

APPENDIX H

Traffic Operational Analysis, Madison Flats Project (Traffic Operational Analysis) (LSA, May 2023)

TRAFFIC OPERATIONAL ANALYSIS

**MADISON FLATS PROJECT
CITY OF RIVERSIDE
RIVERSIDE COUNTY, CALIFORNIA**

This Traffic Operational Analysis has been prepared under the supervision of
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LSA

May 2023

TRAFFIC OPERATIONAL ANALYSIS

**MADISON FLATS PROJECT
CITY OF RIVERSIDE
RIVERSIDE COUNTY, CALIFORNIA**

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1.0 EXECUTIVE SUMMARY

The proposed Madison Flats project is a residential development consisting of senior residential apartments with 76 dwelling units and a low-rise apartment development consisting of 45 multi-family dwelling units. All dwelling units for this project are categorized as affordable housing. The project is located south of the intersection of Winstrom Street and Railroad Avenue in the City of Riverside (City). The project parcel is considered as Medium Density Residential (MDR) and Commercial (C) in the City's General Plan Land Use and is zoned as Single Family Residential (R-1-7000). The project will require a General Plan Amendment (GPA) and Zone Change (ZC) for the project parcel. The General Plan Land Use will be changed from Medium Density Residential (MDR) and Commercial (C) to High Density Residential (HDR), while the Zoning will be changed from Single Family Residential (R-1-7000) to Multi-Family Residential (R-3-2000). The project is anticipated to be completed by year 2025.

The project can be accessed via three full access driveways:

- Project Driveway 1 located at Railroad Avenue west of Depot Street;
- Project Driveway 2 located at Railroad Avenue between Winstrom Street and Madison Street; and
- Project Driveway 3 located at Railroad Avenue between Winstrom Street and Madison Street.

The project is forecast to generate 52 trips in the a.m. peak hour, 59 trips in the p.m. peak hour, and 610 daily trips.

The study area for the project was finalized during the scoping agreement process and was based on the criteria defined in the City of Riverside Public Works Department *Traffic Impact Analysis (TIA) Guidelines for Vehicle Miles Traveled (VMT) and Level of Service (LOS) Assessment* (dated July 2020). As such, the study area includes 7 intersections and 4 roadway segments.

Traffic conditions were examined for the weekday daily, a.m., and p.m. peak hour conditions under the following scenarios:

- Existing Condition;
- Opening Year (2025) without Project Conditions;
- Opening Year (2025) with Project Conditions;
- Cumulative (2045) without Project Conditions; and
- Cumulative (2045) with Project Conditions.

1.1 EXISTING CONDITIONS SUMMARY

Based on the criteria as discussed in Section 3.2, Level of Service Procedures and Criteria, of this report, the following intersection is currently operating at a deficient LOS under existing conditions:

2. Madison Street/Indiana Avenue (p.m. peak hour only).

All other study intersections and roadway segments are currently operating at a satisfactory LOS. The City does not have a fair share program, therefore, the project would need to discuss with City staff the appropriate mechanism for implementation of this improvement.

1.2 OPENING YEAR (2025) CONDITIONS SUMMARY

Based on the criteria as discussed in Section 3.2, Level of Service Procedures and Criteria, of this report, under opening year without project conditions, the following intersection is forecast to operate at a deficient LOS:

2. Madison Street/Indiana Avenue (p.m. peak hour only).

All other study intersections and roadway segments are forecast to operate at a satisfactory LOS.

Under opening year with project conditions, the following intersection is forecast to operate at a deficient LOS:

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hours).

All other study intersections and roadway segments are forecast to operate at a satisfactory LOS.

With the implementation of improvements recommended in Chapter 11.1, the intersection of Madison Street/Indiana Avenue is forecast to operate at a satisfactory LOS in both a.m. and p.m. peak hours under opening year with project conditions.

Table 1-A summarizes the recommended improvements for study intersections and funding mechanism under opening year with project conditions. The City does not have a fair share program, therefore, the project would need to discuss with City staff the appropriate mechanism for implementation of this improvement.

1.3 CUMULATIVE (2045) CONDITIONS SUMMARY

Based on the criteria as discussed in Section 3.2, Level of Service Procedures and Criteria, of this report, under cumulative without project conditions, the following intersection is forecast to operate at a deficient LOS:

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hours).

All other study intersections and roadway segments are forecast to operate at a satisfactory LOS.

Under cumulative year with project conditions, the following intersection is forecast to operate at a deficient LOS:

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hours).

All other study intersections and roadway segments are forecast to operate at a satisfactory LOS.

With the implementation of improvements recommended in Chapter 11.1, the intersection of Madison Street/Indiana Avenue is forecast to operate at a satisfactory LOS in both a.m. and p.m. peak hours under cumulative with project conditions.

Table 1-A summarizes the recommended improvements for study intersections and funding mechanism under cumulative conditions. The City does not have a fair share program, therefore, the project would need to discuss with City staff the appropriate mechanism for implementation of this improvement.

1.4 ACTIVE TRANSPORTATION AND PUBLIC TRANSIT ANALYSIS SUMMARY

The project does not conflict with any existing or proposed bicycle, pedestrian, or public transit facilities. The project will construct a sidewalk along the project frontage on Railroad Avenue. Therefore, it can be considered to conform to all adopted policies, plans, or programs concerning these facilities and will not have a significant impact.

1.5 LIST OF CHAPTER 1.0 TABLES

- Table 1-A: Recommended Improvements for Intersections and Funding Mechanism

Table 1-A - Recommended Improvements for Intersections and Funding Mechanism

Intersection	Opening Year (2025) with Project Improvements	Cumulative (2045) with Project Improvements	Funding Mechanism	Improvements Covered by TUMF	Improvements Covered by Fair Share
2 . Madison Street/Indiana Avenue	Optimize signal timing (a.m. and p.m. peak hour)	Optimize signal timing (a.m. and p.m. peak hour)	Fair Share	-	Optimize signal timings.

Notes:

TUMF refers to the Transportation Uniform Mitigation Fee Program.

¹ The City does not have a fair share program, therefore, the project would need to discuss with City staff the appropriate mechanism for implementation of this improvement.

2.0 INTRODUCTION

The Traffic Operational Analysis (TOA) has been prepared for the proposed Madison Flats Project (project) to be located south of the intersection of Winstrom Street and Railroad Avenue in the City of Riverside (City). Figure 2-1 illustrates the regional and project location. (Figures and tables are located at the end of each chapter.)

This report is intended to satisfy the requirements established by the City of Riverside Public Works Department *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020). The scope of work for this TOA, including trip generation, trip distribution, study area, and analysis methodologies, has been approved by City staff via the Scoping Agreement process. A copy of the Scoping Agreement is included in Appendix A.

This study examines traffic operations in the vicinity of the proposed project under the following five scenarios:

- Existing Conditions;
- Opening Year (2025) without Project Conditions;
- Opening Year (2025) with Project Conditions;
- Cumulative (2045) without Project Conditions; and
- Cumulative (2045) with Project Conditions.

Traffic conditions were examined for the weekday daily, 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 and 9:00 a.m. The p.m. peak hour is the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Roadway segments were analyzed using daily volume counts and comparisons were made to the daily service volume standards provided in the City's TIA Guidelines.

2.1 PROJECT DESCRIPTION

The proposed project is a residential development consisting of a senior residential apartments with 76 dwelling units and a low-rise apartment development consisting of 45 multi-family dwelling units. All dwelling units for this project are categorized as affordable housing. The project parcel is considered as Medium Density Residential (MDR) and Commercial (C) in the General Plan Land Use and zoned as Single Family Residential (R-1-7000). The project requires a General Plan Amendment (GPA) and Zone Change (ZC) for the project parcel. The General Plan Land Use will be changed from Medium Density Residential (MDR) and Commercial (C) to High Density Residential (HDR), while the Zoning will be changed from Single Family Residential (R-1-7000) to Multi-Family Residential (R-3-2000). The project is anticipated to be completed by year 2025. Figures 2-2, 2-3, and 2-4 illustrate the conceptual site plan for the proposed project.

As shown in Figure 2-2, the project can be accessed via three full access driveways:

- Project Driveway 1 located at Railroad Avenue west of Depot Street;

-
- Project Driveway 2 located at Railroad Avenue between Winstrom Street and Madison Street; and
 - Project Driveway 3 located at Railroad Avenue between Winstrom Street and Madison Street.

2.2 LIST OF CHAPTER 2.0 FIGURES

- Figure 2-1: Regional and Project Location
- Figure 2-2: Conceptual Site Plan Part 1 of 3
- Figure 2-3: Conceptual Site Plan Part 2 of 3
- Figure 2-4: Conceptual Site Plan Part 3 of 3

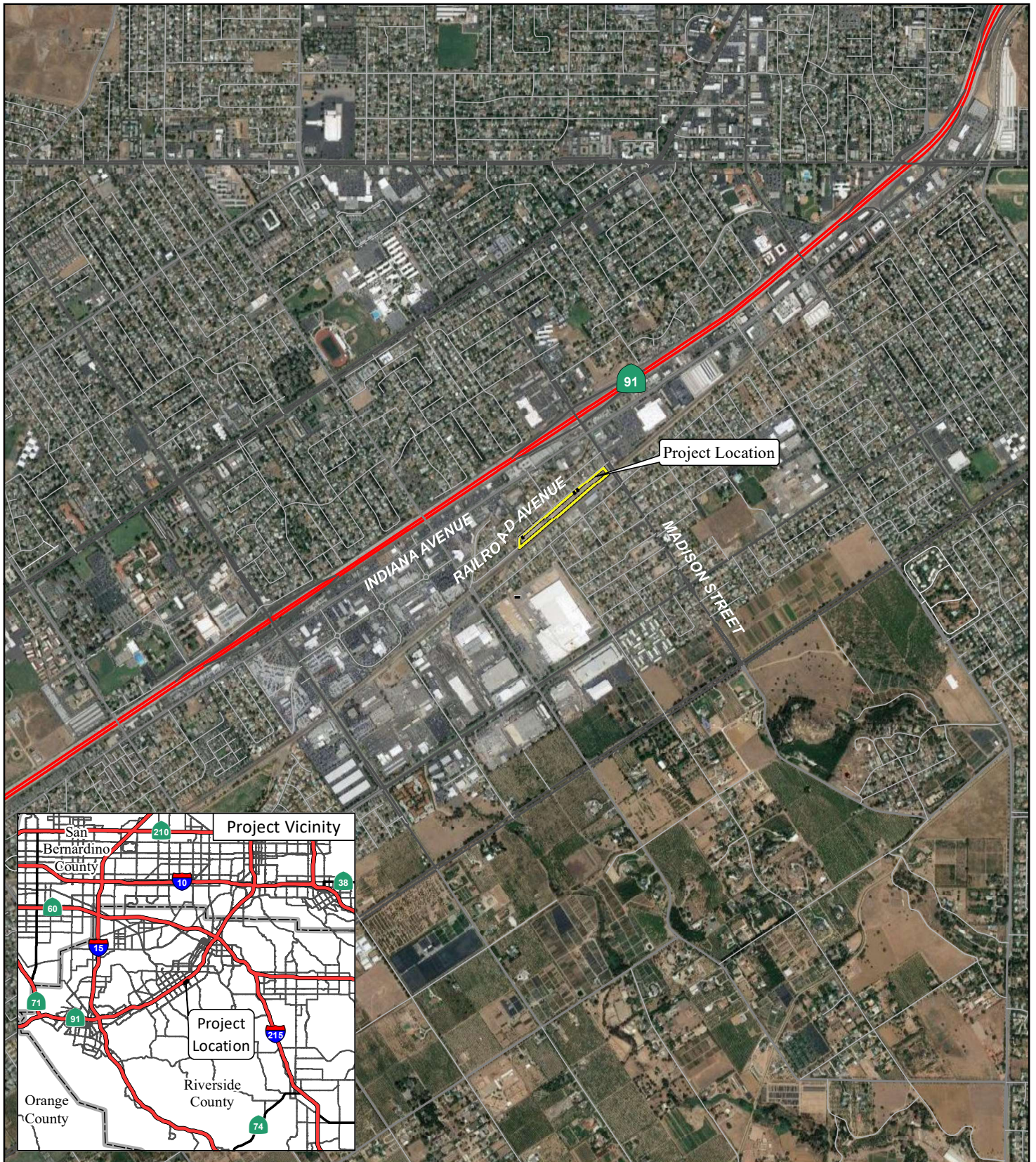
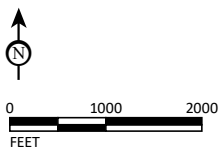


FIGURE 2-1

LSA

LEGEND

 Project Site



SOURCE: ESRI Streetmap, 2021; Google Earth, 2019

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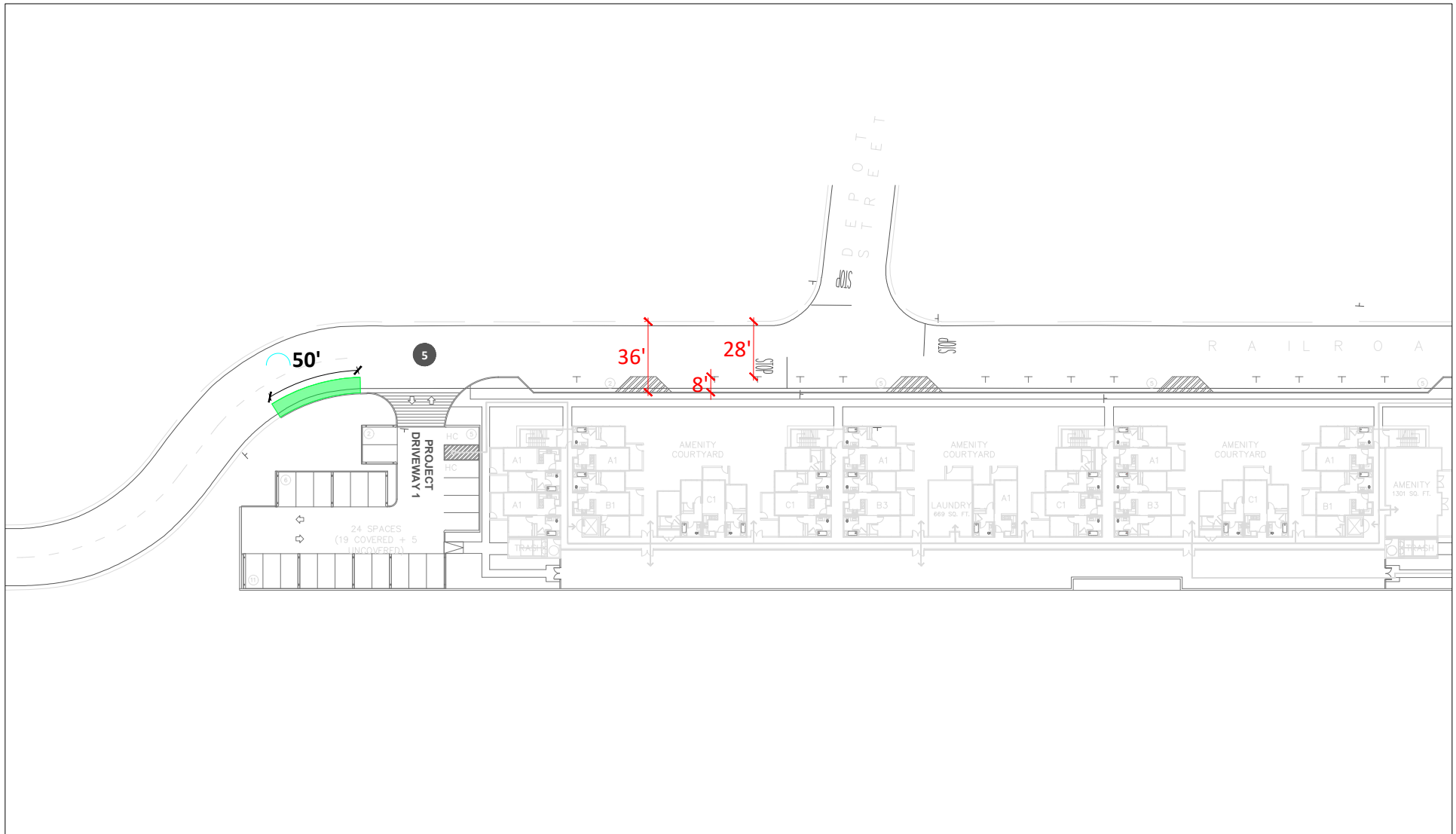


Figure 2-2

LSA



SOURCE: MCG Architecture, August 2022

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LEGEND

- Study Area Intersection
- Parking Restriction of 50 Feet

Madison Flats Project
Traffic Operations Analysis
 Conceptual Site Plan Part 1 of 3

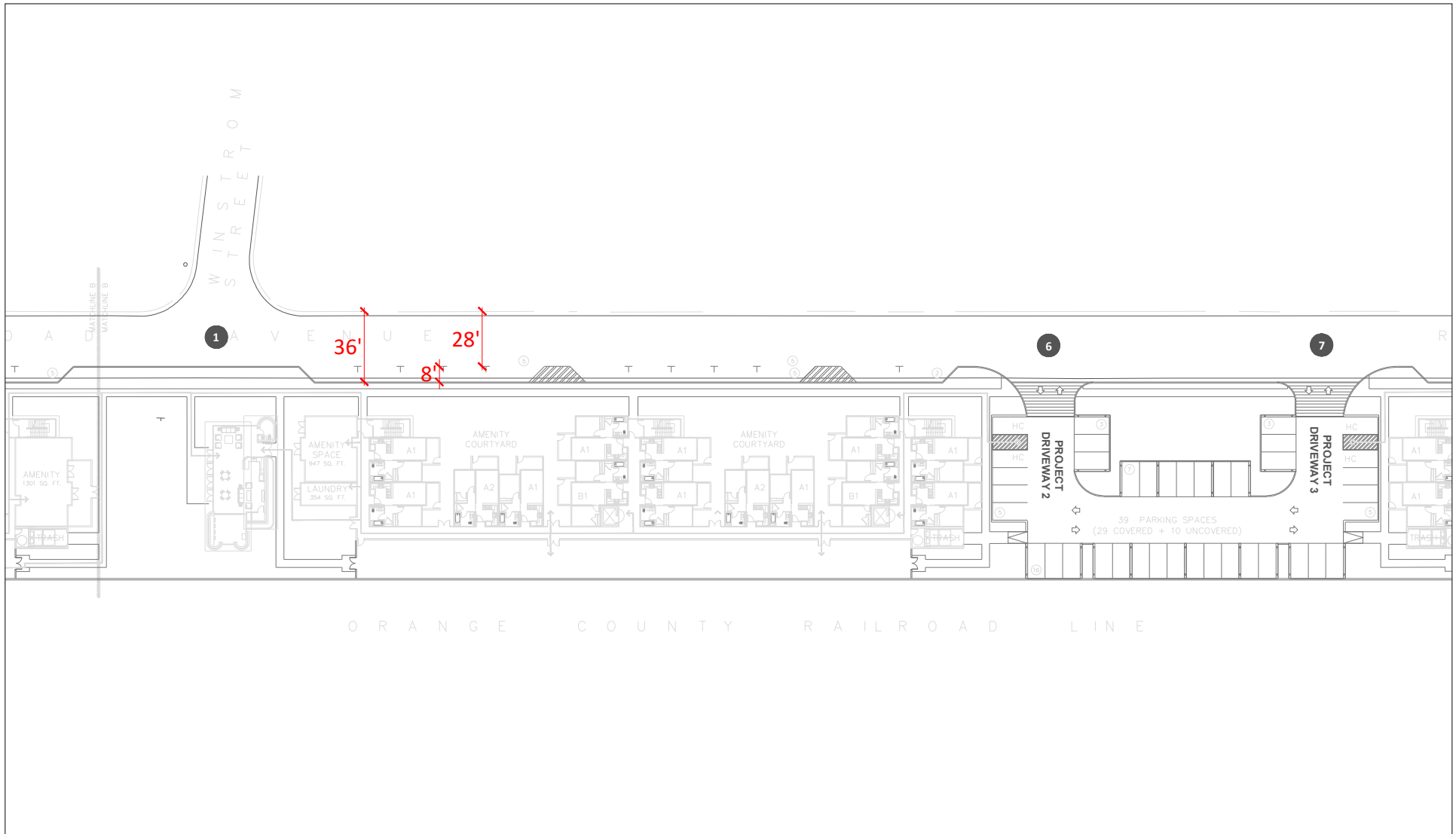
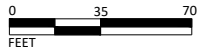


Figure 2-3

LSA

LEGEND

● Study Area Intersection



SOURCE: MCG Architecture, August 2022

Madison Flats Project
 Traffic Operations Analysis
 Conceptual Site Plan Part 2 of 3

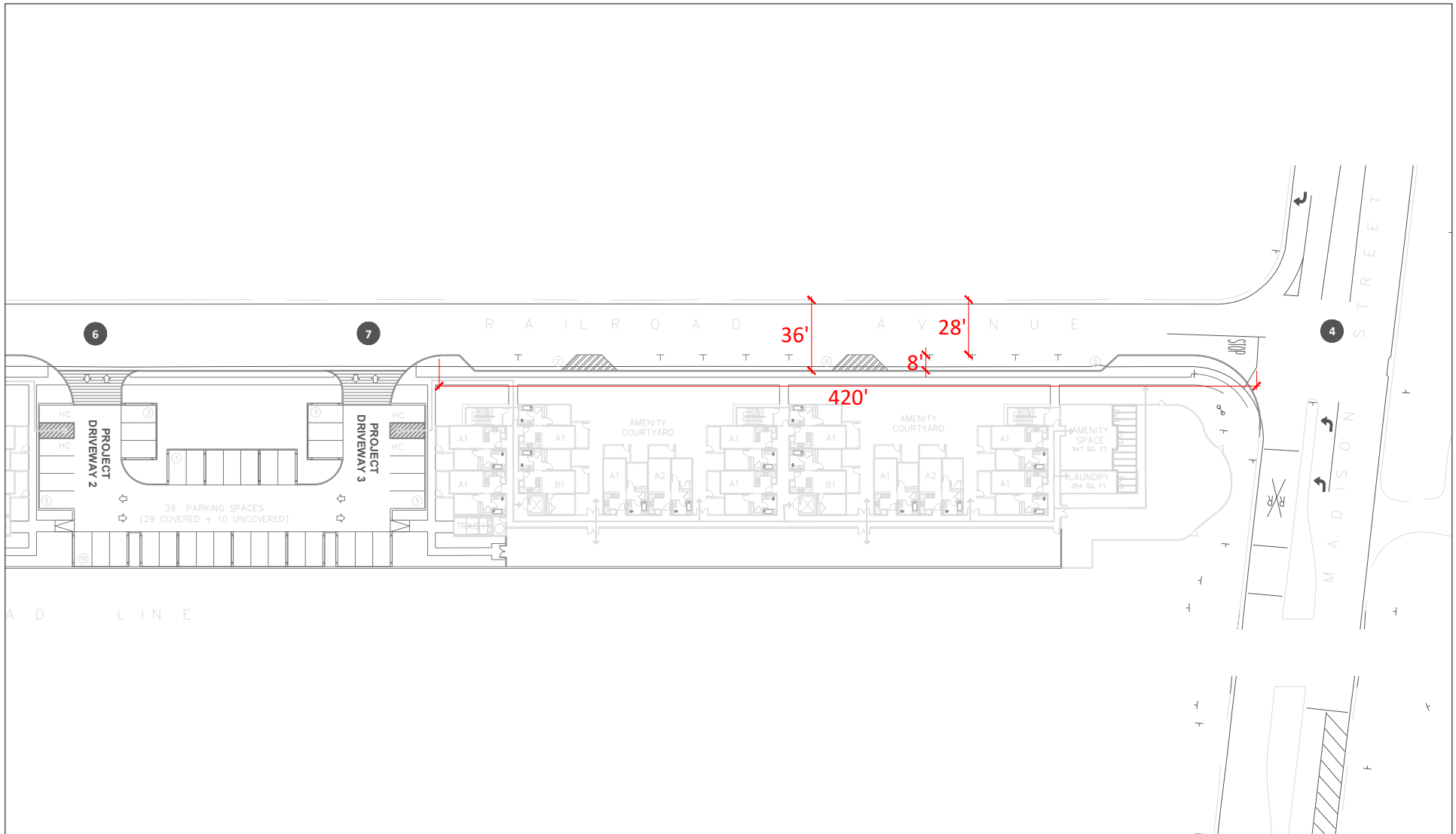


Figure 2-4

LSA

LEGEND

● Study Area Intersection



SOURCE: MCG Architecture, August 2022

Madison Flats Project
 Traffic Operations Analysis
 Conceptual Site Plan Part 3 of 3

3.0 ANALYSIS METHODOLOGY AND CRITERIA

3.1 LEVEL OF SERVICE DEFINITIONS

LOS can be characterized for the whole intersection, by each intersection approach, and by each lane group. Control delay alone is used to characterize LOS for the entire intersection. Control delay quantifies the increase in travel time due to the traffic signal control and is a surrogate measure of driver discomfort and fuel consumption.

A complete description of the meaning of LOS can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual* (HCM). The HCM establishes LOS A through F for intersections. A description of LOS for signalized and unsignalized intersections is summarized in Table 3-A. A description of LOS for roadway segments is summarized in Table 3-B.

Table 3-C shows the LOS criteria for unsignalized and signalized intersections. Table 3-D summarizes the LOS criteria used to evaluate roadway segments based on the daily capacity for each functional classification pursuant to the City's TIA Guidelines. The daily traffic volumes represent the total vehicles (both directions) traveling on a roadway segment within 24 hours.

For all study area intersections, the *Highway Capacity Manual 6th Edition* (HCM 6) analysis methodologies were used to determine intersection LOS. Intersection LOS was calculated using the Synchro 11 software, which uses the HCM 6 methodologies.

3.2 LEVEL OF SERVICE PROCEDURES AND CRITERIA

Study intersections and roadway segments analyzed in this report are under the jurisdiction of the City of Riverside. The City uses LOS D as its minimum level of service criterion for intersections of Collector or higher classification streets. For all other intersections, the City uses LOS C as its minimum level of service criterion.

For projects in which the proposed uses or intensities are above those contained in the General Plan, operational improvements are required at study intersections within the City when the addition of project trips causes either the intersection peak hour LOS to degrade from acceptable (LOS A through D) to unacceptable levels (LOS E or F) or the peak hour delay to increase from "without project" to "with project" as follows:

- LOS A/B by 10.0 seconds;
- LOS C by 8.0 seconds;
- LOS D by 5.0 seconds;
- LOS E by 2.0 seconds; and
- LOS F by 1.0 second.

As stated in the City's TIA Guidelines, operational improvements at roadway segments are required when either the addition of project-related trips causes the roadway segment LOS to degrade from acceptable (LOS A through D) to unacceptable levels (LOS E or F) or when the roadway segment is

operating at an unacceptable LOS in the no project scenario and the addition of project trips causes the volume-to-capacity (V/C) ratio to increase by more than 5 percent.

3.3 LIST OF CHAPTER 3.0 TABLES

- Table 3-A: Intersection Level of Service Definitions
- Table 3-B: Roadway Segment Level of Service Definitions
- Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections
- Table 3-D: Roadway Segment Capacity and Levels of Service

Table 3-A: Intersection Level of Service Definitions

LOS	Description
A	Traffic operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. 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 LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	Traffic operations with control delay between 10 seconds per vehicle and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically 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.
C	Traffic operations with control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. 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 the 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.
D	Traffic operations with control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. 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.
E	Traffic operations with control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	Traffic operations with control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. 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.

Source: Highway Capacity Manual (6th Edition)

Table 3-B: Roadway Segment Level of Service Definitions

LOS	Description
A	Describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control Delay at the boundary intersection is minimal. The travel speed exceeds 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary is not significant. The travel speed is between 67% and 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Describes stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersection may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is between 30% or less of the base free-flow speed, and the volume-to-capacity ratio is greater than 1.0.

Source: Highway Capacity Manual (6th Edition)

Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual* (6th Edition)

Table 3-D: Roadway Segment Capacity and Levels of Service

Type of Roadway	Level of Service		
	C	D	E
Local	2,500–2,799	2,800–3,099	3,100+
Collector (66' or 80')	9,900–11,199	11,200–12,499	12,500+
Arterial ¹	14,400–16,199	16,200–17,999	18,000+
Arterial (88')	16,800–19,399	19,400–21,199	22,000+
Arterial (100')	26,200–29,599	29,600–32,999	33,000+
Arterial (120')	38,700–44,099	44,100–49,499	49,500+
Arterial (144')	50,600–57,799	57,800–64,999	65,000+

Source: City of Riverside Public Works Department *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment*, July 2020.

¹ Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignments are analyzed as arterials.

4.0 EXISTING CONDITIONS

4.1 STUDY AREA

Based on the City's TIA Guidelines, the TOA is required to analyze all intersections of Collector or higher classification streets where the project would contribute 50 or more peak hour trips, along with intersections identified by City staff. Study intersections and roadway segments considered for the analysis were finalized during the TOA Scoping Agreement process.

4.1.1 Study Intersections

Intersections analyzed in this study and their jurisdictions are as follows:

1. Winstrom Street/Railroad Avenue (Riverside);
2. Madison Street/Indiana Avenue (Riverside);
3. Madison Street/Casa Blanca Street (Riverside);
4. Madison Street/Railroad Avenue (Riverside);
5. Project Driveway 1/Railroad Avenue (Riverside);
6. Project Driveway 2/Railroad Avenue (Riverside); and
7. Project Driveway 3/Railroad Avenue (Riverside).

Figure 4-1 illustrates the locations of all study intersections.

4.1.2 Roadway Segments

Roadway segments analyzed in this study are as follows:

1. Railroad Avenue, west of Winstrom Street (Riverside);
2. Railroad Avenue, between Winstrom Street and Madison Street (Riverside);
3. Madison Street, between Indiana Avenue and Railroad Avenue (Riverside); and
4. Madison Street, between Railroad Avenue and Evan Street (Riverside).

4.2 EXISTING ROADWAY NETWORK

This section provides a description of the circulation network within the study area. Figure 4-2 illustrates existing plus project study intersection geometrics and traffic control. Within the City of Riverside, all major roadways are classified based on the Master Plan of Roadways provided in the Circulation and Community Mobility Element of the City of Riverside *General Plan 2025* (General Plan). Figure 4-3 illustrates the Master Plan of Roadways for the City. Table 4-A summarizes the classifications and number of mid-block arterial lanes for the roadway segments analyzed in the TOA. Following is a brief description of major roadways within the study area:

- **Winstrom Street:** Within the study area, Winstrom Street serves as a local street but has no designation in the City's General Plan. Therefore, for the purposes of this analysis, Winstrom

Street has been considered as a local street. Between Indiana Avenue and Railroad Avenue, Winstrom Street is a two-lane, undivided road. There are no bike facilities along either direction for this segment. However, there is provision for on-street parking on both sides for this segment.

- **Madison Street:** Within the study area, Madison Street is designated as an 88-foot Arterial in the City's General Plan. Between Indiana Avenue and Railroad Avenue, Madison Street is a four-lane divided arterial with a two-way-left-turn-lane (TWLTL) median. Between Railroad Avenue and Evans Street, Madison Street is a two-lane raised median divided arterial. There are no bike facilities along either direction for both segments. There is also no provision for on-street parking on either side for both segments.
- **Indiana Avenue:** Within the study area, Indiana Avenue is designated as an 88-foot Arterial in the City's General Plan. West of Madison Street, Indiana Avenue is a four-lane undivided arterial. East of Madison Street, Indiana Avenue is a four-lane divided arterial with a TWLTL median. There are no bike facilities along either direction for both segments. There is provision for on-street parking on one side for both segments.
- **Casa Blanca Street:** Within the study area, Casa Blanca Street serves as a local street but has no designation in the City's General Plan. Therefore, for the purposes of this analysis, Casa Blanca Street has been considered as a local street. Between Jefferson Street and Madison Street, Casa Blanca Street is a two-lane, undivided road. There are no bike facilities along either direction for this segment. However, there is provision for on-street parking on both sides for this segment.
- **Railroad Avenue:** Within the study area, Railroad Avenue serves as a local street but has no designation in the City's General Plan. Therefore, for the purposes of this analysis, Railroad Avenue has been considered as a local street. Between Ricca Street and Madison Street, Railroad Avenue is a two-lane, undivided road. There are no bike facilities along either direction for this segment. However, there is provision for on-street parking on both sides for this segment.
- **Evans Street:** Within the study area, Evans Street serves as a local street but has no designation in the City's General Plan. Therefore, for the purposes of this analysis, Evans Street has been considered as a local street. Between Jefferson Street and Madison Street, Evans Street is a two-lane, undivided road. There are no bike facilities along either direction for this segment. However, there is provision for on-street parking on both sides for this segment.

4.3 EXISTING BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES

4.3.1 Bicycle Facilities

The City of Riverside promotes bicycling for recreation and mobility. Bicycling can be a viable alternative to local work commutes and offers children a healthy way to get to school. To facilitate and encourage bicycle trips, the City has adopted a Active Transportation Plan that includes a network of proposed facilities and a three-tier project prioritization for the recommended improvements. The *Pedestrian Target Safeguarding Plan*, *Active Transportation Plan*, *Complete Streets Ordinance*, and *Trails Master Plan (PACT)* (adopted December 2021) provides an updated

inventory of all bicycle infrastructure and non-infrastructure improvements implemented between 2012 and 2020 within the City of Riverside. The Active Transportation Plan also provides an updated list of recommended bicycle improvements, including a new network of proposed bicycle facilities.

According to the City's *PACT: Active Transportation Plan*, the bikeway network within the City is classified into four categories: Class I – Shared Use Paths, Class II – Bicycle Lanes, Class III – Bicycle Routes/Boulevard, and Class IV - Separated Bikeways. Class I shared use paths are paved trails completely separated from the street. Class II bicycle lanes are striped preferential lanes on the roadway for one-way bicycle travel, in which some of these lanes include a striped buffer on one or both sides to increase separation from the travel lane and/or parked cars. Class III bicycle routes are signed routes where cyclists share a travel lane with motor vehicle traffic, in which some routes include shared lane markings or “sharrows”. Class IV separated bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollards, or vehicle parking aisle. This allows for one- or two-way travel on one or both sides of the roadway.

As part of the City's Bikeway Network, a Class II Bike Lane exists near the project study area on Jefferson Street. A Class III Bicycle Boulevard has been proposed to be added along Madison Street within the study area. A Class II Bike Lane has been proposed near the project study area on Lincoln Avenue. Figure 4-4 illustrates the existing and proposed bikeways within the City of Riverside.

4.3.2 Pedestrian Facilities

The implementation of enhanced pedestrian linkage with a comprehensive trails system links residential areas, schools, parks, and commercial centers so that residents can travel within the community without driving. Safe and attractive sidewalks and walkways improve the walkability of the City. Citywide, sidewalks should generally be provided on both sides of the streets. Additionally, standard paved trails and non-standard unpaved trails are frequently used by bicyclists and pedestrians in the City. Some trails are also available for equestrian riders. The existence of trails and sidewalks provides accessible facilities, provides safety features, and improves walkability in the City of Riverside.

According to the City's *PACT*, the City's system of trails can be accessed through sidewalks provided on Railroad Avenue and Madison Street. The nearest proposed primary corridor is currently located at the intersection of Madison Street and Victoria Avenue. Furthermore, paved sidewalks are provided on Depot Street, Winstrom Street, Indiana Avenue, Casa Blanca Street, and Evans Street, allowing for convenient pedestrian access to nearby neighborhoods, parks, and local retail. Figure 4-5 illustrates the Master Plan of trails within the City.

4.3.3 Transit Facilities

Riverside Transit Agency (RTA) is the Consolidated Transportation Service Agency for western Riverside County and is responsible for coordinating transit services throughout the approximately 2,500-square-mile service area. RTA provides both local and regional services throughout the region with 33 fixed routes, five CommuterLink Express routes, and Dial-A-Ride services using 334 vehicles.

RTA local bus Route 14 operates within the study area. Route 14 has stops on Indiana Avenue providing connections to the Galleria at Tyler, Downtown Riverside, Hunter Park Metrolink Station, and Loma Linda VA Hospital.

4.4 EXISTING TRAFFIC VOLUMES

Existing traffic volumes were developed based on traffic counts collected by Counts Unlimited on December 2022. Daily vehicle counts were collected for roadway segments, while a.m. and p.m. peak hour turning movement counts were collected at study intersections. Detailed count sheets are included in Appendix B.

Vehicle classification counts were conducted at all study intersections. At these locations, counts were converted to Passenger Car Equivalent (PCE) volumes. The concept of PCEs accounts for the larger impact of trucks on traffic operations. It does so by assigning each type of truck a PCE factor that represents the number of passenger vehicles that could travel through an intersection in the same time that a particular type of truck could. PCE volumes at study intersections were developed using a factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

Figure 4-6 illustrates existing peak hour traffic volumes at study intersections. Table 4-B summarizes the existing daily traffic volumes at study area roadway segments.

Detailed volume development worksheets are included in Appendix C.

4.5 EXISTING LEVELS OF SERVICE

4.5.1 Study Intersections

An intersection LOS analysis was conducted for existing conditions using the methodologies previously discussed. For all signalized intersections, existing signal timing sheets were obtained from City staff and the corresponding signal timings were included in the Synchro files. Table 4-C summarizes the results of this analysis and shows that the following intersection is currently operating at a deficient LOS under existing conditions:

2. Madison Street/Indiana Avenue (p.m. peak hour only).

All other intersections are operating at a satisfactory LOS. Signal timing sheets are included in Appendix B. Detailed Level of Service Worksheets are included in Appendix D.

4.5.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 4-D summarizes the results of this analysis and shows that all roadway segments currently operate at a satisfactory LOS.

4.6 LIST OF CHAPTER 4.0 FIGURES AND TABLES

- Figure 4-1: Study Area Intersections
- Figure 4-2: Existing Plus Project Study Intersection Geometrics and Traffic Control

-
- Figure 4-3: City of Riverside Master Plan of Roadways
 - Figure 4-4: City of Riverside Existing/Proposed Bikeways
 - Figure 4-5: City of Riverside Trail Corridors
 - Figure 4-6: Existing Peak Hour Traffic Volumes
 - Table 4-A: City of Riverside General Plan Roadway Segment Classification
 - Table 4-B: Existing Roadway Segment Daily Traffic Volumes
 - Table 4-C: Existing Intersection Levels of Service
 - Table 4-D: Existing Roadway Segment Levels of Service

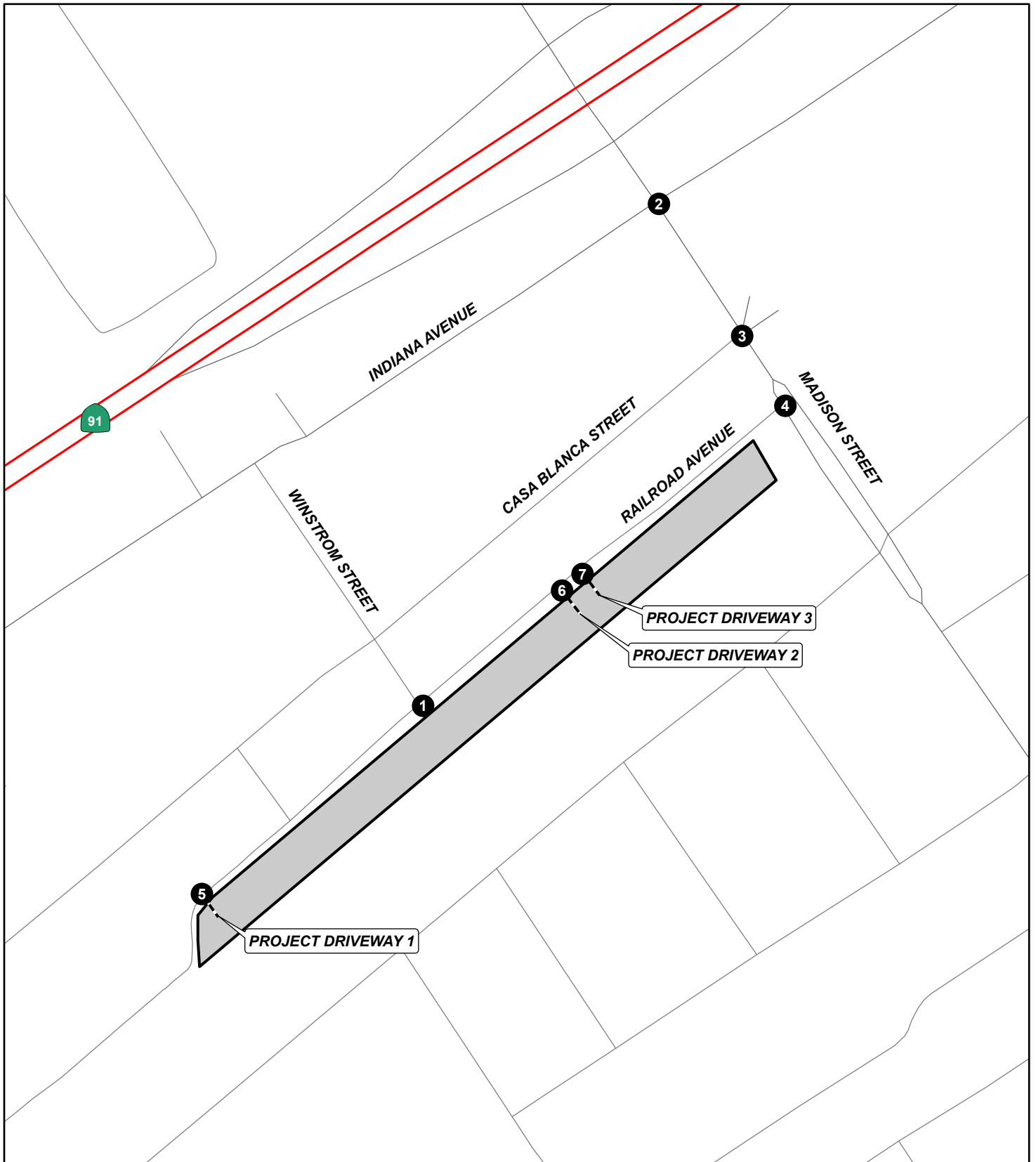
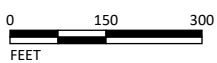


FIGURE 4-1

LSA

LEGEND

- Study Area Intersection
- ▭ Project Location
- - - Project Driveways



SOURCE: ESRI Streetmap, 2021

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Madison Flats Project
Traffic Operations Analysis
Study Area Intersections

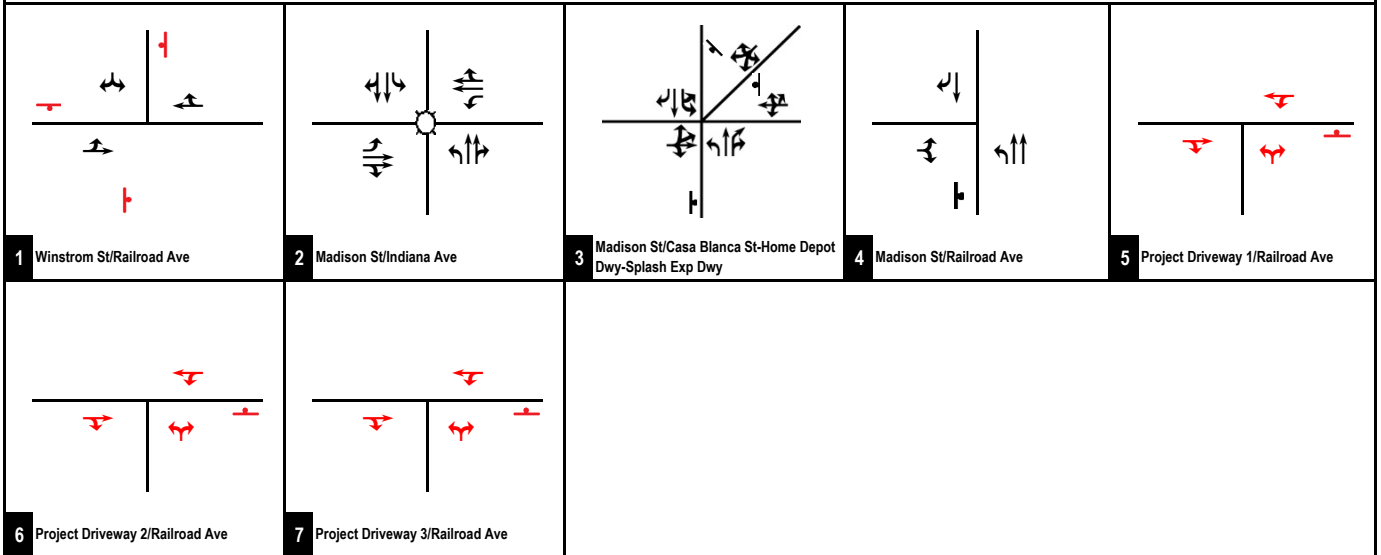
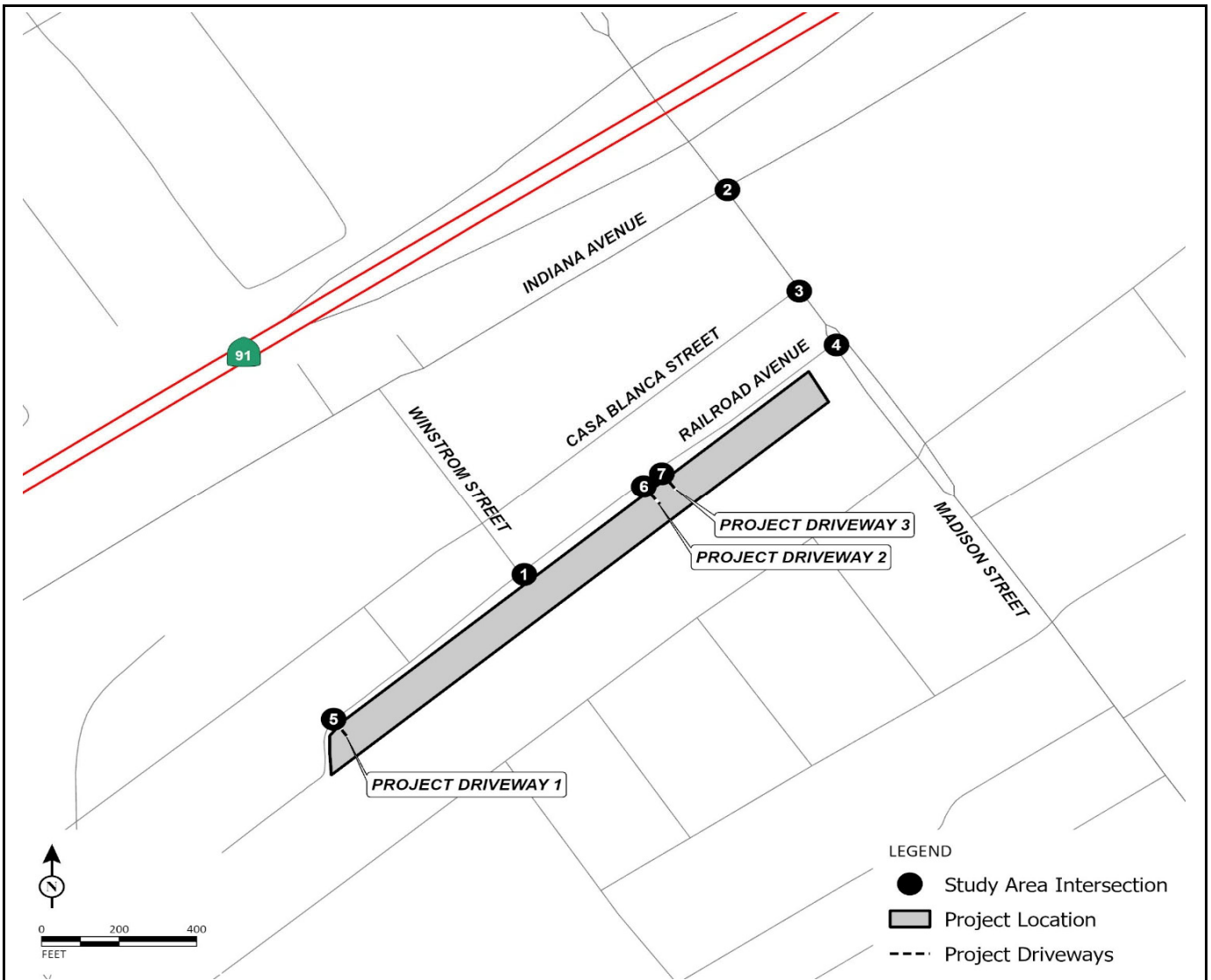


FIGURE 4-2

LSA

Legend

□ Signal

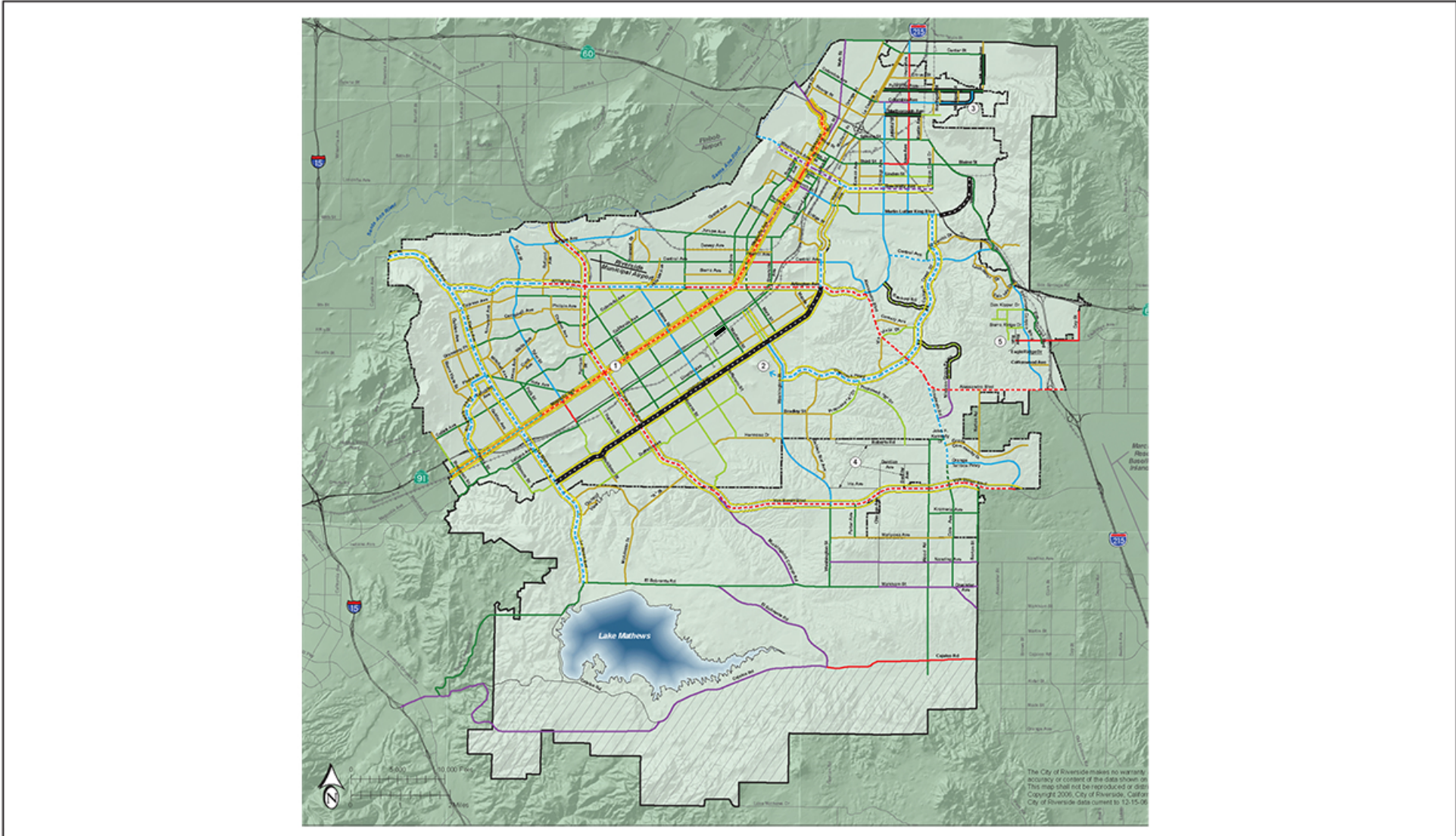
— Stop Sign

↔ Project Features

Madison Flats Project

Traffic Operations Analysis

Existing with Project Study Intersection Geometrics and Traffic Control



LSA

LEGEND

- PROJECT SITE
- 66 FT LOCAL 2 LANES *
- 66 FT COLLECTOR 2 LANES
- 80 FT COLLECTOR 2 LANES
- 88 FT ARTERIAL 4 LANES
- 100 FT ARTERIAL 4 LANES
- 110 FT ARTERIAL 4 LANES
- 120 FT ARTERIAL 6 LANES
- 144 FT ARTERIAL 8 LANES

- SCENIC BOULEVARD
REQUIRES SPECIAL LANDSCAPING.
ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED.
- SPECIAL BOULEVARD
TWO-LANE DIVIDED ROADWAY OF
VARIABLE GEOMETRIC DESIGN
- SPECIAL BOULEVARD
VARIABLE WIDTHS AND DESIGN. CONTACT PUBLIC WORKS
FOR DETAIL. SEE OBJECTIVE CCM-3 AND POLICIES CCM-3.1
THROUGH CCM-3.5.
- PARKWAYS
FOR INFORMATION ON PARKWAYS SEE
LAND USE ELEMENT.
- CETAP CORRIDOR AREA
CORRIDOR OPTIONS SUBJECT TO SPECIAL STUDY.
- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE
OF INFLUENCE

NOTE:

- * LOCAL STREETS ARE NOT SHOWN ON THIS
PLAN EXCEPT WHERE NEEDED FOR CLARITY.
- ① MAGNOLIA AVENUE SHALL BE A SPECIAL BLVD. WITH
4 LANES EASTERLY OF HARRISON STREET.
- ② OVERLOOK PARKWAY SHALL BE A 2-LANE,
110-FOOT ARTERIAL WITH A WIDE MEDIAN PARKWAY.
THE ALIGNMENT OF OVERLOOK PARKWAY WESTERLY
OF WASHINGTON IS NOT YET DETERMINED PENDING
PREPARATION OF SPECIFIC PLAN LEVEL STUDY.
- ③ COLUMBIA AVENUE IS SHOWN BY HUNTER BUSINESS
PARK SPECIFIC PLAN AS A 134-FOOT ARTERIAL.
ACTUAL STREET WIDTH, DUE TO RAILROAD
OVERCROSSING, WILL BE DETERMINED BY
PUBLIC WORKS.

- ④ THESE STREETS SHALL BE 66-FOOT LOCAL
ROADWAYS SERVING AS ALTERNATE ROUTES.
- ⑤ THE STREETS IN SYCAMORE CANYON
BUSINESS PARK SPECIFIC PLAN VARY IN SIZE.
SEE THE SPECIFIC PLAN FOR DETAILS.

FIGURE 4-3

Madison Flats Project
Traffic Operational Analysis
City of Riverside Master Plan of Roadways

SOURCE: City of Riverside General Plan Circulation Element.

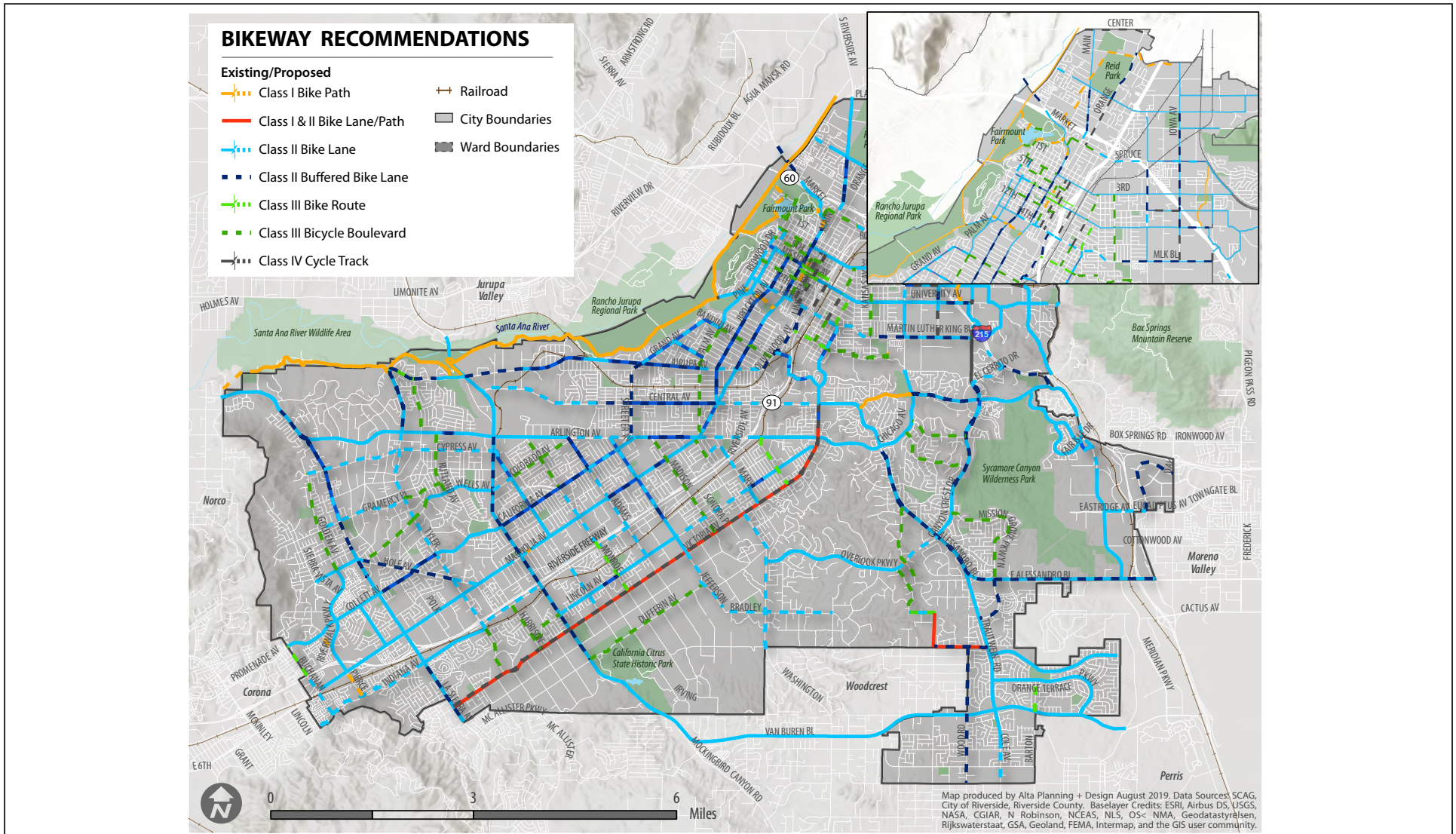
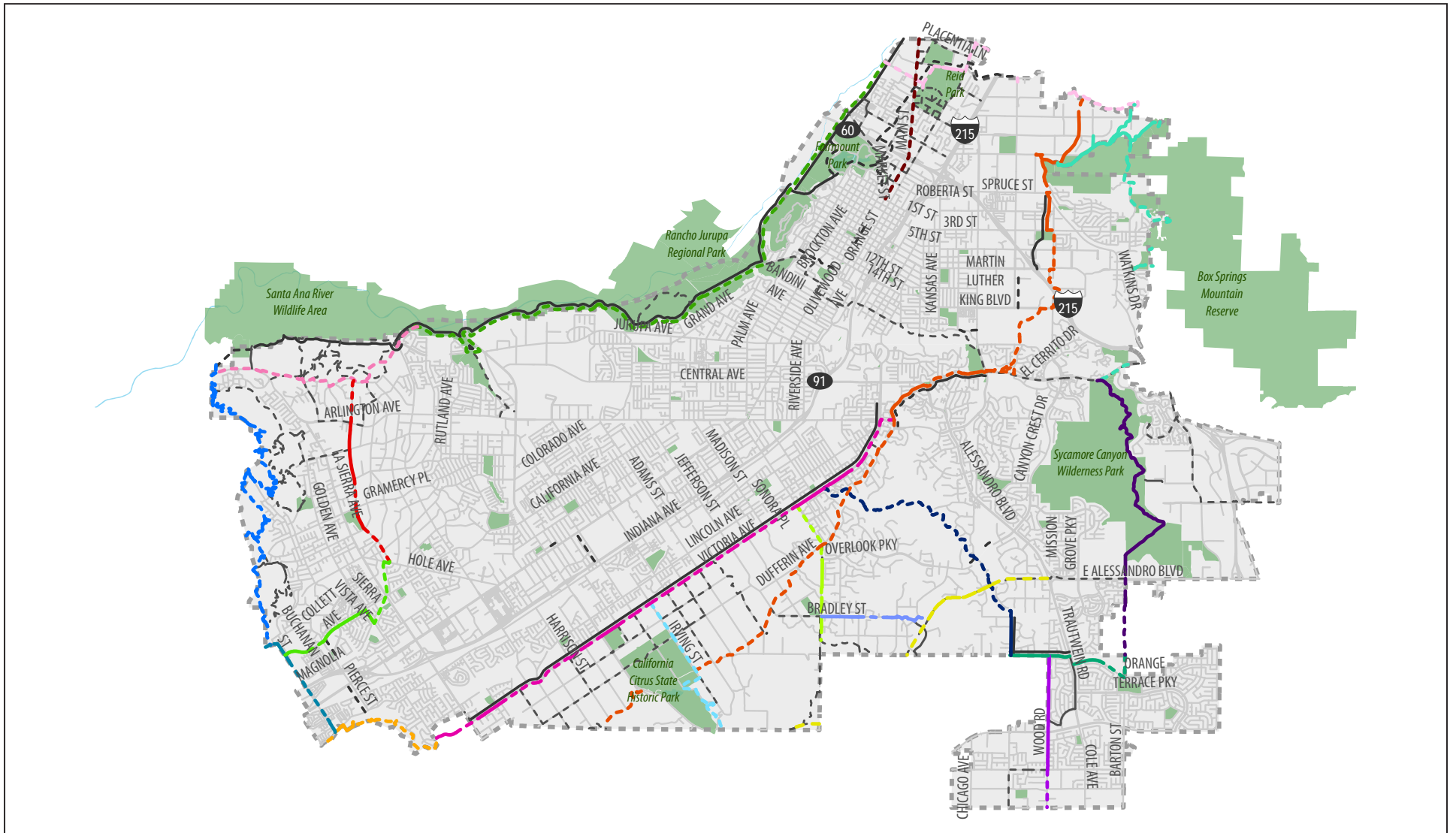


FIGURE 4-4



LSA



SOURCE: City of Riverside PACT, December 2021

P:\GBC2201 Madison Flats\Technical Studies\Traffic\GIS\Reports\fig4-5_Trails_03-15-2023.ai (3/15/2023)

LEGEND

Primary Corridors (Existing/Proposed)

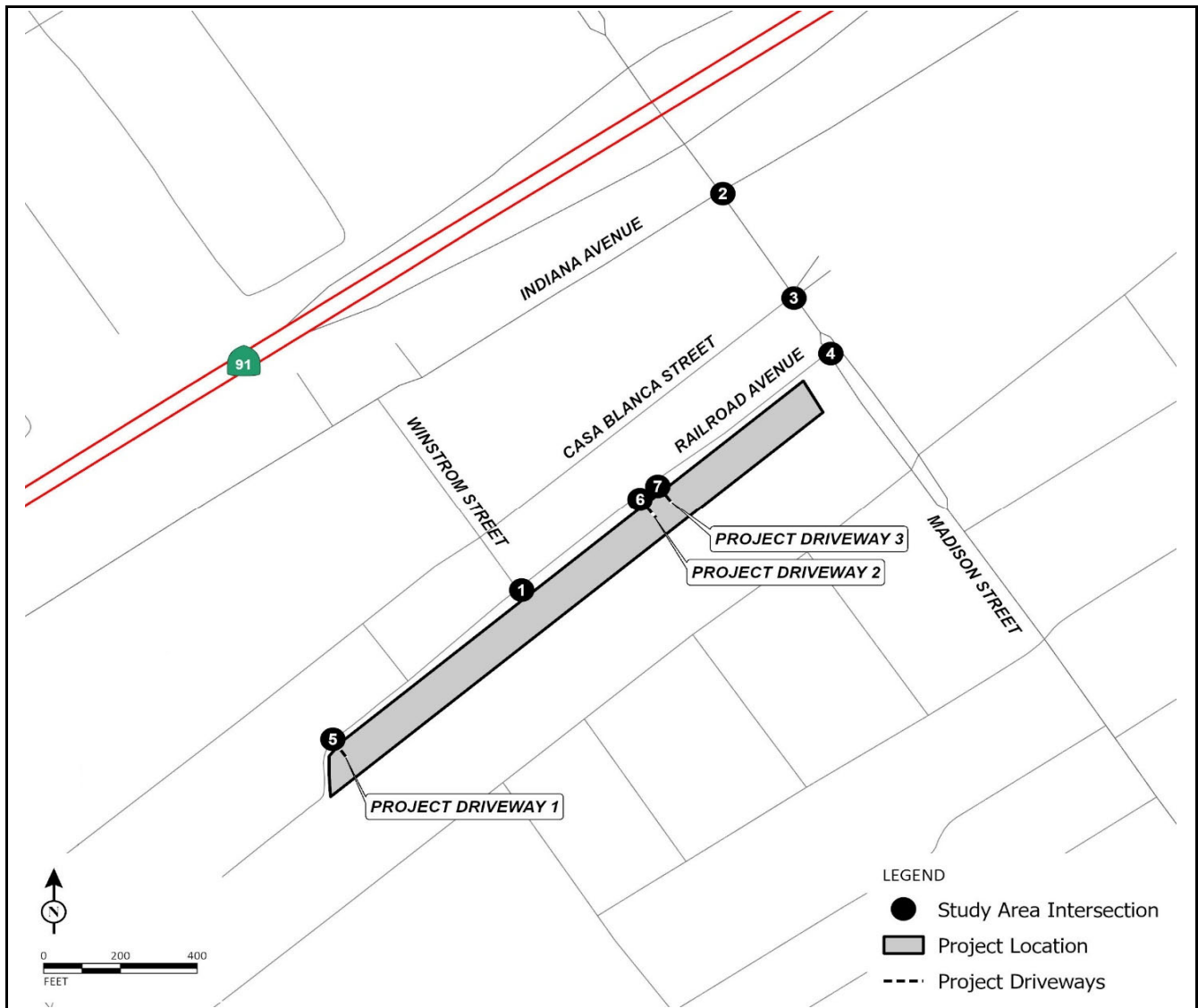
- 7 Mile Trail
- Box Springs
- Bradley
- Buchanan
- Gage Canal
- Indiana Ave
- Irving
- John F Kennedy
- La Sierra
- Main Street
- Mitchell
- Mitchell to Buchanan
- Prenda Arroyo Trail
- Primary EW 1
- Rancho La Sierra
- Santa Ana River Trail
- Sycamore Canyon Park
- Victoria Ave
- Washington
- Wood

- Proposed Multipurpose Trails
- Existing Multipurpose Trails
- Proposed Class I Bikeways
- Existing Class I Bikeways
- City Limits
- Parks

FIGURE 4-5

Madison Flats Project
Traffic Operational Analysis

City of Riverside Trail Corridors



				<p><i>Future Intersection</i></p>
<p>1 Winstrom Street/Railroad Avenue</p>	<p>2 Madison Street/Indiana Avenue</p>	<p>3 Madison St/Casa Blanca St-Home Depot Dwy-Splash Exp</p>	<p>4 Madison Street/Railroad Avenue</p>	<p>5 Project Driveway 1/Railroad Avenue</p>
<p><i>Future Intersection</i></p>	<p><i>Future Intersection</i></p>			
<p>6 Project Driveway 2/Railroad Avenue</p>	<p>7 Project Driveway 3/Railroad Avenue</p>			

FIGURE 4-6



XXX / YYY
AM / PM Peak Hour Trips
----- Driveway

Madison Flats Project
Traffic Operations Analysis

Existing Peak Hour Traffic Volumes

Table 4-A - Roadway Segment Classification

Roadway	#	Segment	Existing Condition Number of Lanes	Jurisdiction	Functional Classification ¹
Railroad Avenue	1	West of Winstrom Street	2	City of Riverside	Local (66') ²
	2	Between Winstrom Street and Madison Street	2	City of Riverside	Local (66') ²
Madison Street	3	Between Indiana Avenue and Railroad Avenue	4	City of Riverside	Arterial (88')
	4	Between Railroad Avenue and Evan Street	2	City of Riverside	Arterial (88')

Notes:

¹Classifications for all segments have been obtained from the City of Riverside General Plan Circulation and Community Mobility Element Master Plan of Roadways.

²City of Riverside General Plan Circulation and Community Mobility Element Master Plan of Roadways does not have a roadway classification for this segment. Therefore, a roadway classification of Local (66') was assumed.

Table 4-B - Existing Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Existing ADT
Railroad Avenue	1	West of Winstrom Street	385
	2	Between Winstrom Street and Madison Street	460
Madison Street	3	Between Indiana Avenue and Railroad Avenue	12,186
	4	Between Railroad Avenue and Evan Street	12,221

Table 4-C - Existing Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project			
				A.M. Peak Hour		P.M. Peak Hour	
				Delay (sec.)	LOS	Delay (sec.)	LOS
1 . Winstrom Street/Railroad Avenue	City of Riverside	C	OWSC ¹	8.8	A	8.8	A
2 . Madison Street/Indiana Avenue	City of Riverside	D	Signal	53.8	D	55.7	E *
3 . Madison Street/Casa Blanca Street-Home Depot Driveway-Splash Exp Driveway	City of Riverside	D	TWSC	8.1	A	10.2	B
4 . Madison Street/Railroad Avenue	City of Riverside	D	OWSC	11.0	B	13.2	B
5 . Project Driveway 1/Railroad Avenue	City of Riverside	C	-	<i>Does Not Exist</i>		<i>Does Not Exist</i>	
6 . Project Driveway 2/Railroad Avenue	City of Riverside	C	-	<i>Does Not Exist</i>		<i>Does Not Exist</i>	
7 . Project Driveway 3/Railroad Avenue	City of Riverside	C	-	<i>Does Not Exist</i>		<i>Does Not Exist</i>	

Notes:

OWSC = One-Way Stop Control; TWSC = Three-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case lane).

* Exceeds LOS Standard

¹ This intersection is currently an uncontrolled T-intersection, for the purpose of this analysis the intersection will be analyzed as an OWSC.

Table 4-D - Existing Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	General Plan Roadway Classification ¹	Existing Number of Lanes	Without Project			
				Roadway Capacity ²	Daily Volume	V/C Ratio	LOS
Segments on Railroad Avenue							
1 . West of Winstrom Street	City of Riverside	Local (66')	2	3,399	385	0.11	A
2 . Between Winstrom Street and Madison Street	City of Riverside	Local (66')	2	3,399	460	0.14	A
Segments on Madison Street							
3 . Between Indiana Avenue and Railroad Avenue	City of Riverside	Arterial (88')	4	22,999	12,186	0.53	A
4 . Between Railroad Avenue and Evan Street	City of Riverside	Arterial (88')	2	19,799	12,221	0.62	B

Notes:

LOS = Level of Service

* Exceeds LOS Standard

¹ Roadway classification has been obtained from the City of Riverside General Plan Circulation and Community Mobility Element Master Plan of Roadways.

² Roadway capacity has been obtained from the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).

³ Operational deficiency determined based on the criteria included in the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).

5.0 PROJECT TRAFFIC

5.1 PROJECT TRIP GENERATION

The trip generation for the proposed project was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) for Land Use 252 – “Senior Adult Housing – Multifamily” and Land Use 220 – “Multifamily Housing (Low-Rise) Not Close to Rail Transit.” Table 5-A summarizes the project trip generation and shows the proposed project will generate 610 daily trips, with 52 trips occurring during the a.m. peak hour and 59 trips occurring during the p.m. peak hour.

5.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of project trips was developed by examining the regional roadway network, and the location of employment and commercial centers, in relation to the proposed project. Project trip distribution at the driveways was developed by taking into consideration the location of the residential buildings and the adjacent project driveways. As such, the project trip distribution was approved through the City’s scoping agreement process. Figure 5-1 illustrates the project trip distribution. The project trip assignment is the product of the project trip generation and trip distribution percentages. Figure 5-2 illustrates the project trip assignment.

5.3 LIST OF CHAPTER 5.0 FIGURES AND TABLES

- Figure 5-1: Project Trip Distribution
- Figure 5-2: Project Trip Assignment
- Table 5-A: Project Trip Generation

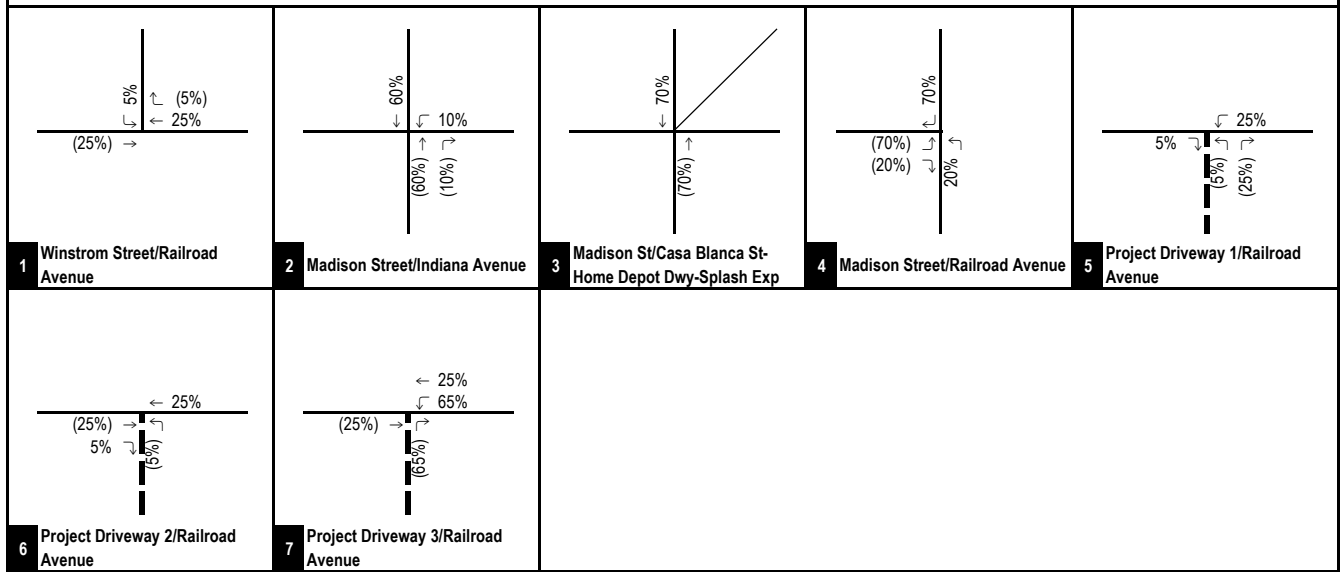
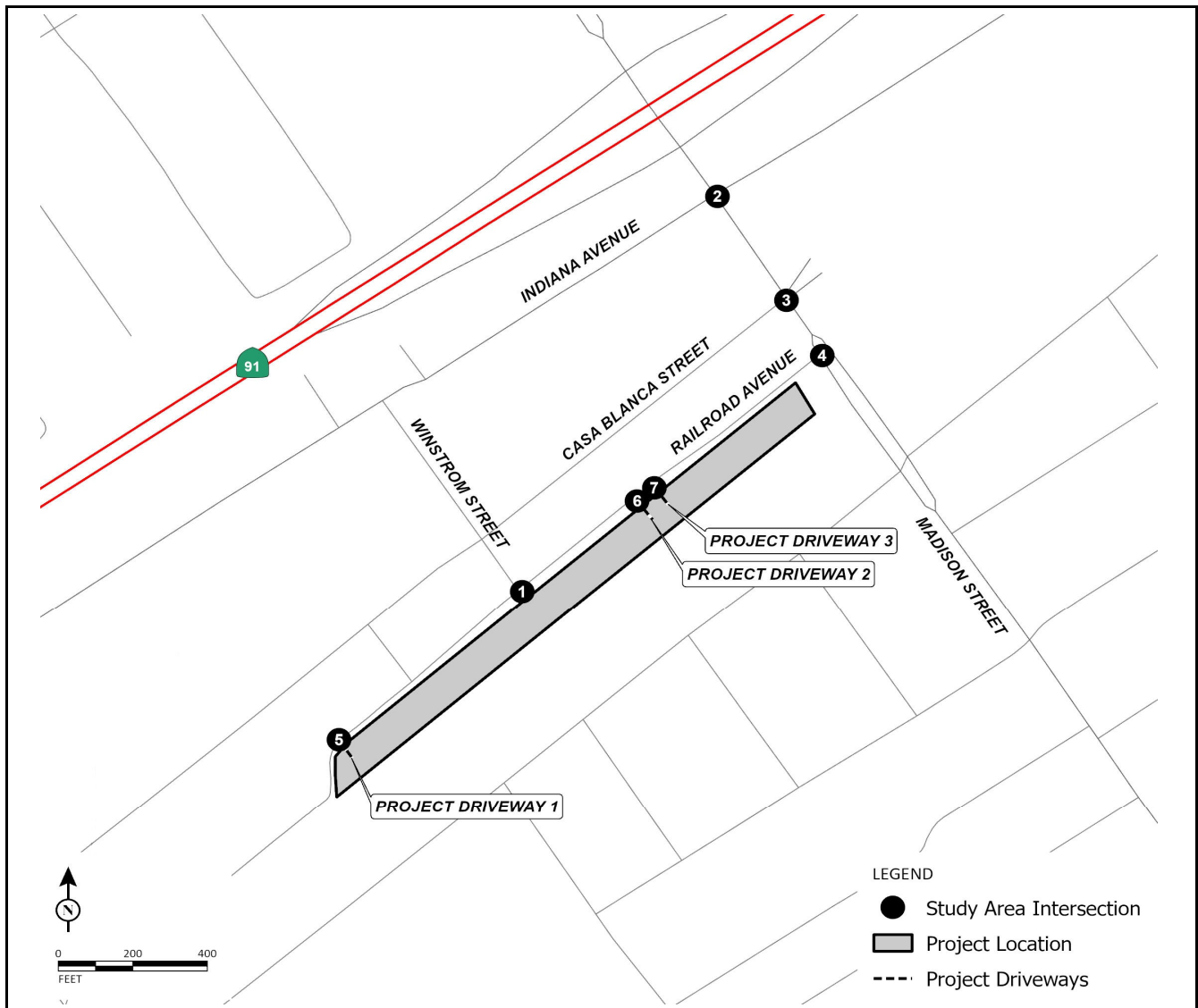
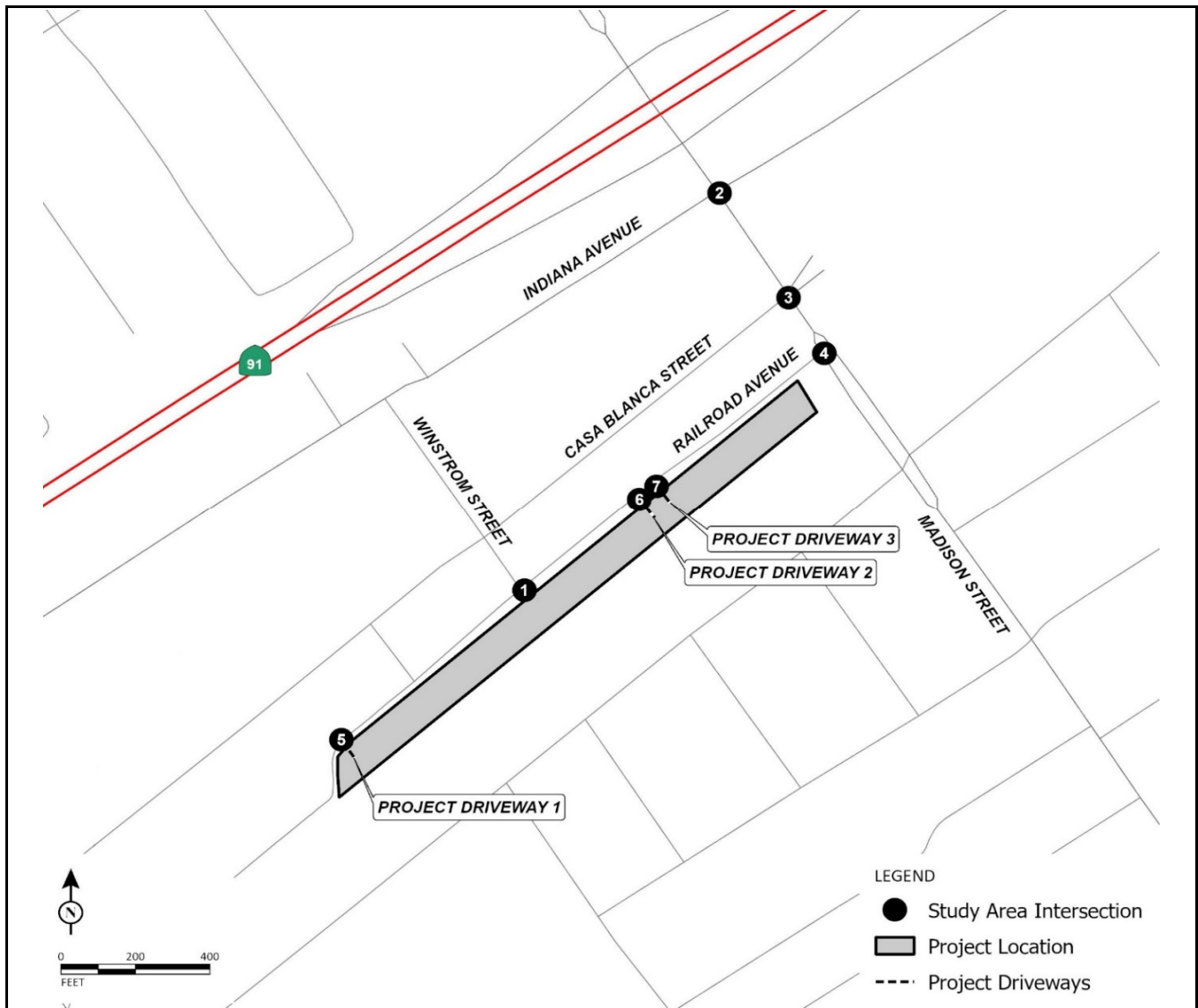


FIGURE 5-1



XXX% (YYY%)
 Inbound (Outbound) Trip Distribution
 ----- Driveway

Madison Flats Project
 Traffic Operations Analysis
 Project Trip Distribution



- LEGEND
- Study Area Intersection
 - ▭ Project Location
 - - - Project Driveways

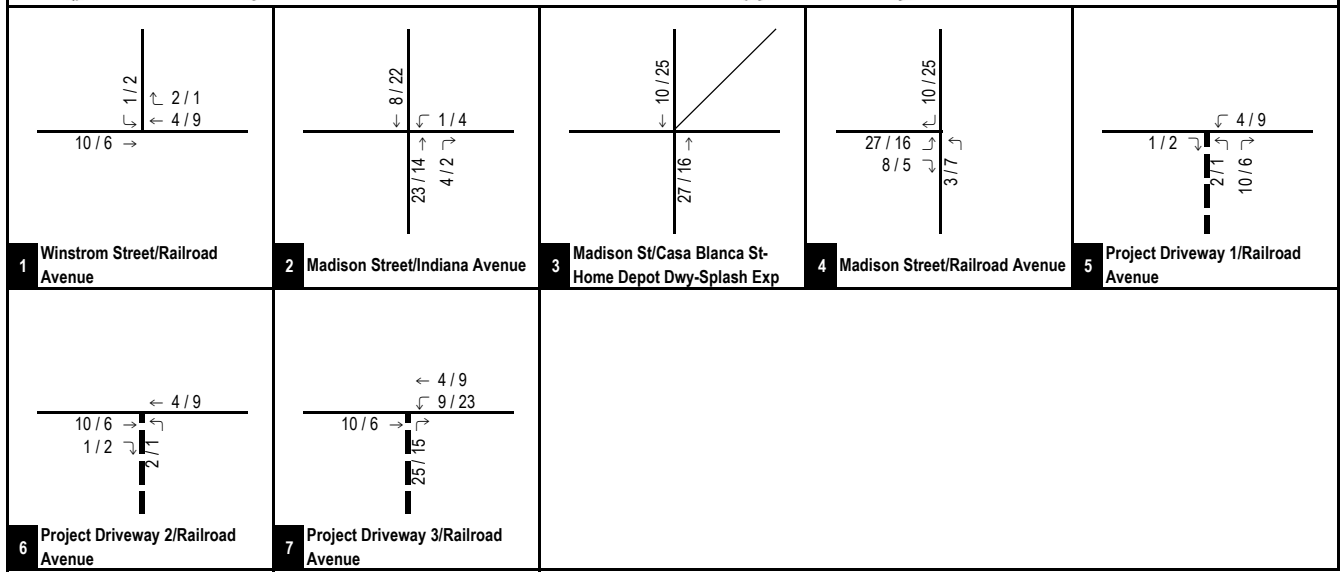


FIGURE 5-2

LSA

XX / YY
 AM / PM Peak Hour Trips
 - - - - Driveway

Madison Flats Project
 Traffic Operations Analysis
 Project Trip Assignment

Table 5-A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Lot A - Senior Residential	76 DU							
Trips/Unit ¹		0.07	0.13	0.20	0.14	0.11	0.25	3.24
Trip Generation		5	10	15	11	8	19	246
Lot B - Family Residential	45 DU							
Trips/Unit ²		0.20	0.62	0.82	0.56	0.33	0.89	8.09
Trip Generation		9	28	37	25	15	40	364
	Net Trip Generation	14	38	52	36	23	59	610

Notes:

DU = Dwelling Units

¹ Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Land Use 252 - "Senior Adult Housing - Multifamily", Setting/Location - "General Urban/Suburban."

² Fitted curve equation rates from the ITE *Trip Generation Manual* (11th Edition), Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit", Setting/Location - "General Urban/Suburban."

6.0 OPENING YEAR ANALYSIS

6.1 PROJECT DESIGN FEATURE

To improve safety for pedestrians, bicyclists, vehicular traffic, and all modes of transportation, the project will add stop controls at the following intersections as project design features:

5. Winstrom Street/Railroad Avenue (All-Way Stop Control);
6. Project Driveway 1 (One-Way Stop Control)/Railroad Avenue;
7. Project Driveway 2 (One-Way Stop Control)/Railroad Avenue; and
8. Project Driveway 3 (One-Way Stop Control)/Railroad Avenue.

In addition, the project will add stop bars and stop legends at project driveways and additional speed limit signs along the project frontage on Railroad Avenue.

The current width of Railroad Avenue is 36 feet. Assuming an 8 feet wide parking space along the north and south side of Railroad Avenue, a 20 feet wide travel lane would be available for eastbound and westbound traffic which is the same as existing conditions. As such, there will be no changes required to the parking provisions along Railroad Avenue in front of the project.

6.2 OPENING YEAR (2025) WITHOUT PROJECT TRAFFIC VOLUMES

As approved during the City's scoping agreement process (Appendix A), traffic volumes for opening year without project conditions were developed by applying a growth of 2.0 percent per annum to existing traffic volumes and adding trips from approved and pending development projects near the study area. This methodology was applied for both study intersections and roadway segments. Information concerning cumulative projects in the vicinity of the proposed project was obtained from City staff. Figure 6-1 illustrates the cumulative project locations. Trip generation for cumulative projects was developed using rates from the ITE *Trip Generation Manual* (11th Edition). Table 6-A lists the cumulative projects included in this analysis and shows the cumulative projects are estimated to generate 76 PCE trips in the a.m. peak hour, 88 PCE trips in the p.m. peak hour, and 944 daily PCE trips.

Cumulative projects trips were assigned to the roadway network based on their locations in relation to surrounding land uses and regional arterials. Figure 6-2 illustrates the total peak hour cumulative project trip assignment at study area intersections. Figure 6-3 illustrates the peak hour traffic volumes at study intersections under opening year without project conditions. Table 6-B summarizes opening year without project daily traffic volumes at study area roadway segment.

6.3 OPENING YEAR (2025) WITH PROJECT TRAFFIC VOLUMES

Opening year with project traffic volumes were developed by adding proposed project traffic to the opening year without project traffic volumes. Figure 6-4 illustrates the opening year with project peak hour traffic volumes at study intersections. Table 6-B summarizes opening year with project daily traffic at study area roadway segments.

Detailed volume development worksheets are included in Appendix C.

6.4 OPENING YEAR (2025) WITHOUT PROJECT LEVELS OF SERVICE

6.4.1 Study Intersections

Previously referenced Figure 4-2 illustrates the with project study intersection geometrics and traffic control. An intersections LOS analysis was conducted for opening year without project conditions using the methodologies previously discussed. Table 6-C summarizes the results of the analysis and shows that the following intersection is forecast to operate at an unsatisfactory LOS under opening year without project conditions,

2. Madison Street/Indiana Avenue (p.m. peak hour only).

All other intersections are forecast to operate at a satisfactory LOS.

6.4.2 Roadway Segments

A roadway segment LOS analysis was conducted for opening year without project conditions using the methodologies previously discussed. Table 6-D summarizes the results of this analysis and shows that all roadway segments are forecast to operate at a satisfactory LOS.

6.5 OPENING YEAR (2025) WITH PROJECT LEVELS OF SERVICE

6.5.1 Study Intersections

An intersection LOS analysis was conducted for opening year with project conditions using the methodologies previously discussed. Table 6-C summarizes the results of the analysis and shows that the following intersection is forecast to operate at an unsatisfactory LOS under opening year with project conditions,

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hour).

This intersection is forecast to operate at an unsatisfactory LOS even under opening year without project conditions for the p.m. peak hour. Therefore, the project would contribute to the forecast deficiency at this intersection. As such, improvements would be required at this intersection.

All other intersections are forecast to operate at a satisfactory LOS under opening year with project conditions. Detailed Level of Service Worksheets are included in Appendix D.

6.5.2 Roadway Segments

A roadway segment LOS analysis was conducted for opening year with project conditions using the methodologies previously discussed. Table 6-D summarizes the results of this analysis and shows that all roadway segments are forecast to operate at a satisfactory LOS.

6.6 LIST OF CHAPTER 6.0 FIGURES AND TABLES

- Figure 6-1: Cumulative Projects Locations
- Figure 6-2: Cumulative Projects Trip Assignment
- Figure 6-3: Opening Year (2025) without Project Peak Hour Traffic Volumes

-
- Figure 6-4: Opening Year (2025) with Project Peak Hour Traffic Volumes
 - Table 6-A: Cumulative Projects Trip Generation
 - Table 6-B: Opening Year (2025) Roadway Segment Daily Traffic Volumes
 - Table 6-C: Opening Year (2025) Intersection Levels of Service
 - Table 6-D: Opening Year (2025) Roadway Segment Levels of Service

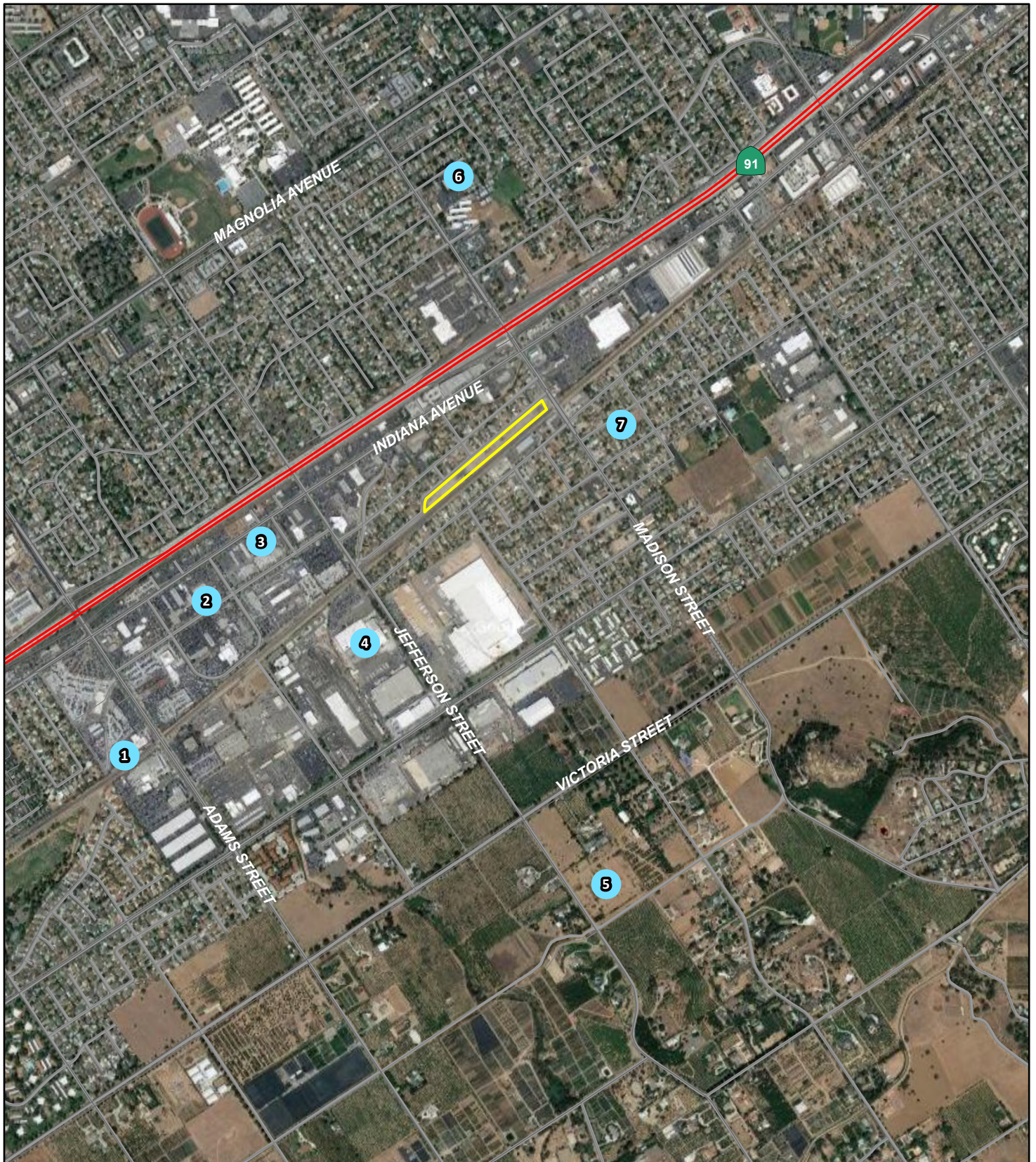
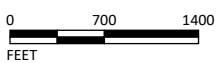


FIGURE 6-1

LSA

LEGEND

- Cumulative Projects Locations
- Project Site



SOURCE: Google Earth, 2019; ESRI Streetmap, 2021

P:\GBC2201 Madison Flats\Technical Studies\Traffic\GIS\Reports\ArcGIS Pro\Fig6_Cumulative Project Location.aprx (12/1/2022)

Madison Flats Project
Traffic Operational Analysis
Cumulative Projects Locations

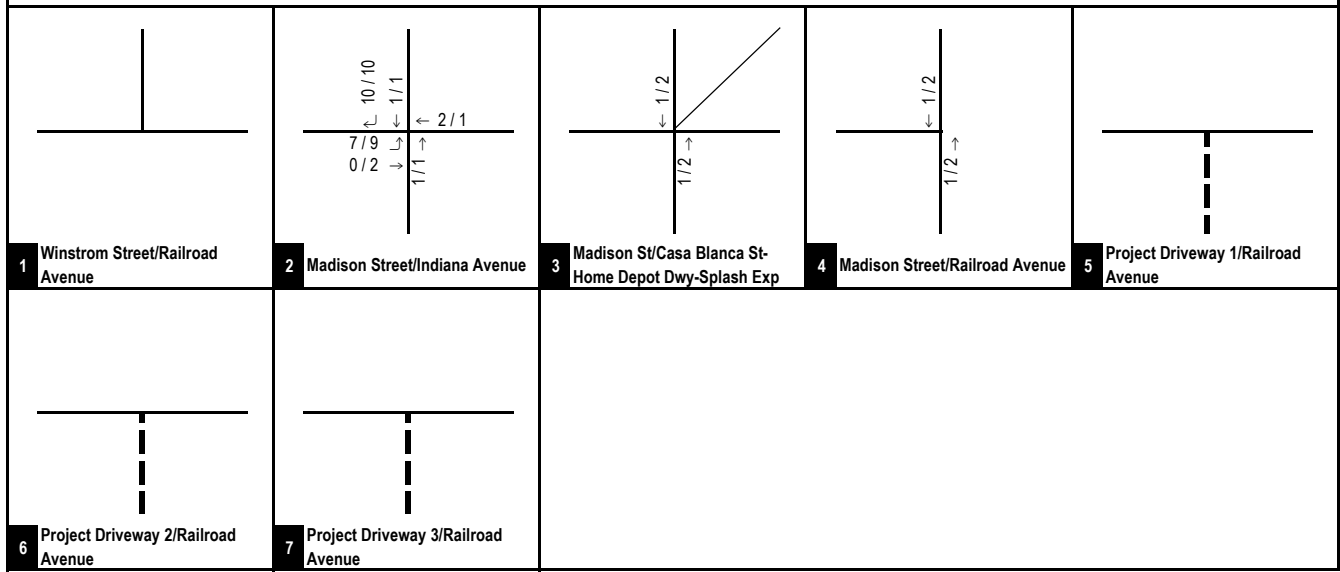
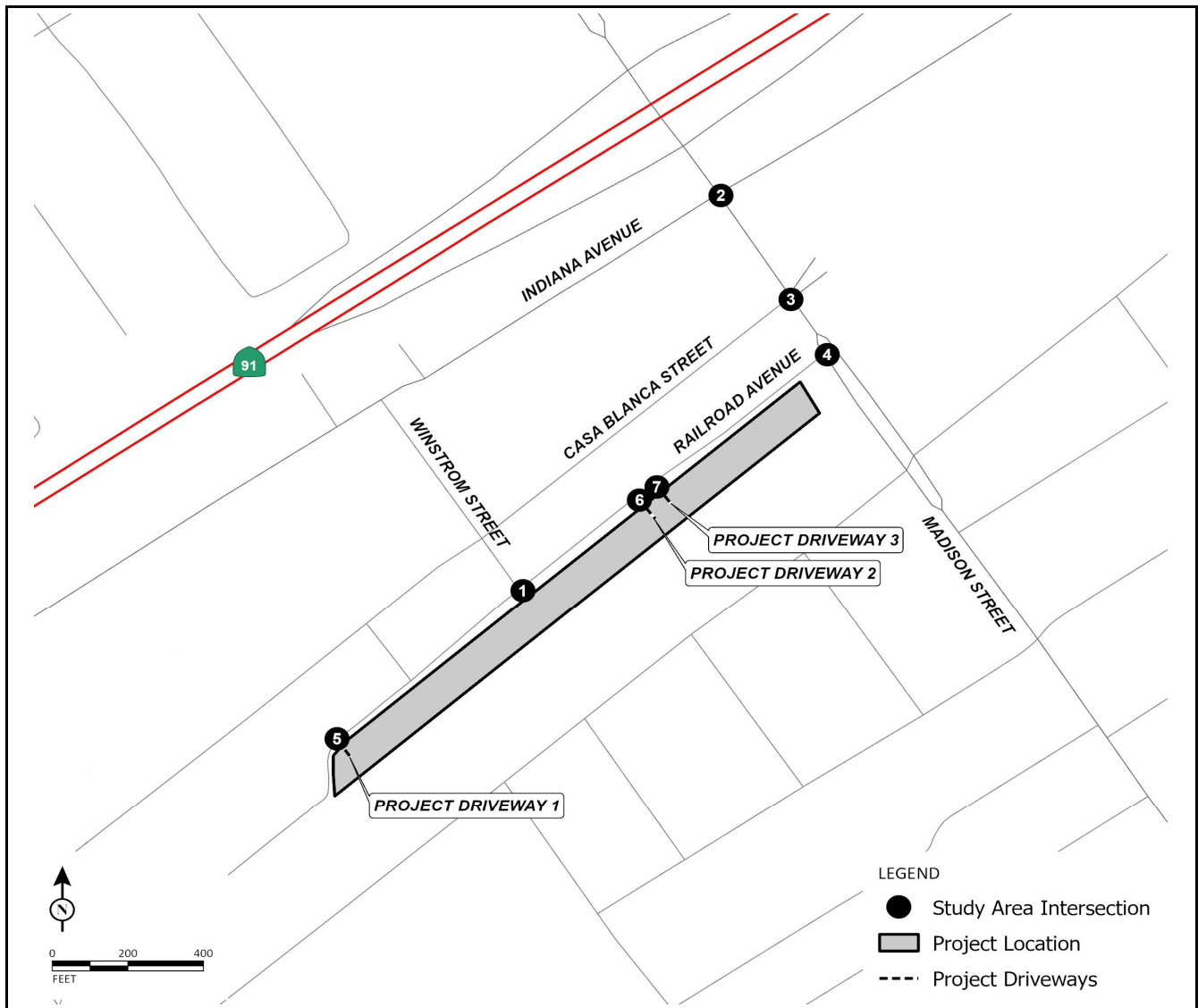


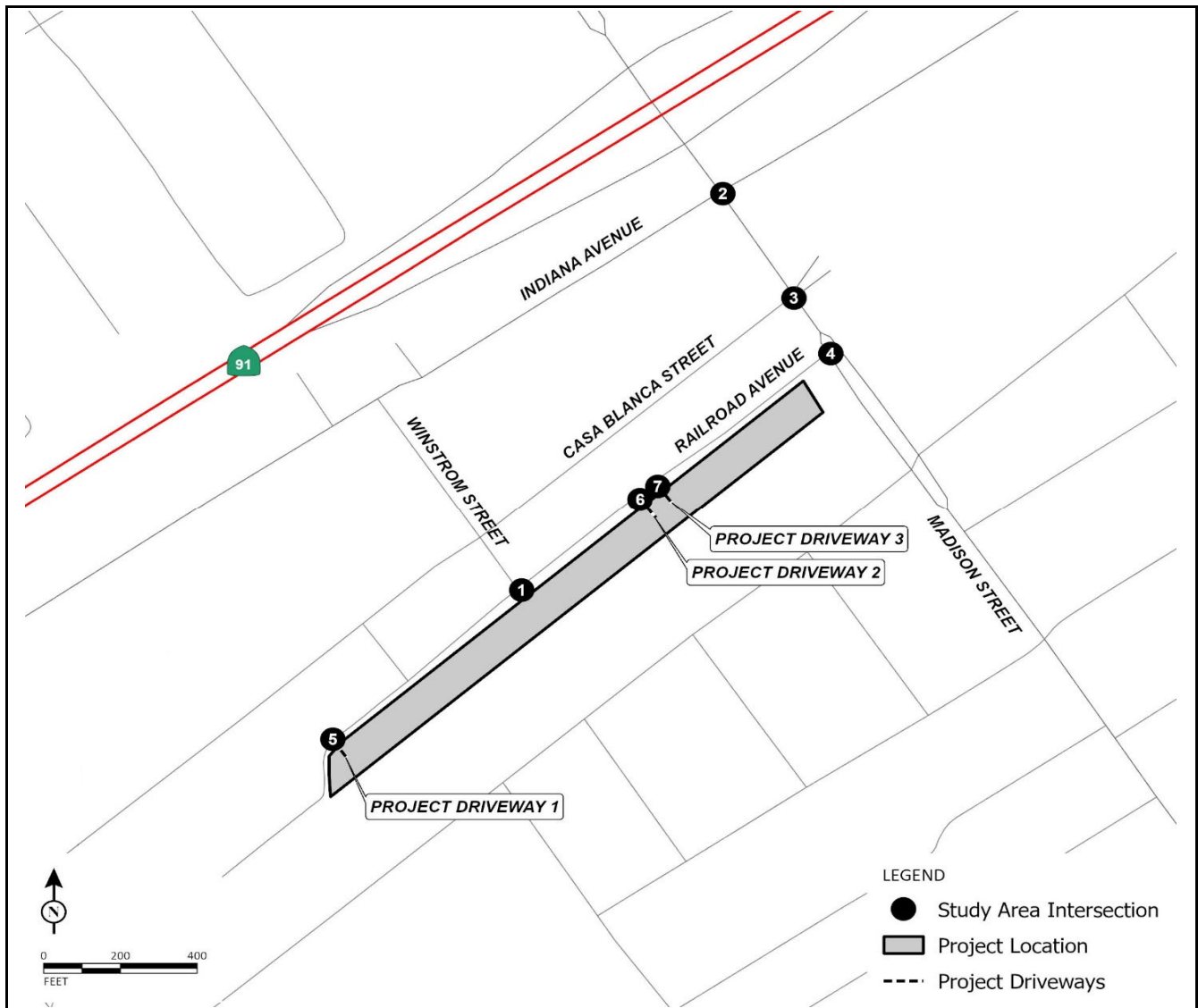
FIGURE 6-2



XX / YY
 AM / PM Peak Hour Trips
 ----- Driveway

Madison Flats Project
 Traffic Operations Analysis

Cumulative Projects Trip Assignment



				<p><i>Future Intersection</i></p>
<p>1 Winstrom Street/Railroad Avenue</p>	<p>2 Madison Street/Indiana Avenue</p>	<p>3 Madison St/Casa Blanca St-Home Depot Dwy-Splash Exp</p>	<p>4 Madison Street/Railroad Avenue</p>	<p>5 Project Driveway 1/Railroad Avenue</p>
<p><i>Future Intersection</i></p>	<p><i>Future Intersection</i></p>			
<p>6 Project Driveway 2/Railroad Avenue</p>	<p>7 Project Driveway 3/Railroad Avenue</p>			

FIGURE 6-3



XXX / YYY
 AM / PM Peak Hour Trips
 ----- Driveway

Madison Flats Project
 Traffic Operations Analysis

Opening Year (2025) without Project Peak Hour Traffic Volumes

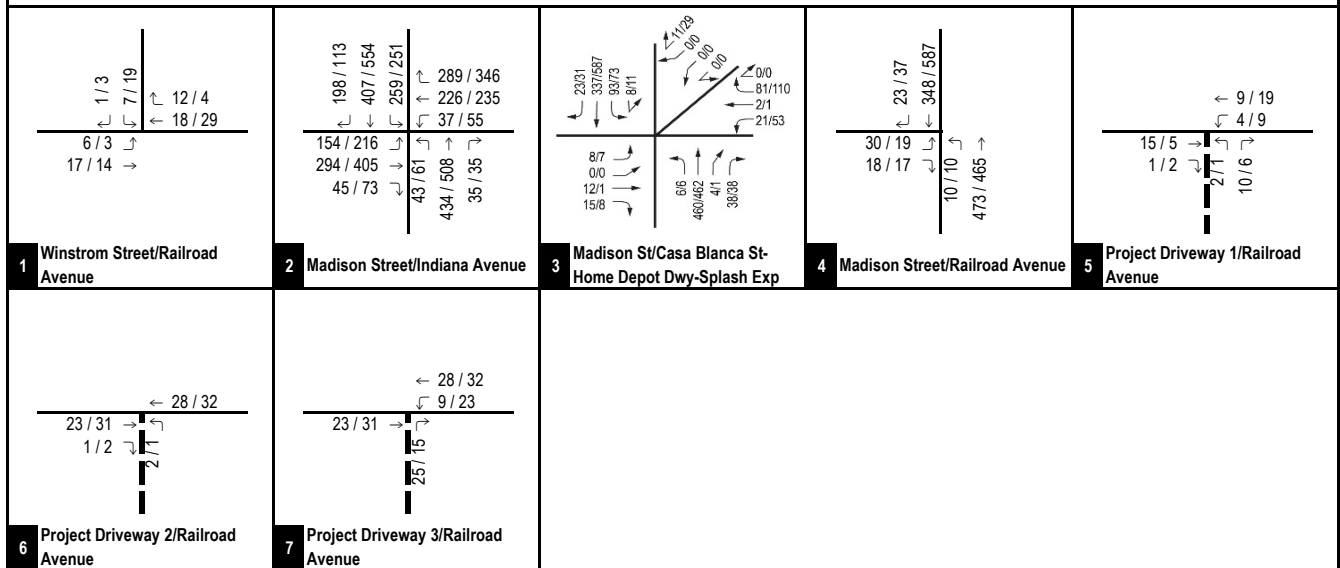
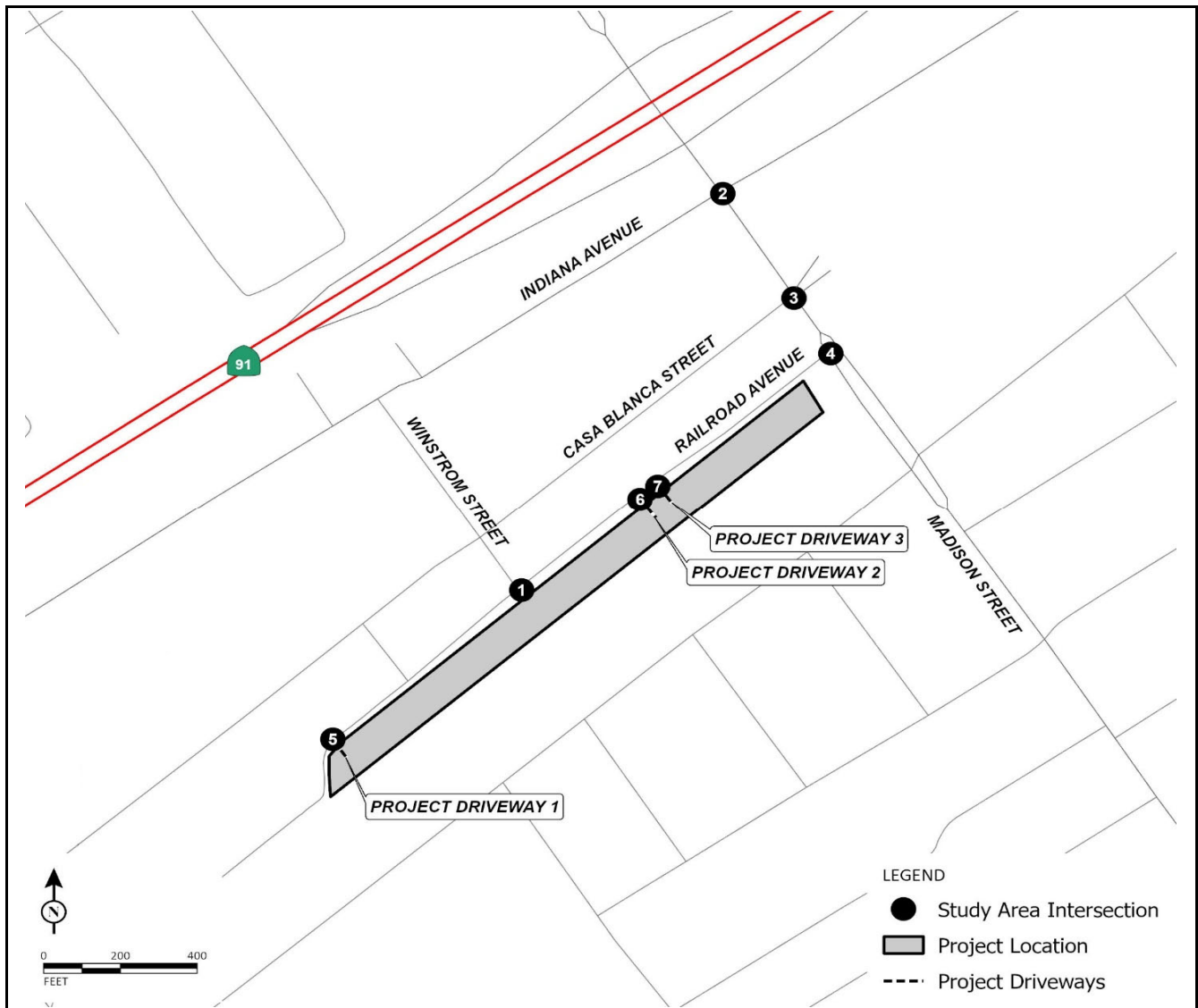


FIGURE 6-4



XXX / YYY
 AM / PM Peak Hour Trips
 - - - - Driveway

Madison Flats Project
 Traffic Operations Analysis

Opening Year (2025) with Project Peak Hour Traffic Volumes

Table 6-A - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
			In	Out	Total	In	Out	Total	
1 . PR-2021-000933	3150 Adams Street								
	Automobile Sales (New) ¹	6.558 TSF							
	Trips/Unit		1.36	0.50	1.86	0.97	1.45	2.42	27.84
	Trip Generation		9	3	12	6	10	16	183
2 . PR-2021-001131	8101 Auto Drive								
	Automobile Sales (New) ¹	3.504 TSF							
	Trips/Unit		1.36	0.50	1.86	0.97	1.45	2.42	27.84
	Trip Generation		5	2	7	3	5	8	98
3 . PR-2022-001328	8001 Auto Drive								
	Automobile Sales (New) ¹	6.287 TSF							
	Trips/Unit		1.36	0.50	1.86	0.97	1.45	2.42	27.84
	Trip Generation		9	3	12	6	9	15	175
4 . PR-2021-001221	3100 Jefferson Street								
	Warehousing ^{2,3}	150.000 TSF							
	Total Truck Trip Generation		4	4	8	5	3	8	79
	Auto Trips		14	4	18	5	14	19	177
	Truck PCE Trips		10	11	21	13	8	21	198
	Total PCE Trip Generation		24	15	39	18	22	40	375
5 . PR-2021-001234	2523 Jefferson Street								
	Single-Family Detached Housing ⁴	2 DU							
	Trips/Unit		0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation		0	1	1	1	1	2	19
6 . PR-2021-001200	7410 Mt. Vernon Avenue								
	Multifamily Housing (Low-Rise) Not Close to Rail Transit ⁵	6 DU							
	Trips/Unit		0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation		1	2	3	2	1	3	40
7 . P17-0627 P17-0628	7434 Diamond Street								
	Church ⁶	7.078 TSF							
	Trips/Unit		0.20	0.12	0.32	0.22	0.27	0.49	7.60
	Trip Generation		1	1	2	2	2	4	54
Net Passenger Vehicle Trip Generation			39	16	55	25	42	67	746
Gross Truck Trip Generation (in PCE)			10	11	21	13	8	21	198
Total Net Trip Generation (in PCE)			49	27	76	38	50	88	944

Notes:

DU = Dwelling Units; TSF = Thousand Square Feet

¹ Rates from Institute of Transportation Engineers (ITE) Trip Generation Manual, (11th Edition) Land Use - "Automobile Sales (New)", Setting/Location - 'General Urban/Suburban'.

² Rates from ITE Trip Generation Manual, (11th Edition), Land Use 150 - "Warehousing", Setting/Location - 'General Urban/Suburban'.

³ The truck mix percentages were obtained from South Coast Air Quality Management District (SCAQMD) recommendations for warehousing projects. As such, The truck mix was considered as 6.8% 2-axle trucks, 5.5% 3-axle trucks, and 18.7% 4 or more axle trucks.

⁴ Rates from ITE Trip Generation Manual, (11th Edition), Land Use 210 - "Single-Family Detached Housing", Setting/Location - 'General Urban/Suburban'.

⁵ Rates from ITE Trip Generation Manual, (11th Edition), Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit", Setting/Location - 'General Urban/Suburban'.

⁶ Rates from ITE Trip Generation Manual, (11th Edition), Land Use 560 - "Church", Setting/Location - 'General Urban/Suburban'.

Table 6-B - Opening Year (2025) Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Existing ADT	2022 - 2025 Growth	Cumulative Projects Trips	Opening Year (2025) Without Project ADT	Project Trips	Opening Year (2025) With Project ADT
Railroad Avenue	1	West of Winstrom Street	385	23	0	408	152	560
	2	Between Winstrom Street and Madison Street	460	28	0	488	550	1,038
Madison Street	3	Between Indiana Avenue and Railroad Avenue	12,186	731	60	12,977	428	13,405
	4	Between Railroad Avenue and Evan Street	12,221	733	60	13,014	122	13,136

Table 6-C - Opening Year (2025) Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Without Project				With Project				A.M. Peak Hour Increase in Delay (sec.)	P.M. Peak Hour Increase in Delay (sec.)	Improvement Required?		
			Control	A.M. Peak Hour		P.M. Peak Hour		Control	A.M. Peak Hour					P.M. Peak Hour	
				Delay (sec.)	LOS	Delay (sec.)	LOS		Delay (sec.)	LOS				Delay (sec.)	LOS
1 . Winstrom Street/Railroad Avenue	City of Riverside	C	OWSC ¹	8.8	A	8.8	A	AWSC	7.1	A	7.2	A	-1.7	-1.6	No
2 . Madison Street/Indiana Avenue	City of Riverside	D	Signal	55.0	D	58.6	E *	Signal	55.1	E *	58.7	E *	0.1	0.1	Yes
3 . Madison Street/Casa Blanca Street-Home Depot Driveway-Splash Exp Driveway	City of Riverside	D	TWSC	11.0	B	11.0	B	TWSC	12.5	B	11.5	B	1.5	0.5	No
4 . Madison Street/Railroad Avenue	City of Riverside	D	OWSC	11.1	B	13.7	B	OWSC	12.4	B	14.9	B	1.3	1.2	No
5 . Project Driveway 1/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.5	A	8.4	A	-	-	No
6 . Project Driveway 2/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.8	A	8.8	A	-	-	No
7 . Project Driveway 3/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.5	A	8.5	A	-	-	No

Notes:
 OWSC = One-Way Stop Control; TWSC = Three-Way Stop Control; LOS = Level of Service
 Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case lane).
 * Exceeds LOS Standard
¹ This intersection is currently an uncontrolled T-intersection, for the purpose of this analysis the intersection will be analyzed as an OWSC.

Table 6-D - Opening Year (2025) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	Classification ¹	Existing Number of Lanes	Without Project				With Project				V/C Ratio Difference	Project Related Operational Deficiency ³
				Roadway Capacity ¹	Daily Volume	V/C Ratio	LOS	Roadway Capacity ¹	Daily Volume	V/C Ratio	LOS		
Segments on Railroad Avenue													
1 . West of Winstrom Street	City of Riverside	Local (66')	2	3,399	408	0.12	A	3,399	560	0.16	A	0.04	No
2 . Between Winstrom Street and Madison Street	City of Riverside	Local (66')	2	3,399	488	0.14	A	3,399	1,038	0.31	A	0.16	No
Segments on Madison Street													
3 . Between Indiana Avenue and Railroad Avenue	City of Riverside	Arterial (88')	4	22,999	12,977	0.56	A	22,999	13,405	0.58	A	0.02	No
4 . Between Railroad Avenue and Evan Street	City of Riverside	Arterial (88')	2	19,799	13,014	0.66	B	19,799	13,136	0.66	B	0.01	No

Notes:

- LOS = Level of Service
- * Exceeds LOS Standard
- ¹ Roadway classification has been obtained from the City of Riverside General Plan Circulation and Community Mobility Element Master Plan of Roadways.
- ² Roadway capacity has been obtained from the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).
- ³ Operational deficiency determined based on the criteria included in the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).

7.0 CUMULATIVE ANALYSIS

7.1 CUMULATIVE (2045) WITHOUT PROJECT TRAFFIC VOLUMES

The Riverside County Transportation Model (RIVCOM) was used to develop cumulative (2045) traffic volumes. The methodology used to develop cumulative traffic volumes is consistent with the National Cooperative Highway Research Program (NCHRP) as well as local procedures for post-processing of modeled traffic volumes. The methodology was applied to both study intersections and roadway segments.

Figure 7-1 illustrates cumulative without project peak hour traffic volumes at study intersections. Table 7-A summarizes cumulative without project daily traffic volumes at study area roadway segments.

7.2 CUMULATIVE (2045) WITH PROJECT TRAFFIC VOLUMES

Cumulative with project traffic volumes were developed by adding proposed project traffic to the cumulative without project traffic volumes.

Figure 7-2 illustrates cumulative with project peak hour traffic volumes at study intersections. Previously referenced Table 7-A summarizes cumulative with project daily traffic volumes at study area roadway segments.

Detailed volume development worksheets are included in Appendix C.

7.3 CUMULATIVE (2045) WITHOUT PROJECT LEVELS OF SERVICE

7.3.1 Study Intersections

An intersection LOS analysis was conducted for cumulative without project conditions using the methodologies previously discussed. Table 7-B summarizes the results of the analysis and shows that the following intersection is forecast to operate at an unsatisfactory LOS under cumulative year without project conditions,

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hour).

All other intersections are forecast to operate at a satisfactory LOS.

7.3.2 Roadway Segments

A roadway segment LOS analysis was conducted for cumulative without project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and shows that all roadway segments are forecast to operate at a satisfactory LOS.

7.4 CUMULATIVE (2045) WITH PROJECT LEVELS OF SERVICE

7.4.1 Study Intersections

An intersection LOS analysis was conducted for cumulative with project conditions using the methodologies previously discussed. Table 7-B summarizes the results of the analysis and shows

that the following intersection is forecast to operate at an unsatisfactory LOS under cumulative with project conditions,

2. Madison Street/Indiana Avenue (both a.m. and p.m. peak hour).

This intersection is forecast to operate at an unsatisfactory LOS even under cumulative without project conditions. Therefore, the project would contribute to the forecasted deficiency at this intersection. As such, improvements would be required at this intersection.

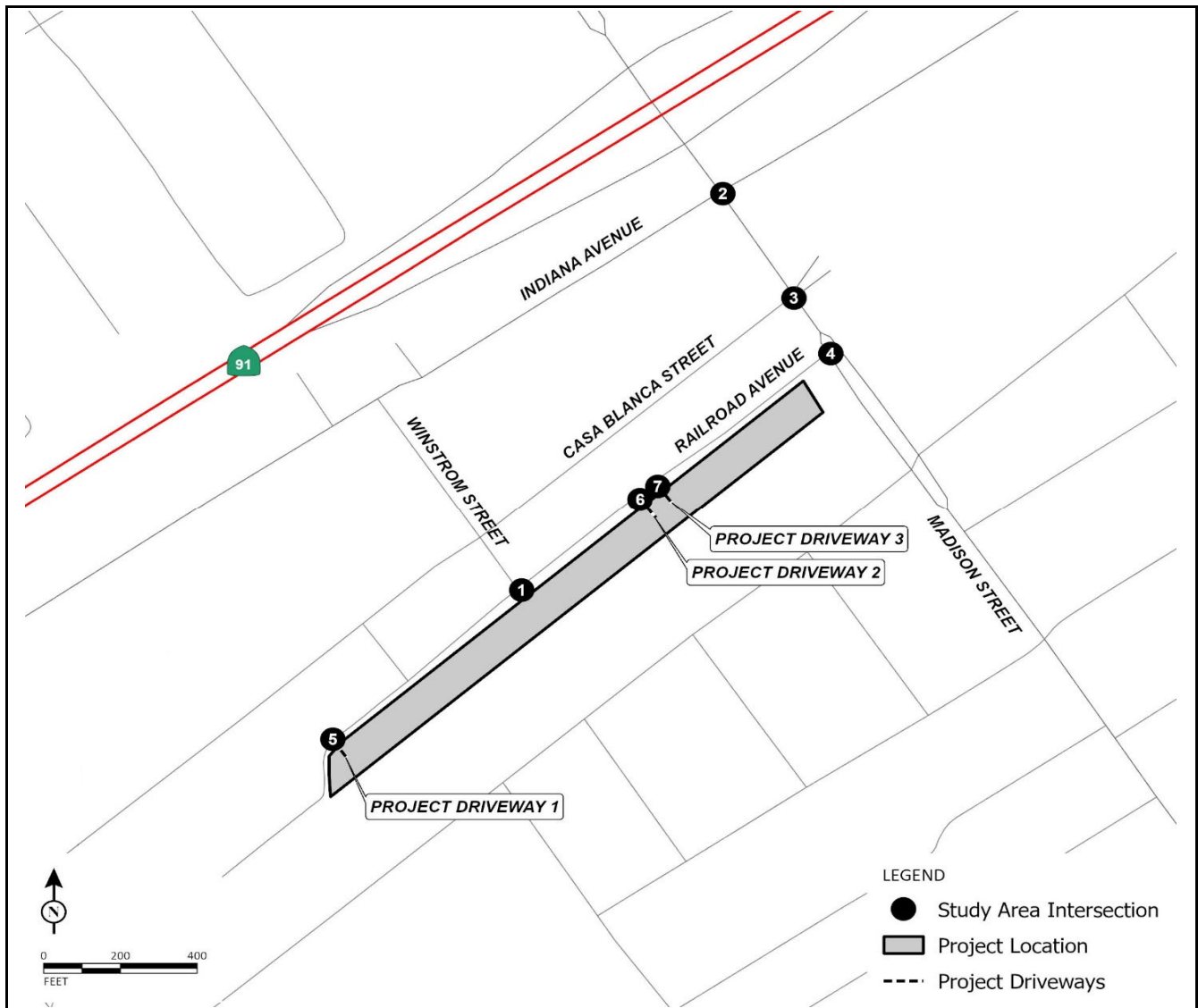
All other intersections are forecast to operate at a satisfactory LOS under cumulative with project conditions. Detailed Level of Service Worksheets are included in Appendix D.

7.4.2 Roadway Segments

A roadway segment LOS analysis was conducted for cumulative with project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and shows that all roadway segments are forecast to operate at a satisfactory LOS.

7.5 LIST OF CHAPTER 7.0 FIGURES AND TABLES

- Figure 7-1: Cumulative (2045) without Project Peak Hour Traffic Volumes
- Figure 7-2: Cumulative (2045) with Project Peak Hour Traffic Volumes
- Table 7-A: Cumulative (2045) Roadway Segment Daily Traffic Volumes
- Table 7-B: Cumulative (2045) Intersection Levels of Service
- Table 7-C: Cumulative (2045) Roadway Segment Levels of Service



				<p><i>Future Intersection</i></p>
<p>1 Winstrom Street/Railroad Avenue</p>	<p>2 Madison Street/Indiana Avenue</p>	<p>3 Madison St/Casa Blanca St-Home Depot Dwy-Splash Exp</p>	<p>4 Madison Street/Railroad Avenue</p>	<p>5 Project Driveway 1/Railroad Avenue</p>
<p><i>Future Intersection</i></p>	<p><i>Future Intersection</i></p>			
<p>6 Project Driveway 2/Railroad Avenue</p>	<p>7 Project Driveway 3/Railroad Avenue</p>			

FIGURE 7-1



XXX / YYY
 AM / PM Peak Hour Trips
 ----- Driveway

Madison Flats Project
 Traffic Operations Analysis

Cumulative (2045) without Project Peak Hour Traffic Volumes

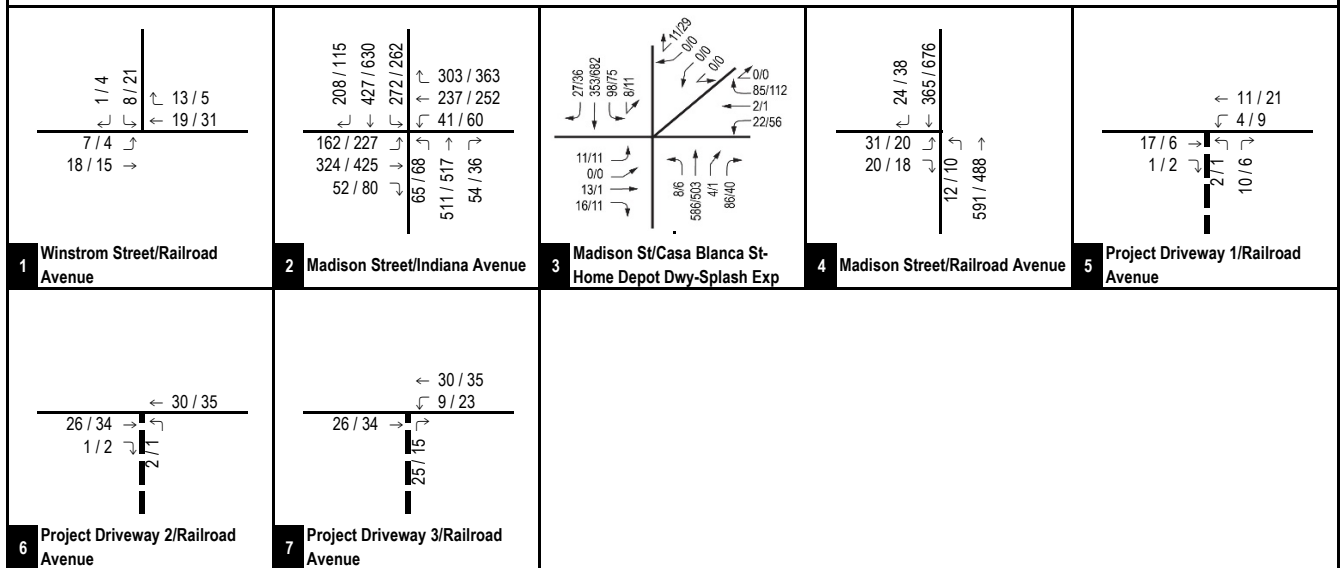
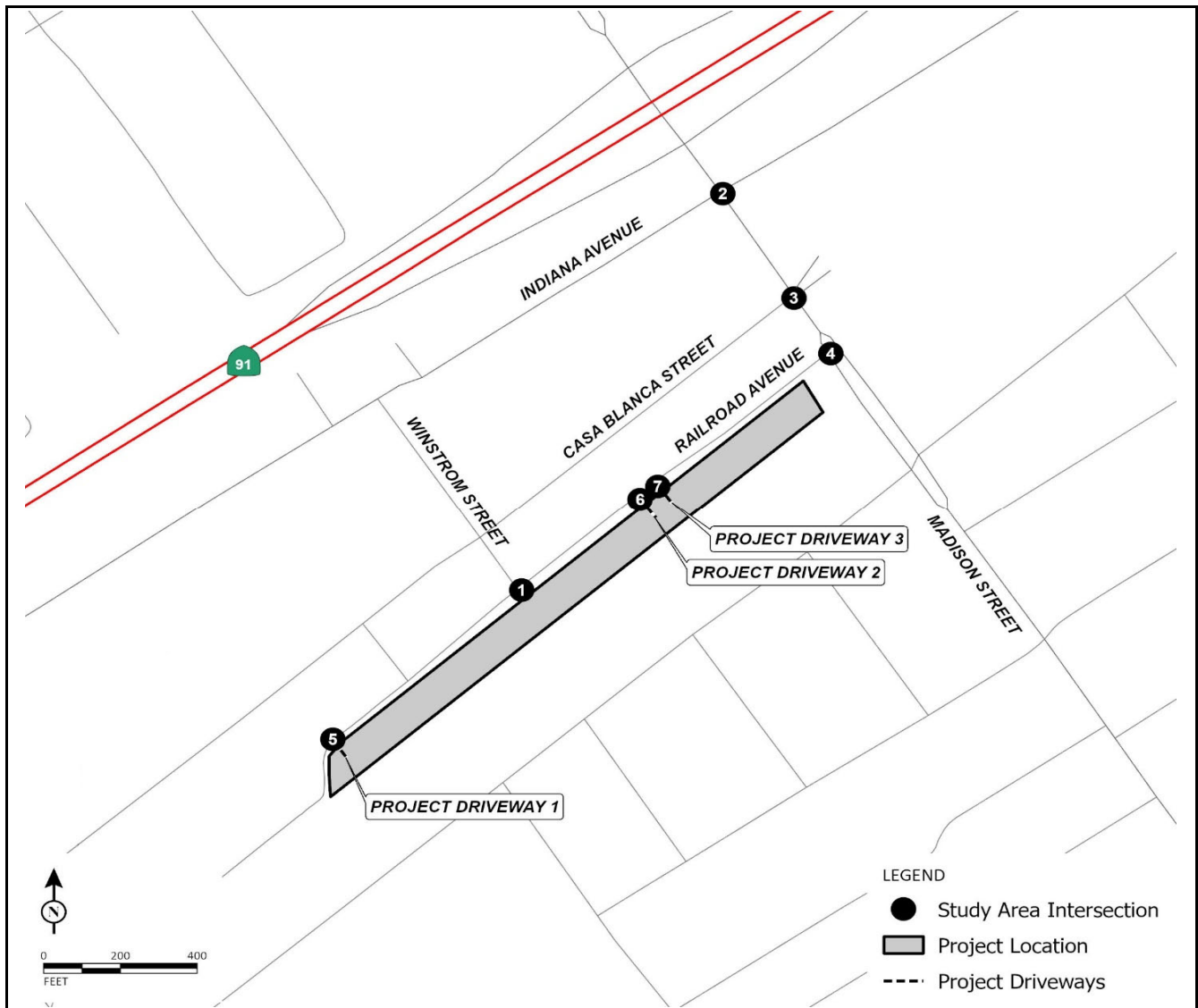


FIGURE 7-2

LSA

XXX / YYY
AM / PM Peak Hour Trips
----- Driveway

Madison Flats Project
Traffic Operations Analysis

Cumulative (2045) with Project Peak Hour Traffic Volumes

Table 7-A - Cumulative (2045) Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Cumulative (2045) Without Project ADT	Project Trips	Cumulative (2045) With Project ADT
Railroad Avenue	1	West of Winstrom Street	445	152	597
	2	Between Winstrom Street and Madison Street	532	550	1,082
Madison Street	3	Between Indiana Avenue and Railroad Avenue	14,115	428	14,543
	4	Between Railroad Avenue and Evan Street	14,150	122	14,272

Table 7-B - Cumulative (2045) Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Control	Without Project				With Project				A.M. Peak Hour Increase in Delay (sec.)	P.M. Peak Hour Increase in Delay (sec.)	Improvement Required?	
				A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour					
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS				
1 . Winstrom Street/Railroad Avenue	City of Riverside	C	OWSC ¹	8.8	A	8.9	A	AWSC	7.1	A	7.2	A	-1.7	-1.7	No
2 . Madison Street/Indiana Avenue	City of Riverside	D	Signal	55.6	E *	60.9	E *	Signal	55.6	E *	61.1	E *	0.0	0.2	Yes
3 . Madison Street/Casa Blanca Street-Home Depot Driveway-Splash Exp Driveway	City of Riverside	D	TWSC	14.6	B	13.9	B	TWSC	17.0	C	15.1	C	2.4	1.2	No
4 . Madison Street/Railroad Avenue	City of Riverside	D	OWSC	11.5	B	15.0	B	OWSC	13.0	B	16.4	C	1.5	1.4	No
5 . Project Driveway 1/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.5	A	8.4	A	-	-	No
6 . Project Driveway 2/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.8	A	8.9	A	-	-	No
7 . Project Driveway 3/Railroad Avenue	City of Riverside	C	-	Does Not Exist		Does Not Exist		OWSC	8.5	A	8.5	A	-	-	No

Notes:

OWSC = One-Way Stop Control; TWSC = Three-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case lane).

* Exceeds LOS Standard

¹ This intersection is currently an uncontrolled T-intersection, for the purpose of this analysis the intersection will be analyzed as an OWSC.

Table 7-C - Cumulative (2045) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	Classification ¹	Existing Number of Lanes	Without Project				With Project				V/C Ratio Difference	Project Related Operational Deficiency ³
				Roadway Capacity ¹	Daily Volume	V/C Ratio	LOS	Roadway Capacity ¹	Daily Volume	V/C Ratio	LOS		
Segments on Railroad Avenue													
1 . West of Winstrom Street	City of Riverside	Local (66')	2	3,399	445	0.13	A	3,399	597	0.18	A	0.04	No
2 . Between Winstrom Street and Madison Street	City of Riverside	Local (66')	2	3,399	532	0.16	A	3,399	1,082	0.32	A	0.16	No
Segments on Madison Street													
3 . Between Indiana Avenue and Railroad Avenue	City of Riverside	Arterial (88')	4	22,999	14,115	0.61	A	22,999	14,543	0.63	B	0.02	No
4 . Between Railroad Avenue and Evan Street	City of Riverside	Arterial (88')	2	19,799	14,150	0.71	C	19,799	14,272	0.72	C	0.01	No

Notes:

LOS = Level of Service

* Exceeds LOS Standard

¹ Roadway classification has been obtained from the City of Riverside General Plan Circulation and Community Mobility Element Master Plan of Roadways.

² Roadway capacity has been obtained from the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).

³ Operational deficiency determined based on the criteria included in the City of Riverside *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020).

8.0 QUEUING ANALYSIS

An intersection and driveway queuing analysis were requested by City staff during the scoping agreement process to ensure that adequate queuing is provided at project driveways and adjacent intersections. In case queuing deficiencies are identified, the project would need to alleviate potential queuing issues. As such, the queuing analysis was performed at the following five intersection/driveways/railroad tracks:

4. Madison Street/Railroad Avenue;
5. Project Driveway 1/Railroad Avenue;
6. Project Driveway 2/Railroad Avenue; and
7. Project Driveway 3/Railroad Avenue.

Table 8-A lists the available turn-pocket storage lengths and summarizes the 95th percentile back-of-queue lengths at the five study intersections under existing, opening year, and cumulative without and with project conditions. Intersection queues at stop-controlled intersections were reported from SimTraffic.

As shown in Table 8-A, Table 8-B, and Table 8-C, queues for all the approaches do not exceed the available turn-pocket storage length under the existing scenario nor forecasted to exceed the available turn-pocket storage length under the opening year and cumulative without and with project scenarios, respectively. As such, it is not forecasted that there will be any queuing deficiencies that will negatively affect traffic operations.

8.1 LIST OF CHAPTER 8.0 TABLES

- Table 8-A: Existing Intersection and Driveway Queuing Analysis
- Table 8-B: Opening Year (2025) Intersection and Driveway Queuing Analysis
- Table 8-C: Cumulative (2045) Intersection and Driveway Queuing Analysis



Table 8-A - Existing Intersection and Driveway Queuing Analysis

Intersection	Movement	Storage Length ¹ (ft/ln)	Existing	
			Without Project ²	
			AM	PM
4 . Madison Street/Railroad Avenue OWSC	NBL	45	0	0
	SBR	140	0	0
	EBLR³	420	35	25
5 . Project Driveway 1/Railroad Avenue	NBLR	-	Intersection Does Not Exist	
	WBTL	-		
	EBTR	-		
6 . Project Driveway 2/Railroad Avenue	NBLR	-	Intersection Does Not Exist	
	WBTL	-		
	EBTR	-		
7 . Project Driveway 3/Railroad Avenue	NBLR	-	Intersection Does Not Exist	
	WBTL	-		
	EBTR	-		

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

- ¹ Storage length for all movements obtained from Google Earth measurements and conceptual site plan.
- ² All queues reported are 95th percentile queues. Queues for unsignalized intersections have been taken from SimTraffic.
- ³ Storage length measured from EB stop bar to Project Driveway 3.



Table 8-B - Opening Year (2025) Intersection and Driveway Queuing Analysis

Intersection	Movement	Storage Length ¹ (ft/ln)	Opening Year (2025)			
			Without Project ²		With Project ²	
			AM	PM	AM	PM
4 . Madison Street/Railroad Avenue OWSC	NBL	45	15	0	15	15
	SBR	140	0	0	0	0
	EBLR ³	420	35	35	40	45
5 . Project Driveway 1/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		35	20
	WBTL	-			0	0
	EBTR	-			0	0
6 . Project Driveway 2/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		25	15
	WBTL	-			0	0
	EBTR	-			0	0
7 . Project Driveway 3/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		45	40
	WBTL	-			15	0
	EBTR	-			0	0

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

¹ Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

² All queues reported are 95th percentile queues. Queues for unsignalized intersections have been taken from SimTraffic.

³ Storage length measured from EB stop bar to Project Driveway 3.



Table 8-C - Cumulative (2045) Intersection and Driveway Queuing Analysis

Intersection	Movement	Storage Length ¹ (ft/ln)	Cumulative (2045)			
			Without Project ²		With Project ²	
			AM	PM	AM	PM
4 . Madison Street/Railroad Avenue OWSC	NBL	45	10	15	35	20
	SBR	140	0	0	0	0
	EBLR ³	420	35	35	40	50
5 . Project Driveway 1/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		35	40
	WBTL	-			0	15
	EBTR	-			0	0
6 . Project Driveway 2/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		10	0
	WBTL	-			0	0
	EBTR	-			0	0
7 . Project Driveway 3/Railroad Avenue OWSC	NBLR	-	Intersection Does Not Exist		40	45
	WBTL	-			0	0
	EBTR	-			0	0

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

¹ Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

² All queues reported are 95th percentile queues. Queues for unsignalized intersections have been taken from SimTraffic.

³ Storage length measured from EB stop bar to Project Driveway 3.

9.0 SITE ACCESS ANALYSIS

9.1 INTERSECTION SIGHT DISTANCE

Per request of City staff, a sight distance analysis was conducted at the project driveways along Railroad Avenue to evaluate safe access in and out of the project. Sight distance is the length of the visible roadway a driver can see approaching vehicles before their line of sight is blocked by any object. For purposes of this analysis, only the stopping sight distance and corner sight distance have been evaluated. That is because those are the only two sight distance issues that would affect safe maneuver of ingress/egress traffic from the project driveway.

According to the *Caltrans Highway Design Manual (HDM)* (dated July 2020), the stopping sight distance is the minimum sight distance along a roadway required to allow a driver to decrease their speed from the design speed to a complete stop. The corner sight distance is the minimum sight distance in which a driver at a stop-controlled approach can see oncoming traffic on the major street to safely maneuver onto the roadway.

The stopping sight distance was evaluated on the local street abutting the project (i.e., Railroad Avenue). The posted speed limit on Railroad Avenue is 25 mph. For purposes of this analysis, the posted speed limit has been considered as the design speed. As stated in Table 201.1 of the HDM, the minimum stopping distance is 150 feet for a design speed of 25 mph. Therefore, the minimum stopping sight distance for the project driveways have been considered as 150 feet.

As for corner sight distance, Section 405.1 of the HDM states that corner sight distance requirements are not applicable for urban driveways unless signalized. However, as a conservative approach, a corner sight distance was also evaluated for the project driveways. At the project driveways, the minimum corner sight distance was based on design speed, time gap and type of vehicles from the minor road (project driveway) to enter the major road (Railroad Avenue). Based on the requirements established in the HDM, it was determined that a minimum corner sight distance of 280 feet would be required for the project driveway. Since the corner sight distance required at the project driveways would be greater than the stopping sight distance (280 feet compared to 150 feet), a sight triangle figure was created using corner sight distance as a conservative approach.

As illustrated in Figure 9-1, the proposed Project Driveway 1 would not achieve adequate corner sight distance (and therefore stopping sight distance) for vehicles approaching the driveway in the eastbound direction or for project traffic trying to exit using this driveway. However, the project would be adding an all way stop control at this driveway as a project design feature, which will help alleviate the sight distance concern.

As illustrated in Figures 9-2 and Figure 9-3, the proposed Project Driveway 2 and Project Driveway 3 would achieve adequate corner sight distance and therefore stopping sight distance.

9.2 BICYCLE, PEDESTRIAN, AND TRANSIT ACCESSIBILITY

9.2.1 Bicycle Accessibility

As part of the City's Bikeway Network, a Class II Bike Lane has been added to both directions of Jefferson Street near the study area. A Class II Bike Lane is proposed along Lincoln Avenue near the study area. A Class III Bicycle Boulevard is also proposed along Madison Street within the study area. Since there is a planned Class III Bicycle Boulevard, it is anticipated that the majority of bicyclists will access the project site from Madison Street and Jefferson Street through Railroad Avenue.

9.2.2 Pedestrian Accessibility

Paved sidewalks are provided on both sides of Depot Street, Winstrom Street, Madison Street, Indiana Avenue, Casa Blanca Street, and Evans Street. The project will construct a paved sidewalk along the project frontage. As such, the project will improve pedestrian accessibility along Railroad Avenue. This network of sidewalks provides a direct and convenient access for residents traveling to and from their homes to nearby retail, transit, and parks. Therefore, the project is anticipated to provide adequate pedestrian safety for residents that will access the nearby amenities.

9.2.3 Transit Accessibility

RTA local bus Route 14 serves the study area by providing connections to the Galleria at Tyler, Downtown Riverside, Downtown Riverside, Hunter Park Metrolink Station, and Loma Linda VA Hospital. There are existing bus stops located at the intersections of Winstrom Street/Indiana Avenue and Madison Street/Indiana Avenue. Crosswalks for Indiana Avenue are provided at each of these bus stop locations for safe access to the westbound route.

9.3 INTERNAL CIRCULATION

Figure 9-4 illustrates how a typical passenger vehicle would be able to turnaround at the end of the drive aisle at the western end of the project site. Additionally for all trash pick-up, the facilities/property management on site will wheel the trash bins out to Railroad Avenue on trash days for trash pick-up. There is a direct path through the parking lot area for these trash bins to be wheeled out to the street.

9.4 LIST OF CHAPTER 9.0 FIGURES

- Figure 9-1: Intersection Sight Distance at Project Driveway 1
- Figure 9-2: Intersection Sight Distance at Project Driveway 2
- Figure 9-3: Intersection Sight Distance at Project Driveway 3
- Figure 9-4: Passenger Vehicle Turn-Around Maneuver at Western Drive Aisle

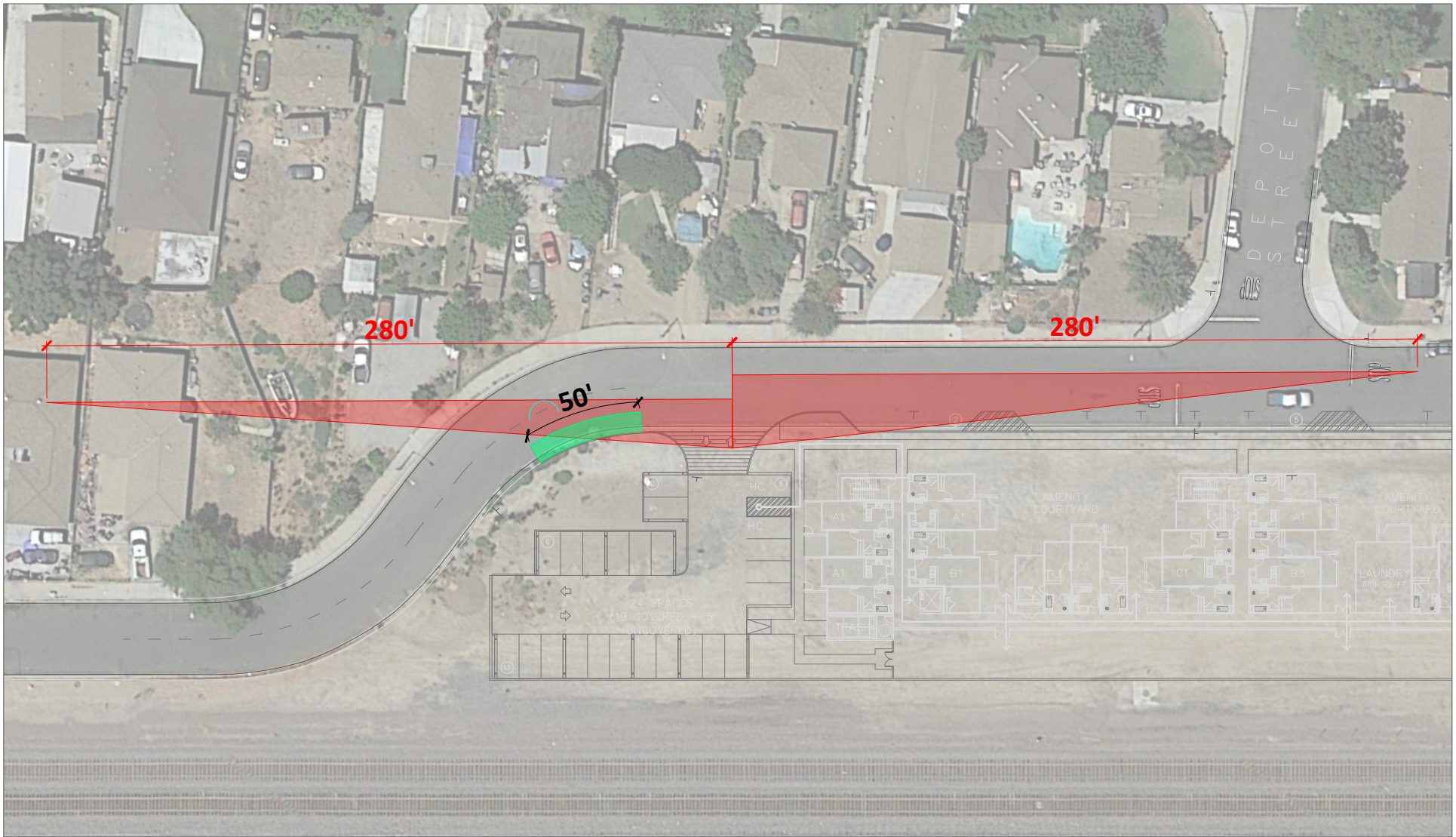


Figure 9-1

LSA



LEGEND

 - Sight Distance Triangle

 - Parking Restriction of 50 Feet

*Madison Flats Project
Traffic Operations Analysis*

Intersection Sight Distance at Project Driveway 1

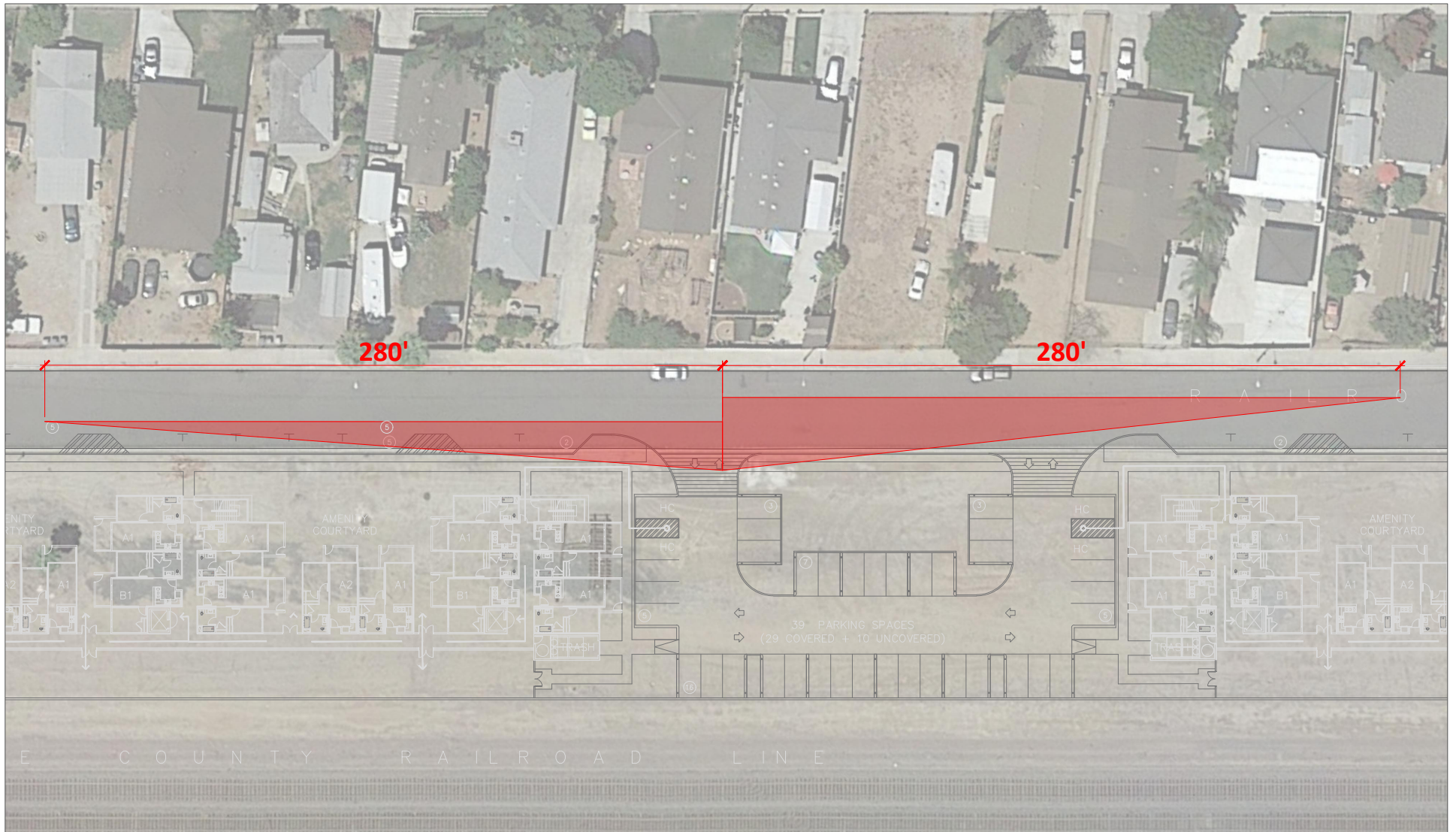


Figure 9-2

LSA

LEGEND



 - Sight Distance Triangle

*Madison Flats Project
Traffic Operations Analysis*

Intersection Sight Distance at Project Driveway 2

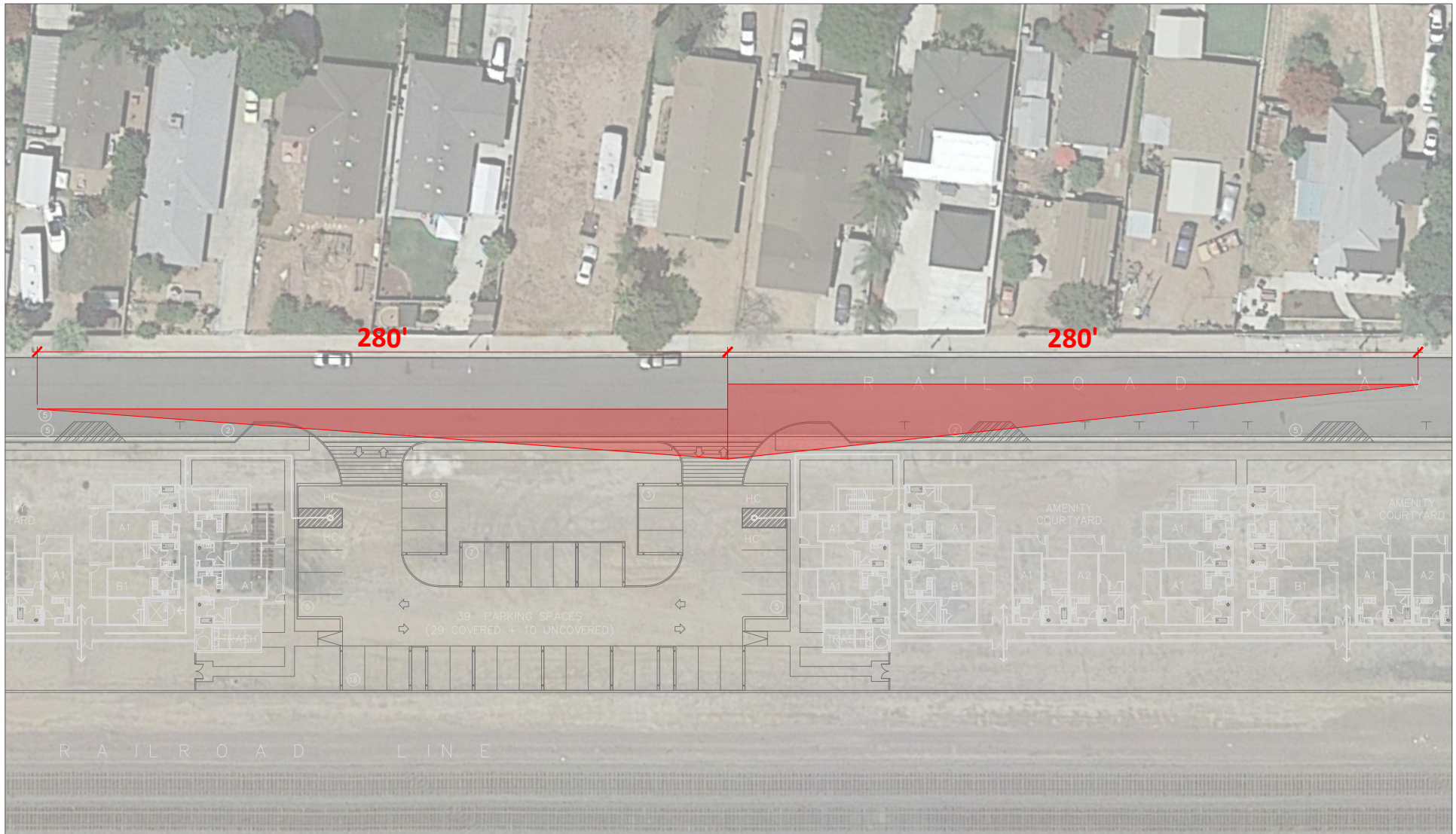


Figure 9-3

LSA

LEGEND

 - Sight Distance Triangle



*Madison Flats Project
Traffic Operations Analysis*

Intersection Sight Distance at Project Driveway 3

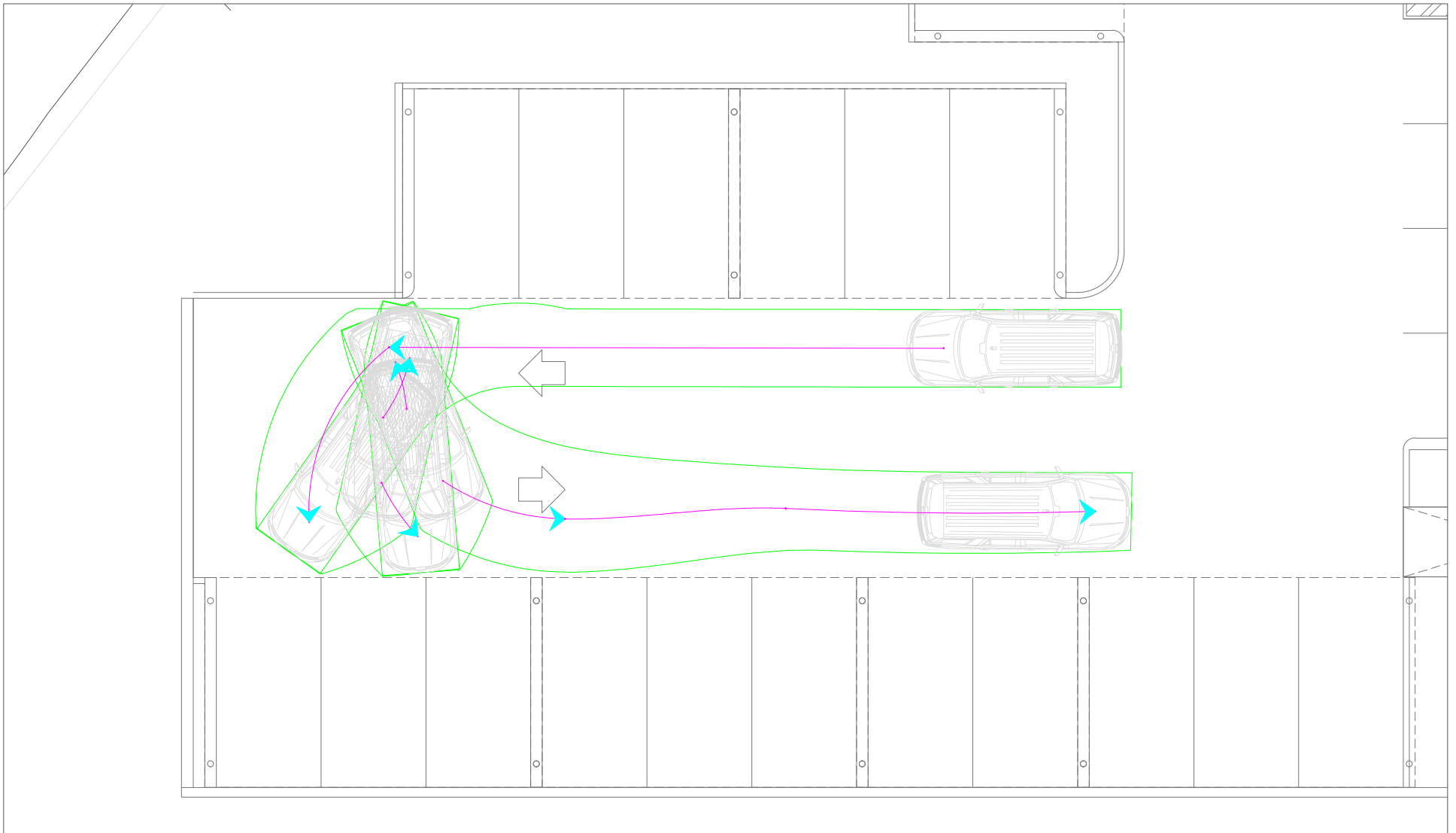


Figure 9-4

LSA



*Turn templates generated on AutoTURN Pro 11.0 using a Ford Expedition 2019.

*Madison Flats Project
Traffic Operations Analysis*

Passenger Vehicle Turn-Around Maneuver at Western Drive Aisle

10.0 ACTIVE TRANSPORTATION AND PUBLIC TRANSIT ANALYSIS

According to the City's TIA Guidelines, a significant impact occurs when a project conflicts with adopted plans, policies, or programs regarding active transportation or public transit facilities, or otherwise decreases the performance or safety of such facilities.

Based on the City's PACT, adopted December 2021, at present, Class II Bike Lane have been added to both directions of Jefferson Street near the study area. A Class II Bike Lane is planned to be added along Lincoln Avenue near the study area. A Class III Bicycle Boulevard is planned to be added along Madison Street within the study area. As such, the project would not decrease the performance or safety of any existing or proposed bicycle facility.

According to the City of Riverside *General Plan Circulation Element*, sidewalks are generally provided on both sides of the streets. Additionally, standard paved trails and non-standard unpaved trails are frequently used by bicyclists and pedestrians in the City. According to the City's PACT, there is a proposed primary corridor on Victoria Avenue at the intersection with Madison Street. Although there are no current trails within the study area, paved sidewalks are provided on both sides of Depot Street, Winstrom Street, Madison Street, Indiana Avenue, Casa Blanca Street, and Evans Street. As previously referenced, the project will construct a paved sidewalk along the project frontage along Railroad Avenue. As such, the project will improve the performance and safety of the existing and proposed pedestrian facilities.

RTA local bus Route 14 currently operates within the study area. Route 14 has connections to the Galleria at Tyler, Downtown Riverside, Hunter Park Metrolink Station, and Loma Linda VA Hospital. Route 14 has stops at the intersections of Winstrom Street/Indiana Avenue and Madison Street/Indiana Avenue. Crosswalks for Indiana Avenue are provided at each these bus stop locations for safe access to the westbound route.

The project does not conflict with any existing or proposed bicycle, pedestrian, or public transit facilities. Therefore, the project can be considered to conform to all adopted policies, plans, or programs concerning these facilities and would not have a significant impact.

11.0 CIRCULATION IMPROVEMENTS AND FUNDING SOURCES

11.1 RECOMMENDED IMPROVEMENTS

Based on the results of the LOS analysis, an improvement has been recommended at the study intersection where the project is forecast to create or contribute to operational deficiencies under opening year and cumulative conditions. Table 11-A summarizes the recommended improvements for the study intersection for all analysis scenarios. Tables 11-B and 11-C summarize the post-improvement intersection levels of service under opening year and cumulative conditions, respectively.

As shown in Tables 11-B and 11-C, the intersection of Madison Street/Indiana Avenue is forecast to operate at a satisfactory LOS under the opening year and cumulative conditions with the recommended improvements.

11.2 FUNDING SOURCES AND MECHANISMS

Where there is a funding mechanism (fee program) for the recommended improvements, payment into the fee program may be considered sufficient project obligation to alleviate project-related operational deficiencies. At study intersections where the project adds to or creates a forecast deficiency and there is no funding mechanism in place, the project is responsible for its fair share payment toward the implementation of the improvements.

11.2.1 TUMF Program

The underlying purpose of the Transportation Uniform Mitigation Fee (TUMF) program is “the need to establish a comprehensive funding source to mitigate the cumulative regional transportation impacts of new development on regional arterial highways.” As new development occurs in western Riverside County, the cumulative transportation impacts of this new development are reflected in increased demand for transportation infrastructure leading to decreased levels of service, increased delay and increased congestion on regional transportation facilities, and an overall decline in regional mobility. Therefore, the need to invest in additional transportation infrastructure to meet the increased travel demand and to sustain pre-development traffic conditions to “keep traffic flowing” represents the fundamental premise of the TUMF program.

11.2.2 Project Fair Share

In the absence of a fee program, the project shall pay its fair share of the cost required to offset operational deficiencies. Since the improvements at the intersection of Madison Street/Indiana Avenue is not covered under any fee program, the project’s fair share has been calculated based on project traffic as a percentage of total growth from existing to cumulative conditions. Previously referenced Table 11-A summarizes the project’s fair share at the intersections.

11.3 LIST OF CHAPTER 11.0 TABLES

- Table 11-A: Recommended Improvements for Intersections, Funding Mechanism, and Fair Share
- Table 11-B: Opening Year (2025) with Project with Improvements Intersection Levels of Service
- Table 11-C: Cumulative (2045) with Project with Improvements Intersection Levels of Service

Table 11-A - Recommended Improvements for Intersections, Funding Mechanism, and Fair Share

Intersection	Opening Year (2025) with Project Improvements	Cumulative (2045) with Project Improvements	Funding Mechanism	Improvements Covered by TUMF	Improvements Covered by Fair Share	Fair Share Percentage ²
2 . Madison Street/Indiana Avenue	Optimize signal timing (a.m. and p.m. peak hour)	Optimize signal timing (a.m. and p.m. peak hour)	Fair Share	-	Optimize signal timings.	10.32%

Notes:

TUMF refers to the Transportation Uniform Mitigation Fee Program.

¹ Project Fair Share Percentage is the highest fair share value of the AM and PM peak hour when both peak hours require improvements, or only in the peak hour that require improvements.

² The City does not have a fair share program, therefore, the project would need to discuss with City staff the appropriate mechanism for implementation of this improvement.



Table 11-B - Project Opening Year (2025) with Project Recommended Improvements Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	With Project Without Improvements				With Project With Improvements					
			Control	A.M. Peak Hour		P.M. Peak Hour		Control	A.M. Peak Hour		P.M. Peak Hour	
				Delay (sec.)	LOS	Delay (sec.)	LOS		Delay (sec.)	LOS	Delay (sec.)	LOS
2 . Madison Street/Indiana Avenue	City of Riverside	D	Signal	55.1	E *	58.7	E *	Signal	53.6	D	54.7	D

Notes:

OWSC = One-Way Stop Control; TWSC = Three-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case lane).

* Exceeds LOS Standard

Table 11-C - Cumulative (2045) with Project with Project Recommended Improvements Intersection Levels of Service

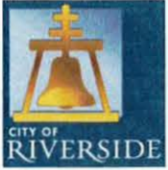
Intersection	Jurisdiction	LOS Standard	Control	With Project Without Improvements				With Project With Improvements				
				A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	
2 . Madison Street/Indiana Avenue	City of Riverside	D	Signal	55.6	E *	61.1	E *	Signal	51.5	D	54.9	D

Notes:

- OWSC = One-Way Stop Control; TWSC = Three-Way Stop Control; LOS = Level of Service
- Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case lane).
- * Exceeds LOS Standard

APPENDIX A

SCOPING AGREEMENT



City of Arts & Innovation

Public Works Department

APPROVED

Vital Patel

02/17/2023

Traffic Analysis Scoping Form

This scoping form shall be submitted to the City of Riverside Traffic Engineering Division

Project Identification:

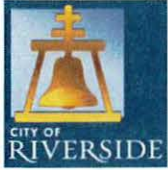
Case Number:	PR-2022-001434
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Madison Flats Project
Project Address:	
Project Opening Year:	
Project Description:	Construction of a 76 senior and 45 family residential dwelling units (apartments) on a 4.15-acre site. Consists of 100% affordable housing.

	Consultant:	Developer:
Name:	LSA Associates, Inc.	Gilbane Development Company
Address:	1500 Iowa Avenue, Suite 200 Riverside, CA 92507	1100 North Glebe Road, Suite 1000 Arlington, VA 22201
Telephone:	951-781-9310	703-312-7240
Fax/Email:		

Scoping & Study Fees:

Fees to be made payable to "City of Riverside" and delivered to Land Development. City Hall 3rd Floor, 3900 Main Street, Riverside, CA 92522

- ✓ 1) Scoping Agreement Fee (For all projects not screened from analysis): **\$271.00**
- 2) TIA Review (For projects with both LOS & VMT analysis of any scale, or standalone LOS analyses with over 100 vehicle trips per hour): **\$2671.02**
- ✓ 3) TIA Review (For standalone VMT analysis, or standalone LOS analyses with under 100 vehicle trips per hour): **\$1288.20**



Public Works Department

City of Arts & Innovation

Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual (11th Edition)

Current General Plan Land Use:

MDR

Proposed General Plan Land Use:

HDR

Current Zoning:

R-1-7000 SFR

Proposed Zoning:

R-3-2000 MFR

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	0	0	0	14	38	52
PM Trips	0	0	0	36	23	59

Please see attached Table A

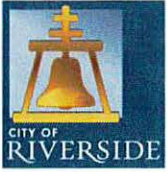
Trip Internalization: Yes No (_____% Trip Discount)

Pass-By Allowance: Yes No (_____% Trip Discount)

Potential Screening Checks

Is your project screened from specific analyses in accordance with City Guidelines?

Is the project screened from LOS assessment? Yes No



Public Works Department

City of Arts & Innovation

LOS screening justification (see Page 6 of the guidelines): _____

Is the project screened from VMT assessment? Yes No

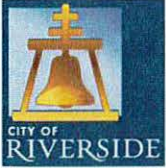
VMT screening justification (see Pages 23-25 of the guidelines): _____
Project consists of 100% affordable housing. A separate VMT memorandum will be submitted summarizing the analysis results.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
70 %	20 %	0 %	10 %

- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach legible site plan
- Note other specific items to be addressed:
 - Site access
 - On-site circulation
 - Parking
 - Consistency with Plans supporting Bikes/Peds/Transit
 - Other _____
- Date of Traffic Counts November 2022
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)



VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model RIVCOM
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Specific Issues to be addressed in the Study (in addition to the standard analysis described in the Guidelines) (To be filled out by the Public Works Traffic Engineering Division)

1. Queuing Analysis at Project Driveways, Railroad Avenue at Madison Street.
2. Sight Distance Analysis
3. Include detailed site plan which includes parking lane width, travel lane width, right of way, curb to curb width etc. in the report.
4. Add all-way stop control at Winstrom Street/Railroad Avenue. Install a stop bar, stop legend, and stop signs at the project driveways.
5. Add speed limit signs along project frontage on Railroad Avenue.
6. While this is not part of the traffic study process, it is strongly recommended that BNSF and CPUC shall be notified regarding the proposed project and that project should start the process soon.

Analysis Scenarios

The LOS analysis for the proposed project will be prepared to meet the requirements of the City. The LOS analysis will address existing traffic conditions, future traffic forecasts, circulation deficiencies (if any), and circulation improvements. Therefore, traffic operations will be analyzed under the a.m. and p.m. peak hour at the study intersections and daily roadway conditions for the study roadway segments. The analysis will be conducted for the following five scenarios:

- Existing Conditions;
- Opening Year without Project Conditions;
- Opening Year with Project Conditions;
- Cumulative (2045) without Project Conditions; and
- Cumulative (2045) with Project Conditions.

Study Area

The study area intersections are as follows:

- Project Driveway 1/Railroad Avenue;
- Winstrom Street/Railroad Avenue;
- Project Driveway 2/Railroad Avenue;
- Project Driveway 3/Railroad Avenue;
- Madison Street/Indiana Avenue;
- Madison Street/Casa Blanca Street; and
- Madison Street/Railroad Avenue.

The study area roadway segments are as follows:

- Railroad Avenue, west of Winstrom Street;
- Railroad Avenue, between Winstrom Street and Madison Street;
- Madison Street, between Indiana Avenue and Railroad Avenue; and
- Madison Street, between Railroad Avenue and Evan Street.

Traffic Counts and Volume Development Methodology

Traffic volumes for existing conditions will be developed using existing count data collected at study intersections and roadway segments. A growth rate of 2 percent per annum will be applied to the counts to develop opening year traffic volumes. Cumulative conditions traffic volumes will be developed using forecasted growth from Riverside County Transportation Model (RIVCOM). The

methodology used to develop cumulative traffic volumes for intersections and roadway segments will be consistent with the National Cooperative Highway Research Program (NCHRP) as well as local procedures for post-processing of modeled traffic volumes.

Project VMT Analysis

The project VMT analysis will be prepared consistent with the methodologies outlined in the City's *Traffic Impact Analysis (TIA) Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (dated July 2020). This project will require a General Plan Amendment (GPA). However, it should be noted that the project will fully consist of affordable housing. As such, according to the City's VMT screening criteria, it is anticipated that the project may be screened out from a full VMT analysis.

Active Transportation and Public Transit Analysis

The TIA will include an analysis of potential project impacts on public transit, bicycle, and pedestrian facilities. Significant impacts would be determined based on whether the project conflicts with adopted policies, plans, or programs for these facilities, or whether the project decreases the performance or safety of these facilities.

FIGURES

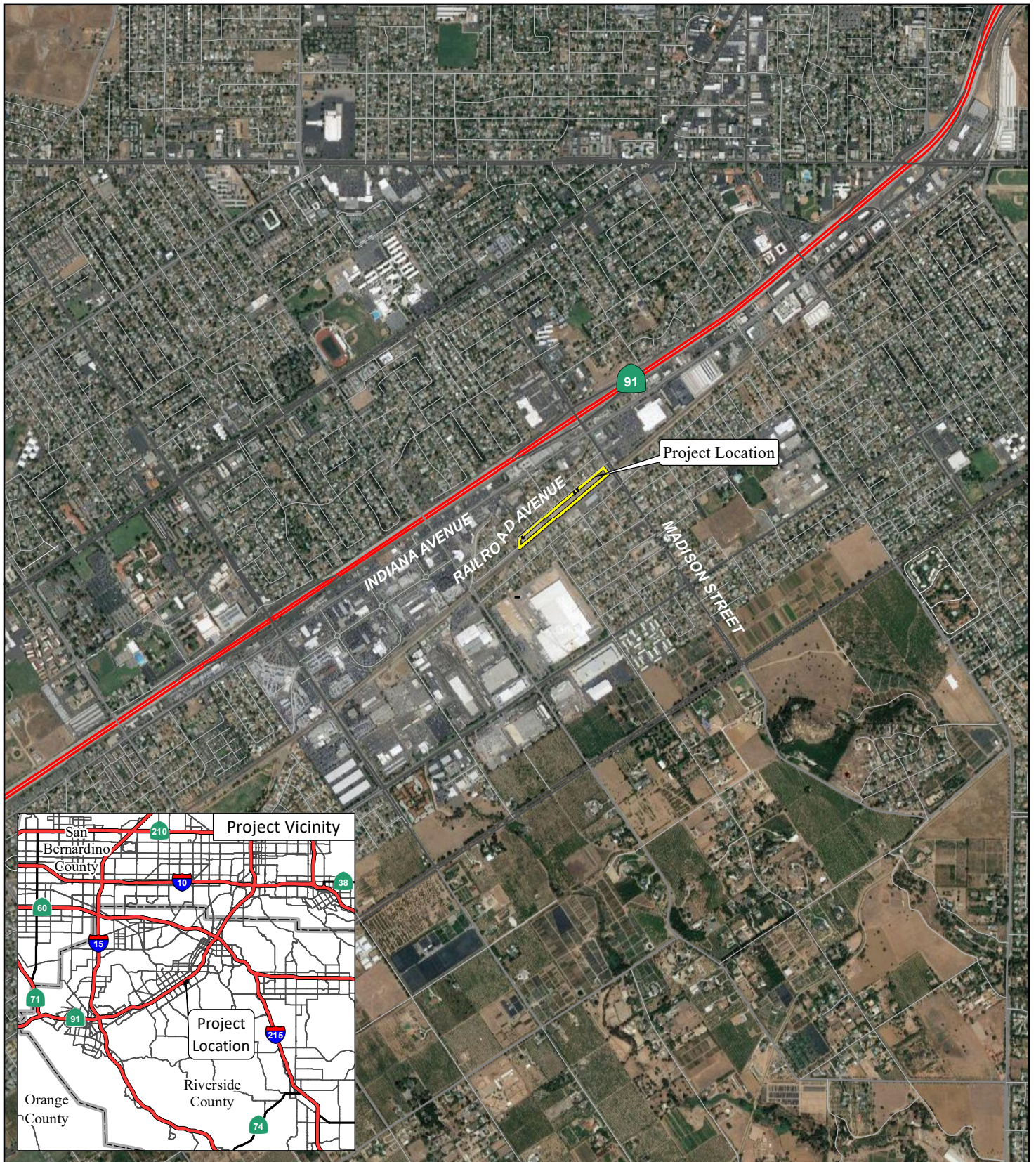
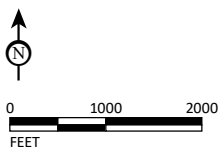


FIGURE 1

LSA

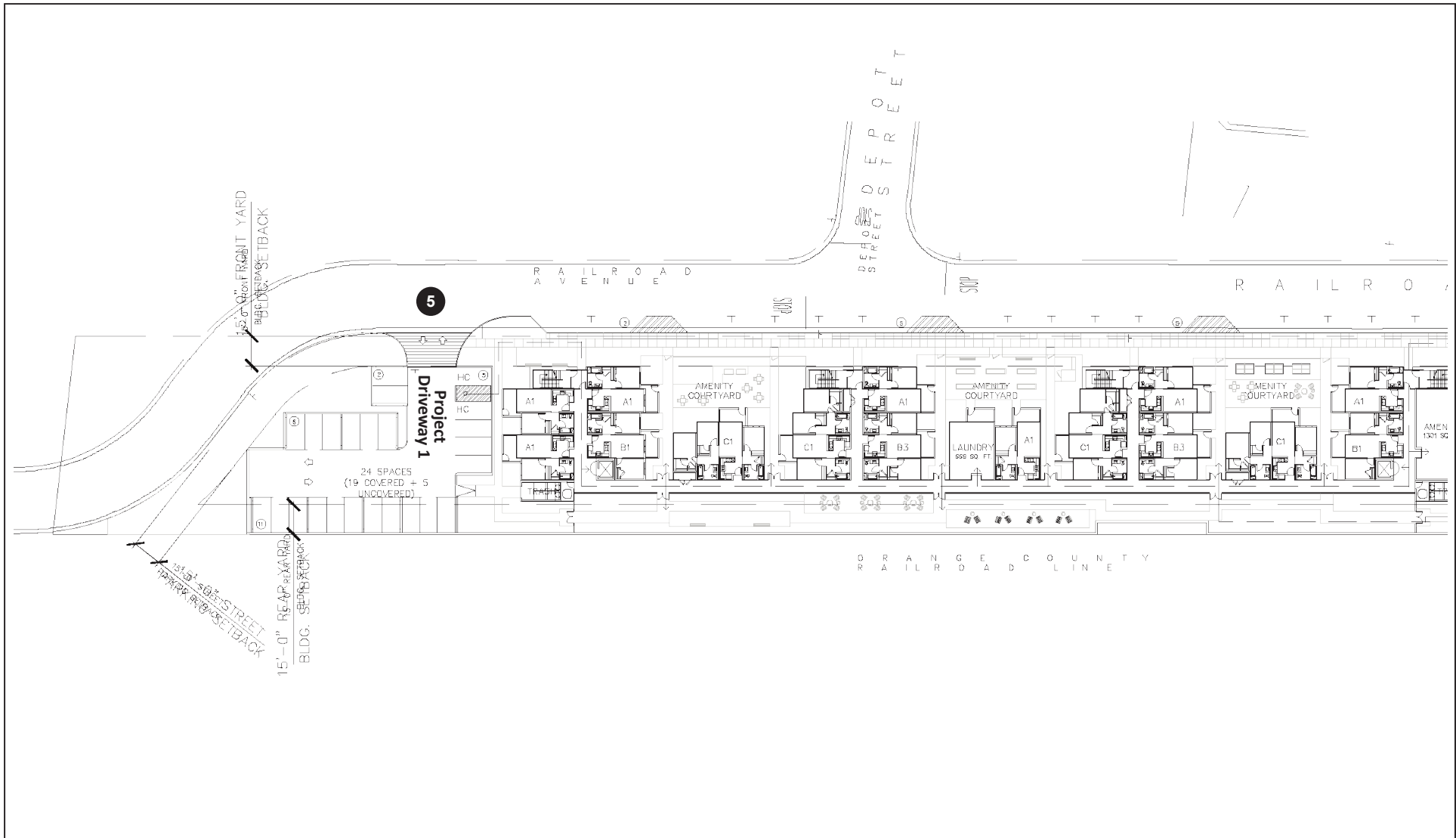
LEGEND

 Project Site



SOURCE: ESRI Streetmap, 2021; Google Earth, 2019

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LSA

LEGEND

● Study Area Intersection

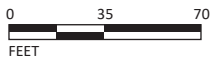


FIGURE 2A

Madison Flats Project
Traffic Operations Analysis

Conceptual Site Plan Part 1 of 3

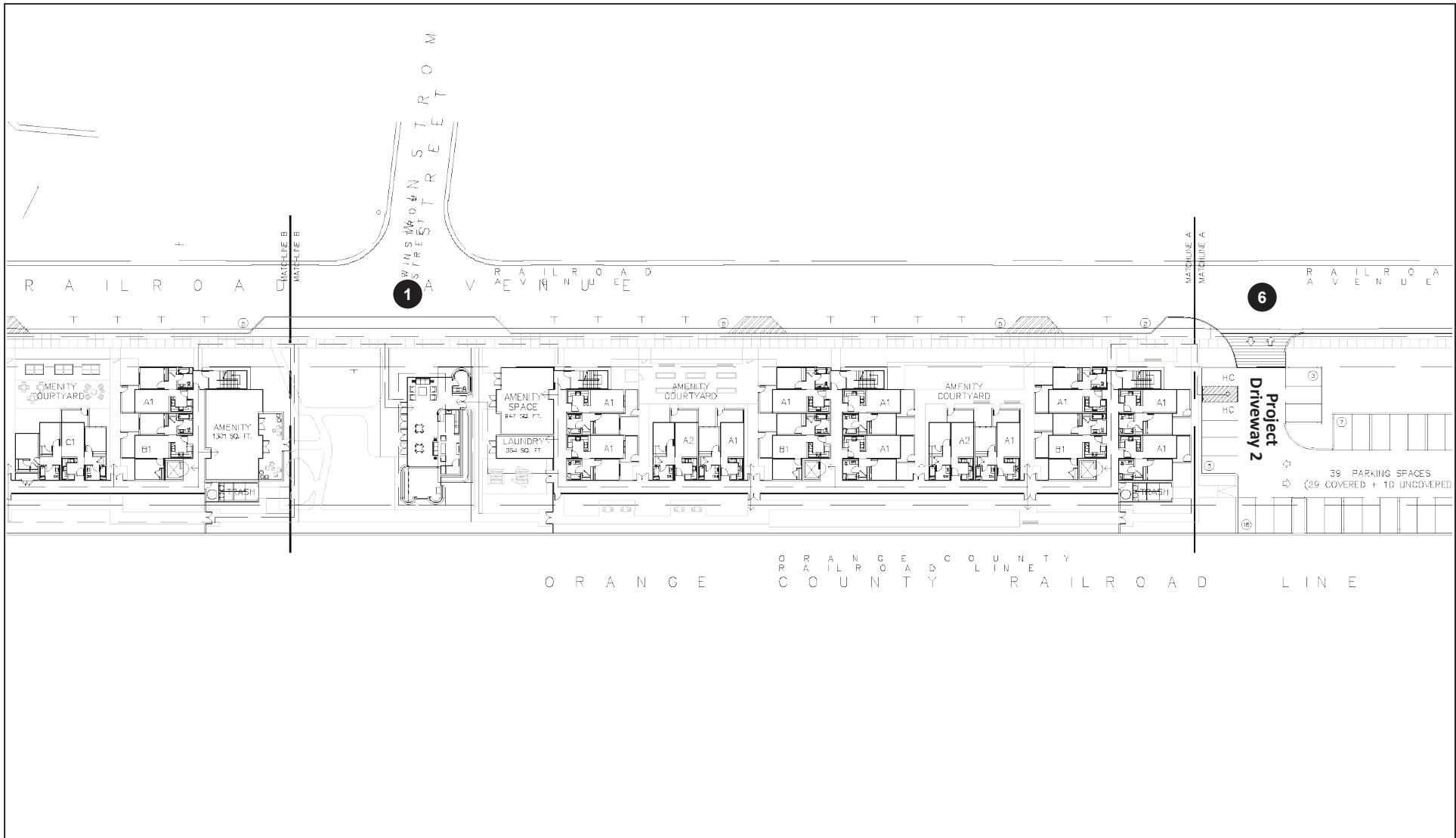
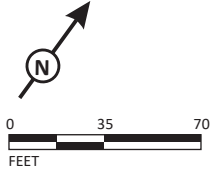


FIGURE 2B



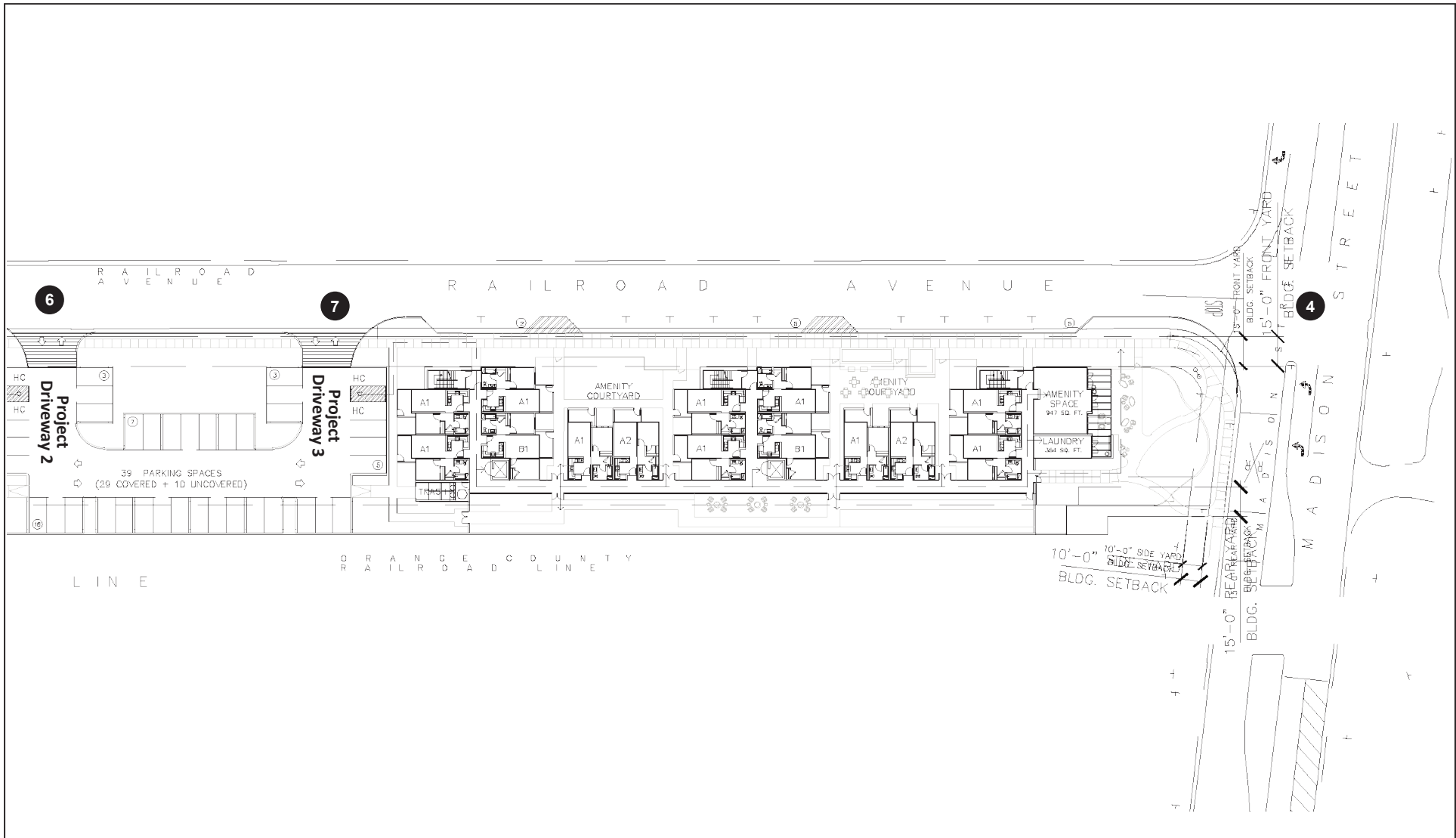
LEGEND

● Study Area Intersection



Madison Flats Project
Traffic Operations Analysis

Conceptual Site Plan Part 2 of 3



LSA

LEGEND

● Study Area Intersection

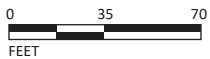


FIGURE 2C

Madison Flats Project
Traffic Operations Analysis

Conceptual Site Plan Part 3 of 3

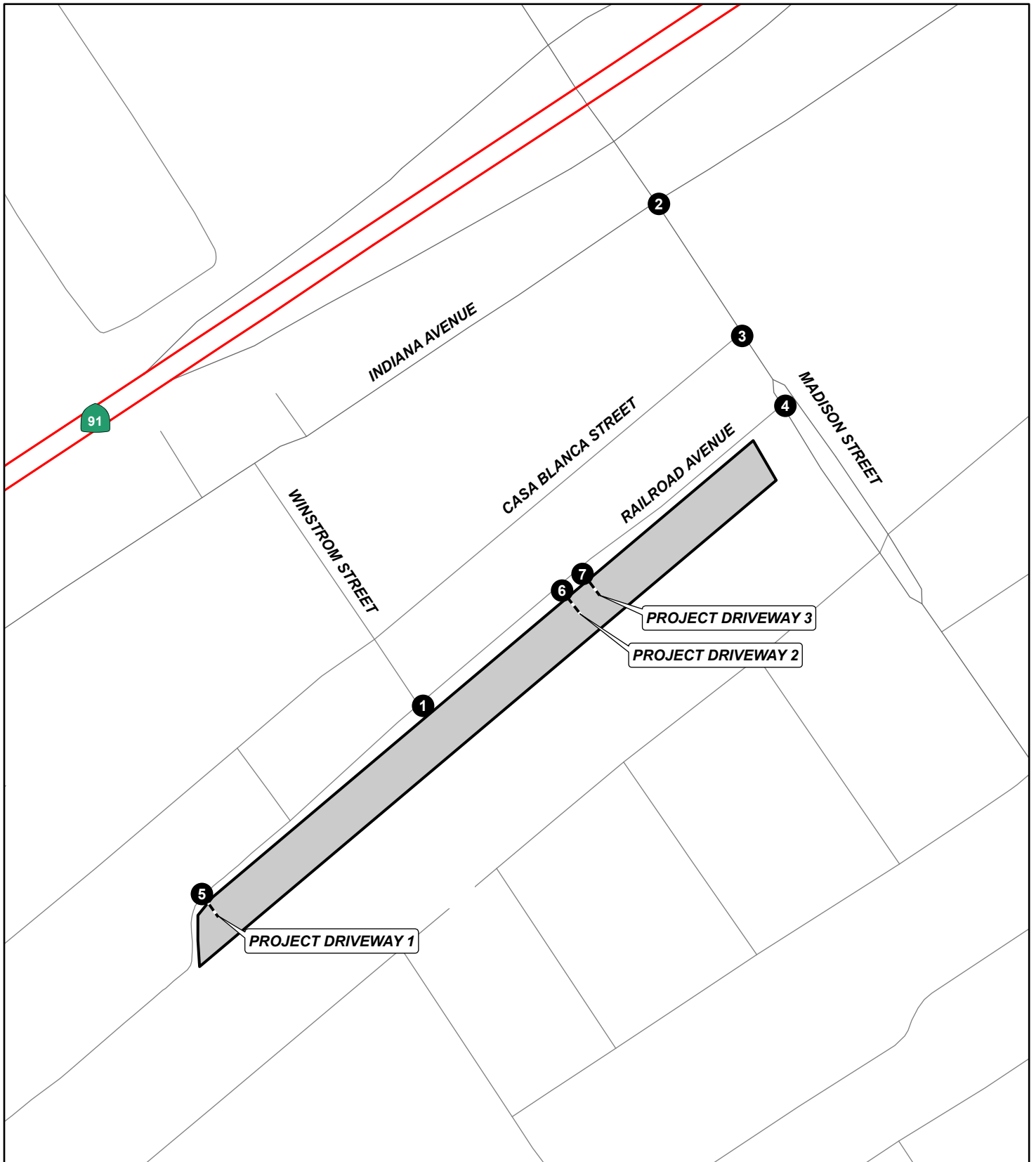
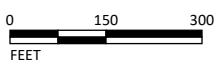


FIGURE 3

LSA

LEGEND

- Study Area Intersection
- ▭ Project Location
- - - Project Driveways



SOURCE: ESRI Streetmap, 2021

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Madison Flats Project
Traffic Operations Analysis
Study Area Intersections

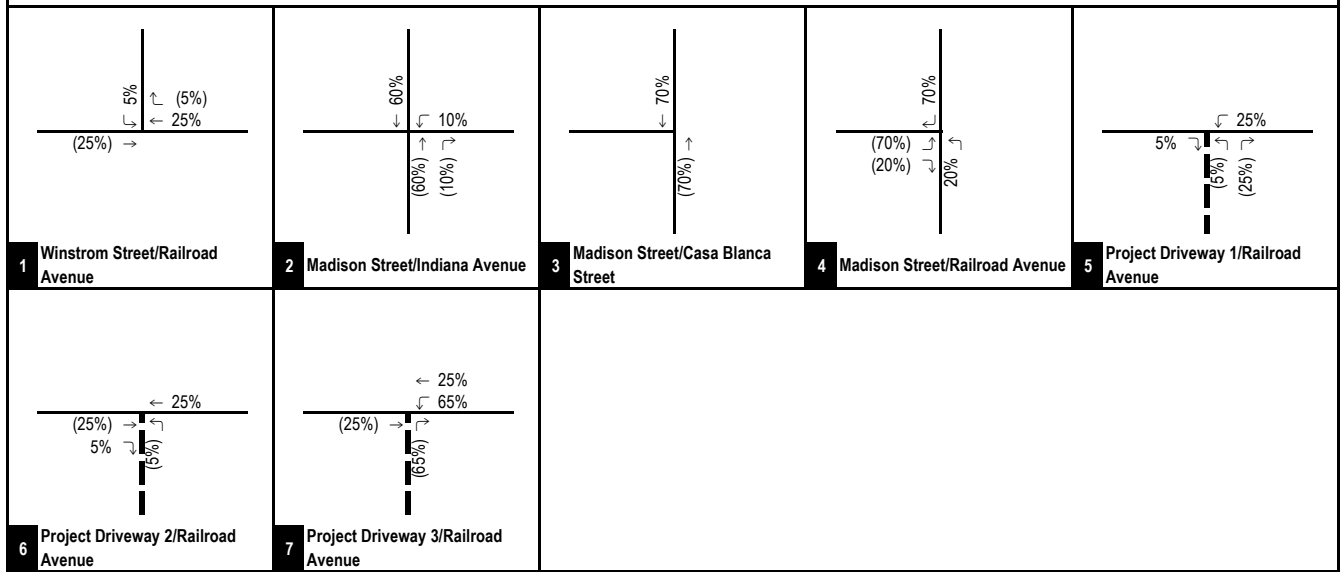
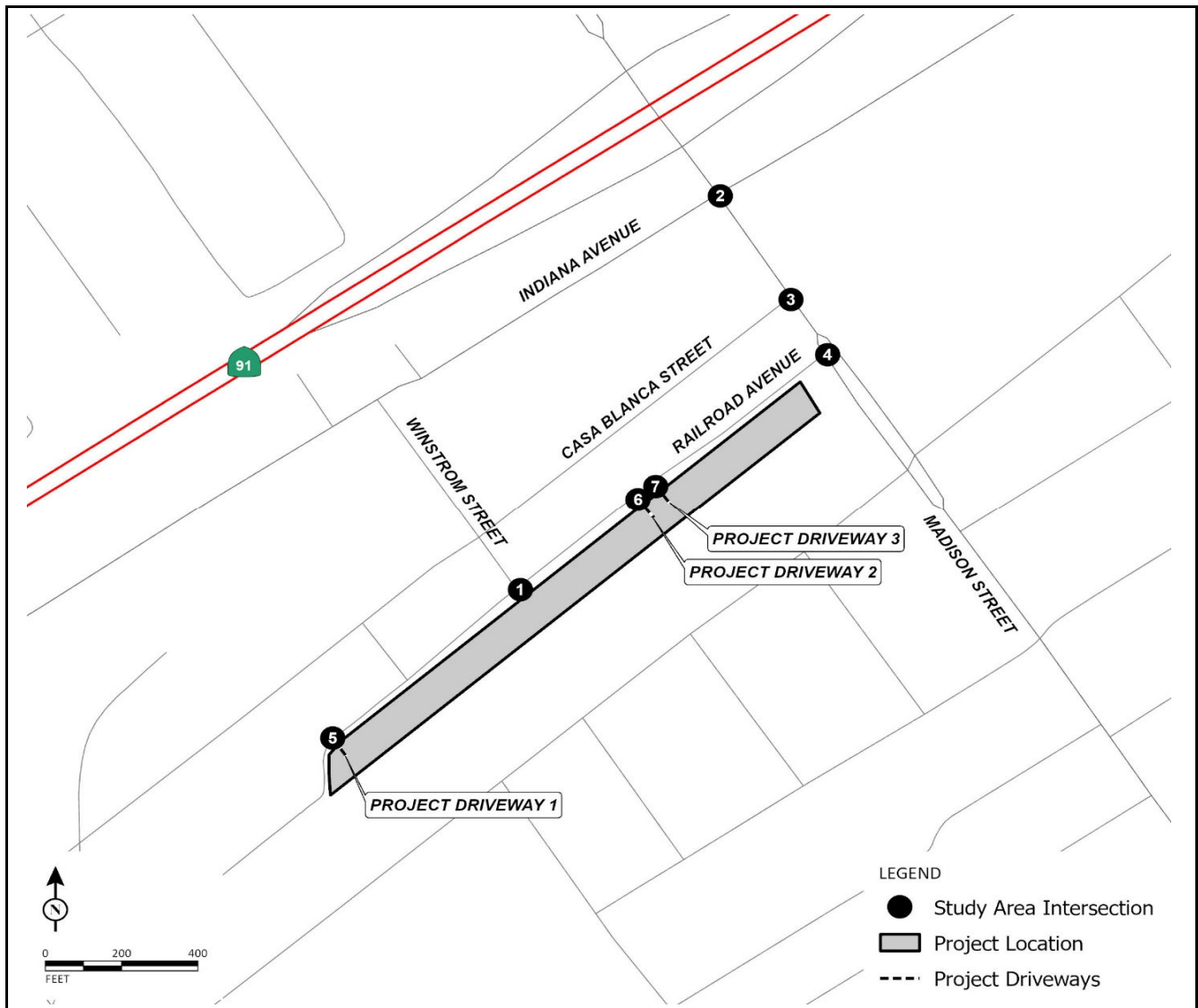


FIGURE 4



XXX% (YYY%)
 Inbound (Outbound) Trip Distribution
 ----- Driveway

Madison Flats Project
 Traffic Operations Analysis
 Project Trip Distribution

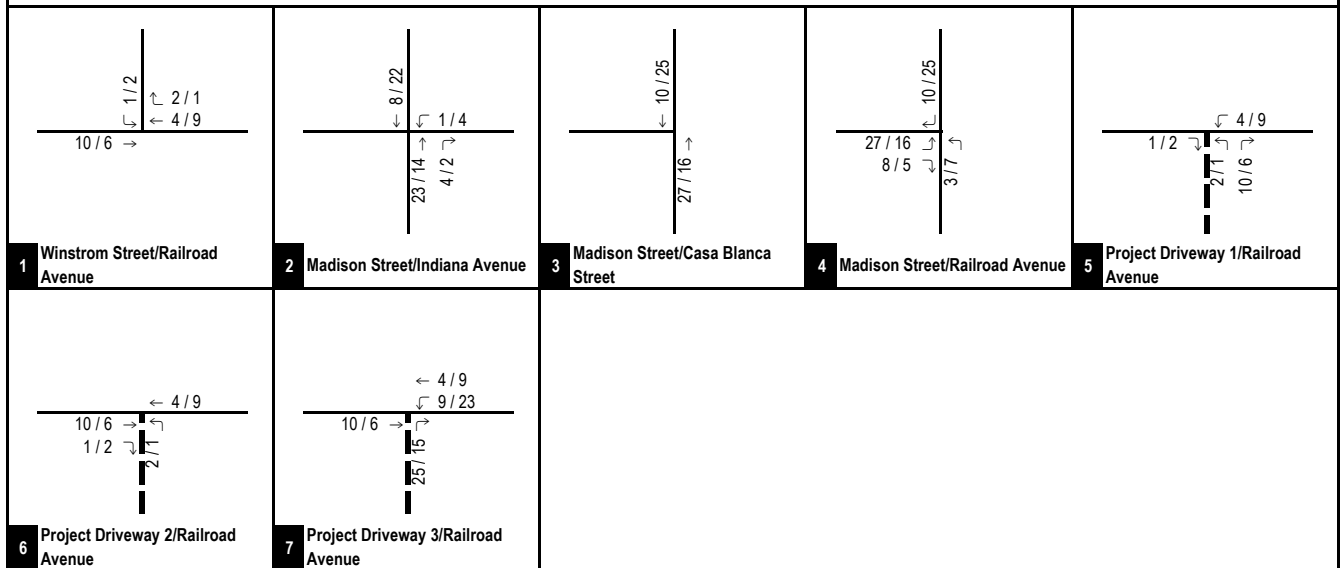
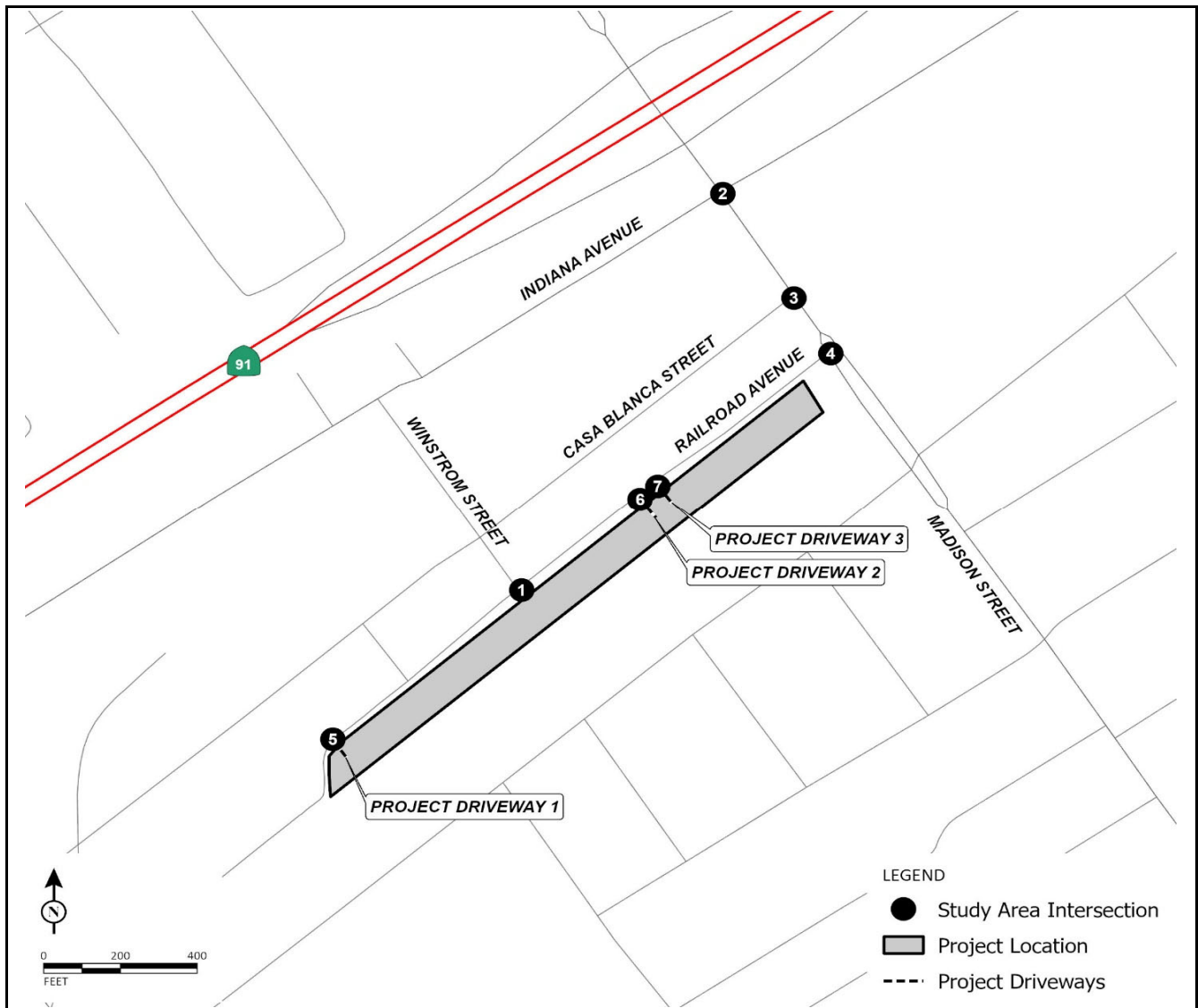


FIGURE 5

LSA

XX / YY
AM / PM Peak Hour Trips
- - - Driveway

Madison Flats Project
Traffic Operations Analysis
Project Trip Assignment

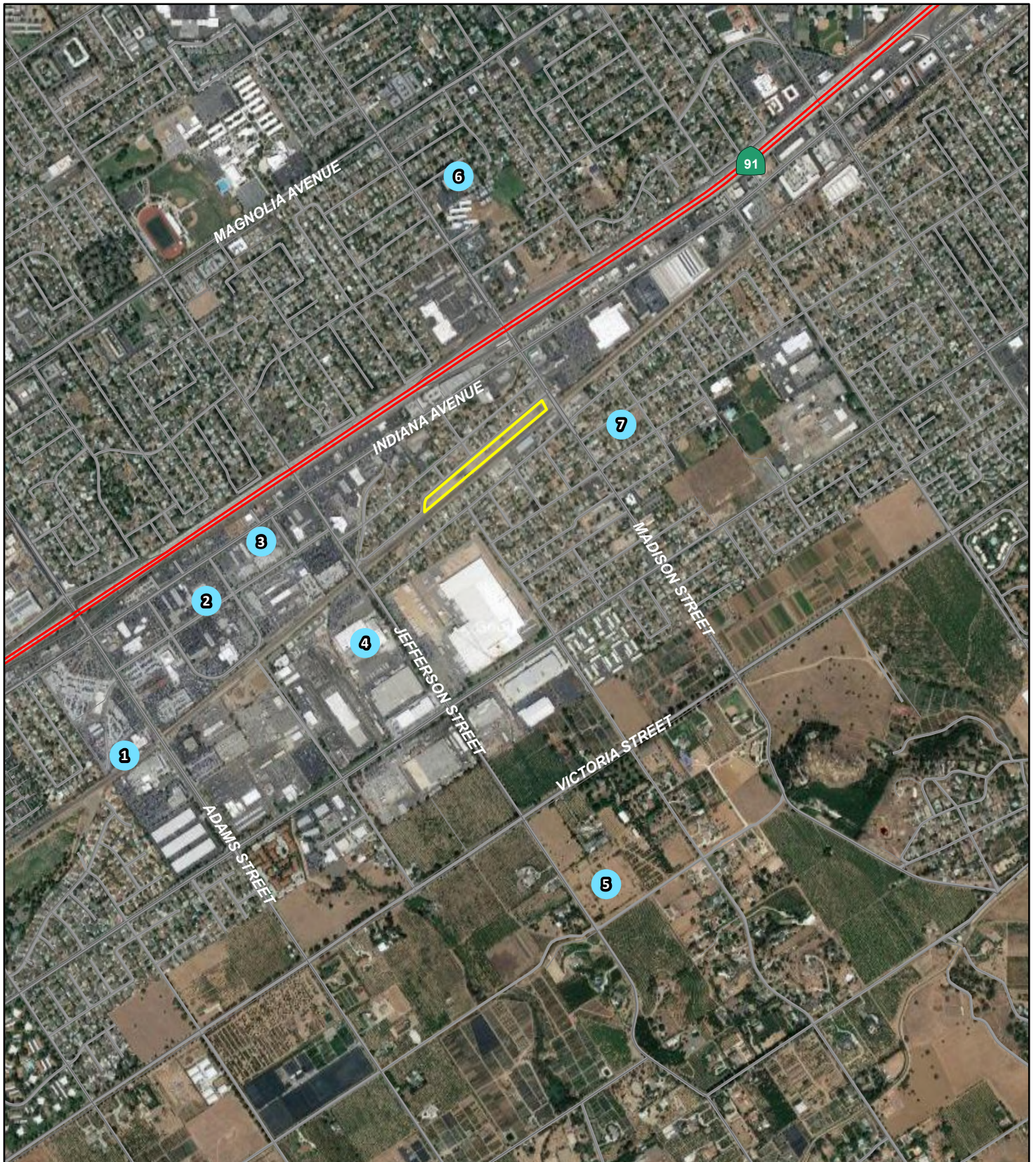
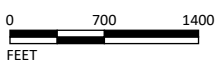


FIGURE 6

LSA

LEGEND

- Cumulative Projects Locations
- Project Site



SOURCE: Google Earth, 2019; ESRI Streetmap, 2021

P:\GBC2201 Madison Flats\Technical Studies\Traffic\GIS\Reports\ArcGIS Pro\Fig6_Cumulative Project Location.aprx (12/14/2022)

Madison Flats Project
Traffic Operational Analysis
Cumulative Projects Locations

TABLES

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Lot A - Senior Residential	76 DU							
Trips/Unit ¹		0.07	0.13	0.20	0.14	0.11	0.25	3.24
Trip Generation		5	10	15	11	8	19	246
Lot B - Family Residential	45 DU							
Trips/Unit ²		0.20	0.62	0.82	0.56	0.33	0.89	8.09
Trip Generation		9	28	37	25	15	40	364
	Net Trip Generation	14	38	52	36	23	59	610

Notes:

DU = Dwelling Units

¹ Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Land Use 252 - "Senior Adult Housing - Multifamily", Setting/Location - "General Urban/Suburban."

² Fitted curve equation rates from the ITE *Trip Generation Manual* (11th Edition), Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit", Setting/Location - "General Urban/Suburban."

Table B - Cumulative Projects

ID	Project Name/Reference	Address/Location	Project Description	Project Units/Area/Other
1	PR-2021-000933	3150 Adams Street	Remodel of the existing Lexus of Riverside Dealership consisting of the addition of 6,558 square footage to the showroom building and relocation of the existing 825 square foot carwash	6.558 TSF Automobile Sales (New)
2	PR-2021-001131	8101 Auto Drive	Construction of a 3,504 square foot addition and renovation of an existing vehicle sales facility (Spreen Acura)	3.504 TSF Automobile Sales (New)
3	PR-2022-001328	8001 Auto Drive	Facilitate a 6,287 square foot expansion and exterior remodel of a vehicle sales facility (Hyundai)	6.287 TSF Automobile Sales (New)
4	PR-2021-001221	3100 Jefferson Street	Minor Conditional Use Permit to expand a warehouse use within an existing 150,000 square foot industrial building	150 TSF Warehouse
5	PR-2021-001234	2523 Jefferson Street	Parcel Map to subdivide a 9.59-acre parcel into two parcels for residential purposes	2 SFDU
6	PR-2021-001200	7410 Mt. Vernon Avenue	Increase the number of residential units at an existing multi-family apartment complex from 28 to 34 residential units, to reduce private open space for the 6 proposed residential units	6 MFDU
7	P17-0627 P17-0628	7434 Diamond Street	Revised Conditional Use Permit and Design Review for expansion on an existing church	7.078 TSF Church Expansion

Notes:

SFDU = Single-Family Dwelling Units; MFDU = Multi-Family Dwelling Units; TSF = Thousand Square Feet.

APPENDIX B

TRAFFIC COUNT SHEETS AND SIGNAL TIMING SHEETS

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

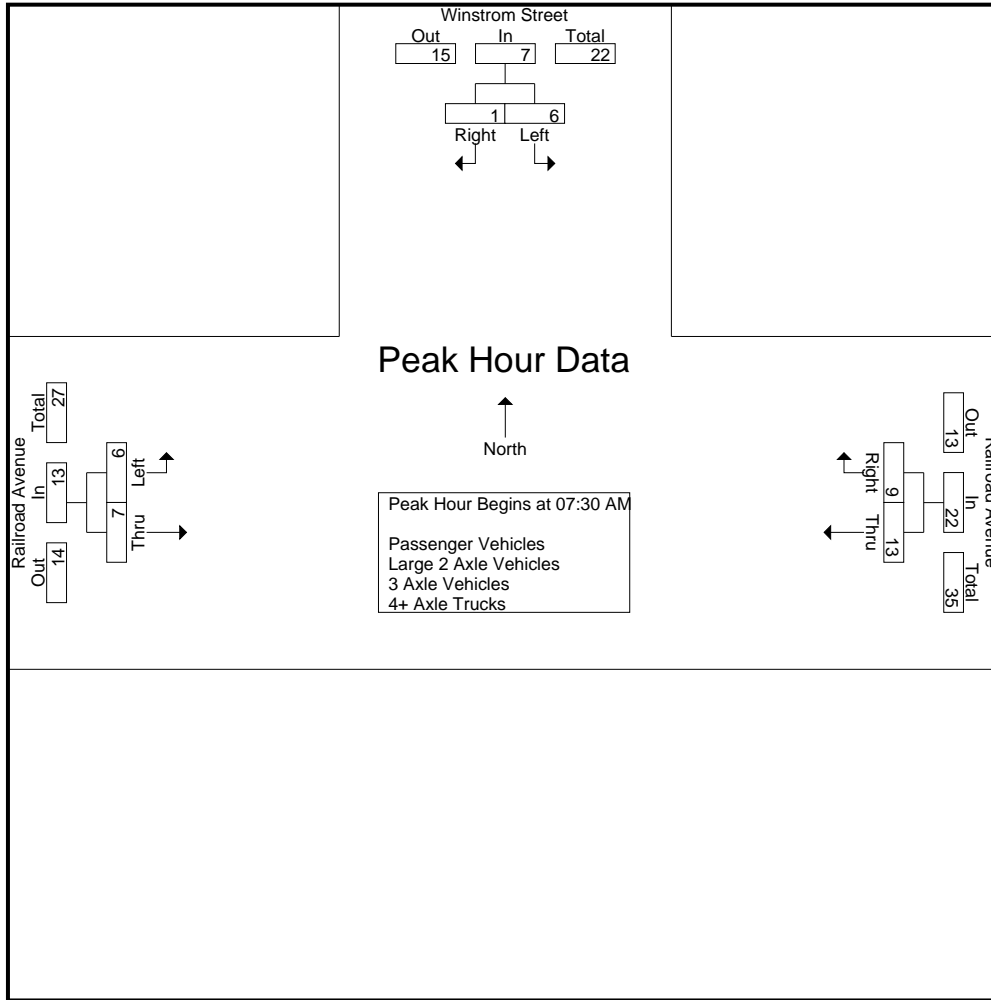
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	2	0	2	3	2	5	0	0	0	7
07:15 AM	1	0	1	3	2	5	0	0	0	6
07:30 AM	1	0	1	2	2	4	1	2	3	8
07:45 AM	2	0	2	2	6	8	4	1	5	15
Total	6	0	6	10	12	22	5	3	8	36
08:00 AM	0	0	0	4	0	4	0	3	3	7
08:15 AM	3	1	4	5	1	6	1	1	2	12
08:30 AM	2	1	3	4	0	4	0	0	0	7
08:45 AM	2	1	3	4	1	5	1	1	2	10
Total	7	3	10	17	2	19	2	5	7	36
Grand Total	13	3	16	27	14	41	7	8	15	72
Apprch %	81.2	18.8		65.9	34.1		46.7	53.3		
Total %	18.1	4.2	22.2	37.5	19.4	56.9	9.7	11.1	20.8	
Passenger Vehicles	13	3	16	26	14	40	7	8	15	71
% Passenger Vehicles	100	100	100	96.3	100	97.6	100	100	100	98.6
Large 2 Axle Vehicles	0	0	0	1	0	1	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	3.7	0	2.4	0	0	0	1.4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	1	0	1	2	2	4	1	2	3	8
07:45 AM	2	0	2	2	6	8	4	1	5	15
08:00 AM	0	0	0	4	0	4	0	3	3	7
08:15 AM	3	1	4	5	1	6	1	1	2	12
Total Volume	6	1	7	13	9	22	6	7	13	42
% App. Total	85.7	14.3		59.1	40.9		46.2	53.8		
PHF	.500	.250	.438	.650	.375	.688	.375	.583	.650	.700

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	3	2	5	1	2	3
+15 mins.	3	1	4	3	2	5	4	1	5
+30 mins.	2	1	3	2	2	4	0	3	3
+45 mins.	2	1	3	2	6	8	1	1	2
Total Volume	7	3	10	10	12	22	6	7	13
% App. Total	70	30		45.5	54.5		46.2	53.8	
PHF	.583	.750	.625	.833	.500	.688	.375	.583	.650

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
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Groups Printed- Passenger Vehicles

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	2	0	2	3	2	5	0	0	0	7
07:15 AM	1	0	1	3	2	5	0	0	0	6
07:30 AM	1	0	1	2	2	4	1	2	3	8
07:45 AM	2	0	2	2	6	8	4	1	5	15
Total	6	0	6	10	12	22	5	3	8	36
08:00 AM	0	0	0	4	0	4	0	3	3	7
08:15 AM	3	1	4	5	1	6	1	1	2	12
08:30 AM	2	1	3	3	0	3	0	0	0	6
08:45 AM	2	1	3	4	1	5	1	1	2	10
Total	7	3	10	16	2	18	2	5	7	35
Grand Total	13	3	16	26	14	40	7	8	15	71
Apprch %	81.2	18.8		65	35		46.7	53.3		
Total %	18.3	4.2	22.5	36.6	19.7	56.3	9.9	11.3	21.1	

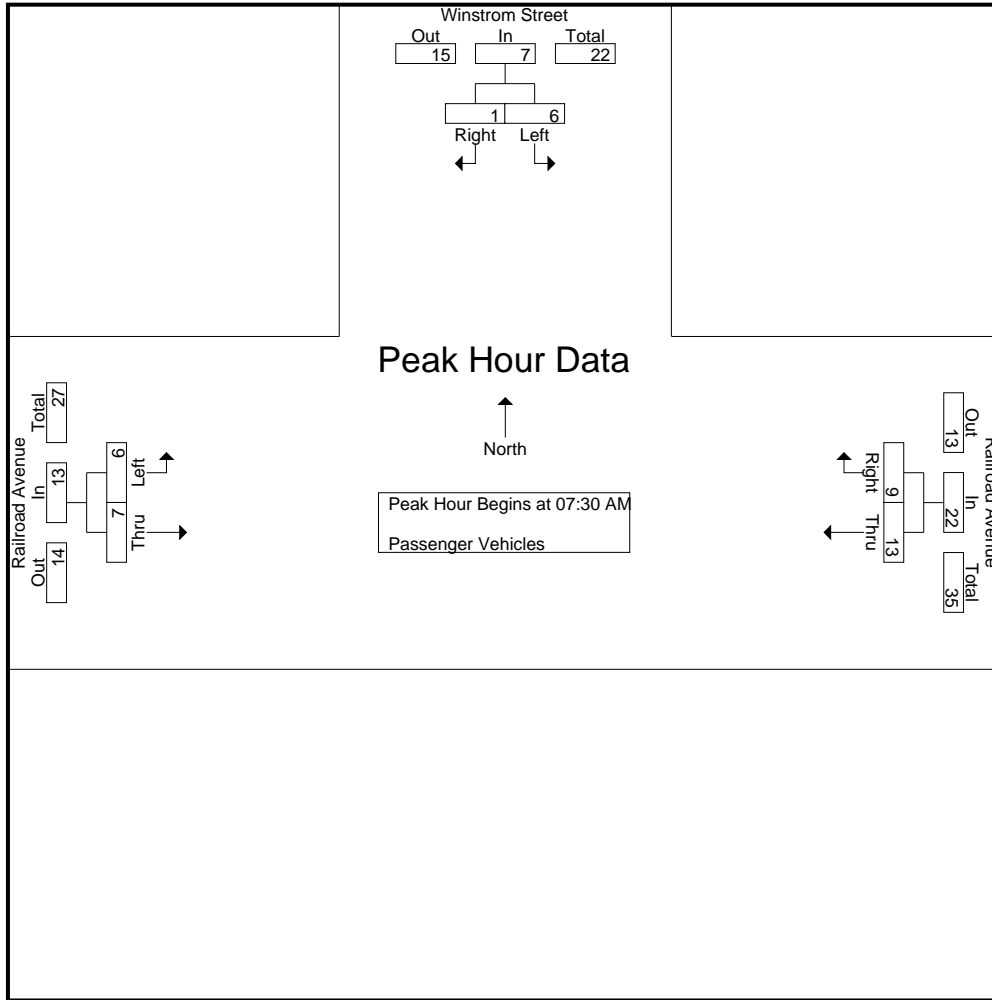
Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	1	0	1	2	2	4	1	2	3	8
07:45 AM	2	0	2	2	6	8	4	1	5	15
08:00 AM	0	0	0	4	0	4	0	3	3	7
08:15 AM	3	1	4	5	1	6	1	1	2	12
Total Volume	6	1	7	13	9	22	6	7	13	42
% App. Total	85.7	14.3		59.1	40.9		46.2	53.8		
PHF	.500	.250	.438	.650	.375	.688	.375	.583	.650	.700

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	1	0	1	2	2	4	1	2	3
+15 mins.	2	0	2	2	6	8	4	1	5
+30 mins.	0	0	0	4	0	4	0	3	3
+45 mins.	3	1	4	5	1	6	1	1	2
Total Volume	6	1	7	13	9	22	6	7	13
% App. Total	85.7	14.3		59.1	40.9		46.2	53.8	
PHF	.500	.250	.438	.650	.375	.688	.375	.583	.650

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Groups Printed- Large 2 Axle Vehicles

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	1	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0		100	0	100	0	0		

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
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Groups Printed- 3 Axle Vehicles

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR AM
 Site Code : 221050
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Groups Printed- 4+ Axle Trucks

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
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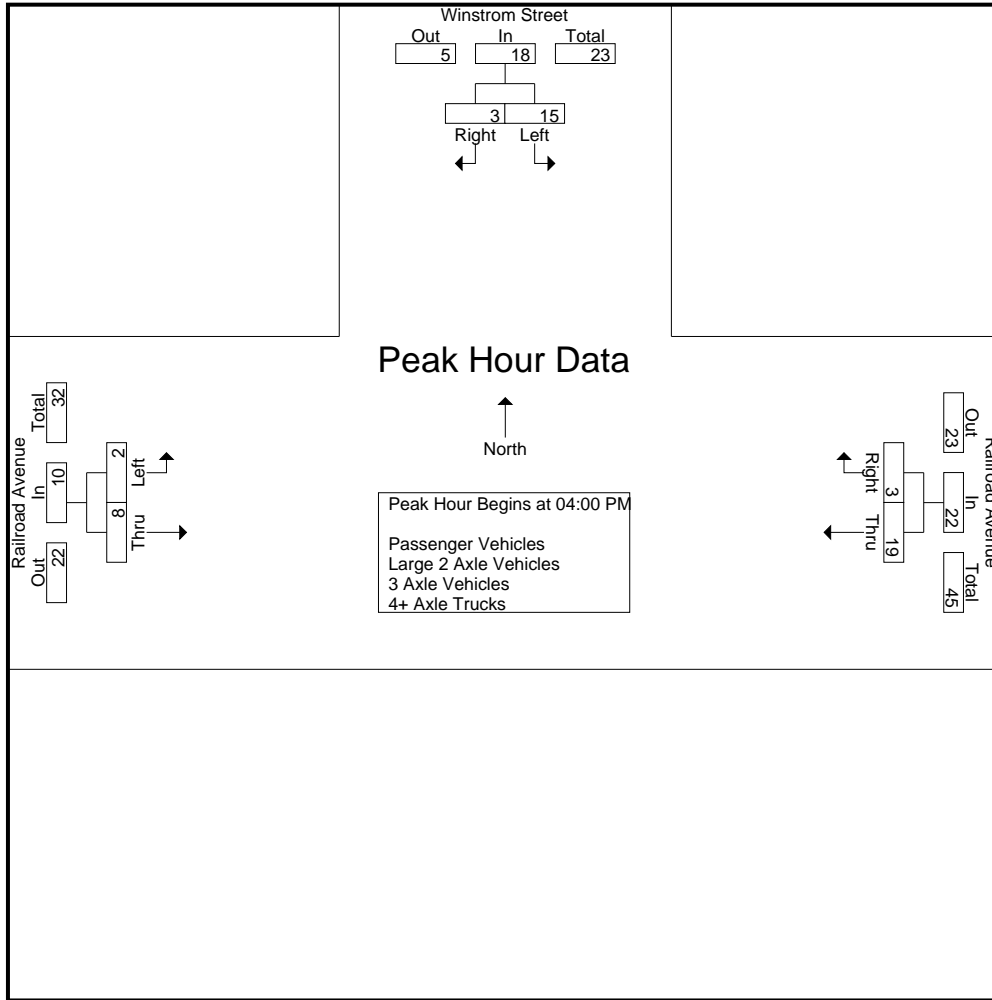
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	2	0	2	6	1	7	1	3	4	13
04:15 PM	5	1	6	5	0	5	0	2	2	13
04:30 PM	5	1	6	3	1	4	1	1	2	12
04:45 PM	3	1	4	5	1	6	0	2	2	12
Total	15	3	18	19	3	22	2	8	10	50
05:00 PM	0	0	0	3	1	4	0	3	3	7
05:15 PM	2	2	4	4	1	5	0	2	2	11
05:30 PM	0	2	2	1	0	1	1	0	1	4
05:45 PM	1	1	2	1	1	2	0	1	1	5
Total	3	5	8	9	3	12	1	6	7	27
Grand Total	18	8	26	28	6	34	3	14	17	77
Apprch %	69.2	30.8		82.4	17.6		17.6	82.4		
Total %	23.4	10.4	33.8	36.4	7.8	44.2	3.9	18.2	22.1	
Passenger Vehicles	17	8	25	28	6	34	2	14	16	75
% Passenger Vehicles	94.4	100	96.2	100	100	100	66.7	100	94.1	97.4
Large 2 Axle Vehicles	1	0	1	0	0	0	1	0	1	2
% Large 2 Axle Vehicles	5.6	0	3.8	0	0	0	33.3	0	5.9	2.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	2	0	2	6	1	7	1	3	4	13
04:15 PM	5	1	6	5	0	5	0	2	2	13
04:30 PM	5	1	6	3	1	4	1	1	2	12
04:45 PM	3	1	4	5	1	6	0	2	2	12
Total Volume	15	3	18	19	3	22	2	8	10	50
% App. Total	83.3	16.7		86.4	13.6		20	80		
PHF	.750	.750	.750	.792	.750	.786	.500	.667	.625	.962

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	2	0	2	6	1	7	1	3	4
+15 mins.	5	1	6	5	0	5	0	2	2
+30 mins.	5	1	6	3	1	4	1	1	2
+45 mins.	3	1	4	5	1	6	0	2	2
Total Volume	15	3	18	19	3	22	2	8	10
% App. Total	83.3	16.7		86.4	13.6		20	80	
PHF	.750	.750	.750	.792	.750	.786	.500	.667	.625

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
 Site Code : 221050
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Groups Printed- Passenger Vehicles

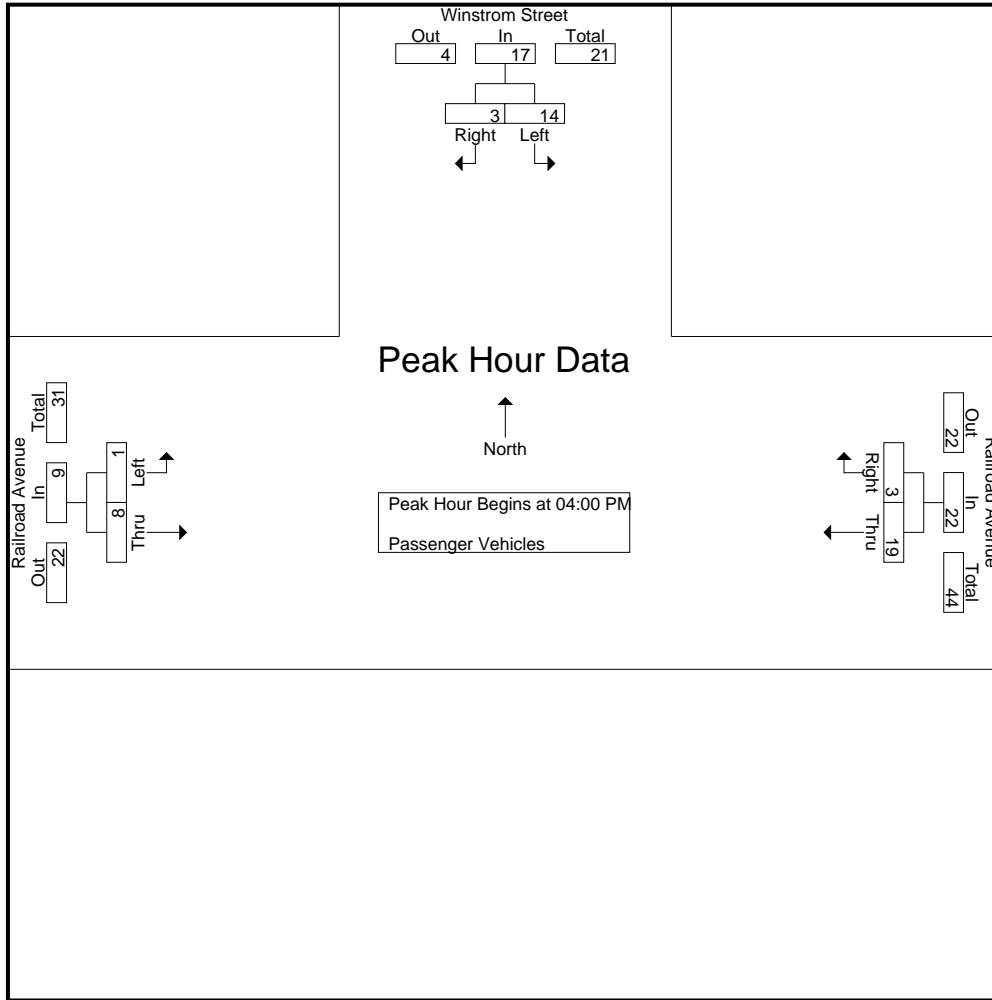
Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	2	0	2	6	1	7	1	3	4	13
04:15 PM	4	1	5	5	0	5	0	2	2	12
04:30 PM	5	1	6	3	1	4	0	1	1	11
04:45 PM	3	1	4	5	1	6	0	2	2	12
Total	14	3	17	19	3	22	1	8	9	48
05:00 PM	0	0	0	3	1	4	0	3	3	7
05:15 PM	2	2	4	4	1	5	0	2	2	11
05:30 PM	0	2	2	1	0	1	1	0	1	4
05:45 PM	1	1	2	1	1	2	0	1	1	5
Total	3	5	8	9	3	12	1	6	7	27
Grand Total	17	8	25	28	6	34	2	14	16	75
Apprch %	68	32		82.4	17.6		12.5	87.5		
Total %	22.7	10.7	33.3	37.3	8	45.3	2.7	18.7	21.3	

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	2	0	2	6	1	7	1	3	4	13
04:15 PM	4	1	5	5	0	5	0	2	2	12
04:30 PM	5	1	6	3	1	4	0	1	1	11
04:45 PM	3	1	4	5	1	6	0	2	2	12
Total Volume	14	3	17	19	3	22	1	8	9	48
% App. Total	82.4	17.6		86.4	13.6		11.1	88.9		
PHF	.700	.750	.708	.792	.750	.786	.250	.667	.563	.923

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
 Site Code : 221050
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	2	0	2	6	1	7	1	3	4
+15 mins.	4	1	5	5	0	5	0	2	2
+30 mins.	5	1	6	3	1	4	0	1	1
+45 mins.	3	1	4	5	1	6	0	2	2
Total Volume	14	3	17	19	3	22	1	8	9
% App. Total	82.4	17.6		86.4	13.6		11.1	88.9	
PHF	.700	.750	.708	.792	.750	.786	.250	.667	.563

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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Groups Printed- Large 2 Axle Vehicles

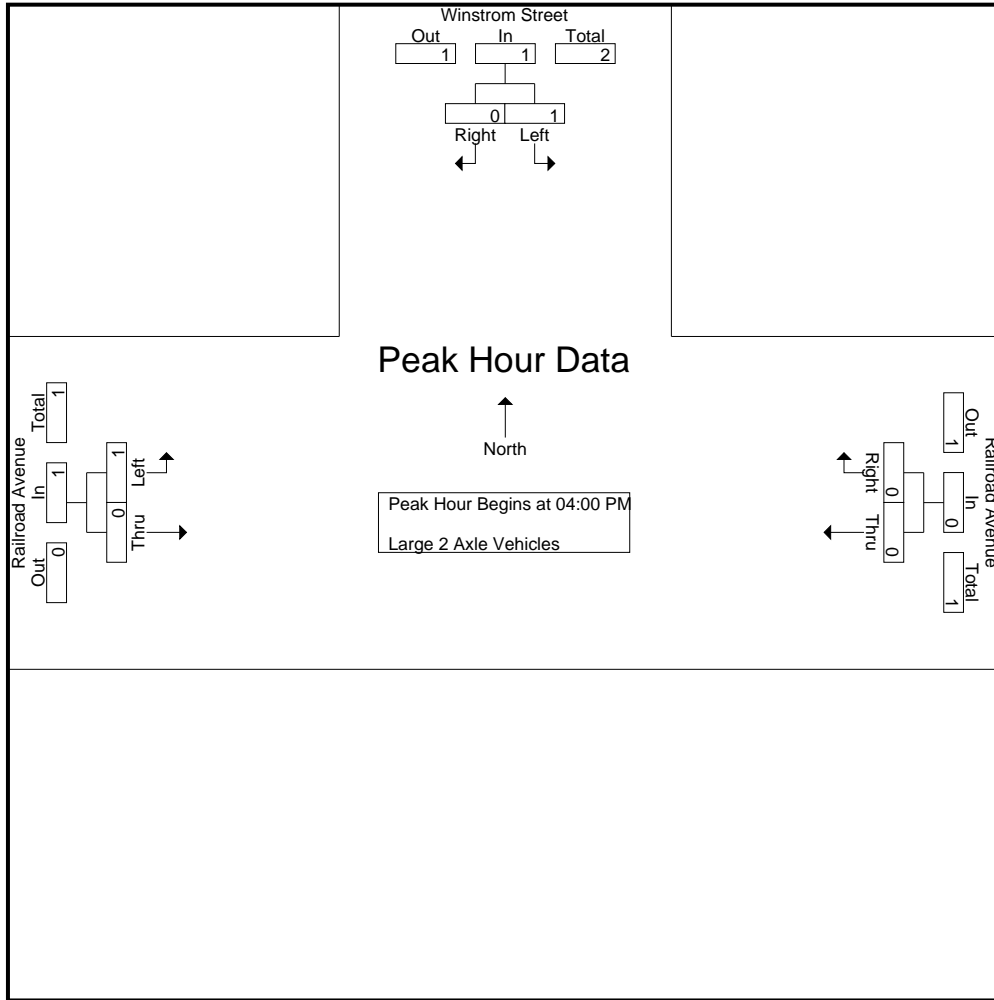
Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	0	0	0	1	0	1	2
Apprch %	100	0		0	0		100	0		
Total %	50	0	50	0	0	0	50	0	50	

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	1	0	1	2
% App. Total	100	0		0	0		100	0		
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250	.500

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	1	0	1
% App. Total	100	0		0	0		100	0	
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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Groups Printed- 3 Axle Vehicles

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 01_RIV_Win_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Winstrom Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Location: Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg Winstrom Street	East Leg Railroad Avenue	South Leg Dead End	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Winstrom Street	East Leg Railroad Avenue	South Leg Dead End	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	3	3
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	3	3

Location: Riverside
 N/S: Winstrom Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

BICYCLES

	Southbound Winstrom Street			Westbound Railroad Avenue			Northbound Dead End			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	2	0	4

	Southbound Winstrom Street			Westbound Railroad Avenue			Northbound Dead End			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	1	0	0	2

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

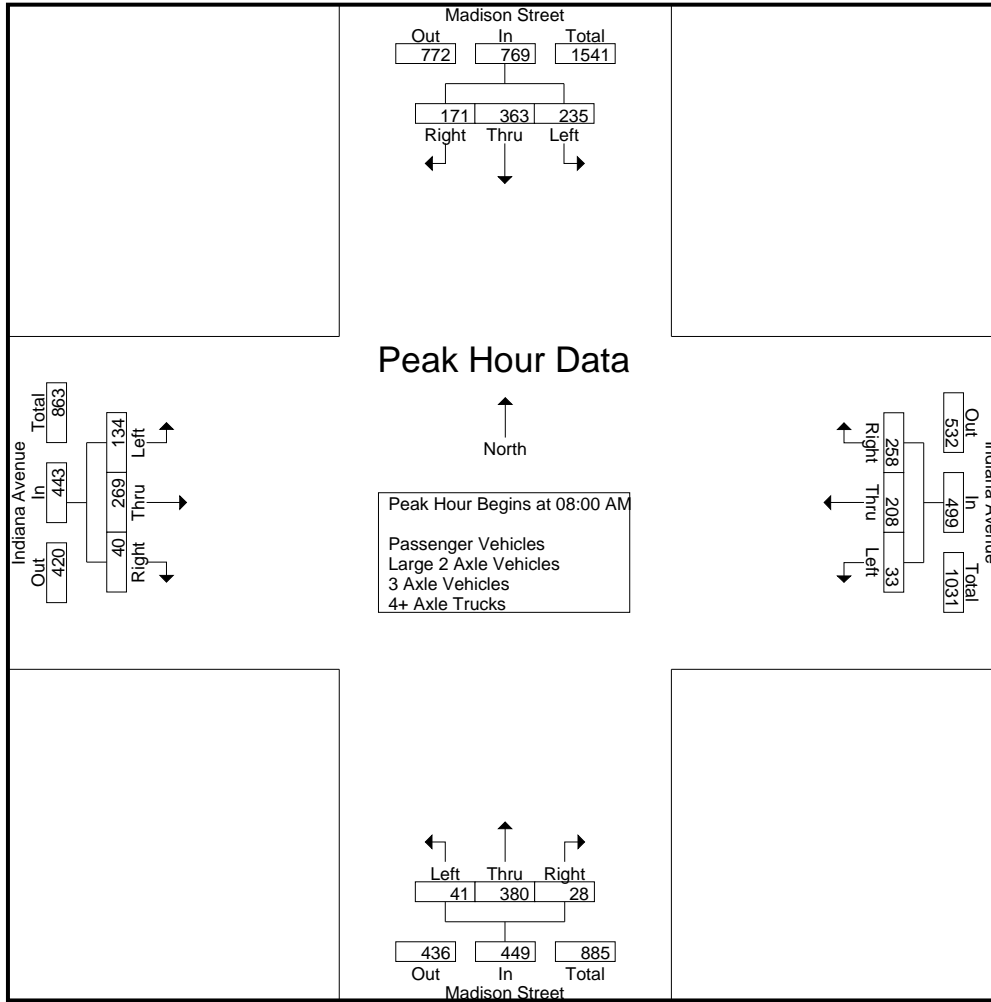
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	35	74	34	143	2	19	41	62	4	84	2	90	28	35	5	68	363
07:15 AM	43	70	35	148	3	20	56	79	4	112	7	123	32	44	5	81	431
07:30 AM	47	54	36	137	4	40	53	97	5	82	4	91	29	77	5	111	436
07:45 AM	64	92	24	180	7	35	63	105	11	133	1	145	53	81	9	143	573
Total	189	290	129	608	16	114	213	343	24	411	14	449	142	237	24	403	1803
08:00 AM	53	95	44	192	3	35	59	97	7	94	4	105	46	74	7	127	521
08:15 AM	58	96	34	188	8	55	55	118	9	98	5	112	32	79	9	120	538
08:30 AM	55	78	34	167	7	59	68	134	12	87	9	108	39	64	9	112	521
08:45 AM	69	94	59	222	15	59	76	150	13	101	10	124	17	52	15	84	580
Total	235	363	171	769	33	208	258	499	41	380	28	449	134	269	40	443	2160
Grand Total	424	653	300	1377	49	322	471	842	65	791	42	898	276	506	64	846	3963
Apprch %	30.8	47.4	21.8		5.8	38.2	55.9		7.2	88.1	4.7		32.6	59.8	7.6		
Total %	10.7	16.5	7.6	34.7	1.2	8.1	11.9	21.2	1.6	20	1.1	22.7	7	12.8	1.6	21.3	
Passenger Vehicles	405	628	289	1322	48	314	453	815	63	760	40	863	267	487	61	815	3815
% Passenger Vehicles	95.5	96.2	96.3	96	98	97.5	96.2	96.8	96.9	96.1	95.2	96.1	96.7	96.2	95.3	96.3	96.3
Large 2 Axle Vehicles	7	16	7	30	1	8	4	13	1	22	1	24	6	14	3	23	90
% Large 2 Axle Vehicles	1.7	2.5	2.3	2.2	2	2.5	0.8	1.5	1.5	2.8	2.4	2.7	2.2	2.8	4.7	2.7	2.3
3 Axle Vehicles	8	2	2	12	0	0	9	9	1	6	1	8	1	4	0	5	34
% 3 Axle Vehicles	1.9	0.3	0.7	0.9	0	0	1.9	1.1	1.5	0.8	2.4	0.9	0.4	0.8	0	0.6	0.9
4+ Axle Trucks	4	7	2	13	0	0	5	5	0	3	0	3	2	1	0	3	24
% 4+ Axle Trucks	0.9	1.1	0.7	0.9	0	0	1.1	0.6	0	0.4	0	0.3	0.7	0.2	0	0.4	0.6

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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 08:00 AM																	
08:00 AM	53	95	44	192	3	35	59	97	7	94	4	105	46	74	7	127	521
08:15 AM	58	96	34	188	8	55	55	118	9	98	5	112	32	79	9	120	538
08:30 AM	55	78	34	167	7	59	68	134	12	87	9	108	39	64	9	112	521
08:45 AM	69	94	59	222	15	59	76	150	13	101	10	124	17	52	15	84	580
Total Volume	235	363	171	769	33	208	258	499	41	380	28	449	134	269	40	443	2160
% App. Total	30.6	47.2	22.2		6.6	41.7	51.7		9.1	84.6	6.2		30.2	60.7	9		
PHF	.851	.945	.725	.866	.550	.881	.849	.832	.788	.941	.700	.905	.728	.851	.667	.872	.931

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 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:

	08:00 AM				08:00 AM				07:45 AM				07:45 AM			
+0 mins.	53	95	44	192	3	35	59	97	11	133	1	145	53	81	9	143
+15 mins.	58	96	34	188	8	55	55	118	7	94	4	105	46	74	7	127
+30 mins.	55	78	34	167	7	59	68	134	9	98	5	112	32	79	9	120
+45 mins.	69	94	59	222	15	59	76	150	12	87	9	108	39	64	9	112
Total Volume	235	363	171	769	33	208	258	499	39	412	19	470	170	298	34	502
% App. Total	30.6	47.2	22.2		6.6	41.7	51.7		8.3	87.7	4		33.9	59.4	6.8	
PHF	.851	.945	.725	.866	.550	.881	.849	.832	.813	.774	.528	.810	.802	.920	.944	.878

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

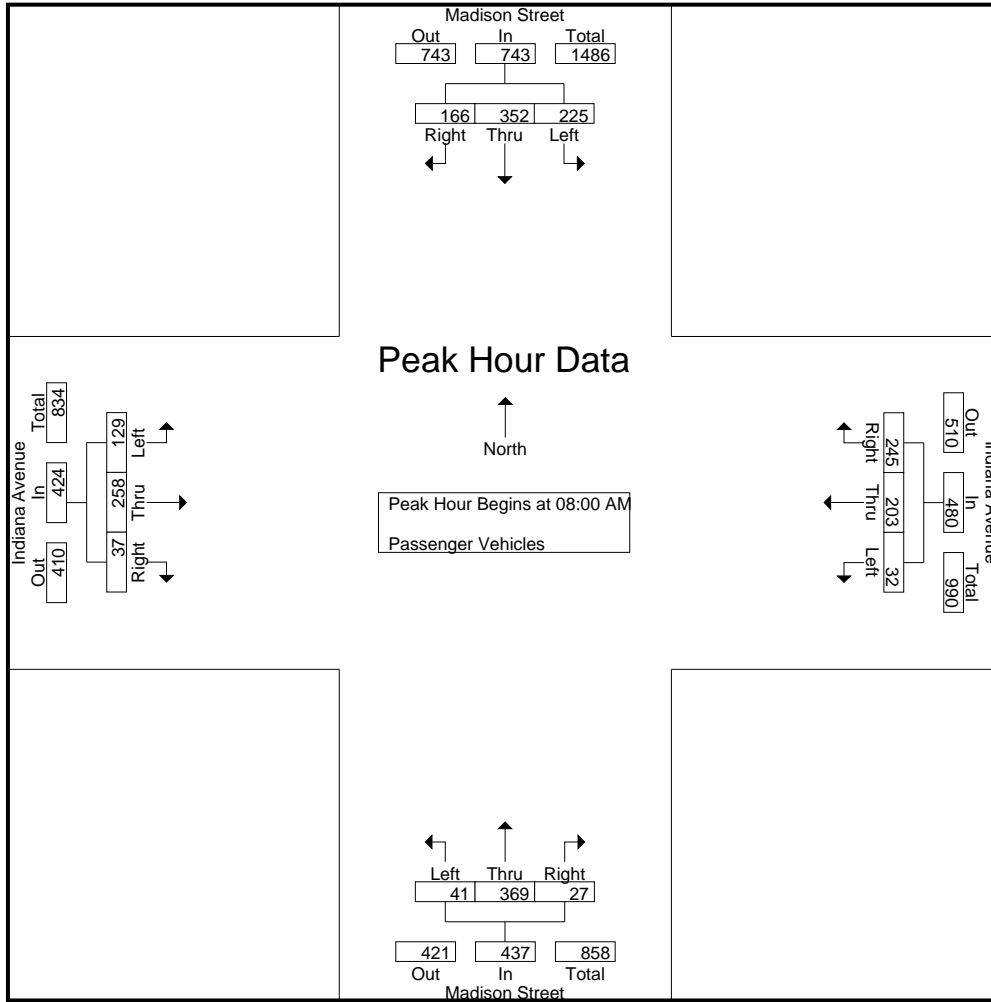
Groups Printed- Passenger Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	35	71	33	139	2	17	40	59	3	82	1	86	27	34	5	66	350
07:15 AM	40	67	33	140	3	20	54	77	4	106	7	117	31	40	5	76	410
07:30 AM	44	49	34	127	4	40	52	96	5	80	4	89	27	75	5	107	419
07:45 AM	61	89	23	173	7	34	62	103	10	123	1	134	53	80	9	142	552
Total	180	276	123	579	16	111	208	335	22	391	13	426	138	229	24	391	1731
08:00 AM	50	94	43	187	3	34	56	93	7	93	4	104	43	73	5	121	505
08:15 AM	53	92	32	177	8	53	53	114	9	95	5	109	32	77	9	118	518
08:30 AM	53	73	32	158	6	59	62	127	12	83	8	103	37	61	8	106	494
08:45 AM	69	93	59	221	15	57	74	146	13	98	10	121	17	47	15	79	567
Total	225	352	166	743	32	203	245	480	41	369	27	437	129	258	37	424	2084
Grand Total	405	628	289	1322	48	314	453	815	63	760	40	863	267	487	61	815	3815
Apprch %	30.6	47.5	21.9		5.9	38.5	55.6		7.3	88.1	4.6		32.8	59.8	7.5		
Total %	10.6	16.5	7.6	34.7	1.3	8.2	11.9	21.4	1.7	19.9	1	22.6	7	12.8	1.6	21.4	

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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 08:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	50	94	43	187	3	34	56	93	7	93	4	104	43	73	5	121	505
08:15 AM	53	92	32	177	8	53	53	114	9	95	5	109	32	77	9	118	518
08:30 AM	53	73	32	158	6	59	62	127	12	83	8	103	37	61	8	106	494
08:45 AM	69	93	59	221	15	57	74	146	13	98	10	121	17	47	15	79	567
Total Volume	225	352	166	743	32	203	245	480	41	369	27	437	129	258	37	424	2084
% App. Total	30.3	47.4	22.3		6.7	42.3	51		9.4	84.4	6.2		30.4	60.8	8.7		
PHF	.815	.936	.703	.840	.533	.860	.828	.822	.788	.941	.675	.903	.750	.838	.617	.876	.919

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 2



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

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	50	94	43	187	3	34	56	93	7	93	4	104	43	73	5	121
+15 mins.	53	92	32	177	8	53	53	114	9	95	5	109	32	77	9	118
+30 mins.	53	73	32	158	6	59	62	127	12	83	8	103	37	61	8	106
+45 mins.	69	93	59	221	15	57	74	146	13	98	10	121	17	47	15	79
Total Volume	225	352	166	743	32	203	245	480	41	369	27	437	129	258	37	424
% App. Total	30.3	47.4	22.3		6.7	42.3	51		9.4	84.4	6.2		30.4	60.8	8.7	
PHF	.815	.936	.703	.840	.533	.860	.828	.822	.788	.941	.675	.903	.750	.838	.617	.876

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	1	2	0	2	0	2	0	2	1	3	1	0	0	1	8
07:15 AM	1	2	2	5	0	0	1	1	0	3	0	3	1	2	0	3	12
07:30 AM	0	4	1	5	0	0	1	1	0	2	0	2	1	2	0	3	11
07:45 AM	2	3	1	6	0	1	0	1	1	6	0	7	0	1	0	1	15
Total	3	10	5	18	0	3	2	5	1	13	1	15	3	5	0	8	46
08:00 AM	2	1	1	4	0	1	0	1	0	1	0	1	1	1	2	4	10
08:15 AM	0	3	1	4	0	2	0	2	0	3	0	3	0	1	0	1	10
08:30 AM	2	2	0	4	1	0	0	1	0	2	0	2	2	2	1	5	12
08:45 AM	0	0	0	0	0	2	2	4	0	3	0	3	0	5	0	5	12
Total	4	6	2	12	1	5	2	8	0	9	0	9	3	9	3	15	44
Grand Total	7	16	7	30	1	8	4	13	1	22	1	24	6	14	3	23	90
Apprch %	23.3	53.3	23.3		7.7	61.5	30.8		4.2	91.7	4.2		26.1	60.9	13		
Total %	7.8	17.8	7.8	33.3	1.1	8.9	4.4	14.4	1.1	24.4	1.1	26.7	6.7	15.6	3.3	25.6	

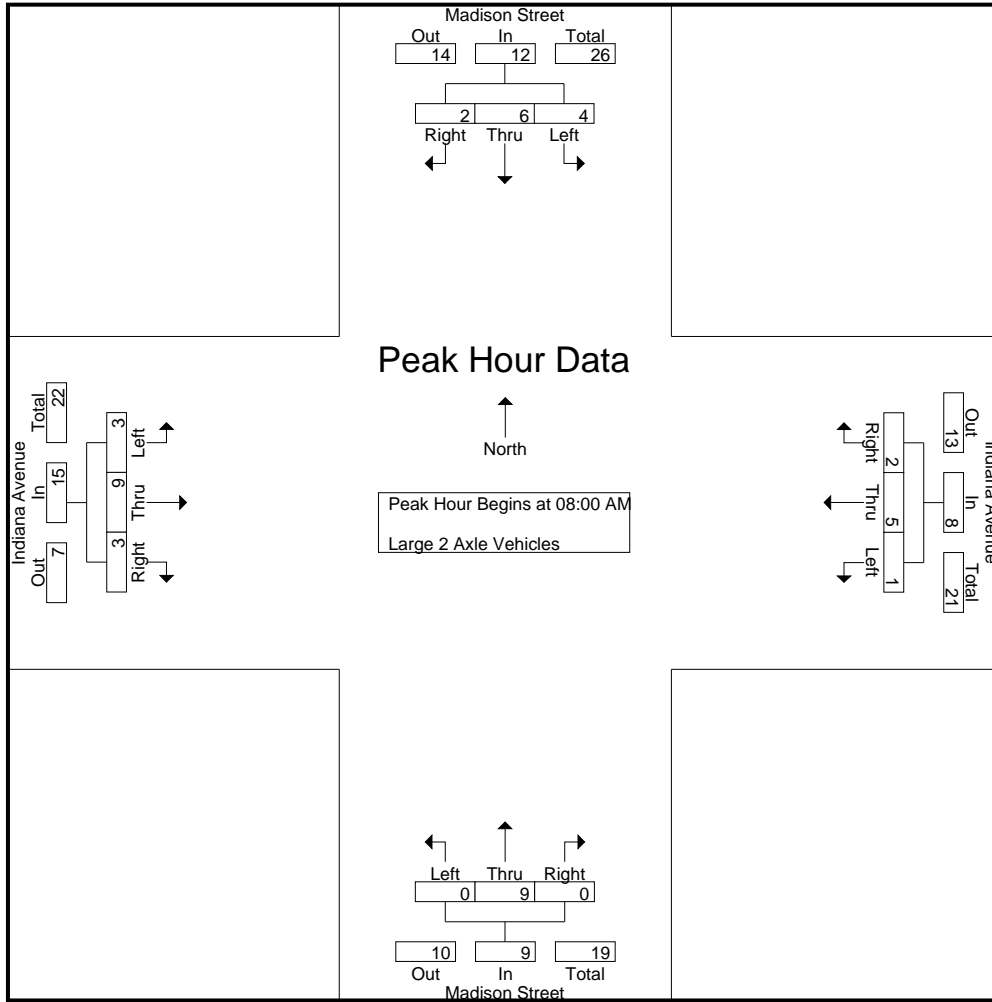
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	2	1	1	4	0	1	0	1	0	1	0	1	1	1	2	4	10
08:15 AM	0	3	1	4	0	2	0	2	0	3	0	3	0	1	0	1	10
08:30 AM	2	2	0	4	1	0	0	1	0	2	0	2	2	2	1	5	12
08:45 AM	0	0	0	0	0	2	2	4	0	3	0	3	0	5	0	5	12
Total Volume	4	6	2	12	1	5	2	8	0	9	0	9	3	9	3	15	44
% App. Total	33.3	50	16.7		12.5	62.5	25		0	100	0		20	60	20		
PHF	.500	.500	.500	.750	.250	.625	.250	.500	.000	.750	.000	.750	.375	.450	.375	.750	.917

Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 2



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

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	2	1	1	4	0	1	0	1	0	1	0	1	1	1	2	4
+15 mins.	0	3	1	4	0	2	0	2	0	3	0	3	0	1	0	1
+30 mins.	2	2	0	4	1	0	0	1	0	2	0	2	2	2	1	5
+45 mins.	0	0	0	0	0	2	2	4	0	3	0	3	0	5	0	5
Total Volume	4	6	2	12	1	5	2	8	0	9	0	9	3	9	3	15
% App. Total	33.3	50	16.7		12.5	62.5	25		0	100	0		20	60	20	
PHF	.500	.500	.500	.750	.250	.625	.250	.500	.000	.750	.000	.750	.375	.450	.375	.750

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	1	0	0	1	0	1	0	1	2
07:15 AM	0	1	0	1	0	0	1	1	0	2	0	2	0	2	0	2	6
07:30 AM	3	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	3	1	1	5	0	0	1	1	1	4	0	5	0	3	0	3	14
08:00 AM	0	0	0	0	0	0	3	3	0	0	0	0	1	0	0	1	4
08:15 AM	5	0	0	5	0	0	1	1	0	0	0	0	0	0	0	0	6
08:30 AM	0	0	1	1	0	0	4	4	0	2	1	3	0	1	0	1	9
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	5	1	1	7	0	0	8	8	0	2	1	3	1	1	0	2	20
Grand Total	8	2	2	12	0	0	9	9	1	6	1	8	1	4	0	5	34
Apprch %	66.7	16.7	16.7		0	0	100		12.5	75	12.5		20	80	0		
Total %	23.5	5.9	5.9	35.3	0	0	26.5	26.5	2.9	17.6	2.9	23.5	2.9	11.8	0	14.7	

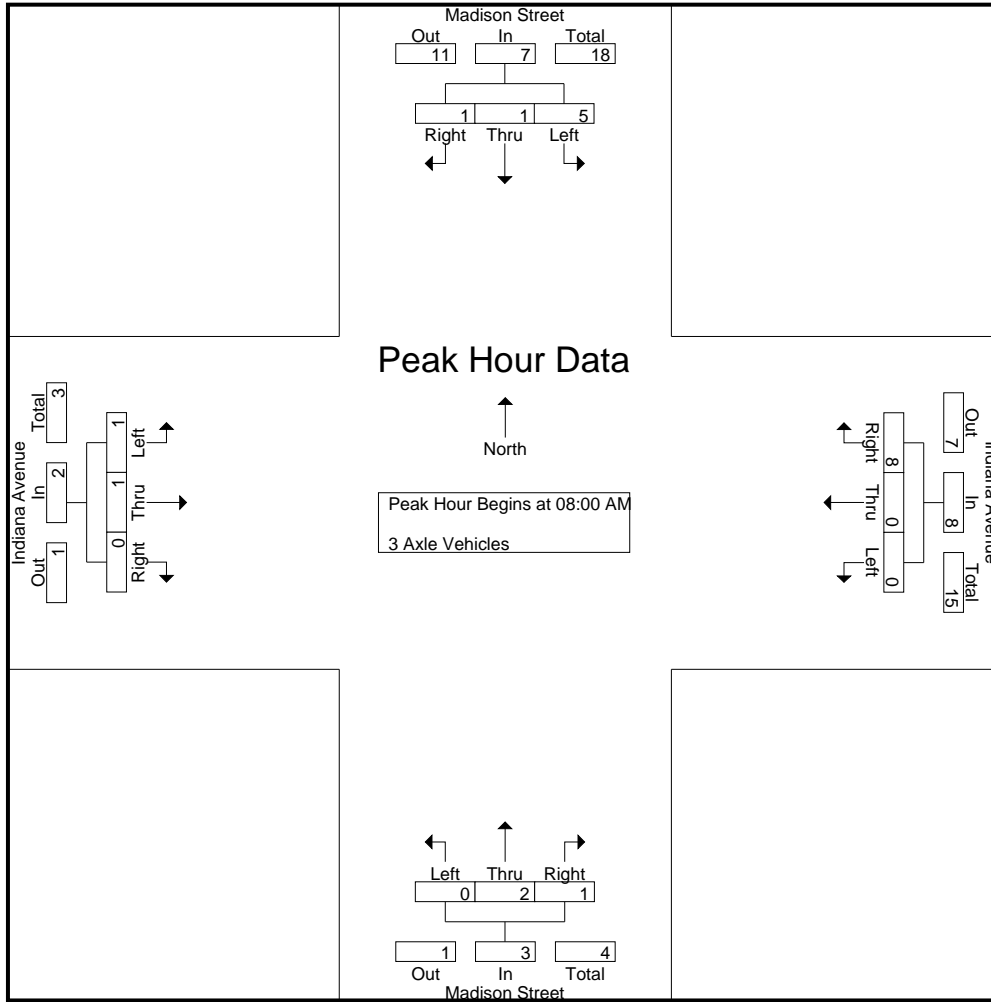
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
08:00 AM	0	0	0	0	0	0	3	3	0	0	0	0	1	0	0	1	4
08:15 AM	5	0	0	5	0	0	1	1	0	0	0	0	0	0	0	0	6
08:30 AM	0	0	1	1	0	0	4	4	0	2	1	3	0	1	0	1	9
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	5	1	1	7	0	0	8	8	0	2	1	3	1	1	0	2	20
% App. Total	71.4	14.3	14.3		0	0	100		0	66.7	33.3		50	50	0		
PHF	.250	.250	.250	.350	.000	.000	.500	.500	.000	.250	.250	.250	.250	.250	.000	.500	.556

Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	3	3	0	0	0	0	1	0	0	1
+15 mins.	5	0	0	5	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	0	4	4	0	2	1	3	0	1	0	1
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	5	1	1	7	0	0	8	8	0	2	1	3	1	1	0	2
% App. Total	71.4	14.3	14.3		0	0	100		0	66.7	33.3		50	50	0	
PHF	.250	.250	.250	.350	.000	.000	.500	.500	.000	.250	.250	.250	.250	.250	.000	.500

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	3
07:15 AM	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	3
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	2
07:45 AM	1	0	0	1	0	0	1	1	0	2	0	2	0	0	0	0	0	4
Total	3	3	0	6	0	0	2	2	0	3	0	3	1	0	0	1	1	12
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	2
08:15 AM	0	1	1	2	0	0	1	1	0	0	0	0	0	1	0	1	1	4
08:30 AM	0	3	1	4	0	0	2	2	0	0	0	0	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	4	2	7	0	0	3	3	0	0	0	0	1	1	0	2	2	12
Grand Total	4	7	2	13	0	0	5	5	0	3	0	3	2	1	0	3	3	24
Apprch %	30.8	53.8	15.4		0	0	100		0	100	0		66.7	33.3	0			
Total %	16.7	29.2	8.3	54.2	0	0	20.8	20.8	0	12.5	0	12.5	8.3	4.2	0	12.5		

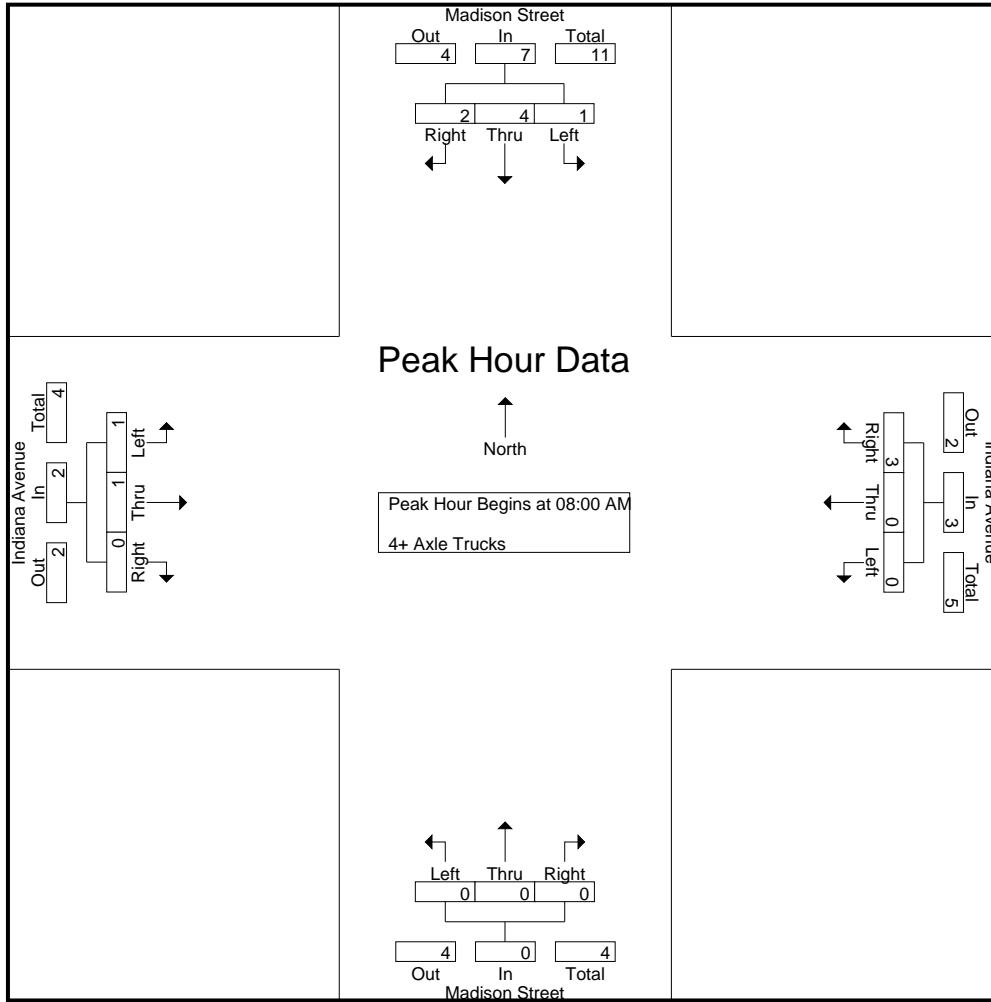
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	2
08:15 AM	0	1	1	2	0	0	1	1	0	0	0	0	0	1	0	1	1	4
08:30 AM	0	3	1	4	0	0	2	2	0	0	0	0	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	4	2	7	0	0	3	3	0	0	0	0	1	1	0	2	2	12
% App. Total	14.3	57.1	28.6		0	0	100		0	0	0		50	50	0			
PHF	.250	.333	.500	.438	.000	.000	.375	.375	.000	.000	.000	.000	.250	.250	.000	.500	.500	.500

Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi AM
 Site Code : 221050
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Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	1	1	2	0	0	1	1	0	0	0	0	0	1	0	1
+30 mins.	0	3	1	4	0	0	2	2	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	4	2	7	0	0	3	3	0	0	0	0	1	1	0	2
% App. Total	14.3	57.1	28.6		0	0	100		0	0	0		50	50	0	
PHF	.250	.333	.500	.438	.000	.000	.375	.375	.000	.000	.000	.000	.250	.250	.000	.500

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

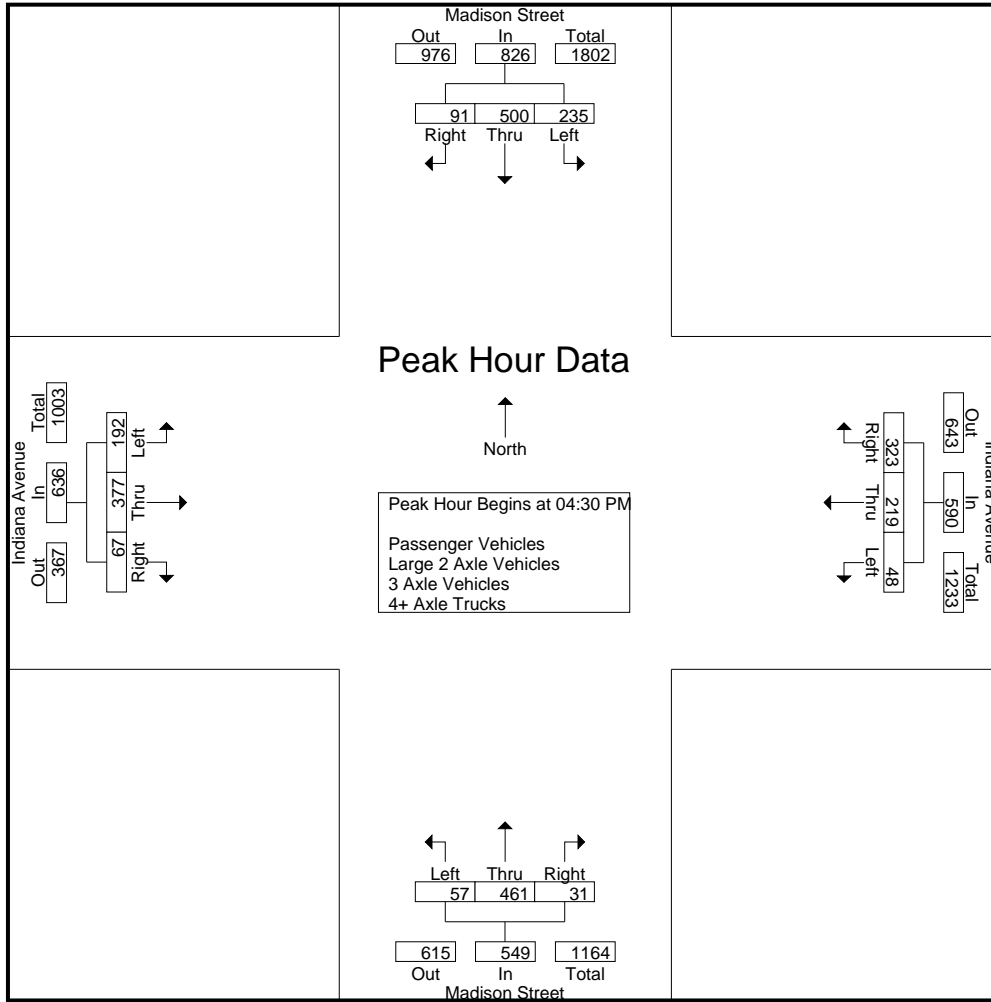
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	66	96	26	188	10	62	64	136	8	86	4	98	57	91	16	164	586
04:15 PM	58	114	31	203	11	57	71	139	14	101	12	127	55	91	19	165	634
04:30 PM	57	116	26	199	12	53	90	155	13	113	7	133	44	87	17	148	635
04:45 PM	55	140	23	218	11	50	70	131	14	123	9	146	51	97	14	162	657
Total	236	466	106	808	44	222	295	561	49	423	32	504	207	366	66	639	2512
05:00 PM	62	129	19	210	14	70	84	168	19	111	5	135	42	99	20	161	674
05:15 PM	61	115	23	199	11	46	79	136	11	114	10	135	55	94	16	165	635
05:30 PM	73	122	18	213	8	41	72	121	12	99	4	115	49	79	12	140	589
05:45 PM	58	129	21	208	9	48	62	119	12	84	7	103	41	70	20	131	561
Total	254	495	81	830	42	205	297	544	54	408	26	488	187	342	68	597	2459
Grand Total	490	961	187	1638	86	427	592	1105	103	831	58	992	394	708	134	1236	4971
Apprch %	29.9	58.7	11.4		7.8	38.6	53.6		10.4	83.8	5.8		31.9	57.3	10.8		
Total %	9.9	19.3	3.8	33	1.7	8.6	11.9	22.2	2.1	16.7	1.2	20	7.9	14.2	2.7	24.9	
Passenger Vehicles	485	952	179	1616	86	423	583	1092	102	819	58	979	385	696	131	1212	4899
% Passenger Vehicles	99	99.1	95.7	98.7	100	99.1	98.5	98.8	99	98.6	100	98.7	97.7	98.3	97.8	98.1	98.6
Large 2 Axle Vehicles	4	4	2	10	0	3	8	11	1	9	0	10	5	12	2	19	50
% Large 2 Axle Vehicles	0.8	0.4	1.1	0.6	0	0.7	1.4	1	1	1.1	0	1	1.3	1.7	1.5	1.5	1
3 Axle Vehicles	0	2	4	6	0	1	0	1	0	1	0	1	2	0	1	3	11
% 3 Axle Vehicles	0	0.2	2.1	0.4	0	0.2	0	0.1	0	0.1	0	0.1	0.5	0	0.7	0.2	0.2
4+ Axle Trucks	1	3	2	6	0	0	1	1	0	2	0	2	2	0	0	2	11
% 4+ Axle Trucks	0.2	0.3	1.1	0.4	0	0	0.2	0.1	0	0.2	0	0.2	0.5	0	0	0.2	0.2

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	57	116	26	199	12	53	90	155	13	113	7	133	44	87	17	148	635
04:45 PM	55	140	23	218	11	50	70	131	14	123	9	146	51	97	14	162	657
05:00 PM	62	129	19	210	14	70	84	168	19	111	5	135	42	99	20	161	674
05:15 PM	61	115	23	199	11	46	79	136	11	114	10	135	55	94	16	165	635
Total Volume	235	500	91	826	48	219	323	590	57	461	31	549	192	377	67	636	2601
% App. Total	28.5	60.5	11		8.1	37.1	54.7		10.4	84	5.6		30.2	59.3	10.5		
PHF	.948	.893	.875	.947	.857	.782	.897	.878	.750	.937	.775	.940	.873	.952	.838	.964	.965

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:15 PM				04:30 PM				04:00 PM			
+0 mins.	55	140	23	218	11	57	71	139	13	113	7	133	57	91	16	164
+15 mins.	62	129	19	210	12	53	90	155	14	123	9	146	55	91	19	165
+30 mins.	61	115	23	199	11	50	70	131	19	111	5	135	44	87	17	148
+45 mins.	73	122	18	213	14	70	84	168	11	114	10	135	51	97	14	162
Total Volume	251	506	83	840	48	230	315	593	57	461	31	549	207	366	66	639
% App. Total	29.9	60.2	9.9		8.1	38.8	53.1		10.4	84	5.6		32.4	57.3	10.3	
PHF	.860	.904	.902	.963	.857	.821	.875	.882	.750	.937	.775	.940	.908	.943	.868	.968

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

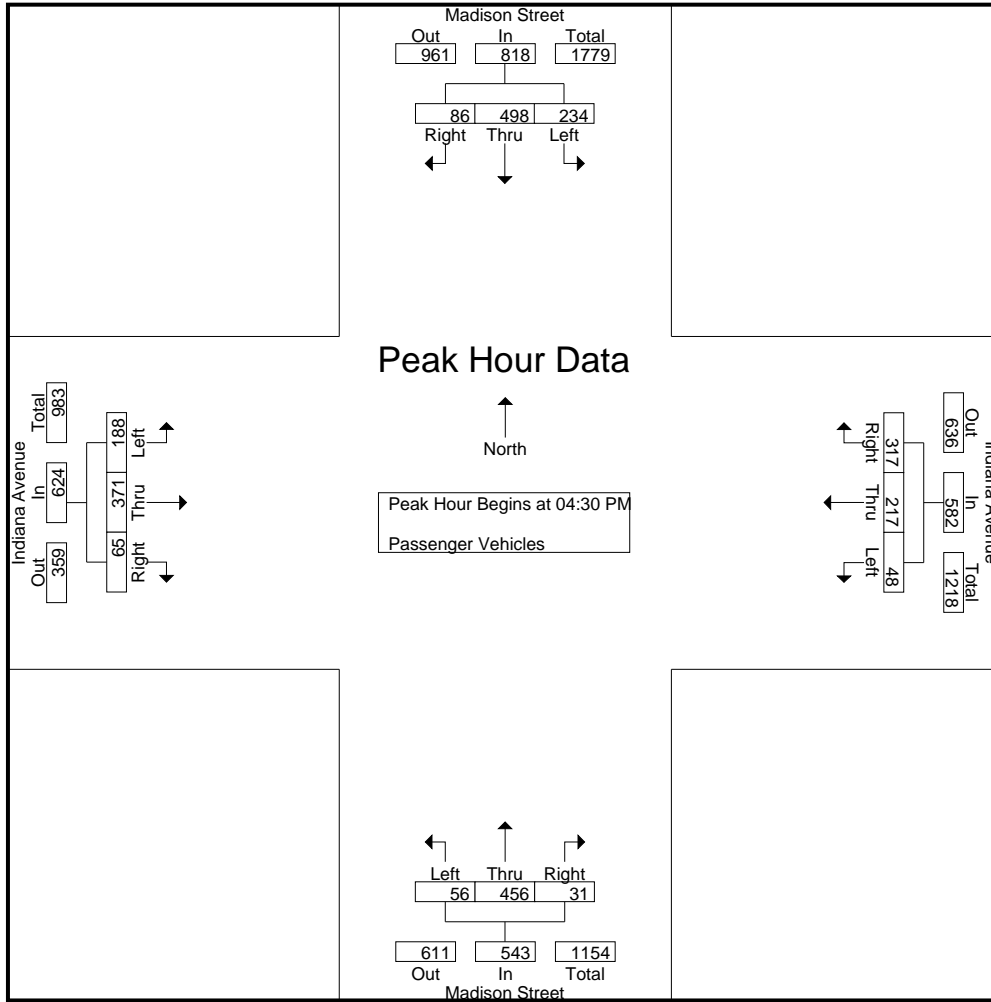
Groups Printed- Passenger Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	66	95	25	186	10	62	63	135	8	83	4	95	54	88	16	158	574
04:15 PM	57	113	29	199	11	56	70	137	14	99	12	125	54	89	18	161	622
04:30 PM	57	116	25	198	12	51	88	151	13	111	7	131	41	84	17	142	622
04:45 PM	55	140	20	215	11	50	68	129	13	122	9	144	51	94	14	159	647
Total	235	464	99	798	44	219	289	552	48	415	32	495	200	355	65	620	2465
05:00 PM	62	128	19	209	14	70	84	168	19	110	5	134	42	99	20	161	672
05:15 PM	60	114	22	196	11	46	77	134	11	113	10	134	54	94	14	162	626
05:30 PM	72	121	18	211	8	40	72	120	12	99	4	115	49	78	12	139	585
05:45 PM	56	125	21	202	9	48	61	118	12	82	7	101	40	70	20	130	551
Total	250	488	80	818	42	204	294	540	54	404	26	484	185	341	66	592	2434
Grand Total	485	952	179	1616	86	423	583	1092	102	819	58	979	385	696	131	1212	4899
Apprch %	30	58.9	11.1		7.9	38.7	53.4		10.4	83.7	5.9		31.8	57.4	10.8		
Total %	9.9	19.4	3.7	33	1.8	8.6	11.9	22.3	2.1	16.7	1.2	20	7.9	14.2	2.7	24.7	

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	57	116	25	198	12	51	88	151	13	111	7	131	41	84	17	142	622
04:45 PM	55	140	20	215	11	50	68	129	13	122	9	144	51	94	14	159	647
05:00 PM	62	128	19	209	14	70	84	168	19	110	5	134	42	99	20	161	672
05:15 PM	60	114	22	196	11	46	77	134	11	113	10	134	54	94	14	162	626
Total Volume	234	498	86	818	48	217	317	582	56	456	31	543	188	371	65	624	2567
% App. Total	28.6	60.9	10.5		8.2	37.3	54.5		10.3	84	5.7		30.1	59.5	10.4		
PHF	.944	.889	.860	.951	.857	.775	.901	.866	.737	.934	.775	.943	.870	.937	.813	.963	.955

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	57	116	25	198	12	51	88	151	13	111	7	131	41	84	17	142
+15 mins.	55	140	20	215	11	50	68	129	13	122	9	144	51	94	14	159
+30 mins.	62	128	19	209	14	70	84	168	19	110	5	134	42	99	20	161
+45 mins.	60	114	22	196	11	46	77	134	11	113	10	134	54	94	14	162
Total Volume	234	498	86	818	48	217	317	582	56	456	31	543	188	371	65	624
% App. Total	28.6	60.9	10.5		8.2	37.3	54.5		10.3	84	5.7		30.1	59.5	10.4	
PHF	.944	.889	.860	.951	.857	.775	.901	.866	.737	.934	.775	.943	.870	.937	.813	.963

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
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Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	1	1	0	0	0	0	0	3	0	3	1	3	0	4	8
04:15 PM	1	0	0	1	0	1	1	2	0	0	0	0	0	2	1	3	6
04:30 PM	0	0	0	0	0	1	2	3	0	2	0	2	2	3	0	5	10
04:45 PM	0	0	1	1	0	0	2	2	1	0	0	1	0	3	0	3	7
Total	1	0	2	3	0	2	5	7	1	5	0	6	3	11	1	15	31
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:15 PM	0	1	0	1	0	0	2	2	0	1	0	1	1	0	1	2	6
05:30 PM	1	1	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4
05:45 PM	2	1	0	3	0	0	1	1	0	2	0	2	1	0	0	1	7
Total	3	4	0	7	0	1	3	4	0	4	0	4	2	1	1	4	19
Grand Total	4	4	2	10	0	3	8	11	1	9	0	10	5	12	2	19	50
Apprch %	40	40	20		0	27.3	72.7		10	90	0		26.3	63.2	10.5		
Total %	8	8	4	20	0	6	16	22	2	18	0	20	10	24	4	38	

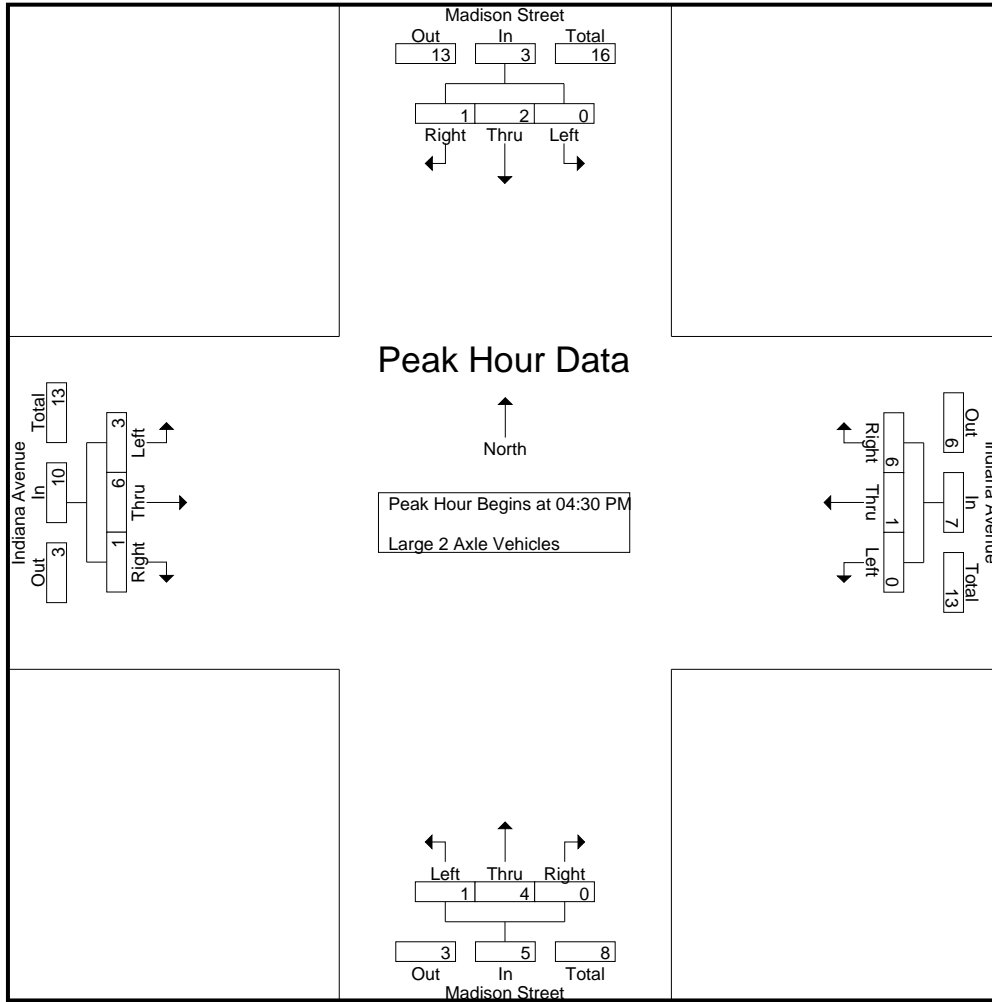
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	0	0	0	0	0	1	2	3	0	2	0	2	2	3	0	5	10
04:45 PM	0	0	1	1	0	0	2	2	1	0	0	1	0	3	0	3	7
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:15 PM	0	1	0	1	0	0	2	2	0	1	0	1	1	0	1	2	6
Total Volume	0	2	1	3	0	1	6	7	1	4	0	5	3	6	1	10	25
% App. Total	0	66.7	33.3		0	14.3	85.7		20	80	0		30	60	10		
PHF	.000	.500	.250	.750	.000	.250	.750	.583	.250	.500	.000	.625	.375	.500	.250	.500	.625

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: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 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	2	3	0	2	0	2	2	3	0	5
+15 mins.	0	0	1	1	0	0	2	2	1	0	0	1	0	3	0	3
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	2	2	0	1	0	1	1	0	1	2
Total Volume	0	2	1	3	0	1	6	7	1	4	0	5	3	6	1	10
% App. Total	0	66.7	33.3		0	14.3	85.7		20	80	0		30	60	10	
PHF	.000	.500	.250	.750	.000	.250	.750	.583	.250	.500	.000	.625	.375	.500	.250	.500

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	0	0	0	0	0
04:15 PM	0	1	1	2	0	0	0	0	0	1	0	1	1	0	0	0	1	4
04:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	0	0	0	1	3
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	3	4	0	1	0	1	0	1	0	1	2	0	0	0	2	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	1	3
Grand Total	0	2	4	6	0	1	0	1	0	1	0	1	2	0	1	3	11	
Apprch %	0	33.3	66.7		0	100	0		0	100	0		66.7	0	33.3			
Total %	0	18.2	36.4	54.5	0	9.1	0	9.1	0	9.1	0	9.1	18.2	0	9.1	27.3		

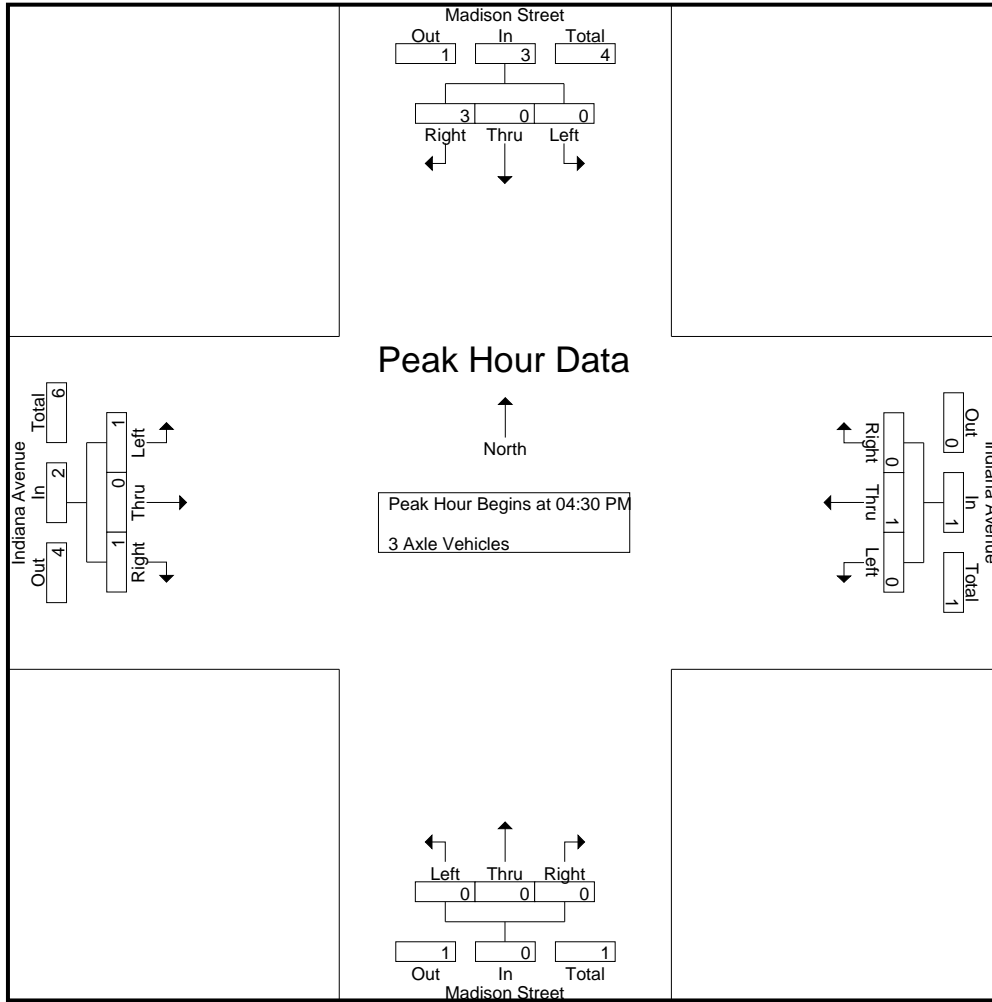
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	3	
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	
Total Volume	0	0	3	3	0	1	0	1	0	0	0	0	1	0	1	2	6	
% App. Total	0	0	100		0	100	0		0	0	0		50	0	50			
PHF	.000	.000	.750	.750	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.250	.500	.500	

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: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 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	1	1	0	1	0	1	0	0	0	0	1	0	0	1
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
Total Volume	0	0	3	3	0	1	0	1	0	0	0	0	1	0	1	2
% App. Total	0	0	100		0	100	0		0	0	0		50	0	50	
PHF	.000	.000	.750	.750	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.250	.500

City of Riverside
 N/S: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue 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	1	0	1	0	0	1	1	0	0	0	0	2	0	0	0	2	4
04:15 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
Total	0	1	2	3	0	0	1	1	0	2	0	2	2	0	0	0	2	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	1	3	2	6	0	0	1	1	0	2	0	2	2	0	0	0	2	11
Apprch %	16.7	50	33.3		0	0	100		0	100	0		100	0	0			
Total %	9.1	27.3	18.2	54.5	0	0	9.1	9.1	0	18.2	0	18.2	18.2	0	0	18.2		

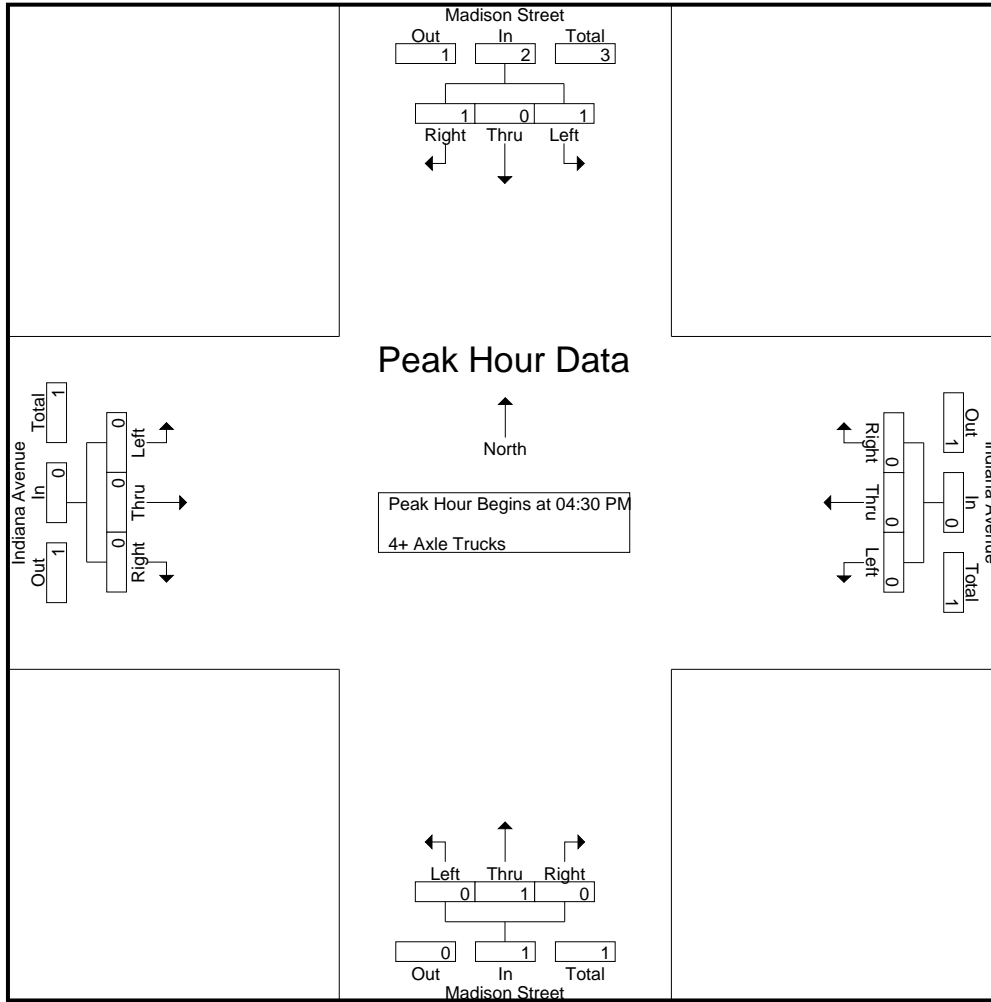
Start Time	Madison Street Southbound				Indiana Avenue Westbound				Madison Street Northbound				Indiana Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	3
% App. Total	50	0	50		0	0	0		0	100	0		0	0	0			
PHF	.250	.000	.250	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.375

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: Madison Street
 E/W: Indiana Avenue
 Weather: Clear

File Name : 02_RIV_Mad_Indi PM
 Site Code : 221050
 Start Date : 11/17/2022
 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	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	50	0	50		0	0	0		0	100	0		0	0	0	
PHF	.250	.000	.250	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Location: Riverside
 N/S: Madison Street
 E/W: Indiana Avenue



Date: 11/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg Madison Street	East Leg Indiana Avenue	South Leg Madison Street	West Leg Indiana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	2	0	1	3
7:15 AM	0	0	0	1	1
7:30 AM	0	2	1	0	3
7:45 AM	0	4	1	1	6
8:00 AM	0	4	2	2	8
8:15 AM	0	2	0	1	3
8:30 AM	0	4	0	0	4
8:45 AM	0	2	0	0	2
TOTAL VOLUMES:	0	20	4	6	30

	North Leg Madison Street	East Leg Indiana Avenue	South Leg Madison Street	West Leg Indiana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	4	1	1	6
4:15 PM	0	0	1	1	2
4:30 PM	0	2	0	2	4
4:45 PM	0	2	1	1	4
5:00 PM	0	2	0	2	4
5:15 PM	0	0	1	2	3
5:30 PM	0	3	1	0	4
5:45 PM	0	1	0	2	3
TOTAL VOLUMES:	0	14	5	11	30

Location: Riverside
 N/S: Madison Street
 E/W: Indiana Avenue



Date: 11/17/2022
 Day: Thursday

BICYCLES

	Southbound Madison Street			Westbound Indiana Avenue			Northbound Madison Street			Eastbound Indiana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	0	0	0	0	2	0	0	0	0	4

	Southbound Madison Street			Westbound Indiana Avenue			Northbound Madison Street			Eastbound Indiana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	0	1	1	1	0	0	0	1	6

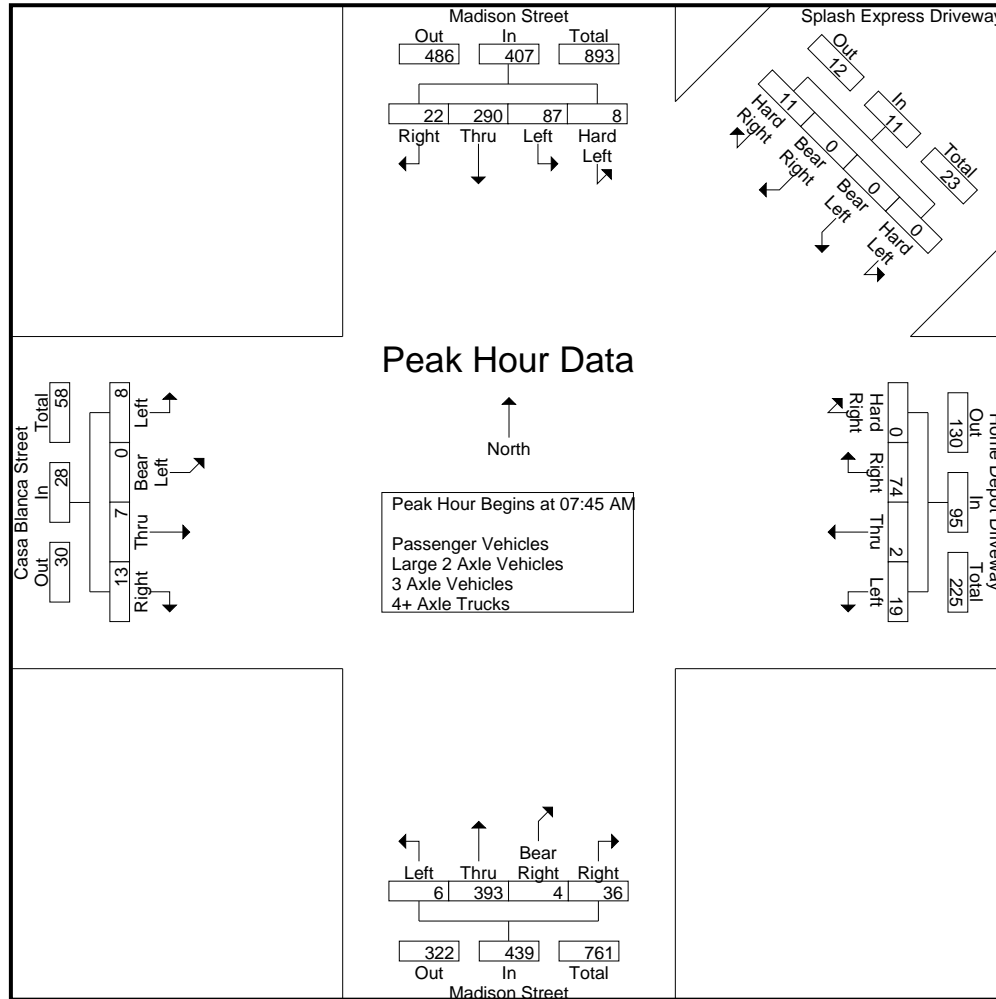
City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

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

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
07:00 AM	1	14	68	1	84	0	2	0	1	3	2	0	12	0	14	0	77	1	2	80	2	0	1	2	5	186
07:15 AM	0	23	58	4	85	0	0	0	0	0	10	0	18	0	28	1	102	0	5	108	4	0	0	2	6	227
07:30 AM	0	13	56	5	74	0	0	0	0	0	3	0	16	0	19	2	97	0	7	106	1	0	1	3	5	204
07:45 AM	1	29	72	5	107	0	0	0	0	0	7	0	18	0	25	4	122	1	7	134	3	0	4	4	11	277
Total	2	79	254	15	350	0	2	0	1	3	22	0	64	0	86	7	398	2	21	428	10	0	6	11	27	894
08:00 AM	1	19	74	7	101	0	0	0	3	3	6	1	13	0	20	0	100	1	7	108	1	0	2	0	3	235
08:15 AM	1	20	83	8	112	0	0	0	5	5	3	0	18	0	21	1	87	1	8	97	0	0	0	5	5	240
08:30 AM	5	19	61	2	87	0	0	0	3	3	3	1	25	0	29	1	84	1	14	100	4	0	1	4	9	228
08:45 AM	3	41	77	7	128	0	0	0	12	12	11	0	23	0	34	3	85	0	9	97	1	0	1	2	4	275
Total	10	99	295	24	428	0	0	0	23	23	23	2	79	0	104	5	356	3	38	402	6	0	4	11	21	978
Grand Total	12	178	549	39	778	0	2	0	24	26	45	2	143	0	190	12	754	5	59	830	16	0	10	22	48	1872
Apprch %	1.5	22.9	70.6	5		0	7.7	0	92.3		23.7	1.1	75.3	0		1.4	90.8	0.6	7.1		33.3	0	20.8	45.8		
Total %	0.6	9.5	29.3	2.1	41.6	0	0.1	0	1.3	1.4	2.4	0.1	7.6	0	10.1	0.6	40.3	0.3	3.2	44.3	0.9	0	0.5	1.2	2.6	
Passenger Vehicles	12	176	516	39	743	0	2	0	24	26	44	2	138	0	184	12	723	5	59	799	15	0	6	21	42	1794
% Passenger Vehicles	100	98.9	94	100	95.5	0	100	0	100	100	97.8	100	96.5	0	96.8	100	95.9	100	100	96.3	93.8	0	60	95.5	87.5	95.8
Large 2 Axle Vehicles	0	1	23	0	24	0	0	0	0	0	1	0	3	0	4	0	21	0	0	21	1	0	0	1	2	51
% Large 2 Axle Vehicles	0	0.6	4.2	0	3.1	0	0	0	0	0	2.2	0	2.1	0	2.1	0	2.8	0	0	2.5	6.2	0	0	4.5	4.2	2.7
3 Axle Vehicles	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	4	0	0	4	0	0	4	0	4	12
% 3 Axle Vehicles	0	0	0.4	0	0.3	0	0	0	0	0	0	0	1.4	0	1.1	0	0.5	0	0	0.5	0	0	40	0	8.3	0.6
4+ Axle Trucks	0	1	8	0	9	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	15
% 4+ Axle Trucks	0	0.6	1.5	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0.8

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear 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 07:45 AM																										
07:45 AM	1	29	72	5	107	0	0	0	0	0	7	0	18	0	25	4	122	1	7	134	3	0	4	4	11	277
08:00 AM	1	19	74	7	101	0	0	0	3	3	6	1	13	0	20	0	100	1	7	108	1	0	2	0	3	235
08:15 AM	1	20	83	8	112	0	0	0	5	5	3	0	18	0	21	1	87	1	8	97	0	0	0	5	5	240
08:30 AM	5	19	61	2	87	0	0	0	3	3	3	1	25	0	29	1	84	1	14	100	4	0	1	4	9	228
Total Volume	8	87	290	22	407	0	0	0	11	11	19	2	74	0	95	6	393	4	36	439	8	0	7	13	28	980
% App. Total	2	21.4	71.3	5.4		0	0	0	100		20	2.1	77.9	0		1.4	89.5	0.9	8.2		28.6	0	25	46.4		
PHF	.400	.750	.873	.688	.908	.000	.000	.000	.550	.550	.679	.500	.740	.000	.819	.375	.805	1.00	.643	.819	.500	.000	.438	.650	.636	.884

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Each Approach Begins at:																										
	08:00 AM					08:00 AM					08:00 AM					07:15 AM					07:45 AM					
+0 mins.	1	19	74	7	101	0	0	0	3	3	6	1	13	0	20	1	102	0	5	108	3	0	4	4	11	
+15 mins.	1	20	83	8	112	0	0	0	5	5	3	0	18	0	21	2	97	0	7	106	1	0	2	0	3	
+30 mins.	5	19	61	2	87	0	0	0	3	3	3	1	25	0	29	4	122	1	7	134	0	0	0	5	5	
+45 mins.	3	41	77	7	128	0	0	0	12	12	11	0	23	0	34	0	100	1	7	108	4	0	1	4	9	
Total Volume	10	99	295	24	428	0	0	0	23	23	23	2	79	0	104	7	421	2	26	456	8	0	7	13	28	
% App. Total	2.3	23.1	68.9	5.6		0	0	0	100		22.1	1.9	76	0		1.5	92.3	0.4	5.7		28.6	0	25	46.4		
PHF	.500	.604	.889	.750	.836	.000	.000	.000	.479	.479	.523	.500	.790	.000	.765	.438	.863	.500	.929	.851	.500	.000	.438	.650	.636	

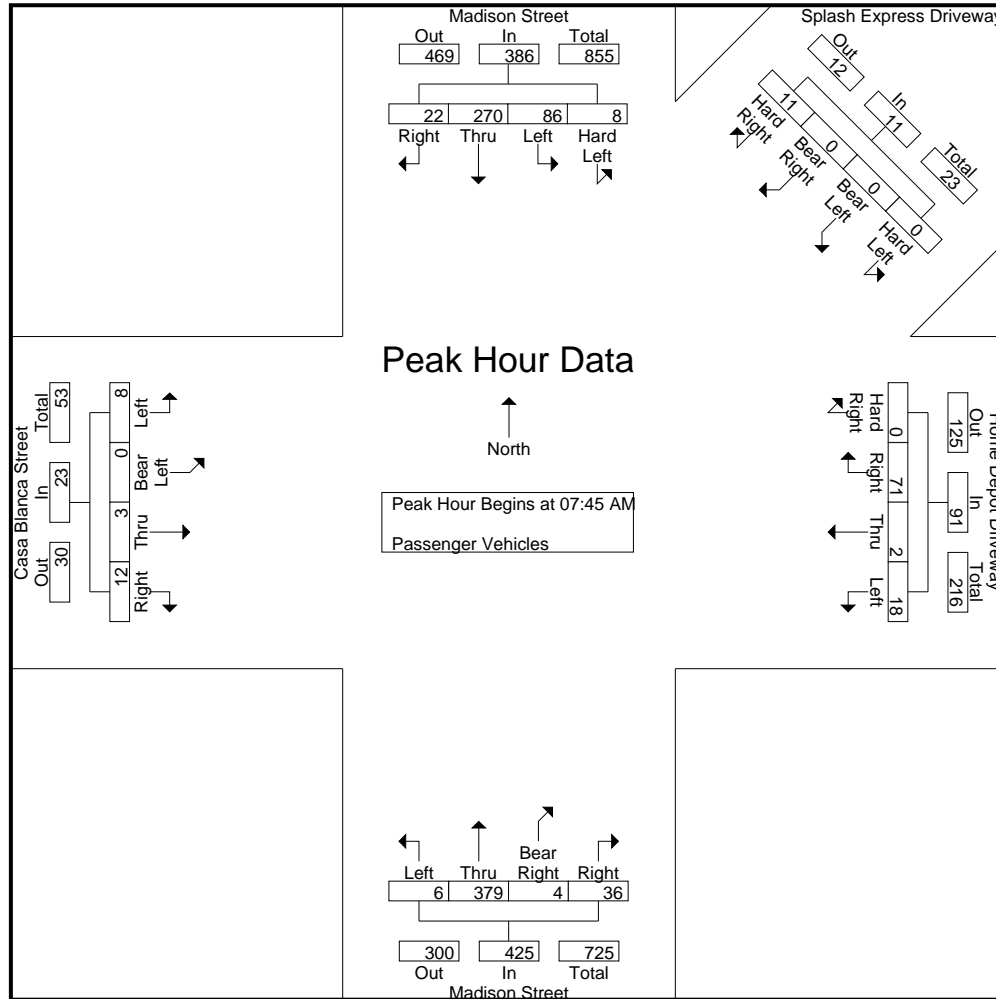
City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Groups Printed- Passenger Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
07:00 AM	1	13	65	1	80	0	2	0	1	3	2	0	11	0	13	0	74	1	2	77	1	0	1	2	4	177
07:15 AM	0	23	54	4	81	0	0	0	0	0	10	0	17	0	27	1	98	0	5	104	4	0	0	2	6	218
07:30 AM	0	13	51	5	69	0	0	0	0	0	3	0	16	0	19	2	91	0	7	100	1	0	1	3	5	193
07:45 AM	1	29	67	5	102	0	0	0	0	0	7	0	18	0	25	4	114	1	7	126	3	0	1	3	7	260
Total	2	78	237	15	332	0	2	0	1	3	22	0	62	0	84	7	377	2	21	407	9	0	3	10	22	848
08:00 AM	1	18	72	7	98	0	0	0	3	3	6	1	13	0	20	0	99	1	7	107	1	0	2	0	3	231
08:15 AM	1	20	78	8	107	0	0	0	5	5	2	0	16	0	18	1	86	1	8	96	0	0	0	5	5	231
08:30 AM	5	19	53	2	79	0	0	0	3	3	3	1	24	0	28	1	80	1	14	96	4	0	0	4	8	214
08:45 AM	3	41	76	7	127	0	0	0	12	12	11	0	23	0	34	3	81	0	9	93	1	0	1	2	4	270
Total	10	98	279	24	411	0	0	0	23	23	22	2	76	0	100	5	346	3	38	392	6	0	3	11	20	946
Grand Total	12	176	516	39	743	0	2	0	24	26	44	2	138	0	184	12	723	5	59	799	15	0	6	21	42	1794
Apprch %	1.6	23.7	69.4	5.2		0	7.7	0	92.3		23.9	1.1	75	0		1.5	90.5	0.6	7.4		35.7	0	14.3	50		
Total %	0.7	9.8	28.8	2.2	41.4	0	0.1	0	1.3	1.4	2.5	0.1	7.7	0	10.3	0.7	40.3	0.3	3.3	44.5	0.8	0	0.3	1.2	2.3	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:45 AM																										
07:45 AM	1	29	67	5	102	0	0	0	0	0	7	0	18	0	25	4	114	1	7	126	3	0	1	3	7	260
08:00 AM	1	18	72	7	98	0	0	0	3	3	6	1	13	0	20	0	99	1	7	107	1	0	2	0	3	231
08:15 AM	1	20	78	8	107	0	0	0	5	5	2	0	16	0	18	1	86	1	8	96	0	0	0	5	5	231
08:30 AM	5	19	53	2	79	0	0	0	3	3	3	1	24	0	28	1	80	1	14	96	4	0	0	4	8	214
Total Volume	8	86	270	22	386	0	0	0	11	11	18	2	71	0	91	6	379	4	36	425	8	0	3	12	23	936
% App. Total	2.1	22.3	69.9	5.7		0	0	0	100		19.8	2.2	78	0		1.4	89.2	0.9	8.5		34.8	0	13	52.2		
PHF	.400	.741	.865	.688	.902	.000	.000	.000	.550	.550	.643	.500	.740	.000	.813	.375	.831	1.00	.643	.843	.500	.000	.375	.600	.719	.900

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Each Approach Begins at:																										
	07:45 AM					07:45 AM					07:45 AM					07:45 AM										
+0 mins.	1	29	67	5	102	0	0	0	0	0	7	0	18	0	25	4	114	1	7	126	3	0	1	3	7	
+15 mins.	1	18	72	7	98	0	0	0	3	3	6	1	13	0	20	0	99	1	7	107	1	0	2	0	3	
+30 mins.	1	20	78	8	107	0	0	0	5	5	2	0	16	0	18	1	86	1	8	96	0	0	0	5	5	
+45 mins.	5	19	53	2	79	0	0	0	3	3	3	1	24	0	28	1	80	1	14	96	4	0	0	4	8	
Total Volume	8	86	270	22	386	0	0	0	11	11	18	2	71	0	91	6	379	4	36	425	8	0	3	12	23	
% App. Total	2.1	22.3	69.9	5.7		0	0	0	100		19.8	2.2	78	0		1.4	89.2	0.9	8.5		34.8	0	13	52.2		
PHF	.400	.741	.865	.688	.902	.000	.000	.000	.550	.550	.643	.500	.740	.000	.813	.375	.831	1.000	.643	.843	.500	.000	.375	.600	.719	

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

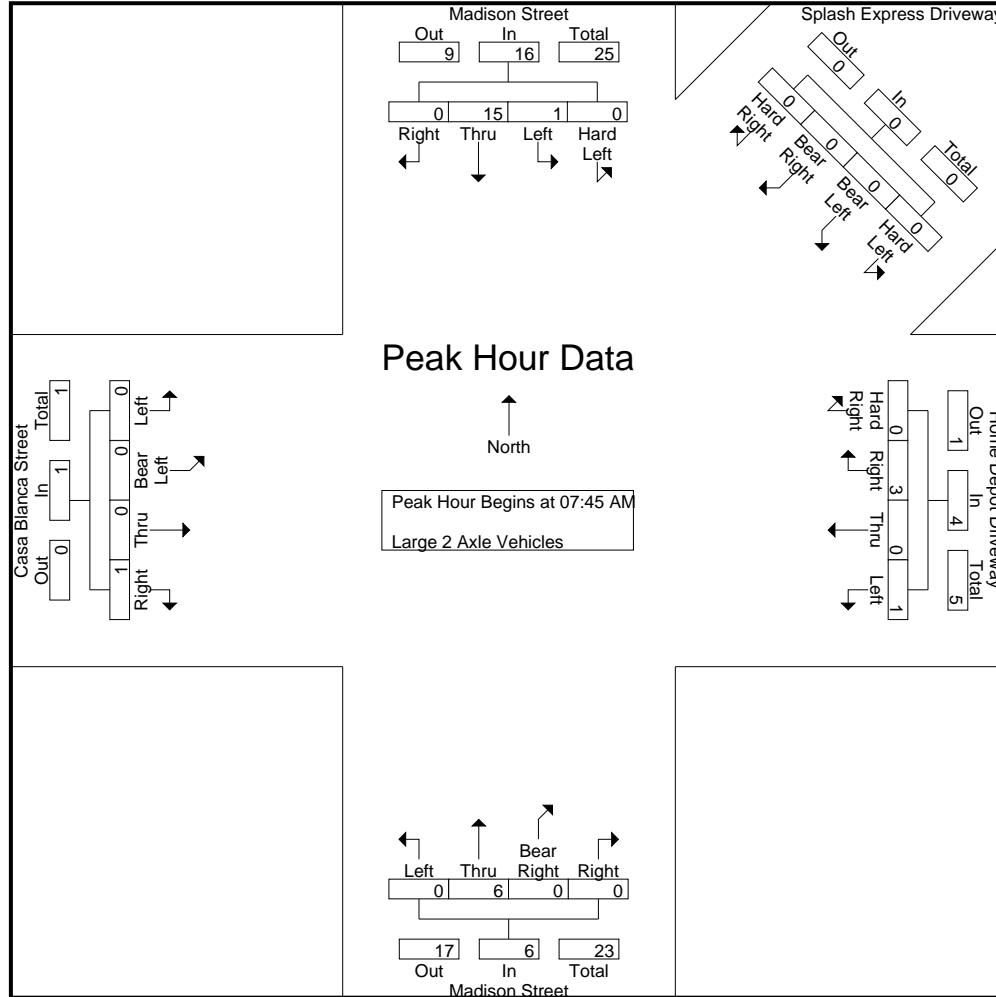
Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
07:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	6
07:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
07:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
07:45 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	1	1	8
Total	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	1	0	0	1	2	28
08:00 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
08:15 AM	0	0	4	0	4	0	0	0	0	0	1	0	2	0	3	0	1	0	0	1	0	0	0	0	0	8
08:30 AM	0	0	5	0	5	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	7
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total	0	1	11	0	12	0	0	0	0	0	1	0	3	0	4	0	7	0	0	7	0	0	0	0	0	23
Grand Total	0	1	23	0	24	0	0	0	0	0	1	0	3	0	4	0	21	0	0	21	1	0	0	1	2	51
Apprch %	0	4.2	95.8	0		0	0	0	0		25	0	75	0		0	100	0	0		50	0	0	50		
Total %	0	2	45.1	0	47.1	0	0	0	0	0	2	0	5.9	0	7.8	0	41.2	0	0	41.2	2	0	0	2	3.9	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
07:45 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	1	1	8
08:00 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
08:15 AM	0	0	4	0	4	0	0	0	0	0	1	0	2	0	3	0	1	0	0	1	0	0	0	0	0	8
08:30 AM	0	0	5	0	5	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	7
Total Volume	0	1	15	0	16	0	0	0	0	0	1	0	3	0	4	0	6	0	0	6	0	0	0	1	1	27
% App. Total	0	6.2	93.8	0		0	0	0	0		25	0	75	0		0	100	0	0		0	0	0	100		
PHF	.000	.250	.750	.000	.800	.000	.000	.000	.000	.000	.250	.000	.375	.000	.333	.000	.500	.000	.000	.500	.000	.000	.000	.250	.250	.844

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																										
Peak Hour for Each Approach Begins at:																										
	07:45 AM					07:45 AM					07:45 AM					07:45 AM										
+0 mins.	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	1	1	
+15 mins.	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
+30 mins.	0	0	4	0	4	0	0	0	0	0	1	0	2	0	3	0	1	0	0	1	0	0	0	0	0	
+45 mins.	0	0	5	0	5	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	
Total Volume	0	1	15	0	16	0	0	0	0	0	1	0	3	0	4	0	6	0	0	6	0	0	0	1	1	
% App. Total	0	6.2	93.8	0		0	0	0	0		25	0	75	0		0	100	0	0		0	0	0	100		
PHF	.000	.250	.750	.000	.800	.000	.000	.000	.000	.000	.250	.000	.375	.000	.333	.000	.500	.000	.000	.500	.000	.000	.000	.250	.250	

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

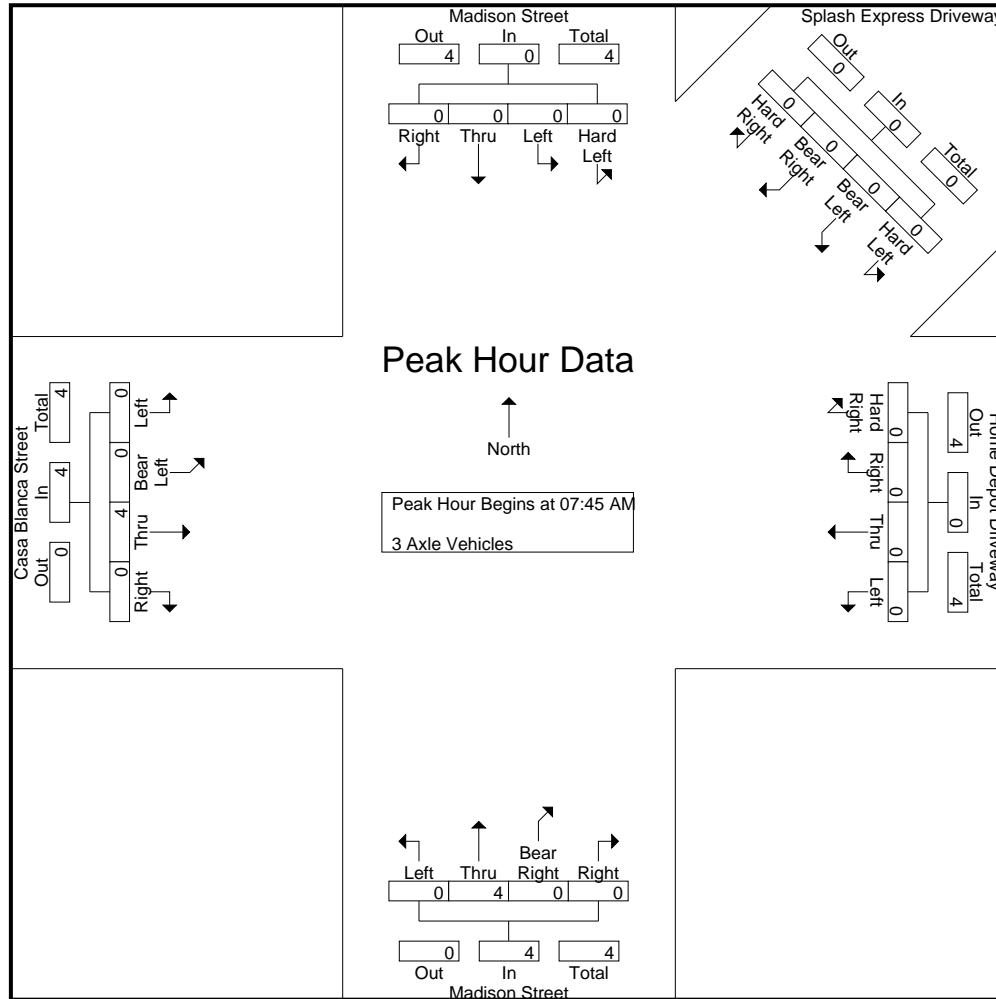
Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total				
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	0	0	3	0	3
Total	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2	0	3	0	0	3	0	0	3	0	3	0	0	3	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1
08:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1
Grand Total	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	4	0	0	4	0	0	4	0	4	0	0	4	0	4
Apprch %	0	0	100	0		0	0	0	0		0	0	100	0		0	100	0	0		0	0	100	0		0	0	100	0	
Total %	0	0	16.7	0	16.7	0	0	0	0		0	0	16.7	0	16.7	0	33.3	0	0	33.3	0	0	33.3	0	33.3	0	0	33.3	0	33.3

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total				
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total					
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	0	0	3	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	4	0	4	0	0	4	0	4
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	100	0		0	0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.000	.000	.333	.000	.000	.333	.000	.333	.000	.000	.333	.000	.333

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total						
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total							
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																																
Peak Hour for Each Approach Begins at:																																
	07:45 AM					07:45 AM					07:45 AM					07:45 AM					07:45 AM											
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	3	0	3	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	4	0	4	0	0	4	0	4	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	100	0	100	0	0	100	0	100	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.000	.000	.333	.000	.000	.333	.000	.333	.000	.000	.333	.000	.333	.000	

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

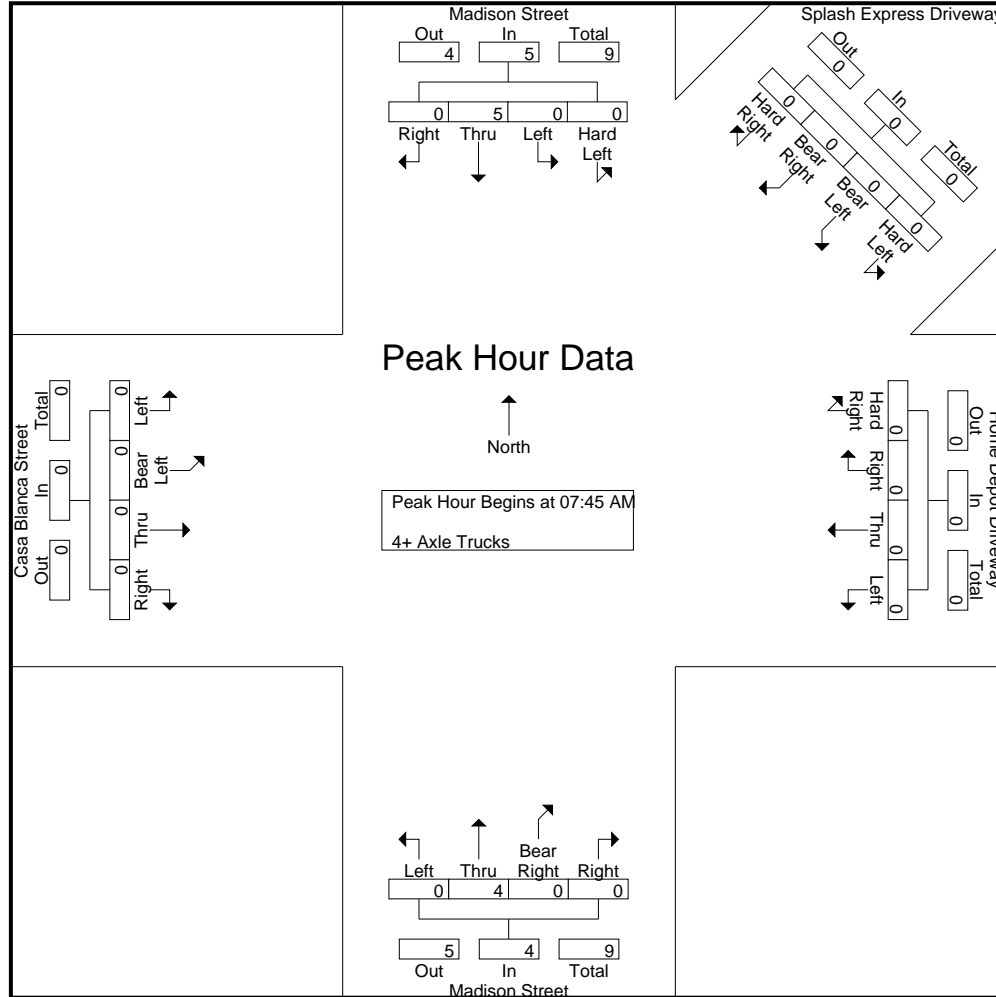
Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total					
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total						
07:00 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
07:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Total	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	6
Grand Total	0	1	8	0	9	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	15
Apprch %	0	11.1	88.9	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		0	0	0	0		
Total %	0	6.7	53.3	0	60	0	0	0	0	0	0	0	0	0	0	0	40	0	0	40	0	0	0	0	0	0	0	0	0	0	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total					
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total						
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	9
% App. Total	0	0	100	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.417	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.450	

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total			
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total				
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																													
Peak Hour for Each Approach Begins at:																													
	07:45 AM					07:45 AM					07:45 AM					07:45 AM													
+0 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0
Total Volume	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0
% App. Total	0	0	100	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		0	0	0	0
PHF	.000	.000	.417	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000

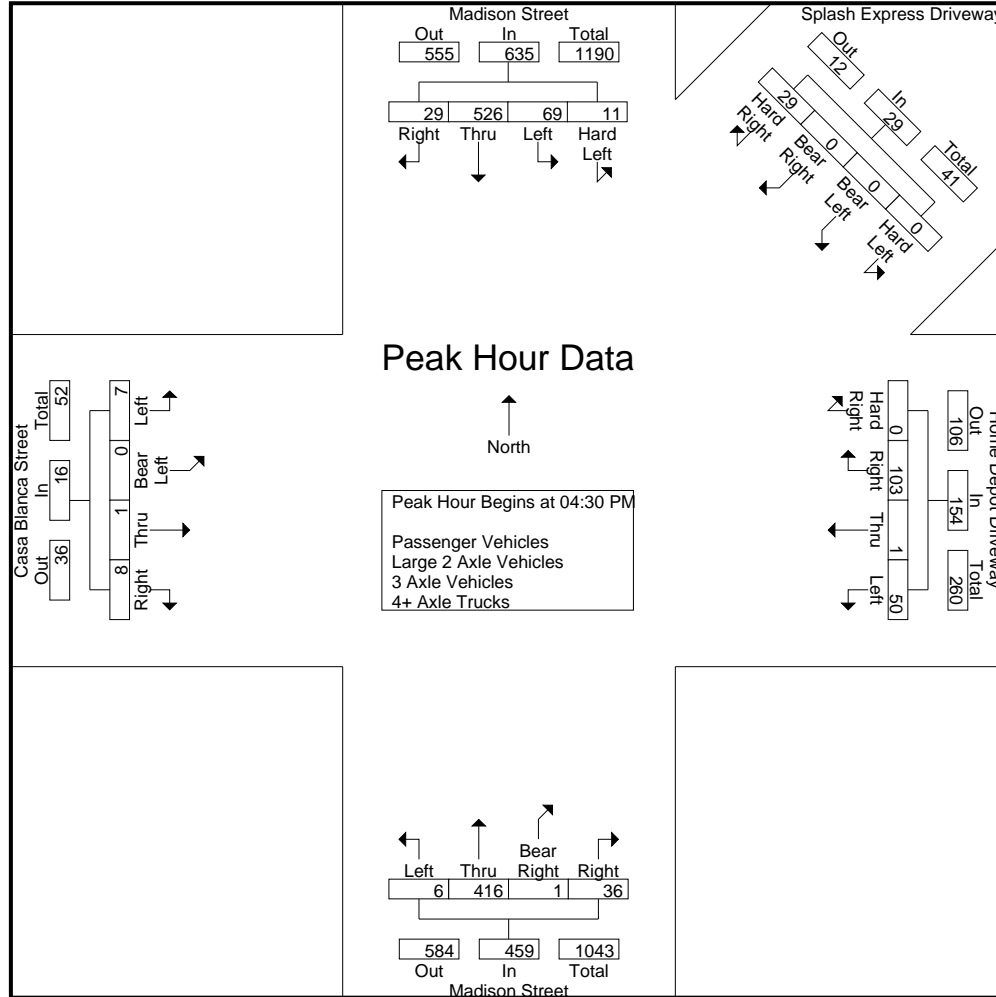
City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

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

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:00 PM	1	17	110	4	132	0	0	0	13	13	11	1	21	0	33	1	88	1	9	99	0	0	2	6	8	285
04:15 PM	2	24	111	4	141	0	0	0	6	6	14	0	27	0	41	3	80	1	14	98	4	0	1	1	6	292
04:30 PM	4	21	117	12	154	0	0	0	7	7	11	0	31	0	42	1	112	0	8	121	2	0	0	0	2	326
04:45 PM	1	22	148	5	176	0	0	0	10	10	11	1	19	0	31	2	99	0	11	112	2	0	0	0	2	331
Total	8	84	486	25	603	0	0	0	36	36	47	2	98	0	147	7	379	2	42	430	8	0	3	7	18	1234
05:00 PM	3	14	137	10	164	0	0	0	5	5	13	0	25	0	38	1	110	1	10	122	2	0	0	4	6	335
05:15 PM	3	12	124	2	141	0	0	0	7	7	15	0	28	0	43	2	95	0	7	104	1	0	1	4	6	301
05:30 PM	2	20	102	6	130	0	0	0	1	1	11	1	20	0	32	1	73	0	2	76	1	0	1	3	5	244
05:45 PM	4	14	142	8	168	0	0	0	5	5	7	0	18	0	25	1	73	2	10	86	0	0	0	2	2	286
Total	12	60	505	26	603	0	0	0	18	18	46	1	91	0	138	5	351	3	29	388	4	0	2	13	19	1166
Grand Total	20	144	991	51	1206	0	0	0	54	54	93	3	189	0	285	12	730	5	71	818	12	0	5	20	37	2400
Apprch %	1.7	11.9	82.2	4.2		0	0	0	100		32.6	1.1	66.3	0		1.5	89.2	0.6	8.7		32.4	0	13.5	54.1		
Total %	0.8	6	41.3	2.1	50.2	0	0	0	2.2	2.2	3.9	0.1	7.9	0	11.9	0.5	30.4	0.2	3	34.1	0.5	0	0.2	0.8	1.5	
Passenger Vehicles	20	144	980	50	1194	0	0	0	54	54	92	3	187	0	282	12	720	5	71	808	12	0	5	20	37	2375
% Passenger Vehicles	100	100	98.9	98	99	0	0	0	100	100	98.9	100	98.9	0	98.9	100	98.6	100	100	98.8	100	0	100	100	100	99
Large 2 Axle Vehicles	0	0	7	1	8	0	0	0	0	0	1	0	2	0	3	0	6	0	0	6	0	0	0	0	0	17
% Large 2 Axle Vehicles	0	0	0.7	2	0.7	0	0	0	0	0	1.1	0	1.1	0	1.1	0	0.8	0	0	0.7	0	0	0	0	0	0.7
3 Axle Vehicles	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
% 4+ Axle Trucks	0	0	0.3	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0.3

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear 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	4	21	117	12	154	0	0	0	7	7	11	0	31	0	42	1	112	0	8	121	2	0	0	0	2	326
04:45 PM	1	22	148	5	176	0	0	0	10	10	11	1	19	0	31	2	99	0	11	112	2	0	0	0	2	331
05:00 PM	3	14	137	10	164	0	0	0	5	5	13	0	25	0	38	1	110	1	10	122	2	0	0	4	6	335
05:15 PM	3	12	124	2	141	0	0	0	7	7	15	0	28	0	43	2	95	0	7	104	1	0	1	4	6	301
Total Volume	11	69	526	29	635	0	0	0	29	29	50	1	103	0	154	6	416	1	36	459	7	0	1	8	16	1293
% App. Total	1.7	10.9	82.8	4.6		0	0	0	100		32.5	0.6	66.9	0		1.3	90.6	0.2	7.8		43.8	0	6.2	50		
PHF	.688	.784	.889	.604	.902	.000	.000	.000	.725	.725	.833	.250	.831	.000	.895	.750	.929	.250	.818	.941	.875	.000	.250	.500	.667	.965

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM					04:00 PM					04:30 PM					04:45 PM									
+0 mins.	2	24	111	4	141	0	0	0	13	13	11	0	31	0	42	1	112	0	8	121	2	0	0	0	2
+15 mins.	4	21	117	12	154	0	0	0	6	6	11	1	19	0	31	2	99	0	11	112	2	0	0	4	6
+30 mins.	1	22	148	5	176	0	0	0	7	7	13	0	25	0	38	1	110	1	10	122	1	0	1	4	6
+45 mins.	3	14	137	10	164	0	0	0	10	10	15	0	28	0	43	2	95	0	7	104	1	0	1	3	5
Total Volume	10	81	513	31	635	0	0	0	36	36	50	1	103	0	154	6	416	1	36	459	6	0	2	11	19
% App. Total	1.6	12.8	80.8	4.9		0	0	0	100		32.5	0.6	66.9	0		1.3	90.6	0.2	7.8		31.6	0	10.5	57.9	
PHF	.625	.844	.867	.646	.902	.000	.000	.000	.692	.692	.833	.250	.831	.000	.895	.750	.929	.250	.818	.941	.750	.000	.500	.688	.792

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

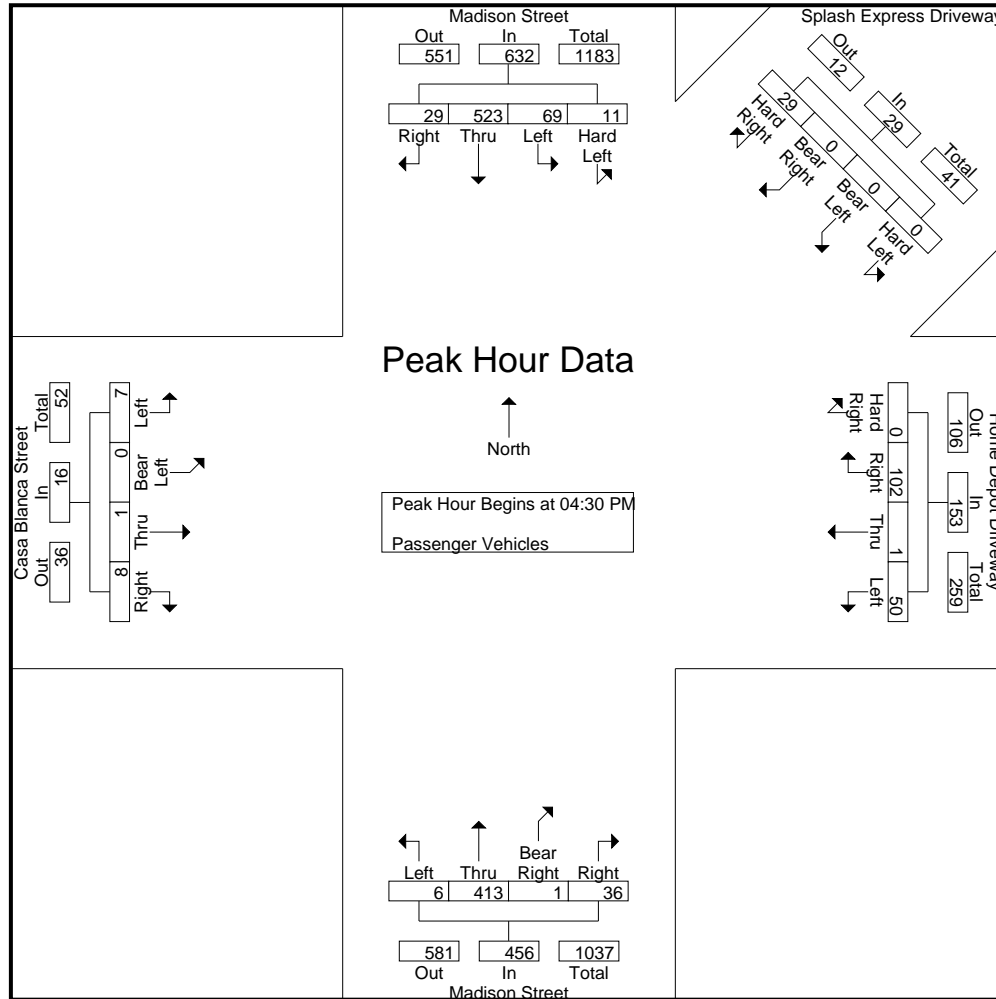
Groups Printed- Passenger Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:00 PM	1	17	109	4	131	0	0	0	13	13	11	1	20	0	32	1	83	1	9	94	0	0	2	6	8	278
04:15 PM	2	24	110	3	139	0	0	0	6	6	14	0	27	0	41	3	78	1	14	96	4	0	1	1	6	288
04:30 PM	4	21	117	12	154	0	0	0	7	7	11	0	30	0	41	1	110	0	8	119	2	0	0	0	2	323
04:45 PM	1	22	148	5	176	0	0	0	10	10	11	1	19	0	31	2	98	0	11	111	2	0	0	0	2	330
Total	8	84	484	24	600	0	0	0	36	36	47	2	96	0	145	7	369	2	42	420	8	0	3	7	18	1219
05:00 PM	3	14	136	10	163	0	0	0	5	5	13	0	25	0	38	1	110	1	10	122	2	0	0	4	6	334
05:15 PM	3	12	122	2	139	0	0	0	7	7	15	0	28	0	43	2	95	0	7	104	1	0	1	4	6	299
05:30 PM	2	20	100	6	128	0	0	0	1	1	10	1	20	0	31	1	73	0	2	76	1	0	1	3	5	241
05:45 PM	4	14	138	8	164	0	0	0	5	5	7	0	18	0	25	1	73	2	10	86	0	0	0	2	2	282
Total	12	60	496	26	594	0	0	0	18	18	45	1	91	0	137	5	351	3	29	388	4	0	2	13	19	1156
Grand Total	20	144	980	50	1194	0	0	0	54	54	92	3	187	0	282	12	720	5	71	808	12	0	5	20	37	2375
Apprch %	1.7	12.1	82.1	4.2		0	0	0	100		32.6	1.1	66.3	0		1.5	89.1	0.6	8.8		32.4	0	13.5	54.1		
Total %	0.8	6.1	41.3	2.1	50.3	0	0	0	2.3	2.3	3.9	0.1	7.9	0	11.9	0.5	30.3	0.2	3	34	0.5	0	0.2	0.8	1.6	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:30 PM	4	21	117	12	154	0	0	0	7	7	11	0	30	0	41	1	110	0	8	119	2	0	0	0	2	323
04:45 PM	1	22	148	5	176	0	0	0	10	10	11	1	19	0	31	2	98	0	11	111	2	0	0	0	2	330
05:00 PM	3	14	136	10	163	0	0	0	5	5	13	0	25	0	38	1	110	1	10	122	2	0	0	4	6	334
05:15 PM	3	12	122	2	139	0	0	0	7	7	15	0	28	0	43	2	95	0	7	104	1	0	1	4	6	299
Total Volume	11	69	523	29	632	0	0	0	29	29	50	1	102	0	153	6	413	1	36	456	7	0	1	8	16	1286
% App. Total	1.7	10.9	82.8	4.6		0	0	0	100		32.7	0.7	66.7	0		1.3	90.6	0.2	7.9		43.8	0	6.2	50		
PHF	.688	.784	.883	.604	.898	.000	.000	.000	.725	.725	.833	.250	.850	.000	.890	.750	.939	.250	.818	.934	.875	.000	.250	.500	.667	.963

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: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM									
+0 mins.	4	21	117	12	154	0	0	0	7	7	11	0	30	0	41	1	110	0	8	119	2	0	0	0	2
+15 mins.	1	22	148	5	176	0	0	0	10	10	11	1	19	0	31	2	98	0	11	111	2	0	0	0	2
+30 mins.	3	14	136	10	163	0	0	0	5	5	13	0	25	0	38	1	110	1	10	122	2	0	0	4	6
+45 mins.	3	12	122	2	139	0	0	0	7	7	15	0	28	0	43	2	95	0	7	104	1	0	1	4	6
Total Volume	11	69	523	29	632	0	0	0	29	29	50	1	102	0	153	6	413	1	36	456	7	0	1	8	16
% App. Total	1.7	10.9	82.8	4.6		0	0	0	100		32.7	0.7	66.7	0		1.3	90.6	0.2	7.9		43.8	0	6.2	50	
PHF	.688	.784	.883	.604	.898	.000	.000	.000	.725	.725	.833	.250	.850	.000	.890	.750	.939	.250	.818	.934	.875	.000	.250	.500	.667

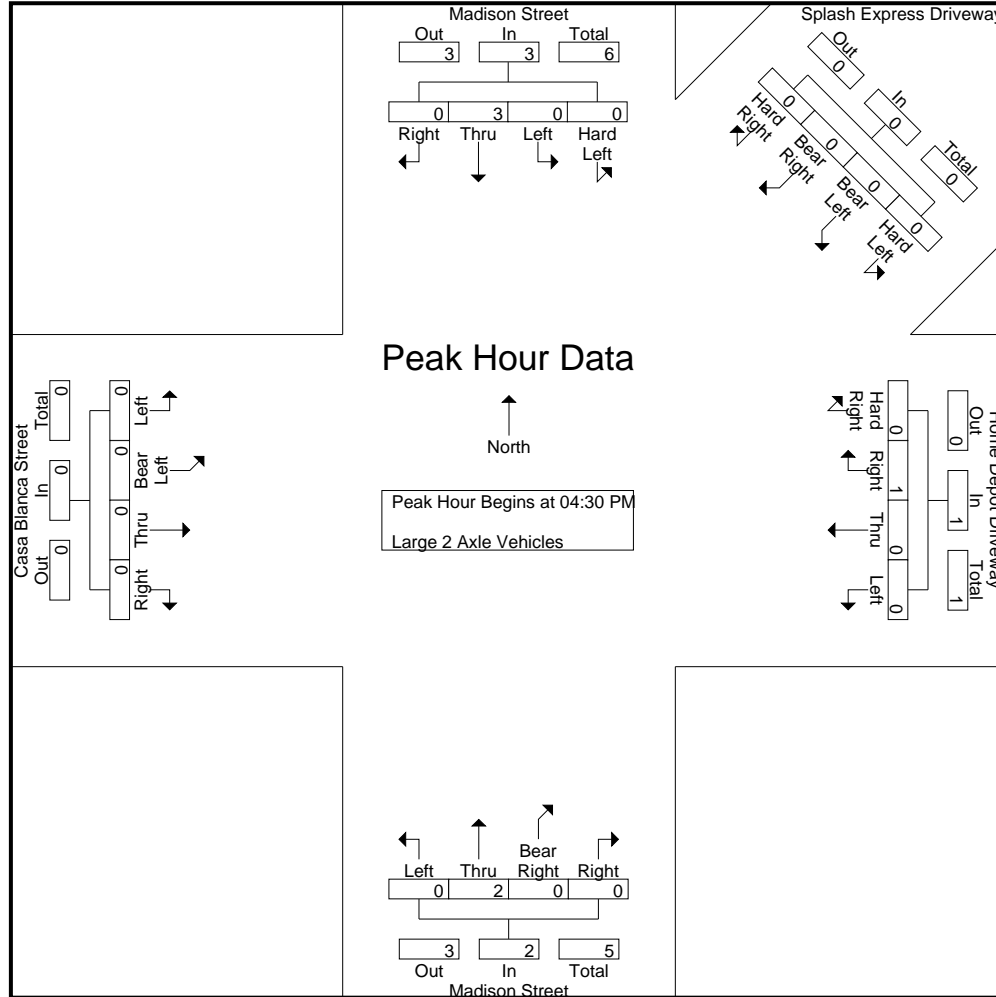
City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	5
04:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	0	0	0	0	0	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	9
05:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	7	0	7	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
Grand Total	0	0	7	1	8	0	0	0	0	0	1	0	2	0	3	0	6	0	0	6	0	0	0	0	0	17
Apprch %	0	0	87.5	12.5		0	0	0	0		33.3	0	66.7	0		0	100	0	0		0	0	0	0		
Total %	0	0	41.2	5.9	47.1	0	0	0	0	0	5.9	0	11.8	0	17.6	0	35.3	0	0	35.3	0	0	0	0	0	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear 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	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	3	0	3	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	6
% App. Total	0	0	100	0		0	0	0	0		0	0	100	0		0	100	0	0		0	0	0	0		
PHF	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.500

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																										
Peak Hour for Each Approach Begins at:																										
	04:30 PM					04:30 PM					04:30 PM					04:30 PM										
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	3	0	3	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	
% App. Total	0	0	100	0		0	0	0	0		0	0	100	0		0	100	0	0		0	0	0	0		
PHF	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	

City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

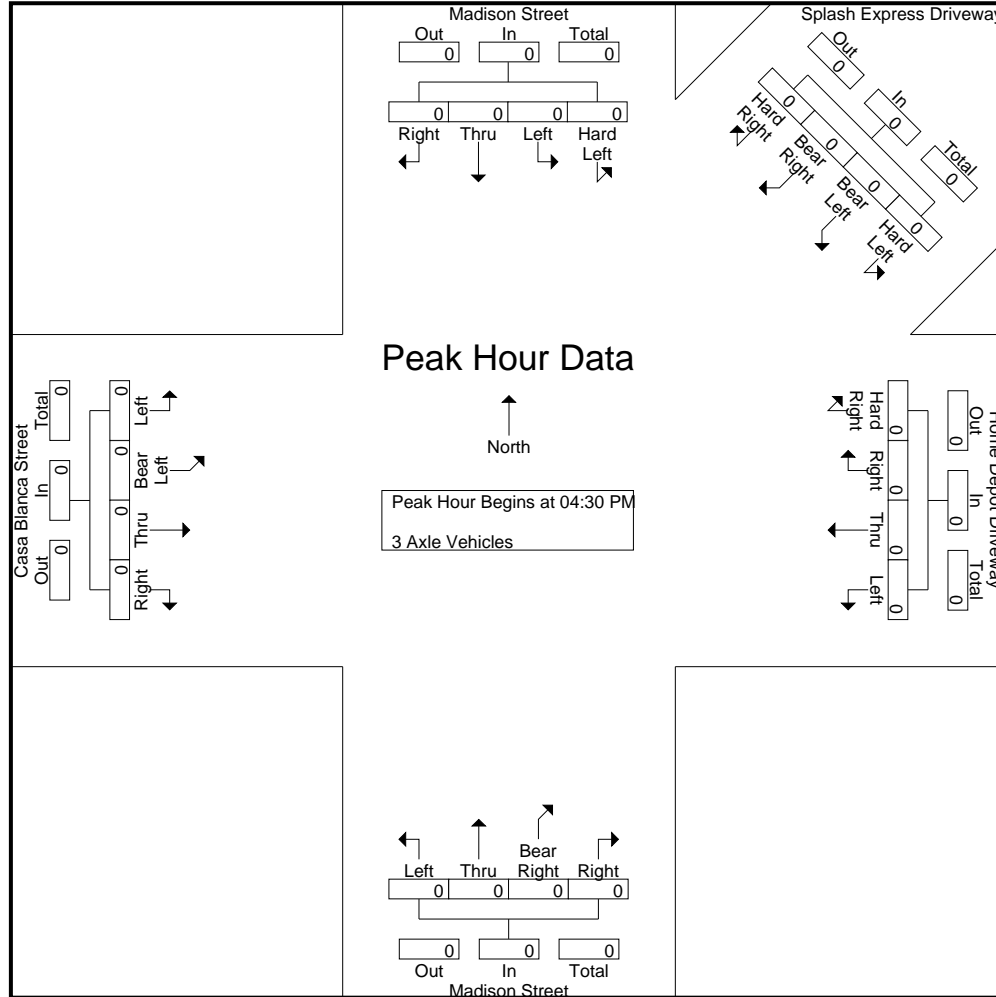
Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total					
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total						
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Apprch %	0	0	100	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total					
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total						
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

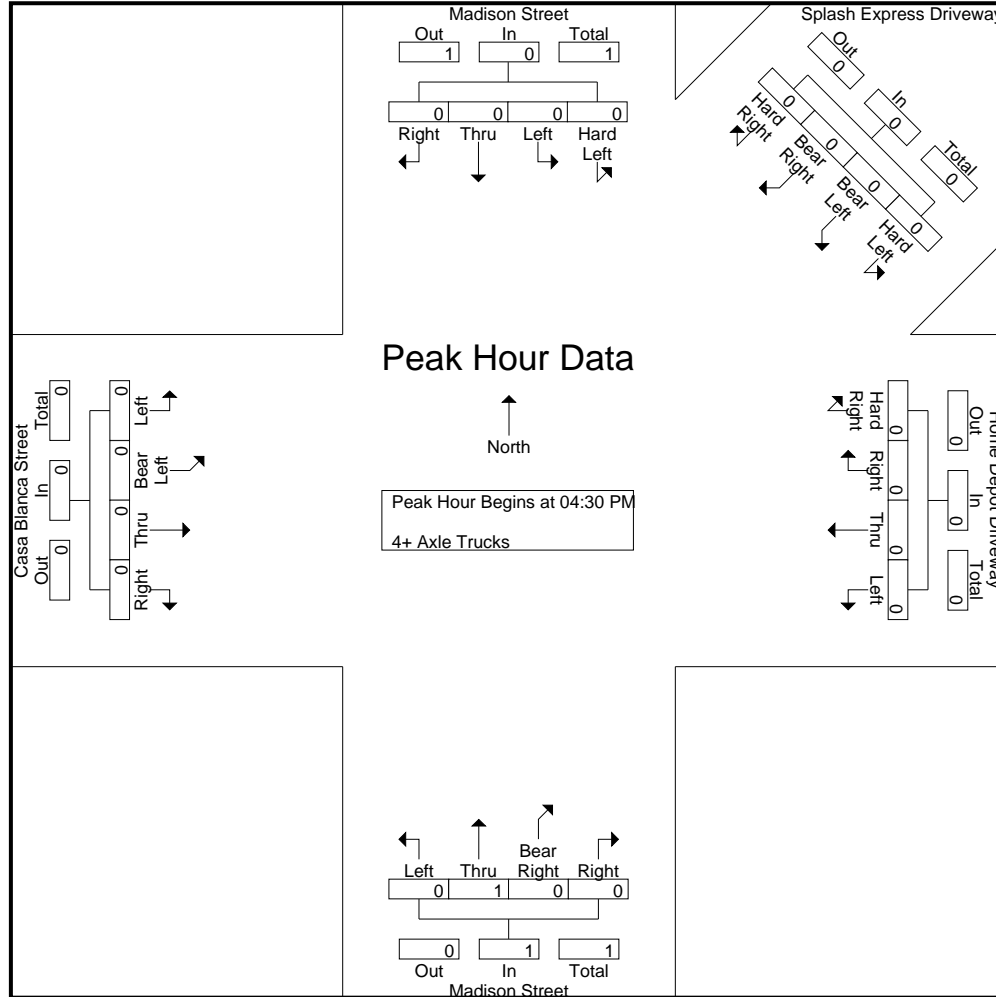
Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
Apprch %	0	0	100	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		
Total %	0	0	42.9	0	42.9	0	0	0	0	0	0	0	0	0	0	0	57.1	0	0	57.1	0	0	0	0	0	

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250

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: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear



City of Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street
 Weather: Clear

Start Time	Madison Street Southbound					Splash Express Driveway Southwestbound					Home Depot Driveway Westbound					Madison Street Northbound					Casa Blanca Street Eastbound					Int. Total					
	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total						
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
	04:30 PM					04:30 PM					04:30 PM					04:30 PM															
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

Location: Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street



Date: 11/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg Madison Street	Northeast Leg Splash Express Driveway	East Leg Home Depot Driveway	South Leg Madison Street	West Leg Casa Blanca Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	5	4	0	0	9
7:15 AM	0	3	4	0	0	7
7:30 AM	1	4	3	0	0	8
7:45 AM	0	4	4	0	0	8
8:00 AM	0	3	3	0	0	6
8:15 AM	0	1	3	0	0	4
8:30 AM	1	2	1	0	0	4
8:45 AM	0	1	1	0	0	2
TOTAL VOLUMES:	2	23	23	0	0	48

	North Leg Madison Street	Northeast Leg Splash Express Driveway	East Leg Home Depot Driveway	South Leg Madison Street	West Leg Casa Blanca Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	3	3	0	0	7
4:15 PM	1	2	0	0	0	3
4:30 PM	0	2	3	0	0	5
4:45 PM	0	1	1	0	0	2
5:00 PM	0	4	3	0	0	7
5:15 PM	2	2	2	0	0	6
5:30 PM	1	2	1	0	0	4
5:45 PM	0	1	1	0	0	2
TOTAL VOLUMES:	5	17	14	0	0	36

Location: Riverside
 N/S: Madison Street
 E/W: Casa Blanca Street



Date: 11/17/2022
 Day: Thursday

BICYCLES

	Southbound Madison Street				Northeast Leg Splash Express Driveway				Westbound Home Depot Driveway				Northbound Madison Street				Eastbound Casa Blanca Street				
	H Left	Left	Thru	Right	H Left	B Left	B Right	H Right	Left	Thru	Right	H Right	Left	Thru	B Right	Right	Left	B Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	2	0	6

	Southbound Madison Street				Northeast Leg Splash Express Driveway				Westbound Home Depot Driveway				Northbound Madison Street				Eastbound Casa Blanca Street				
	H Left	Left	Thru	Right	H Left	B Left	B Right	H Right	Left	Thru	Right	H Right	Left	Thru	B Right	Right	Left	B Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	6

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

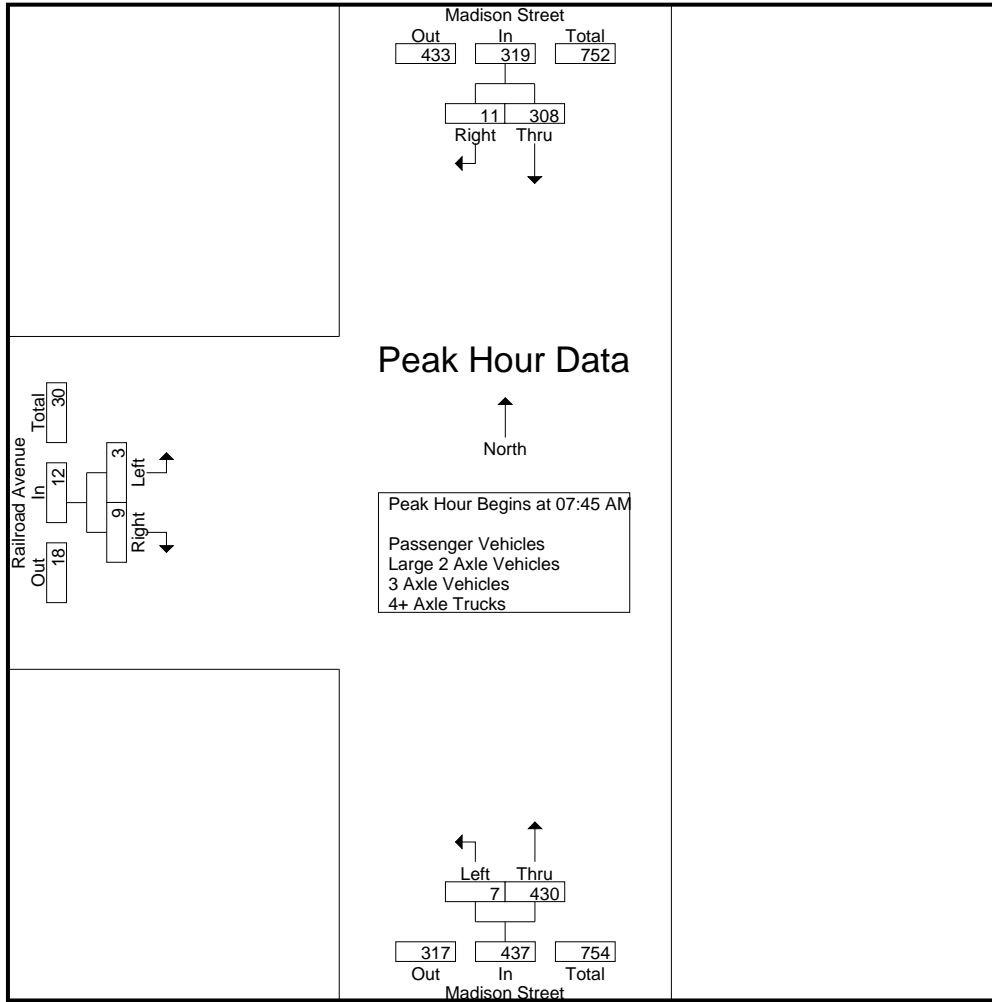
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	68	2	70	3	80	83	0	3	3	156
07:15 AM	70	4	74	3	110	113	1	1	2	189
07:30 AM	59	1	60	3	107	110	2	1	3	173
07:45 AM	77	5	82	4	133	137	2	1	3	222
Total	274	12	286	13	430	443	5	6	11	740
08:00 AM	73	1	74	1	102	103	1	2	3	180
08:15 AM	86	3	89	2	92	94	0	4	4	187
08:30 AM	72	2	74	0	103	103	0	2	2	179
08:45 AM	87	4	91	2	92	94	0	2	2	187
Total	318	10	328	5	389	394	1	10	11	733
Grand Total	592	22	614	18	819	837	6	16	22	1473
Apprch %	96.4	3.6		2.2	97.8		27.3	72.7		
Total %	40.2	1.5	41.7	1.2	55.6	56.8	0.4	1.1	1.5	
Passenger Vehicles	554	21	575	18	791	809	6	16	22	1406
% Passenger Vehicles	93.6	95.5	93.6	100	96.6	96.7	100	100	100	95.5
Large 2 Axle Vehicles	27	1	28	0	19	19	0	0	0	47
% Large 2 Axle Vehicles	4.6	4.5	4.6	0	2.3	2.3	0	0	0	3.2
3 Axle Vehicles	3	0	3	0	4	4	0	0	0	7
% 3 Axle Vehicles	0.5	0	0.5	0	0.5	0.5	0	0	0	0.5
4+ Axle Trucks	8	0	8	0	5	5	0	0	0	13
% 4+ Axle Trucks	1.4	0	1.3	0	0.6	0.6	0	0	0	0.9

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	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 07:45 AM										
07:45 AM	77	5	82	4	133	137	2	1	3	222
08:00 AM	73	1	74	1	102	103	1	2	3	180
08:15 AM	86	3	89	2	92	94	0	4	4	187
08:30 AM	72	2	74	0	103	103	0	2	2	179
Total Volume	308	11	319	7	430	437	3	9	12	768
% App. Total	96.6	3.4		1.6	98.4		25	75		
PHF	.895	.550	.896	.438	.808	.797	.375	.563	.750	.865

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 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:

	08:00 AM			07:15 AM			07:30 AM		
+0 mins.	73	1	74	3	110	113	2	1	3
+15 mins.	86	3	89	3	107	110	2	1	3
+30 mins.	72	2	74	4	133	137	1	2	3
+45 mins.	87	4	91	1	102	103	0	4	4
Total Volume	318	10	328	11	452	463	5	8	13
% App. Total	97	3		2.4	97.6		38.5	61.5	
PHF	.914	.625	.901	.688	.850	.845	.625	.500	.813

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Passenger Vehicles

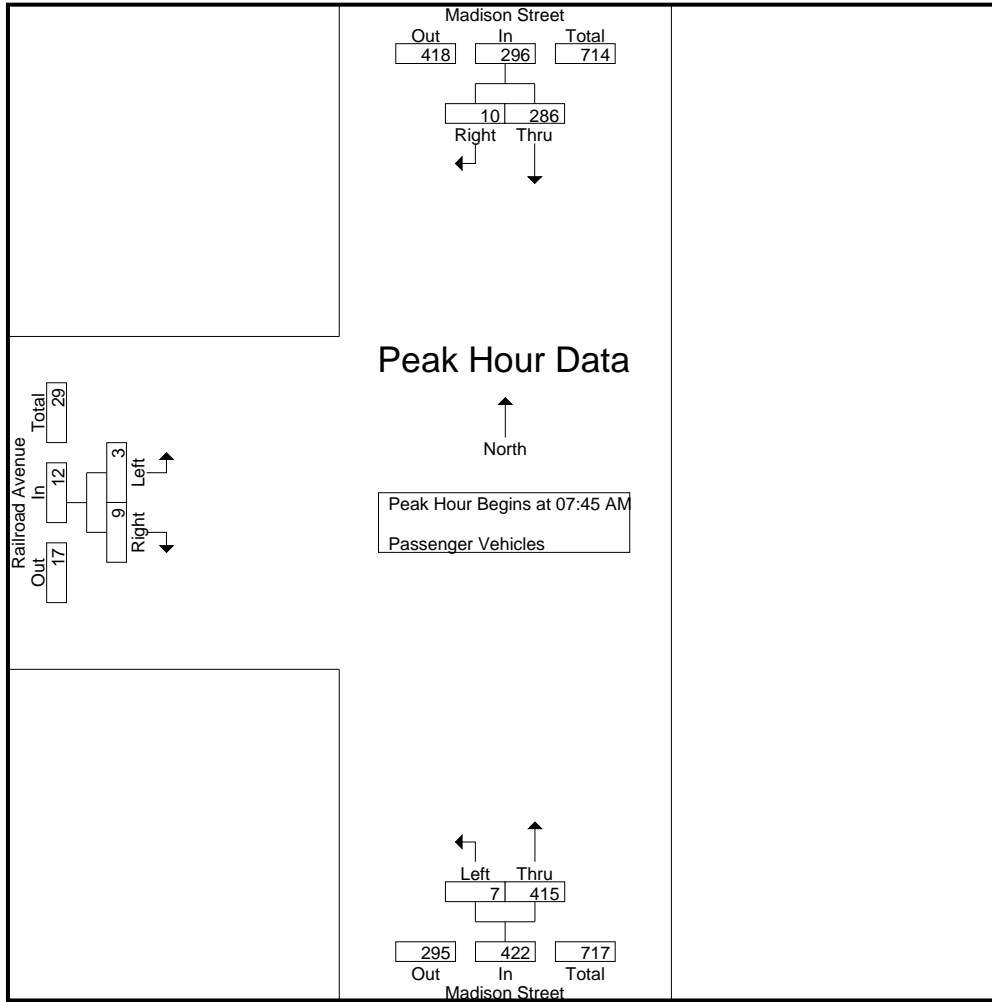
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	64	2	66	3	79	82	0	3	3	151
07:15 AM	66	4	70	3	106	109	1	1	2	181
07:30 AM	53	1	54	3	102	105	2	1	3	162
07:45 AM	72	5	77	4	125	129	2	1	3	209
Total	255	12	267	13	412	425	5	6	11	703
08:00 AM	69	1	70	1	101	102	1	2	3	175
08:15 AM	80	3	83	2	91	93	0	4	4	180
08:30 AM	65	1	66	0	98	98	0	2	2	166
08:45 AM	85	4	89	2	89	91	0	2	2	182
Total	299	9	308	5	379	384	1	10	11	703
Grand Total	554	21	575	18	791	809	6	16	22	1406
Apprch %	96.3	3.7		2.2	97.8		27.3	72.7		
Total %	39.4	1.5	40.9	1.3	56.3	57.5	0.4	1.1	1.6	

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:45 AM	72	5	77	4	125	129	2	1	3	209
08:00 AM	69	1	70	1	101	102	1	2	3	175
08:15 AM	80	3	83	2	91	93	0	4	4	180
08:30 AM	65	1	66	0	98	98	0	2	2	166
Total Volume	286	10	296	7	415	422	3	9	12	730
% App. Total	96.6	3.4		1.7	98.3		25	75		
PHF	.894	.500	.892	.438	.830	.818	.375	.563	.750	.873

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			07:45 AM		
+0 mins.	72	5	77	4	125	129	2	1	3
+15 mins.	69	1	70	1	101	102	1	2	3
+30 mins.	80	3	83	2	91	93	0	4	4
+45 mins.	65	1	66	0	98	98	0	2	2
Total Volume	286	10	296	7	415	422	3	9	12
% App. Total	96.6	3.4		1.7	98.3		25	75	
PHF	.894	.500	.892	.438	.830	.818	.375	.563	.750

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	3	0	3	0	1	1	0	0	0	4
07:15 AM	3	0	3	0	2	2	0	0	0	5
07:30 AM	3	0	3	0	5	5	0	0	0	8
07:45 AM	5	0	5	0	4	4	0	0	0	9
Total	14	0	14	0	12	12	0	0	0	26
08:00 AM	4	0	4	0	1	1	0	0	0	5
08:15 AM	5	0	5	0	1	1	0	0	0	6
08:30 AM	3	1	4	0	2	2	0	0	0	6
08:45 AM	1	0	1	0	3	3	0	0	0	4
Total	13	1	14	0	7	7	0	0	0	21
Grand Total	27	1	28	0	19	19	0	0	0	47
Apprch %	96.4	3.6		0	100		0	0		
Total %	57.4	2.1	59.6	0	40.4	40.4	0	0	0	

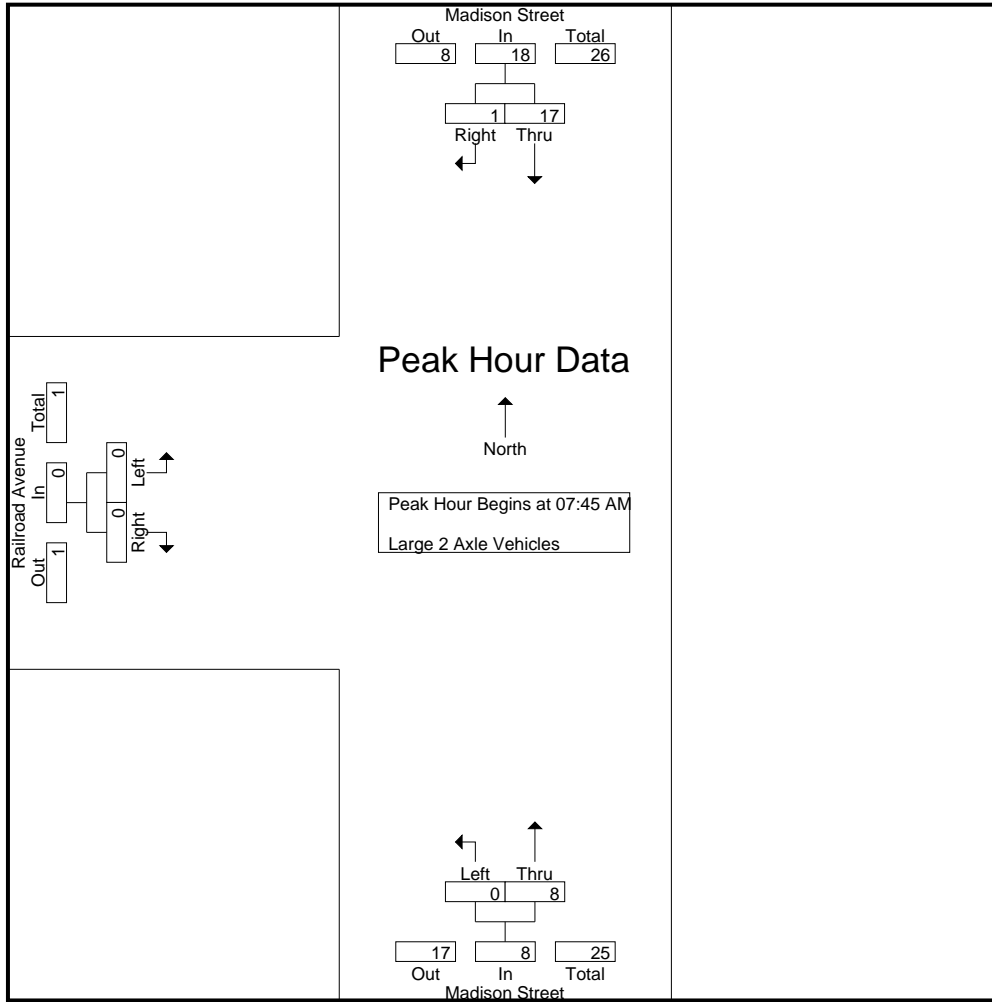
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:45 AM	5	0	5	0	4	4	0	0	0	9
08:00 AM	4	0	4	0	1	1	0	0	0	5
08:15 AM	5	0	5	0	1	1	0	0	0	6
08:30 AM	3	1	4	0	2	2	0	0	0	6
Total Volume	17	1	18	0	8	8	0	0	0	26
% App. Total	94.4	5.6		0	100		0	0		
PHF	.850	.250	.900	.000	.500	.500	.000	.000	.000	.722

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			07:45 AM		
+0 mins.	5	0	5	0	4	4	0	0	0
+15 mins.	4	0	4	0	1	1	0	0	0
+30 mins.	5	0	5	0	1	1	0	0	0
+45 mins.	3	1	4	0	2	2	0	0	0
Total Volume	17	1	18	0	8	8	0	0	0
% App. Total	94.4	5.6		0	100		0	0	
PHF	.850	.250	.900	.000	.500	.500	.000	.000	.000

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	2	0	2	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	2	2	0	0	0	2
Total	2	0	2	0	3	3	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	1	0	1	0	1	1	0	0	0	2
Grand Total	3	0	3	0	4	4	0	0	0	7
Apprch %	100	0		0	100		0	0		
Total %	42.9	0	42.9	0	57.1	57.1	0	0	0	

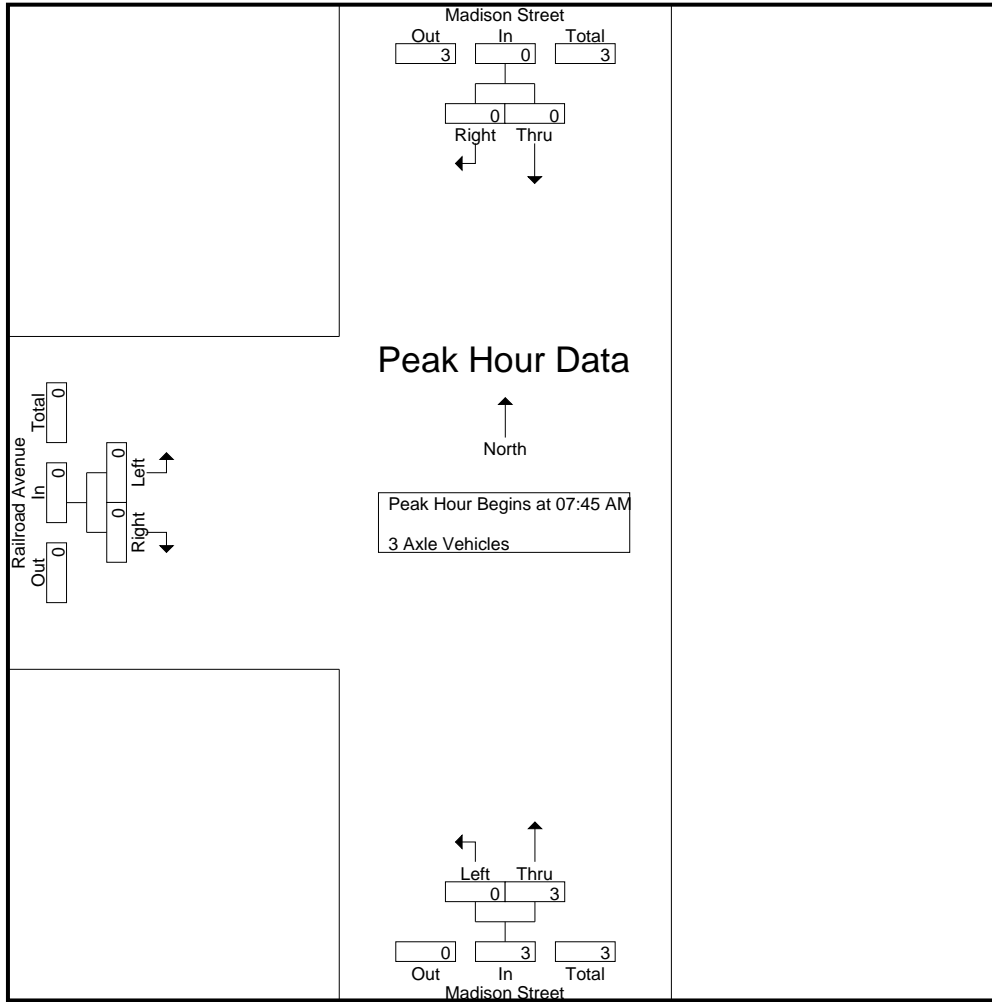
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:45 AM	0	0	0	0	2	2	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	3	3	0	0	0	3
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.375	.375	.000	.000	.000	.375

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			07:45 AM		
+0 mins.	0	0	0	0	2	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	0	3	3	0	0	0
% App. Total	0	0	0	0	100		0	0	
PHF	.000	.000	.000	.000	.375	.375	.000	.000	.000

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:00 AM	1	0	1	0	0	0	0	0	0	1
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	2	2	0	0	0	2
Total	3	0	3	0	3	3	0	0	0	6
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	4	0	4	0	2	2	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	5	0	5	0	2	2	0	0	0	7
Grand Total	8	0	8	0	5	5	0	0	0	13
Apprch %	100	0		0	100		0	0		
Total %	61.5	0	61.5	0	38.5	38.5	0	0	0	

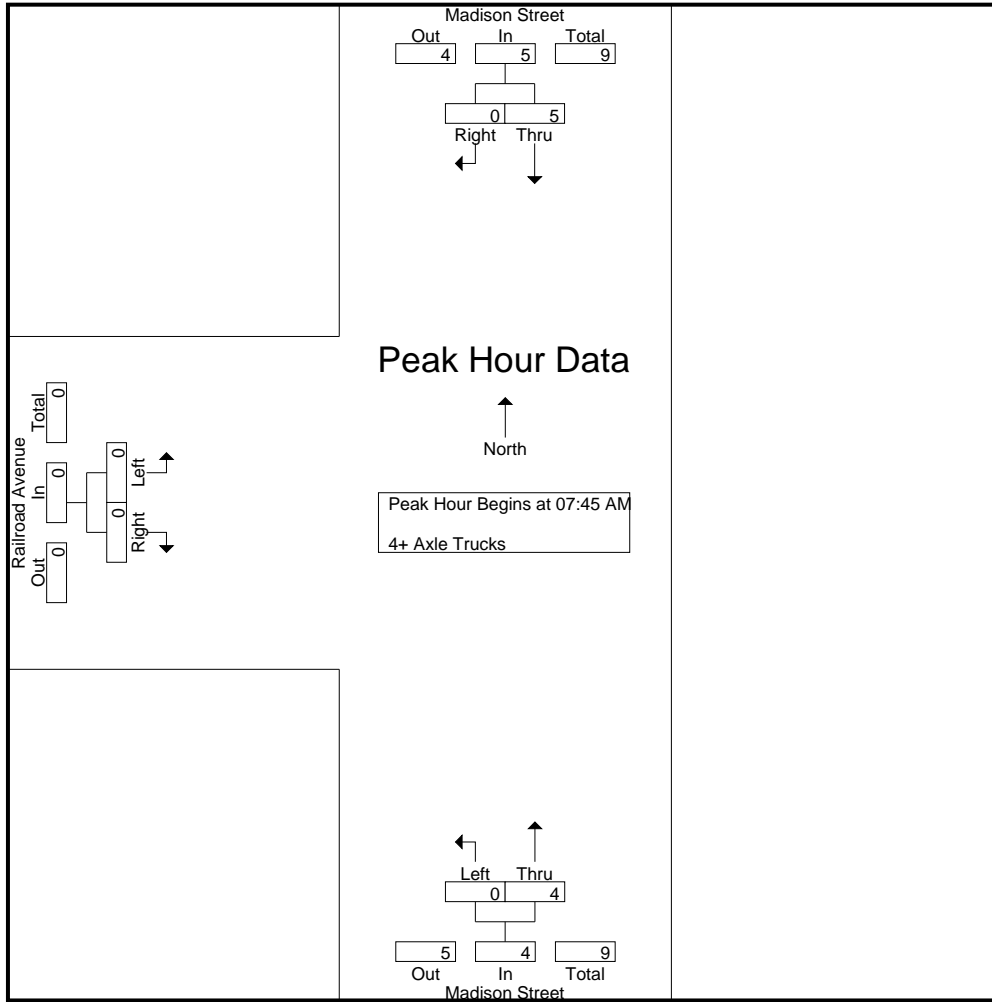
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
07:45 AM	0	0	0	0	2	2	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	4	0	4	0	2	2	0	0	0	6
Total Volume	5	0	5	0	4	4	0	0	0	9
% App. Total	100	0		0	100		0	0		
PHF	.313	.000	.313	.000	.500	.500	.000	.000	.000	.375

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			07:45 AM		
+0 mins.	0	0	0	0	2	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	4	0	4	0	2	2	0	0	0
Total Volume	5	0	5	0	4	4	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.313	.000	.313	.000	.500	.500	.000	.000	.000

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	108	6	114	1	98	99	0	3	3	216
04:15 PM	114	3	117	0	88	88	1	6	7	212
04:30 PM	121	1	122	1	107	108	1	3	4	234
04:45 PM	150	3	153	1	114	115	0	3	3	271
Total	493	13	506	3	407	410	2	15	17	933
05:00 PM	140	4	144	0	115	115	1	3	4	263
05:15 PM	139	3	142	1	98	99	1	2	3	244
05:30 PM	83	0	83	2	78	80	1	0	1	164
05:45 PM	140	1	141	1	88	89	0	1	1	231
Total	502	8	510	4	379	383	3	6	9	902
Grand Total	995	21	1016	7	786	793	5	21	26	1835
Apprch %	97.9	2.1		0.9	99.1		19.2	80.8		
Total %	54.2	1.1	55.4	0.4	42.8	43.2	0.3	1.1	1.4	
Passenger Vehicles	970	21	991	7	780	787	5	20	25	1803
% Passenger Vehicles	97.5	100	97.5	100	99.2	99.2	100	95.2	96.2	98.3
Large 2 Axle Vehicles	20	0	20	0	3	3	0	1	1	24
% Large 2 Axle Vehicles	2	0	2	0	0.4	0.4	0	4.8	3.8	1.3
3 Axle Vehicles	2	0	2	0	0	0	0	0	0	2
% 3 Axle Vehicles	0.2	0	0.2	0	0	0	0	0	0	0.1
4+ Axle Trucks	3	0	3	0	3	3	0	0	0	6
% 4+ Axle Trucks	0.3	0	0.3	0	0.4	0.4	0	0	0	0.3

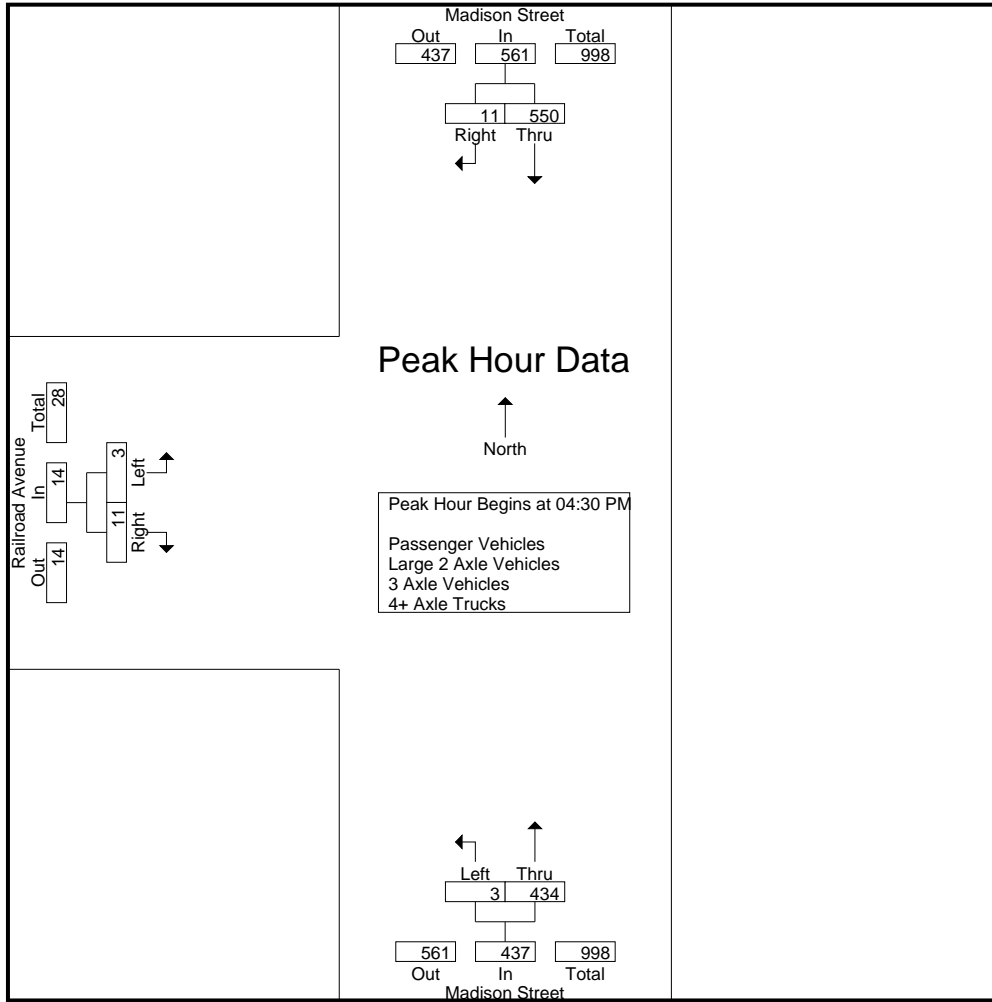
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	121	1	122	1	107	108	1	3	4	234
04:45 PM	150	3	153	1	114	115	0	3	3	271
05:00 PM	140	4	144	0	115	115	1	3	4	263
05:15 PM	139	3	142	1	98	99	1	2	3	244
Total Volume	550	11	561	3	434	437	3	11	14	1012
% App. Total	98	2		0.7	99.3		21.4	78.6		
PHF	.917	.688	.917	.750	.943	.950	.750	.917	.875	.934

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

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 2



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

	04:30 PM			04:30 PM			04:15 PM		
+0 mins.	121	1	122	1	107	108	1	6	7
+15 mins.	150	3	153	1	114	115	1	3	4
+30 mins.	140	4	144	0	115	115	0	3	3
+45 mins.	139	3	142	1	98	99	1	3	4
Total Volume	550	11	561	3	434	437	3	15	18
% App. Total	98	2		0.7	99.3		16.7	83.3	
PHF	.917	.688	.917	.750	.943	.950	.750	.625	.643

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	107	6	113	1	97	98	0	3	3	214
04:15 PM	113	3	116	0	86	86	1	5	6	208
04:30 PM	121	1	122	1	106	107	1	3	4	233
04:45 PM	150	3	153	1	113	114	0	3	3	270
Total	491	13	504	3	402	405	2	14	16	925
05:00 PM	139	4	143	0	114	114	1	3	4	261
05:15 PM	137	3	140	1	98	99	1	2	3	242
05:30 PM	81	0	81	2	78	80	1	0	1	162
05:45 PM	122	1	123	1	88	89	0	1	1	213
Total	479	8	487	4	378	382	3	6	9	878
Grand Total	970	21	991	7	780	787	5	20	25	1803
Apprch %	97.9	2.1		0.9	99.1		20	80		
Total %	53.8	1.2	55	0.4	43.3	43.6	0.3	1.1	1.4	

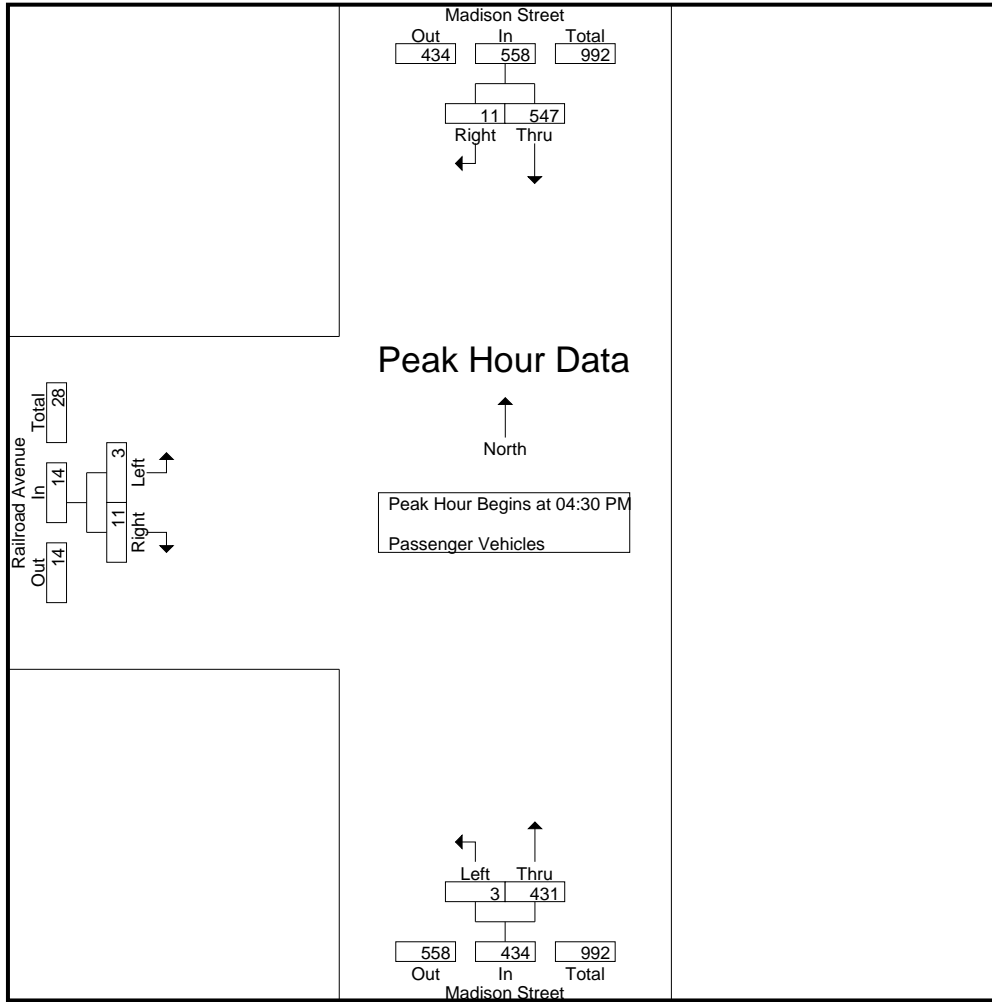
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	121	1	122	1	106	107	1	3	4	233
04:45 PM	150	3	153	1	113	114	0	3	3	270
05:00 PM	139	4	143	0	114	114	1	3	4	261
05:15 PM	137	3	140	1	98	99	1	2	3	242
Total Volume	547	11	558	3	431	434	3	11	14	1006
% App. Total	98	2		0.7	99.3		21.4	78.6		
PHF	.912	.688	.912	.750	.945	.952	.750	.917	.875	.931

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: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 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.	121	1	122	1	106	107	1	3	4
+15 mins.	150	3	153	1	113	114	0	3	3
+30 mins.	139	4	143	0	114	114	1	3	4
+45 mins.	137	3	140	1	98	99	1	2	3
Total Volume	547	11	558	3	431	434	3	11	14
% App. Total	98	2		0.7	99.3		21.4	78.6	
PHF	.912	.688	.912	.750	.945	.952	.750	.917	.875

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	1	0	1	0	1	1	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	2	2	0	1	1	4
05:00 PM	1	0	1	0	1	1	0	0	0	2
05:15 PM	2	0	2	0	0	0	0	0	0	2
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	15	0	15	0	0	0	0	0	0	15
Total	19	0	19	0	1	1	0	0	0	20
Grand Total	20	0	20	0	3	3	0	1	1	24
Apprch %	100	0		0	100		0	100		
Total %	83.3	0	83.3	0	12.5	12.5	0	4.2	4.2	

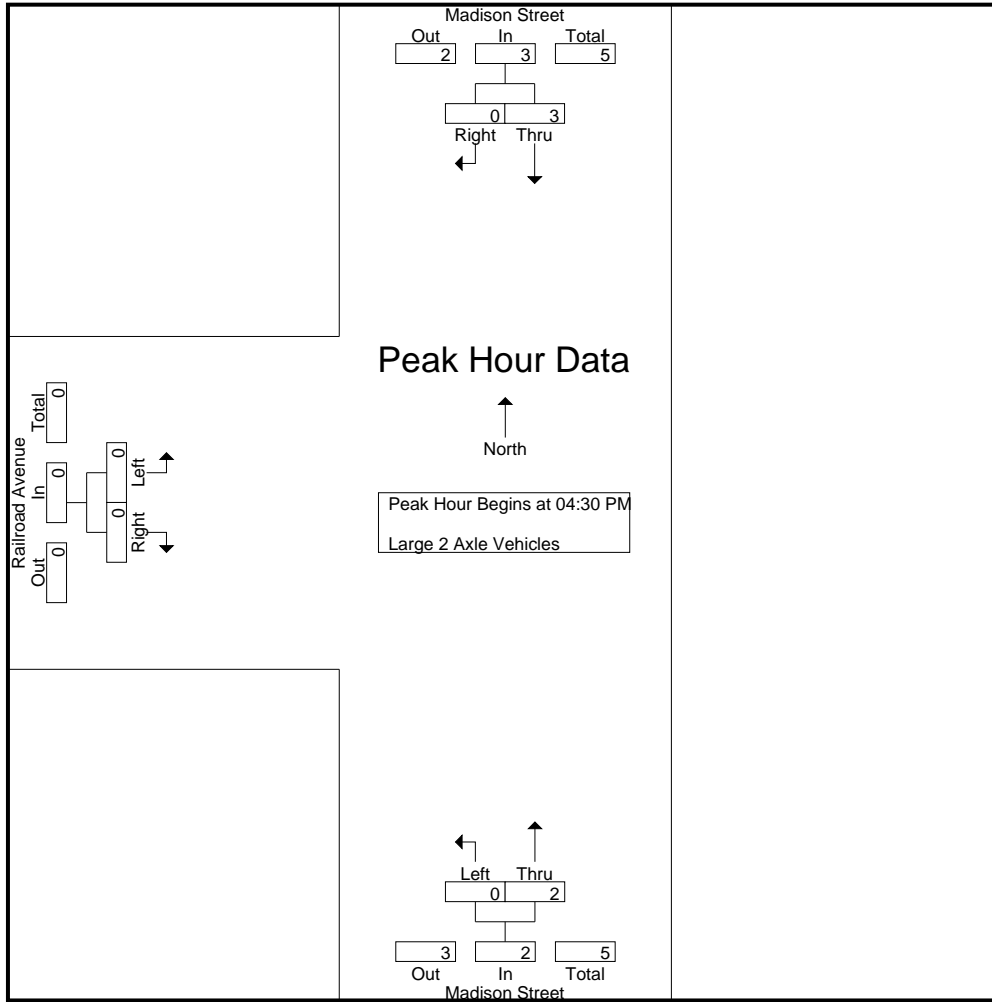
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	1	0	1	0	1	1	0	0	0	2
05:15 PM	2	0	2	0	0	0	0	0	0	2
Total Volume	3	0	3	0	2	2	0	0	0	5
% App. Total	100	0		0	100		0	0		
PHF	.375	.000	.375	.000	.500	.500	.000	.000	.000	.625

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: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	1	1	0	0	0
+45 mins.	2	0	2	0	0	0	0	0	0
Total Volume	3	0	3	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.375	.000	.375	.000	.500	.500	.000	.000	.000

City of Riverside
 N/S: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
Grand Total	2	0	2	0	0	0	0	0	0	2
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	2	2	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	3	3	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	3	0	3	0	0	0	0	0	0	3
Total	3	0	3	0	0	0	0	0	0	3
Grand Total	3	0	3	0	3	3	0	0	0	6
Apprch %	100	0		0	100		0	0		
Total %	50	0	50	0	50	50	0	0	0	

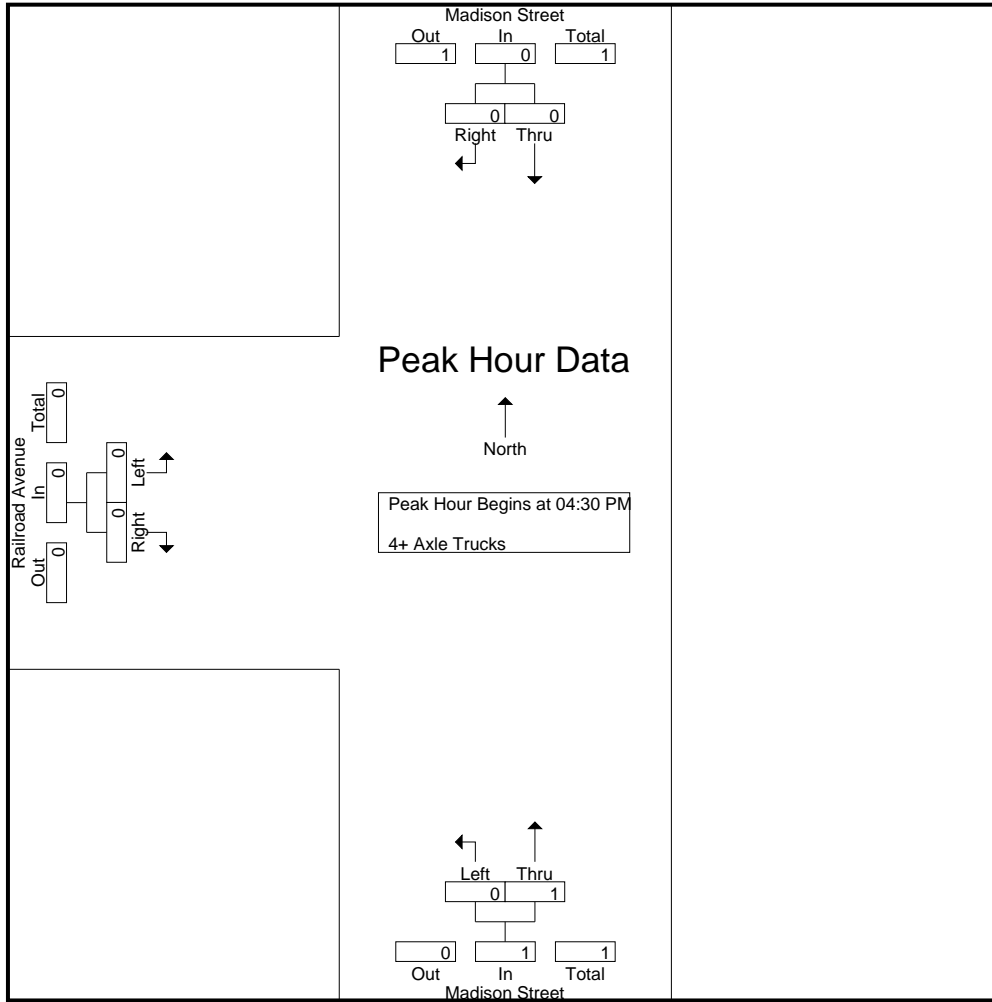
Start Time	Madison Street Southbound			Madison Street Northbound			Railroad Avenue Eastbound			Int. Total
	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

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: Madison Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 04_RIV_Mad_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 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	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0	0	0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

Location: Riverside
 N/S: Madison Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg Madison Street	East Leg Dead End	South Leg Madison Street	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	1	1
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	3	3
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	7	7

	North Leg Madison Street	East Leg Dead End	South Leg Madison Street	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	2	2
4:45 PM	1	0	0	1	2
5:00 PM	0	0	0	2	2
5:15 PM	0	0	0	2	2
5:30 PM	0	0	0	2	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	11	12

Location: Riverside
 N/S: Madison Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

BICYCLES

	Southbound Madison Street			Westbound Dead End			Northbound Madison Street			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	1	5	0	0	0	0	6

	Southbound Madison Street			Westbound Dead End			Northbound Madison Street			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	3	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	0	6	0	0	0	1	9

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

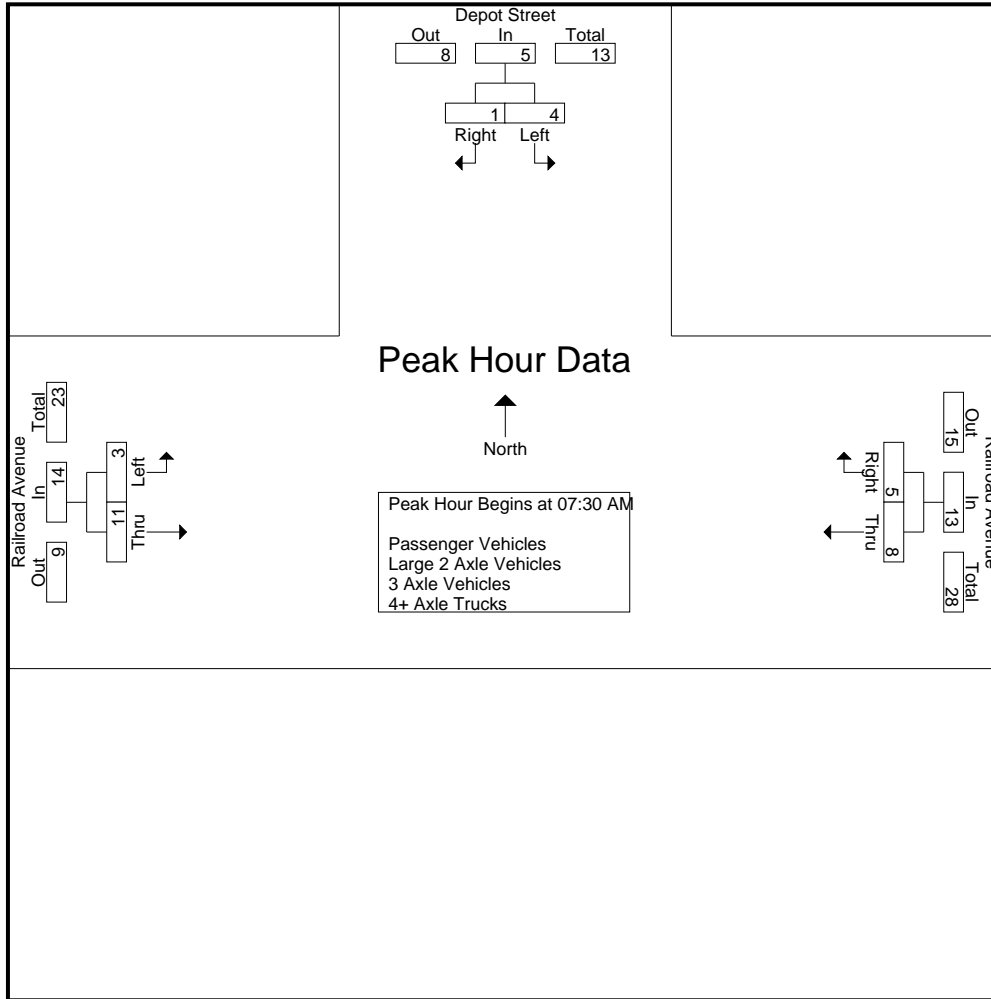
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	3	3	1	0	1	4
07:15 AM	0	0	0	1	1	2	0	0	0	2
07:30 AM	0	0	0	1	0	1	1	3	4	5
07:45 AM	0	0	0	1	1	2	1	5	6	8
Total	0	0	0	3	5	8	3	8	11	19
08:00 AM	1	0	1	3	2	5	1	1	2	8
08:15 AM	3	1	4	3	2	5	0	2	2	11
08:30 AM	0	0	0	4	1	5	0	0	0	5
08:45 AM	0	0	0	3	2	5	0	2	2	7
Total	4	1	5	13	7	20	1	5	6	31
Grand Total	4	1	5	16	12	28	4	13	17	50
Apprch %	80	20		57.1	42.9		23.5	76.5		
Total %	8	2	10	32	24	56	8	26	34	
Passenger Vehicles	4	1	5	16	11	27	4	13	17	49
% Passenger Vehicles	100	100	100	100	91.7	96.4	100	100	100	98
Large 2 Axle Vehicles	0	0	0	0	1	1	0	0	0	1
% Large 2 Axle Vehicles										
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	1	0	1	1	3	4	5
07:45 AM	0	0	0	1	1	2	1	5	6	8
08:00 AM	1	0	1	3	2	5	1	1	2	8
08:15 AM	3	1	4	3	2	5	0	2	2	11
Total Volume	4	1	5	8	5	13	3	11	14	32
% App. Total	80	20		61.5	38.5		21.4	78.6		
PHF	.333	.250	.313	.667	.625	.650	.750	.550	.583	.727

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			08:00 AM			07:30 AM		
+0 mins.	0	0	0	3	2	5	1	3	4
+15 mins.	0	0	0	3	2	5	1	5	6
+30 mins.	1	0	1	4	1	5	1	1	2
+45 mins.	3	1	4	3	2	5	0	2	2
Total Volume	4	1	5	13	7	20	3	11	14
% App. Total	80	20		65	35		21.4	78.6	
PHF	.333	.250	.313	.813	.875	1.000	.750	.550	.583

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	3	3	1	0	1	4
07:15 AM	0	0	0	1	1	2	0	0	0	2
07:30 AM	0	0	0	1	0	1	1	3	4	5
07:45 AM	0	0	0	1	1	2	1	5	6	8
Total	0	0	0	3	5	8	3	8	11	19
08:00 AM	1	0	1	3	2	5	1	1	2	8
08:15 AM	3	1	4	3	2	5	0	2	2	11
08:30 AM	0	0	0	4	0	4	0	0	0	4
08:45 AM	0	0	0	3	2	5	0	2	2	7
Total	4	1	5	13	6	19	1	5	6	30
Grand Total	4	1	5	16	11	27	4	13	17	49
Apprch %	80	20		59.3	40.7		23.5	76.5		
Total %	8.2	2	10.2	32.7	22.4	55.1	8.2	26.5	34.7	

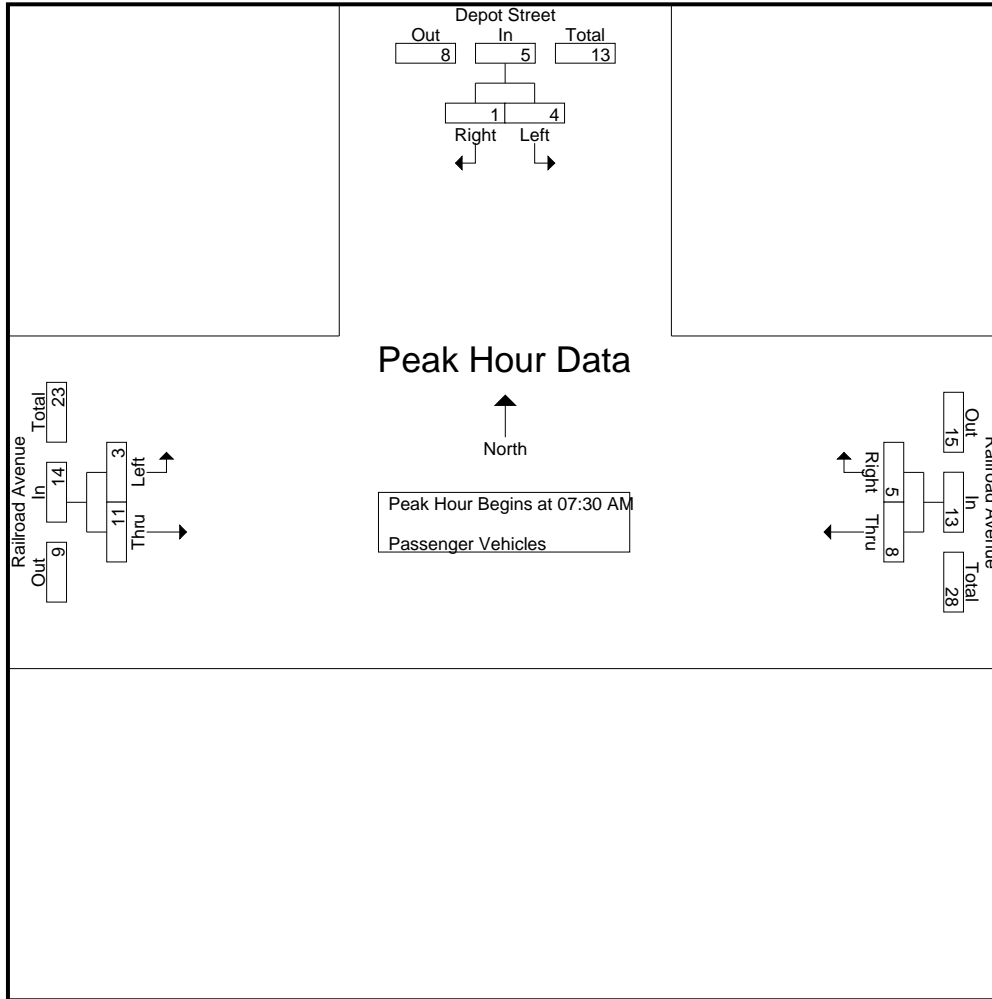
Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	1	0	1	1	3	4	5
07:45 AM	0	0	0	1	1	2	1	5	6	8
08:00 AM	1	0	1	3	2	5	1	1	2	8
08:15 AM	3	1	4	3	2	5	0	2	2	11
Total Volume	4	1	5	8	5	13	3	11	14	32
% App. Total	80	20		61.5	38.5		21.4	78.6		
PHF	.333	.250	.313	.667	.625	.650	.750	.550	.583	.727

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	0	0	1	0	1	1	3	4
+15 mins.	0	0	0	1	1	2	1	5	6
+30 mins.	1	0	1	3	2	5	1	1	2
+45 mins.	3	1	4	3	2	5	0	2	2
Total Volume	4	1	5	8	5	13	3	11	14
% App. Total	80	20		61.5	38.5		21.4	78.6	
PHF	.333	.250	.313	.667	.625	.650	.750	.550	.583

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
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Groups Printed- Large 2 Axle Vehicles

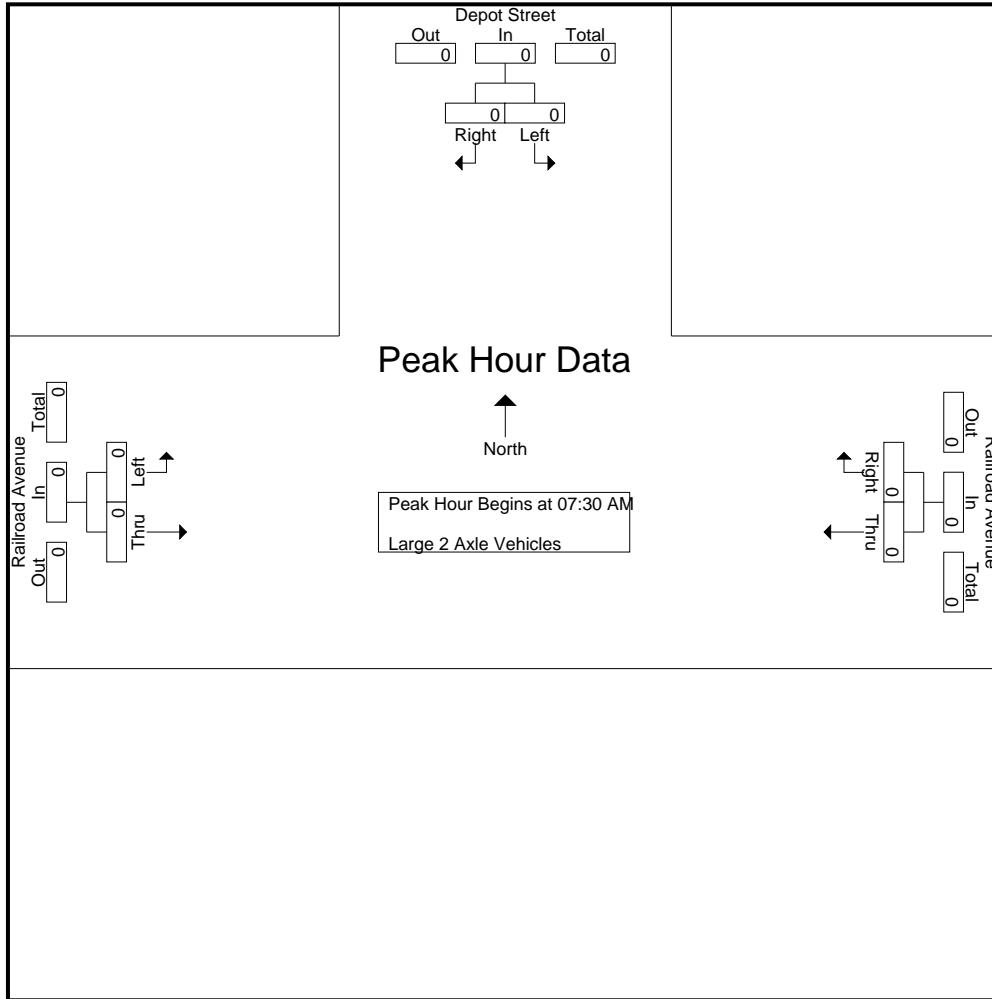
Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0		0	100	100	0	0		

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR AM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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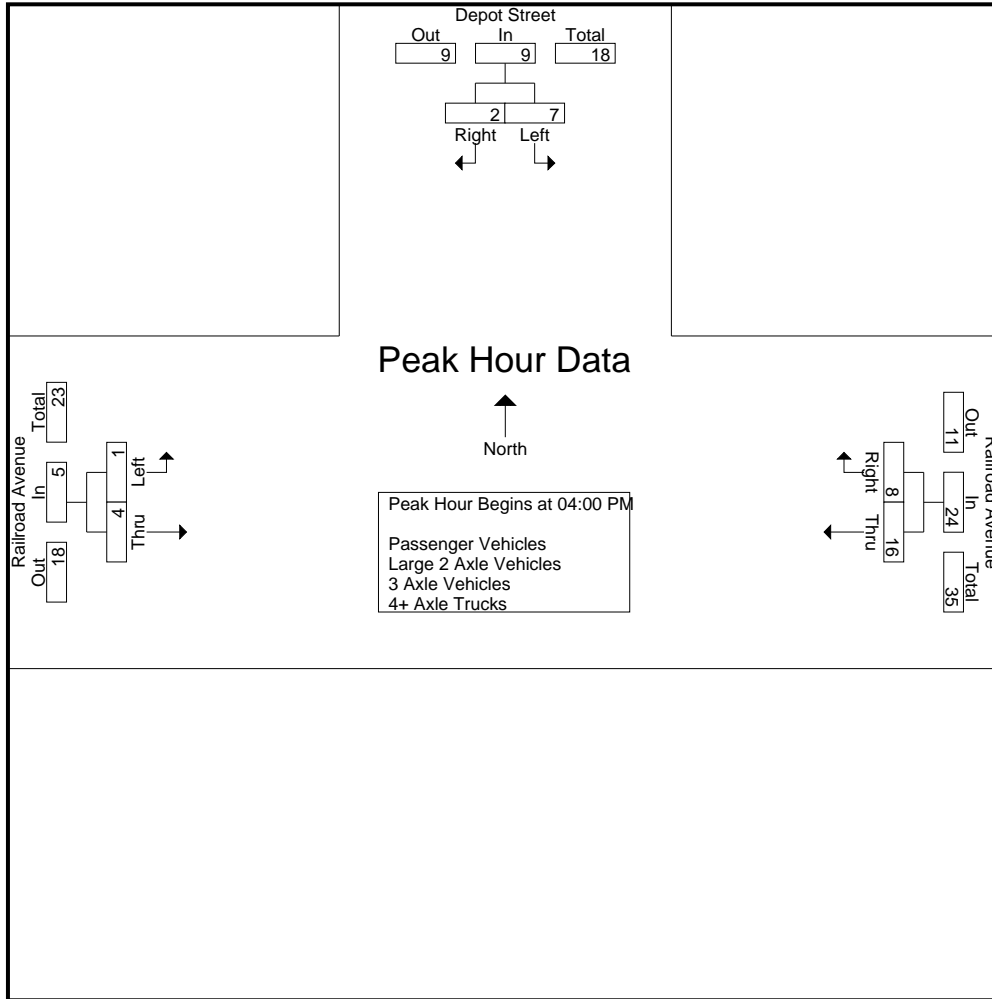
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	1	0	1	5	3	8	1	2	3	12
04:15 PM	0	1	1	4	2	6	0	2	2	9
04:30 PM	5	0	5	3	1	4	0	0	0	9
04:45 PM	1	1	2	4	2	6	0	0	0	8
Total	7	2	9	16	8	24	1	4	5	38
05:00 PM	1	1	2	2	0	2	0	2	2	6
05:15 PM	0	0	0	4	2	6	1	1	2	8
05:30 PM	1	0	1	0	2	2	1	0	1	4
05:45 PM	1	0	1	2	0	2	1	0	1	4
Total	3	1	4	8	4	12	3	3	6	22
Grand Total	10	3	13	24	12	36	4	7	11	60
Apprch %	76.9	23.1		66.7	33.3		36.4	63.6		
Total %	16.7	5	21.7	40	20	60	6.7	11.7	18.3	
Passenger Vehicles	9	3	12	24	12	36	4	7	11	59
% Passenger Vehicles	90	100	92.3	100	100	100	100	100	100	98.3
Large 2 Axle Vehicles	1	0	1	0	0	0	0	0	0	1
% Large 2 Axle Vehicles										
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	0	1	5	3	8	1	2	3	12
04:15 PM	0	1	1	4	2	6	0	2	2	9
04:30 PM	5	0	5	3	1	4	0	0	0	9
04:45 PM	1	1	2	4	2	6	0	0	0	8
Total Volume	7	2	9	16	8	24	1	4	5	38
% App. Total	77.8	22.2		66.7	33.3		20	80		
PHF	.350	.500	.450	.800	.667	.750	.250	.500	.417	.792

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM			04:00 PM			05:00 PM		
+0 mins.	0	1	1	5	3	8	0	2	2
+15 mins.	5	0	5	4	2	6	1	1	2
+30 mins.	1	1	2	3	1	4	1	0	1
+45 mins.	1	1	2	4	2	6	1	0	1
Total Volume	7	3	10	16	8	24	3	3	6
% App. Total	70	30		66.7	33.3		50	50	
PHF	.350	.750	.500	.800	.667	.750	.750	.375	.750

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Passenger Vehicles

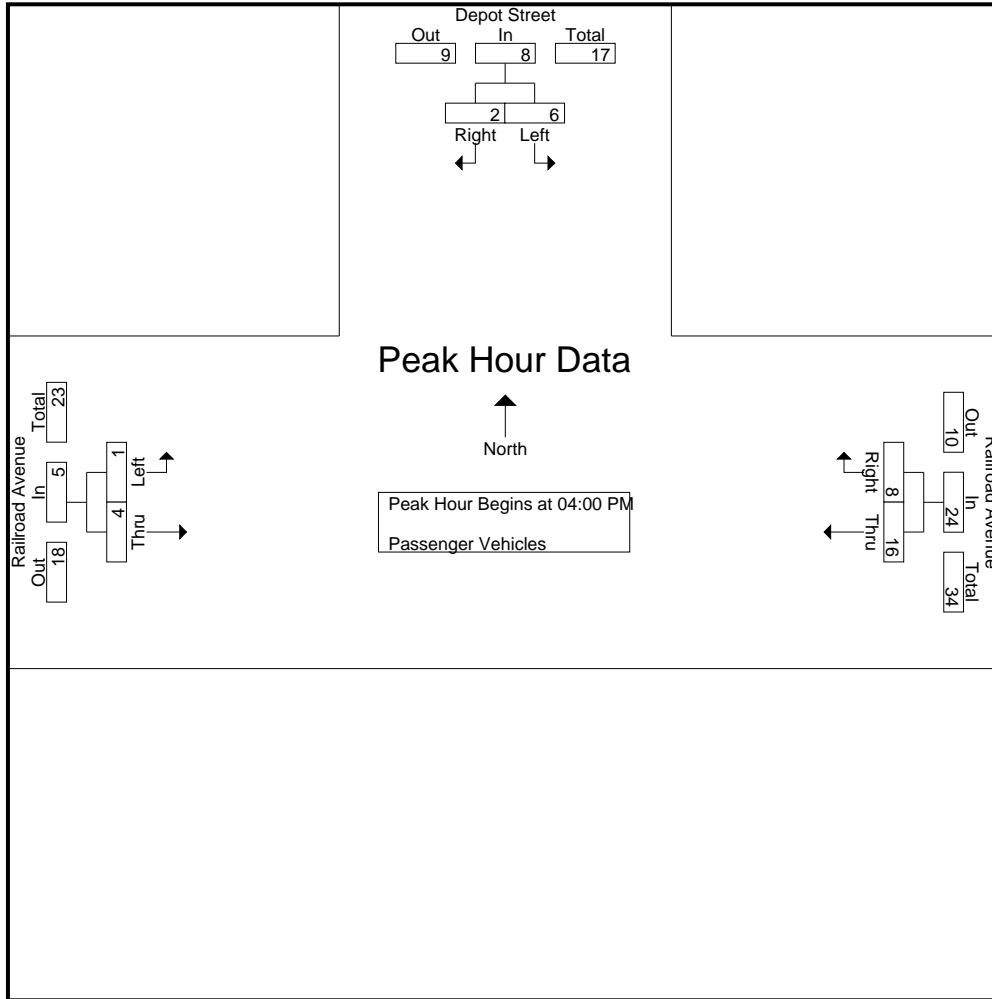
Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	1	0	1	5	3	8	1	2	3	12
04:15 PM	0	1	1	4	2	6	0	2	2	9
04:30 PM	4	0	4	3	1	4	0	0	0	8
04:45 PM	1	1	2	4	2	6	0	0	0	8
Total	6	2	8	16	8	24	1	4	5	37
05:00 PM	1	1	2	2	0	2	0	2	2	6
05:15 PM	0	0	0	4	2	6	1	1	2	8
05:30 PM	1	0	1	0	2	2	1	0	1	4
05:45 PM	1	0	1	2	0	2	1	0	1	4
Total	3	1	4	8	4	12	3	3	6	22
Grand Total	9	3	12	24	12	36	4	7	11	59
Apprch %	75	25		66.7	33.3		36.4	63.6		
Total %	15.3	5.1	20.3	40.7	20.3	61	6.8	11.9	18.6	

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	1	0	1	5	3	8	1	2	3	12
04:15 PM	0	1	1	4	2	6	0	2	2	9
04:30 PM	4	0	4	3	1	4	0	0	0	8
04:45 PM	1	1	2	4	2	6	0	0	0	8
Total Volume	6	2	8	16	8	24	1	4	5	37
% App. Total	75	25		66.7	33.3		20	80		
PHF	.375	.500	.500	.800	.667	.750	.250	.500	.417	.771

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	1	0	1	5	3	8	1	2	3
+15 mins.	0	1	1	4	2	6	0	2	2
+30 mins.	4	0	4	3	1	4	0	0	0
+45 mins.	1	1	2	4	2	6	0	0	0
Total Volume	6	2	8	16	8	24	1	4	5
% App. Total	75	25		66.7	33.3		20	80	
PHF	.375	.500	.500	.800	.667	.750	.250	.500	.417

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	0	0	0	0	0	0	1
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

City of Riverside
 N/S: Depot Street
 E/W: Railroad Avenue
 Weather: Clear

File Name : 05_RIV_Depot_RR PM
 Site Code : 221050
 Start Date : 11/17/2022
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Depot Street Southbound			Railroad Avenue Westbound			Railroad Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Location: Riverside
 N/S: Depot Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg Depot Street	East Leg Railroad Avenue	South Leg Dead End	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Depot Street	East Leg Railroad Avenue	South Leg Dead End	West Leg Railroad Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Riverside
 N/S: Depot Street
 E/W: Railroad Avenue



Date: 11/17/2022
 Day: Thursday

BICYCLES

	Southbound Depot Street			Westbound Railroad Avenue			Northbound Dead End			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	1	0	3

	Southbound Depot Street			Westbound Railroad Avenue			Northbound Dead End			Eastbound Railroad Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	1	0	2

Counts Unlimited, Inc.

City of Riverside
 Railroad Avenue
 W/ Winstrom Street
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

RIV001
 Site Code: 003-221050

Start Time	11/29/22 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	4			0	4				
12:15		0	2			0	7				
12:30		0	3			0	9				
12:45		0	2	0	11	0	4	0	24	0	35
01:00		0	5			1	5				
01:15		0	2			0	3				
01:30		0	5			0	2				
01:45		0	2	0	14	0	2	1	12	1	26
02:00		0	3			0	7				
02:15		0	5			0	4				
02:30		0	2			0	1				
02:45		0	3	0	13	0	9	0	21	0	34
03:00		0	3			0	4				
03:15		0	5			0	4				
03:30		1	4			0	6				
03:45		0	4	1	16	0	9	0	23	1	39
04:00		1	4			0	6				
04:15		1	2			0	6				
04:30		1	2			0	4				
04:45		0	2	3	10	0	6	0	22	3	32
05:00		1	3			0	3				
05:15		0	2			0	6				
05:30		2	1			3	3				
05:45		1	1	4	7	0	2	3	14	7	21
06:00		0	2			0	1				
06:15		1	1			0	2				
06:30		2	0			1	2				
06:45		1	2	4	5	3	2	4	7	8	12
07:00		0	2			3	1				
07:15		0	1			3	0				
07:30		3	1			2	2				
07:45		5	2	8	6	2	3	10	6	18	12
08:00		3	0			4	0				
08:15		2	1			6	2				
08:30		0	1			5	1				
08:45		2	1	7	3	5	2	20	5	27	8
09:00		4	1			3	0				
09:15		1	0			2	0				
09:30		2	0			4	2				
09:45		2	0	9	1	6	0	15	2	24	3
10:00		2	1			2	0				
10:15		3	0			6	2				
10:30		5	0			9	0				
10:45		1	0	11	1	6	3	23	5	34	6
11:00		3	0			2	0				
11:15		1	0			3	0				
11:30		5	0			3	0				
11:45		9	0	18	0	8	0	16	0	34	0
Total		65	87	65	87	92	141	92	141	157	228
Combined Total		152		152		233		233		385	
AM Peak	-	11:00	-	-	-	09:45	-	-	-	-	-
Vol.	-	18	-	-	-	23	-	-	-	-	-
P.H.F.	-	0.500	-	-	-	0.639	-	-	-	-	-
PM Peak	-	-	03:15	-	-	-	03:30	-	-	-	-
Vol.	-	-	17	-	-	-	27	-	-	-	-
P.H.F.	-	-	0.850	-	-	-	0.750	-	-	-	-
Percentage		42.8%	57.2%			39.5%	60.5%				
ADT/AADT		ADT 385		AADT 385							

Counts Unlimited, Inc.

City of Riverside
 Railroad Avenue
 B/ Winstrom Street - Madison Street
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

RIV002
 Site Code: 003-221050

Start Time	11/29/22 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	7			0	5				
12:15		0	6			1	7				
12:30		0	2			0	10				
12:45		0	1	0	16	0	4	1	26	1	42
01:00		0	7			1	7				
01:15		0	3			0	5				
01:30		0	8			0	0				
01:45		0	4	0	22	0	3	1	15	1	37
02:00		1	3			0	7				
02:15		0	6			0	4				
02:30		0	2			0	1				
02:45		0	5	1	16	0	9	0	21	1	37
03:00		0	7			0	4				
03:15		0	5			0	2				
03:30		1	4			0	4				
03:45		0	5	1	21	0	7	0	17	1	38
04:00		1	5			0	7				
04:15		1	7			0	5				
04:30		1	6			0	4				
04:45		0	5	3	23	0	6	0	22	3	45
05:00		1	3			0	5				
05:15		0	4			0	5				
05:30		2	0			3	1				
05:45		0	2	3	9	0	2	3	13	6	22
06:00		1	3			0	3				
06:15		3	2			2	2				
06:30		5	0			4	4				
06:45		1	1	10	6	11	3	17	12	27	18
07:00		2	2			5	0				
07:15		1	1			6	0				
07:30		3	1			4	4				
07:45		3	4	9	8	8	2	23	6	32	14
08:00		3	0			4	0				
08:15		4	0			6	3				
08:30		2	1			4	2				
08:45		3	1	12	2	5	2	19	7	31	9
09:00		1	2			4	0				
09:15		2	0			3	0				
09:30		3	0			3	2				
09:45		3	0	9	2	5	0	15	2	24	4
10:00		1	1			2	0				
10:15		5	0			6	1				
10:30		4	0			6	0				
10:45		3	1	13	2	5	3	19	4	32	6
11:00		4	0			2	0				
11:15		0	0			3	0				
11:30		6	0			2	0				
11:45		8	0	18	0	4	0	11	0	29	0
Total		79	127	79	127	109	145	109	145	188	272
Combined Total		206		206		254		254		460	
AM Peak	-	11:00	-	-	-	06:30	-	-	-	-	-
Vol.	-	18	-	-	-	26	-	-	-	-	-
P.H.F.		0.563				0.591					
PM Peak	-	-	03:45	-	-	-	00:15	-	-	-	-
Vol.	-	-	23	-	-	-	28	-	-	-	-
P.H.F.			0.719				0.700				
Percentage		38.3%	61.7%			42.9%	57.1%				
ADT/AADT		ADT 460		AADT 460							

Counts Unlimited, Inc.

City of Riverside
 Madison Street
 B/ Indiana Avenue - Railroad Avenue
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

RIV003
 Site Code: 003-221050

Start Time	11/29/22 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	107			7	107				
12:15		11	96			22	93				
12:30		11	97			14	107				
12:45		2	62	30	362	8	90	51	397	81	759
01:00		6	83			5	113				
01:15		6	104			12	94				
01:30		6	108			7	92				
01:45		4	85	22	380	3	95	27	394	49	774
02:00		3	100			4	100				
02:15		4	108			5	113				
02:30		10	85			6	116				
02:45		4	119	21	412	8	123	23	452	44	864
03:00		9	96			8	111				
03:15		13	101			7	106				
03:30		10	132			9	131				
03:45		22	105	54	434	3	119	27	467	81	901
04:00		22	98			9	114				
04:15		25	91			11	118				
04:30		41	108			13	122				
04:45		40	115	128	412	15	153	48	507	176	919
05:00		52	116			20	144				
05:15		38	99			37	142				
05:30		47	79			37	84				
05:45		43	88	180	382	52	144	146	514	326	896
06:00		72	79			52	118				
06:15		73	70			55	86				
06:30		68	74			68	91				
06:45		91	69	304	292	70	101	245	396	549	688
07:00		80	63			71	93				
07:15		113	64			75	81				
07:30		109	51			63	66				
07:45		138	46	440	224	82	57	291	297	731	521
08:00		103	67			74	57				
08:15		92	37			90	42				
08:30		106	46			78	56				
08:45		92	38	393	188	92	46	334	201	727	389
09:00		90	27			86	33				
09:15		85	27			82	31				
09:30		90	34			75	42				
09:45		89	20	354	108	88	32	331	138	685	246
10:00		81	19			81	42				
10:15		97	21			90	33				
10:30		88	11			91	31				
10:45		81	12	347	63	101	25	363	131	710	194
11:00		96	12			95	25				
11:15		86	9			115	22				
11:30		84	10			108	18				
11:45		72	12	338	43	103	9	421	74	759	117
Total		2611	3300	2611	3300	2307	3968	2307	3968	4918	7268
Combined Total		5911		5911		6275		6275		12186	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	463	-	-	-	421	-	-	-	-	-
P.H.F.	-	0.839	-	-	-	0.915	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	448	-	-	-	561	-	-	-	-
P.H.F.	-	-	0.848	-	-	-	0.917	-	-	-	-
Percentage		44.2%	55.8%			36.8%	63.2%				
ADT/AADT		ADT 12,186		AADT 12,186							

Counts Unlimited, Inc.

City of Riverside
 Madison Street
 B/ Railroad Avenue - Evans Street
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

RIV004
 Site Code: 003-221050

Start Time	11/29/22 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	107			7	108				
12:15		11	98			21	95				
12:30		11	100			15	103				
12:45		2	64	30	369	8	86	51	392	81	761
01:00		6	84			4	116				
01:15		6	107			11	93				
01:30		6	107			7	97				
01:45		4	85	22	383	3	96	25	402	47	785
02:00		3	102			5	99				
02:15		4	106			5	113				
02:30		11	86			6	114				
02:45		4	123	22	417	8	123	24	449	46	866
03:00		9	94			8	113				
03:15		13	101			7	109				
03:30		9	131			9	129				
03:45		21	104	52	430	3	116	27	467	79	897
04:00		22	99			9	111				
04:15		25	90			11	121				
04:30		39	108			13	124				
04:45		40	116	126	413	14	153	47	509	173	922
05:00		51	115			19	143				
05:15		38	99			37	141				
05:30		45	80			36	84				
05:45		43	89	177	383	52	144	144	512	321	895
06:00		72	81			53	118				
06:15		74	72			57	87				
06:30		69	77			71	91				
06:45		97	69	312	299	68	101	249	397	561	696
07:00		83	62			72	93				
07:15		115	64			72	80				
07:30		110	53			62	65				
07:45		140	45	448	224	78	57	284	295	732	519
08:00		103	66			75	57				
08:15		94	39			91	41				
08:30		106	45			78	56				
08:45		94	39	397	189	90	46	334	200	731	389
09:00		90	27			83	35				
09:15		88	27			83	31				
09:30		88	35			73	41				
09:45		91	20	357	109	87	32	326	139	683	248
10:00		81	20			79	43				
10:15		99	22			91	33				
10:30		89	11			90	31				
10:45		83	13	352	66	101	23	361	130	713	196
11:00		97	12			96	25				
11:15		89	9			116	21				
11:30		83	10			107	18				
11:45		69	12	338	43	107	9	426	73	764	116
Total		2633	3325	2633	3325	2298	3965	2298	3965	4931	7290
Combined Total		5958		5958		6263		6263		12221	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	468	-	-	-	426	-	-	-	-	-
P.H.F.	-	0.836	-	-	-	0.918	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	449	-	-	-	561	-	-	-	-
P.H.F.	-	-	0.857	-	-	-	0.917	-	-	-	-
Percentage		44.2%	55.8%			36.7%	63.3%				
ADT/AADT		ADT 12,221		AADT 12,221							

INTERSECTION: Madison Street & Indiana Avenue

QuicNet System Parameters

Group Assignment:
 Field Master Assignment:
 System Reference Number:
 Communications Channel:
 Drop Address:
 Area Number:
 Area Address:

N/S Street Name: Madison St
 E/W Street Name: Indiana Ave

Last QuicNet Database Change:

Notes:

Field Change Record					
Change	By	Date	Change	By	Date

Excl Ped Assignment	_____
Exclusive Walk	0
Exclusive FDW	0
All Red Clear	0.0

Note: Set the Exclusive Ped Outputs on the "Outputs / General" page

Walk Output	0
Don't Walk Output	0

Exclusive Ped Phase

Basic Phase Timing	Phase							
	1	2	3	4	5	6	7	8
	NB	SB	EB	WB	SB	NB	WB	EB
Min Green	5	5	5	5	5	5	5	5
Extension	2.5	3.0	2.5	5.0	2.5	3.0	2.5	3.0
Max	20	40	20	45	40	30	20	45
Max 2	30	40	30	40	30	40	30	40
Cond Serve Check	0	0	0	0	0	0	0	0

Alternate Timing - Bank 1	Phase							
	1	2	3	4	5	6	7	8
Alternate Walk	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0
Alternate Minimum	0	0	0	0	0	0	0	0
Alternate Extension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternate Timing - Bank 1

Clear	Phase							
	1	2	3	4	5	6	7	8
Yellow Change	3.0	4.4	3.0	4.4	3.0	4.1	3.0	4.4
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Red Lock	_____
Yellow Lock	4
Simultaneous Gap	_____
Rest In Walk	_____
Advance Walk	_____
Flashing Walk	_____
Max Extension	_____

Red Rest	_____
Dual Entry	_____
Sequential Timing	_____
Inhibit Ped Reservice	_____
Semi-Actuated	_____
Guaranteed Passage	_____
Conditional Service	_____

Phase Functions - Page 1

Pedestrian Timing	Phase								
	1	2	3	4	5	6	7	8	
	Walk	0	7	0	0	0	7	0	7
	Ped Clear - FDW	0	21	0	0	0	24	0	20
	Adv / Delay Walk	0	0	0	0	0	0	0	0
PE Min Ped FDW	0	21	0	0	0	24	0	20	

Minimum Recall	_____
Ped Recall	_____
Maximum Recall	_____
Green Flash	_____
Overlap Green Flash	_____

Soft Recall	_____
External Recall	_____
Manual Control Calls	_____
Fast Green Flash	_____
Fast Overlap G. Flash	_____

Phase Functions - Page 2

Volume Density	Phase								
	1	2	3	4	5	6	7	8	
	Type 3 Disconnect	0	0	0	0	0	0	0	0
	Added per Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Max Added Initial	0	0	0	0	0	0	0	0
	Min Gap	2.5	2.0	2.5	4.0	2.5	2.0	2.5	3.0
Max Gap	2.5	3.0	2.5	5.0	2.5	3.0	2.5	3.0	
Reduce Every	0.0	4.0	0.0	4.5	0.0	3.0	0.0	0.0	

Phase Timing - Bank 1

INTERSECTION: Madison Street & Indiana Avenue

Note:
The Ring-Barrier Sum of these Minimums will be the Minimum Cycle Length During Transition

Transition Type	0.3
Coord Extra Functions	
Phase 1 - Minimum	10
Phase 2 - Minimum	10
Phase 3 - Minimum	10
Phase 4 - Minimum	10
Phase 5 - Minimum	10
Phase 6 - Minimum	10
Phase 7 - Minimum	10
Phase 8 - Minimum	10

Coordination - General

Coord Extra

- 1 = Programmed Walk Time for Sync Phases
- 2 = Always Terminate Sync Phase Peds
- 3 = Use "Floating Force Off"
- 4 =
- 5 = Use "Start of Green" for Sync Point

Transition Type

- 0.X = Shortway
- 1.X = Lengthen Only
- 2.X = Shorten Only
- X.1 thru X.4 = Number of Cycles to get "In Step"

Coordination Plan									
	1	2	3	4	5	6	7	8	9
Cycle	120	120	120	125	120	120	120	120	120
Offset - 1	0	0	0	0	0	0	0	0	0
Offset - 2	0	0	0	0	0	0	0	0	0
Offset - 3	0	0	0	0	0	0	0	0	0
Zone Offset	0	0	0	0	0	0	0	0	0
Ring Offset	0	0	0	0	0	0	0	0	0
Hold Release	255	255	255	255	255	255	255	255	255
Ped Adjust	1	2	2	2	2	1	1	2	1
Force Off - 1	36	35	35	35	34	35	35	34	34
Force Off - 2	16	19	19	19	16	18	17	16	18
Force Off - 3	64	61	61	81	57	59	61	81	81
Force Off - 4	82	81	86	56	80	80	80	59	58
Force Off - 5	0	0	0	0	0	0	0	0	0
Force Off - 6	36	35	35	35	33	34	34	33	33
Force Off - 7	52	51	54	51	51	50	50	50	50
Force Off - 8	82	81	86	81	80	80	80	80	80

Coordination - Cycle, Offsets, & Force Offs

Coordination Plan									
	1	2	3	4	5	6	7	8	9
Perm 1 - Begin	0	0	0	0	0	0	0	0	0
Perm 1 - End	47	46	48	5	45	48	47	46	48
Perm 1 - Veh Phases	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678
Perm 1 - Ped Phases	2_6_8	2_6_8	2_6_8	2_6_8	2_6_8	2_6_8	2_6_8	2_6_8	2_6_8
Perm 2 - Begin	0	0	0	0	0	0	0	0	0
Perm 2 - End	0	0	0	0	0	0	0	0	0
Perm 2 - Veh Phases									
Perm 2 - Ped Phases									
Perm 3 - Begin	0	0	0	0	0	0	0	0	0
Perm 3 - End	0	0	0	0	0	0	0	0	0
Perm 3 - Veh Phases									
Perm 3 - Ped Phases									
Max Inhibit Phases	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678
Max Recall Phases	1_6	1_6	1_6	1_6	2_56	2_56	2_56	2_56	2_56
Sync Phases	2_5	2_5	2_5	2_5	2_5	2_5	2_5	2_5	2_5
Lag Phases	1_4_6_8	1_4_6_8	1_4_6_8	1_3_6_8	1_4_6_8	1_4_6_8	1_4_6_8	1_3_6_8	1_3_6_8
Pre-Timed Phases									

Coordination - Permissives & Phase Sequence

INTERSECTION: Madison Street & Indiana Avenue

Event	Day of Week	Season	Hour	Minute	Plan	Offset
0	_23456_	1_____	6	30	2	A
1	_23456_	1_____	10	30	3	A
2	_23456_	1_____	14	30	4	A
3	_23456_	1_____	19	0	E	A
4	1____7	1_____	10	0	3	A
5	1____7	1_____	17	0	E	A
6	1234567	12345678	0	0	E	A
7	_____	_____	0	0	0	0
8	_____	_____	0	0	0	0
9	_____	_____	0	0	0	0
10	_____	_____	0	0	0	0
11	_____	_____	0	0	0	0
12	_____	_____	0	0	0	0
13	_____	_____	0	0	0	0
14	_____	_____	0	0	0	0
15	_____	_____	0	0	0	0
16	_____	_____	0	0	0	0
17	_____	_____	0	0	0	0
18	_____	_____	0	0	0	0
19	_____	_____	0	0	0	0
20	_____	_____	0	0	0	0
21	_____	_____	0	0	0	0
22	_____	_____	0	0	0	0
23	_____	_____	0	0	0	0
24	_____	_____	0	0	0	0
25	_____	_____	0	0	0	0
26	_____	_____	0	0	0	0
27	_____	_____	0	0	0	0
28	_____	_____	0	0	0	0
29	_____	_____	0	0	0	0
30	_____	_____	0	0	0	0
31	_____	_____	0	0	0	0

Time Base Coordination Events

Event	Day of Week	Season	Hour	Minute	Funct.	Phase / Bits
0	_____	_____	0	0	0	_____
1	_____	_____	0	0	0	_____
2	_____	_____	0	0	0	_____
3	_____	_____	0	0	0	_____
4	_____	_____	0	0	0	_____
5	_____	_____	0	0	0	_____
6	_____	_____	0	0	0	_____
7	_____	_____	0	0	0	_____
8	_____	_____	0	0	0	_____
9	_____	_____	0	0	0	_____
10	_____	_____	0	0	0	_____
11	_____	_____	0	0	0	_____
12	_____	_____	0	0	0	_____
13	_____	_____	0	0	0	_____
14	_____	_____	0	0	0	_____
15	_____	_____	0	0	0	_____

Time of Day Function Events

- TOD Functions
- 0 = Permitted Phases
 - 1 = Red Lock
 - 2 = Yellow Lock
 - 3 = Vehicle Min Recall
 - 4 = Ped Recall
 - 5 =
 - 6 = Rest In Walk
 - 7 = Red Rest
 - 8 = Double Entry
 - 9 = Vehicle Max Recall
 - 10 = Soft Recall
 - 11 = Max Extension 2
 - 12 = Conditional Service
 - 13 = Lag Free Phases
 - 14, Bit 1 = Local Override
 - 14, Bit 4 = Disable Det Off Monitoring
 - 15 = TOD Outputs

INTERSECTION: Madison Street & Indiana Avenue

Red Start Time	6.0
Yellow Start Phases	4_8
First Green Phases	2_6
Startup Vehicle Calls	
Startup Ped Calls	

Startup

Max ON Time	5
Max OFF Time	15
Chatter	45

Detector Check

	Sign 1	Sign 2
Phase Number	0	0
Time Before Yellow	0.0	0.0

Advance Warning Signs

Flash Entry Phases	
Flash Phases Yellow	
Flash Overlaps Yellow	
Flash Type	

Flash Setup

Exclusive Phases	
Protect / Permissive	
Disable Yellow Range	
Extra One	1_3_5
Lag Phases - Free	2_4_6_8

Configuration

Permitted Phases	12345678
Restricted Phases	
Disable Overlap Range	
Extra Two	
External Permit 1	
External Permit 2	
External Permit 3	

Configuration

Keyboard Beep	0
Backlight Timeout	20
Spec Evnt 1 - Ltd Serv Interval	0
Spec Evnt 2 - Ltd Serv Interval	0
Red Start	6.0
Flash Start	0
Red Revert	5.0

Miscellaneous

Spring Month (Begin)	3
Spring Week (Begin)	2
Fall Month (End)	11
Fall Week (End)	1

Daylight Savings Time

Manual Plan	
Manual Offset	

Manual

Address	
Area Number	
Area Address	
IP Port	
IP Address	
Subnet Mask	
Gateway	

Ethernet Port Address

	Port 1	Port 2	Port 3	Port 4
Address				
Area Number				
Area Address				
Comm Time Out				
CTS Delay				
RTS Hold				
Baud Rate				
Data Format				

Communications Parameters

Manual Plan
 1 thru 9 = Coordination Plan 1 thru 9
 14 = Free
 15 = Flash

Extra One
 1 =
 2 =
 3 = Auto Daylight Savings
 4 = Solid FDW on EV
 5 = Extended Status
 6 = International Ped
 7 =
 8 =

Extra Two
 1 =
 2 =
 3 = Disable Min Walk
 4 = QuicNet/4 System
 5 = Ignor P/P on EV
 6 =
 7 =
 8 =

Flash Type
 0 = All On-Off (12345678-0)
 1 = Main-Side (1256-3478)
 2 = Ping Pong (1234-5678)
 3 = Ring Pairs (1638-5247)

APPENDIX C

VOLUME DEVELOPMENT WORKSHEETS

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project
1 Winstrom Street/Railroad Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	6	1	7	16	2	18
SBT	0	0	0	0	0	0
SBR	1	0	1	3	0	3
EBL	6	0	6	3	0	3
EBT	7	10	17	8	6	14
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	13	4	17	19	9	28
WBR	9	2	11	3	1	4
North Leg						
Approach	7	1	8	19	2	21
Departure	15	2	17	6	1	7
Total	22	3	25	25	3	28
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	22	6	28	22	10	32
Departure	13	11	24	24	8	32
Total	35	17	52	46	18	64
West Leg						
Approach	13	10	23	11	6	17
Departure	14	4	18	22	9	31
Total	27	14	41	33	15	48
Total Approaches						
Approach	42	17	59	52	18	70
Departure	42	17	59	52	18	70
Total	84	34	118	104	36	140

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project
2 Madison Street/Indiana Avenue						
NBL	41	0	41	58	0	58
NBT	387	23	410	465	14	479
NBR	29	4	33	31	2	33
SBL	244	0	244	237	0	237
SBT	375	8	383	501	22	523
SBR	177	0	177	97	0	97
EBL	139	0	139	195	0	195
EBT	277	0	277	380	0	380
EBR	42	0	42	69	0	69
WBL	34	1	35	48	4	52
WBT	211	0	211	221	0	221
WBR	273	0	273	326	0	326
North Leg						
Approach	796	8	804	835	22	857
Departure	799	23	822	986	14	1,000
Total	1,595	31	1,626	1,821	36	1,857
South Leg						
Approach	457	27	484	554	16	570
Departure	451	9	460	618	26	644
Total	908	36	944	1,172	42	1,214
East Leg						
Approach	518	1	519	595	4	599
Departure	550	4	554	648	2	650
Total	1,068	5	1,073	1,243	6	1,249
West Leg						
Approach	458	0	458	644	0	644
Departure	429	0	429	376	0	376
Total	887	0	887	1,020	0	1,020
Total Approaches						
Approach	2,229	36	2,265	2,628	42	2,670
Departure	2,229	36	2,265	2,628	42	2,670
Total	4,458	72	4,530	5,256	84	5,340

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Traffic Volumes	Project Trips	Existing Plus Project	Existing Traffic Volumes	Project Trips	Existing Plus Project
3 Madison Street/Casa Blanca Street						
NBL	6	0	6	6	0	6
NBT	408	27	435	419	16	435
NBBR	4		4	1		1
NBR	36	0	36	36	0	36
SBHL	8		8	11		11
SBL	88	0	88	69	0	69
SBT	308	10	318	528	25	553
SBR	22	0	22	29	0	29
EBL	8	0	8	7	0	7
EBBL	0		0	0		0
EBT	11	0	11	1	0	1
EBR	14	0	14	8	0	8
WBL	20	0	20	50	0	50
WBT	2	0	2	1	0	1
WBR	76	0	76	104	0	104
WBHR	0		0	0		0
SWBHL	0		0	0		0
SWBBL	0		0	0		0
SWBBR	0		0	0		0
SWBHR	11		11	29		29
North Leg						
Approach	426	10	436	637	25	662
Departure	503	27	530	559	16	575
Total	929	37	966	1,196	41	1,237
South Leg						
Approach	454	27	481	462	16	478
Departure	342	10	352	586	25	611
Total	796	37	833	1,048	41	1,089
East Leg						
Approach	98	0	98	155	0	155
Departure	135	0	135	106	0	106
Total	233	0	233	261	0	261
West Leg						
Approach	33	0	33	16	0	16
Departure	30	0	30	36	0	36
Total	63	0	63	52	0	52
Southwest leg						
Approach	11	0	11	29	0	29
Departure	12	0	12	12	0	12
Total	23	0	23	41	0	41
Total Approaches						
Approach	1,022	37	1,059	1,299	41	1,340
Departure	1,022	37	1,059	1,299	41	1,340
Total	2,044	74	2,118	2,598	82	2,680

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project
4 Madison Street/Railroad Avenue						
NBL	7	3	10	3	7	10
NBT	445	0	445	437	0	437
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	327	0	327	552	0	552
SBR	12	10	22	11	25	36
EBL	3	27	30	3	16	19
EBT	0	0	0	0	0	0
EBR	9	8	17	11	5	16
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	339	10	349	563	25	588
Departure	448	27	475	440	16	456
Total	787	37	824	1,003	41	1,044
South Leg						
Approach	452	3	455	440	7	447
Departure	336	8	344	563	5	568
Total	788	11	799	1,003	12	1,015
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	12	35	47	14	21	35
Departure	19	13	32	14	32	46
Total	31	48	79	28	53	81
Total Approaches						
Approach	803	48	851	1,017	53	1,070
Departure	803	48	851	1,017	53	1,070
Total	1,606	96	1,702	2,034	106	2,140

Table C-1 - Existing Peak Hour PCE Volume Summary

AM Peak Hour			PM Peak Hour		
Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project

5 Project Driveway 1/Railroad Avenue

Intersection does not exist under Existing Conditions.

Table C-1 - Existing Peak Hour PCE Volume Summary

AM Peak Hour			PM Peak Hour		
Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project

6 Project Driveway 2/Railroad Avenue

Intersection does not exist under Existing Conditions.

Table C-1 - Existing Peak Hour PCE Volume Summary

AM Peak Hour			PM Peak Hour		
Existing Traffic Volumes	Project Trips	Existing With Project	Existing Traffic Volumes	Project Trips	Existing With Project

7 Project Driveway 3/Railroad Avenue

Intersection does not exist under Existing Conditions.



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
1 Winstrom Street/Railroad Avenue												
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	6	0	0	6	1	7	16	1	0	17	2	19
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	1	0	0	1	0	1	3	0	0	3	0	3
EBL	6	0	0	6	0	6	3	0	0	3	0	3
EBT	7	0	0	7	10	17	8	0	0	8	6	14
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	13	1	0	14	4	18	19	1	0	20	9	29
WBR	9	1	0	10	2	12	3	0	0	3	1	4
North Leg												
Approach	7	0	0	7	1	8	19	1	0	20	2	22
Departure	15	1	0	16	2	18	6	0	0	6	1	7
Total	22	1	0	23	3	26	25	1	0	26	3	29
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	22	2	0	24	6	30	22	1	0	23	10	33
Departure	13	0	0	13	11	24	24	1	0	25	8	33
Total	35	2	0	37	17	54	46	2	0	48	18	66
West Leg												
Approach	13	0	0	13	10	23	11	0	0	11	6	17
Departure	14	1	0	15	4	19	22	1	0	23	9	32
Total	27	1	0	28	14	42	33	1	0	34	15	49
Total Approaches												
Approach	42	2	0	44	17	61	52	2	0	54	18	72
Departure	42	2	0	44	17	61	52	2	0	54	18	72
Total	84	4	0	88	34	122	104	4	0	108	36	144



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
2 Madison Street/Indiana Avenue												
NBL	41	2	0	43	0	43	58	3	0	61	0	61
NBT	387	23	1	411	23	434	465	28	1	494	14	508
NBR	29	2	0	31	4	35	31	2	0	33	2	35
SBL	244	15	0	259	0	259	237	14	0	251	0	251
SBT	375	23	1	399	8	407	501	30	1	532	22	554
SBR	177	11	10	198	0	198	97	6	10	113	0	113
EBL	139	8	7	154	0	154	195	12	9	216	0	216
EBT	277	17	0	294	0	294	380	23	2	405	0	405
EBR	42	3	0	45	0	45	69	4	0	73	0	73
WBL	34	2	0	36	1	37	48	3	0	51	4	55
WBT	211	13	2	226	0	226	221	13	1	235	0	235
WBR	273	16	0	289	0	289	326	20	0	346	0	346
North Leg												
Approach	796	49	11	856	8	864	835	50	11	896	22	918
Departure	799	47	8	854	23	877	986	60	10	1,056	14	1,070
Total	1,595	96	19	1,710	31	1,741	1,821	110	21	1,952	36	1,988
South Leg												
Approach	457	27	1	485	27	512	554	33	1	588	16	604
Departure	451	28	1	480	9	489	618	37	1	656	26	682
Total	908	55	2	965	36	1,001	1,172	70	2	1,244	42	1,286
East Leg												
Approach	518	31	2	551	1	552	595	36	1	632	4	636
Departure	550	34	0	584	4	588	648	39	2	689	2	691
Total	1,068	65	2	1,135	5	1,140	1,243	75	3	1,321	6	1,327
West Leg												
Approach	458	28	7	493	0	493	644	39	11	694	0	694
Departure	429	26	12	467	0	467	376	22	11	409	0	409
Total	887	54	19	960	0	960	1,020	61	22	1,103	0	1,103
Total Approaches												
Approach	2,229	135	21	2,385	36	2,421	2,628	158	24	2,810	42	2,852
Departure	2,229	135	21	2,385	36	2,421	2,628	158	24	2,810	42	2,852
Total	4,458	270	42	4,770	72	4,842	5,256	316	48	5,620	84	5,704

Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
3 Madison Street/Indiana Avenue												
NBL	6	0	0	6	0	6	6	0	0	6	0	6
NBT	408	24	1	433	27	460	419	25	2	446	16	462
NBBR	4	0		4	0	4	1	0		1	0	1
NBR	36	2	0	38	0	38	36	2	0	38	0	38
SBHL	8	0		8	0	8	11	0		11	0	11
SBL	88	5	0	93	0	93	69	4	0	73	0	73
SBT	308	18	1	327	10	337	528	32	2	562	25	587
SBR	22	1	0	23	0	23	29	2	0	31	0	31
EBL	8	0	0	8	0	8	7	0	0	7	0	7
EBBL	0	0		0	0	0	0	0		0	0	0
EBT	11	1	0	12	0	12	1	0	0	1	0	1
EBR	14	1	0	15	0	15	8	0	0	8	0	8
WBL	20	1	0	21	0	21	50	3	0	53	0	53
WBT	2	0	0	2	0	2	1	0	0	1	0	1
WBR	76	5	0	81	0	81	104	6	0	110	0	110
WBHR	0	0		0	0	0	0	0		0	0	0
SWBHL	0	0		0	0	0	0	0		0	0	0
SWBBL	0	0		0	0	0	0	0		0	0	0
SWBBR	0	0		0	0	0	0	0		0	0	0
SWBHR	11	0		11	0	11	29	0		29	0	29
North Leg												
Approach	426	24	1	451	10	461	637	38	2	677	25	702
Departure	503	29	1	533	27	560	559	31	2	592	16	608
Total	929	53	2	984	37	1,021	1,196	69	4	1,269	41	1,310
South Leg												
Approach	454	26	1	481	27	508	462	27	2	491	16	507
Departure	342	20	1	363	10	373	586	35	2	623	25	648
Total	796	46	2	844	37	881	1,048	62	4	1,114	41	1,155
East Leg												
Approach	98	6	0	104	0	104	155	9	0	164	0	164
Departure	135	8	0	143	0	143	106	6	0	112	0	112
Total	233	14	0	247	0	247	261	15	0	276	0	276
West Leg												
Approach	33	2	0	35	0	35	16	0	0	16	0	16
Departure	30	1	0	31	0	31	36	2	0	38	0	38
Total	63	3	0	66	0	66	52	2	0	54	0	54
Southwest leg												
Approach	11	0	0	11	0	11	29	0	0	29	0	29
Departure	12	0	0	12	0	12	12	0	0	12	0	12
Total	23	0	0	23	0	23	41	0	0	41	0	41
Total Approaches												
Approach	1,022	58	2	1,082	37	1,119	1,299	74	4	1,377	41	1,418
Departure	1,022	58	2	1,082	37	1,119	1,299	74	4	1,377	41	1,418
Total	2,044	116	4	2,164	74	2,238	2,598	148	8	2,754	82	2,836



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
4 Madison Street/Railroad Avenue												
NBL	7	0	0	7	3	10	3	0	0	3	7	10
NBT	445	27	1	473	0	473	437	26	2	465	0	465
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	327	20	1	348	0	348	552	33	2	587	0	587
SBR	12	1	0	13	10	23	11	1	0	12	25	37
EBL	3	0	0	3	27	30	3	0	0	3	16	19
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	9	1	0	10	8	18	11	1	0	12	5	17
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	339	21	1	361	10	371	563	34	2	599	25	624
Departure	448	27	1	476	27	503	440	26	2	468	16	484
Total	787	48	2	837	37	874	1,003	60	4	1,067	41	1,108
South Leg												
Approach	452	27	1	480	3	483	440	26	2	468	7	475
Departure	336	21	1	358	8	366	563	34	2	599	5	604
Total	788	48	2	838	11	849	1,003	60	4	1,067	12	1,079
East 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
West Leg												
Approach	12	1	0	13	35	48	14	1	0	15	21	36
Departure	19	1	0	20	13	33	14	1	0	15	32	47
Total	31	2	0	33	48	81	28	2	0	30	53	83
Total Approaches												
Approach	803	49	2	854	48	902	1,017	61	4	1,082	53	1,135
Departure	803	49	2	854	48	902	1,017	61	4	1,082	53	1,135
Total	1,606	98	4	1,708	96	1,804	2,034	122	8	2,164	106	2,270



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
5 Project Driveway 1/Railroad Avenue												
NBL					2	2					1	1
NBT					0	0					0	0
NBR					10	10					6	6
SBL					0	0					0	0
SBT					0	0					0	0
SBR					0	0					0	0
EBL					0	0					0	0
EBT				15	0	15			5	0	5	5
EBR					1	1				2	2	2
WBL					4	4				9	9	9
WBT				9	0	9			19	0	19	19
WBR					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	0	0	0	0	12	12	0	0	0	0	7	7
Departure	0	0	0	0	5	5	0	0	0	0	11	11
Total	0	0	0	0	17	17	0	0	0	0	18	18
East Leg												
Approach	0	0	0	9	4	13	0	0	0	19	9	28
Departure	0	0	0	15	10	25	0	0	0	5	6	11
Total	0	0	0	24	14	38	0	0	0	24	15	39
West Leg												
Approach	0	0	0	15	1	16	0	0	0	5	2	7
Departure	0	0	0	9	2	11	0	0	0	19	1	20
Total	0	0	0	24	3	27	0	0	0	24	3	27
Total Approaches												
Approach	0	0	0	24	17	41	0	0	0	24	18	42
Departure	0	0	0	24	17	41	0	0	0	24	18	42
Total	0	0	0	48	34	82	0	0	0	48	36	84



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
6 Project Driveway 2/Railroad Avenue												
NBL					2	2					1	1
NBT					0	0					0	0
NBR					0	0					0	0
SBL					0	0					0	0
SBT					0	0					0	0
SBR					0	0					0	0
EBL					0	0					0	0
EBT				13	10	23				25	6	31
EBR					1	1					2	2
WBL					0	0					0	0
WBT				24	4	28				23	9	32
WBR					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	0	0	0	0	2	2	0	0	0	0	1	1
Departure	0	0	0	0	1	1	0	0	0	0	2	2
Total	0	0	0	0	3	3	0	0	0	0	3	3
East Leg												
Approach	0	0	0	24	4	28	0	0	0	23	9	32
Departure	0	0	0	13	10	23	0	0	0	25	6	31
Total	0	0	0	37	14	51	0	0	0	48	15	63
West Leg												
Approach	0	0	0	13	11	24	0	0	0	25	8	33
Departure	0	0	0	24	6	30	0	0	0	23	10	33
Total	0	0	0	37	17	54	0	0	0	48	18	66
Total Approaches												
Approach	0	0	0	37	17	54	0	0	0	48	18	66
Departure	0	0	0	37	17	54	0	0	0	48	18	66
Total	0	0	0	74	34	108	0	0	0	96	36	132



Table C-2 - Project Opening Year (2025) Peak Hour PCE Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project	Existing (2022) Volumes	(2022)-(2025) Growth	Cumulative Project Trips	OY Without Project	Project Trips	OY With Project
7 Project Driveway 3/Railroad Avenue												
NBL					0	0					0	0
NBT					0	0					0	0
NBR					25	25					15	15
SBL					0	0					0	0
SBT					0	0					0	0
SBR					0	0					0	0
EBL					0	0					0	0
EBT				13	10	23				25	6	31
EBR					0	0					0	0
WBL					9	9					23	23
WBT				24	4	28				23	9	32
WBR					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	0	0	0	0	25	25	0	0	0	0	15	15
Departure	0	0	0	0	9	9	0	0	0	0	23	23
Total	0	0	0	0	34	34	0	0	0	0	38	38
East Leg												
Approach	0	0	0	24	13	37	0	0	0	23	32	55
Departure	0	0	0	13	35	48	0	0	0	25	21	46
Total	0	0	0	37	48	85	0	0	0	48	53	101
West Leg												
Approach	0	0	0	13	10	23	0	0	0	25	6	31
Departure	0	0	0	24	4	28	0	0	0	23	9	32
Total	0	0	0	37	14	51	0	0	0	48	15	63
Total Approaches												
Approach	0	0	0	37	48	85	0	0	0	48	53	101
Departure	0	0	0	37	48	85	0	0	0	48	53	101
Total	0	0	0	74	96	170	0	0	0	96	106	202

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
1 Winstrom Street/Railroad Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	7	1	8	19	2	21
SBT	0	0	0	0	0	0
SBR	1	0	1	4	0	4
EBL	7	0	7	4	0	4
EBT	8	10	18	9	6	15
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	15	4	19	22	9	31
WBR	11	2	13	4	1	5
North Leg						
Approach	8	1	9	23	2	25
Departure	18	2	20	8	1	9
Total	26	3	29	31	3	34
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	26	6	32	26	10	36
Departure	15	11	26	28	8	36
Total	41	17	58	54	18	72
West Leg						
Approach	15	10	25	13	6	19
Departure	16	4	20	26	9	35
Total	31	14	45	39	15	54
Total Approaches						
Approach	49	17	66	62	18	80
Departure	49	17	66	62	18	80
Total	98	34	132	124	36	160

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
2 Madison Street/Indiana Avenue						
NBL	65	0	65	68	0	68
NBT	488	23	511	503	14	517
NBR	50	4	54	34	2	36
SBL	272	0	272	262	0	262
SBT	419	8	427	608	22	630
SBR	208	0	208	115	0	115
EBL	162	0	162	227	0	227
EBT	324	0	324	425	0	425
EBR	52	0	52	80	0	80
WBL	40	1	41	56	4	60
WBT	237	0	237	252	0	252
WBR	303	0	303	363	0	363
North Leg						
Approach	899	8	907	985	22	1,007
Departure	953	23	976	1,093	14	1,107
Total	1,852	31	1,883	2,078	36	2,114
South Leg						
Approach	603	27	630	605	16	621
Departure	511	9	520	744	26	770
Total	1,114	36	1,150	1,349	42	1,391
East Leg						
Approach	580	1	581	671	4	675
Departure	646	4	650	721	2	723
Total	1,226	5	1,231	1,392	6	1,398
West Leg						
Approach	538	0	538	732	0	732
Departure	510	0	510	435	0	435
Total	1,048	0	1,048	1,167	0	1,167
Total Approaches						
Approach	2,620	36	2,656	2,993	42	3,035
Departure	2,620	36	2,656	2,993	42	3,035
Total	5,240	72	5,312	5,986	84	6,070

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
3 Madison Street/Casa Blanca Street						
NBL	8	0	8	6	0	6
NBT	559	27	586	487	16	503
NBBR	4	0	4	1	0	1
NBR	86	0	86	40	0	40
SBHL	8	0	8	11	0	11
SBL	98	0	98	75	0	75
SBT	343	10	353	657	25	682
SBR	27	0	27	36	0	36
EBL	11	0	11	11	0	11
EBBL	0	0	0	0	0	0
EBT	13	0	13	1	0	1
EBR	16	0	16	11	0	11
WBL	22	0	22	56	0	56
WBT	2	0	2	1	0	1
WBR	85	0	85	112	0	112
WBHR	0	0	0	0	0	0
SWBHL	0	0	0	0	0	0
SWBBL	0	0	0	0	0	0
SWBBR	0	0	0	0	0	0
SWBHR	11	0	11	29	0	29
North Leg						
Approach	476	10	486	779	25	804
Departure	666	27	693	639	16	655
Total	1,142	37	1,179	1,418	41	1,459
South Leg						
Approach	657	27	684	534	16	550
Departure	381	10	391	724	25	749
Total	1,038	37	1,075	1,258	41	1,299
East Leg						
Approach	109	0	109	169	0	169
Departure	196	0	196	116	0	116
Total	305	0	305	285	0	285
West Leg						
Approach	40	0	40	23	0	23
Departure	37	0	37	43	0	43
Total	77	0	77	66	0	66
Southwest leg						
Approach	11	0	11	29	0	29
Departure	12	0	12	12	0	12
Total	23	0	23	41	0	41
Total Approaches						
Approach	1,293	37	1,330	1,534	41	1,575
Departure	1,293	37	1,330	1,534	41	1,575
Total	2,586	74	2,660	3,068	82	3,150

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
4 Madison Street/Railroad Avenue						
NBL	9	3	12	3	7	10
NBT	591	0	591	488	0	488
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	365	0	365	676	0	676
SBR	14	10	24	13	25	38
EBL	4	27	31	4	16	20
EBT	0	0	0	0	0	0
EBR	12	8	20	13	5	18
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	379	10	389	689	25	714
Departure	595	27	622	492	16	508
Total	974	37	1,011	1,181	41	1,222
South Leg						
Approach	600	3	603	491	7	498
Departure	377	8	385	689	5	694
Total	977	11	988	1,180	12	1,192
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	16	35	51	17	21	38
Departure	23	13	36	16	32	48
Total	39	48	87	33	53	86
Total Approaches						
Approach	995	48	1,043	1,197	53	1,250
Departure	995	48	1,043	1,197	53	1,250
Total	1,990	96	2,086	2,394	106	2,500

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
5 Project Driveway 1/Railroad Avenue						
NBL		2	2		1	1
NBT		0	0		0	0
NBR		10	10		6	6
SBL		0	0		0	0
SBT		0	0		0	0
SBR		0	0		0	0
EBL		0	0		0	0
EBT	17	0	17	6	0	6
EBR		1	1		2	2
WBL		4	4		9	9
WBT	11	0	11	21	0	21
WBR		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
South Leg						
Approach	0	12	12	0	7	7
Departure	0	5	5	0	11	11
Total	0	17	17	0	18	18
East Leg						
Approach	11	4	15	21	9	30
Departure	17	10	27	6	6	12
Total	28	14	42	27	15	42
West Leg						
Approach	17	1	18	6	2	8
Departure	11	2	13	21	1	22
Total	28	3	31	27	3	30
Total Approaches						
Approach	28	17	45	27	18	45
Departure	28	17	45	27	18	45
Total	56	34	90	54	36	90

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
6 Project Driveway 2/Railroad Avenue						
NBL		2	2		1	1
NBT		0	0		0	0
NBR		0	0		0	0
SBL		0	0		0	0
SBT		0	0		0	0
SBR		0	0		0	0
EBL		0	0		0	0
EBT	16	10	26	28	6	34
EBR		1	1		2	2
WBL		0	0		0	0
WBT	26	4	30	26	9	35
WBR		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
South Leg						
Approach	0	2	2	0	1	1
Departure	0	1	1	0	2	2
Total	0	3	3	0	3	3
East Leg						
Approach	26	4	30	26	9	35
Departure	16	10	26	28	6	34
Total	42	14	56	54	15	69
West Leg						
Approach	16	11	27	28	8	36
Departure	26	6	32	26	10	36
Total	42	17	59	54	18	72
Total Approaches						
Approach	42	17	59	54	18	72
Departure	42	17	59	54	18	72
Total	84	34	118	108	36	144

Table C-3 - Cumulative (2045) Peak Hour PCE Volume Summary

	AM Peak Hour			PM Peak Hour		
	Cumulative w/o Project	Project Trips	Cumulative With Project	Cumulative w/o Project	Project Trips	Cumulative With Project
7 Project Driveway 3/Railroad Avenue						
NBL		0	0		0	0
NBT		0	0		0	0
NBR		25	25		15	15
SBL		0	0		0	0
SBT		0	0		0	0
SBR		0	0		0	0
EBL		0	0		0	0
EBT	16	10	26	28	6	34
EBR		0	0		0	0
WBL		9	9		23	23
WBT	26	4	30	26	9	35
WBR		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
South Leg						
Approach	0	25	25	0	15	15
Departure	0	9	9	0	23	23
Total	0	34	34	0	38	38
East Leg						
Approach	26	13	39	26	32	58
Departure	16	35	51	28	21	49
Total	42	48	90	54	53	107
West Leg						
Approach	16	10	26	28	6	34
Departure	26	4	30	26	9	35
Total	42	14	56	54	15	69
Total Approaches						
Approach	42	48	90	54	53	107
Departure	42	48	90	54	53	107
Total	84	96	180	108	106	214

APPENDIX D

INTERSECTION LEVEL OF SERVICE WORKSHEETS

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	6	7	13	9	6	1
Future Vol, veh/h	6	7	13	9	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	10	19	13	9	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	32	0	-	0	54 26
Stage 1	-	-	-	-	26 -
Stage 2	-	-	-	-	28 -
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	1593	-	-	-	959 1056
Stage 1	-	-	-	-	1002 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1593	-	-	-	953 1056
Mov Cap-2 Maneuver	-	-	-	-	953 -
Stage 1	-	-	-	-	996 -
Stage 2	-	-	-	-	1000 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	966
HCM Lane V/C Ratio	0.005	-	-	-	0.01
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th Signalized Intersection Summary

2: Madison St & Indiana Avenue

Madison Flats Project
Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	277	42	34	211	273	41	387	29	244	375	177
Future Volume (veh/h)	139	277	42	34	211	273	41	387	29	244	375	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	298	45	37	227	294	44	416	31	262	403	190
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	904	135	48	395	352	412	1390	103	287	786	366
Arrive On Green	0.09	0.29	0.29	0.03	0.22	0.22	0.23	0.41	0.41	0.16	0.33	0.33
Sat Flow, veh/h	1810	3149	470	1810	1805	1610	1810	3401	252	1810	2379	1107
Grp Volume(v), veh/h	149	169	174	37	227	294	44	220	227	262	304	289
Grp Sat Flow(s),veh/h/ln	1810	1805	1814	1810	1805	1610	1810	1805	1848	1810	1805	1680
Q Serve(g_s), s	12.6	11.4	11.7	3.1	17.4	27.0	3.0	12.7	12.8	22.1	21.1	21.5
Cycle Q Clear(g_c), s	12.6	11.4	11.7	3.1	17.4	27.0	3.0	12.7	12.8	22.1	21.1	21.5
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.14	1.00		0.66
Lane Grp Cap(c), veh/h	171	518	521	48	395	352	412	738	755	287	596	555
V/C Ratio(X)	0.87	0.33	0.33	0.77	0.57	0.83	0.11	0.30	0.30	0.91	0.51	0.52
Avail Cap(c_a), veh/h	233	524	527	233	524	467	412	738	755	467	596	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	43.5	43.6	75.0	54.1	57.9	47.4	30.9	30.9	64.2	41.8	42.0
Incr Delay (d2), s/veh	20.3	0.4	0.4	17.0	2.8	13.1	0.1	1.0	1.0	13.1	3.1	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	5.2	5.3	1.7	8.2	12.2	1.4	5.8	6.0	11.1	9.8	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.6	43.8	43.9	92.0	56.9	71.0	47.5	31.9	31.9	77.3	44.9	45.4
LnGrp LOS	F	D	D	F	E	E	D	C	C	E	D	D
Approach Vol, veh/h		492			558			491			855	
Approach Delay, s/veh		57.7			66.6			33.3			55.0	
Approach LOS		E			E			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.4	56.6	18.7	39.3	28.5	68.4	8.1	49.9				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	45.0	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.0	23.5	14.6	29.0	24.1	14.8	5.1	13.7				
Green Ext Time (p_c), s	0.0	3.6	0.1	4.9	0.5	2.3	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Performance Report

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.6
Total Del/Veh (s)	9.6	6.3	0.9	0.4	0.9	5.4	1.4	1.5	1.9	2.2
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	8.1	7.6	0.0	0.0	0.0	2.1	0.1	0.2	2.7	1.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑	↔
Traffic Vol, veh/h	3	9	7	445	327	12
Future Vol, veh/h	3	9	7	445	327	12
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	10	8	517	380	14

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	659	384	398	0	0
Stage 1	384	-	-	-	-
Stage 2	275	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	416	668	1172	-	-
Stage 1	693	-	-	-	-
Stage 2	753	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	410	665	1168	-	-
Mov Cap-2 Maneuver	513	-	-	-	-
Stage 1	685	-	-	-	-
Stage 2	750	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1168	-	619	-	-
HCM Lane V/C Ratio	0.007	-	0.023	-	-
HCM Control Delay (s)	8.1	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	8	19	3	16	3
Future Vol, veh/h	3	8	19	3	16	3
Conflicting Peds, #/hr	0	0	0	0	0	3
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	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	11	27	4	23	4






















Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	31	0	-	0	48 32
Stage 1	-	-	-	-	29 -
Stage 2	-	-	-	-	19 -
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	1595	-	-	-	967 1048
Stage 1	-	-	-	-	999 -
Stage 2	-	-	-	-	1009 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1595	-	-	-	964 1045
Mov Cap-2 Maneuver	-	-	-	-	964 -
Stage 1	-	-	-	-	996 -
Stage 2	-	-	-	-	1009 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1595	-	-	-	976
HCM Lane V/C Ratio	0.003	-	-	-	0.028
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th Signalized Intersection Summary
2: Madison St & Indiana Avenue

Madison Flats Project
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	380	69	48	221	326	58	465	31	237	501	97
Future Volume (veh/h)	195	380	69	48	221	326	58	465	31	237	501	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	210	409	74	52	238	351	62	500	33	255	539	104
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	231	1067	192	67	451	402	280	1168	77	280	994	191
Arrive On Green	0.13	0.35	0.35	0.04	0.25	0.25	0.15	0.34	0.34	0.15	0.33	0.33
Sat Flow, veh/h	1810	3056	549	1810	1805	1610	1810	3438	226	1810	3010	578
Grp Volume(v), veh/h	210	240	243	52	238	351	62	262	271	255	322	321
Grp Sat Flow(s),veh/h/ln	1810	1805	1800	1810	1805	1610	1810	1805	1859	1810	1805	1783
Q Serve(g_s), s	17.8	15.5	15.7	4.4	17.7	32.4	4.6	17.4	17.5	21.5	22.6	22.8
Cycle Q Clear(g_c), s	17.8	15.5	15.7	4.4	17.7	32.4	4.6	17.4	17.5	21.5	22.6	22.8
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.12	1.00		0.32
Lane Grp Cap(c), veh/h	231	630	628	67	451	402	280	613	632	280	596	589
V/C Ratio(X)	0.91	0.38	0.39	0.77	0.53	0.87	0.22	0.43	0.43	0.91	0.54	0.54
Avail Cap(c_a), veh/h	233	630	628	233	524	467	280	613	632	467	596	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	37.9	38.0	74.0	50.2	55.8	57.3	39.5	39.5	64.5	42.3	42.4
Incr Delay (d2), s/veh	35.1	0.4	0.4	12.8	2.0	17.3	0.3	2.2	2.1	12.1	3.5	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	6.9	7.0	2.3	8.2	14.9	2.2	8.1	8.4	10.8	10.6	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.9	38.3	38.3	86.8	52.3	73.1	57.6	41.7	41.7	76.6	45.8	46.0
LnGrp LOS	F	D	D	F	D	E	E	D	D	E	D	D
Approach Vol, veh/h		693			641			595			898	
Approach Delay, s/veh		57.6			66.5			43.3			54.6	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.1	56.6	25.2	44.1	28.0	57.8	9.8	59.5				
Change Period (Y+Rc), s	5.1	* 5.4	5.4	* 5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	* 45	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	6.6	24.8	19.8	34.4	23.5	19.5	6.4	17.7				
Green Ext Time (p_c), s	0.1	3.9	0.0	4.3	0.5	2.4	0.0	2.8				

Intersection Summary

HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Performance Report

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.7
Total Del/Veh (s)	11.6	8.1	1.2	0.6	0.4	4.1	1.6	1.3	6.2	2.2
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	10.2	9.2	0.5	0.0	0.0	2.9	0.1	0.1	7.1	1.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑	↘
Traffic Vol, veh/h	3	11	3	437	552	11
Future Vol, veh/h	3	11	3	437	552	11
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	13	3	508	642	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	909	649	662	0	-	0
Stage 1	649	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	293	473	936	-	-	-
Stage 1	524	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	288	470	930	-	-	-
Mov Cap-2 Maneuver	405	-	-	-	-	-
Stage 1	519	-	-	-	-	-
Stage 2	761	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	930	-	454	-	-
HCM Lane V/C Ratio	0.004	-	0.036	-	-
HCM Control Delay (s)	8.9	-	13.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	6	7	14	10	6	1
Future Vol, veh/h	6	7	14	10	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	10	20	14	9	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	34	0	-	0	55 27
Stage 1	-	-	-	-	27 -
Stage 2	-	-	-	-	28 -
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	1591	-	-	-	958 1054
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1591	-	-	-	952 1054
Mov Cap-2 Maneuver	-	-	-	-	952 -
Stage 1	-	-	-	-	995 -
Stage 2	-	-	-	-	1000 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	965
HCM Lane V/C Ratio	0.005	-	-	-	0.01
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th Signalized Intersection Summary
 2: Madison St & Indiana Avenue

Madison Flats Project
 Opening Year (2025) NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	294	45	36	226	289	43	411	31	259	399	198
Future Volume (veh/h)	154	294	45	36	226	289	43	411	31	259	399	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	316	48	39	243	311	46	442	33	278	429	213
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	960	144	51	414	369	377	1293	96	303	770	378
Arrive On Green	0.10	0.31	0.31	0.03	0.23	0.23	0.21	0.38	0.38	0.17	0.33	0.33
Sat Flow, veh/h	1810	3146	473	1810	1805	1610	1810	3400	253	1810	2332	1146
Grp Volume(v), veh/h	166	180	184	39	243	311	46	234	241	278	331	311
Grp Sat Flow(s),veh/h/ln	1810	1805	1814	1810	1805	1610	1810	1805	1848	1810	1805	1673
Q Serve(g_s), s	14.0	11.9	12.2	3.3	18.6	28.6	3.2	14.3	14.4	23.4	23.3	23.7
Cycle Q Clear(g_c), s	14.0	11.9	12.2	3.3	18.6	28.6	3.2	14.3	14.4	23.4	23.3	23.7
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.14	1.00		0.68
Lane Grp Cap(c), veh/h	188	551	553	51	414	369	377	686	703	303	596	553
V/C Ratio(X)	0.88	0.33	0.33	0.77	0.59	0.84	0.12	0.34	0.34	0.92	0.56	0.56
Avail Cap(c_a), veh/h	233	551	553	233	524	467	377	686	703	467	596	553
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	41.6	41.7	74.8	53.2	57.1	49.9	34.2	34.2	63.5	42.6	42.7
Incr Delay (d2), s/veh	25.0	0.3	0.4	16.2	2.8	14.0	0.1	1.3	1.3	15.2	3.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	5.4	5.5	1.8	8.7	12.9	1.5	6.6	6.8	12.0	10.9	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.5	41.9	42.0	91.0	56.0	71.1	50.0	35.5	35.6	78.7	46.3	46.8
LnGrp LOS	F	D	D	F	E	E	D	D	D	E	D	D
Approach Vol, veh/h		530			593			521			920	
Approach Delay, s/veh		58.1			66.2			36.8			56.3	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.4	56.6	20.1	40.9	29.9	64.0	8.4	52.7				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	45.0	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.2	25.7	16.0	30.6	25.4	16.4	5.3	14.2				
Green Ext Time (p_c), s	0.0	3.9	0.1	4.9	0.5	2.4	0.0	2.0				

Intersection Summary												
HCM 6th Ctrl Delay				55.0								
HCM 6th LOS				D								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.7
Total Del/Veh (s)	12.4	5.9	1.8	0.4	0.9	5.2	1.4	1.7	3.2	2.2
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	11.0	7.0	0.7	0.0	0.0	1.9	0.1	0.1	4.1	1.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑	↘
Traffic Vol, veh/h	3	10	7	473	348	13
Future Vol, veh/h	3	10	7	473	348	13
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	12	8	550	405	15

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	700	409	424	0	-	0
Stage 1	409	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	393	647	1146	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	387	645	1142	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	668	-	-	-	-	-
Stage 2	736	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1142	-	603	-	-
HCM Lane V/C Ratio	0.007	-	0.025	-	-
HCM Control Delay (s)	8.2	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	8	20	3	17	3
Future Vol, veh/h	3	8	20	3	17	3
Conflicting Peds, #/hr	0	0	0	0	0	3
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	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	11	29	4	24	4





















Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	33	0	-	0	50 34
Stage 1	-	-	-	-	31 -
Stage 2	-	-	-	-	19 -
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	1592	-	-	-	964 1045
Stage 1	-	-	-	-	997 -
Stage 2	-	-	-	-	1009 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1592	-	-	-	961 1042
Mov Cap-2 Maneuver	-	-	-	-	961 -
Stage 1	-	-	-	-	994 -
Stage 2	-	-	-	-	1009 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	972
HCM Lane V/C Ratio	0.003	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th Signalized Intersection Summary
 2: Madison St & Indiana Avenue

Madison Flats Project
 Opening Year (2025) NP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	405	73	51	235	346	61	494	33	251	532	113
Future Volume (veh/h)	216	405	73	51	235	346	61	494	33	251	532	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	435	78	55	253	372	66	531	35	270	572	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	1099	196	71	470	419	259	1098	72	295	975	207
Arrive On Green	0.13	0.36	0.36	0.04	0.26	0.26	0.14	0.32	0.32	0.16	0.33	0.33
Sat Flow, veh/h	1810	3061	545	1810	1805	1610	1810	3438	226	1810	2951	627
Grp Volume(v), veh/h	232	255	258	55	253	372	66	278	288	270	349	345
Grp Sat Flow(s),veh/h/ln	1810	1805	1801	1810	1805	1610	1810	1805	1859	1810	1805	1773
Q Serve(g_s), s	19.9	16.4	16.6	4.7	18.7	34.4	5.0	19.2	19.3	22.8	24.9	25.1
Cycle Q Clear(g_c), s	19.9	16.4	16.6	4.7	18.7	34.4	5.0	19.2	19.3	22.8	24.9	25.1
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.12	1.00		0.35
Lane Grp Cap(c), veh/h	233	648	647	71	470	419	259	577	594	295	596	586
V/C Ratio(X)	0.99	0.39	0.40	0.77	0.54	0.89	0.26	0.48	0.48	0.92	0.59	0.59
Avail Cap(c_a), veh/h	233	648	647	233	524	467	259	577	594	467	596	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.4	37.1	37.2	73.8	49.3	55.1	59.1	42.4	42.5	63.8	43.1	43.1
Incr Delay (d2), s/veh	57.0	0.4	0.4	12.4	2.0	19.2	0.4	2.9	2.8	14.2	4.2	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	7.3	7.4	2.4	8.7	16.0	2.3	9.1	9.4	11.5	11.7	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.4	37.5	37.6	86.1	51.4	74.3	59.5	45.3	45.3	78.0	47.3	47.5
LnGrp LOS	F	D	D	F	D	E	E	D	D	E	D	D
Approach Vol, veh/h		745			680			632			964	
Approach Delay, s/veh		64.6			66.7			46.8			56.0	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.3	56.6	25.4	45.7	29.2	54.6	10.1	61.1				
Change Period (Y+Rc), s	5.1	* 5.4	5.4	* 5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	* 45	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.0	27.1	21.9	36.4	24.8	21.3	6.7	18.6				
Green Ext Time (p_c), s	0.1	4.2	0.0	3.9	0.5	2.4	0.1	3.0				

Intersection Summary												
HCM 6th Ctrl Delay				58.6								
HCM 6th LOS				E								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.7
Total Del/Veh (s)	12.3	6.1	3.3	0.6	0.5	5.5	1.6	1.2	2.5	2.0
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	11.0	7.1	2.4	0.0	0.0	4.2	0.1	0.1	3.5	1.2

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑	↘
Traffic Vol, veh/h	3	12	3	465	587	12
Future Vol, veh/h	3	12	3	465	587	12
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	14	3	541	683	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	967	690	704	0	-	0
Stage 1	690	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	270	449	903	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	265	446	897	-	-	-
Mov Cap-2 Maneuver	385	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	746	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	897	-	432	-	-
HCM Lane V/C Ratio	0.004	-	0.04	-	-
HCM Control Delay (s)	9	-	13.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	17	18	12	7	1
Future Vol, veh/h	6	17	18	12	7	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	24	26	17	10	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.2	6.9	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	0%	88%
Vol Thru, %	74%	60%	0%
Vol Right, %	0%	40%	12%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	23	30	8
LT Vol	6	0	7
Through Vol	17	18	0
RT Vol	0	12	1
Lane Flow Rate	33	43	11
Geometry Grp	1	1	1
Degree of Util (X)	0.037	0.044	0.013
Departure Headway (Hd)	4.004	3.704	4.13
Convergence, Y/N	Yes	Yes	Yes
Cap	897	969	866
Service Time	2.015	1.717	2.157
HCM Lane V/C Ratio	0.037	0.044	0.013
HCM Control Delay	7.2	6.9	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

HCM 6th Signalized Intersection Summary
 2: Madison Street & Indiana Avenue

Madison Flats Project
 Opening Year (2025) WP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	294	45	37	226	289	43	434	35	259	407	198
Future Volume (veh/h)	154	294	45	37	226	289	43	434	35	259	407	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	316	48	40	243	311	46	467	38	278	438	213
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	957	144	52	414	369	384	1284	104	303	767	369
Arrive On Green	0.10	0.30	0.30	0.03	0.23	0.23	0.21	0.38	0.38	0.17	0.33	0.33
Sat Flow, veh/h	1810	3146	473	1810	1805	1610	1810	3375	274	1810	2349	1131
Grp Volume(v), veh/h	166	180	184	40	243	311	46	249	256	278	335	316
Grp Sat Flow(s),veh/h/ln	1810	1805	1814	1810	1805	1610	1810	1805	1844	1810	1805	1676
Q Serve(g_s), s	14.0	11.9	12.2	3.4	18.6	28.6	3.2	15.4	15.5	23.4	23.8	24.2
Cycle Q Clear(g_c), s	14.0	11.9	12.2	3.4	18.6	28.6	3.2	15.4	15.5	23.4	23.8	24.2
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.15	1.00		0.68
Lane Grp Cap(c), veh/h	188	549	552	52	414	369	384	686	701	303	589	547
V/C Ratio(X)	0.88	0.33	0.33	0.77	0.59	0.84	0.12	0.36	0.37	0.92	0.57	0.58
Avail Cap(c_a), veh/h	233	549	552	233	524	467	384	686	701	467	589	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	41.7	41.7	74.8	53.2	57.1	49.4	34.5	34.6	63.5	43.2	43.3
Incr Delay (d2), s/veh	25.0	0.3	0.4	15.9	2.8	14.0	0.1	1.5	1.5	15.2	4.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	5.4	5.5	1.8	8.7	12.9	1.5	7.1	7.3	12.0	11.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.5	42.0	42.1	90.6	56.0	71.1	49.5	36.0	36.0	78.7	47.1	47.7
LnGrp LOS	F	D	D	F	E	E	D	D	D	E	D	D
Approach Vol, veh/h		530			594			551			929	
Approach Delay, s/veh		58.2			66.2			37.1			56.8	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	38.0	56.0	20.1	40.9	29.9	64.0	8.5	52.6				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.6	* 51	20.0	45.0	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.2	26.2	16.0	30.6	25.4	17.5	5.4	14.2				
Green Ext Time (p_c), s	0.0	4.0	0.1	4.9	0.5	2.5	0.0	2.0				

Intersection Summary												
HCM 6th Ctrl Delay				55.1								
HCM 6th LOS				E								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.3	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.9
Total Del/Veh (s)	14.0	10.1	2.6	0.7	0.8	6.1	1.6	1.4	3.0	2.8
Stop Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	12.5	11.8	1.7	0.2	0.0	2.8	0.1	0.2	3.7	1.9

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑	↘
Traffic Vol, veh/h	30	18	10	473	348	23
Future Vol, veh/h	30	18	10	473	348	23
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	35	21	12	550	405	27

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	708	409	436	0	-	0
Stage 1	409	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	389	647	1134	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	382	645	1130	-	-	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	665	-	-	-	-	-
Stage 2	729	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1130	-	539	-	-
HCM Lane V/C Ratio	0.01	-	0.104	-	-
HCM Control Delay (s)	8.2	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	1	4	9	2	10
Future Vol, veh/h	15	1	4	9	2	10
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	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	1	4	9	2	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	17	0	34
Stage 1	-	-	-	-	17
Stage 2	-	-	-	-	17
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1613	-	984
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	1011
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1613	-	982
Mov Cap-2 Maneuver	-	-	-	-	982
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	1009

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1053	-	-	1613	-
HCM Lane V/C Ratio	0.012	-	-	0.003	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	1	0	28	2	0
Future Vol, veh/h	23	1	0	28	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	1	0	29	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	25	0	54 25
Stage 1	-	-	-	-	25 -
Stage 2	-	-	-	-	29 -
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	-	-	1603	-	959 1057
Stage 1	-	-	-	-	1003 -
Stage 2	-	-	-	-	999 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1603	-	959 1057
Mov Cap-2 Maneuver	-	-	-	-	959 -
Stage 1	-	-	-	-	1003 -
Stage 2	-	-	-	-	999 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	959	-	-	1603	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	0	9	28	0	25
Future Vol, veh/h	23	0	9	28	0	25
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	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	0	9	29	0	26

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	24	0	71
Stage 1	-	-	-	-	24
Stage 2	-	-	-	-	47
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1604	-	938
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	981
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1604	-	932
Mov Cap-2 Maneuver	-	-	-	-	932
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	975

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1058	-	-	1604	-
HCM Lane V/C Ratio	0.025	-	-	0.006	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	14	29	4	19	3
Future Vol, veh/h	3	14	29	4	19	3
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	20	41	6	27	4
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.2	7.1	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	0%	86%
Vol Thru, %	82%	88%	0%
Vol Right, %	0%	12%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	17	33	22
LT Vol	3	0	19
Through Vol	14	29	0
RT Vol	0	4	3
Lane Flow Rate	24	47	31
Geometry Grp	1	1	1
Degree of Util (X)	0.027	0.051	0.036
Departure Headway (Hd)	4.026	3.901	4.115
Convergence, Y/N	Yes	Yes	Yes
Cap	889	919	870
Service Time	2.05	1.921	2.142
HCM Lane V/C Ratio	0.027	0.051	0.036
HCM Control Delay	7.2	7.1	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1

HCM 6th Signalized Intersection Summary

2: Madison Street & Indiana Avenue

Madison Flats Project
Opening Year (2025) WP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	405	73	55	235	346	61	508	35	251	554	113
Future Volume (veh/h)	216	405	73	55	235	346	61	508	35	251	554	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	435	78	59	253	372	66	546	38	270	596	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	1091	194	76	470	419	259	1094	76	295	983	201
Arrive On Green	0.13	0.36	0.36	0.04	0.26	0.26	0.14	0.32	0.32	0.16	0.33	0.33
Sat Flow, veh/h	1810	3061	545	1810	1805	1610	1810	3423	238	1810	2975	607
Grp Volume(v), veh/h	232	255	258	59	253	372	66	287	297	270	361	357
Grp Sat Flow(s),veh/h/ln	1810	1805	1801	1810	1805	1610	1810	1805	1856	1810	1805	1777
Q Serve(g_s), s	19.9	16.4	16.7	5.0	18.7	34.4	5.0	20.0	20.1	22.8	26.0	26.1
Cycle Q Clear(g_c), s	19.9	16.4	16.7	5.0	18.7	34.4	5.0	20.0	20.1	22.8	26.0	26.1
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.13	1.00		0.34
Lane Grp Cap(c), veh/h	233	643	642	76	470	419	259	577	593	295	596	587
V/C Ratio(X)	0.99	0.40	0.40	0.78	0.54	0.89	0.26	0.50	0.50	0.92	0.61	0.61
Avail Cap(c_a), veh/h	233	643	642	233	524	467	259	577	593	467	596	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.4	37.4	37.5	73.5	49.3	55.1	59.1	42.7	42.7	63.8	43.4	43.5
Incr Delay (d2), s/veh	57.0	0.4	0.4	11.8	2.0	19.2	0.4	3.1	3.0	14.2	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	7.3	7.4	2.6	8.7	16.0	2.3	9.4	9.7	11.5	12.2	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.4	37.8	37.9	85.4	51.4	74.3	59.5	45.7	45.7	78.0	48.0	48.1
LnGrp LOS	F	D	D	F	D	E	E	D	D	E	D	D
Approach Vol, veh/h		745			684			650			988	
Approach Delay, s/veh		64.8			66.8			47.1			56.2	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.3	56.6	25.4	45.7	29.2	54.6	10.5	60.6				
Change Period (Y+Rc), s	5.1	* 5.4	5.4	* 5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	* 45	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.0	28.1	21.9	36.4	24.8	22.1	7.0	18.7				
Green Ext Time (p_c), s	0.1	4.3	0.0	3.9	0.5	2.4	0.1	3.0				

Intersection Summary

HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.3	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.7
Total Del/Veh (s)	10.4	10.4	2.0	0.7	0.4	3.3	1.3	1.0	6.4	2.2
Stop Delay (hr)	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	9.1	11.5	1.2	0.1	0.0	2.0	0.1	0.1	7.4	1.5

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑	↔
Traffic Vol, veh/h	19	17	10	465	587	37
Future Vol, veh/h	19	17	10	465	587	37
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	20	12	541	683	43

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	985	690	733	0	-	0
Stage 1	690	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	263	449	881	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	256	446	875	-	-	-
Mov Cap-2 Maneuver	377	-	-	-	-	-
Stage 1	491	-	-	-	-	-
Stage 2	731	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	875	-	407	-	-
HCM Lane V/C Ratio	0.013	-	0.103	-	-
HCM Control Delay (s)	9.2	-	14.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	2	9	19	1	6
Future Vol, veh/h	5	2	9	19	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	2	9	20	1	6
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	7	0	44	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	38	-
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	-	-	1627	-	972	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	990	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1627	-	966	1083
Mov Cap-2 Maneuver	-	-	-	-	966	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	984	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	2.3	8.4			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1065	-	-	1627	-	
HCM Lane V/C Ratio	0.007	-	-	0.006	-	
HCM Control Delay (s)	8.4	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	2	0	32	1	0
Future Vol, veh/h	31	2	0	32	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	2	0	34	1	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	35	0	68 34
Stage 1	-	-	-	-	34 -
Stage 2	-	-	-	-	34 -
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	-	-	1589	-	942 1045
Stage 1	-	-	-	-	994 -
Stage 2	-	-	-	-	994 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1589	-	942 1045
Mov Cap-2 Maneuver	-	-	-	-	942 -
Stage 1	-	-	-	-	994 -
Stage 2	-	-	-	-	994 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1589	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	0	23	32	0	15
Future Vol, veh/h	31	0	23	32	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	0	24	34	0	16

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	33	0	115
Stage 1	-	-	-	-	33
Stage 2	-	-	-	-	82
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1592	-	886
Stage 1	-	-	-	-	995
Stage 2	-	-	-	-	946
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1592	-	873
Mov Cap-2 Maneuver	-	-	-	-	873
Stage 1	-	-	-	-	995
Stage 2	-	-	-	-	932

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1046	-	-	1592	-
HCM Lane V/C Ratio	0.015	-	-	0.015	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	8	15	11	7	1
Future Vol, veh/h	7	8	15	11	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	11	21	16	10	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	37	0	-	0	60 29
Stage 1	-	-	-	-	29 -
Stage 2	-	-	-	-	31 -
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	1587	-	-	-	952 1052
Stage 1	-	-	-	-	999 -
Stage 2	-	-	-	-	997 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1587	-	-	-	946 1052
Mov Cap-2 Maneuver	-	-	-	-	946 -
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	997 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1587	-	-	-	958
HCM Lane V/C Ratio	0.006	-	-	-	0.012
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th Signalized Intersection Summary

2: Madison St & Indiana Avenue

Madison Flats Project
Cumulative (2045) NP AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	324	52	40	237	303	65	488	50	272	419	208
Future Volume (veh/h)	162	324	52	40	237	303	65	488	50	272	419	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	348	56	43	255	326	70	525	54	292	451	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	982	157	56	429	383	353	1186	122	316	770	379
Arrive On Green	0.11	0.32	0.32	0.03	0.24	0.24	0.20	0.36	0.36	0.17	0.33	0.33
Sat Flow, veh/h	1810	3118	497	1810	1805	1610	1810	3297	338	1810	2330	1147
Grp Volume(v), veh/h	174	200	204	43	255	326	70	287	292	292	348	327
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1610	1810	1805	1830	1810	1805	1672
Q Serve(g_s), s	14.7	13.2	13.5	3.7	19.4	30.0	5.0	18.7	18.9	24.6	24.8	25.2
Cycle Q Clear(g_c), s	14.7	13.2	13.5	3.7	19.4	30.0	5.0	18.7	18.9	24.6	24.8	25.2
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.18	1.00		0.69
Lane Grp Cap(c), veh/h	196	569	570	56	429	383	353	649	658	316	596	552
V/C Ratio(X)	0.89	0.35	0.36	0.77	0.59	0.85	0.20	0.44	0.44	0.92	0.58	0.59
Avail Cap(c_a), veh/h	233	569	570	233	524	467	353	649	658	467	596	552
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	40.9	41.0	74.5	52.4	56.5	52.2	37.8	37.8	62.9	43.1	43.2
Incr Delay (d2), s/veh	27.0	0.4	0.4	14.9	2.8	14.9	0.2	2.2	2.2	16.9	4.2	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	5.9	6.1	1.9	9.1	13.6	2.3	8.7	8.9	12.7	11.7	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.3	41.4	89.4	55.2	71.4	52.4	39.9	40.0	79.8	47.2	47.8
LnGrp LOS	F	D	D	F	E	E	D	D	D	E	D	D
Approach Vol, veh/h		578			624			649			967	
Approach Delay, s/veh		57.5			66.0			41.3			57.3	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.4	56.6	20.8	42.2	31.1	60.9	8.8	54.2				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	45.0	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.0	27.2	16.7	32.0	26.6	20.9	5.7	15.5				
Green Ext Time (p_c), s	0.1	4.1	0.1	4.8	0.5	2.5	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.2	0.3	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.9
Total Del/Veh (s)	16.1	10.6	2.8	0.6	0.9	7.4	1.3	1.1	7.0	2.7
Stop Delay (hr)	0.2	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	14.6	11.8	2.2	0.1	0.1	4.2	0.1	0.1	7.9	1.9

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑	↔
Traffic Vol, veh/h	4	12	9	591	365	14
Future Vol, veh/h	4	12	9	591	365	14
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	14	10	687	424	16

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	792	428	444	0	0
Stage 1	428	-	-	-	-
Stage 2	364	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	345	631	1127	-	-
Stage 1	662	-	-	-	-
Stage 2	679	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	339	629	1123	-	-
Mov Cap-2 Maneuver	458	-	-	-	-
Stage 1	653	-	-	-	-
Stage 2	676	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1123	-	575	-	-
HCM Lane V/C Ratio	0.009	-	0.032	-	-
HCM Control Delay (s)	8.2	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	4	9	22	4	19	4
Future Vol, veh/h	4	9	22	4	19	4
Conflicting Peds, #/hr	0	0	0	0	0	3
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	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	13	31	6	27	6






















Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	37	0	-	0	59 37
Stage 1	-	-	-	-	34 -
Stage 2	-	-	-	-	25 -
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	1587	-	-	-	953 1041
Stage 1	-	-	-	-	994 -
Stage 2	-	-	-	-	1003 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1587	-	-	-	949 1038
Mov Cap-2 Maneuver	-	-	-	-	949 -
Stage 1	-	-	-	-	990 -
Stage 2	-	-	-	-	1003 -

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1587	-	-	-	963
HCM Lane V/C Ratio	0.004	-	-	-	0.034
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th Signalized Intersection Summary
 2: Madison St & Indiana Avenue

Madison Flats Project
 Cumulative (2045) NP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	425	80	56	252	363	68	503	34	262	608	115
Future Volume (veh/h)	227	425	80	56	252	363	68	503	34	262	608	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	244	457	86	60	271	390	73	541	37	282	654	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	1105	207	77	485	433	243	1044	71	307	997	189
Arrive On Green	0.13	0.36	0.36	0.04	0.27	0.27	0.13	0.30	0.30	0.17	0.33	0.33
Sat Flow, veh/h	1810	3034	567	1810	1805	1610	1810	3429	234	1810	3018	571
Grp Volume(v), veh/h	244	271	272	60	271	390	73	284	294	282	391	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1610	1810	1805	1858	1810	1805	1784
Q Serve(g_s), s	20.0	17.4	17.6	5.1	20.0	36.2	5.6	20.2	20.2	23.8	28.7	28.8
Cycle Q Clear(g_c), s	20.0	17.4	17.6	5.1	20.0	36.2	5.6	20.2	20.2	23.8	28.7	28.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.13	1.00		0.32
Lane Grp Cap(c), veh/h	233	657	654	77	485	433	243	550	566	307	596	589
V/C Ratio(X)	1.05	0.41	0.42	0.78	0.56	0.90	0.30	0.52	0.52	0.92	0.66	0.66
Avail Cap(c_a), veh/h	233	657	654	233	524	467	243	550	566	467	596	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	36.9	36.9	73.5	48.8	54.7	60.5	44.5	44.5	63.3	44.4	44.4
Incr Delay (d2), s/veh	71.2	0.4	0.4	11.7	2.2	21.2	0.5	3.5	3.4	15.7	5.5	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	7.7	7.8	2.6	9.3	17.0	2.6	9.6	9.9	12.2	13.6	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.7	37.3	37.4	85.2	51.0	75.9	61.0	48.0	47.9	79.1	49.9	50.0
LnGrp LOS	F	D	D	F	D	E	E	D	D	E	D	D
Approach Vol, veh/h		787			721			651			1060	
Approach Delay, s/veh		68.7			67.3			49.4			57.7	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	56.6	25.4	47.0	30.3	52.3	10.6	61.8				
Change Period (Y+Rc), s	5.1	* 5.4	5.4	* 5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	* 45	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.6	30.8	22.0	38.2	25.8	22.2	7.1	19.6				
Green Ext Time (p_c), s	0.1	4.6	0.0	3.4	0.5	2.3	0.1	3.1				

Intersection Summary												
HCM 6th Ctrl Delay											60.9	
HCM 6th LOS											E	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.3	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.9
Total Del/Veh (s)	10.8	12.4	1.4	0.7	0.5	5.2	1.6	1.4	3.0	2.4
Stop Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	9.6	13.9	0.5	0.1	0.0	3.9	0.1	0.1	4.1	1.6

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑	↘
Traffic Vol, veh/h	4	13	3	488	676	13
Future Vol, veh/h	4	13	3	488	676	13
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	15	3	567	786	15

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1083	793	808	0	-	0
Stage 1	793	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	228	392	826	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	389	820	-	-	-
Mov Cap-2 Maneuver	345	-	-	-	-	-
Stage 1	444	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	820	-	378	-	-
HCM Lane V/C Ratio	0.004	-	0.052	-	-
HCM Control Delay (s)	9.4	-	15	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	18	19	13	8	1
Future Vol, veh/h	7	18	19	13	8	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	26	27	19	11	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.2	6.9	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	0%	89%
Vol Thru, %	72%	59%	0%
Vol Right, %	0%	41%	11%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	25	32	9
LT Vol	7	0	8
Through Vol	18	19	0
RT Vol	0	13	1
Lane Flow Rate	36	46	13
Geometry Grp	1	1	1
Degree of Util (X)	0.04	0.047	0.015
Departure Headway (Hd)	4.012	3.705	4.153
Convergence, Y/N	Yes	Yes	Yes
Cap	895	969	861
Service Time	2.025	1.719	2.18
HCM Lane V/C Ratio	0.04	0.047	0.015
HCM Control Delay	7.2	6.9	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

HCM 6th Signalized Intersection Summary

2: Madison Street & Indiana Avenue

Madison Flats Project
Cumulative (2045) WP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	324	52	41	237	303	65	511	54	272	427	208
Future Volume (veh/h)	162	324	52	41	237	303	65	511	54	272	427	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	348	56	44	255	326	70	549	58	292	459	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	980	156	57	429	383	353	1182	125	316	775	375
Arrive On Green	0.11	0.31	0.31	0.03	0.24	0.24	0.20	0.36	0.36	0.17	0.33	0.33
Sat Flow, veh/h	1810	3117	497	1810	1805	1610	1810	3287	346	1810	2345	1135
Grp Volume(v), veh/h	174	200	204	44	255	326	70	301	306	292	352	331
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1610	1810	1805	1828	1810	1805	1675
Q Serve(g_s), s	14.7	13.3	13.5	3.7	19.4	30.0	5.0	19.8	20.0	24.6	25.2	25.5
Cycle Q Clear(g_c), s	14.7	13.3	13.5	3.7	19.4	30.0	5.0	19.8	20.0	24.6	25.2	25.5
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.19	1.00		0.68
Lane Grp Cap(c), veh/h	196	567	569	57	429	383	353	649	658	316	596	553
V/C Ratio(X)	0.89	0.35	0.36	0.77	0.59	0.85	0.20	0.46	0.47	0.92	0.59	0.60
Avail Cap(c_a), veh/h	233	567	569	233	524	467	353	649	658	467	596	553
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	41.0	41.1	74.5	52.4	56.5	52.2	38.1	38.2	62.9	43.2	43.3
Incr Delay (d2), s/veh	27.0	0.4	0.4	14.6	2.8	14.9	0.2	2.4	2.4	16.9	4.3	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	5.9	6.1	2.0	9.1	13.6	2.3	9.3	9.4	12.7	11.9	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.3	41.4	89.1	55.2	71.4	52.4	40.5	40.5	79.8	47.5	48.0
LnGrp LOS	F	D	D	F	E	E	D	D	D	E	D	D
Approach Vol, veh/h		578			625			677			975	
Approach Delay, s/veh		57.6			66.0			41.7			57.3	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.4	56.6	20.8	42.2	31.1	60.9	8.9	54.1				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	45.0	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.0	27.5	16.7	32.0	26.6	22.0	5.7	15.5				
Green Ext Time (p_c), s	0.1	4.2	0.1	4.8	0.5	2.5	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.4	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.9
Total Del/Veh (s)	8.8	15.6	1.1	0.4	0.8	4.6	1.6	1.7	3.3	2.7
Stop Delay (hr)	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	7.5	17.0	0.0	0.1	0.1	1.4	0.1	0.1	4.1	1.8

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑	↔
Traffic Vol, veh/h	31	20	12	591	365	24
Future Vol, veh/h	31	20	12	591	365	24
Conflicting Peds, #/hr	0	0	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	23	14	687	424	28

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	800	428	456	0	0
Stage 1	428	-	-	-	-
Stage 2	372	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	341	631	1115	-	-
Stage 1	662	-	-	-	-
Stage 2	673	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	334	629	1111	-	-
Mov Cap-2 Maneuver	454	-	-	-	-
Stage 1	651	-	-	-	-
Stage 2	670	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1111	-	510	-	-
HCM Lane V/C Ratio	0.013	-	0.116	-	-
HCM Control Delay (s)	8.3	-	13	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	1	4	11	2	10
Future Vol, veh/h	17	1	4	11	2	10
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	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	1	4	12	2	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	19	0	39
Stage 1	-	-	-	-	19
Stage 2	-	-	-	-	20
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1611	-	978
Stage 1	-	-	-	-	1009
Stage 2	-	-	-	-	1008
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1611	-	976
Mov Cap-2 Maneuver	-	-	-	-	976
Stage 1	-	-	-	-	1009
Stage 2	-	-	-	-	1006

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1049	-	-	1611	-
HCM Lane V/C Ratio	0.012	-	-	0.003	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	26	1	0	30	2	0
Future Vol, veh/h	26	1	0	30	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	1	0	32	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	28	0	60 28
Stage 1	-	-	-	-	28 -
Stage 2	-	-	-	-	32 -
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	-	-	1599	-	952 1053
Stage 1	-	-	-	-	1000 -
Stage 2	-	-	-	-	996 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1599	-	952 1053
Mov Cap-2 Maneuver	-	-	-	-	952 -
Stage 1	-	-	-	-	1000 -
Stage 2	-	-	-	-	996 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	952	-	-	1599	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	26	0	9	30	0	25
Future Vol, veh/h	26	0	9	30	0	25
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	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	0	9	32	0	26

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	27	0	77
Stage 1	-	-	-	-	27
Stage 2	-	-	-	-	50
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1600	-	931
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	978
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1600	-	925
Mov Cap-2 Maneuver	-	-	-	-	925
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	972

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1054	-	-	1600	-
HCM Lane V/C Ratio	0.025	-	-	0.006	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	4	15	31	5	21	4
Future Vol, veh/h	4	15	31	5	21	4
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	21	44	7	30	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	0%	84%
Vol Thru, %	79%	86%	0%
Vol Right, %	0%	14%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	19	36	25
LT Vol	4	0	21
Through Vol	15	31	0
RT Vol	0	5	4
Lane Flow Rate	27	51	36
Geometry Grp	1	1	1
Degree of Util (X)	0.03	0.056	0.041
Departure Headway (Hd)	4.044	3.9	4.108
Convergence, Y/N	Yes	Yes	Yes
Cap	885	919	870
Service Time	2.071	1.923	2.139
HCM Lane V/C Ratio	0.031	0.055	0.041
HCM Control Delay	7.2	7.2	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1

HCM 6th Signalized Intersection Summary
 2: Madison Street & Indiana Avenue

Madison Flats Project
 Cumulative (2045) WP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	425	80	60	252	363	68	517	36	262	630	115
Future Volume (veh/h)	227	425	80	60	252	363	68	517	36	262	630	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	244	457	86	65	271	390	73	556	39	282	677	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	1095	205	83	485	433	243	1042	73	307	1003	184
Arrive On Green	0.13	0.36	0.36	0.05	0.27	0.27	0.13	0.30	0.30	0.17	0.33	0.33
Sat Flow, veh/h	1810	3034	567	1810	1805	1610	1810	3421	239	1810	3037	556
Grp Volume(v), veh/h	244	271	272	65	271	390	73	293	302	282	402	399
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1610	1810	1805	1855	1810	1805	1787
Q Serve(g_s), s	20.0	17.5	17.7	5.5	20.0	36.2	5.6	20.9	21.0	23.8	29.8	29.8
Cycle Q Clear(g_c), s	20.0	17.5	17.7	5.5	20.0	36.2	5.6	20.9	21.0	23.8	29.8	29.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	233	651	648	83	485	433	243	550	565	307	596	590
V/C Ratio(X)	1.05	0.42	0.42	0.78	0.56	0.90	0.30	0.53	0.53	0.92	0.67	0.68
Avail Cap(c_a), veh/h	233	651	648	233	524	467	243	550	565	467	596	590
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.5	37.2	37.3	73.2	48.8	54.7	60.5	44.8	44.8	63.3	44.7	44.7
Incr Delay (d2), s/veh	71.2	0.4	0.4	11.2	2.2	21.2	0.5	3.7	3.6	15.7	6.0	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	7.8	7.8	2.8	9.3	17.0	2.6	9.9	10.3	12.2	14.2	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.7	37.7	37.7	84.4	51.0	75.9	61.0	48.4	48.4	79.1	50.7	50.8
LnGrp LOS	F	D	D	F	D	E	E	D	D	E	D	D
Approach Vol, veh/h		787			726			668			1083	
Approach Delay, s/veh		69.0			67.4			49.8			58.1	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	56.6	25.4	47.0	30.3	52.3	11.1	61.3				
Change Period (Y+Rc), s	5.1	* 5.4	5.4	* 5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	20.0	* 51	20.0	* 45	40.0	31.5	20.0	45.0				
Max Q Clear Time (g_c+I1), s	7.6	31.8	22.0	38.2	25.8	23.0	7.5	19.7				
Green Ext Time (p_c), s	0.1	4.7	0.0	3.4	0.5	2.3	0.1	3.1				

Intersection Summary

HCM 6th Ctrl Delay	61.1
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Madison St & Casa Blanca St/Home Depot Dwy & Splash Express Dwy Performance by lane

Lane	EB	WB	NB	NB	NB	SB	SB	SB	SW	All
Movements Served	<TR	LTR	L	T	TR>	<L	T	TR	<LR>	
Denied Delay (hr)										0.0
Denied Del/Veh (s)										0.0
Total Delay (hr)	0.1	0.3	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.9
Total Del/Veh (s)	10.0	13.7	1.2	0.9	0.5	3.9	1.7	1.5	3.3	2.5
Stop Delay (hr)	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	8.9	15.1	0.0	0.3	0.0	2.7	0.1	0.1	4.3	1.6

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	18	10	488	676	38
Future Vol, veh/h	20	18	10	488	676	38
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	45	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	21	12	567	786	44

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1101	793	837	0	-	0
Stage 1	793	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	223	392	806	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	217	389	801	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	801	-	361	-	-
HCM Lane V/C Ratio	0.015	-	0.122	-	-
HCM Control Delay (s)	9.6	-	16.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	2	9	21	1	6
Future Vol, veh/h	6	2	9	21	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	2	9	22	1	6

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	8	0	47
Stage 1	-	-	-	-	7
Stage 2	-	-	-	-	40
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1625	-	968
Stage 1	-	-	-	-	1021
Stage 2	-	-	-	-	988
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1625	-	962
Mov Cap-2 Maneuver	-	-	-	-	962
Stage 1	-	-	-	-	1021
Stage 2	-	-	-	-	982

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1062	-	-	1625	-
HCM Lane V/C Ratio	0.007	-	-	0.006	-
HCM Control Delay (s)	8.4	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	2	0	35	1	0
Future Vol, veh/h	34	2	0	35	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	2	0	37	1	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	38	0	74 37
Stage 1	-	-	-	-	37 -
Stage 2	-	-	-	-	37 -
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	-	-	1585	-	935 1041
Stage 1	-	-	-	-	991 -
Stage 2	-	-	-	-	991 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1585	-	935 1041
Mov Cap-2 Maneuver	-	-	-	-	935 -
Stage 1	-	-	-	-	991 -
Stage 2	-	-	-	-	991 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	935	-	-	1585	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	0	23	35	0	15
Future Vol, veh/h	34	0	23	35	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	0	24	37	0	16

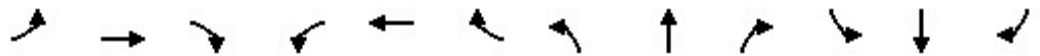
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	36	0	121
Stage 1	-	-	-	-	36
Stage 2	-	-	-	-	85
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1588	-	879
Stage 1	-	-	-	-	992
Stage 2	-	-	-	-	943
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1588	-	866
Mov Cap-2 Maneuver	-	-	-	-	866
Stage 1	-	-	-	-	992
Stage 2	-	-	-	-	929

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1042	-	-	1588	-
HCM Lane V/C Ratio	0.015	-	-	0.015	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
 2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
 Opening Year (2025) WP AM Improvements



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	294	45	37	226	289	43	434	35	259	407	198
Future Volume (veh/h)	154	294	45	37	226	289	43	434	35	259	407	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	316	48	40	243	311	46	467	38	278	438	213
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	889	134	52	373	333	202	1358	110	303	1055	508
Arrive On Green	0.10	0.28	0.28	0.03	0.21	0.21	0.11	0.40	0.40	0.17	0.45	0.45
Sat Flow, veh/h	1810	3146	473	1810	1805	1610	1810	3375	274	1810	2350	1132
Grp Volume(v), veh/h	166	180	184	40	243	311	46	249	256	278	335	316
Grp Sat Flow(s),veh/h/ln	1810	1805	1814	1810	1805	1610	1810	1805	1844	1810	1805	1677
Q Serve(g_s), s	14.0	12.3	12.6	3.4	19.1	29.4	3.6	14.8	14.9	23.4	19.5	19.8
Cycle Q Clear(g_c), s	14.0	12.3	12.6	3.4	19.1	29.4	3.6	14.8	14.9	23.4	19.5	19.8
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.15	1.00		0.67
Lane Grp Cap(c), veh/h	189	510	512	52	373	333	202	726	742	303	811	753
V/C Ratio(X)	0.88	0.35	0.36	0.77	0.65	0.93	0.23	0.34	0.35	0.92	0.41	0.42
Avail Cap(c_a), veh/h	292	566	569	105	380	339	202	726	742	467	811	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	44.3	44.4	74.8	56.4	60.5	62.8	32.1	32.2	63.5	28.9	29.0
Incr Delay (d2), s/veh	14.8	0.4	0.4	16.1	5.4	33.2	0.4	1.3	1.3	15.2	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	5.6	5.7	1.8	9.2	14.9	1.7	6.8	7.0	12.0	8.7	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	44.7	44.8	90.9	61.7	93.7	63.2	33.4	33.4	78.7	30.5	30.7
LnGrp LOS	F	D	D	F	E	F	E	C	C	E	C	C
Approach Vol, veh/h		530			594			551			929	
Approach Delay, s/veh		56.8			80.4			35.9			45.0	
Approach LOS		E			F			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.4	75.0	20.2	37.4	29.9	67.5	8.4	49.2				
Change Period (Y+Rc), s	5.1	* 5.4	4.0	5.4	4.0	5.1	4.0	5.4				
Max Green Setting (Gmax), s	9.0	* 70	25.0	32.6	40.0	38.9	9.0	48.6				
Max Q Clear Time (g_c+I1), s	5.6	21.8	16.0	31.4	25.4	16.9	5.4	14.6				
Green Ext Time (p_c), s	0.0	4.3	0.2	0.6	0.5	2.9	0.0	2.1				

Intersection Summary												
HCM 6th Ctrl Delay				53.6								
HCM 6th LOS				D								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
 Opening Year (2025) WP PM Improvements



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↗↘		↗	↗↘	
Traffic Volume (veh/h)	216	405	73	55	235	346	61	508	35	251	554	113
Future Volume (veh/h)	216	405	73	55	235	346	61	508	35	251	554	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	435	78	59	253	372	66	546	38	270	596	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	1077	192	76	466	416	84	1102	77	295	1304	266
Arrive On Green	0.14	0.35	0.35	0.04	0.26	0.26	0.05	0.32	0.32	0.16	0.44	0.44
Sat Flow, veh/h	1810	3061	545	1810	1805	1610	1810	3423	238	1810	2976	607
Grp Volume(v), veh/h	232	255	258	59	253	372	66	287	297	270	361	357
Grp Sat Flow(s),veh/h/ln	1810	1805	1801	1810	1805	1610	1810	1805	1856	1810	1805	1778
Q Serve(g_s), s	19.7	16.5	16.8	5.0	18.7	34.5	5.6	19.9	20.0	22.8	21.8	21.9
Cycle Q Clear(g_c), s	19.7	16.5	16.8	5.0	18.7	34.5	5.6	19.9	20.0	22.8	21.8	21.9
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.13	1.00		0.34
Lane Grp Cap(c), veh/h	245	635	634	76	466	416	84	581	598	295	791	779
V/C Ratio(X)	0.95	0.40	0.41	0.78	0.54	0.89	0.78	0.49	0.50	0.92	0.46	0.46
Avail Cap(c_a), veh/h	245	635	634	245	512	457	233	581	598	467	791	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	37.9	38.0	73.5	49.6	55.4	73.1	42.4	42.4	63.8	30.6	30.6
Incr Delay (d2), s/veh	42.6	0.4	0.4	11.8	2.1	20.5	11.1	3.0	2.9	14.2	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	7.4	7.5	2.6	8.7	16.2	2.9	9.4	9.7	11.5	9.8	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.0	38.3	38.4	85.3	51.7	75.9	84.3	45.4	45.3	78.0	32.5	32.5
LnGrp LOS	F	D	D	F	D	E	F	D	D	E	C	C
Approach Vol, veh/h		745			684			650			988	
Approach Delay, s/veh		60.4			67.8			49.3			44.9	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	73.3	25.0	45.4	29.2	55.3	10.5	59.9				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.4	4.0	* 5.4	4.0	5.4				
Max Green Setting (Gmax), s	20.0	51.2	21.0	44.0	40.0	* 32	21.0	44.0				
Max Q Clear Time (g_c+I1), s	7.6	23.9	21.7	36.5	24.8	22.0	7.0	18.8				
Green Ext Time (p_c), s	0.1	4.5	0.0	3.5	0.5	2.4	0.1	2.9				

Intersection Summary






















HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
 Cumulative (2045) WP AM Improvements

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	324	52	41	237	303	65	511	54	272	427	208
Future Volume (veh/h)	162	324	52	41	237	303	65	511	54	272	427	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	348	56	44	255	326	70	549	58	292	459	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	980	156	57	429	383	89	1176	124	316	1134	549
Arrive On Green	0.11	0.31	0.31	0.03	0.24	0.24	0.05	0.36	0.36	0.17	0.48	0.48
Sat Flow, veh/h	1810	3117	497	1810	1805	1610	1810	3287	346	1810	2346	1136
Grp Volume(v), veh/h	174	200	204	44	255	326	70	301	306	292	352	331
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1610	1810	1805	1828	1810	1805	1676
Q Serve(g_s), s	14.7	13.3	13.5	3.7	19.4	30.0	5.9	19.9	20.0	24.6	19.4	19.7
Cycle Q Clear(g_c), s	14.7	13.3	13.5	3.7	19.4	30.0	5.9	19.9	20.0	24.6	19.4	19.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.19	1.00		0.68
Lane Grp Cap(c), veh/h	196	567	569	57	429	383	89	646	654	316	873	811
V/C Ratio(X)	0.89	0.35	0.36	0.77	0.59	0.85	0.79	0.47	0.47	0.92	0.40	0.41
Avail Cap(c_a), veh/h	233	567	569	233	524	467	233	646	654	467	873	811
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	41.0	41.1	74.5	52.4	56.5	72.9	38.4	38.4	62.9	25.7	25.7
Incr Delay (d2), s/veh	27.0	0.4	0.4	14.6	2.8	14.9	10.8	2.4	2.4	16.9	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	5.9	6.1	2.0	9.1	13.6	3.0	9.3	9.5	12.7	8.6	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.3	41.4	89.1	55.2	71.4	83.7	40.8	40.8	79.8	27.1	27.3
LnGrp LOS	F	D	D	F	E	E	F	D	D	E	C	C
Approach Vol, veh/h		578			625			677			975	
Approach Delay, s/veh		57.6			66.0			45.2			42.9	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	80.4	20.8	42.2	31.1	60.9	8.9	54.1				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.4	4.0	* 5.4	4.0	5.4				
Max Green Setting (Gmax), s	20.0	51.2	20.0	45.0	40.0	* 32	20.0	45.0				
Max Q Clear Time (g_c+l1), s	7.9	21.7	16.7	32.0	26.6	22.0	5.7	15.5				
Green Ext Time (p_c), s	0.1	4.4	0.1	4.8	0.5	2.5	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
Cumulative (2045) WP PM Improvements



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	425	80	60	252	363	68	517	36	262	630	115
Future Volume (veh/h)	227	425	80	60	252	363	68	517	36	262	630	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	244	457	86	65	271	390	73	556	39	282	677	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	1096	205	83	471	420	92	1019	71	307	1266	232
Arrive On Green	0.15	0.36	0.36	0.05	0.26	0.26	0.05	0.30	0.30	0.17	0.42	0.42
Sat Flow, veh/h	1810	3034	567	1810	1805	1610	1810	3421	239	1810	3038	556
Grp Volume(v), veh/h	244	271	272	65	271	390	73	293	302	282	402	399
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1610	1810	1805	1855	1810	1805	1788
Q Serve(g_s), s	20.0	16.9	17.1	5.3	19.6	35.4	6.0	20.4	20.5	23.0	25.1	25.1
Cycle Q Clear(g_c), s	20.0	16.9	17.1	5.3	19.6	35.4	6.0	20.4	20.5	23.0	25.1	25.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	265	652	649	83	471	420	92	538	552	307	752	745
V/C Ratio(X)	0.92	0.42	0.42	0.78	0.58	0.93	0.79	0.54	0.55	0.92	0.53	0.54
Avail Cap(c_a), veh/h	265	652	649	133	486	434	145	538	552	458	752	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.2	36.0	36.1	70.8	48.2	54.1	70.4	44.1	44.2	61.2	32.8	32.8
Incr Delay (d2), s/veh	34.7	0.4	0.4	11.4	2.7	27.1	11.2	3.9	3.9	16.1	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	7.5	7.5	2.7	9.1	17.3	3.1	9.7	10.0	11.8	11.4	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.9	36.4	36.5	82.2	50.9	81.2	81.6	48.1	48.0	77.4	35.5	35.6
LnGrp LOS	F	D	D	F	D	F	F	D	D	E	D	D
Approach Vol, veh/h		787			726			668			1083	
Approach Delay, s/veh		55.5			70.0			51.7			46.5	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	67.9	26.0	44.5	29.5	50.1	10.9	59.6				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.4	4.0	* 5.4	4.0	5.4				
Max Green Setting (Gmax), s	12.0	56.8	22.0	40.4	38.0	* 31	11.0	51.4				
Max Q Clear Time (g_c+I1), s	8.0	27.1	22.0	37.4	25.0	22.5	7.3	19.1				
Green Ext Time (p_c), s	0.0	5.2	0.0	1.7	0.5	2.3	0.0	3.3				

Intersection Summary

HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX E

QUEUING ANALYSIS WORKSHEETS

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB
Directions Served	LR
Maximum Queue (ft)	26
Average Queue (ft)	12
95th Queue (ft)	33
Link Distance (ft)	985
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB
Directions Served	LR
Maximum Queue (ft)	26
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	985
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	26	31
Average Queue (ft)	12	2
95th Queue (ft)	33	15
Link Distance (ft)	985	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		45
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB
Directions Served	LR
Maximum Queue (ft)	26
Average Queue (ft)	10
95th Queue (ft)	31
Link Distance (ft)	985
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 4: Madison Street/Madison St & Railroad Avenue

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	26	31
Average Queue (ft)	21	2
95th Queue (ft)	36	15
Link Distance (ft)	450	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		45
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Queuing and Blocking Report

Intersection: 5: Project Driveway 1 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	10
95th Queue (ft)	35
Link Distance (ft)	94
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 6: Project Driveway 2 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	21
Link Distance (ft)	92
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 7: Project Driveway 3 & Railroad Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	31
Average Queue (ft)	1	19
95th Queue (ft)	11	43
Link Distance (ft)	450	90
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Intersection: 4: Madison Street/Madison St & Railroad Avenue

Movement	EB	NB	SB
Directions Served	LR	L	T
Maximum Queue (ft)	48	31	47
Average Queue (ft)	21	2	3
95th Queue (ft)	43	15	19
Link Distance (ft)	450		124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		45	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Queuing and Blocking Report

Intersection: 5: Project Driveway 1 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	94
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 6: Project Driveway 2 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	92
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 7: Project Driveway 3 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	15
95th Queue (ft)	40
Link Distance (ft)	90
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	26	29
Average Queue (ft)	11	1
95th Queue (ft)	32	10
Link Distance (ft)	985	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		45
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Queuing and Blocking Report

Intersection: 4: Madison St & Railroad Avenue

Movement	EB	NB	SB
Directions Served	LR	L	T
Maximum Queue (ft)	26	31	54
Average Queue (ft)	11	2	2
95th Queue (ft)	31	15	19
Link Distance (ft)	985		124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		45	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Queuing and Blocking Report

Intersection: 4: Madison Street/Madison St & Railroad Avenue

Movement	EB	NB	SB
Directions Served	LR	L	T
Maximum Queue (ft)	48	46	28
Average Queue (ft)	19	8	1
95th Queue (ft)	40	32	10
Link Distance (ft)	450		124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		45	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		1	

Queuing and Blocking Report

Intersection: 5: Project Driveway 1 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	11
95th Queue (ft)	35
Link Distance (ft)	94
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 6: Project Driveway 2 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	28
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	92
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 7: Project Driveway 3 & Railroad Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	13
95th Queue (ft)	38
Link Distance (ft)	90
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

Intersection: 4: Madison Street/Madison St & Railroad Avenue

Movement	EB	NB	SB
Directions Served	LR	L	T
Maximum Queue (ft)	51	31	38
Average Queue (ft)	23	3	3
95th Queue (ft)	49	19	20
Link Distance (ft)	450		124
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		45	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Queuing and Blocking Report

Intersection: 5: Project Driveway 1 & Railroad Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	31
Average Queue (ft)	1	13
95th Queue (ft)	11	37
Link Distance (ft)	577	94
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Intersection: 6: Project Driveway 2 & Railroad Avenue

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report

Intersection: 7: Project Driveway 3 & Railroad Avenue

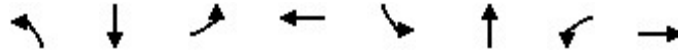
Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	54
Average Queue (ft)	1	14
95th Queue (ft)	11	41
Link Distance (ft)	450	90
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

APPENDIX F

OPTIMIZED SIGNAL TIMING PARAMETERS

Timing Report, Sorted By Phase
 2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
 Opening Year (2025) WP AM Improvements



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	13	75	29	38	44	44	13	54
Maximum Split (%)	8.4%	48.4%	18.7%	24.5%	28.4%	28.4%	8.4%	34.8%
Minimum Split (s)	9	33.4	9	10.4	9	36.1	9	32.4
Yellow Time (s)	3	4.4	3	4.4	3	4.1	3	4.4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	2.5	3	2.5	5	2.5	3	2.5	3
Minimum Gap (s)	2.5	2	2.5	4	2.5	2	2.5	3
Time Before Reduce (s)	0	4	0	4.5	0	3	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		21				24		20
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	31	111	44	73	111	0	44	57
End Time (s)	44	31	73	111	0	44	57	111
Yield/Force Off (s)	40	25.6	69	105.6	151	38.9	53	105.6
Yield/Force Off 170(s)	40	4.6	69	105.6	151	14.9	53	85.6
Local Start Time (s)	31	111	44	73	111	0	44	57
Local Yield (s)	40	25.6	69	105.6	151	38.9	53	105.6
Local Yield 170(s)	40	4.6	69	105.6	151	14.9	53	85.6

Intersection Summary

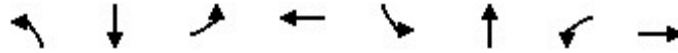
Cycle Length	155
Control Type	Actuated-Coordinated
Natural Cycle	90
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green	

Splits and Phases: 2: Madison St/Madison Street & Indiana Avenue



Timing Report, Sorted By Phase
 2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
 Opening Year (2025) WP PM Improvements

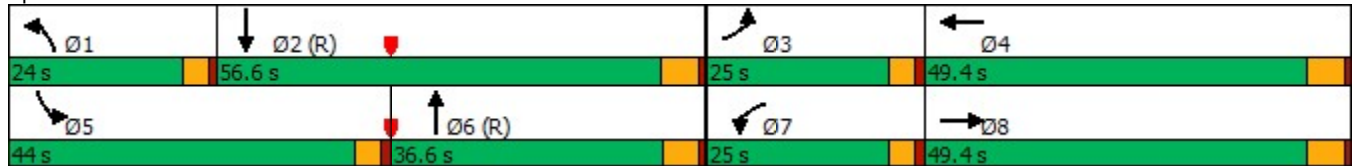


Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	24	56.6	25	49.4	44	36.6	25	49.4
Maximum Split (%)	15.5%	36.5%	16.1%	31.9%	28.4%	23.6%	16.1%	31.9%
Minimum Split (s)	9	33.4	9	10.4	9	36.1	9	32.4
Yellow Time (s)	3	4.4	3	4.4	3	4.1	3	4.4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	2.5	3	2.5	5	2.5	3	2.5	3
Minimum Gap (s)	2.5	2	2.5	4	2.5	2	2.5	3
Time Before Reduce (s)	0	4	0	4.5	0	3	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		21				24		20
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	111	135	36.6	61.6	111	0	36.6	61.6
End Time (s)	135	36.6	61.6	111	0	36.6	61.6	111
Yield/Force Off (s)	131	31.2	57.6	105.6	151	31.5	57.6	105.6
Yield/Force Off 170(s)	131	10.2	57.6	105.6	151	7.5	57.6	85.6
Local Start Time (s)	111	135	36.6	61.6	111	0	36.6	61.6
Local Yield (s)	131	31.2	57.6	105.6	151	31.5	57.6	105.6
Local Yield 170(s)	131	10.2	57.6	105.6	151	7.5	57.6	85.6

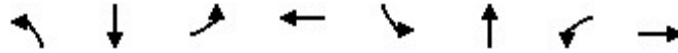
Intersection Summary

Cycle Length	155
Control Type	Actuated-Coordinated
Natural Cycle	90
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green	

Splits and Phases: 2: Madison St/Madison Street & Indiana Avenue



Timing Report, Sorted By Phase
 2: Madison St/Madison Street & Indiana Avenue

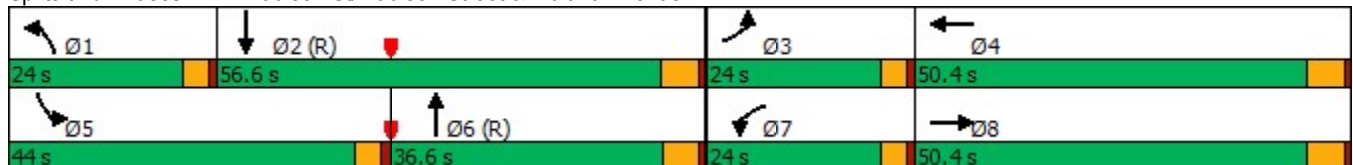


Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	24	56.6	24	50.4	44	36.6	24	50.4
Maximum Split (%)	15.5%	36.5%	15.5%	32.5%	28.4%	23.6%	15.5%	32.5%
Minimum Split (s)	9	33.4	9	10.4	9	36.1	9	32.4
Yellow Time (s)	3	4.4	3	4.4	3	4.1	3	4.4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	2.5	3	2.5	5	2.5	3	2.5	3
Minimum Gap (s)	2.5	2	2.5	4	2.5	2	2.5	3
Time Before Reduce (s)	0	4	0	4.5	0	3	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		21				24		20
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	111	135	36.6	60.6	111	0	36.6	60.6
End Time (s)	135	36.6	60.6	111	0	36.6	60.6	111
Yield/Force Off (s)	131	31.2	56.6	105.6	151	31.5	56.6	105.6
Yield/Force Off 170(s)	131	10.2	56.6	105.6	151	7.5	56.6	85.6
Local Start Time (s)	111	135	36.6	60.6	111	0	36.6	60.6
Local Yield (s)	131	31.2	56.6	105.6	151	31.5	56.6	105.6
Local Yield 170(s)	131	10.2	56.6	105.6	151	7.5	56.6	85.6

Intersection Summary

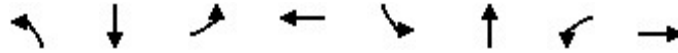
Cycle Length	155
Control Type	Actuated-Coordinated
Natural Cycle	90
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green	

Splits and Phases: 2: Madison St/Madison Street & Indiana Avenue



Timing Report, Sorted By Phase
2: Madison St/Madison Street & Indiana Avenue

Madison Flats Project
Cumulative (2045) WP PM Improvements



Phase Number	1	2	3	4	5	6	7	8
Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	16	62.2	26	45.8	42	36.2	15	56.8
Maximum Split (%)	10.7%	41.5%	17.3%	30.5%	28.0%	24.1%	10.0%	37.9%
Minimum Split (s)	9	33.4	9	10.4	9	36.1	9	32.4
Yellow Time (s)	3	4.4	3	4.4	3	4.1	3	4.4
All-Red Time (s)	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5
Vehicle Extension (s)	2.5	3	2.5	5	2.5	3	2.5	3
Minimum Gap (s)	2.5	2	2.5	4	2.5	2	2.5	3
Time Before Reduce (s)	0	4	0	4.5	0	3	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		7				7		7
Flash Dont Walk (s)		21				24		20
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	108	124	36.2	62.2	108	0	36.2	51.2
End Time (s)	124	36.2	62.2	108	0	36.2	51.2	108
Yield/Force Off (s)	120	30.8	58.2	102.6	146	31.1	47.2	102.6
Yield/Force Off 170(s)	120	9.8	58.2	102.6	146	7.1	47.2	82.6
Local Start Time (s)	108	124	36.2	62.2	108	0	36.2	51.2
Local Yield (s)	120	30.8	58.2	102.6	146	31.1	47.2	102.6
Local Yield 170(s)	120	9.8	58.2	102.6	146	7.1	47.2	82.6

Intersection Summary

Cycle Length	150
Control Type	Actuated-Coordinated
Natural Cycle	90
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green	

Splits and Phases: 2: Madison St/Madison Street & Indiana Avenue

