	0	12	0	12	44	1	0	45	0	45
WBL	0	0	0	0	0	0	2	0	0	2	0	2
WBT	137	3	135	275	2	277	151	3	133	287	4	291
WBR	0	0	0	0	12	12	0	0	0	0	5	5
North Leg												
Approach	0	0	0	0	7	7	0	0	0	0	17	17
Departure	0	0	0	0	16	16	0	0	0	0	7	7
Total	0	0	0	0	23	23	0	0	0	0	24	24
South Leg												
Approach	15	0	0	15	0	15	31	1	0	32	0	32
Departure	12	0	0	12	0	12	46	1	0	47	0	47
Total	27	0	0	27	0	27	77	2	0	79	0	79
East Leg												
Approach	137	3	135	275	14	289	153	3	133	289	9	298
Departure	122	2	110	234	9	243	261	5	164	430	15	445
Total	259	5	245	509	23	532	414	8	297	719	24	743
West Leg												
Approach	134	2	110	246	8	254	302	6	164	472	4	476
Departure	152	3	135	290	4	294	179	4	133	316	8	324
Total	286	5	245	536	12	548	481	10	297	788	12	800
Total Approaches												
Approach	286	5	245	536	29	565	486	10	297	793	30	823
Departure	286	5	245	536	29	565	486	10	297	793	30	823
Total	572	10	490	1,072	58	1,130	972	20	594	1,586	60	1,646

Table B-4 - Opening (2018) Year Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing		OY		OY	Existing		OY		OY		
	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project
3 . Driveway 2/Center Street												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	5	5	0	0	0	0	13	13
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	2	2	0	0	0	0	4	4
EBL	0	0	0	0	4	4	0	0	0	0	2	2
EBT	122	2	110	234	5	239	261	5	164	430	13	443
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	137	3	135	275	12	287	153	3	133	289	5	294
WBR	0	0	0	0	12	12	0	0	0	0	5	5
North Leg												
Approach	0	0	0	0	7	7	0	0	0	0	17	17
Departure	0	0	0	0	16	16	0	0	0	0	7	7
Total	0	0	0	0	23	23	0	0	0	0	24	24
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
East Leg												
Approach	137	3	135	275	24	299	153	3	133	289	10	299
Departure	122	2	110	234	10	244	261	5	164	430	26	456
Total	259	5	245	509	34	543	414	8	297	719	36	755
West Leg												
Approach	122	2	110	234	9	243	261	5	164	430	15	445
Departure	137	3	135	275	14	289	153	3	133	289	9	298
Total	259	5	245	509	23	532	414	8	297	719	24	743
Total Approaches												
Approach	259	5	245	509	40	549	414	8	297	719	42	761
Departure	259	5	245	509	40	549	414	8	297	719	42	761
Total	518	10	490	1,018	80	1,098	828	16	594	1,438	84	1,522

Table B-4 - Opening (2018) Year Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing			OY	OY	Existing			OY	OY		
	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project	W/O Proj Volumes	Growth	Cumul. Projects	W/O Proj Volumes	Project Trips	With Project
4 . Orange Street/Center Street												
NBL	21	0	13	34	2	36	21	0	6	27	1	28
NBT	2	0	18	20	0	20	3	0	48	51	0	51
NBR	45	1	0	46	0	46	150	3	0	153	0	153
SBL	15	0	19	34	0	34	18	0	13	31	0	31
SBT	3	0	42	45	0	45	2	0	29	31	0	31
SBR	0	0	87	87	0	87	4	0	61	65	0	65
EBL	6	0	33	39	0	39	7	0	103	110	0	110
EBT	115	2	67	184	9	193	236	5	172	413	23	436
EBR	17	0	4	21	1	22	16	0	11	27	3	30
WBL	46	1	0	47	0	47	78	2	0	80	0	80
WBT	141	3	199	343	21	364	123	2	102	227	9	236
WBR	11	0	7	18	0	18	3	0	22	25	0	25
North Leg												
Approach	18	0	148	166	0	166	24	0	103	127	0	127
Departure	19	0	58	77	0	77	13	0	173	186	0	186
Total	37	0	206	243	0	243	37	0	276	313	0	313
South Leg												
Approach	68	1	31	100	2	102	174	3	54	231	1	232
Departure	66	1	46	113	1	114	96	2	40	138	3	141
Total	134	2	77	213	3	216	270	5	94	369	4	373
East Leg												
Approach	198	4	206	408	21	429	204	4	124	332	9	341
Departure	175	3	86	264	9	273	404	8	185	597	23	620
Total	373	7	292	672	30	702	608	12	309	929	32	961
West Leg												
Approach	138	2	104	244	10	254	259	5	286	550	26	576
Departure	162	3	299	464	23	487	148	2	169	319	10	329
Total	300	5	403	708	33	741	407	7	455	869	36	905
Total Approaches												
Approach	422	7	489	918	33	951	661	12	567	1,240	36	1,276
Departure	422	7	489	918	33	951	661	12	567	1,240	36	1,276
Total	844	14	978	1,836	66	1,902	1,322	24	1,134	2,480	72	2,552

APPENDIX C: LEVEL OF SERVICE WORKSHEETS

HCM 6th TWSC
 1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Traffic Vol, veh/h	0	0	0	46	1	114	3	604	50	101	760	1
Future Vol, veh/h	0	0	0	46	1	114	3	604	50	101	760	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	53	1	131	3	694	57	116	874	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1460	1863	437	1369	1807	347	875	0	0	751	0	0
Stage 1	1106	1106	-	700	700	-	-	-	-	-	-	-
Stage 2	354	757	-	669	1107	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	92	74	573	107	80	655	780	-	-	868	-	-
Stage 1	228	289	-	401	444	-	-	-	-	-	-	-
Stage 2	642	419	-	418	288	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	66	64	573	96	69	655	780	-	-	868	-	-
Mov Cap-2 Maneuver	194	192	-	269	211	-	-	-	-	-	-	-
Stage 1	227	250	-	399	442	-	-	-	-	-	-	-
Stage 2	510	417	-	362	249	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		18		0		1.1	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	780	-	-	-	460	868	-
HCM Lane V/C Ratio	0.004	-	-	-	0.402	0.134	-
HCM Control Delay (s)	9.6	-	-	0	18	9.8	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.9	0.5	-

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	122	12	0	137	0	15	0	0	0	0	0
Future Vol, veh/h	0	122	12	0	137	0	15	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	136	13	0	152	0	17	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	152	0	0	149	0	0	295	295	143	295	301	152
Stage 1	-	-	-	-	-	-	143	143	-	152	152	-
Stage 2	-	-	-	-	-	-	152	152	-	143	149	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1441	-	-	1445	-	-	661	620	910	661	615	900
Stage 1	-	-	-	-	-	-	865	782	-	855	775	-
Stage 2	-	-	-	-	-	-	855	775	-	865	778	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1441	-	-	1445	-	-	661	620	910	661	615	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	661	620	-	661	615	-
Stage 1	-	-	-	-	-	-	865	782	-	855	775	-
Stage 2	-	-	-	-	-	-	855	775	-	865	778	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	661	1441	-	-	1445	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	-	-	-	-
HCM Control Delay (s)	10.6	0	-	-	0	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	115	17	46	141	11	21	2	45	15	3	0
Future Vol, veh/h	6	115	17	46	141	11	21	2	45	15	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	126	19	51	155	12	23	2	49	16	3	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.8	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	4%	23%	83%
Vol Thru, %	3%	83%	71%	17%
Vol Right, %	66%	12%	6%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	138	198	18
LT Vol	21	6	46	15
Through Vol	2	115	141	3
RT Vol	45	17	11	0
Lane Flow Rate	75	152	218	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.091	0.18	0.26	0.027
Departure Headway (Hd)	4.398	4.278	4.302	4.969
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	815	840	840	721
Service Time	2.421	2.295	2.302	2.995
HCM Lane V/C Ratio	0.092	0.181	0.26	0.028
HCM Control Delay	7.9	8.2	8.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.7	1	0.1

HCM 6th TWSC
 1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	0	1	1	41	0	167	1	874	114	195	975	0
Future Vol, veh/h	0	1	1	41	0	167	1	874	114	195	975	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	1	46	0	188	1	982	128	219	1096	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2027	2646	548	1971	2518	491	1096	0	0	1110	0	0
Stage 1	1534	1534	-	984	984	-	-	-	-	-	-	-
Stage 2	493	1112	-	987	1534	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	35	24	485	~ 38	28	529	644	-	-	637	-	-
Stage 1	124	180	-	270	329	-	-	-	-	-	-	-
Stage 2	532	287	-	269	180	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	17	16	485	~ 27	18	529	644	-	-	637	-	-
Mov Cap-2 Maneuver	84	57	-	139	104	-	-	-	-	-	-	-
Stage 1	124	118	-	269	328	-	-	-	-	-	-	-
Stage 2	343	286	-	174	118	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	41.1		35.7		0		2.3			
HCM LOS	E		E							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	644	-	-	102	341	637	-
HCM Lane V/C Ratio	0.002	-	-	0.022	0.685	0.344	-
HCM Control Delay (s)	10.6	-	-	41.1	35.7	13.6	-
HCM Lane LOS	B	-	-	E	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	4.8	1.5	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	258	44	2	151	0	28	0	3	0	0	0
Future Vol, veh/h	0	258	44	2	151	0	28	0	3	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	274	47	2	161	0	30	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	321	0	0	463	463	298	464	486	161
Stage 1	-	-	-	-	-	-	298	298	-	165	165	-
Stage 2	-	-	-	-	-	-	165	165	-	299	321	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1430	-	-	1250	-	-	513	499	746	512	484	889
Stage 1	-	-	-	-	-	-	715	671	-	842	766	-
Stage 2	-	-	-	-	-	-	842	766	-	714	655	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1430	-	-	1250	-	-	512	498	746	509	483	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	498	-	509	483	-
Stage 1	-	-	-	-	-	-	715	671	-	842	764	-
Stage 2	-	-	-	-	-	-	840	764	-	711	655	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12.3			0		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1430	-	-	1250	-	-	-
HCM Lane V/C Ratio	0.062	-	-	-	0.002	-	-	-
HCM Control Delay (s)	12.3	0	-	-	7.9	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	236	16	78	123	3	21	3	150	18	2	4
Future Vol, veh/h	7	236	16	78	123	3	21	3	150	18	2	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	241	16	80	126	3	21	3	153	18	2	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	9.6	8.9	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	3%	38%	75%
Vol Thru, %	2%	91%	60%	8%
Vol Right, %	86%	6%	1%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	259	204	24
LT Vol	21	7	78	18
Through Vol	3	236	123	2
RT Vol	150	16	3	4
Lane Flow Rate	178	264	208	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.223	0.336	0.274	0.036
Departure Headway (Hd)	4.527	4.583	4.74	5.28
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	790	782	754	674
Service Time	2.576	2.631	2.791	3.347
HCM Lane V/C Ratio	0.225	0.338	0.276	0.036
HCM Control Delay	8.9	10	9.6	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	1.5	1.1	0.1

HCM 6th TWSC
1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Traffic Vol, veh/h	0	0	0	47	1	117	3	604	52	107	760	1
Future Vol, veh/h	0	0	0	47	1	117	3	604	52	107	760	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	54	1	134	3	694	60	123	874	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1474	1880	437	1383	1821	347	875	0	0	754	0	0
Stage 1	1120	1120	-	700	700	-	-	-	-	-	-	-
Stage 2	354	760	-	683	1121	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	90	72	573	105	78	655	780	-	-	865	-	-
Stage 1	223	284	-	401	444	-	-	-	-	-	-	-
Stage 2	642	417	-	410	284	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	63	62	573	93	67	655	780	-	-	865	-	-
Mov Cap-2 Maneuver	189	187	-	264	208	-	-	-	-	-	-	-
Stage 1	222	244	-	399	442	-	-	-	-	-	-	-
Stage 2	507	415	-	352	244	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		18.4		0		1.2	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	780	-	-	-	456	865	-
HCM Lane V/C Ratio	0.004	-	-	-	0.416	0.142	-
HCM Control Delay (s)	9.6	-	-	0	18.4	9.8	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	2	0.5	-

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	126	12	0	139	12	15	0	0	5	0	2
Future Vol, veh/h	4	126	12	0	139	12	15	0	0	5	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	140	13	0	154	13	17	0	0	6	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	167	0	0	153	0	0	317	322	147	316	322	161
Stage 1	-	-	-	-	-	-	155	155	-	161	161	-
Stage 2	-	-	-	-	-	-	162	167	-	155	161	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1423	-	-	1440	-	-	640	599	905	641	599	889
Stage 1	-	-	-	-	-	-	852	773	-	846	769	-
Stage 2	-	-	-	-	-	-	845	764	-	852	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1440	-	-	637	597	905	640	597	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	637	597	-	640	597	-
Stage 1	-	-	-	-	-	-	849	771	-	843	769	-
Stage 2	-	-	-	-	-	-	843	764	-	849	767	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			10.8			10.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	637	1423	-	-	1440	-	-	696
HCM Lane V/C Ratio	0.026	0.003	-	-	-	-	-	0.011
HCM Control Delay (s)	10.8	7.5	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 6th TWSC
 3: Center Street & Driveway 2

08/11/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	4	127	149	12	5	2
Future Vol, veh/h	4	127	149	12	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	138	162	13	5	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	175	0	0	315	169
Stage 1	-	-	-	169	-
Stage 2	-	-	-	146	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1414	-	-	682	880
Stage 1	-	-	-	866	-
Stage 2	-	-	-	886	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1414	-	-	680	880
Mov Cap-2 Maneuver	-	-	-	680	-
Stage 1	-	-	-	863	-
Stage 2	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1414	-	-	-	727
HCM Lane V/C Ratio	0.003	-	-	-	0.01
HCM Control Delay (s)	7.6	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	124	18	46	162	11	23	2	45	15	3	0
Future Vol, veh/h	6	124	18	46	162	11	23	2	45	15	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	136	20	51	178	12	25	2	49	16	3	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	9.1	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	4%	21%	83%
Vol Thru, %	3%	84%	74%	17%
Vol Right, %	64%	12%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	148	219	18
LT Vol	23	6	46	15
Through Vol	2	124	162	3
RT Vol	45	18	11	0
Lane Flow Rate	77	163	241	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.096	0.195	0.288	0.028
Departure Headway (Hd)	4.49	4.311	4.307	5.052
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	833	835	709
Service Time	2.516	2.332	2.326	3.081
HCM Lane V/C Ratio	0.096	0.196	0.289	0.028
HCM Control Delay	8	8.4	9.1	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.7	1.2	0.1

HCM 6th TWSC
1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↑↑	↗	↗	↑↑	↗
Traffic Vol, veh/h	0	1	1	43	0	173	1	874	115	198	975	0
Future Vol, veh/h	0	1	1	43	0	173	1	874	115	198	975	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	1	48	0	194	1	982	129	222	1096	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2033	2653	548	1977	2524	491	1096	0	0	1111	0	0
Stage 1	1540	1540	-	984	984	-	-	-	-	-	-	-
Stage 2	493	1113	-	993	1540	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	34	23	485	~ 38	28	529	644	-	-	636	-	-
Stage 1	123	179	-	270	329	-	-	-	-	-	-	-
Stage 2	532	286	-	267	179	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	15	485	~ 27	18	529	644	-	-	636	-	-
Mov Cap-2 Maneuver	80	54	-	137	104	-	-	-	-	-	-	-
Stage 1	123	117	-	269	328	-	-	-	-	-	-	-
Stage 2	336	285	-	172	117	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43	38.9	0	2.3
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	644	-	-	97	337	636	-
HCM Lane V/C Ratio	0.002	-	-	0.023	0.72	0.35	-
HCM Control Delay (s)	10.6	-	-	43	38.9	13.7	-
HCM Lane LOS	B	-	-	E	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	5.3	1.6	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	260	44	2	155	5	28	0	3	13	0	4
Future Vol, veh/h	2	260	44	2	155	5	28	0	3	13	0	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	277	47	2	165	5	30	0	3	14	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	324	0	0	479	479	301	478	500	168
Stage 1	-	-	-	-	-	-	305	305	-	172	172	-
Stage 2	-	-	-	-	-	-	174	174	-	306	328	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1420	-	-	1247	-	-	500	489	743	501	476	881
Stage 1	-	-	-	-	-	-	709	666	-	835	760	-
Stage 2	-	-	-	-	-	-	833	759	-	708	651	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1420	-	-	1247	-	-	496	487	743	497	474	881
Mov Cap-2 Maneuver	-	-	-	-	-	-	496	487	-	497	474	-
Stage 1	-	-	-	-	-	-	708	665	-	833	758	-
Stage 2	-	-	-	-	-	-	827	757	-	704	650	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12.5			11.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	512	1420	-	-	1247	-	-	554
HCM Lane V/C Ratio	0.064	0.001	-	-	0.002	-	-	0.033
HCM Control Delay (s)	12.5	7.5	0	-	7.9	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 6th TWSC
 3: Center Street & Driveway 2

08/11/2017

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	2	274	158	5	13	4
Future Vol, veh/h	2	274	158	5	13	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	2	298	172	5	14	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	177	0	-	0	477 175
Stage 1	-	-	-	-	175 -
Stage 2	-	-	-	-	302 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1411	-	-	-	551 874
Stage 1	-	-	-	-	860 -
Stage 2	-	-	-	-	755 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1411	-	-	-	550 874
Mov Cap-2 Maneuver	-	-	-	-	550 -
Stage 1	-	-	-	-	858 -
Stage 2	-	-	-	-	755 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	603
HCM Lane V/C Ratio	0.002	-	-	-	0.031
HCM Control Delay (s)	7.6	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	259	19	78	132	3	22	3	150	18	2	4
Future Vol, veh/h	7	259	19	78	132	3	22	3	150	18	2	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	264	19	80	135	3	22	3	153	18	2	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.4	9.8	9.1	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	2%	37%	75%
Vol Thru, %	2%	91%	62%	8%
Vol Right, %	86%	7%	1%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	285	213	24
LT Vol	22	7	78	18
Through Vol	3	259	132	2
RT Vol	150	19	3	4
Lane Flow Rate	179	291	217	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.229	0.372	0.289	0.037
Departure Headway (Hd)	4.614	4.602	4.779	5.373
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	773	776	748	661
Service Time	2.672	2.657	2.837	3.452
HCM Lane V/C Ratio	0.232	0.375	0.29	0.036
HCM Control Delay	9.1	10.4	9.8	8.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	1.7	1.2	0.1

HCM 6th TWSC
1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	13.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	0	0	0	131	1	162	3	655	114	149	792	1
Future Vol, veh/h	0	0	0	131	1	162	3	655	114	149	792	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	151	1	186	3	753	131	171	910	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1635	2142	455	1556	2012	377	911	0	0	884	0	0
Stage 1	1252	1252	-	759	759	-	-	-	-	-	-	-
Stage 2	383	890	-	797	1253	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	68	49	558	~ 78	60	626	756	-	-	774	-	-
Stage 1	185	246	-	369	418	-	-	-	-	-	-	-
Stage 2	617	364	-	351	246	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	39	38	558	~ 65	47	626	756	-	-	774	-	-
Mov Cap-2 Maneuver	146	133	-	215	166	-	-	-	-	-	-	-
Stage 1	184	192	-	368	416	-	-	-	-	-	-	-
Stage 2	431	363	-	273	192	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	86.7	0	1.7
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	756	-	-	-	336	774	-
HCM Lane V/C Ratio	0.005	-	-	-	1.006	0.221	-
HCM Control Delay (s)	9.8	-	-	0	86.7	11	-
HCM Lane LOS	A	-	-	A	F	B	-
HCM 95th %tile Q(veh)	0	-	-	-	11.4	0.8	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

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	234	12	0	275	0	15	0	0	0	0	0
Future Vol, veh/h	0	234	12	0	275	0	15	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	260	13	0	306	0	17	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	306	0	0	273	0	0	573	573	267	573	579	306
Stage 1	-	-	-	-	-	-	267	267	-	306	306	-
Stage 2	-	-	-	-	-	-	306	306	-	267	273	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1266	-	-	1302	-	-	433	432	777	433	429	739
Stage 1	-	-	-	-	-	-	743	692	-	708	665	-
Stage 2	-	-	-	-	-	-	708	665	-	743	688	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1266	-	-	1302	-	-	433	432	777	433	429	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	433	432	-	433	429	-
Stage 1	-	-	-	-	-	-	743	692	-	708	665	-
Stage 2	-	-	-	-	-	-	708	665	-	743	688	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	433	1266	-	-	1302	-	-	-
HCM Lane V/C Ratio	0.038	-	-	-	-	-	-	-
HCM Control Delay (s)	13.6	0	-	-	0	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	184	21	47	343	18	34	20	46	34	45	87
Future Vol, veh/h	39	184	21	47	343	18	34	20	46	34	45	87
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	202	23	52	377	20	37	22	51	37	49	96
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.1	17.2	10.3	11.1
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	16%	12%	20%
Vol Thru, %	20%	75%	84%	27%
Vol Right, %	46%	9%	4%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	244	408	166
LT Vol	34	39	47	34
Through Vol	20	184	343	45
RT Vol	46	21	18	87
Lane Flow Rate	110	268	448	182
Geometry Grp	1	1	1	1
Degree of Util (X)	0.181	0.403	0.645	0.289
Departure Headway (Hd)	5.937	5.414	5.176	5.712
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	601	662	695	626
Service Time	4.007	3.467	3.22	3.774
HCM Lane V/C Ratio	0.183	0.405	0.645	0.291
HCM Control Delay	10.3	12.1	17.2	11.1
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.7	1.9	4.7	1.2

HCM 6th TWSC
 1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	67.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	0	1	1	124	0	220	1	911	217	256	1036	0
Future Vol, veh/h	0	1	1	124	0	220	1	911	217	256	1036	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	1	139	0	247	1	1024	244	288	1164	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2254	3010	582	2185	2766	512	1164	0	0	1268	0	0
Stage 1	1740	1740	-	1026	1026	-	-	-	-	-	-	-
Stage 2	514	1270	-	1159	1740	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	23	14	461	~ 26	20	512	607	-	-	555	-	-
Stage 1	92	143	-	255	315	-	-	-	-	-	-	-
Stage 2	517	241	-	212	143	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	7	7	461	~ 26	10	512	607	-	-	555	-	-
Mov Cap-2 Maneuver	~ -16	-	-	~ 89	63	-	-	-	-	-	-	-
Stage 1	92	69	-	254	314	-	-	-	-	-	-	-
Stage 2	267	241	-	~ 100	69	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	\$ 529	0	3.6
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	607	-	-	461	189	555	-
HCM Lane V/C Ratio	0.002	-	-	0.005	2.045	0.518	-
HCM Control Delay (s)	10.9	-	-	12.8	\$ 529	18.3	-
HCM Lane LOS	B	-	-	B	F	C	-
HCM 95th %tile Q(veh)	0	-	-	0	29.6	3	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	427	45	2	287	0	29	0	3	0	0	0
Future Vol, veh/h	0	427	45	2	287	0	29	0	3	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	454	48	2	305	0	31	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	305	0	0	502	0	0	787	787	478	789	811	305
Stage 1	-	-	-	-	-	-	478	478	-	309	309	-
Stage 2	-	-	-	-	-	-	309	309	-	480	502	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1267	-	-	1073	-	-	312	326	591	311	316	740
Stage 1	-	-	-	-	-	-	572	559	-	705	663	-
Stage 2	-	-	-	-	-	-	705	663	-	571	545	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1267	-	-	1073	-	-	311	325	591	309	315	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	325	-	309	315	-
Stage 1	-	-	-	-	-	-	572	559	-	705	662	-
Stage 2	-	-	-	-	-	-	704	662	-	568	545	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			17.4			0		
HCM LOS							C			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	325	1267	-	-	1073	-	-	-
HCM Lane V/C Ratio	0.105	-	-	-	0.002	-	-	-
HCM Control Delay (s)	17.4	0	-	-	8.4	0	-	0
HCM Lane LOS	C	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	27.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	110	413	27	80	227	25	27	51	153	31	31	65
Future Vol, veh/h	110	413	27	80	227	25	27	51	153	31	31	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	112	421	28	82	232	26	28	52	156	32	32	66
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	41.6	17.7	14.4	12.4
HCM LOS	E	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	20%	24%	24%
Vol Thru, %	22%	75%	68%	24%
Vol Right, %	66%	5%	8%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	231	550	332	127
LT Vol	27	110	80	31
Through Vol	51	413	227	31
RT Vol	153	27	25	65
Lane Flow Rate	236	561	339	130
Geometry Grp	1	1	1	1
Degree of Util (X)	0.426	0.909	0.584	0.251
Departure Headway (Hd)	6.506	5.83	6.211	6.961
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	552	623	579	513
Service Time	4.575	3.883	4.275	5.042
HCM Lane V/C Ratio	0.428	0.9	0.585	0.253
HCM Control Delay	14.4	41.6	17.7	12.4
HCM Lane LOS	B	E	C	B
HCM 95th-tile Q	2.1	11.4	3.7	1

HCM 6th TWSC
 1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	14.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	0	0	0	132	1	165	3	655	116	155	792	1
Future Vol, veh/h	0	0	0	132	1	165	3	655	116	155	792	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	152	1	190	3	753	133	178	910	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1649	2158	455	1570	2026	377	911	0	0	886	0	0
Stage 1	1266	1266	-	759	759	-	-	-	-	-	-	-
Stage 2	383	892	-	811	1267	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	67	48	558	~ 76	58	626	756	-	-	773	-	-
Stage 1	182	242	-	369	418	-	-	-	-	-	-	-
Stage 2	617	363	-	344	242	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	37	558	~ 62	44	626	756	-	-	773	-	-
Mov Cap-2 Maneuver	143	129	-	210	161	-	-	-	-	-	-	-
Stage 1	181	186	-	368	416	-	-	-	-	-	-	-
Stage 2	427	362	-	265	186	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	94.3	0	1.8
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	756	-	-	-	332	773	-
HCM Lane V/C Ratio	0.005	-	-	-	1.032	0.23	-
HCM Control Delay (s)	9.8	-	-	0	94.3	11	-
HCM Lane LOS	A	-	-	A	F	B	-
HCM 95th %tile Q(veh)	0	-	-	-	12	0.9	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	238	12	0	277	12	15	0	0	5	0	2
Future Vol, veh/h	4	238	12	0	277	12	15	0	0	5	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	264	13	0	308	13	17	0	0	6	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	321	0	0	277	0	0	595	600	271	594	600	315
Stage 1	-	-	-	-	-	-	279	279	-	315	315	-
Stage 2	-	-	-	-	-	-	316	321	-	279	285	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1250	-	-	1298	-	-	419	417	773	420	417	730
Stage 1	-	-	-	-	-	-	732	683	-	700	659	-
Stage 2	-	-	-	-	-	-	699	655	-	732	679	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1250	-	-	1298	-	-	416	415	773	419	415	730
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	415	-	419	415	-
Stage 1	-	-	-	-	-	-	729	680	-	697	659	-
Stage 2	-	-	-	-	-	-	697	655	-	729	676	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			14			12.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	416	1250	-	-	1298	-	-	477
HCM Lane V/C Ratio	0.04	0.004	-	-	-	-	-	0.016
HCM Control Delay (s)	14	7.9	0	-	0	-	-	12.7
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC
 3: Center Street & Driveway 2

08/11/2017

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	4	239	287	12	5	2
Future Vol, veh/h	4	239	287	12	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	260	312	13	5	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	325	0	-	0	587 319
Stage 1	-	-	-	-	319 -
Stage 2	-	-	-	-	268 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1246	-	-	-	475 726
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	782 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1246	-	-	-	473 726
Mov Cap-2 Maneuver	-	-	-	-	473 -
Stage 1	-	-	-	-	738 -
Stage 2	-	-	-	-	782 -

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1246	-	-	-	525
HCM Lane V/C Ratio	0.003	-	-	-	0.014
HCM Control Delay (s)	7.9	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	39	193	22	47	364	18	36	20	46	34	45	87
Future Vol, veh/h	39	193	22	47	364	18	36	20	46	34	45	87
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	212	24	52	400	20	40	22	51	37	49	96
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.6	18.9	10.6	11.3
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	15%	11%	20%
Vol Thru, %	20%	76%	85%	27%
Vol Right, %	45%	9%	4%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	254	429	166
LT Vol	36	39	47	34
Through Vol	20	193	364	45
RT Vol	46	22	18	87
Lane Flow Rate	112	279	471	182
Geometry Grp	1	1	1	1
Degree of Util (X)	0.189	0.425	0.684	0.295
Departure Headway (Hd)	6.058	5.476	5.221	5.821
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	588	653	688	613
Service Time	4.139	3.539	3.273	3.895
HCM Lane V/C Ratio	0.19	0.427	0.685	0.297
HCM Control Delay	10.6	12.6	18.9	11.3
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.7	2.1	5.4	1.2

HCM 6th TWSC
 1: Main Street/Riverside Avenue & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	↕
Traffic Vol, veh/h	0	1	1	126	0	226	1	911	218	259	1036	0
Future Vol, veh/h	0	1	1	126	0	226	1	911	218	259	1036	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	100	-	25	100	-	25
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	1	142	0	254	1	1024	245	291	1164	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2260	3017	582	2191	2772	512	1164	0	0	1269	0	0
Stage 1	1746	1746	-	1026	1026	-	-	-	-	-	-	-
Stage 2	514	1271	-	1165	1746	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	23	13	461	~ 26	19	512	607	-	-	554	-	-
Stage 1	91	142	-	255	315	-	-	-	-	-	-	-
Stage 2	517	241	-	210	142	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	7	6	461	-	9	512	607	-	-	554	-	-
Mov Cap-2 Maneuver	~ -20	~ 1	-	~ 83	61	-	-	-	-	-	-	-
Stage 1	91	67	-	254	314	-	-	-	-	-	-	-
Stage 2	260	241	-	~ 98	67	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB		
HCM Control Delay, \$ 2787.2					0		3.7		
HCM LOS	F								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	607	-	-	2	-	554	-
HCM Lane V/C Ratio	0.002	-	-	1.124	-	0.525	-
HCM Control Delay (s)	10.9	-	-	\$ 2787.2	-	18.5	-
HCM Lane LOS	B	-	-	F	-	C	-
HCM 95th %tile Q(veh)	0	-	-	0.9	-	3	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: Placentia Lane/Driveway 1 & Center Street

08/11/2017

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	429	45	2	291	5	29	0	3	13	0	4
Future Vol, veh/h	2	429	45	2	291	5	29	0	3	13	0	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	456	48	2	310	5	31	0	3	14	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	315	0	0	504	0	0	803	803	480	803	825	313
Stage 1	-	-	-	-	-	-	484	484	-	317	317	-
Stage 2	-	-	-	-	-	-	319	319	-	486	508	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1257	-	-	1071	-	-	304	319	590	304	310	732
Stage 1	-	-	-	-	-	-	568	555	-	698	658	-
Stage 2	-	-	-	-	-	-	697	657	-	566	542	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1257	-	-	1071	-	-	301	318	590	302	309	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	301	318	-	302	309	-
Stage 1	-	-	-	-	-	-	567	554	-	697	657	-
Stage 2	-	-	-	-	-	-	692	656	-	562	541	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			17.8			15.8		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	315	1257	-	-	1071	-	-	350
HCM Lane V/C Ratio	0.108	0.002	-	-	0.002	-	-	0.052
HCM Control Delay (s)	17.8	7.9	0	-	8.4	0	-	15.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.2

HCM 6th TWSC
 3: Center Street & Driveway 2

08/11/2017

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	443	294	5	13	4
Future Vol, veh/h	2	443	294	5	13	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	2	482	320	5	14	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	325	0	0	809	323
Stage 1	-	-	-	323	-
Stage 2	-	-	-	486	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1246	-	-	353	723
Stage 1	-	-	-	738	-
Stage 2	-	-	-	623	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1246	-	-	352	723
Mov Cap-2 Maneuver	-	-	-	352	-
Stage 1	-	-	-	737	-
Stage 2	-	-	-	623	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1246	-	-	-	400
HCM Lane V/C Ratio	0.002	-	-	-	0.046
HCM Control Delay (s)	7.9	0	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th AWSC
4: Orange Street & Center Street

08/11/2017

Intersection	
Intersection Delay, s/veh	32.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	110	436	30	80	236	25	28	51	153	31	31	65
Future Vol, veh/h	110	436	30	80	236	25	28	51	153	31	31	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	112	445	31	82	241	26	29	52	156	32	32	66
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

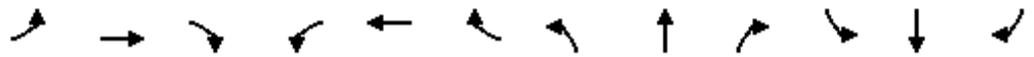
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	51.6	18.8	14.8	12.7
HCM LOS	F	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	19%	23%	24%
Vol Thru, %	22%	76%	69%	24%
Vol Right, %	66%	5%	7%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	576	341	127
LT Vol	28	110	80	31
Through Vol	51	436	236	31
RT Vol	153	30	25	65
Lane Flow Rate	237	588	348	130
Geometry Grp	1	1	1	1
Degree of Util (X)	0.437	0.961	0.61	0.256
Departure Headway (Hd)	6.648	5.888	6.308	7.124
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	540	617	571	500
Service Time	4.724	3.946	4.378	5.217
HCM Lane V/C Ratio	0.439	0.953	0.609	0.26
HCM Control Delay	14.8	51.6	18.8	12.7
HCM Lane LOS	B	F	C	B
HCM 95th-tile Q	2.2	13.4	4.1	1

HCM 6th Signalized Intersection Summary

1: Main Street/Riverside Avenue & Center Street

08/11/2017

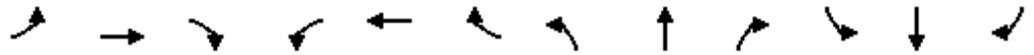


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕	↕	↕	↕↕	↕
Traffic Volume (veh/h)	0	0	0	47	1	117	3	604	52	107	760	1
Future Volume (veh/h)	0	0	0	47	1	117	3	604	52	107	760	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1800	1800	1800	1800	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	0	0	0	54	1	134	3	694	60	123	874	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	312	0	119	16	187	54	2086	930	230	2458	1096
Arrive On Green	0.00	0.00	0.00	0.17	0.17	0.17	0.03	0.61	0.61	0.14	0.72	0.72
Sat Flow, veh/h	0	1800	0	351	91	1077	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	0	0	0	189	0	0	3	694	60	123	874	1
Grp Sat Flow(s),veh/h/ln	0	1800	0	1518	0	0	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	0.0	0.0	0.0	6.8	0.0	0.0	0.1	7.9	1.3	5.6	7.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	9.3	0.0	0.0	0.1	7.9	1.3	5.6	7.7	0.0
Prop In Lane	0.00		0.00	0.29		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	312	0	321	0	0	54	2086	930	230	2458	1096
V/C Ratio(X)	0.00	0.00	0.00	0.59	0.00	0.00	0.06	0.33	0.06	0.54	0.36	0.00
Avail Cap(c_a), veh/h	0	518	0	492	0	0	243	2086	930	304	2458	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	31.1	0.0	0.0	37.5	7.6	6.3	31.9	4.3	3.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.7	0.0	0.0	0.4	0.4	0.1	1.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.5	0.0	0.0	0.1	2.6	0.4	2.3	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	32.9	0.0	0.0	37.9	8.1	6.5	33.8	4.7	3.2
LnGrp LOS	A	A	A	C	A	A	D	A	A	C	A	A
Approach Vol, veh/h		0			189			757			998	
Approach Delay, s/veh		0.0			32.9			8.1			8.2	
Approach LOS					C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.3	50.8		15.9	4.6	59.5		15.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	13.0	34.0		21.0	10.0	37.0		21.0				
Max Q Clear Time (g_c+I1), s	7.6	9.9		0.0	2.1	9.7		11.3				
Green Ext Time (p_c), s	0.1	5.3		0.0	0.0	6.9		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				10.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

1: Main Street/Riverside Avenue & Center Street

08/11/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	0	1	1	43	0	173	1	874	115	198	975	0
Future Volume (veh/h)	0	1	1	43	0	173	1	874	115	198	975	0
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	1800	1800	1800	1800	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	0	1	1	48	0	194	1	982	129	222	1096	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	169	169	101	15	250	45	1840	821	295	2367	1056
Arrive On Green	0.00	0.21	0.21	0.21	0.00	0.21	0.03	0.54	0.54	0.18	0.69	0.00
Sat Flow, veh/h	0	826	826	228	74	1221	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	0	0	2	242	0	0	1	982	129	222	1096	0
Grp Sat Flow(s),veh/h/ln	0	0	1651	1523	0	0	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	0.0	0.0	0.1	8.1	0.0	0.0	0.0	14.9	3.4	10.4	11.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	12.0	0.0	0.0	0.0	14.9	3.4	10.4	11.6	0.0
Prop In Lane	0.00		0.50	0.20		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	0	339	366	0	0	45	1840	821	295	2367	1056
V/C Ratio(X)	0.00	0.00	0.01	0.66	0.00	0.00	0.02	0.53	0.16	0.75	0.46	0.00
Avail Cap(c_a), veh/h	0	0	413	434	0	0	243	1840	821	385	2367	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	25.3	30.0	0.0	0.0	37.8	12.0	9.3	31.0	5.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	0.0	0.2	1.1	0.4	6.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	4.5	0.0	0.0	0.0	5.4	1.1	4.4	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	25.3	32.9	0.0	0.0	38.0	13.1	9.7	37.0	6.2	0.0
LnGrp LOS	A	A	C	C	A	A	D	B	A	D	A	A
Approach Vol, veh/h		2			242			1112			1318	
Approach Delay, s/veh		25.3			32.9			12.7			11.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.6	45.0		18.4	4.2	57.4		18.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	17.0	33.0		18.0	10.0	40.0		18.0				
Max Q Clear Time (g_c+I1), s	12.4	16.9		2.1	2.0	13.6		14.0				
Green Ext Time (p_c), s	0.3	6.8		0.0	0.0	9.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

1: Main Street/Riverside Avenue & Center Street

08/11/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	0	0	0	132	1	165	3	655	116	155	792	1
Future Volume (veh/h)	0	0	0	132	1	165	3	655	116	155	792	1
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	1800	1800	1800	1800	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	0	0	0	152	1	190	3	753	133	178	910	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	504	0	239	12	232	54	1678	749	250	2093	933
Arrive On Green	0.00	0.00	0.00	0.28	0.28	0.28	0.03	0.49	0.49	0.15	0.61	0.61
Sat Flow, veh/h	0	1800	0	623	44	828	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	0	0	0	343	0	0	3	753	133	178	910	1
Grp Sat Flow(s),veh/h/ln	0	1800	0	1495	0	0	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	0.0	0.0	0.0	15.9	0.0	0.0	0.1	11.5	3.9	8.4	11.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	17.1	0.0	0.0	0.1	11.5	3.9	8.4	11.3	0.0
Prop In Lane	0.00		0.00	0.44		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	504	0	484	0	0	54	1678	749	250	2093	933
V/C Ratio(X)	0.00	0.00	0.00	0.71	0.00	0.00	0.06	0.45	0.18	0.71	0.43	0.00
Avail Cap(c_a), veh/h	0	653	0	606	0	0	243	1678	749	344	2093	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	26.8	0.0	0.0	37.5	13.3	11.4	32.1	8.2	6.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.8	0.0	0.0	0.4	0.9	0.5	4.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	6.2	0.0	0.0	0.1	4.3	1.3	3.5	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	29.7	0.0	0.0	37.9	14.2	11.9	36.4	8.9	6.0
LnGrp LOS	A	A	A	C	A	A	D	B	B	D	A	A
Approach Vol, veh/h		0			343			889			1089	
Approach Delay, s/veh		0.0			29.7			13.9			13.4	
Approach LOS					C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.3	41.3		24.4	4.6	51.0		24.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	15.0	26.0		27.0	10.0	31.0		27.0				
Max Q Clear Time (g_c+I1), s	10.4	13.5		0.0	2.1	13.3		19.1				
Green Ext Time (p_c), s	0.2	4.6		0.0	0.0	6.2		1.3				

Intersection Summary

HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

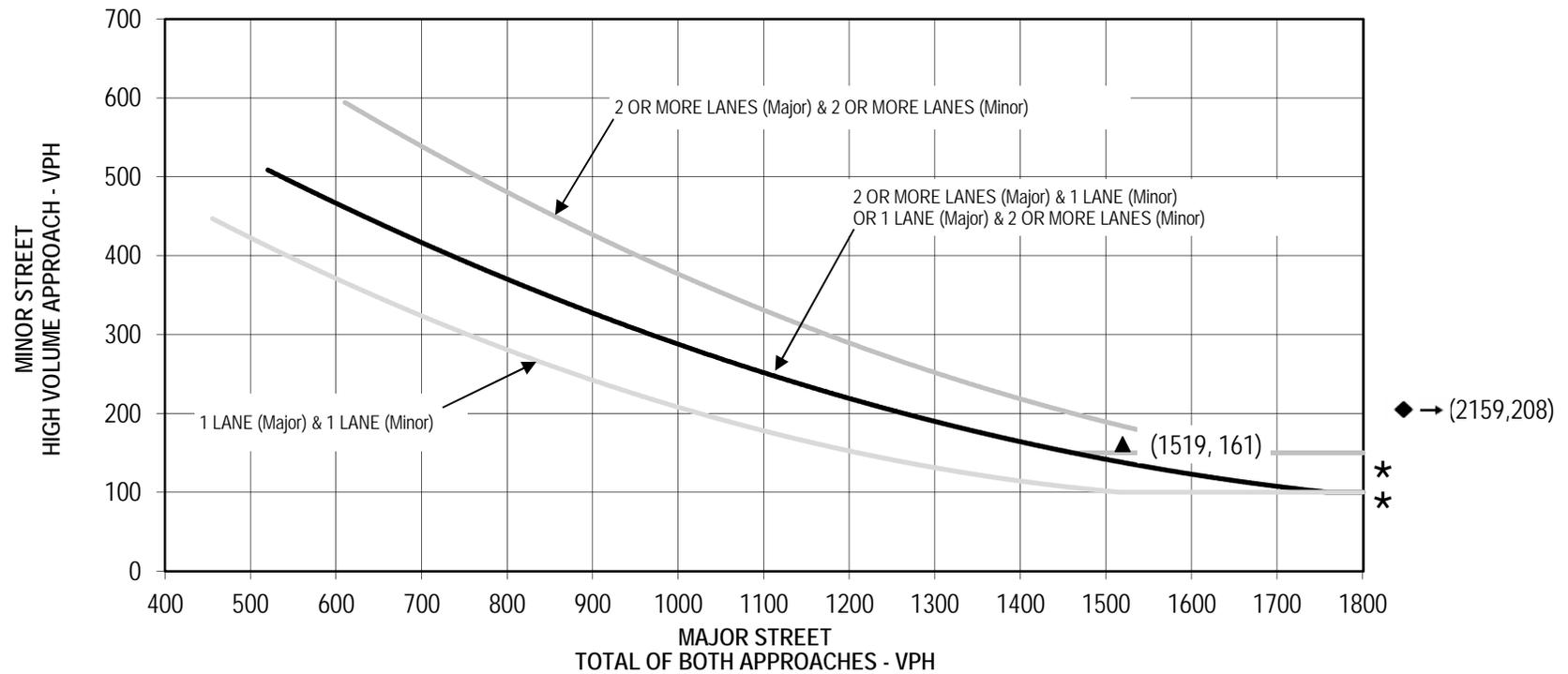
1: Main Street/Riverside Avenue & Center Street

08/11/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	126	0	226	1	911	218	259	1036	0
Future Volume (veh/h)	0	1	1	126	0	226	1	911	218	259	1036	0
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	1800	1800	1800	1800	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	0	1	1	142	0	254	1	1024	245	291	1164	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	248	248	210	13	289	45	1379	615	359	2043	911
Arrive On Green	0.00	0.30	0.30	0.30	0.00	0.30	0.03	0.40	0.40	0.22	0.60	0.00
Sat Flow, veh/h	0	826	826	496	42	963	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	0	0	2	396	0	0	1	1024	245	291	1164	0
Grp Sat Flow(s),veh/h/ln	0	0	1651	1501	0	0	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	0.0	0.0	0.1	18.3	0.0	0.0	0.0	20.4	9.1	13.6	16.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	20.0	0.0	0.0	0.0	20.4	9.1	13.6	16.6	0.0
Prop In Lane	0.00		0.50	0.36		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	0	495	512	0	0	45	1379	615	359	2043	911
V/C Ratio(X)	0.00	0.00	0.00	0.77	0.00	0.00	0.02	0.74	0.40	0.81	0.57	0.00
Avail Cap(c_a), veh/h	0	0	495	512	0	0	243	1379	615	385	2043	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.6	26.5	0.0	0.0	37.8	20.3	17.0	29.5	9.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.3	0.0	0.0	0.2	3.7	1.9	11.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	7.8	0.0	0.0	0.0	8.3	3.4	6.3	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	19.6	33.8	0.0	0.0	38.0	24.0	18.9	41.2	11.0	0.0
LnGrp LOS	A	A	B	C	A	A	D	C	B	D	B	A
Approach Vol, veh/h		2			396			1270			1455	
Approach Delay, s/veh		19.6			33.8			23.0			17.0	
Approach LOS		B			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.7	34.3		26.0	4.2	49.8		26.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	17.0	29.0		22.0	10.0	36.0		22.0				
Max Q Clear Time (g_c+I1), s	15.6	22.4		2.1	2.0	18.6		22.0				
Green Ext Time (p_c), s	0.1	4.1		0.0	0.0	8.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

APPENDIX D: PEAK HOUR SIGNAL WARRANT ANALYSIS

WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE D - 1

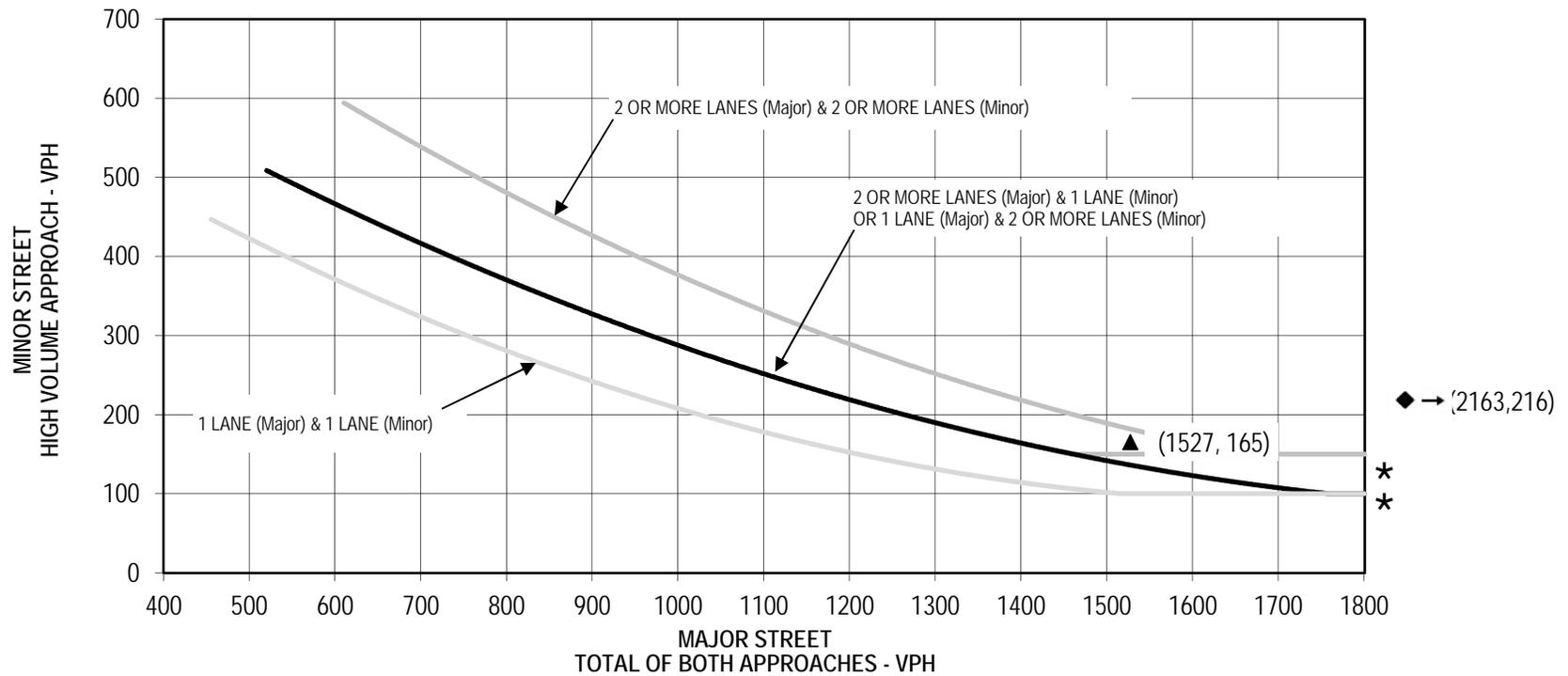
- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Center Street Development
 Signal Warrant for Riverside Avenue/Placentia Lane
 Existing Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE D - 2

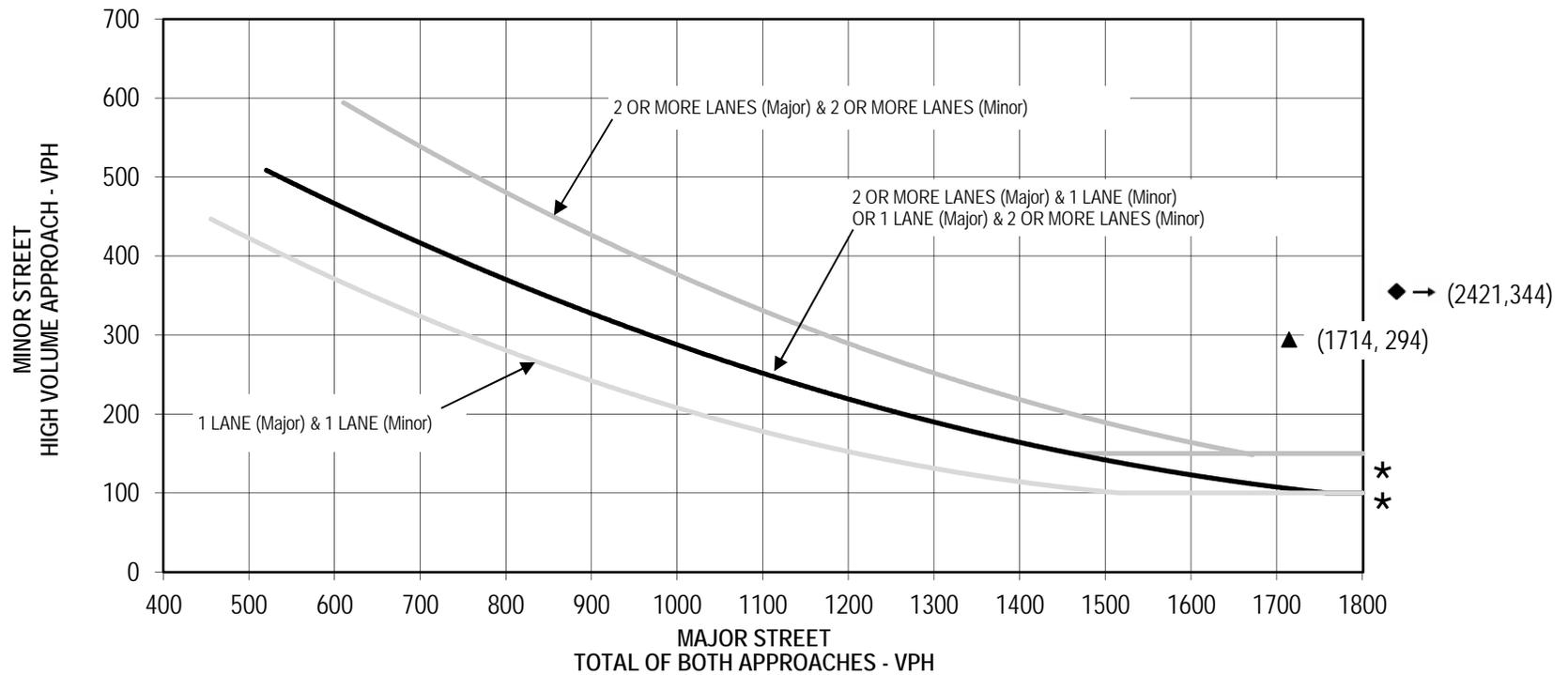
- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Center Street Development
Signal Warrant for Riverside Avenue/Placentia Lane
Existing With Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE D - 3

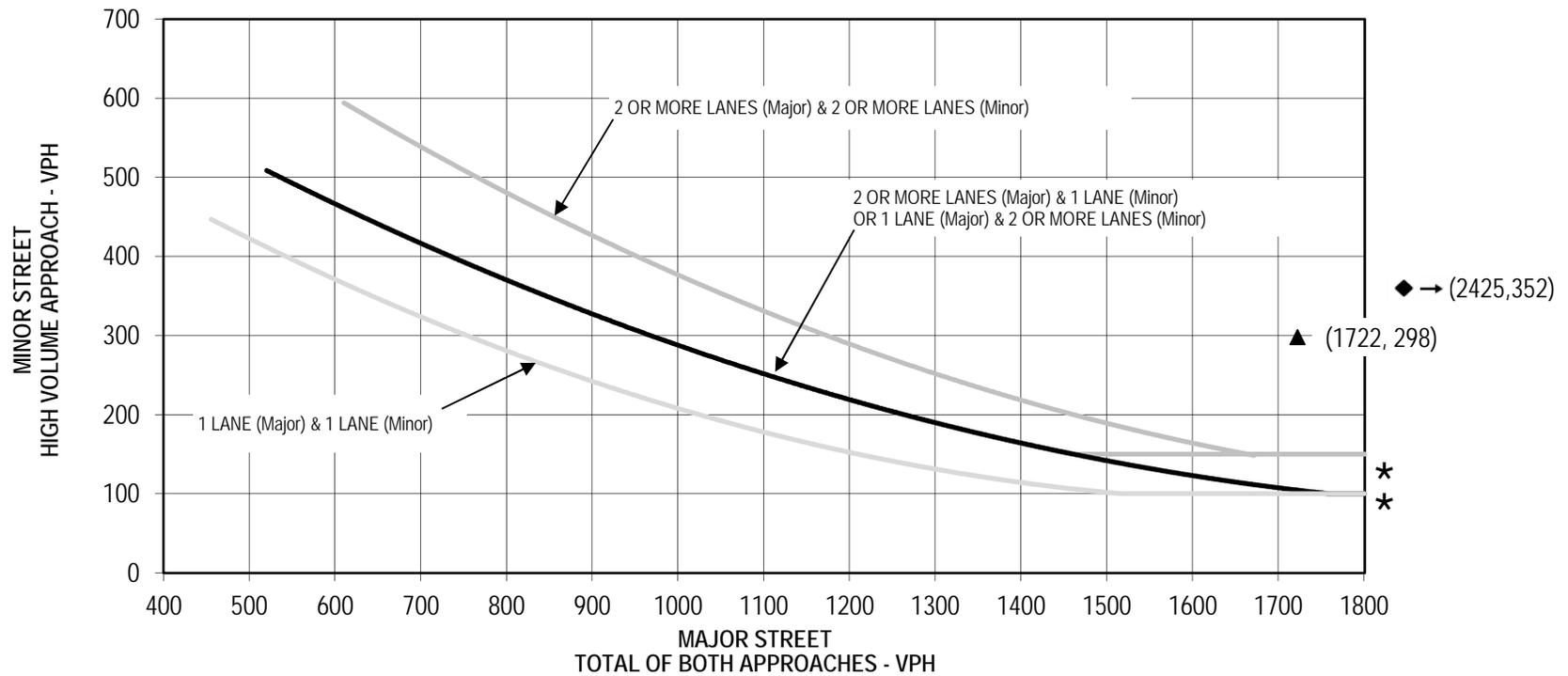
- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Center Street Development
 Signal Warrant for Riverside Avenue/Placentia Lane
 Opening Year Without Project Peak Hour Signal Warrant



WARRANT 3, PEAK HOUR



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE D - 4

- ▲ AM Peak Hour
- ◆ PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Center Street Development
 Signal Warrant for Riverside Avenue/Placentia Lane
 Opening Year With Project Peak Hour Signal Warrant



APPENDIX E: PROJECT FAIR-SHARE CALCULATION

E-1 - Project Fair Share Calculation

Intersection	AM Peak Hour					PM Peak Hour					Project Fair Share %
	Total Volume		Total Growth	Project Trips	Project %	Total Volume		Total Growth	Project Trips	Project %	
	2017	2040 With Project				2017	2040 With Project				
1 . Riverside Avenue/Placentia Lane	3,360	5,724	2,364	24	1.015%	4,738	7,124	2,386	24	1.006%	1.015%