

CITY OF REDLANDS TRAFFIC AND PARKING COMMISSION REGULAR MEETING AGENDA

ERIC SHAMP, CHAIR

CASSIE MACDUFF, COMMISSIONER
KEVIN MORNINGSTAR, COMMISSIONER
BILL WADDELL, COMMISSIONER

ANDREW HODER, COMMISSIONER
JOHNATHAN GHAZAL, COMMISSIONER
VACANT, COMMISSIONER

Thursday, May 25, 2023, at 6:00 P.M.
City Council Chamber, Civic Center
35 Cajon Street, Suite 2, Redlands, CA

This will be an open public meeting. The following information comprises the agenda for a meeting of the Traffic and Parking Commission of the City of Redlands.

1. Attendance & Call to Order

2. Approval of Minutes

A. Minutes of the regular meeting of March 23, 2023

3. Public Comment

The public is invited to speak on items not listed on this agenda, but within the jurisdiction of the Commission. However, no general discussion of such items, or action on such items, may be taken. Comments are limited to three minutes.

4. Presentation

A. Downtown Parking Study (Presented by Walter Consultants)

5. Communications

A. Status of Traffic and Parking Commission budget

B. Status of work orders on items previously recommended by Commission and work orders on items approved by Staff that fall within the existing Municipal Code not requiring Commission recommendation or City Council approval

C. Update on the Citywide Left-Turn Pocket Study

D. Update on the no overnight parking zone on Industry Park Avenue between Nevada Street and Alabama Street

E. Update on the HSIP Cycle 9 Orange Blossom Trail Phase 3 Crossings

F. Continued discussion of the duties and responsibilities under the TPC's purview

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Goutam K. Dobby of Municipal Utilities/Engineering Department at (909) 798-7584 x2. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. NOTE: Any writings or documents distributed to a majority of the Traffic and Parking Commission regarding an open session agenda item less than 72 hours before this meeting are available at <https://www.cityofredlands.org/traffic-and-parking-commission> or the Municipal Utilities & Engineering Department at 35 Cajon Street, Suite 15A for public inspection or by calling 909-789-7584 x 7.

(28 CFR 35.102-35.104 ADA Title II)

**CITY OF REDLANDS
TRAFFIC AND PARKING COMMISSION
REGULAR MEETING AGENDA**

6. New Business

- A. Request to establish a no-parking zone between 10 PM to 6 AM on streets adjacent to Sylvan Park
- B. Discussion and possible election of the Traffic and Parking Commission Vice Chair for the 2023 Calendar Year

7. Adjournment

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Goutam K. Dobby of Municipal Utilities/Engineering Department at (909) 798-7584 x2. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. NOTE: Any writings or documents distributed to a majority of the Traffic and Parking Commission regarding an open session agenda item less than 72 hours before this meeting are available at <https://www.cityofredlands.org/traffic-and-parking-commission> for public inspection or at the Municipal Utilities & Engineering Department, 35 Cajon Street, Suite 15A by calling 909-789-7584 x 7.

(28 CFR 35.102-35.104 ADA Title II)

**CITY OF REDLANDS
TRAFFIC AND PARKING COMMISSION
REGULAR MEETING
Thursday, March 23, 2023 at 6:00 P.M.**

MINUTES

1. ATTENDANCE

Roll Call:

Present

Commissioners:

Eric Shamp
Kevin Morningstar
Bill Waddell
Andrew Hoder
Johnathan Ghazal

Staff:

Jeremy Floyd, PD
John Harris, MUED
Goutam Dobey, MUED
Johana Silva, MUED
David Rabindranath, FCS

Absent

Commissioners:

Marc Tran (unexcused)
Cassie MacDuff

2. CALL TO ORDER

The regular meeting of the Traffic and Parking Commission was called to order at 6:01 pm by Commissioner Eric Shamp.

3. APPROVAL OF MINUTES

A motion was made by Commissioner Morningstar and seconded by Commissioner Waddell to approve the minutes of the regular meeting of January 26, 2023. The motion carried unanimously.

Vote: 5 – 0 Passed

4. PUBLIC COMMENT

No non-agenda related public comments were made. Comments related to specific agenda items are incorporated into the item discussion.

5. COMMUNICATIONS

5A. *Status of Traffic and Parking Commission budget*

Mr. Dobey presented a slide with an overview of expenditures relating to the Traffic and Parking Commission budget.

5B. Status of work orders on items previously recommended by the Commission and work orders on items approved by staff that fall within the existing Municipal Code not requiring Commission recommendation or City Council approval

Mr. Dobey presented a slide and provided a brief overview of the status of work orders that were previously recommended by the Commission and approved by City Council, and the status of work orders which do not require Commission recommendation and have been approved and completed by city staff in accordance with the Redlands Municipal Code. Mr. Dobey stated that the bids for four (4) projects came over the estimated cost. Staff will discuss internally how the projects will be handled. Chairman Shamp asked for clarification on which projects were advertised for bids.

5C. Downtown Parking Study Update (Presented by DSD Staff)

Mr. Harris introduced Brian Desatnik, Development Services Department Director, to discuss the Downtown Parking Study. Mr. Desatnik stated that the commission should have received the existing conditions section of the Downtown Parking Study report in February. The existing conditions chapter includes an inventory of parking downtown as well as results of parking utilization surveys. It also includes responses from intercept surveys that the consultant undertook with random people downtown and employees of businesses on State Street. The next section of the report will be distributed before the next regular meeting for the commission to review.

Commissioner Morningstar inquired if one (1) weekday and one (1) weekend day is sufficient for the study. Mr. Desatnik stated that it is standard to choose a weekday and a weekend day to show typical representation.

Mr. Harris read a public comment into the record from Dennis Bell, resident. Mr. Bell expressed his discontent with the way the City is handling the parking study and the downtown parking issues.

5D. Citywide speed limits update

Mr. Dobey gave an update on the adoption of the Citywide speed limits. Mr. Dobey explained that the 2021 Engineering and Traffic Survey (2021 E&TS) was approved by the Traffic and Parking Commission on March 24, 2022 and was accepted by City Council on June 7, 2022 with adoption of Resolution No. 8348. Since the adoption, two (2) road segments were reduced further from the recommended speed limits. The first of these recommendations is the segment of Barton Road between Alabama Street and Lakeside Avenue which is posted at 40 mph rather than 45 mph as recommended by the 2021 E&TS. The second recommendation is posting a 35 mph speed limit along the segment of Colton Avenue between Church Street and Grove Street. City Council adopted Ordinance No. 2946 on December 6, 2022, establishing prima facie speed limits on various streets throughout the City with the two (2) recommendations. Public

hearings were held in November and December 2022, for the consideration of Ordinance No. 2946. City Council gave direction of Staff to perform a new speed study after a section of AB 43 is in full effect, which will occur in 2024, giving local government more authority to establish the speed limit.

5E. *Midblock crosswalk on University Street north of Park Avenue*

Mr. Dobey presented a request for a midblock crosswalk on University Street near Park Avenue. Staff discussed potential impacts of a crosswalk near the Redlands Passenger Rail with the California Public Utilities Commission (CPUC). CPUC staff asked for a minimum distance of 250 feet from the railway. With regards to additional safety measures, CPUC does not support any flashing light signals near rail crossings such as Rectangular Rapid Flashing Beacons (RRFB) and High-Intensity Activated Crosswalk (HAWK) signals. Staff performed an engineering study and saw many issues with installing a crosswalk at this location including the removal of six (6) parking stalls for visibility, vertical visibility of southbound traffic due to the grade of the road, a high speed limit, multiple visual distractions, and low pedestrian crossing counts.

Discussion ensued regarding the reasoning behind CPUC's regulations, alternative locations, and additional signage.

5F. *TPC vs. Planning Commission Roles*

Mr. Harris provided clarification of the commission's role based on the City staff's understanding, past practice, and examples of the roles performed by similar committees and commissions in nearby cities. Mr. Harris presented draft revised language to the commission's duties in the Municipal Code for consideration and discussion.

Discussion ensued regarding adding street maintenance, evaluating the need for striping, signing not of a regulator nature, and removal of improvements. A general consensus was reached to bring the item back in the next commission meeting to allow time for the commission to evaluate the draft language.

6. NEW BUSINESS

6A. *Request to establish a 4-way stop at the current 2-way stop at Elizabeth Street and Fountain Avenue*

Mr. Dobey presented Staff's recommendation to establish a 4-way stop intersection to replace the current 2-way stop at Elizabeth Street and Fountain Avenue. Mr. Dobey explained the intersection is located approximately one third of a mile west of Kimberly Elementary School. Elizabeth Street has a bend west of the intersection of Elizabeth Street and Fountain Avenue that causes limited visibility of eastbound traffic. This restricted view causes road users, after stopping, the inability to see

conflicting traffic unless conflicting cross traffic is also required to stop. Staff performed the required engineering study and determined that the stopping sight distance criteria does meet the requirement for the installation of a stop sign.

As a public comment, John Mills, resident, expressed his concern regarding the speed on Elizabeth Street and the safety issue at the intersection.

Jake McMeans, resident, shared his experience about an accident at the intersection.

Jed Zercher, resident, expressed his concern regarding the continuing increase in the speed limit on Elizabeth and the limited visibility at the intersection.

Discussion ensued regarding the interpretation of the MUTCD, regulatory provisions that prohibit a 4-way stop at the intersection and legal liability concerns of inaction after being informed of a safety risk.

A motion was made by Commissioner Waddell and seconded by Commissioner Hoder to establish a 4-way stop at the current 2-way stop at Elizabeth Street and Fountain Avenue. By roll call vote of 5-0, the motion carried unanimously.

6B. *Request to establish a no-parking zone between 10 PM to 6 AM on Industrial Park Avenue between Nevada Street and Alabama Street*

Mr. Dobey presented Staff's recommendation for a no-parking zone between 10 PM to 6 AM on Industrial Park Avenue. He stated that businesses expressed concerns regarding the number of vehicles parking overnight and the loitering in the area.

As a public comment, William Joyce representing Joyce Moving and Storage, Inc. express concerns about the proposed no-parking zone due to the trucks parking along the street during off-business hours.

Jim Prendengant, representing Joyce Moving and Storage, Inc. expressed his opposition to the proposed parking zone.

Tracy Etison, General Manager of Old Spaghetti Factory, expressed concerns regarding burglarizing, repairs, and extra security needed due to the overnight loitering in the area.

David Rabindranath, Homeless Solutions Coordinator, stated several businesses are concerned about the overnight vandalism in the area. Mr. Rabindranath suggested partial no overnight parking.

Chairman Shamp read Commissioner MacDuff's comment into record which asked several questions including who is observing the loitering, have police addressed the

issue, number of report crimes, types of crimes, how long has the housing been opened, does the housing provide adequate parking, and alternative parking.

Sergeant Floyd stated that police presence regularly frequents the area and clarified enforcement that can currently be imposed with and without the proposed zone.

Discussion ensued regarding starting the no-parking zone east of 1781 Industrial Park Avenue, adding a commercial vehicle exemption, and tabling the item to allow alternative approaches.

A motion was made by Commissioner Shamp and seconded by Chairman Morningstar to establish a no-parking zone between 10 PM to 6 AM on Industrial Park Avenue between the west corner of 1675 Industrial Park Avenue going east to Alabama Street and a no-parking zone for all but commercial vehicles between 10 PM to 6 AM on Industrial Park Avenue between Nevada Street and the west corner of 1675 Industrial Park Avenue.

Commissioner Shamp amended the motion to include if a commercial vehicle exemption is not possible, the section between Nevada Street and the west corner of 1675 Industrial Park Avenue will remain unchanged.

By roll call vote of 5-0, the motion carried unanimously.

7. ADJOURNMENT

The meeting was adjourned by Chair Shamp at 7:52 pm.

MEMORANDUM

To: Eric Shamp, Traffic and Parking Commission Chair
From: Brian Desatnik, Director
Development Services Department
Date: May 25, 2023
Subject: Presentation of Downtown Redlands Parking Study

Over the past decade, the City of Redlands' downtown has continued to grow and thrive, with the surrounding core around State Street considered one of Redlands' greatest assets. Promoting in-fill and mixed-use development in downtown, with the goal of enhancing a pedestrian-friendly, walkable urban core is a central goal of the 2035 General Plan and draft Transit Villages Specific Plan.

The purpose of this study is to inventory and assess the availability of public parking in downtown and to provide targeted recommendations to help address real and perceived parking concerns.

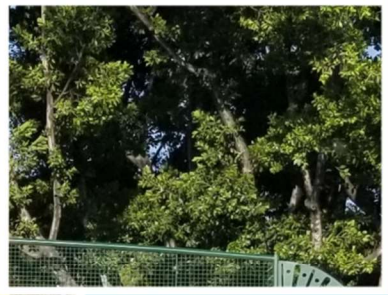
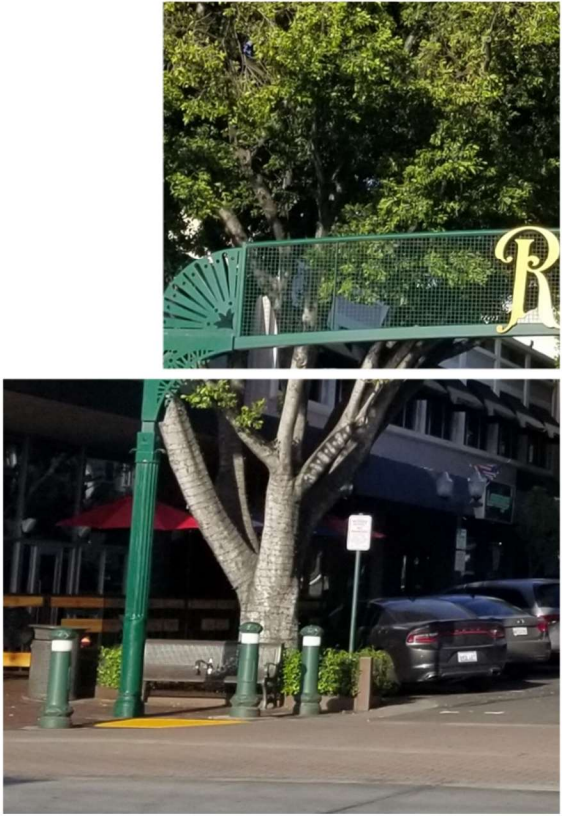
Updates were provided to the commission on July 21, 2022, September 21, 2022, January 26, 2023, and March 23, 2023.

Chapters 1-3 were provided to the commission and discussed at the March 23, 2023, meeting, which included Chapter 1, *Introduction*; Chapter 2, *Existing Conditions*; and Chapter 3, *Downtown Vision, Goals, and Parking Strategies*. These first three chapters provided the purpose and identified a specific study area within downtown; existing parking conditions and key findings; survey results from site visits and personal interviews, along with results from previous community surveys; and parking vision and goals.

Included in the attached final report is Chapter 4, *Action Steps and Implementation Details*, which recommends specific action steps and an outline for an implementation plan for each of the downtown parking strategies outlined in Chapter 3.

The goal of this presentation is to begin the discussion and to provide you with information contained within the report and to answer any questions you may have to develop recommendations for actions we can then present to the Mayor and City Council in the next few months. We anticipate this will require more than one commission meeting, so we are prepared to attend upcoming meetings to answer additional questions you may have as you move forward with the development of your final recommendations.

Attachment:
Downtown Redlands Parking Study



Prepared for City of Redlands

Downtown Redlands Parking Study

April 27, 2023



WALKER
CONSULTANTS

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Executive Summary

The City of Redlands engaged Walker Consultants (“Walker”) to conduct a comprehensive downtown parking study. This includes an overview of the existing parking conditions, a summary of key findings from community outreach, and parking strategy recommendations that align with existing downtown parking vision, goals, and policies outlined in the Transit Villages Specific Plan. Key findings include:

- More than half of the parking spaces in the core downtown area were unused during the busiest times (over 2,000 spaces, not including the spaces at the Redlands Mall).
- Parking spaces on and near State Street were often nearly fully occupied, making it difficult for the visitors who most value convenient access to find a parking space that meets their needs.
- New developments can be expected to further increase the pressure for street parking, and it may become even more difficult to find a convenient space if actions are not taken to manage demand.
- In light of existing and future conditions, and the community priorities revealed through public outreach, this report’s recommendations for improving the parking experience in downtown Redlands include:
 1. Increase access to underutilized off-street facilities.
 2. Manage parking to ensure at least one or two spaces remain available in high demand areas; pilot a paid parking program on select streets and prime off-street facilities.
 3. Establish a parking benefit district.
 4. Improve the downtown pedestrian environment.
 5. Encourage the use of sustainable travel modes to reduce parking demand.
 6. Increase the supply of publicly available parking.

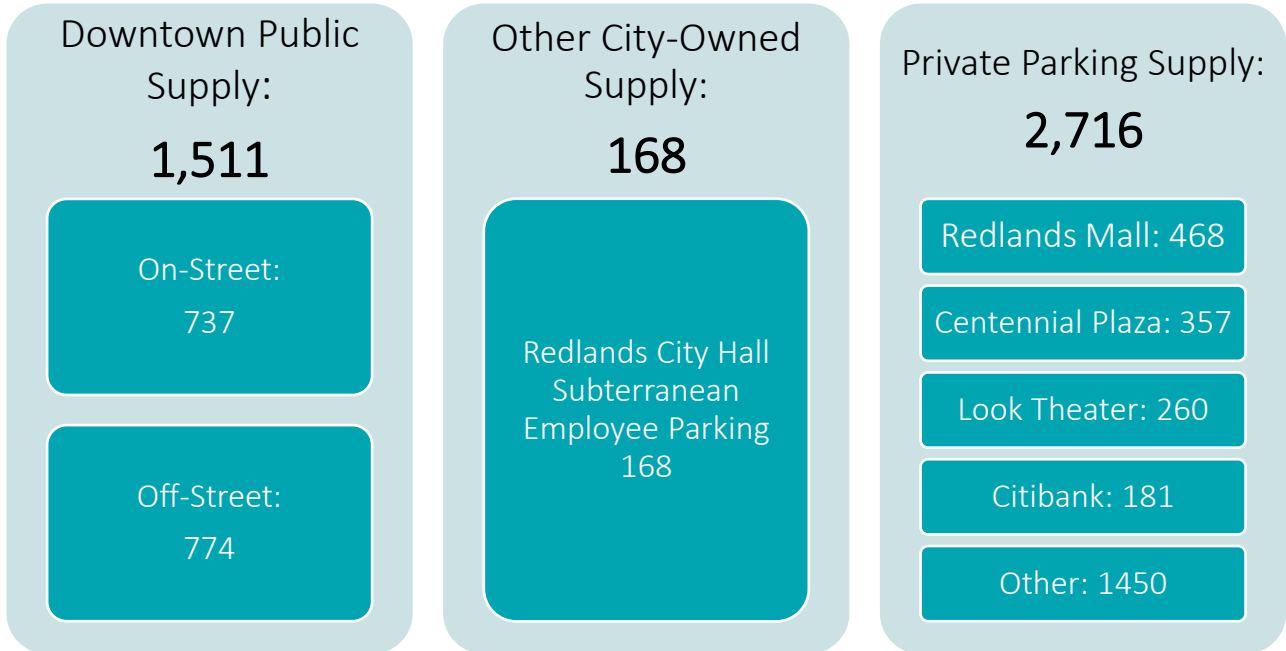
Existing Conditions

Study Area and Data Collection

- The study area was approximately bound by Stuart Avenue to the north, 9th Street to the east, Olive Avenue and Vine Street to the south, and Eureka Street to the west.
- Data was collected for public on- and off-street parking and private off-street facilities.
- Occupancy data collection occurred on Thursday, November 17 and Saturday, November 19, 2022, every two hours starting at 9:00 a.m. and ending at 7:00 p.m.
- Turnover data was collected on Thursday, November 17, 2022.
 - Partial license plate data was collected for all on-street spaces on State Street between Orange Street and 7th Street, and on 5th, 6th and 7th Street between Redlands Boulevard and Citrus Avenue.
 - Data was recorded every hour between 9:00 a.m. and 7:00 p.m.

Existing Parking Supply

The approximate inventories of public parking and private parking in the downtown at the time of the study are displayed below. City Hall subterranean parking will no longer be reserved for City employees only once City Hall relocates, and Redlands Mall parking will no longer be available once the site is redeveloped.



Existing Parking Demand

- Peak parking demand occurred at 1 p.m. on Thursday. At this time, 48% of parking spaces were occupied.
- Saturday parking demand was slightly lower but followed a similar pattern as Thursday.
- On-street parking in and around State Street, in the Ed Hales Park lot, and the Citrus Avenue parking structure was effectively full during peak periods on both Thursday and Saturday.
- There was significant parking availability in private off-street parking facilities.

How Long People Park

The turnover study area included 167 spaces in the downtown core—on State Street between Orange Street and 7th Street, and on 5th, 6th and 7th Street between Redlands Boulevard and Citrus Avenue.

- Most vehicles present during the peak were parked for one or two hours.
- There were 45 vehicles, likely belonging to employees or business owners, parked for four or more hours.
- 27% of the spaces in the turnover study area were occupied by long-term parkers.

Planned Development and City Hall Relocation

- New Developments
 - The City provided Walker with eleven downtown locations with expected development projects.
 - The Redlands Mall redevelopment will remove parking spaces currently provided for public use.
 - Most new developments will be west of Orange Street and will increase the demand for public parking in the area.
- City Hall Relocation
 - Redlands City Hall will be relocated from the corner of Citrus and Orange to 300 State Street.
 - When the current City Hall site is vacated, the site may be redeveloped, and existing or new subterranean parking will likely become publicly available.

Community Outreach Findings

Community outreach for this study was done in November and December of 2022 and included 155 intercept surveys of downtown visitors, 180 brief conversations with downtown employees, and two meetings with local business and property owners. Redlands' 2022 National Community Survey also included questions about parking.

Downtown Intercept Surveys and Employee Conversations

- Approximately half of intercept survey respondents in downtown Redlands were from Redlands, and approximately half were visiting from outside the City.
- Of the survey respondents in the State Street area, 67% reported quickly finding parking near their destination, 17% found a space near their destination after circling around for a while, 9% found parking quickly but not near their destination, and 7% spent time looking for parking near their destination but could not find one and parked further away.
- For approximately half of survey respondents, parking availability is an important factor when deciding where to go out for shopping or dining.
- Redlands has been moderately successful at encouraging longer-term parkers to park off-street but could do more to ensure that convenient on-street parking is available for people making short trips.
- Safety concerns often caused employees and business owners to park as near their workplace as possible, and some of their customers felt unsafe as well.
- Employees would appreciate more options to park without time limits.
- The lack of convenient available parking sometimes keeps potential customers away from downtown.

National Community Survey Findings

- Ease of travel by car in Redlands was rated as more satisfactory than ease of travel by walking, biking, or public transportation.
- Most respondents rated the ease of public parking and the convenience/location of parking downtown as either good or fair. The ease of finding public parking downtown was rated more satisfactorily than the ease of finding public parking in Redlands in general.

- Forty-three percent of participants considered it reasonable to walk at least three blocks from a parking space to their destination.
- In terms of resource allocation, Downtown parking was the least likely to be seen as a major priority for the City. It was the second least likely to be seen as the top priority, selected by only five percent of respondents. In general, people would prefer resources be allocated to issues of Homelessness, Public Safety, Sustainability and Climate Change, and Quality of Life, rather than Downtown parking.

Business Community Outreach Findings

- Many participants expressed their concern that the lack of convenient available parking drives potential customers away.
- Several participants said that a few employees and business owners might park all day in prime downtown spaces, which they believed should be left available for customers.
- Several people expressed concern that the lack of available parking regularly causes the public to park in private off-street spaces reserved for their businesses.
- Many participants expressed concern that the new development would reduce the supply of parking currently used by Downtown visitors and employees, while also creating new parking demand.
- Many participants were worried about safety and did not feel safe walking Downtown or entering a parking structure at night. Safety concerns often caused employees and business owners to park as near their workplace as possible, and some of their customers felt unsafe as well.
- Some people suggested that Redlands needed to construct a new parking structure with more convenient access to State Street.
- Some people believed Redlands should use pricing to ensure some convenient spaces remain accessible for customers making short trips and to discourage longer-term parkers from parking in prime spaces.
- Multiple people believed stronger parking enforcement would help the parking situation.
- Some people suggested that existing parking—such as the City Hall or Centennial Plaza spaces—could be opened up and shared with employees or the public to help manage demand.

Parking Strategy Recommendations

Parking strategies for Downtown Redlands were developed based on the existing conditions, community outreach findings, and case studies of parking management best practices. The strategies are supported by the downtown parking vision, goals, and policies outlined in the Transit Villages Specific Plan and by General Plan policies and actions. The City’s Climate Action Plan also estimates greenhouse gas emissions reductions that will result from implementing General Plan policies related to parking and transportation improvements.

Actions	Rationale	Support
Strategy 1: Increase Access to Underutilized Off-Street Facilities.		
<ul style="list-style-type: none"> • Unbundle Parking • Increase Public Management and Ownership • Pursue Shared Use Agreements • Remove Restrictions Limiting the Use of Public Facilities • Develop Signage and Wayfinding • Create Employee Parking Plan and Program 	<p>Many parking spaces in Downtown Redlands are empty during times of high parking demand. Increasing access to these spaces will improve the parking options available for visitors.</p>	<p>Transit Villages Specific Plan: 6.3.F.4</p> <p>General Plan: <u>Chapter 2 – Distinctive City</u> A.69, A.80, P.24, P.26, A.92, A.98, A.101 <u>Chapter 3 – Prosperous Economy</u> P.1, P.12, A.33, A.37 <u>Chapter 4 – Livable Community</u> P.45, A.120, P.56 <u>Chapter 5 – Connected City</u> P.5, P.12, A.5, A.17, A.22, P.29, A.70, A.73, A.75 <u>Chapter 8 – Sustainable Community</u> P.1, P.8, A.44, P.9, P.10</p>
Strategy 2: Manage Street Parking and Prime Off-Street Facilities to Ensure Availability.		
<ul style="list-style-type: none"> • Increase Parking Enforcement • Implement Paid Parking Pilot • Adjust Time Limits at Underutilized On-Street Parking Locations • Develop and implement loading and deliveries plan 	<p>Some parking locations had occupancies greater than 85 percent, meaning drivers begin to perceive parking as “full” and are likely to spend more time circling to find a space, or even take their business elsewhere. Ensuring some convenient parking spaces are always available will improve the experience for visitors.</p>	<p>Transit Villages Specific Plan: 6.3.F.1 and 6.3.F.6</p> <p>General Plan: <u>Chapter 2 – Distinctive City</u> P.24, P.26, A.92, A.101 <u>Chapter 3 – Prosperous Economy</u> P.1, A.8, P.12, A.33, A.37 <u>Chapter 4 – Livable Community</u> A.16, P.45, A.120, P.56, P.61 <u>Chapter 5 – Connected City</u> P.5, A.17, P.22, P.29, A.73, A.75 <u>Chapter 7 – Healthy Community</u> P.44, P.45, P.49 <u>Chapter 8 – Sustainable Community</u> P.1, A.44, P.9</p>

Actions	Rationale	Support
Strategy 3: Establish a Parking Benefit District.		
<ul style="list-style-type: none"> Establish a Parking Benefit District 	<p>Downtown business owners have a keen awareness of parking and access issues, needs, and opportunities. Their involvement can help ensure the success of downtown parking management initiatives and support the continued vitality of the area.</p>	<p>Transit Villages Specific Plan: 6.3.F.7</p> <p>General Plan: <u>Chapter 2 – Distinctive City:</u> P.6, A.92, A.95, A.101 <u>Chapter 3 – Prosperous Economy:</u> P.1, P.12, P.14, A.33, A.35, A.37, A.40 <u>Chapter 4 – Livable Community:</u> A.16, P.43, P.45, A.120, A.125, P.61 <u>Chapter 5 – Connected City:</u> A.12, A.22, P.29 <u>Chapter 7 – Healthy Community:</u> P.24, A.71, P.48</p>
Strategy 4: Improve the Downtown Pedestrian Environment.		
<ul style="list-style-type: none"> Improve Safety Increase Shade Coverage Make Aesthetic Improvements to Walkways 	<p>Improving the walkability and security of the downtown environment can increase the attractiveness of parking locations previously deemed undesirable due to their distance from popular destinations, effectively increasing the parking supply while also enhancing the aesthetic character of the area.</p>	<p>Transit Villages Specific Plan: 6.3.F.3</p> <p>General Plan: <u>Chapter 2 – Distinctive City</u> P.7, A.2, A.16, A.18, A.37, P.18, A.80, P.24, P.26, A.92, A.95, A.99, A.100, A.102 <u>Chapter 3 – Prosperous Economy</u> P.1, P.12, A.33, A.37, A.38, A.40 <u>Chapter 4 – Livable Community</u> A.16, A.89, A.90, P.43, P.44, P.45, A.120, A.125, A.126, A.127, P.56, P.59 <u>Chapter 5 – Connected City</u> P.4, P.5, P.6, P.9, P.11, P.16, A.4, A.5, A.8, A.17, P.18, P.19, A.18, A.19, A.20, A.22, A.36, A.44, A.67, A.68, A.73, A.75 <u>Chapter 7 – Healthy Community</u> P.16, P.17, A.39, A.46, P.23, A.68, A.69, A.73, P.44, P.45 <u>Chapter 8 – Sustainable Community</u> P.1, A.10, A.44, P.9</p>

Actions	Rationale	Support
Strategy 5: Encourage the Use of Sustainable Transportation.		
<ul style="list-style-type: none"> • Provide Secure Bike Parking • Pilot a Shared Mobility Service • Develop a Parking Cash-Out Program • Create Transportation Wallet Program • Increase Awareness of Alternatives to Driving Alone • Consider a Downtown Trolley Pilot 	<p>A policy environment that facilitates and encourages the use of alternative transportation modes can reduce parking demand without a corresponding decrease in economic vitality. Community outreach revealed both room for improvement and community interest in alternative modes of transportation.</p>	<p>Transit Villages Specific Plan: 6.3.F.8</p> <p>General Plan: <u>Chapter 2 – Distinctive City</u> P.7, A.6, P.24, P.26, A.92, A.99, A.102 <u>Chapter 3 – Prosperous Economy</u> P.1, A.8, P.12, A.33, A.37, A.40 <u>Chapter 4 – Livable Community</u> A.16, A.89, P.43, P.44, P.45, P.46, A.120, A.125, A.126, A.127, A.128, P.56, P.59 <u>Chapter 5 – Connected City</u> P.4, P.5, P.6, P.8, P.9, P.11, P.12, P.13, P.16, A.3, A.4, A.5, A.8, A.11, A.18, A.20, P.20, P.21, A.25, A.26, A.27, A.29, P.22, A.35, A.36, A.37, A.44, P.26, P.27, A.61, A.63, A.67, P.28, A.71, A.72, A.75 <u>Chapter 7 – Healthy Community</u> P.16, P.17, A.39, A.44, A.45, A.46, P.23, A.69, P.44, P.45, P.46, A.145, A.150 <u>Chapter 8 – Sustainable Community</u> P.1, P.9</p>
Strategy 6: Increase the Supply of Publicly Available Parking.		
<ul style="list-style-type: none"> • Unbundle Parking • Increase Public Management and Ownership • Pursue Shared Use Agreements • Increase Capacity with Valet Assist Parking • Consider Investing in Additional Structured Parking 	<p>Creating new parking options can improve access to downtown by allowing more visitors and employees to park near their destinations.</p>	<p>Transit Villages Specific Plan: 6.3.F.9</p> <p>General Plan: <u>Chapter 2 – Distinctive City</u> A.69, P.24, P.26, A.92, A.101 <u>Chapter 3 – Prosperous Economy</u> P.1, P.12, A.33, A.37, A.38 <u>Chapter 4 – Livable Community</u> A.16, P.45, A.120, P.56, P.59, P.29 <u>Chapter 5 – Connected City</u> P.5, A.17, A.70, A.73, A.75, A.80 <u>Chapter 7 – Healthy Community</u> P.23, A.68, A.73 <u>Chapter 8 – Sustainable Community</u> P.8, A.44, P.10</p>



01 Introduction

1. Introduction

The City of Redlands engaged Walker Consultants (“Walker”) to conduct a downtown parking study pursuant to an RFP issued in May 2022. This includes an overview of the existing parking conditions, a review of existing planning documents and conditions in the study area, a summary of downtown vision, goals and strategies, and the development of action steps and implementation details.

This report is organized into four sections: (1) Introduction, (2) Existing Conditions, (3) Vision, Goals and Strategies, and (4) Action Steps and Implementation Details.

Setting

Redlands is located in San Bernardino County, California. The City was once the Washington naval orange growing capital of the world and boasts several distinctive late 1800’s buildings, such as the A.K. Smiley Library and Morey House, in addition to the Redlands Bowl amphitheater. Redlands is located just south of the terminus of State Route 210 at Interstate 10 and is a destination that attracts visitors from the mountain communities to the north. Downtown Redlands is accessible from the Interstate 10 from the west, Interstate 10 and SR-39 from the east, and State Route 210 from the north. Figure 1 shows the location of the City of Redlands in the context of the surrounding area.

Report Outline

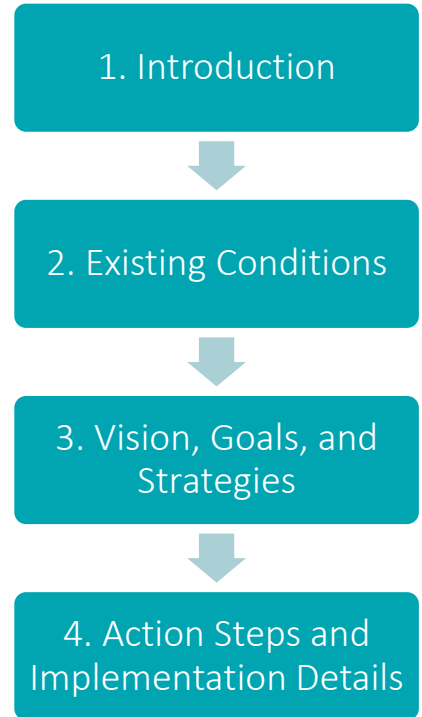


Figure 1: Downtown Redlands Context Map



Redlands has a population of approximately 73,280 people, according to the U.S. Census 2021 population estimates. The City and downtown in particular are growing, with several housing projects and commercial developments planned within the downtown study area, including redevelopment of the Redlands Mall.

Purpose of the Study

The City of Redlands, its businesses, residents, and visitors are at the confluence of converging and complimentary trends, providing an opportunity to rethink how travel and access should be provided to enhance the quality of life in the City's historic Downtown area. The traditional paradigm of transportation in California that requires a parking space for every person who patronizes and works at a restaurant or other business in the City is evolving. New laws such as Assembly Bill (AB) 2097 have abolished minimum parking requirements for most land uses with access to high quality transit. New technologies and changing consumer preferences for the simple convenience and pleasure of bicycling and walking allow the public choices other than relying on driving and parking to reach their destination. At the same time, Walker recognizes that the majority of access will continue to occur via private vehicles in the immediate future. Vehicle travel should be accommodated and managed efficiently to maximize the use and utility of existing parking assets.

The inefficiency and cost of devoting too much land to parking spaces or inefficiently managing that space can be detrimental to the vibrancy of a mixed-use downtown area, constraining business and limiting the City's ability to advance mobility and climate goals. An inefficient parking system increases traffic, deters bicycling and walking, prevents existing businesses from expanding or new business from opening, and limits the number of businesses and destinations to visit in the City.

With the planned addition of approximately 1,000+ residential units to downtown Redlands, the time is now for the City to take a comprehensive look at parking and mobility in its Downtown core to ensure that the system serves the needs of both existing and future businesses, residents, and visitors in an effective and efficient manner.

In an era of changing mobility and consumer demands, this study and plan seek to address how valuable parking assets, curb space, and public space can be planned, organized, and optimized to balance needs, accommodate demand, and achieve the City's goals.

Study Area

The study area included public on- and off-street parking within the area approximately bound by Stuart Avenue to the north, 9th Street to the east, Olive Avenue and Vine Street to the south, and Eureka Street to the west. In addition to studying publicly available parking, Walker also included larger private off-street parking facilities, to understand how private parking supplies were being utilized within the study area. Select private off-street parking facilities just outside of the study area that stakeholders and Walker identified as being of potential interest were also included.

Along with the on-street parking available on most streets in the study area, there are two public parking garages, four public surface parking lots/areas, and the City Hall parking structure currently reserved for City Hall employees, but which may increase the publicly available parking supply when City Hall moves to the Citibank building. Most of the private off-street parking facilities in the study area are surface lots, with subterranean parking components at both Citrus Plaza and the Citibank building. Figure 2 shows the study area.

Figure 2: Downtown Redlands Study Area



Source: Aerial Image – Google Earth Professional, 2023; Graphic – Walker Consultants, 2023.



02 Existing Conditions

2. Existing Conditions

This Existing Conditions chapter provides an overview of the existing parking conditions observed in the study area. This includes the number of parking spaces available within the study area, how occupied these spaces are during hours of peak parking demand, and the typical length of time people park. It also includes current community perspectives on parking in downtown Redlands, as summarized in the Downtown Parking Surveys, National Community Survey, Employee Surveys and Conversations, and Business Community Outreach subsections. Finally, it concludes with a review of current downtown parking plans, policies, standards, and management practices in Redlands and highlights case studies of practices used in other cities.

Parking Supply

Inventories of the number of parking spaces were collected in the study area. These included on-street parking, public parking lots and garages, and private parking lots and garages. In addition to having access to public parking, City of Redlands employees have subterranean parking at the existing City Hall site. Overall, Walker identified 4,395± spaces in the downtown area. Of these spaces, there are 737± on-street spaces and 3,658± off-street spaces.

In approximately 1989, the development of the retail project at the Centennial Plaza removed a municipal parking lot. Per a Disposition Development Agreement, the developer and owner of the property was required to provide a replacement of 53 permanent public parking spaces. The 53 spaces could be located anywhere within the parking fields (underground or street level) and marked as Public Parking. In recent years, the marked spaces underground have been gated and restricted to employee-only access, for safety concerns. City staff have recently re-initiated conversation regarding how the 53 spaces can be made available to the public.

While it is not currently accessible to the public, Walker also inventoried and collected parking occupancy counts at the subterranean employee parking underneath the existing City Hall complex. Additionally, the Redlands Mall is slated for redevelopment, but for now parking demand in its surface parking lot was included in the study, since the parking closest to State Street is used by both employees and customers of State Street businesses. Subterranean parking at the Mall is gated, inaccessible, and not in use.

The parking supply counted for this study is summarized in Table 1.

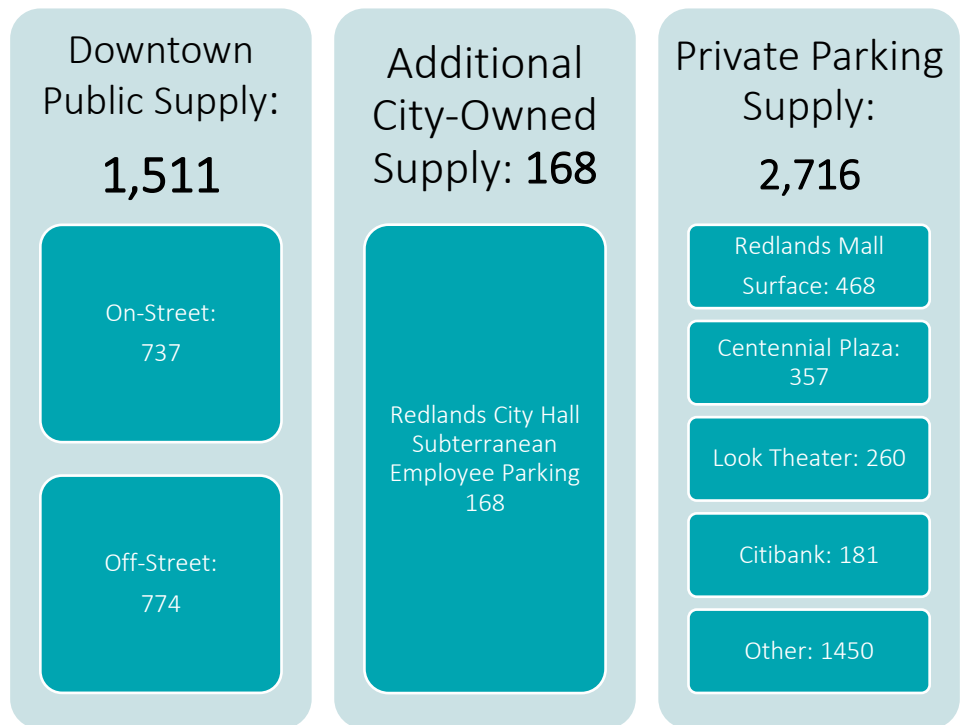




Table 1: Study Area Parking Supply

Area	Supply (Spaces)
On-Street Parking	737
Public Off-Street (Letter on Map)	
Stuart Av. Parking Structure (A)	385
Orange St. Parking Lot (K)	53
Ed Hales Park Lot Block 12 (N)	61
City Hall Surface Parking (Q)	25
Citrus Av. Parking Structure (R)	194
Block 22 (AA)	56
Public Off-Street Total	774
Additional Publicly Owned Off-Street	
City Hall Underground Employee Parking (P)	168
Private Off-Street	
Private Lot (B)	14
Red Rooster (C)	16
Look Theater (D)	260
Private Lot (E)	177
Denny's (F)	64
Century 21 (G)	76
Redlands Mall (H)	468
Block 6 Lot (I)	146
Boiler Room (J)	47
Private Lot (L)	41
Centennial Plaza (M)	357
Provident Bank (O)	19
United Methodist (S)	38
Redlands Pawn (T)	32
Redlands Plaza (U)	98
Misc. Lots (V)	58
Wells Fargo (W)	70
Citizen's Bank (X)	99
Misc. Lots (Y)	62
The Door (Z)	54
Redlands Mill (BB)	40
Bank of America (CC)	53
Citibank (DD)	181
Misc. Lots (EE)	30
Misc. Lots (FF)	77
Bear Valley Water (GG)	17
First Congregational (HH)	69
Theron's (II)	20
First Presbyterian (JJ)	33
Private Off-Street Total	2,716

¹Lettering assigned to off-street lots for data collection, mapping (see Figure 2), and analysis purposes. These are not official designations.

Source: Walker Consultants, 2023.

Parking Restrictions and Enforcement

Most on-street parking in the study area is time restricted; approximately 70% of the spaces had posted time limits, with the most prevalent time limit being two hours. On side streets and certain edges of the study area, on-street parking is unrestricted. Off-street public parking is currently unrestricted in structures and restricted to three hours in core area surface lots, while private off-street parking is generally restricted to customer parking only. There is no hourly paid parking in the study area, although stakeholders indicated that some businesses lease reserved off-street spaces behind businesses for employee parking.

Existing Parking Demand

Walker evaluated parking demand within the downtown study area by conducting occupancy counts of parked cars. Data collection occurred on Thursday, November 17, 2022, and Saturday, November 19, 2022. Counts were collected every two hours starting at 9:00 a.m. and ending at 7:00 p.m.

The intent of the data collection effort was to gain an understanding of peak parking conditions on a typical weekday and weekend day.

At the time of data collection, most commercial properties on State Street were occupied. The Stuart Avenue parking structure had been open for a few months, and there was some ongoing development activity in the study area. There were no Covid-19 related restrictions or parking closures in place.

Overall, peak parking demand occurred at 1 p.m. on Thursday. During the peak, the parking in the study area experienced a utilization rate of 48% with 1,875± spaces occupied and 2,052± spaces available. The number of spaces occupied includes the parking demand observed at the Redlands Mall, but the number of spaces available does not include the mall inventory since a development project will remove this parking in the near future. At this time, 70% of on-street spaces (513± spaces), 52% of public off-street spaces (399± spaces), 47% of City Hall employee spaces (79± spaces), and 39% of private off-street spaces (884± spaces) were occupied.

Target Parking Utilization



85% occupancy is the optimal goal for downtown parking utilization. At 85%, **most spaces are utilized** while those seeking a space can find one with minimal searching.

When occupancy is **over 85%**, people begin perceiving parking as **“full”** and often must **search longer** to find a space.

Peak parking demand occurred at 1 p.m. on Thursday. At this time, 48% of downtown public parking spaces were occupied.

There is parking availability in the study area, but there are also localized areas of parking congestion.

Typically, parking programs use an 85% utilization rate as the target for on-street parking to ensure most spaces are being utilized, while adequate availability also remains for those seeking a space. Off-street parking facilities can have an acceptable parking occupancy rate of 90% or higher, especially for facilities where employees are regularly parking, although the 85% for off-street parking simply represents a higher level of service to the driver (more regular availability provided). In general, when parking facilities experience occupancies greater than 85%, users begin to perceive parking as “full” and are likely to spend more time circling to find a space. At 85%, most

spaces are being utilized, but drivers seeking a space can find one with minimal searching. Therefore, 85% is typically used as a target for optimal parking occupancy on a typical day. This target provides a 15% cushion of parking supply for the busiest days when drivers will spend more time to find a space.

With peak occupancies for both on-street and off-street public parking facilities well below 85%, parking availability in the study area is high even during peak conditions; however, there are localized areas of parking congestion which may contribute to perceptions of lack of parking. Visitors to downtown likely experience challenges finding an available space exactly where they want it during peak demand hours.

Details of both Thursday and Saturday parking occupancy counts are provided in the following sections.

Thursday Parking Occupancy

As stated in the previous section, peak parking demand for the study area occurred on Thursday at 1 p.m., with 1,875± spaces occupied (including at the Redlands Mall parking lot), 2,052± spaces available (excluding the Redlands Mall parking supply), and a utilization rate of 48%. At this time, 70% of on-street spaces (513± spaces), 51% of public off-street spaces (399± spaces), 47% of City Hall employee spaces (79± spaces), and 39% of private off-street (884± spaces) were occupied.

During this time, while there was ample availability overall, there were also pockets of high demand, particularly the on-street parking on and around State Street and parking in the Citrus Avenue parking structure. There was significant availability in outlying areas of on-street parking and in private parking lots that are not necessarily open to the general public.

Available on-street parking was primarily located north of Redlands Boulevard, west of Orange Street, and south of Olive Street. Table 2 provides a summary of parking occupancies and utilization experienced during the Thursday peak, and

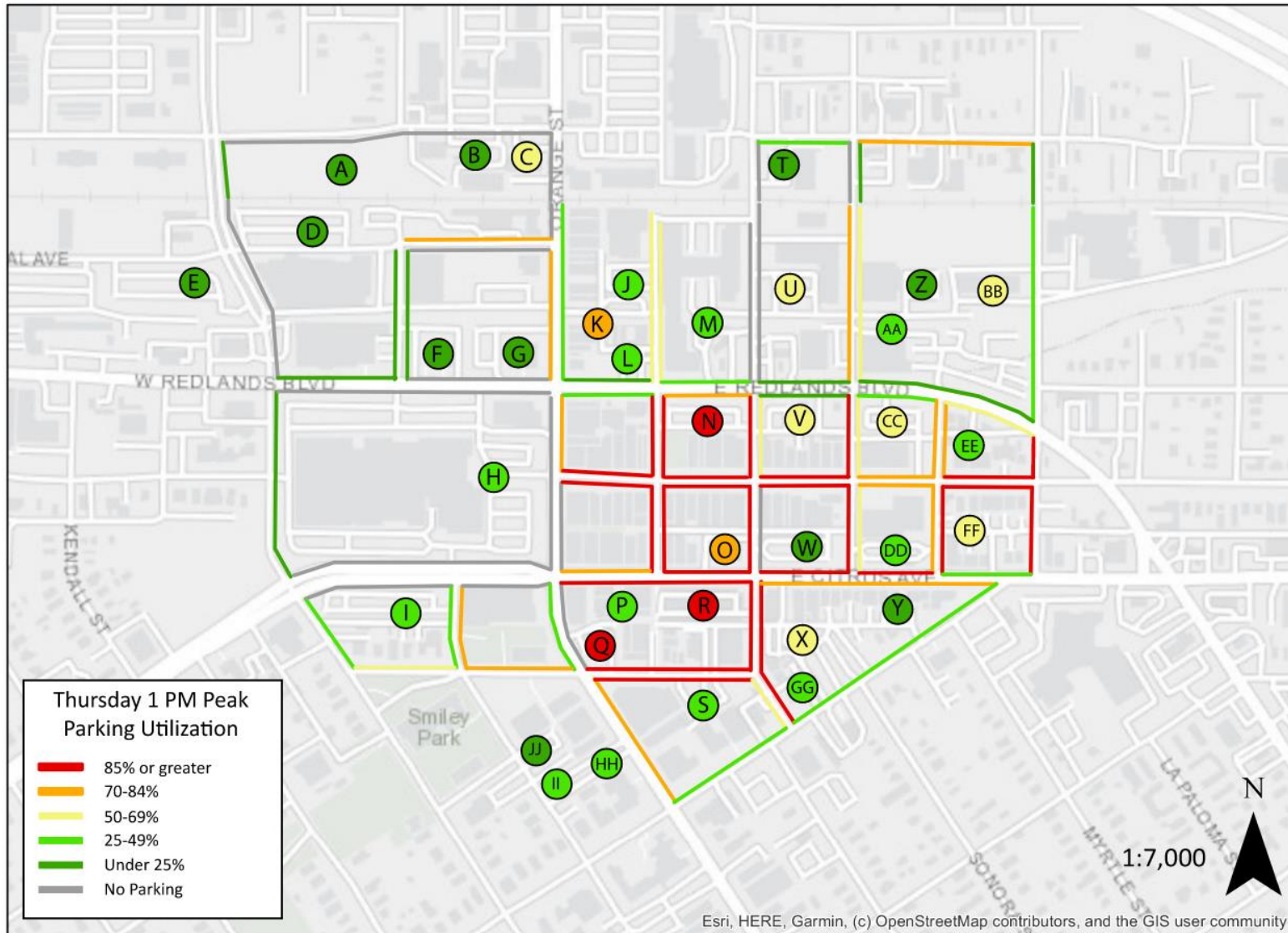
Figure 3 displays peak hour utilization by individual street segment and off-street facility.

Table 2: Thursday Peak Parking Occupancy and Utilization by Facility, 1 p.m.

Area	Supply (Spaces)	Occupancy	Utilization
On-Street Parking	737	513	70%
Public Off-Street			
Stuart Av. Parking Structure (A)	385	61	16%
Orange St. Parking Lot (K)	53	39	74%
Ed Hales Park Lot Block 12 (N)	61	59	97%
City Hall Surface Parking (Q)	25	22	88%
Citrus Av. Parking Structure (R)	194	192	99%
Block 22 (AA)	56	26	46%
Total Public Off-Street	774	399	52%
Additional Publicly Owned Off-Street			
City Hall Underground Employee Parking (P)	168	79	47%
Private Off-Street			
Private Lot (B)	14	0	0%
Red Rooster (C)	16	9	56%
Look Theater (D)	260	45	17%
Private Lot (E)	177	1	1%
Denny's (F)	64	14	22%
Century 21 (G)	76	18	24%
Redlands Mall (H)	--*	173	37%
Block 6 Lot (I)	146	40	27%
Boiler Room (J)	47	14	30%
Private Lot (L)	41	18	44%
Centennial Plaza (M)	357	129	36%
Provident Bank (O)	19	15	79%
United Methodist (S)	38	13	34%
Redlands Pawn (T)	32	5	16%
Redlands Plaza (U)	98	52	53%
Misc. Lots (V)	58	38	66%
Wells Fargo (W)	70	15	21%
Citizen's Bank (X)	99	56	57%
Misc. Lots (Y)	62	12	19%
The Door (Z)	54	0	0%
Redlands Mill (BB)	40	24	60%
Bank of America (CC)	53	37	70%
Citibank (DD)	181	56	31%
Misc. Lots (EE)	30	13	43%
Misc. Lots (FF)	77	48	62%
Bear Valley Water (GG)	17	6	35%
First Congregational (HH)	69	26	38%
Theron's (II)	20	5	25%
First Presbyterian (JJ)	33	2	6%
Total Private Off-Street	2,248	884	39%
Grand Total	3,927	1,875	48%

Note: * - Redlands Mall not included in parking supply since an entitled project will eliminate it as a source of public Downtown parking. Observed parking demand in the lot has been included in the analysis since it is existing Downtown parking demand.

Figure 3: Thursday Peak Parking Utilization, 1 p.m.



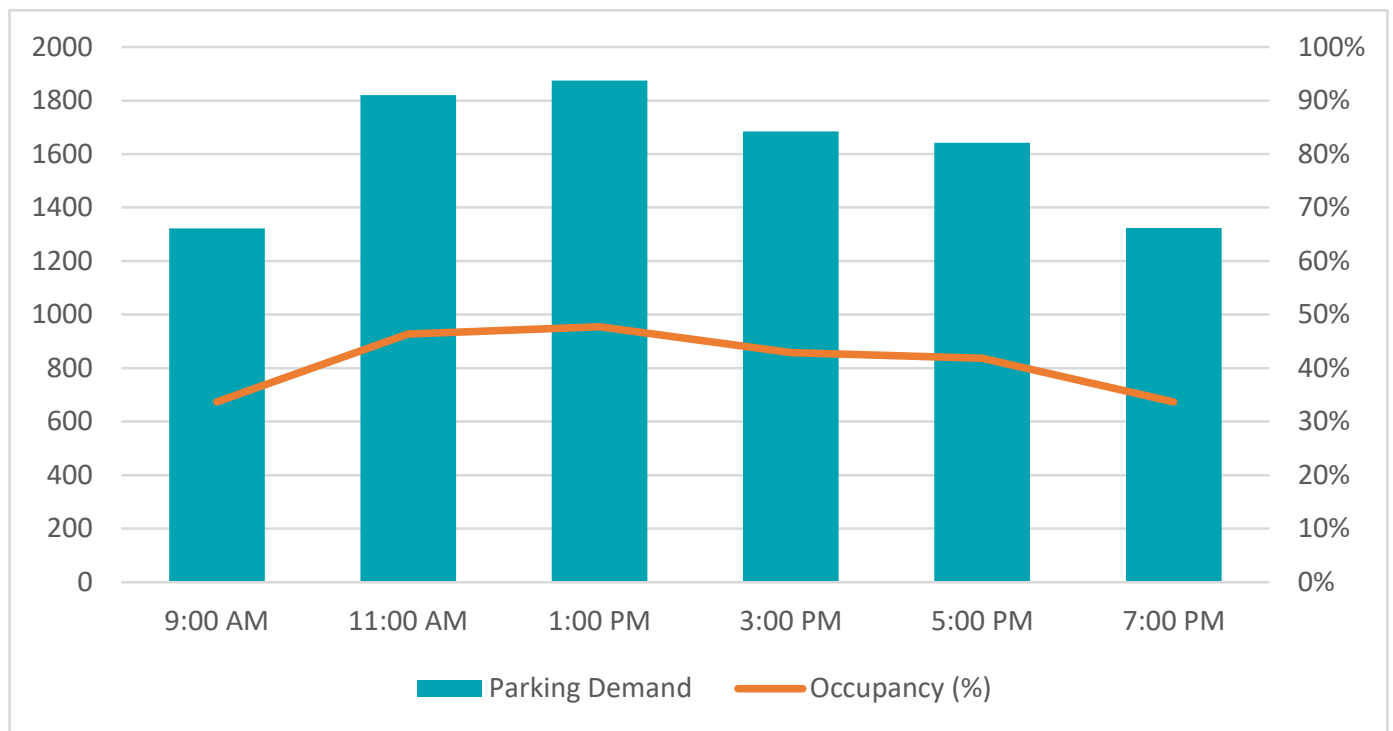
Thursday Parking Demand Over Time

Parking occupancy counts were collected at 9 a.m., 11 a.m., 1 p.m., 3 p.m., 5 p.m., and 7 p.m. While parking demand peaked at 1 p.m., parking utilization was similar during the 11 a.m. count.

The 9 a.m. and 7 p.m. counts experienced the lowest parking occupancies, as the study area exhibited weekday peaks driven by daytime office employees, dining, and retail uses.

Overall, the results of the data collection effort reveal that Downtown Redlands experiences high weekday parking demand during lunch hour that gradually declines throughout the day. Figure 4 provides a summary of the total number of vehicles observed (Parking Demand) and share of parking spaces that were occupied (Occupancy %) at each time.

Figure 4: Thursday Parking Occupancies Over Time



Source: Walker Consultants, 2023.

Thursday Parking Occupancy Key Findings

- Peak public parking demand occurred at 1 p.m. with 48% of spaces occupied.
- There was significant parking availability at this time in private off-street parking facilities.
- On-street parking in and around State Street, in the Ed Hales Park lot, and the Citrus Avenue parking structure was effectively full.
- Parking demand generally builds in the morning, peaks during the lunchtime hours, and declines over the course of the afternoon and into the evening.
- Existing peak public parking demand does not exceed the 85% target utilization threshold overall, indicating that parking overall is adequate but may require management to free up the prime parking areas which tend to be full throughout the day and into the evening.

Saturday Parking Occupancy

Parking occupancy counts were collected on Saturday at 9 a.m., 11 a.m., 1 p.m., 3 p.m., 5 p.m., and 7 p.m. The peak parking demand observed was at 11 a.m. At this time, the study area was 40%± utilized with 1,563± spaces occupied. On-street parking was 65% utilized, with off-street parking less utilized.

During this time, while there was ample availability overall, there were also pockets of high demand, particularly the on-street parking on and around State Street and parking in the Citrus Avenue parking structure. There was significant availability in outlying areas of on-street parking and in private parking lots that are not necessarily open to the general public.

Available on-street parking was primarily located north of Redlands Boulevard, west of Orange Street, and south of Olive Street. Table 3 provides a summary of parking occupancies and utilization observed during the Saturday peak, and Figure 5 displays peak hour utilization by individual street segment and off-street facility. In general, the study area experienced similar patterns of parking demand on Saturday compared to Thursday, though slightly lower occupancies.

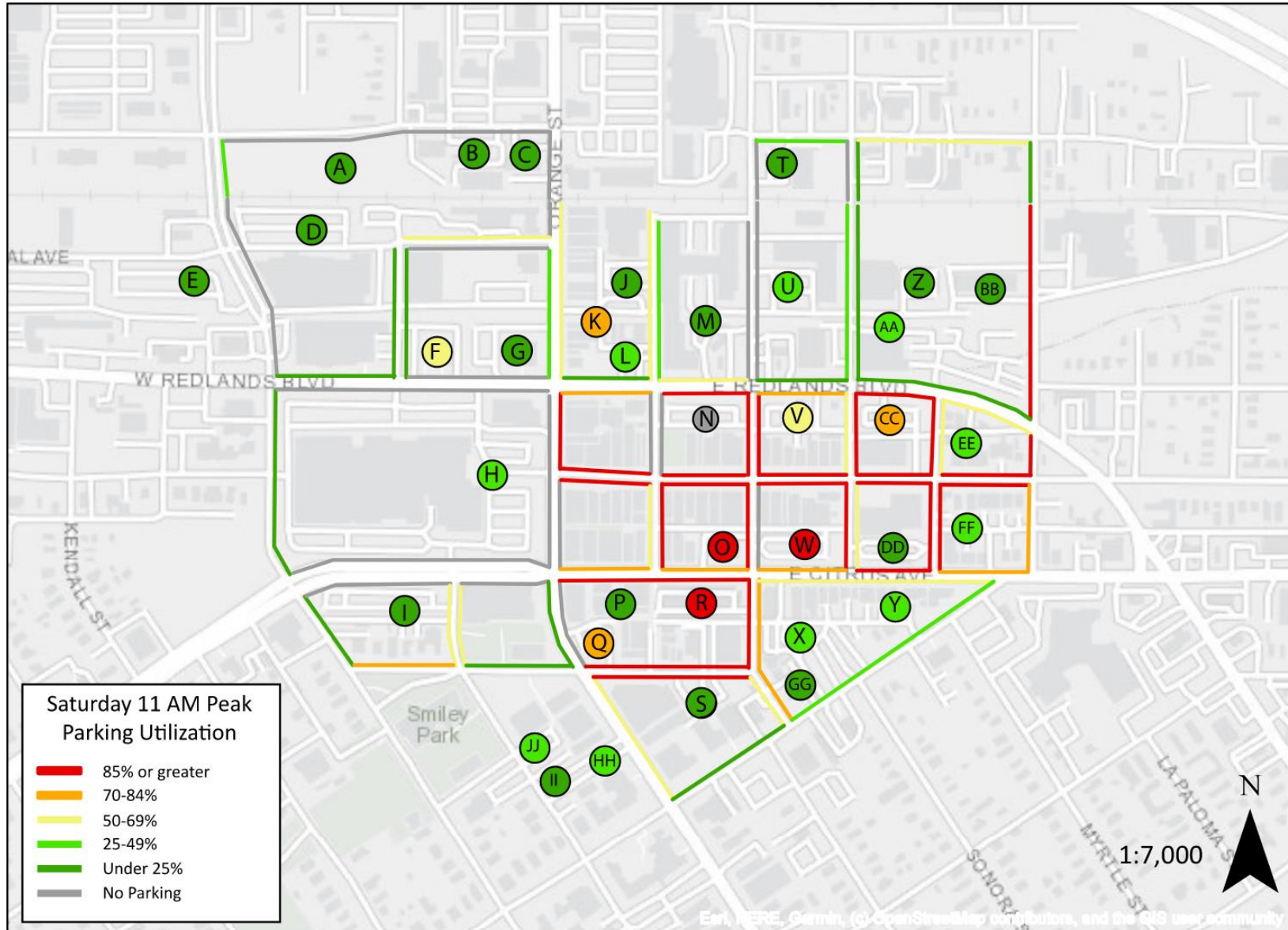
Table 3: Saturday Parking Occupancy and Utilization by Facility, 11 a.m.

Area	Supply	Occupancy	Utilization
On-Street Parking	737	480	65%
Public Off-Street			
Stuart Av. Parking Structure (A)	385	36	9%
Orange St. Parking Lot (K)	53	38	72%
Ed Hales Park Lot Block 12 (N)	61	(closed)*	(closed)*
City Hall Surface Parking (Q)	25	21	84%
Citrus Av. Parking Structure (R)	194	194	100%
Block 22 (AA)	56	15	27%
Total Public Off-Street	774	304	39%
Additional Publicly Owned Off-Street			
City Hall Underground Employee Parking (P)	168	40	24%
Private Off-Street			
Private Lot (B)	14	0	0%
Red Rooster (C)	16	2	13%
Look Theater (D)	260	63	24%
Private Lot (E)	177	9	5%
Denny's (F)	64	42	66%
Century 21 (G)	76	1	1%
Redlands Mall (H)	--**	196	42%
Block 6 Lot (I)	146	13	9%
Boiler Room (J)	47	6	13%
Private Lot (L)	41	16	39%
Centennial Plaza (M)	357	41	11%
Provident Bank (O)	19	18	95%
United Methodist (S)	38	7	18%
Redlands Pawn (T)	32	5	16%
Redlands Plaza (U)	98	25	26%
Misc. Lots (V)	58	34	59%
Wells Fargo (W)	70	66	94%
Citizen's Bank (X)	99	27	27%
Misc. Lots (Y)	62	18	29%
The Door (Z)	54	1	2%
Redlands Mill (BB)	40	8	20%
Bank of America (CC)	53	45	85%
Citibank (DD)	181	15	8%
Misc. Lots (EE)	30	13	43%
Misc. Lots (FF)	77	27	35%
Bear Valley Water (GG)	17	4	24%
First Congregational (HH)	69	24	35%
Theron's (II)	20	3	15%
First Presbyterian (JJ)	33	10	30%
Total Private Off-Street	2,248	739	33%
Grand Total	3,927	1,563	40%

Note: *Ed Hales Park lot closed to parking due to presence of a farmer's market.

** - Redlands Mall not included in parking supply since an entitled project will eliminate it as a source of public Downtown parking. Observed parking demand in the lot has been included in the analysis since it is existing Downtown parking demand.

Figure 5: Saturday Parking Utilization, 11 a.m.



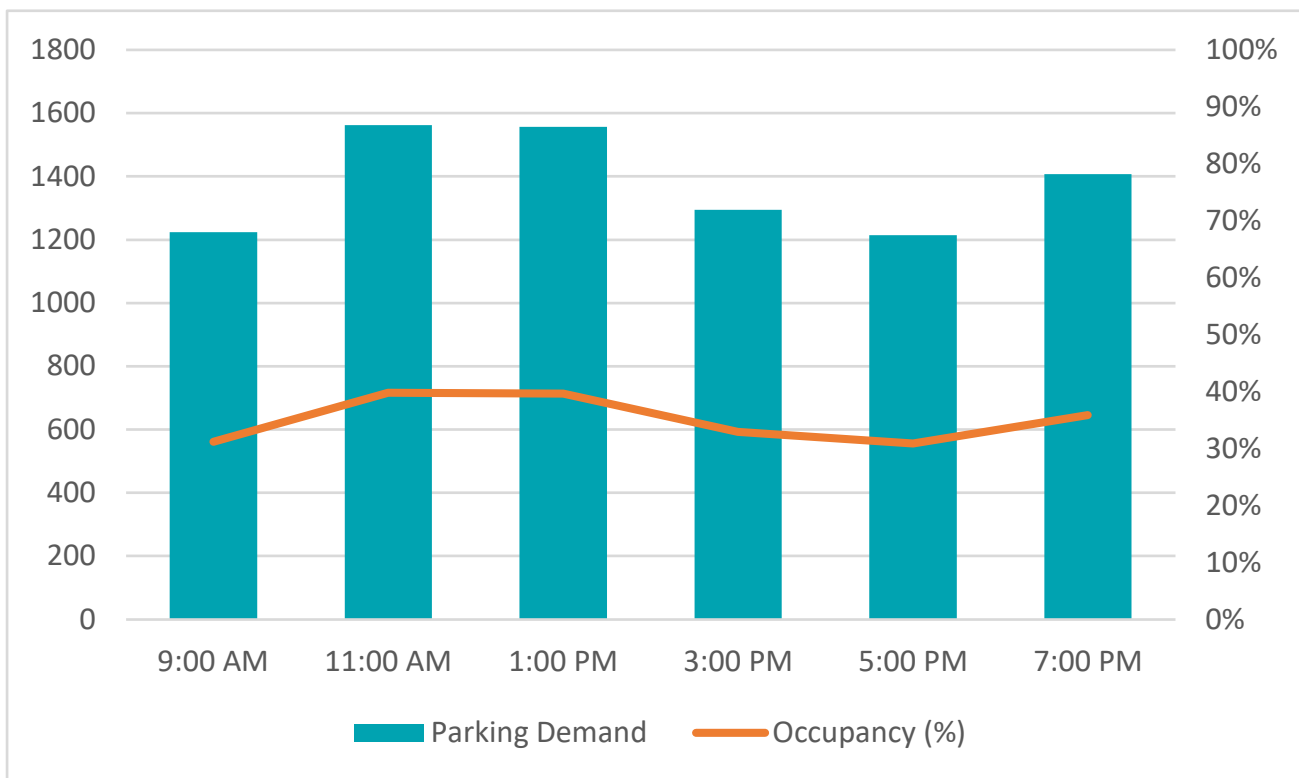
Saturday Parking Demand Over Time

Parking occupancy counts were collected at 9 a.m., 11 a.m., 1 p.m., 3 p.m., 5 p.m., and 7 p.m. While parking demand peaked at 11 a.m., parking utilization was similar during the 1 p.m. count.

The 9 a.m. and 5 p.m. counts had the lowest parking occupancies. There was a second, lesser peak at 7:00 p.m. Saturday parking demand was driven by the farmer’s market and lunch and dinnertime at restaurants.

Figure 6 provides a summary of the number of vehicles observed (Parking Demand) and share of parking spaces that were occupied (Occupancy %) at each observation time.

Figure 6: Saturday Parking Occupancies Over Time



Source: Walker Consultants, 2023.

Saturday Parking Occupancy Key Findings

- On Saturday, parking in the study area was 40% utilized overall during lunchtime.
- Saturday experienced a similar pattern of parking demand as Thursday, with on-street parking on State Street and the Citrus Avenue parking structure being the fullest parking areas. On Saturday evenings, demand is higher than on Thursdays due to weekend dining in the study area.

How Long Do People Park?

Walker conducted a parking turnover, or length-of-stay (how long a vehicle is parked in a space) study for select on-street spaces within the study area, focused along State Street. Most of the spaces in the turnover study area are time-limited with 30-minute or 2-hour time limits. The intent of the turnover analysis was to understand the extent to which long-term parkers, such as employees and business owners, are parking in the most convenient parking spaces, which are typically meant to be prioritized for customers.

Parking turnover data was collected for all on-street spaces on State Street between Orange Street and 7th Street, and on 5th, 6th and 7th Street between Redlands Boulevard and Citrus Avenue. The parking turnover study area was previously shown in Figure 2. A total of 167 parking spaces were covered in the length of stay analysis.

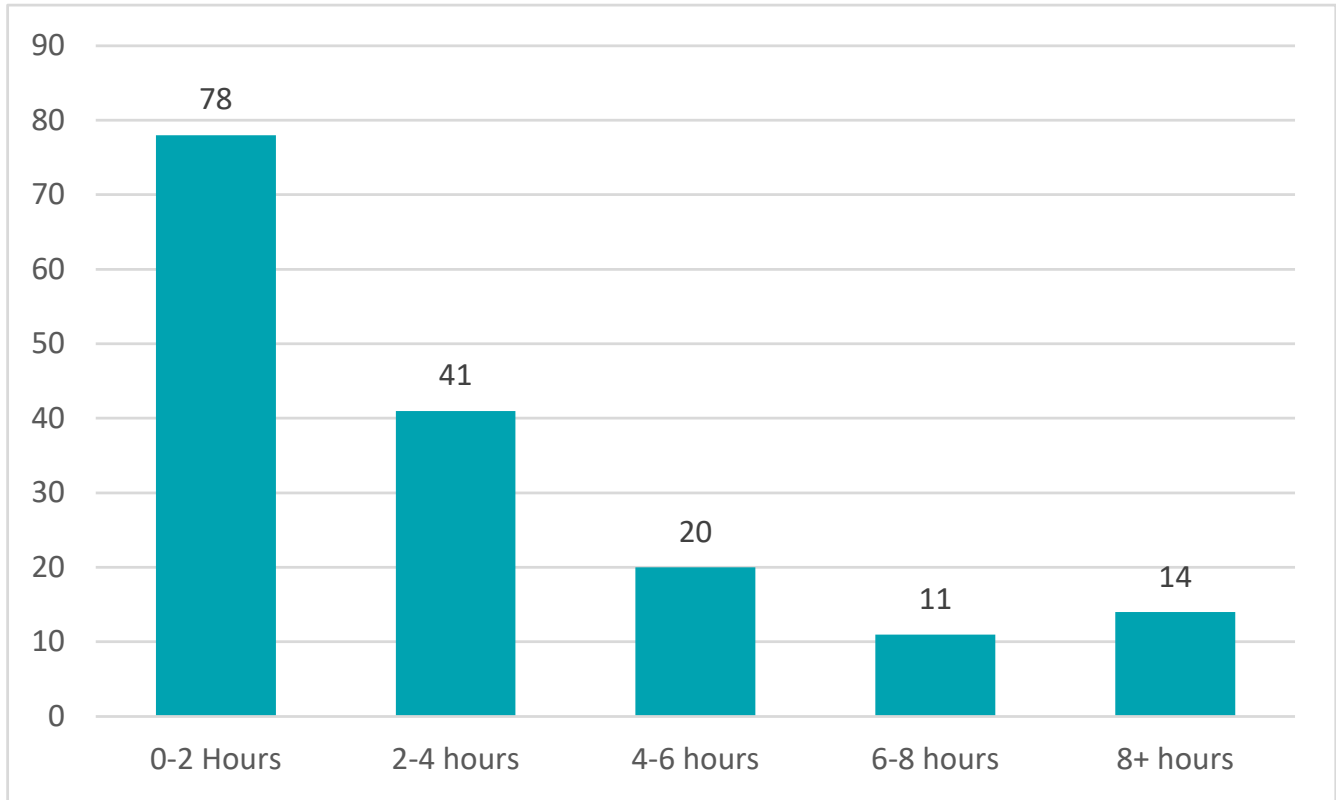
To understand how often parked cars leave a space, or turn over, a license plate inventory (LPI) was collected hourly from 9 a.m. to 7 p.m. (11 counts) on Thursday, November 17, 2022. Within this timeframe, Walker collected partial (last 4 characters) license plate data for 779 vehicles.

Of these vehicles, the majority, 79%, or 621 vehicles, were parked for zero to two hours. There were 158 vehicles parked for three hours or more.

To understand how turnover affects the ability of patrons to find parking close to their destination in a busy area during periods of high parking demand, Walker looked specifically at the parking duration for the vehicles parked during the 1 p.m. peak on Thursday, November 17th.

Figure 7 provides a summary of parking durations for the vehicles parked on-street in the turnover study area on Thursday, November 17, 2022, at 1 p.m.

Figure 7: Parking Durations of Vehicles Parked at 1 p.m. Peak – Thursday November 18, 2022



Source: Walker Consultants, 2023.

There were 45 vehicles parked for four or more hours, representing 27% of the 167 parking spaces in the turnover study area. These are likely to be employees, business owners, and potentially some visitors. In Walker’s experience conducting downtown parking studies in similar environments, while a few vehicles may be visitors parking long-term, the majority are almost always business owners and employees.

In the prime parking locations that should have been available to customers and visitors, 27% of the spaces at peak were taken up by long-term parkers. Each of these spaces could instead have served four to eight short-term parkers and would have provided parking opportunities for those on tight schedules looking to squeeze in a retail purchase or lunch in the downtown. Considering the needs of employees and business owners while also prioritizing convenient parking for customers and visitors helps support the economic vitality of the area.

Parking Turnover Key Findings

- The majority of vehicles present during the peak were parked for one or two hours.
- There were 45 vehicles, likely belonging to employees or business owners, parked for four or more hours.
- 27% of the 167 spaces in the turnover study area were occupied by long-term parkers.

Planned Development in the Study Area

There are several development projects within or adjacent to the study area that are in various stages of approval or construction. These include redevelopment of the former Redlands Mall site and several projects near the historic Santa Fe Station area that in total will add close to 1,000 dwelling units, approximately 180,000 square feet of retail/dining space, and approximately 25,000 square feet of office space to the Downtown area. The station area and mall projects will enhance pedestrian and bicycle connections between the Santa Fe Station, including the new Metro Arrow train service, and State Street.

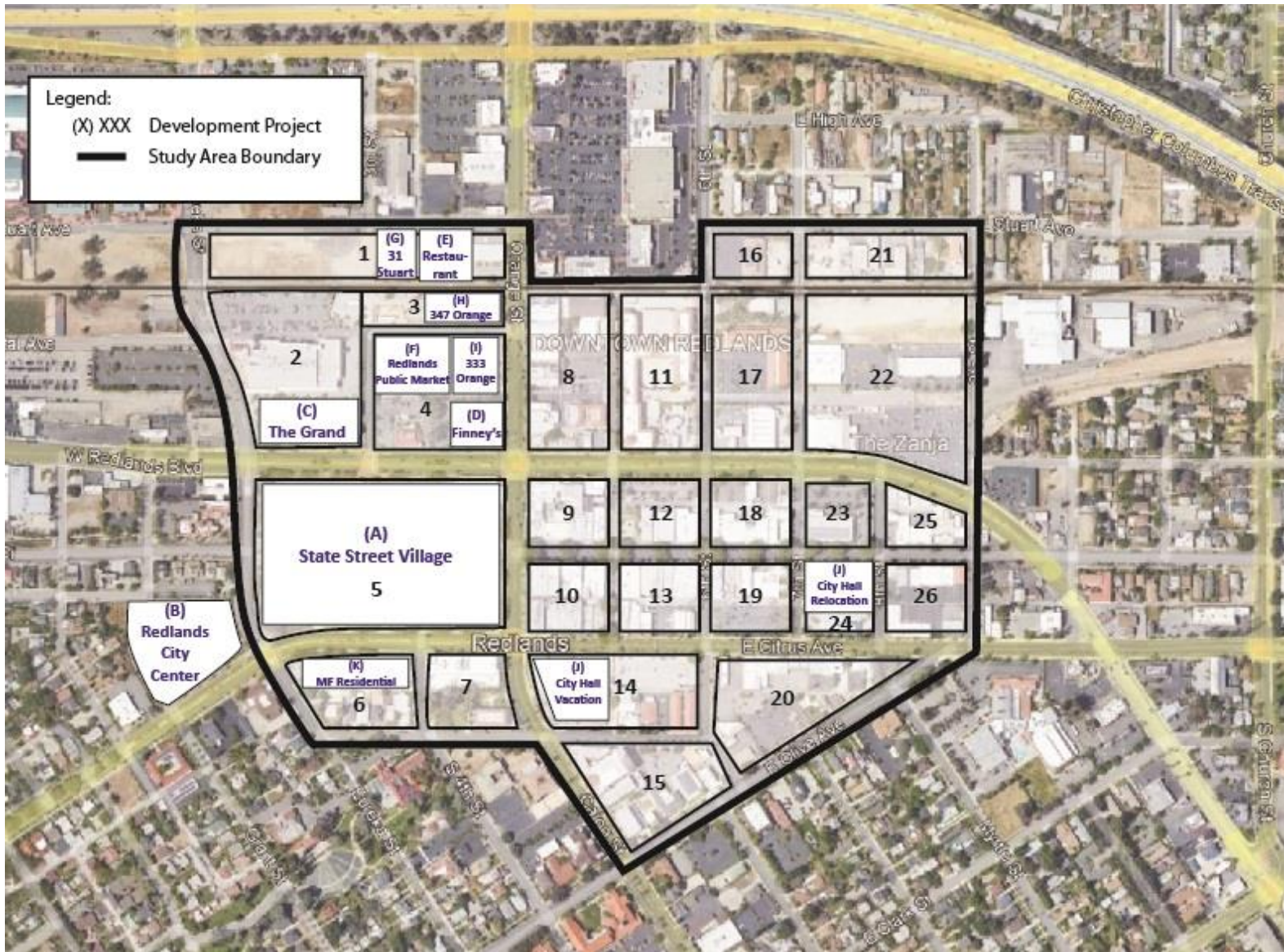
Table 4 lists the current development projects within and adjacent to the study area.

Table 4: Downtown Redlands Development Projects

Project	Letter on Map (See Figure 8 on next page)	Land Use Program
State Street Village	A	700 Apartments 71,778 square feet retail/restaurant 12,328 square feet office
Redlands City Center (adjacent to study area)	B	138 Apartments 10,533 square feet restaurant/retail
The Grand Apartments	C	149 Apartments
Finney's Craft House	D	6,700 square foot restaurant
Restaurant	E	17,000 square foot restaurant
Redlands Public Market	F	33,676 square foot food hall
31 Stuart Ave. Mixed Use	G	36,825 square feet office/retail/restaurant
347 Orange St.	H	6,951 square feet retail/restaurant
333 Orange St.	I	11,807 square feet retail/restaurant
City Hall Relocation	J	City Hall relocating to 300 State Street
Block 6 Redevelopment	K	Unspecified, likely multi-family residential

Figure 8 shows the location of the downtown development projects in and adjacent to the study area.

Figure 8: Downtown Redlands Approved/Pending Development Projects



Source: Walker Consultants, 2023.

Walker prepared a preliminary assessment of the future parking demand generated by the Downtown development projects compared to the proposed (or existing) parking supply at each project using the Urban Land Institute/National Parking Association Shared Parking model and available information regarding each development's program and parking supply.

The three approved residential/mixed-use residential projects are projected to provide enough parking to satisfy their parking needs. They plan to provide parking at or above the City's minimum off-street parking requirements that were in effect at the time of their approvals. It is likely that the parking demand from these projects will also utilize adjacent on-street parking if it is free, and in the case of State Street Village, utilize the new on-street parking created by the project. On-street parking is the most convenient parking option and the first to fill up, and no matter how much off-street parking is provided, adjacent on-street parking will always be the preferred option for some customers, residents, and employees. The main impact of State Street Village on the downtown is the loss of the temporary parking that the defunct Mall provided to the downtown. Parking demand in the Redlands Mall lot will have to relocate and disperse throughout the study area. As the existing conditions analysis indicated, there is ample parking supply overall in downtown to accommodate this, although the City may wish to manage the on-street parking to ensure spaces remain available for Downtown visitors and customers.

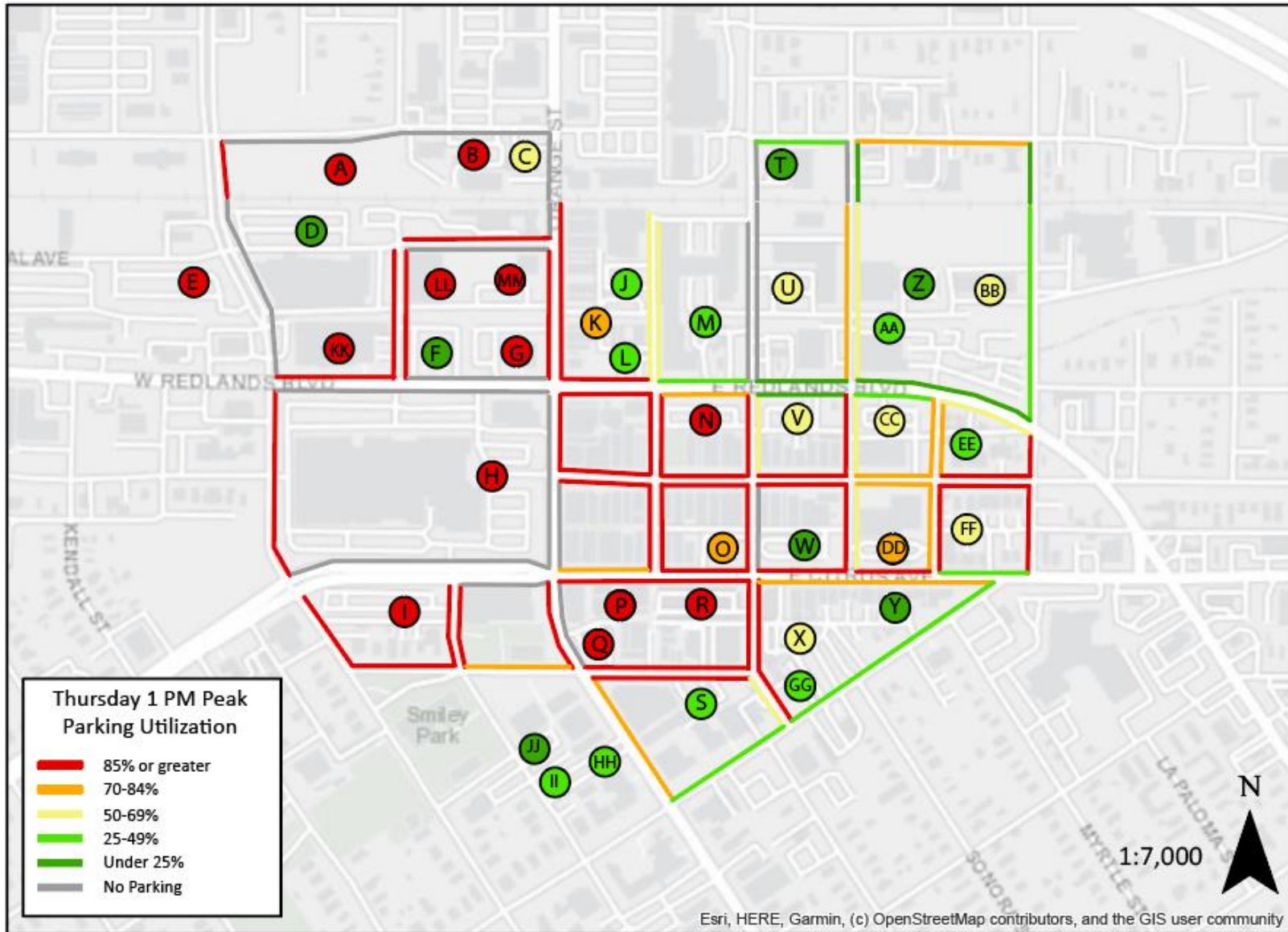
The proposed Finney's restaurant and 333 Orange are also projected to have enough on-site parking for their needs. However, the station adjacent developments, such as the Redland's public market, 31 Stuart, the restaurant, and 347 Orange may rely on on-street parking and the Stuart Avenue Parking structure and other sources of parking as little to no parking exists on these sites.

Figure 9 and Figure 10 show projected weekday and weekend peak parking demand in the study area assuming the construction of the Downtown development projects.

As shown in the figures, the Downtown development projects will result in much of the on- and off-street parking supply in Blocks 1-6, as well as the parking lot across Eureka Street from the Look Theater, being full or close to full during peak periods of parking demand, where today many of them are only lightly utilized. Displaced parking demand from the Redlands Mall site could be accommodated in the parking facilities of the current City Hall site once vacated and/or in any new public parking at the site if it is redeveloped.

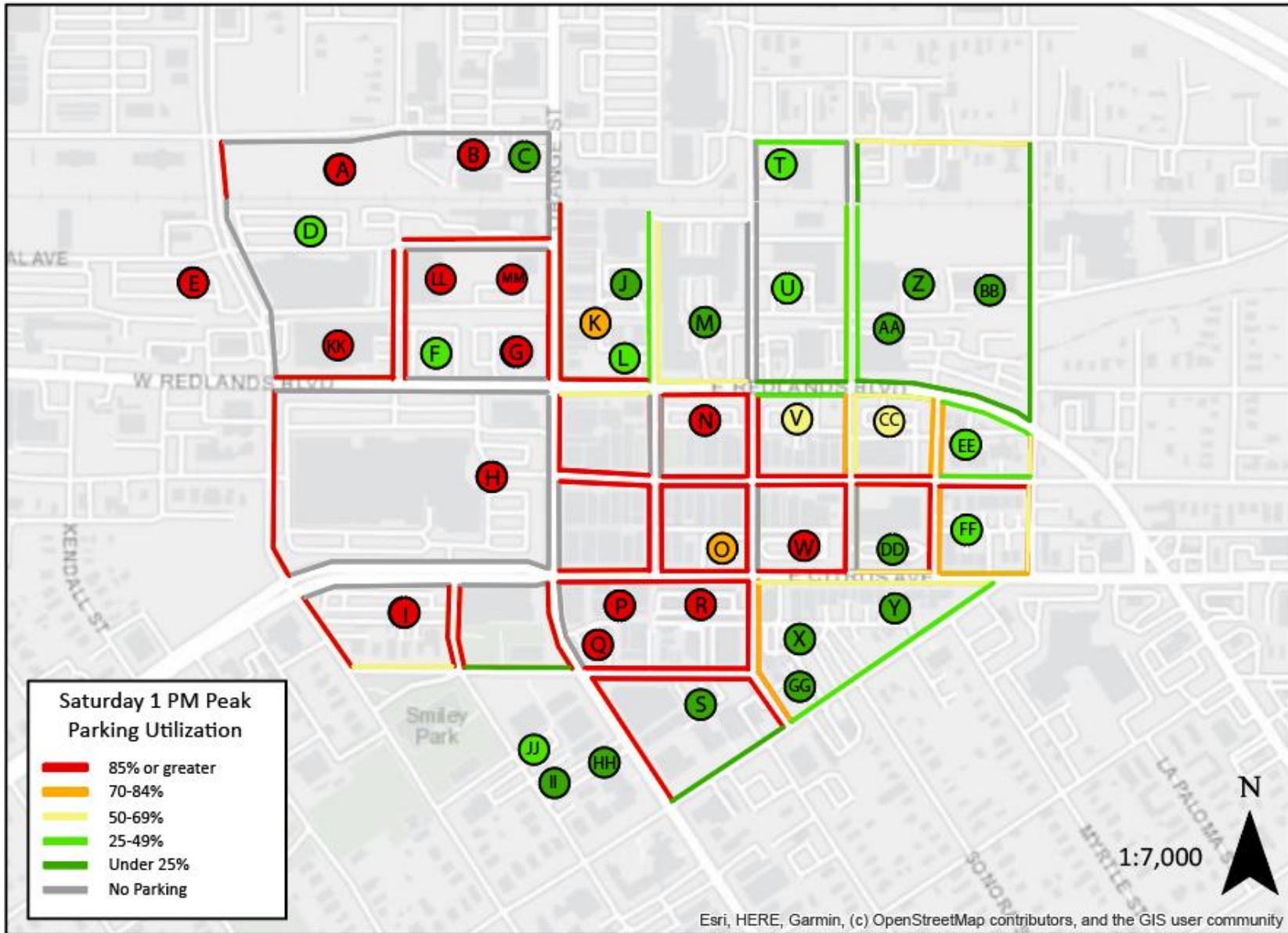
The relocation of Redlands City Hall from the corner of Citrus and Orange to 300 State Street presents an option for redevelopment and/or construction of additional structured parking supply that is convenient to Downtown. This will be discussed in subsequent sections in more detail.

Figure 9: Thursday Peak Parking Utilization (1:00pm) with Projected Downtown Development Projects



Source: Walker Consultants, 2023.

Figure 10: Saturday Peak Parking Utilization (1:00pm) with Projected Downtown Development Projects



Source: Walker Consultants, 2023.

City Hall Site Redevelopment

The City is in the process of relocating its City Hall from the current campus on the southeast corner of the Citrus Avenue/Orange Street-Cajon Street intersection to the Citrus Center, located at 300 E State Street, which is the south side of State Street between 7th Street and 8th Street.

When the move is completed, the existing City Hall campus and underground parking area will be vacant. Since the City owns the land, it makes it the most feasible site in the study area for the construction of additional public parking. The layout of the existing subterranean level of parking is not ideal for public parking due to the presences of triple tandem spaces in some areas and excessive drive aisles due to the location of the entry and exit to the subterranean parking area. However, since the site already has subterranean parking, reconfiguration and/or reconstruction of the existing subterranean area and construction of additional parking would likely be less expensive than construction of a subterranean level on a typical greenfield site or redevelopment site without an existing subterranean level.

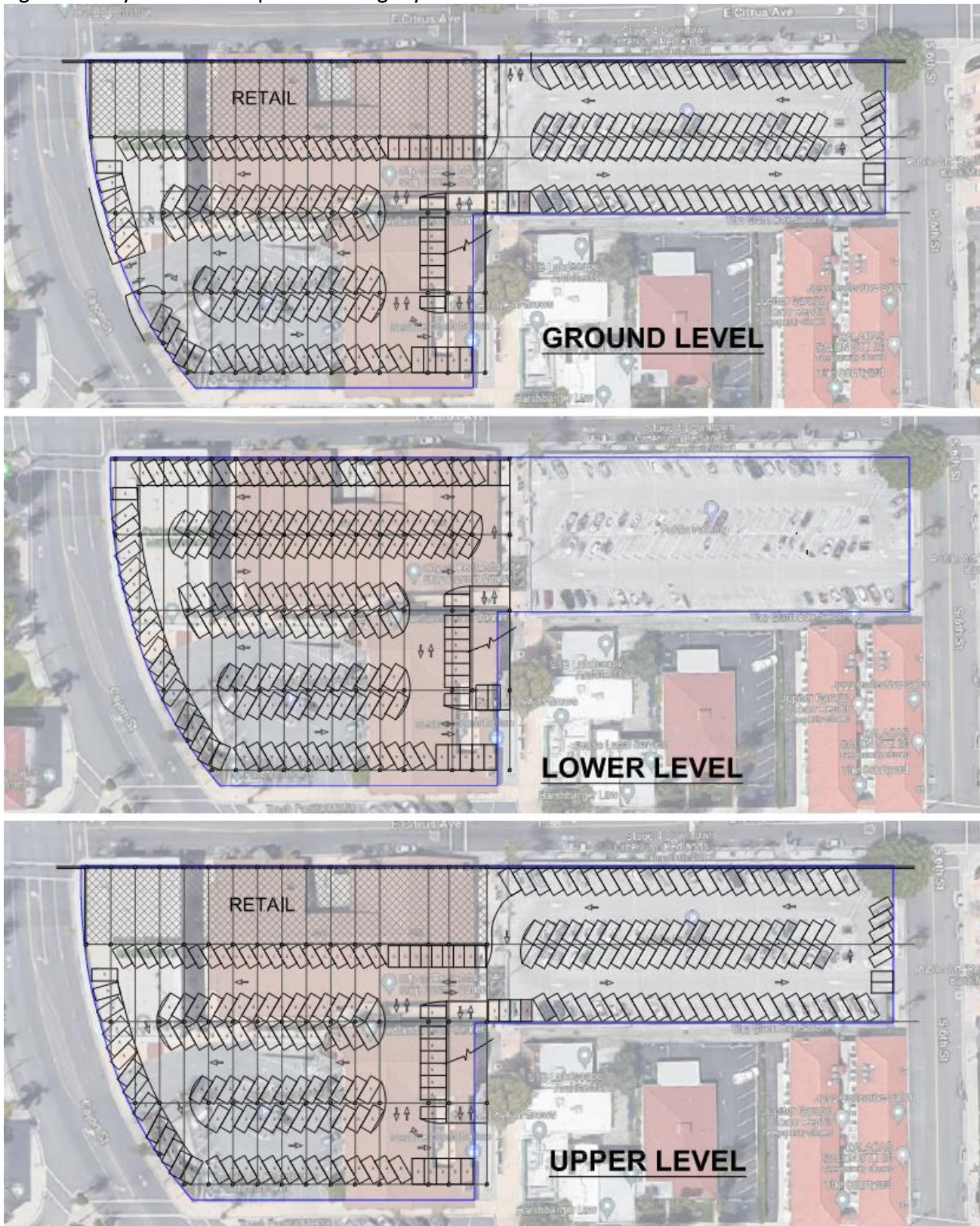
Two preliminary concept plans have been developed to illustrate how parking could be designed on the site and add to the public parking supply in the Downtown area. The concepts below are preliminary and basic in nature, and includes an illustration of ground level, street fronting retail. There is also the potential to plan and design additional land uses either above the parking area, or adjacent to it.

Layout 1, shown in Figure 11, includes the following assumptions:

- Citrus Avenue garage remains and is.
- The conceptual garage connects to the Citrus Avenue garage at the ground level and upper level and shares the existing access points on Citrus Avenue and 6th Street.
- The conceptual garage would have a second access point on Cajon Street.
- Existing basement level reconstructed/reconfigured.
- Full retail frontage on Citrus Avenue. Retail footprint would potentially occupy space on ground and 2nd level since retail requires higher ceiling heights than parking as shown in the layout but could be designed to only occupy ground level space.

The first conceptual plan yields approximately 420 spaces over 4 levels (no tandem spaces). Additional levels, that would include parking over the retail space, would yield approximately 175 spaces per level.

Figure 11: City Hall Redevelopment Parking Layout 1

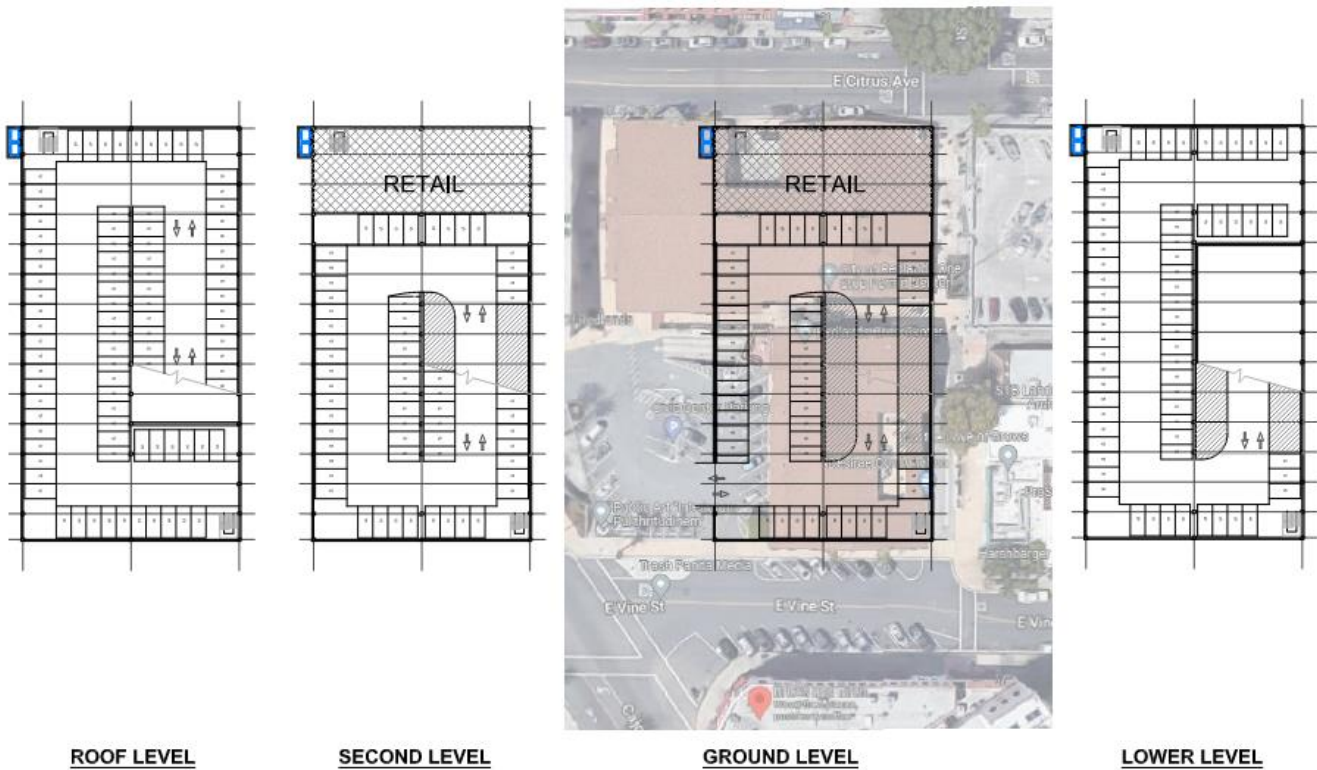


Layout 2, shown in Figure 12, includes the following assumptions:

- Citrus Avenue garage remains as is.
- Freestanding garage with no connection to Citrus Avenue garage.
- Long-span cast-in-place post tensioned concrete structure.
- Full retail frontage on Citrus Avenue. Retail footprint would potentially occupy space on ground and 2nd level since retail requires higher ceiling heights than parking as shown in the layout but could be designed to only occupy ground level space.
- Existing basement level reconstructed/reconfigured.
- Western portion of site would be available for redevelopment.

The second conceptual plan yields approximately 260 spaces on 4 levels (basement, ground, and two elevated levels). Additional levels would have approximately 90 spaces per level.

Figure 12: City Hall Redevelopment Parking Layout 2



Downtown Parking Surveys

Survey Methodology

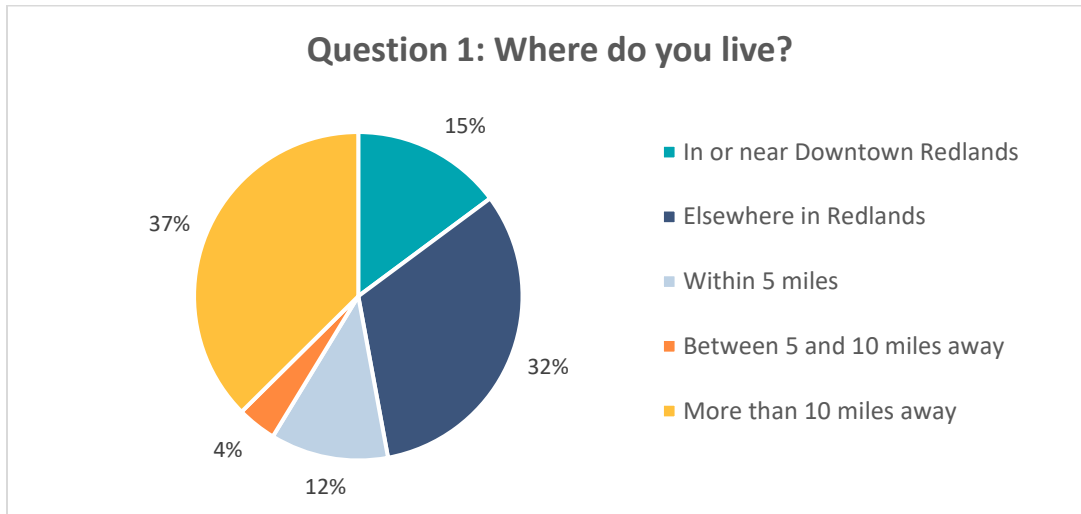
Walker conducted intercept surveys of downtown visitors and employees to better understand parking demand and perceptions of parking, and to identify any parking-related concerns. The first day of surveys was done on Friday, November 18th, between 8:00am and 5:00pm. The full survey that was used is included in Appendix A. All survey respondents were pedestrians walking along State Street or the nearby side streets. The second day of surveying was done on Friday, December 2nd, 2022. During the late morning and afternoon, Walker entered businesses along State Street and spoke with employees and owners. During the early evening, Walker again surveyed pedestrians on State Street and in the surrounding area. Responses to multiple choice questions were later entered into Excel for analysis, and responses to open-ended questions were recorded and analyzed for key themes. The following sections present the survey findings.

Downtown Intercept Surveys

A total of 155 people walking along State Street agreed to participate in the survey. Others expressed interest but indicated that they did not have time as they were running late to work or to an appointment, sometimes due to trouble finding parking. The survey contained seven multiple choice questions and one open-ended question. Of the 155 respondents, 135 people drove and parked, and 20 people either walked, biked, took public transit, or got a ride. Three questions pertained only to those who drove and parked and were skipped for those who arrived downtown by another mode of travel.

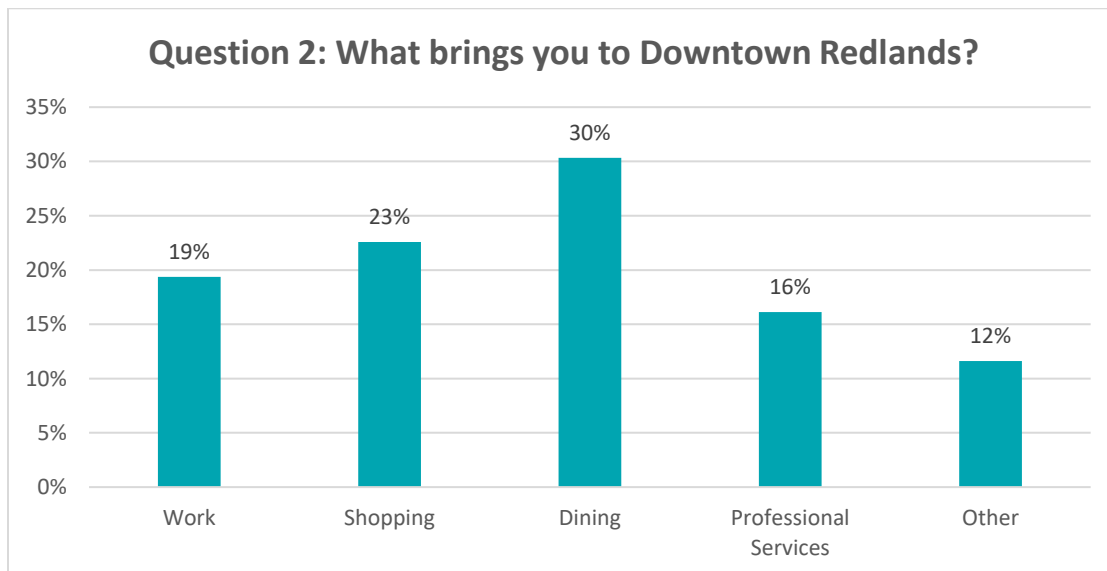
Multiple Choice Question Results

Approximately half of the 155 respondents lived in Redlands, and approximately half lived outside the City, with many coming from over ten miles away (see Figure 13).

Figure 13: Place of Residence


Source: Walker Consultants, 2023.

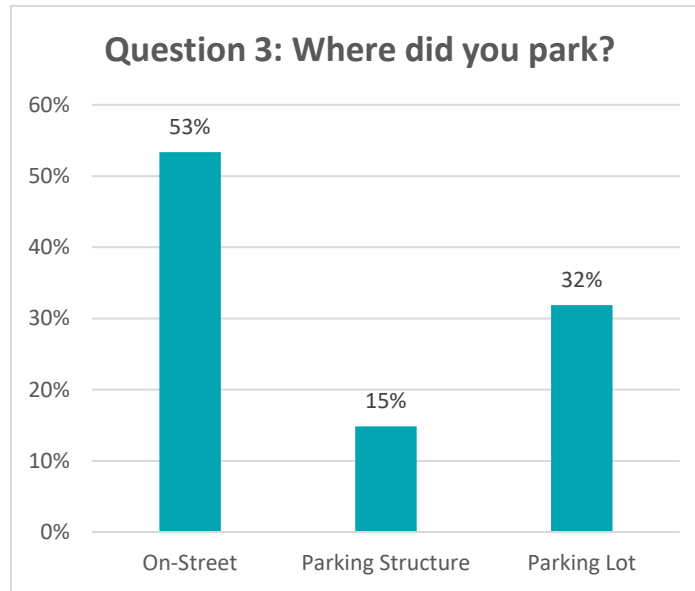
Dining was the most common reason people were visiting Downtown Redlands, with 30 percent of respondents (see Figure 14). Twenty-three percent of respondents indicated they were visiting downtown for shopping, 19 percent were there for work, 16 percent were there for professional services, and 12 percent were there for other reasons, such as to attend a book reading event or just to walk around and enjoy the atmosphere. There was also a Christmas Tree lighting event downtown the evening of the first survey, but most surveys were conducted early enough in the day that only two participants mentioned visiting specifically for this event.

Figure 14: Trip Purpose


Source: Walker Consultants, 2023.

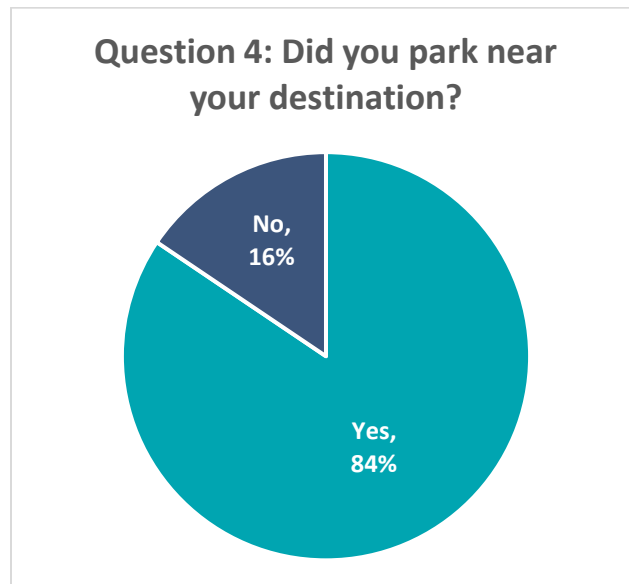
Of the 135 respondents who drove and parked, 53 percent parked on the street, 32 percent parked in a parking lot, and 15 percent parked in a parking structure (see Figure 15). Of those who parked, 84 percent considered their parking space close to their destination, and 16 percent did not (see Figure 15).

Figure 15: Parking Location



Source: Walker Consultants, 2023.

Figure 16: Nearness to Destination

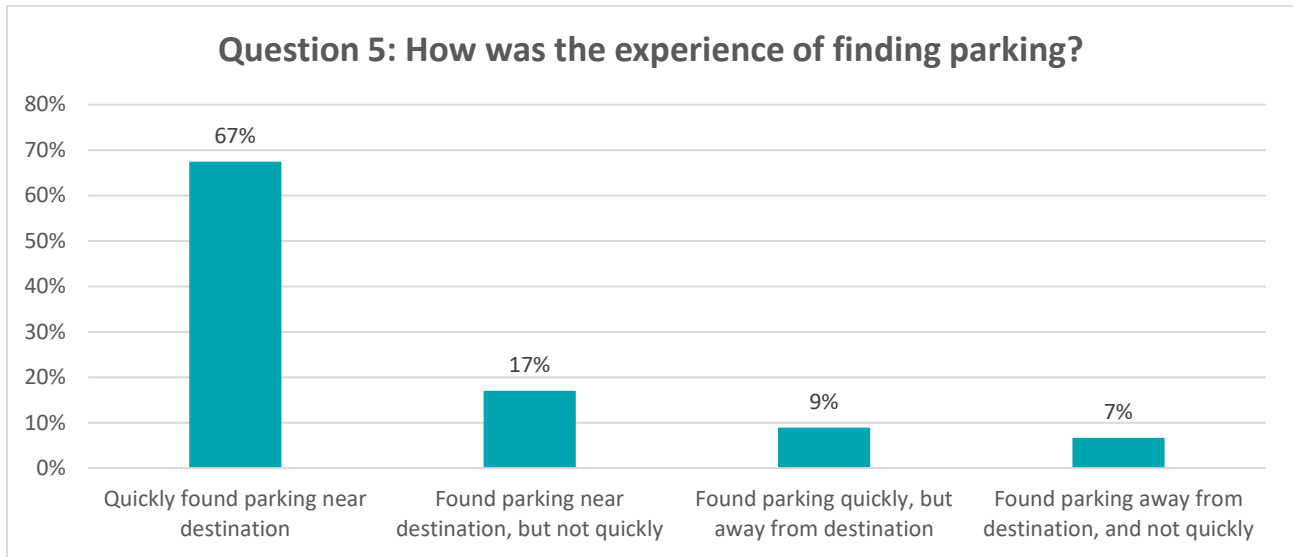


Source: Walker Consultants, 2023.

The next question asked respondents who had driven downtown to further describe their experience finding parking (see Figure 17). Most respondents reported quickly finding a parking space near their destination. Of the

remaining respondents, 17 percent found a space near their destination after circling around for a while, 9 percent expected parking near their destination to be full and so quickly parked in an available space even when they considered it far from their destination, and 7 percent tried circling around for parking near their destination but eventually settled on a space further away.

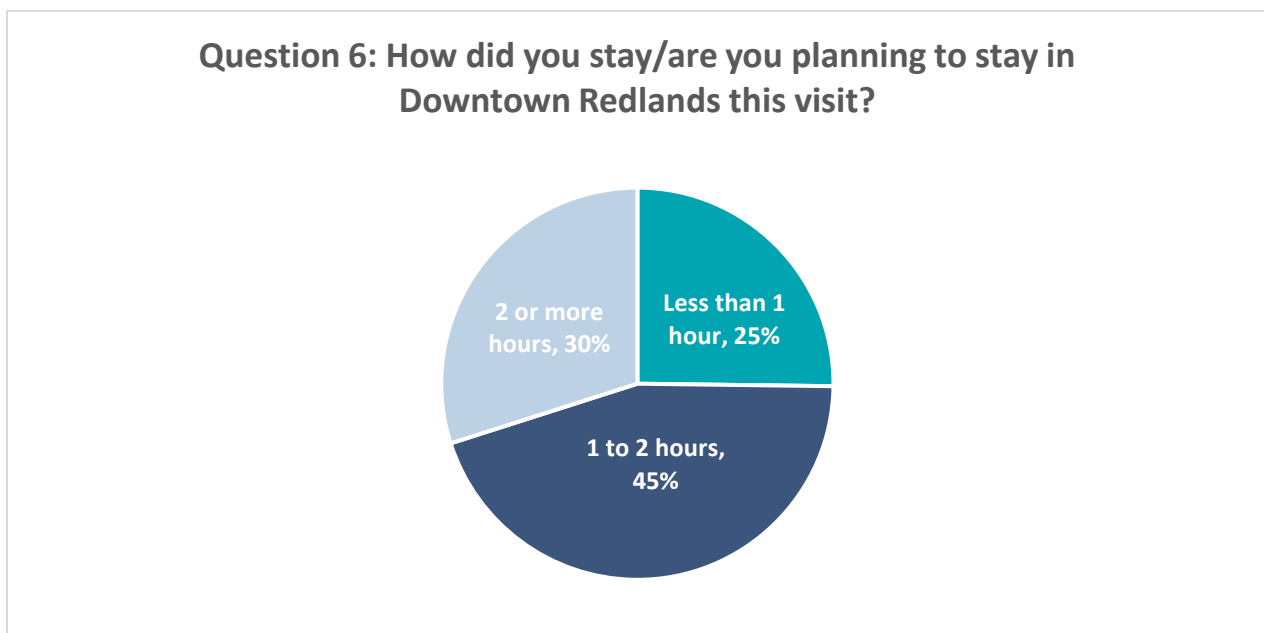
Figure 17: Parking Experience



Source: Walker Consultants, 2023.

Of the 155 respondents, 25 percent indicated they were visiting downtown for less than an hour, 45 percent planned to stay for one to two hours, and 30 percent planned to stay for two or more hours (see Figure 18).

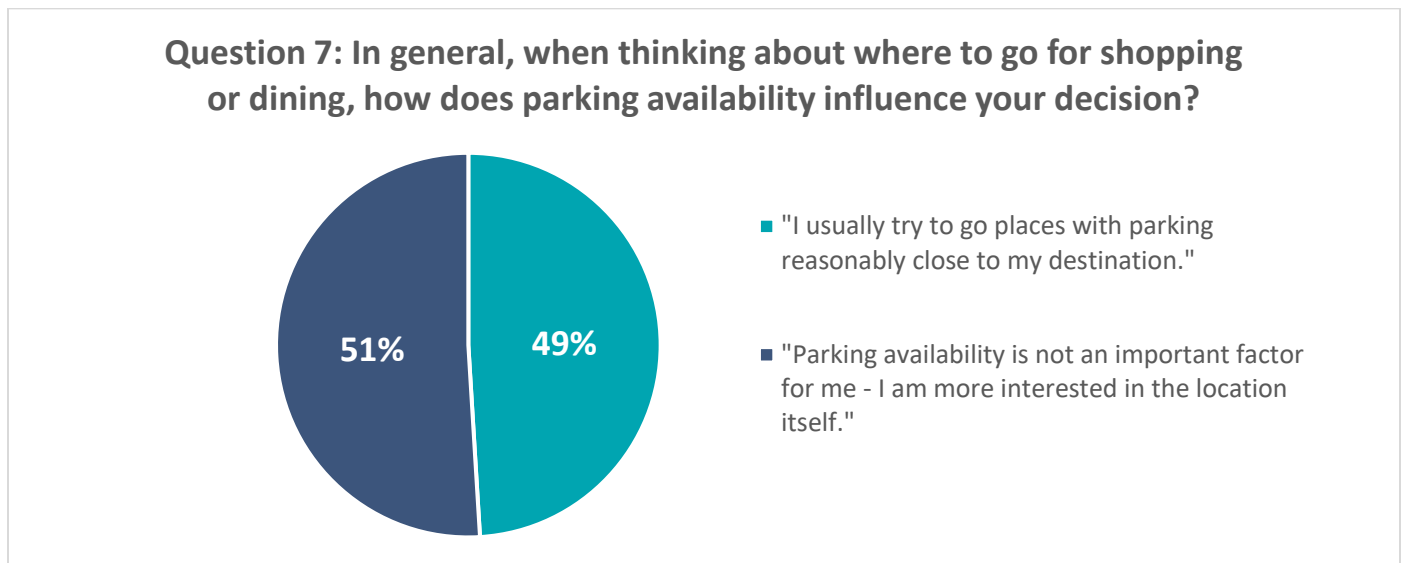
Figure 18: Length of Stay



Source: Walker Consultants, 2023.

Finally, participants were asked whether if, in general, parking availability influenced their decision when thinking about where to go out for shopping or dining. Responses were split fairly evenly, with approximately 49 percent indicating they preferred to go places where they could find parking reasonably close to their destination, and 51 percent responding that parking availability was not an important factor (see Figure 19).

Figure 19: Parking-based Decision Making



Source: Walker Consultants, 2023.

Open-Ended Question Results

One final survey question provided participants with the opportunity to share any thoughts or concerns related to parking in Downtown Redlands. There was a fairly even split across participants who expressed dissatisfaction or difficulties due to the lack of available parking, participants who expressed reluctant acceptance with the way things were (e.g., with comments such as "it is what it is"), and participants who expressed satisfaction or positivity related to the parking situation in Redlands. Several themes were raised by multiple respondents:

- Expressions of difficulties due to lack of availability (20)
 - People are often late to appointments
 - Some people want to visit downtown but leave and go elsewhere due to parking scarcity
 - The public sometimes park in reserved spaces because they can't find any other spaces
- Reluctant acceptance of the current parking situation (20)
- Expressions of satisfaction with the current parking (16)
 - Appreciation that parking spaces downtown are full and not empty
 - Walking is healthy, prefer even circling for parking over development of additional parking
 - Observation that vibrant city centers seem to be transitioning toward less parking

- Interest in a parking structure (16)
 - Only if underground (2)
 - Only if aesthetically pleasing (2)
- Need for employee parking program (6)
- Need for more parking options for the mobility-impaired (4)
- Frustration with parking time limits (4)
- Desire for better bike/multimodal infrastructure to relieve parking demand (3)
- Preference for avoiding any new parking construction (3)
- Safety concerns late at night or early in the morning (3)
- Concerns about new developments and their impact on parking (3)
- Desire for parking meters to help manage parking and generate revenue for the City (3)

In addition to the common themes listed above, other participants shared:

- Restaurant wait times keep some people from visiting in the evenings, not parking difficulties
- The lack of available parking keeps people from coming downtown for lunch when they're in a hurry
- Some people plan their visits downtown during off-peak hours, so parking is easier
- People appreciate the angled parking
- More people would bike if there were secure bike parking
- All of State Street could be ADA parking to accommodate elderly customers
- State Street should be closed to cars and should have kiosks for outdoor shopping and dining
- The structure fills up during the holidays, but Redlands has other options; people can go to Citrus Plaza
- Would prefer to have no parking lots downtown and for Redlands to stack all the parking so new developments only go upward and do not expand outward into the orange groves
- It's nice to have parking returned to State Street and not have that street closed for outdoor dining like it was during Covid-19

Additional Analyses

Parking Experience by Length of Stay

Analyzing the survey responses by length of stay reveals that people visiting Downtown for less than an hour are least likely to park in a structure and most likely to park on the street. People staying for more than two hours are most likely to park in a structure and least likely to park on the street, although 41 percent of these longer-term parkers still park on the street (see

Table 5). People staying for over two hours are most likely to report parking near their destination, while those staying under an hour are least likely to report parking near their destination (see Table 6). Similarly, people staying for more than two hours are most likely to report finding a parking space quickly, without having to circle, while people staying under an hour are least likely to report finding their space quickly (see Table 7). These results suggest that Redlands has been moderately successful at encouraging longer-term parkers to park in lots and structures but could do more to ensure that convenient street parking is available for people making short trips, who may be less willing to park farther from their destination.

Table 5: Parking Location by Length of Stay

	Less than 1 hour	1 to 2 hours	2+ hours
Garage	6%	17%	19%
Lot	33%	26%	41%
Street	61%	57%	41%

Source: Walker Consultants, 2023.

Table 6: Perception of Parking Distance by Length of Stay

	Less than 1 hour	1 to 2 hours	2+ hours
Did not park near destination	18%	17%	11%
Parked near destination	82%	83%	89%

Source: Walker Consultants, 2023.

Table 7: Parking Distance and Search Time by Length of Stay

	Less than 1 hour	1 to 2 hours	2+ hours
Parked far from destination, after circling	9%	8%	5%
Parked far from destination, without circling	12%	14%	11%
Parked near destination, after circling	18%	15%	16%
Parked near destination, without circling	61%	63%	68%

Source: Walker Consultants, 2023.

Perception of Parking Distance and Parking-Based Decision Making by Trip Purpose

Analyzing perceptions of parking nearness to destination by trip purpose can shed additional light on the length of stay data. For example, those who came Downtown for work, who would generally stay two or more hours, were more likely than those visiting for dining, shopping, or professional services to report finding parking near their destination (

Table 8). Those who came Downtown for another reason all reported finding parking near their destination, but these individuals usually did not visit with a precise destination in mind and simply wanted to walk around the area. The fact that employees were more likely to find parking near their destination likely reflects that (1) many employees arrive before peak hours, when there is still ample parking available throughout the downtown, (2) some employees have a reserved off-street parking space near their place of employment, and (3) any employees parking far from their destination may have been a hurry to arrive to work and unwilling to participate in the survey.

Table 8: Perception of Parking Distance by Trip Purpose

	Dining	Shopping	Professional Services	Work	Other
Did not park near destination	16%	21%	21%	9%	0%
Parked near destination	84%	79%	79%	91%	100%

Source: Walker Consultants, 2023.

Analyzing the influence of parking availability by trip purpose can also reveal which types of visitors are more or less likely to mind when parking is hard to find. Interestingly, people who were visiting Redlands for shopping were the most likely to respond that when going out for shopping or dining, parking availability influences their decision of where to go (see Table 8). This suggests that either these shoppers find parking in downtown Redlands generally acceptable, that they made an exception to visit a particular store despite anticipating difficulty parking, or that they arranged their schedules to shop outside of peak parking demand hours. Overall, a sizeable share of people visiting for shopping or dining reported that parking availability could potentially influence their decision of where to go, and the fact they still chose to come to downtown Redlands suggests that these visitors were content with the parking situation.

Table 9: Parking-based Decision Making by Trip Purpose

	Dining	Shopping	Professional Services	Work	Other
“Parking availability is not an important factor for me - I am more interested in the location itself.”	57%	40%	48%	57%	50%
“I usually try to go places with parking reasonably close to my destination.”	43%	60%	52%	43%	50%

Source: Walker Consultants, 2023.

National Community Survey 2022 Results

Survey Background

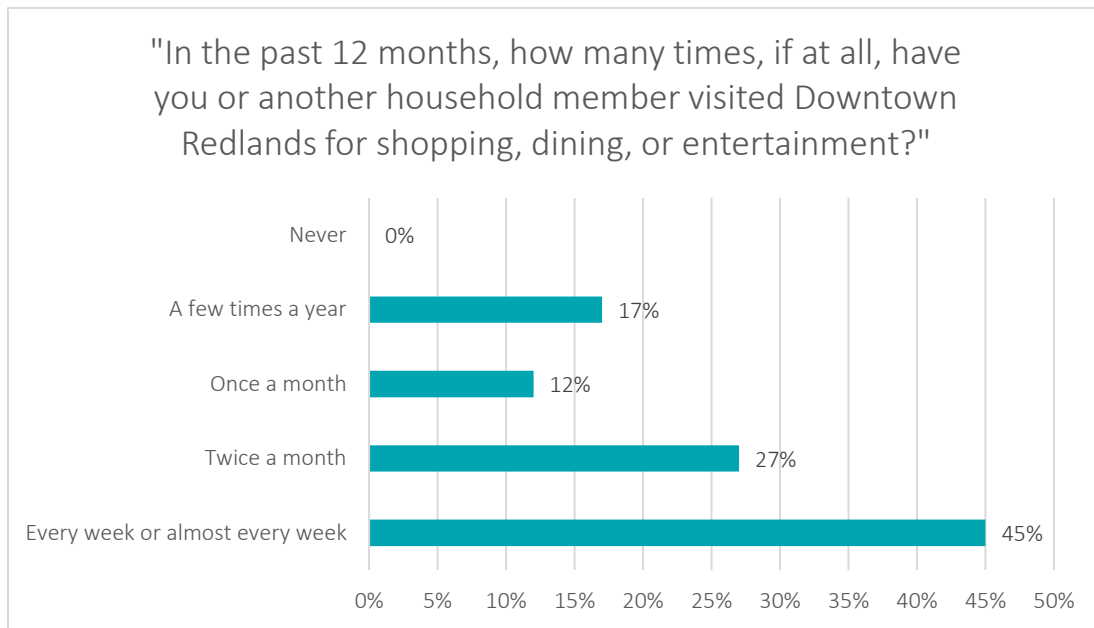
The City hired Polco to conduct a National Community Survey (NCS) to evaluate the livability of Redlands. The NCS included standard questions across multiple categories (such as safety, utilities, natural environment, etc.) that were designed to facilitate benchmark comparisons between resident ratings of Redlands and resident ratings of other cities across the country. Additionally, the survey included custom questions developed by City of Redlands staff members to better understand travel behavior and perceptions of parking with a focus on the Downtown area, as well as to understand parking concerns within the context of overall priorities for how the City should use its resources. Survey responses were collected from 339 residents (with a response rate of 13 percent) between August and October of 2022. The responses were weighted to be representative of the City’s demographics,

including geographic area of residence, race and Hispanic origin, housing tenure and type, sex, and age. This section summarizes the NCS results pertaining to Downtown travel behavior, perceptions of parking, and community priorities.

Downtown Travel Behavior

Most NCS respondents reported that they or another member of their household visited Downtown Redlands with some regularity, with 45 percent of respondents visiting every week or almost every week. Seventeen percent visited only a few times a year (see Figure 20).

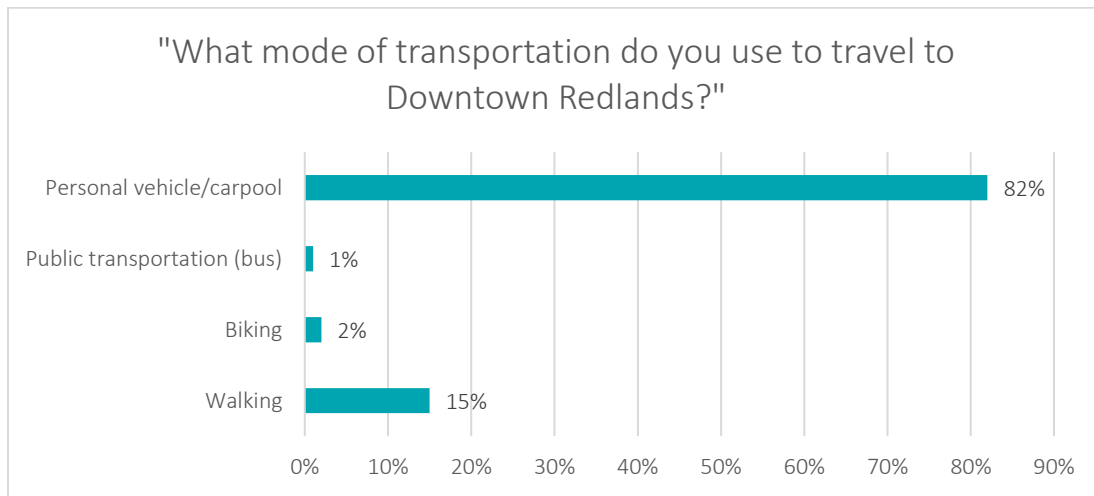
Figure 20: Frequency of Visiting Downtown Redlands



Source: Walker Consultants, 2023.

Of the NCS respondents, 82 percent reported traveling to Downtown Redlands by personal vehicle or carpool (see Figure 21). Fifteen percent reported walking downtown, two percent reported biking, and one percent reported using public transportation.

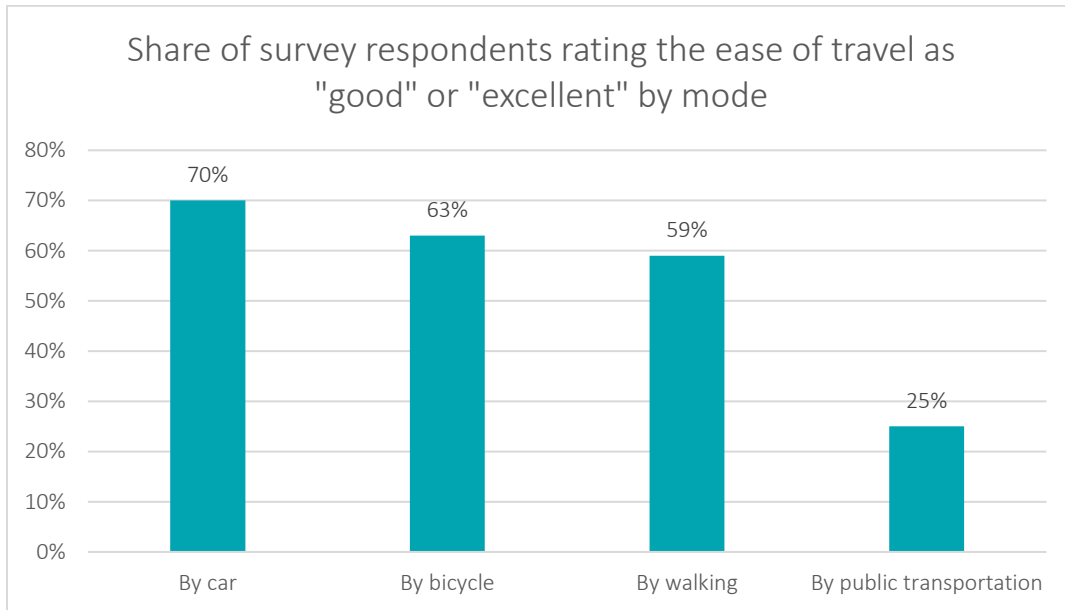
Figure 21: Mode of Transportation Used to Travel to Downtown Redlands



Source: Walker Consultants, 2023.

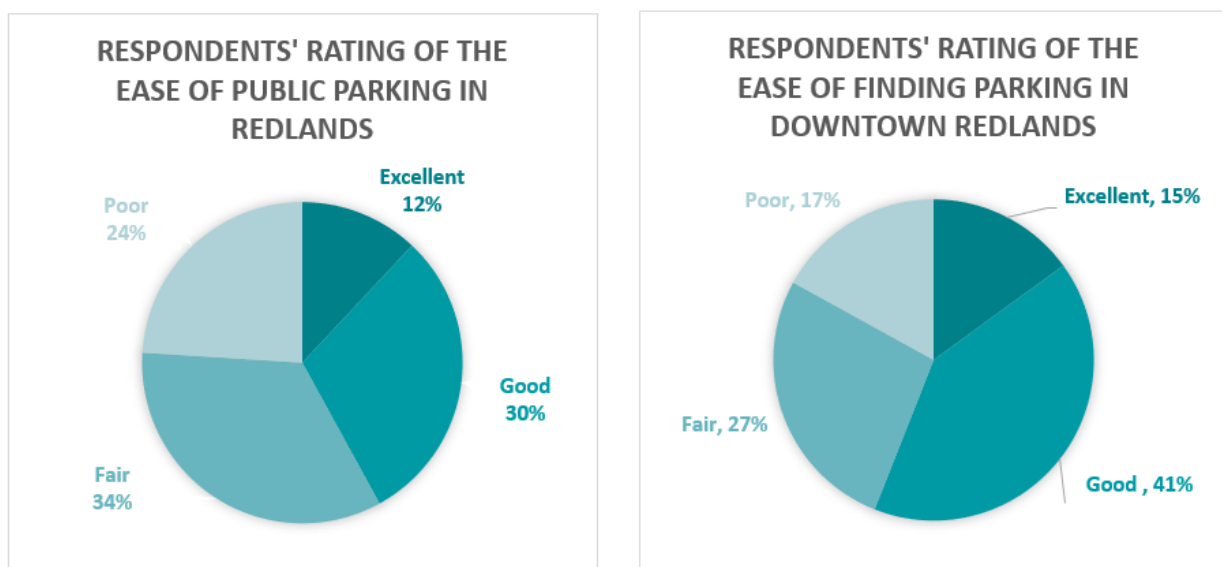
Perceptions of Parking and Travel Options

The NCS respondents were asked to rate the ease of travel by multiple modes of transportation. The results revealed that Redlands remains primarily a car-oriented city, with vehicle travel rated as being the easiest way to get around. Travel by car was rated as “good” or “excellent” by 70 percent of respondents, in comparison with 63 percent for travel by bicycle, 59 percent for walking, and just 25 percent for public transportation (see Figure 22).

Figure 22: Ease of Travel Ratings by Mode


Source: Walker Consultants, 2023.

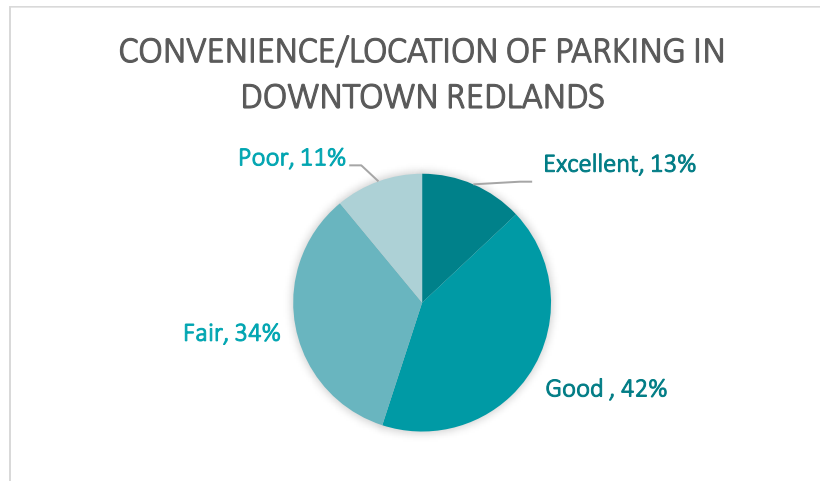
Respondents were also asked about the ease of public parking, both as a benchmark survey question referring to all of the City, and as a customized survey question referring specifically to Downtown Redlands. Interestingly, the ease of public parking in Downtown Redlands was more likely to be rated as excellent or good than public parking in Redlands as a whole (see Figure 23). Only 17 percent of respondents rated the ease of finding public parking in Downtown Redlands as poor, compared with 24 percent for the ease of finding parking in the City as a whole.

Figure 23: Ratings of the Ease of Public Parking in Redlands and Downtown Redlands


Source: Walker Consultants, 2023.

A similar question asked respondents to rate the convenience/location of parking in Downtown Redlands. The convenience/location of parking was slightly less likely to be rated as poor than was the ease of finding parking, suggesting that participants may have been relatively content with the parking spaces they eventually found, but less content with the amount of time it took to find the space. A total of 83 percent of respondents rated the ease of finding public parking downtown as excellent, good or fair, compared with 89 percent for convenience/location of the parking (see Figure 24).

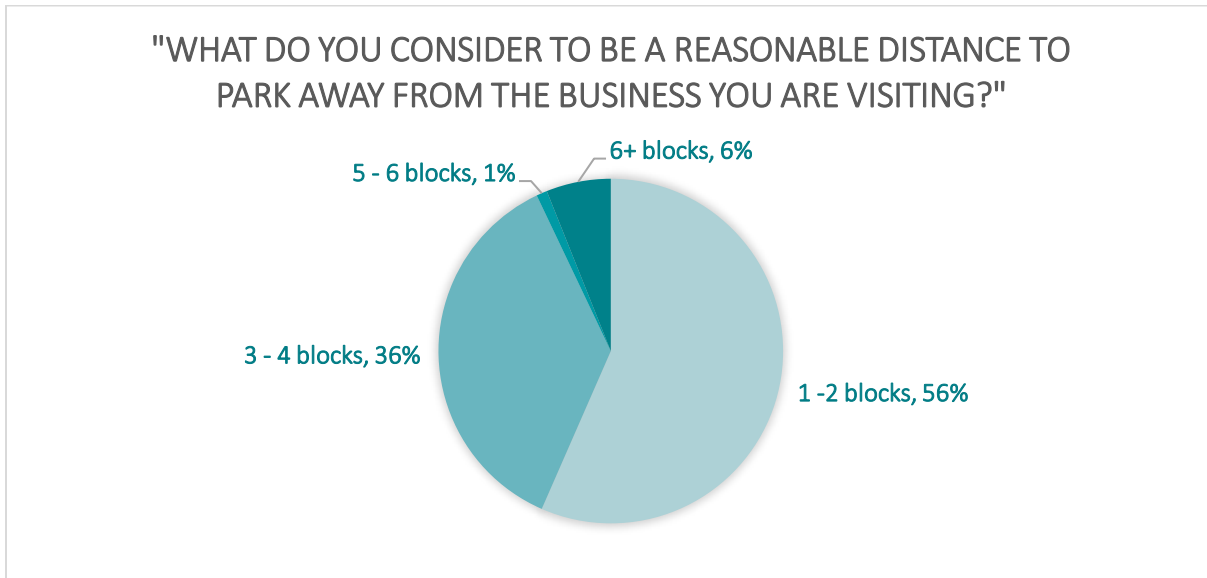
Figure 24: Ratings of the Convenience/Location of Parking in Downtown Redlands



Source: Walker Consultants, 2023.

Asking survey participants how many blocks they consider to be a reasonable distance to park away from the business they are visiting can shed additional light on ratings of the convenience, location, and ease of parking in Downtown Redlands. In response to this question, seven percent of participants reported finding it reasonable to walk five or more blocks, 36 percent were willing to walk three to four blocks, and 56 percent expected to be able to park within a block or two of their destination (see Figure 25).

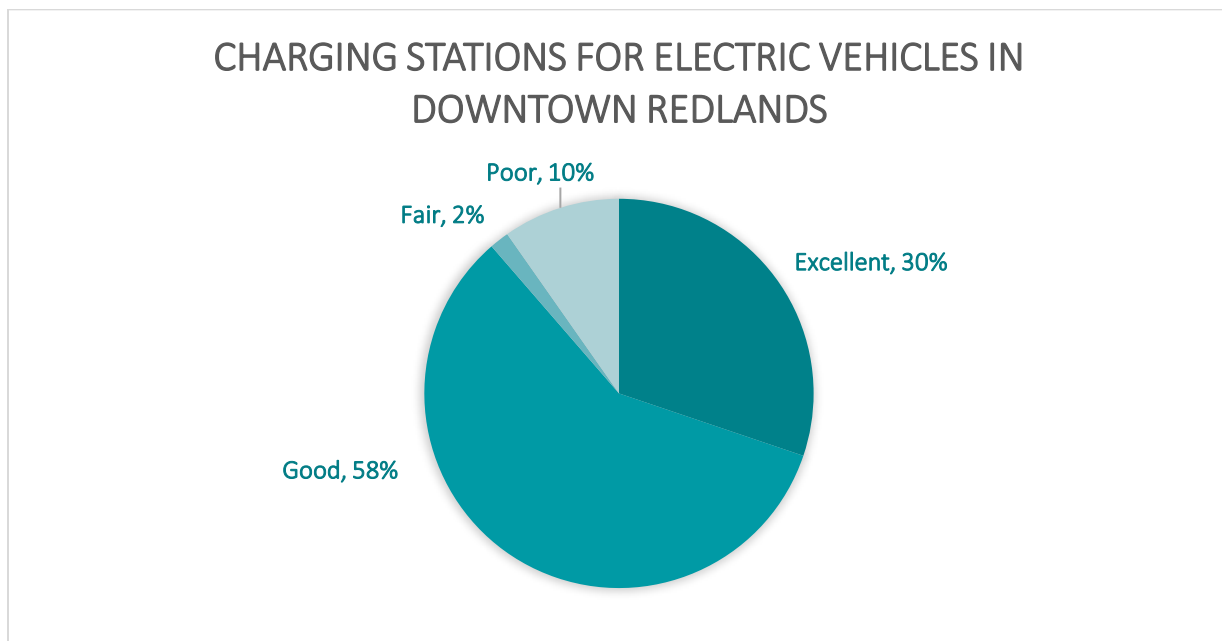
Figure 25: Perceptions of a Reasonable Parking Distance



Source: Walker Consultants, 2023.

As electric vehicles become more commonplace, the City was also interested in understanding how residents perceived the availability of charging stations in Downtown Redlands. Many respondents skipped this question, but for those who answered, the most common ratings were good and excellent, respectively (see Figure 26).

Figure 26: Ratings of Charging Stations for Electric Vehicles in Downtown Redlands

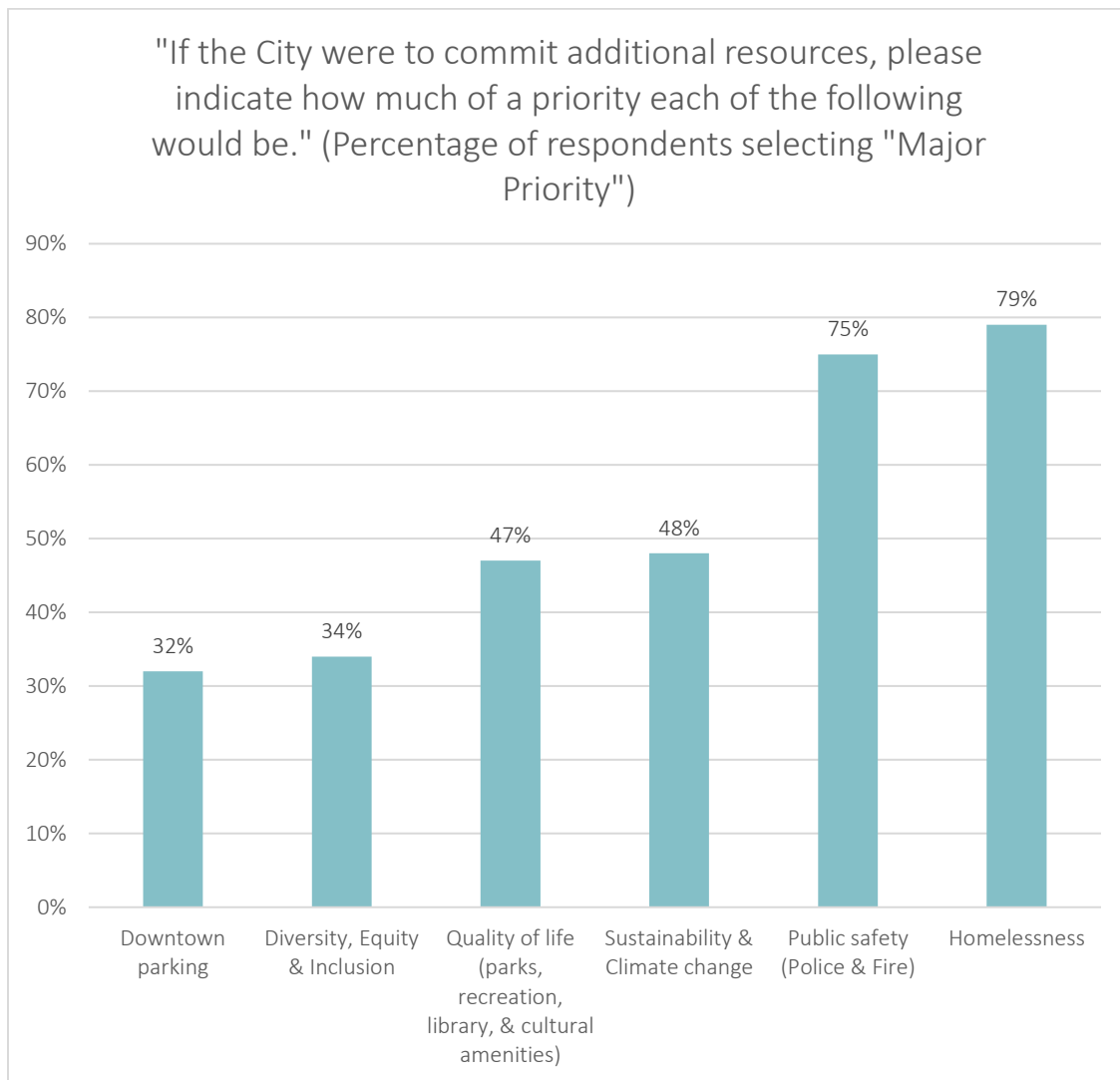


Source: Walker Consultants, 2023.

Community Priorities

Ultimately, decisions about parking issues must be made in the context of community priorities and preferences regarding resource allocation and the associated opportunity costs of public spending. Satisfaction levels should be considered alongside ratings of importance. The NCS encouraged participants to think in terms of trade-offs by asking, "If the City were to commit additional resources, please indicate how much of a priority each of the following would be" for six different issues and allowing respondents to choose between major priority, minor priority, or not a priority. In the context of resource allocation, *Downtown parking* was least likely to be seen as a major issue, with only 32 percent of respondents selecting this choice (see Figure 27). Respondents were slightly more likely to consider *Diversity, Equity and Inclusion* a major issue, moderately more likely to see *Quality of Life* or *Sustainability and Climate Change* as major issues, and far more likely to see *Public Safety* and *Homelessness* as major issues worthy of additional City resources.

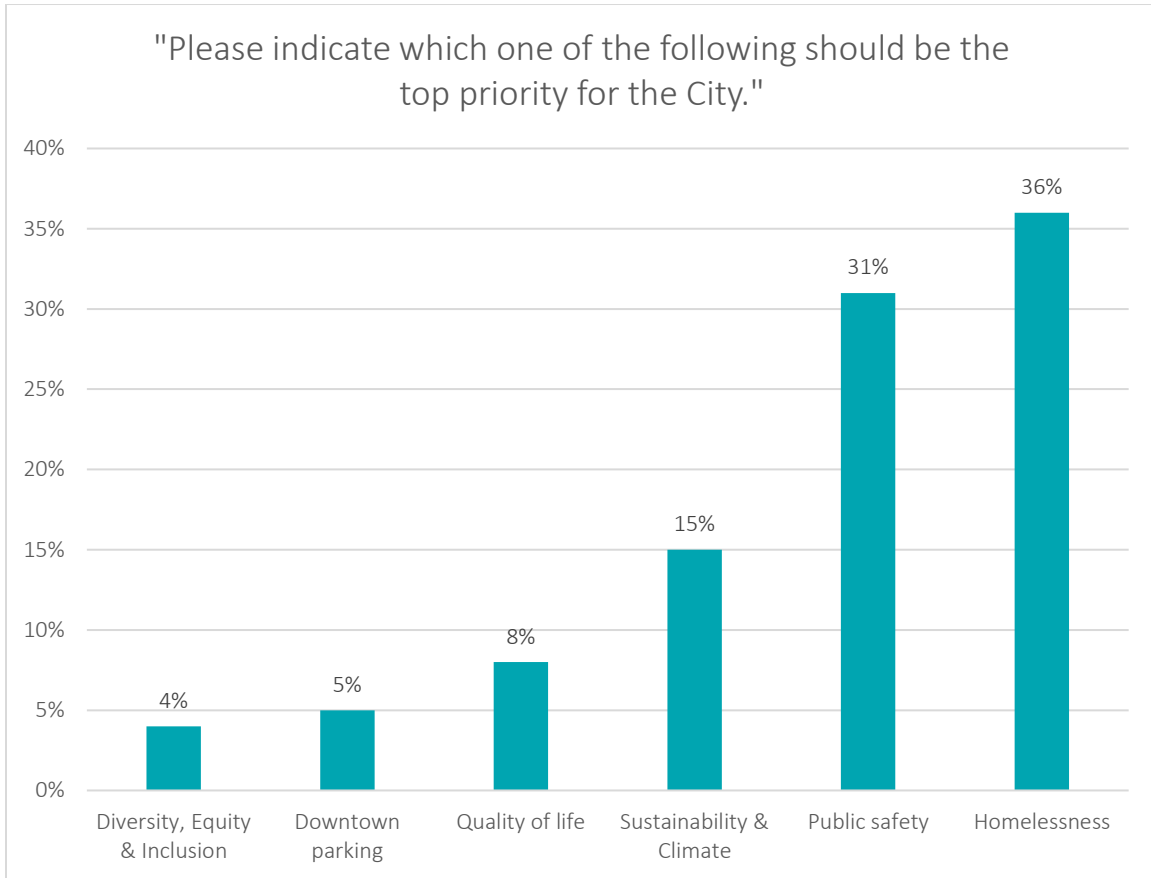
Figure 27: Issues Seen as Major Priorities for City Resource Allocation



Source: Walker Consultants, 2023.

When asked to select a single top priority for the City to address out of the six issues mentioned above, survey responses revealed similar priorities. Only five percent of respondents believed *Downtown parking* should be the top priority, compared with four percent selecting *Diversity, Equity and Inclusion*, eight percent selecting *Quality of Life*, 15 percent selecting *Sustainability and Climate Change*, 31 percent selecting *Public Safety*, and 36 percent selecting *Homelessness* (see Figure 28).

Figure 28: Respondents' Top Priorities for Redlands



Source: Walker Consultants, 2023.

Employee Surveys and Conversations

Employee Parking Locations

Walker contacted employees on five sample blocks within the study area: Block 13, Block 18, Block 19, Block 25, and Block 26 (refer to Figure 29). Table 9 shows the number of employees contacted on each sample block, as well as the number of employees parking in private parking reserved for them, other private parking, public street parking/the Ed Hales Park parking lot, or the public parking structure on Citrus Avenue across from Block 13.

Employees and business owners on Block 25 or 26, at the east end of the downtown study area, were most likely to have an off-site private parking space available. Approximately two-thirds parked in a reserved off-street space; the majority of the others parked on the street. Slightly over one-third of those working on Block 18 or 19, near the middle of downtown, reported parking in a reserved private off-street space. Employees on these blocks were most likely to report finding parking in a private lot that was not necessarily associated with their business. The only employees who reported parking in the Citrus Avenue Parking Structure were those who worked on Block 13, directly across from the structure.

Table 10: Employee Parking Locations

Block	Number of employees contacted	Private parking (Reserved for them)	Private parking (Other)	Street parking (or Ed Hales Parking lot)	Citrus Avenue Parking Structure	Didn't drive to work
13	39	8%	5%	18%	67%	3%
18	36	42%	25%	33%	0%	0%
19	31	32%	65%	3%	0%	0%
25	25	52%	12%	36%	0%	0%
26	49	76%	0%	22%	0%	2%

Source: Walker Consultants, 2023.

Figure 29: Downtown Redlands Study Area



Source: Walker Consultants, 2023.

Employee Feedback

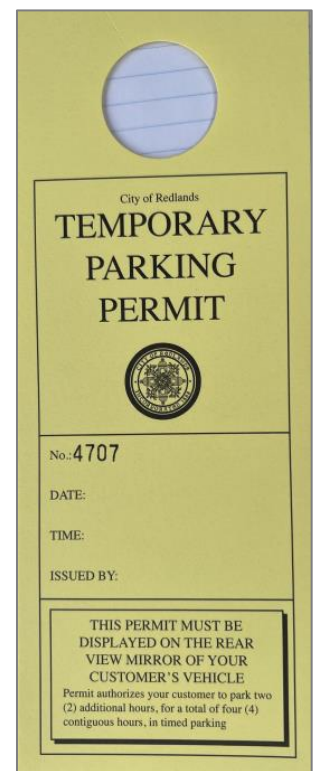
Many employees had time to share additional details, feedback, or opinions about parking in Downtown Redlands. Appendix B provides all comments shared by employees on each of the sample blocks. From these comments, the following key themes emerged:

- Downtown visitors park in the private spaces that are supposed to be reserved for their business (7)
- Safety concerns lead employees to park as near their place of employment as possible (7)
- Lack of convenient spaces or ADA spaces available for customers is an issue (6)
- Time limits are an issue (6)
- Many employees move their cars every two hours (3)
- Street closures and events are difficult for businesses (3)
- Lack of enforcement is appreciated or counted on (3)
- Lack of enforcement is a problem (2)
- Customers and employees may arrive late due to parking difficulties (2)
- Employees can't leave during their lunch break, or they'll lose their parking space (2)
- Lack of parking is an issue for deliveries/bulky purchases (2)

Other comments from employees included the following:

- At least one business rents employee parking spaces at the nearby YMCA through the City.
- At least one business purchases temporary one-time permits from the City (pictured) to extend street parking time limit for their customers when they hold classes or events.
- Advanced notice from the City of events that affect parking would help businesses make decisions.
- Employee tandem parking may be part of the solution.
- A downtown trolley or electric scooter share could be part of the solution.
- Citibank underground lot may be a good temporary solution for employee parking.

Temporary Parking Permit



Source: Walker Consultants, 2023.

Business Outreach Summary

On 11/9/22, Walker held two in-person meetings for the Downtown Redlands business community, at 8:30 am and 5:30 pm. Approximately 20 people attended each meeting. Walker presented the goals of the Downtown Parking Study project and reviewed parking approaches from the General Plan and the Transit Villages Specific Plan in the context of new growth coming to Redlands. Walker asked participants for feedback on their experiences with parking to help inform strategy development and the implementation plan. Business owners shared their thoughts on how parking affects their businesses, expressed their parking-related concerns, shared parking management ideas they believed were promising for Redlands, and shared examples of places they thought managed parking well.

Parking-Related Concerns

- Many participants expressed their concern that the lack of convenient available parking drives potential customers away. Someone noted this was especially problematic for retail businesses, because people would schedule appointments for professional services or schedule plans to meet friends at a restaurant and have less flexibility in their plans.
- Several participants said that a few employees and business owners might park all day in prime downtown spaces, which they believed should be left available for customers.
- One participant mentioned that Downtown Redlands did not regulate or have dedicated space for delivery vehicles, and as a result, they often took up multiple parking spaces during business hours (also creating noise and pollution).
- Several owners mentioned that events that block off parking spaces and restrict vehicle access hurt their businesses.
- Several people expressed concern that the lack of available parking regularly causes the public to park in private off-street spaces reserved for their businesses.
- Difficulty finding parking prevents potential customers from going Downtown on their lunch break when they only have an hour.
- Having to park and walk a long distance is especially unpleasant in the summer heat.
- Many participants expressed concern that the new development would reduce the supply of parking currently used by Downtown visitors and employees, while also creating new parking demand.
- Many participants were worried about safety and did not feel safe walking Downtown or entering a parking structure at night. Safety concerns often caused employees and business owners to park as near their workplace as possible, and some of their customers felt unsafe as well.

Fully occupied street parking in Downtown Redlands.



Source: Walker Consultants, 2023.

Ideas for Parking Management

- Some people suggested that Redlands needed to construct a new parking structure with more convenient access to State Street. They did not think many people would be willing to walk from the new 385-space structure on Stuart Avenue near the Santa Fe Depot.
- Some people believed Redlands should use pricing to ensure some convenient spaces remain accessible for customers making short trips and to discourage longer-term parkers from parking in prime spaces. One person mentioned that the City could give preferential rates to residents.
- Several people suggested that a tram, shuttle, or trolley could transport employees and customers Downtown.
- Someone mentioned that shaded parking spaces would be appreciated in the hot summer months.
- Multiple people believed stronger parking enforcement would help the parking situation. One person suggested stricter 30-minute time limits for prime spaces on State Street.
- Some people suggested that existing parking—such as the City Hall or Centennial Plaza spaces—could be opened up and shared with employees or the public to help manage demand.

Places that Manage Parking Well

- One participant suggested the City look to Santa Monica and Pasadena as examples of communities that manage their parking well. Both cities keep an attractive and walkable downtown by having few off-street parking lots, providing parking structures, and using pricing to manage on-street parking. Old Pasadena has a “parking benefit district” in which parking meter revenues are returned to downtown businesses, who choose to use the revenue to fund security patrols, cleanliness, street beautification, and additional parking projects in the downtown area.
- Another participant suggested the City look to Hawaii as an example of a convenient way to charge for parking. They explained how Hawaii has signs with QR codes for visitors to scan and pay for parking based on their length of stay, with the ability to add additional parking time from their phones rather than having to walk back and feed a meter.

Walkability in Downtown Santa Monica



Source: *Santa Monica Travel & Tourism*, 2023.

Review of Existing Materials

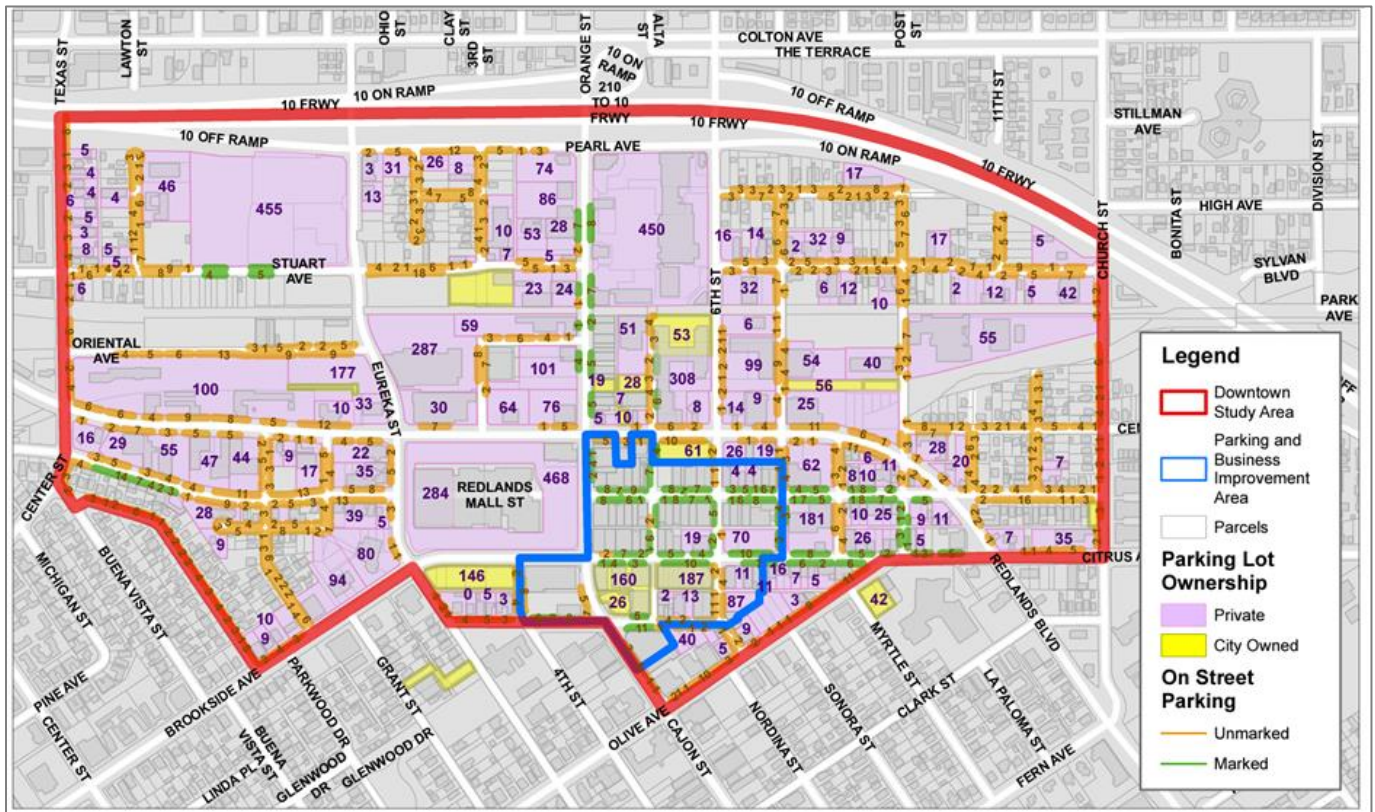
The City of Redlands has already recognized how parking management can help a place become more livable, environmentally friendly, and economically vibrant. In 2017, the Initial Downtown Parking Study was conducted to begin exploring parking conditions and opportunities in Redlands. Its study area was larger than the current study area and extended beyond the core downtown. Parking is also a key feature of the Transit Villages Specific Plan, approved in October 2022. The Transit Villages Specific Plan provides parking objectives, parking management strategies, and a section dedicated to parking strategy and improvements for the downtown area. The following sections of this document will provide an overview of the information and ideas contained in these plans.

2017 Initial Downtown Parking Study

The study explored parking conditions and opportunities for Downtown Redlands. The area covered corresponded to the boundaries of the area of the Downtown Specific Plan (later repealed and replaced by the new Transit Villages Specific Plan). The 2017 study also referenced a “Parking and Business Improvement Area” in which on-site parking was not required for downtown businesses near the Ed Hales Park parking lot and Citrus Avenue parking structure, but the Parking and Business Improvement Area was disestablished in 2011 by Ordinance 2760.

The study included a thorough inventory of the locations of marked and unmarked street parking spaces, private parking lots and structures, and City-owned parking lots and structures (see Figure 30).

Figure 30: Parking Space Inventory from 2017 Initial Downtown Parking Study Area

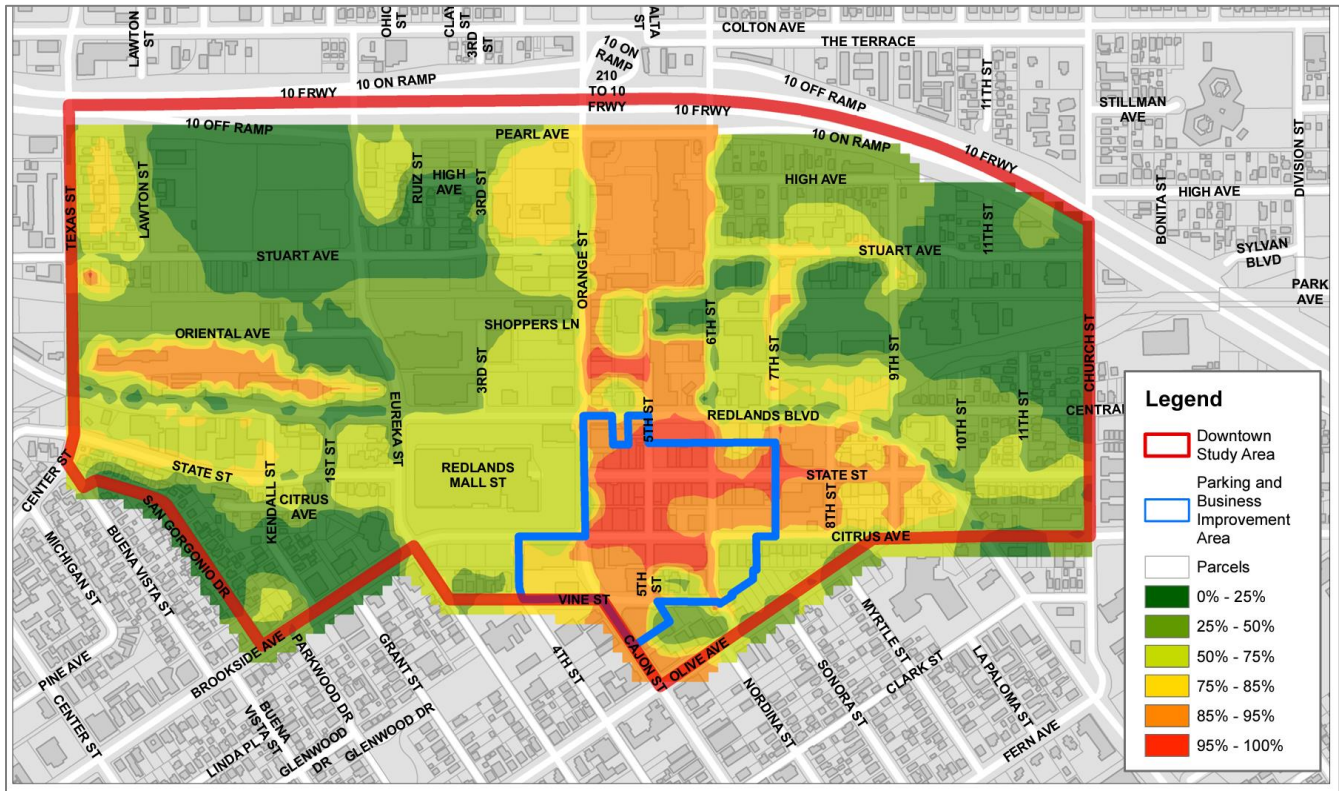


Source: 2017 Initial Downtown Parking Study, 2017.

The inventory included 586 spaces in City-owned facilities, approximately 1,915 on-street spaces (450 marked), and 5,560 private commercial parking spaces. The boundaries of the current parking study have been updated to focus on the core downtown area near State Street, where the highest parking occupancies are observed, but the more geographically comprehensive map created for the initial study may be useful to inform potential opportunities outside the immediate study area.

The initial study also shared the results of parking occupancy counts, revealing peak weekday demand to occur between 12 p.m. and 2 p.m. (with over 90 percent utilization for city lots and 60 to 70 percent for private lots in the downtown core) and between 6 p.m. and 9 p.m. on Thursday Market Nights. The Redlands Mall lot was only 55 percent full during peak weekday hours but was 100 percent full for Thursday Market Night. Figure 31 displays the parking utilization rates observed during peak demand hours by area throughout Downtown.

Figure 31: Average Peak Hours Parking Utilization from the 2017 Initial Downtown Parking Study



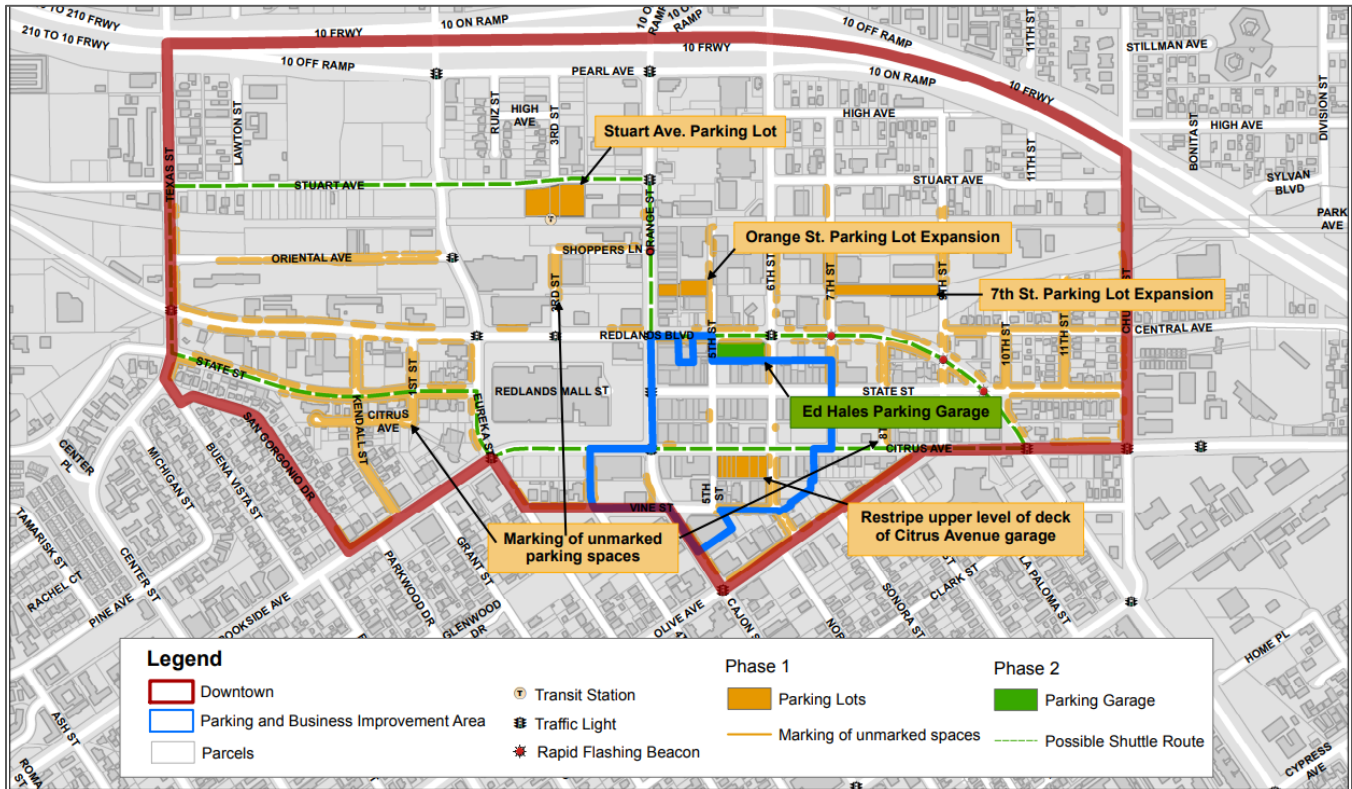
Source: 2017 Initial Downtown Parking Study, 2017.

The study mentioned that the City had an agreement with the owner of the Centennial Plaza to permanently provide 53 spaces for public use. These spaces are not well advertised as public parking, and the parking garage rarely exceeded 25 percent occupancy even during peak Market Night hours.

In addition to providing parking inventories and occupancy data, the initial study explored current parking management practices and future opportunities. It found there was no charge for parking Downtown other than a few lot spaces leased to individual businesses. There were also no programs to incentivize off-street parking for employees and long-term parkers. Many spaces in the Downtown core had two- or three-hour parking time limits, with the Police Department responsible for enforcement. The study introduced paid parking through “pay and display” kiosks as a possible method of encouraging the turnover of prime spaces.

Other ideas included in the initial study were restriping and expanding existing parking lots, providing additional public parking through private development, improving wayfinding and signage, improving the pedestrian crossings to access the Centennial Plaza, reaching out to downtown business owners for shared parking solutions, and improving lighting and security at parking lots and structures. Longer-range ideas included creating a structure at the Ed Hales lot or implementing a downtown parking shuttle between public parking areas and busy destinations (Figure 32 displays the proposed shuttle route).

Figure 32: Parking Improvements Plan from the 2017 Initial Downtown Parking Study



Source: 2017 Initial Downtown Parking Study, 2017.

Finally, the initial study discussed options for potentially financing additional public parking downtown. Redlands already has a downtown parking fund, through which the sale of City property could fund additional parking. Bond financing, business license fees, special assessment districts, cost recovery through paid parking, leasing, and public private partnerships are additional mechanisms through which the City could fund additional parking or other mobility improvements in the downtown.

Transit Villages Specific Plan

The Transit Villages concept is a defining feature of Redlands’ 2035 General Plan. Transit villages are meant to be economically vibrant and environmentally friendly places in which people can live without vehicle dependency, where multiple destinations are located within close proximity, and where walking, biking, and public transit are appealing and convenient modes of transportation. Formally adopted in October 2022, the Transit Villages Specific Plan contains greater detail and includes a chapter that provides parking objectives and management strategies for the areas near these train stations. This plan includes a chapter section dedicated to parking strategy and improvements for the downtown area. The Transit Villages Specific Plan replaces the former Downtown Specific Plan. The plan introduces the following vision:

“...to create a cohesive town center with abundant amenities and pedestrian-oriented streets...to encourage a mix of uses to promote economic vitality, create a pedestrian-oriented environment, maintain a distinctive character based on the city’s historical elements, and enhance the civic realm through vibrant streetscapes.”

The Parking Objectives section addresses the need to find the right balance between supplying adequate parking without supplying more than necessary. The Parking Management section speaks to the importance of the 85 to 90 percent utilization threshold, explaining how parking occupancies that exceed this threshold may frustrate visitors and lead potential customers to choose to do business elsewhere. When parking occupancies are below this threshold, parking management strategies seem unnecessary. When ample parking is available, people may be less open to using sustainable modes of transportation like walking, biking, carpooling, or taking public transit, parking farther from their destinations and walking, or paying for a prime parking space. The plan explains that when occupancies reach the threshold, people are typically more willing to change their parking expectations and behavior and support parking management strategies. Parking management measures may relate to:

- **Demand:** Parking demand can be reduced through actions that make alternative modes of transportation more attractive, such as creating more bike lanes and bike parking, providing transit pass discounts, or developing incentive programs to encourage downtown employees to walk or bike to work.
- **Location:** Parking management can help shift demand from primary parking locations to secondary locations in the surrounding area. This requires clear signage and wayfinding to inform motorists of available parking and inviting pedestrian routes that increase the distance people are willing to walk to their destinations. Permits can also help prioritize certain parking locations for certain user groups.
- **Time:** Time limits are mentioned as a way to encourage turnover in busy areas and keep spaces available for short-term users. Time management strategies also consider ways to use parking space more efficiently based on the time of day or day of the week. For example, spaces might serve as a loading zone in the

Bike Parking on State Street



Source: Walker Consultants, 2023.

early morning and public parking during business hours. Church parking lots could serve the public during weekdays, and office parking lots could be made available to the public on weekends and at night.

- **Price:** Charging for priority parking spaces during peak hours is another way to encourage turnover and help create availability, while also generating revenue which can be kept in the area and used for things like sidewalk upkeep, cleaning, safety and security, marketing, wayfinding, streetscape improvements, and alternative mode programs, such as discounted transit passes. Another pricing strategy involves requiring in-lieu fees of businesses that rely heavily on public parking.
- **Supply:** Supply-focused strategies may involve building new facilities, requiring new developments supply a minimum number of parking spaces or bike parking spaces, or allowing and encouraging shared use agreements so that existing parking is more efficiently utilized.

The “Downtown Parking Strategy and Improvements” section sets forth the goal of more efficiently managing existing parking downtown and providing any additional future parking in structures, rather than surface lots, to maintain a walkable and pedestrian-friendly downtown environment. Ideas for downtown include:

- **Preserve convenient street parking** for visitors running quick errands or grabbing a cup of coffee.
- **Accommodate passenger rail commuters** with a parking garage on Stuart Avenue that also includes bike parking and drop-off locations.
- **Improve the pedestrian environment** with amenities like shade trees, sidewalks, lighting, and benches.
- **Manage existing parking resources** more efficiently by:
 - Encouraging properties with surplus parking to enter shared use agreements with other properties or allow public use of some of the parking.
 - Encouraging downtown employees to use off-street parking lots and garages.
 - Creating maps and brochures that show where parking is available.
 - Installing wayfinding and signage to direct visitors to the appropriate parking facilities.
 - Making existing parking more attractive by improving lighting and security.
 - Introducing valet parking.
- **Introducing time limits** in locations where parking utilization exceeds 90 percent.
- **Charging for parking** in areas where parking utilization exceeds 90 percent even after time limits are introduced and allocating revenue to support the needs of the downtown.
 - Revenue from street parking can support programs such as cleaning, safety, marketing, lighting, bicycle facilities, or sidewalk enhancement.
 - Revenue from parking lots and garages can be reinvested back into the operation, maintenance, and security of off-street parking facilities, or the construction of new facilities.

Downtown Redlands Station



Source: Walker Consultants, 2023.

- **Establishing a Downtown Transportation Improvement District** to manage all parking operations in the downtown area, and if paid parking is introduced, to set parking rates and allocate revenues for improvements within the Downtown Transportation Improvement District boundaries.
- **Encouraging the use of sustainable transportation modes** to reduce parking demand by using parking revenues to introduce transportation demand management measures like parking cash out programs, transit pass offerings, bike programs, and car sharing programs.
- **Increasing the amount of downtown parking available to the public** to allow for efficient management and the sharing of parking resources.
- **Modifying the code requirements** to reflect the needs of a transit-oriented development area.
 - Unbundling parking so that spaces are sold or leased separately from residential units, allowing residents without cars to avoid paying for parking they don't use and freeing up spaces for those who need it.
 - Allow all downtown parking to be shared among all uses rather than allowing shared parking agreements only for more limited combinations of uses, projects, or developments.

Entrance to Centennial Plaza Garage



Source: Walker Consultants, 2023.

The Transit Villages Specific Plan also recommended several measures (establishing a flat parking requirement for all commercial uses, allowing parking requirement exemptions, increasing the allowable distance of off-site parking facilities, and reducing parking requirements for projects willing to share their parking supply) that are no longer relevant to transit-oriented development (TOD) areas with the passage of AB 2097. The Downtown Parking Standards Review section provides further detail on the impact of this new state legislation, which prohibits minimum parking requirements within a half-mile of public transit.

Finally, the Downtown Parking Strategy and Improvements section recommends any additional downtown parking be provided in structures, and suggests four potential locations:

- **Stuart Avenue Parking Garage** - This project was completed while the Transit Villages Specific Plan was still undergoing the approval process. The new structure includes 385 spaces, with 200 spaces available for public use.
- **Redlands Mall Garage** – The plan suggests that the redevelopment of the Redlands Mall site should include parking that be made available to the public.
- **Ed Hales Parking Garage** – In the mid- to long-term, the City could accommodate approximately 160 vehicles by building a parking structure at the existing site of the Ed Hales parking lot.
- **Seventh Street Garage** – In the long-term, the City could construct a new garage with between 200 and 400 spaces to serve the developments in the area bounded by Orange Street, Redlands Boulevard, Church Street, and the Freeway.

These locations were chosen to provide convenient access to the passenger rail station and State Street corridor, as well as to intercept traffic coming from the east and north to reduce traffic circulation in the core downtown area. The plan also mentioned the potential for creating public private partnerships to develop parking structures on existing downtown surface lots that are privately owned.

Downtown Parking and Standards Review

Parking Time Limits and Extension Program

Currently, parking management in Downtown Redlands is limited to time limits; there are no paid parking areas. In approximately 1999, a Downtown Redlands Extended Parking Permit Program was created in which businesses could purchase, on behalf of their clients, permits allowing for one-time overstay of the parking time. Permits cost fifty cents. The program was mainly used by hair salons and by the Redlands Sewing Center when offering classes.

Downtown Parking Standards and Requirements

Work on the Draft Transit Villages Plan for Redlands began in 2017, and the plan’s development code chapter included parking standards for the downtown area (see Figure 33). These standards were meant to update the previous development standards to better align with characteristics and goals of a walkable mixed-use area with accessible public transit.

Figure 33: Downtown Parking Requirements in the Transit Villages Specific Plan

D. Parking Requirements			
1. Off-street parking spaces shall be provided for each land per the below standards. See Section 4.12 for additional parking requirements.			
a. Residential		d. Commercial (Retail/Office/Restaurant)	
i. Units up to 999 sf:	1.0 space/unit	i. Ground floor commercial:	1/300 sf gross ground floor building area
ii. Units between 1,000 – 1,499 sf:	1.5 spaces/unit	ii. Upper Floor commercial:	1/350 sf gross upper floor building area
iii. Units 1,500 sf and greater:	2.0 spaces/unit	e. Standalone Restaurant*:	1/150 sf gross restaurant area
iv. Guest:	0.25/unit	f. Civic:	1/350 sf gross building area
b. Lodging:	0.75 space/room	g. Mixed-Use: See Section 4.12.C.4 (Spaces for Multiple Uses and Mixed-use Developments).	
c. Live/Work		* A single restaurant, café, or similar business in a single building on a single parcel with on-site parking dedicated to the single restaurant use.	
i. Units up to 1,499 sf:	1.0 space/unit		
ii. Units 1,500 sf and greater:	See Commercial		

Source: *Transit Villages Specific Plan, Chapter 4, page 18, 2022.*

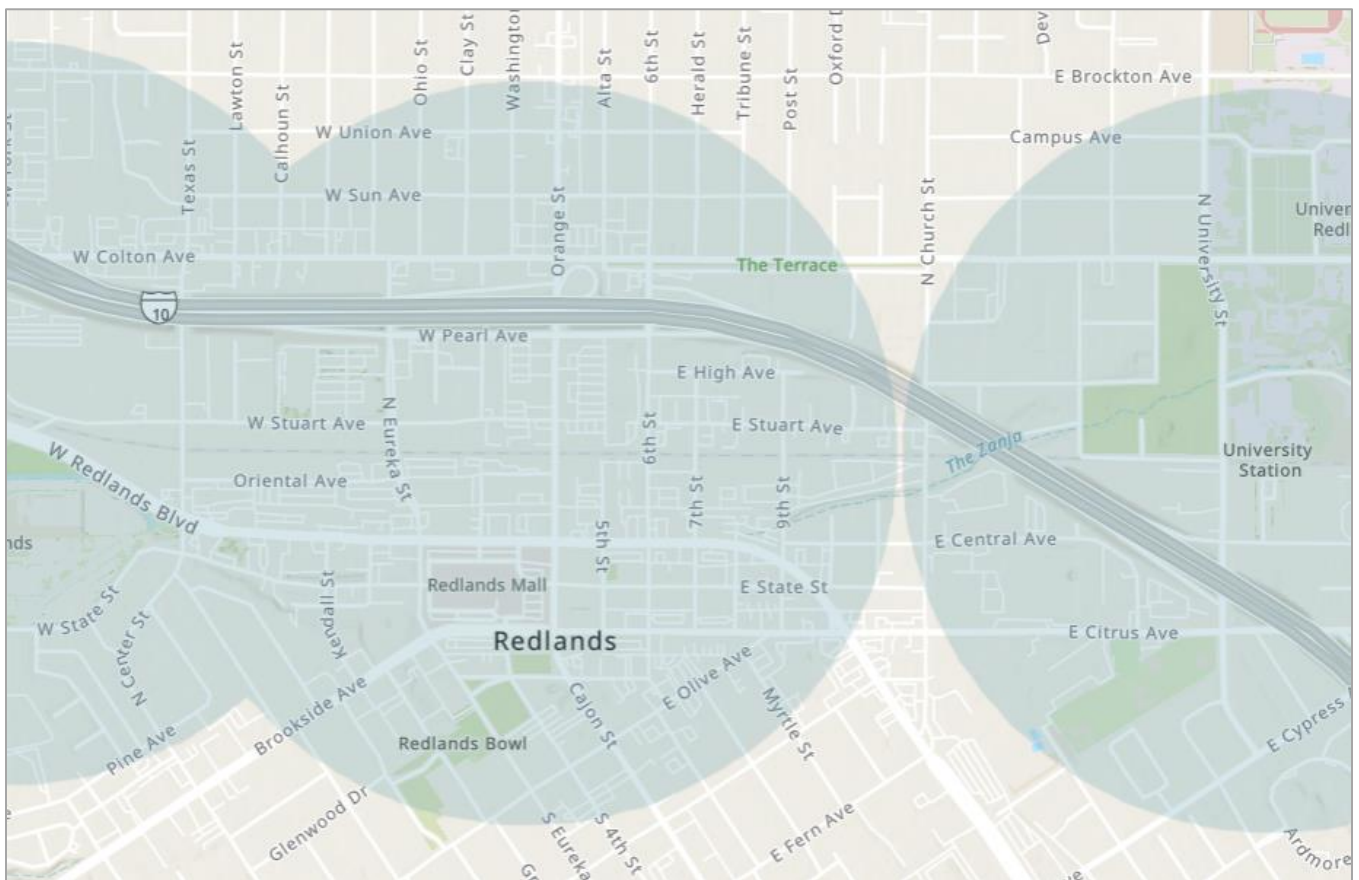
The chapter also established allowances for tandem parking, compact parking, and off-site parking, and it offered parking requirement reductions for projects with shared parking or that provide carpool spaces, transit incentives, flex-car sharing programs, secure bike parking with showers and lockers, or other transportation demand management (TDM) measures.

AB 2097

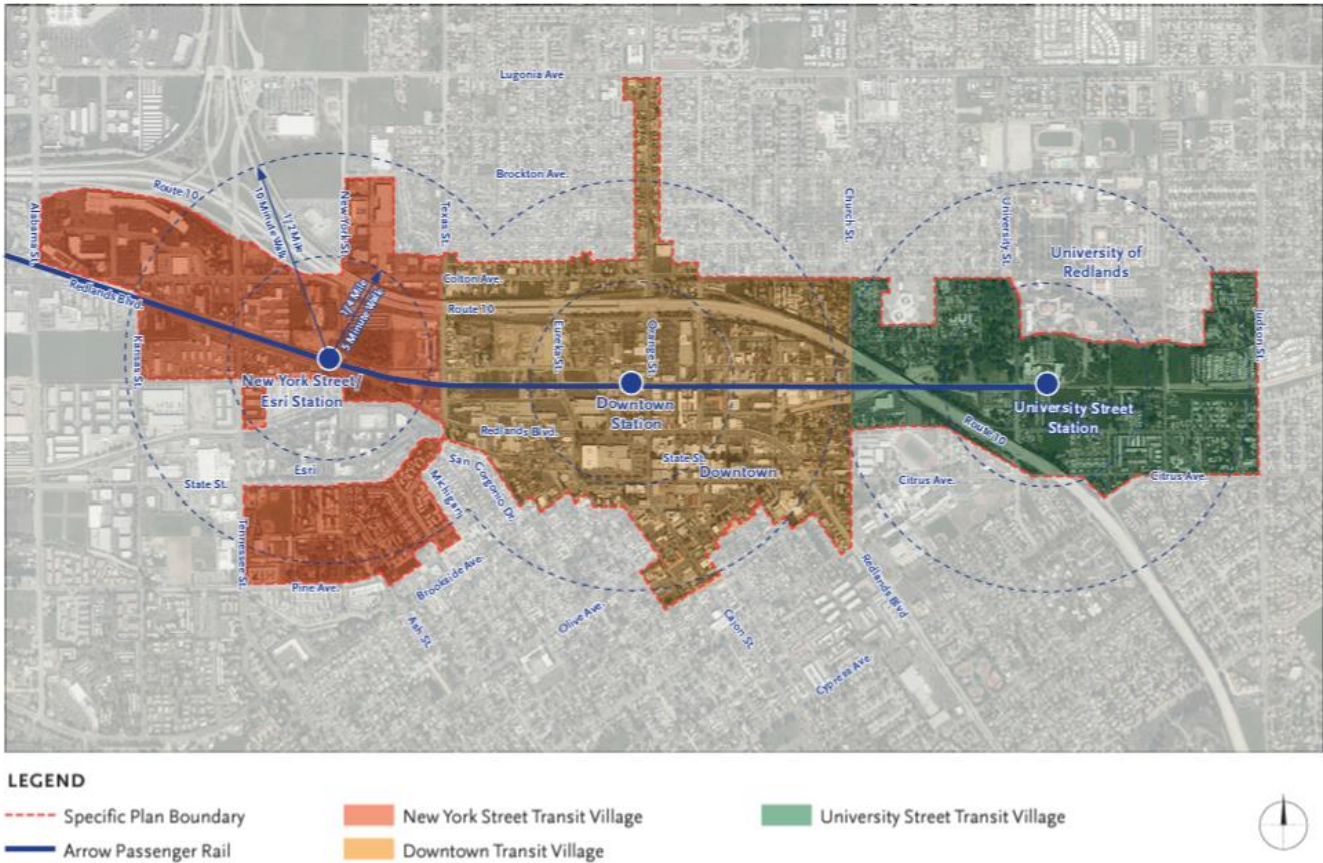
However, new state legislation renders the parking requirements of the Transit Villages Specific Plan inapplicable to most of the Downtown Transit Village area.

Assembly Bill 2097, adopted in September 2022, prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on a residential, commercial, or other development project if the project is located within one-half mile of public transit. “Public transit” includes any existing rail or bus rapid transit station. This means the parking requirements no longer apply within a half mile of the Downtown Redlands Station, and this “High Quality Transit Area” (see Figure 34) roughly encompasses the entire Downtown Transit Village area (see Figure 35). Only a few small areas of the Downtown Transit Village area, such as the small segment of Orange Street just north of Brockton Avenue and the segment of Redlands Boulevard just south of Citrus Avenue are outside the half mile radius from the rail station.

Figure 34: Downtown Redlands “High Quality Transit Area” Coverage



Source: High Quality Transit Areas (HQA) 2045 – SCAG Region, Southern California Association of Governments, 2021.

Figure 35: Redlands Transit Villages Specific Plan Area Boundaries


Source: Transit Villages Specific Plan, Chapter 1, page 5, 2022.

AB 2097 prohibits public agencies from imposing minimum parking requirements, but it also says that when a project provides parking voluntarily, a City may impose requirements on the parking, such as requiring spaces for car share vehicles, requiring spaces to be shared with the public, or requiring parking owners charge for parking. Therefore, it may be possible that some type of parking standards could still apply to the downtown area. Alternatively, it may still be possible to encourage projects to provide carpool spaces, transit incentives, flex-car sharing programs, secure bike parking with showers and lockers, or other transportation demand management measures even without being able to offer a reduction in parking requirements. The next section explores some of the development standards and parking management practices used by other cities to advance sustainable mobility goals.

Case Studies of Parking Management Best Practices

Because most of Downtown Redlands falls within a half mile of public transit, state law prohibits the City from imposing minimum parking requirements in the area. This limits several options that may have previously been available: pursuing a supply-focused approach to parking management centered on individual sites, using parking in-lieu fees to fund the development of centralized public parking, and using a potential reduction in parking requirements to incentivize development projects to include features that encourage the use of sustainable transportation. When cities no longer rely on minimum parking requirements to ensure excessive parking supply or alternative options, parking management becomes even more important.

This section explores three case studies of parking management in the following cities:

1. Santa Monica, CA
2. Pasadena, CA
3. Cambridge, MA

The cities were selected for their best practices in parking management and access. Their strategies include integrating parking with transportation demand management development standards, implementing a parking benefit district, creating a Traffic Reduction and Transportation Improvement Fee for new development, pricing public parking based on demand, and encouraging public and shared parking.

Santa Monica, CA

Santa Monica is a mid-sized city that attracts millions of visitors each year. Because of the high number of visitors, the City has developed a robust parking program that maintains the walkable character of the downtown, provides clear information to drivers, ensures parking is available for those who need it, and mostly avoids subsidizing the cost of driving. Santa Monica also reduces parking demand indirectly through programs designed to reduce the vehicular traffic associated with employee commuting and new developments.

The City created a Downtown Parking Assessment District, where projects had the option to pay an in-lieu fee of \$20,000 per required parking space they did not provide. The City also created an overlay district where the development of new above-ground parking is prohibited, which encouraged developers to pay the in-lieu fee rather than create new parking that would deteriorate the pedestrian-friendly environment. Funds were dedicated to a Downtown Parking Fund and used to finance the expansion of the public parking supply or trip reduction strategies. The City developed a large supply of public parking with the help of in-lieu fees, but also focused heavily on demand management. Ultimately, Santa Monica's demand management was so effective that the City found it had built more parking than necessary and approved the demolition of a public parking garage.

Some of Santa Monica's parking demand management strategies include:

- Pricing zones and rate adjustments
- Special event rates
- Parking cash-out
- Unbundled parking

Demand-Based Parking Rates

The municipal code establishes a base rate of \$2 per hour for street parking in the downtown and \$1 per hour in other meter zones, and it gives the City Manager or designee the authority to adjust these rates up or down 25 cents every six months to achieve target occupancy. Downtown street parking rates rose to \$2.50 per hour, and rates elsewhere rose to \$1.25 per hour. The hourly rates for public lots and garages are lower, which attracts longer-term parkers to off-street parking and increases turnover of the more convenient on-street spaces, which supports local businesses. The City also supports local businesses by offering free parking in structures for the first 90 minutes, an initiative that works without excessive enforcement efforts because the parking structures have gates that record the time of entry. Some parking structures have three-hour time limits for more convenient lower-level parking but allow all-day parking on upper levels.

When there are special events, the City charges higher rates for structure parking, and charges per entry rather than hourly. The Special Event Rate is \$30 during a weekday event and \$35 during a weekend event. These rates are higher than the typical daily maximums of \$20 during the weekday and \$25 during the weekend.

Parking Discounts for Downtown Residents and Employees

Downtown residents who live in buildings without on-site parking are eligible to purchase monthly parking permits. Downtown employers are eligible to purchase monthly, semi-annual, or annual permits for their employees to park in certain public facilities. Santa Monica is also running a Downtown Employee Validation Pilot Program that offers reduced daily rates, allowing employees to pay \$6 to receive validation for 6 hours of parking or \$9 to receive validation for 12 hours of parking. Daily parking is preferable to monthly parking, as studies have shown car use is almost doubled where employees can pay monthly instead of daily.¹

Initiatives to Reduce Employee Parking Demand

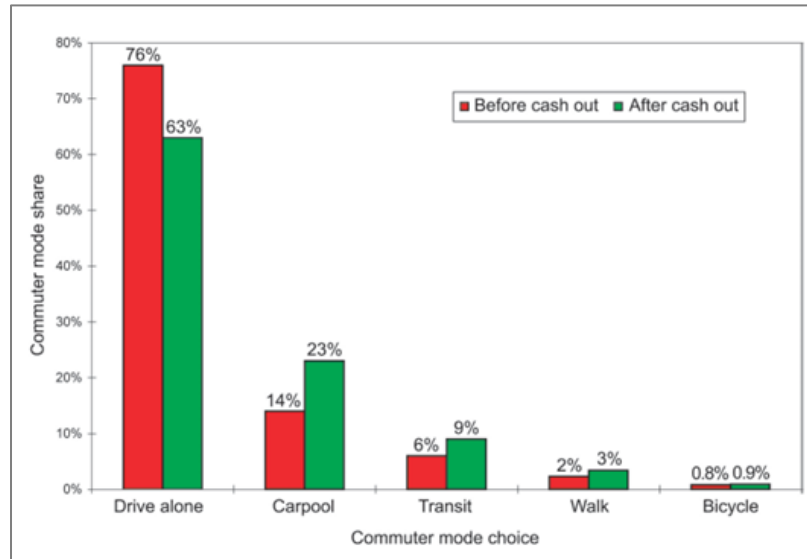
Santa Monica also provides a model for reducing employee parking demand through their Transportation Management Ordinance requirements. The City requires all employers with over 10 employees to pay an Employer Annual Transportation Fee per employee, which covers the cost of administering the ordinance. As part of the ordinance, Santa Monica targets an average vehicle ridership (AVR) of 1.5 or higher, and employers who achieve this target may receive a 60 percent credit on their annual fees.

The Transportation Management Ordinance requires employers to submit an annual Emissions Reduction Plan with transportation demand management initiatives including marketing strategies, support strategies, and subsidy-based strategies. Santa Monica uses Emissions Reduction Plan reporting to ensure employers comply with the state's parking cash-out law, which requires that large employers who lease their parking and offer free parking to employees must also offer the option of receiving the equivalent cash value. When employees have the option to choose cash instead of a free parking space, fewer people choose to drive alone to work, and the total parking demand is reduced. A sample of eight case study employers offering parking cash-out, including two

¹ Christiansen, Engebretsen, Fearnley, and Usterud Hanssen. 2017. "Parking facilities and the built environment: Impacts on travel behaviour." *Transportation Research Part A: Policy and Practice*, Volume 95: 198-206. <https://doi.org/10.1016/j.tra.2016.10.025>.

in Santa Monica, revealed that parking cash-out reduced solo commuting by an average of 13 percent, with corresponding increases in carpooling, transit use, walking, and biking (see Figure 36).

Figure 36: Commuter Mode Shares Before and After Parking Cash-Out



Source: *Parking Cash Out*, Shoup, 2005.

Unbundling Parking

Another way Santa Monica creates equity between drivers and non-drivers is by unbundling parking. The code requires that parking spaces be leased or sold separately from residential or commercial structures. This way, non-drivers are not required to pay for parking they don't need, and the parking spaces that exist will be used more efficiently. For residential developments, when the cost of parking is separate from the cost of housing, households are more likely to choose to reduce their vehicle ownership. Research has shown that after controlling for socioeconomic and built environment characteristics, the presence of bundled parking is associated with a 27 percent increase in vehicle miles traveled.² For commercial developments, requiring that parking be unbundled facilitates the enforcement of (and improves the effectiveness of) parking cash-out.

Transportation Impact Fees and TDM Plan Requirements for New Developments

Santa Monica has a Transportation Impact Fee program that requires developers to pay a fee based on the number of residential units or on the amount of square footage for non-residential developments. Establishing this program required a nexus study demonstrating the relationship between the expected transportation impacts of new developments and the fees required to address those impacts through transportation improvements and trip reduction strategies. For example, the transportation impact fee revenues may fund sidewalk improvements, bike parking, transit improvements, new bicycle and transit lane striping. Programmatic measures may include partnerships with sustainable mobility service providers. While other cities may have

² Pinski and Manville. 2018. "Parking behaviour: Bundled parking and travel behavior in American cities." *Land Use Policy*, Volume 91. <https://doi.org/10.1016/j.landusepol.2019.02.012>

transportation improvement fees that fund vehicle infrastructure, Santa Monica directs these funds toward projects that reduce vehicle traffic, which also helps manage parking demand.

The City requires Transportation Demand Management (TDM) plans for new developments with 16 or more residential units or at least 7500 commercial square feet. Strategies to reduce vehicle travel may include both programmatic measures, such as providing employees or residents with transportation allowances for transit passes, and site improvements, such as providing secure bicycle parking with electric charging for e-bikes.

Parking Maps, Signage, and Wayfinding

Santa Monica has clear signage displaying the location of public parking facilities, as well as the number of spaces available in parking structures. It also uses sensor technology to continually update a web page showing the location of off-street parking facilities and how full they are (<https://www.santamonica.gov/places/parking-lots>). The website makes it easy for visitors to plan ahead, and the signage at each facility helps visitors who are already in the area easily identify parking locations. The system also generates occupancy data, which can help guide potential rate adjustments.

Pasadena, CA

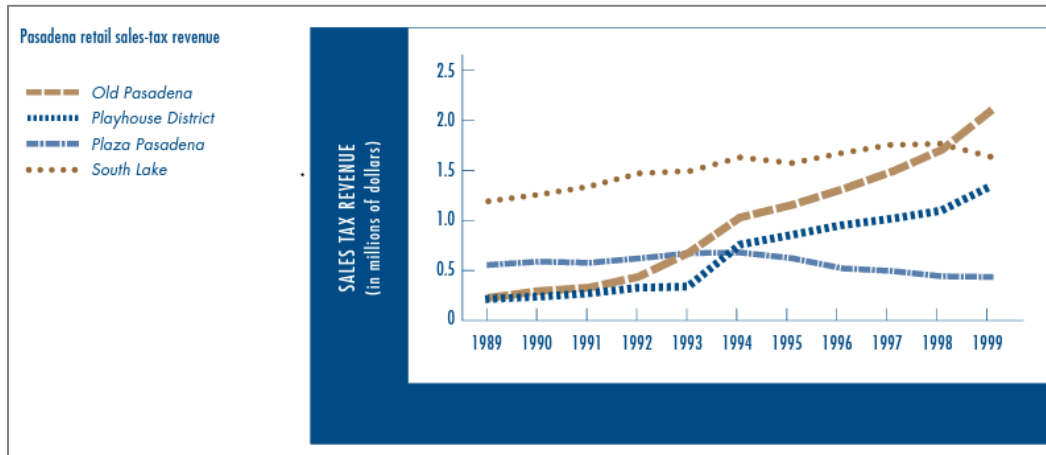
Pasadena is a mid-sized city in Los Angeles County with a thriving business district, Old Pasadena, that now attracts many visitors for shopping and dining. Old Pasadena was one of the earliest adopters of what has come to be widely accepted as a best practice in parking management, the “parking benefit district” model. Pasadena also uses pricing to ensure convenient street parking is available for short-term visitors, limits parking supply in transit-oriented development areas, and uses transportation impact fees to fund sustainable mobility projects.

Parking Benefit District

Initially, Old Pasadena had no parking management other than two-hour time limits. City staff suggested installing meters, but some business owners were concerned that charging for parking would discourage potential customers from visiting. Then, the City proposed using all parking revenue to fund public improvements within the parking meter zone and allowing advisory board members to control the use of revenue. Merchants and property owners accepted this idea.

The parking meters resulted in greater availability of convenient curb parking for customers, and customers willing to pay for parking seemed to be more willing to spend more money in Old Pasadena. Retail sales and tax revenue in Old Pasadena increased significantly following the installation of parking meters in 1993, including when compared to other commercial districts in Pasadena, as shown in Figure 37.

Figure 37: Retail sales-tax revenue in Old Pasadena before and after installing parking meters in 1993



Source: Access Magazine, *Turning Small Change Into Big Changes*, Kolozsvari and Shoup, 2003.

Meter revenues were used to fund street furniture, trees, tree grates, lighting fixtures, cleaning services, marketing, and security services and patrols for the area. These public improvements attracted more visitors, which resulted in higher meter revenues and created a “virtuous cycle” of continual improvements credited with revitalizing the downtown. A marketing campaign assured visitors that their parking fees would be used to benefit Old Pasadena.

In October 2022, Pasadena’s Director of Transportation provided the Old Pasadena Parking Meter Zone Advisory Commission with a report on the parking meter fund’s revenues, expenses, and projections through the end of the year. The fund was estimated to end with a balance of approximately \$1.6 million, with \$900,000 designated to cover operations and meter replacement expenses, and \$727,000 available for appropriations. The Advisory Commission is composed of seven members—three property owners in the area, three business owners who rent property, and one “at large” member who may be either. The commissioners guide the expenditure of meter revenue and recommend meter rate adjustments.

Old Pasadena Parking Meter



Source: *Parking Matters in Old Pasadena*, Kolozsvari and Shoup, 2018.

Parking Rates and Options

Like Santa Monica, Pasadena charges more for on-street parking than for parking in its off-street “Park & Walk” facilities. This helps ensure convenient spaces are available for customers.

- Street parking is \$1.25 per hour in the heart of Old Pasadena and \$0.75 per hour on the periphery.
- “Park & Walk” garages are \$1 for the first 2 hours and \$2 per hour thereafter, with a \$12 daily maximum.
 - The first 90 minutes may be free with validation from participating stores.
- Monthly garage parking permits are available for between \$70 and \$90 depending on the location.

Drivers can use the Passport Parking app to pay for metered parking, extend your parking sessions, and get reminder notifications. Monthly permits are available through the City.

Parking Maximums and Public Parking in Transit-Oriented Development (TOD) Areas

Pasadena's municipal code establishes *maximum* parking requirements for new development in its TOD areas. The strategy of limiting parking provision is meant to help the City achieve long-term sustainable mobility goals and reduce private vehicle ownership and use. The City allows an exception for commercial parking in excess of the maximum, provided that the parking is available for public use, that signs advertise the availability of public parking on the property, and that rates do not exceed the City garage rates by more than 150 percent. In this way, parking maximums can help incentivize the provision of publicly available parking.

Traffic Reduction and Transportation Fee

Like Santa Monica, Pasadena collects a development fee to offset the transportation impact of new developments and uses these funds not for roadway and vehicle infrastructure, but to improve pedestrian and bicyclist infrastructure and increase transit service frequency. Pasadena also requires new projects to submit transportation plans for individual sites based on project size, and the fee expands on this by funding already-planned projects or programs at a larger scale and helping the City make improvements where they will have the greatest impact. Rates are set per square foot for retail, office, and industrial developments and by the number of units for residential developments.

Cambridge, MA

The mid-sized city of Cambridge, Massachusetts stands out for the way it links parking with transportation demand management (TDM). While many cities have programs that offer new developments a reduction in minimum parking requirements for including TDM measures, Cambridge takes a different approach. In Cambridge, parking supply is what triggers TDM requirements that can help mitigate the vehicle ownership and traffic impacts associated with higher parking availability. The City favors TDM because it is less expensive than expanding roads and parking facilities, it improves environmental quality and livability, it can be put in place quickly and tailored to particular groups, it promotes social equity, it encourages efficient land use, and it corrects market distortions by revealing the true cost of people's travel options. Cambridge also recently eliminated minimum parking requirements throughout the City, and like Pasadena, has parking maximums in some areas.

Parking and TDM Ordinance

The ordinance requires TDM measures for nonresidential projects with at least five parking spaces. Small projects with under 20 spaces are simply required to include three TDM measures from a list provided by the city. Example measures include the following:

- Transit pass subsidies
- Bicycle parking and charging facilities
- Showers and lockers
- Carpool/vanpool matching
- Emergency ride home programs

- Financial incentives not to drive alone
- Hiring of local residents
- Shuttle programs
- Market-rate parking fees
- Daily parking fees rather than monthly
- Providing transportation information

Larger projects with at least 20 parking spaces must submit a Parking and TDM Plan that includes a drive-alone mode split commitment set at ten percent below the census tract average. The program requires annual reporting and monitoring, with adjustments required for projects that do not meet their mode share target. The City may issue fines or even restrict access to the development's off-street parking supply until compliance is attained. In 2014, 30 of 35 projects that submitted monitoring reports met or exceeded their drive-alone mode share reduction targets.³ Many projects affected by the ordinance were in the Kendall Square neighborhood, where the drive alone rate fell by 16 percentage points between 1990 and 2018.⁴ After the Parking and TDM ordinance was adopted, drive-alone rates fell throughout the city of Cambridge, even while they increased throughout the rest of the state.

Cambridge served as a national model for its approach to the relationship between parking and TDM, having introduced its ordinance in 1998. Since then, several other cities have followed in its footsteps. For example, San Francisco expanded on the idea by also applying it to residential projects and making requirements clear upfront for developers. The City provides a website with a menu of TDM options with a point value assigned to each, where the number of points-worth of TDM measures that a development must include is tied to its exact number of parking spaces, rather than the simple categories of small and large projects. In many places, a reduction in parking requirements has been used as an incentive to improve development projects. However, now that AB 2097 has eliminated this possibility for many areas, approaches like Cambridge's, where TDM requirements are based on parking supply, will likely become more popular and necessary in cities throughout California.

Variable Rates for Public Parking

Like Pasadena and Santa Monica, Cambridge uses pricing to manage parking demand. Parking rates vary, with higher charges in areas or during hours with higher demand. In addition to managing street parking, Cambridge has two public parking structures and nine off-street facilities. Rate variation examples include:

- Public parking facility rates range from 50 cents to \$3 per hour
- Some public lots have higher rates from 8am-6pm and offer lower rates from 6pm-10pm; other facilities do not charge at all in the evenings
- Reduced monthly fees for resident permit parking in garages varies by month (\$100 per month May through November, \$50 per month December through April)

³ City and County of San Francisco, TDM Technical Justification, 2018.

⁴ Mayors Innovation Project and State Smart Transportation Initiative, Modernizing Mitigation: A Demand-Centered Approach, 2018.

Parking Time Limits

Cambridge also uses time limits to manage parking. Most metered parking spaces have two-hour time limits, and some high turnover areas have 30-minute time limits. Most public surface parking lots have two-hour time limits during the day, and four-hour time limits in the evening. Time limits apply to designated zones, rather than individual spaces, so drivers are unable to simply move their car to another space to avoid a violation. Drivers who need to park for a longer time can park in the City's two public parking garages or private off-street facilities.

San Clemente, CA

Downtown San Clemente is a popular destination frequented by both residents and visitors. The core of San Clemente's downtown experiences parking shortages at peak times. When the City studied the parking supply it was found that although the public parking lots were at or near capacity, there was a surplus of 400 spaces in the private parking lots. Rather than constructing new parking resources, which is expensive, San Clemente developed the Parking Lot Lease Program. The cost is equivalent to maintaining a parking structure without the capital costs for the purchase of land and improvements. Put simply, the program opens the surplus parking in private lots by converting underutilized private parking lots to public lots, thereby increasing their usage and the available parking downtown.

The program came about as a result of complaints by downtown merchants that there was not an adequate supply of parking in the downtown area. To understand parking dynamics in the downtown, San Clemente hired Walker Parking Consultants in 2002 to develop a parking study and survey that analyzed parking supply and demand. The survey was conducted during the mid-summer, the peak parking demand period for this beachside community. The analysis concluded that the public parking spaces were heavily utilized while the private parking spaces, although in convenient locations, were not heavily utilized. The private parking lots were averaging 50 percent capacity utilization during peak demand periods. At the same time the public parking resources (public lots and public street parking) were nearly 100 percent utilized.

Walker and the City realized that the perceived deficiency of parking in downtown was actually a lack of available and convenient public parking, rather than a critical shortage of parking overall. Walker recommended that the City increase its effective supply of parking, and the perception of available parking, by making the underutilized private parking lots open to the public. It was understood that 100 percent conversion of private lots was not necessary. Rather, the conversion of several key private lots to public close to the downtown core was the goal. The challenge in leasing the private lots was to persuade property owners of the benefits of leasing their private parking lots. The City was able to identify several strong incentives that property owners wanted. Executed leases (see template in Appendix C) often included the following terms:

- Rental rate of approximately \$350.00/month/10 spaces; and
- City funded parking lot improvements including slurry seal and restriping; and
- City maintenance of parking lots; and
- City parking enforcement (which owners are reluctant to do because they do not want to offend their customers); and
- City hold harmless and indemnify private property owners from liability resulting from public use; and
- Wayfinding signage identifying the private lots as public lots; and

- Lease term of 1-year with automatic 30-day renewal thereafter (short term leases are more appealing to property owners who are considering future development of their property).

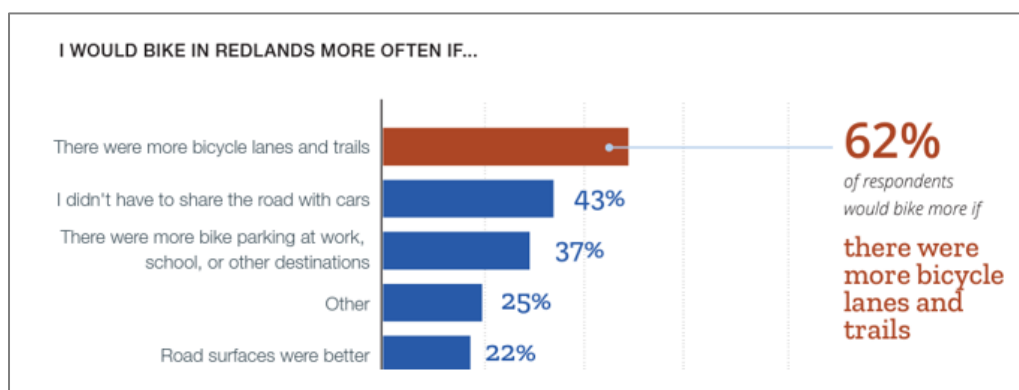
The terms of the lease proved to be enticing to private parking lot owners. Since the adoption of the program in 2003, at least nine property owners have participated in the program for an increase of 120 public spaces to the previous pool of 803 public parking spaces in the downtown, a 15 percent increase in the effective supply of public parking. Walker studies (in 2006, 2008 and 2010), confirmed that the privately-owned lots that were converted to public lots became more effectively utilized (averaging 80 percent utilization).

This program demonstrates how downtowns can increase their effective supply of public parking without a large commitment of public dollars. This program is unique because rather than increasing the overall parking supply by way of physical construction, better management of parking resources is employed, making better use of private parking supply by converting private lots to public use. The program can be successfully implemented in other communities that have an underutilized private parking supply. All it takes is some City initiative in opening private parking lots for public use and then trusting in the ability of smart entrepreneurial property owners to see the benefits of the program.

Application to Redlands

Like the case study cities, Redlands is also interested in promoting sustainable travel options. Redlands' Sustainable Mobility Plan seeks to increase the share of residents who bike, walk, and/or take transit to work by seven percentage points (from 4.8 percent to 11.8 percent) by 2030. Community-wide survey question responses reveal how TDM strategies can help Redlands achieve these goals; for example, 62 percent of residents reported that they would bike more if there were more bicycle lanes and trails, and 37 percent of residents noted that they would bike more if there were more bike parking at work, school, or other destinations (see Figure 38).

Figure 38: Community-wide Survey Responses



Source: *Sustainable Mobility Plan*, page 37, 2021.

The Sustainable Mobility Plan also shared the results of the survey question, "If you drive a car regularly for most of your trips, what barriers prevent you from walking, biking, or taking public transit more frequently?" Residents were asked to choose their top three barriers. The top barriers identified in the survey were lack of safe sidewalks and crossings and not feeling safe due to the presence of vehicular traffic. Development standards that support TDM measures can help reduce these barriers. The areas of Redlands affected by AB 2097, where the City can no longer require parking, would especially benefit from TDM measures that reduce parking demand by making it easier and more appealing to travel without a car. When more people switch to walking, biking, or public transit, this will free up existing parking spaces for others who still want or need to drive.

The vision outlined in Redlands' Sustainable Mobility Plan will more likely come to fruition if the City's parking policies align with sustainability goals. In addition, the Redlands 2017 Climate Action Plan relies on the City jointly pursuing parking and TDM strategies to achieve greenhouse gas emissions reduction goals. Figure 39 summarizes the projected reductions from pursuing the transportation-related policies and actions included in Redlands General Plan and highlights the importance of parking policy.

Sustainable Mobility Plan Vision



Source: *Sustainable Mobility Plan*, page 6, 2021.

Figure 39: Transportation-related Greenhouse Gas Reduction Estimates

TABLE 3-9: GHG REDUCTIONS FROM ADDITIONAL GENERAL PLAN POLICIES AND ACTIONS (MTCO₂E PER YEAR)						
Year	Bikeway System Improvements	Pedestrian Improvements and Increased Connectivity	Traffic Calming	Parking Facilities and Policies	Transportation Improvements	Total GHG Reductions from Additional General Plan Policies and Actions
2030	120	1,337	334	6,686	709	9,187
2035	106	1,177	294	5,883	624	8,084

Source: *Climate Action Plan*, page 3-16, 2017.

Redlands may already require TDM strategies in some cases due to SB 743 and CEQA guidelines for transportation impact analysis, but only as a mitigation measure for some projects.⁵ Generally, TDM requirements are triggered by vehicle miles traveled projections rather than parking supply, so TDM measures are less likely to be required in transit-oriented development areas, since projects may screen out based solely on their location. The Draft

⁵ City of Redlands CEQA Assessment VMT Analysis Guidelines, accessed 2023. https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_vmt_analysis_guidelines.pdf

Transit Villages Specific Plan parking strategies include modifying code requirements to reflect the needs of a transient-oriented area.

Many of the other parking management strategies employed by the three case study cities also closely align with the strategies outlined in the “Downtown Parking Strategy and Improvements” section of the Transit Villages Specific Plan, as summarized above. For example, time limits and pricing can preserve convenient street parking spaces for visitors. Creating a parking benefit district could improve the pedestrian environment, providing additional amenities and security. Establishing parking maximums could facilitate the provision of parking that is shared and public, rather than private. Wayfinding and signage can help direct visitors to the appropriate parking facilities. Ultimately, parking management will become more important for downtown Redlands as the number of visitors increases with new development.

Summary of Existing Conditions Key Findings

Parking Supply and Demand Observations

- Peak parking demand occurred at 1 p.m. on Thursday. At this time, 48% of downtown public parking spaces were occupied. Saturday demand was slightly lower but followed a similar pattern.
- There is significant parking availability in the study area, but there are also localized areas of parking congestion, especially in the State Street area.
- During the period of peak parking demand, 27% of the 167 spaces in the turnover study area were occupied by long-term parkers.

Community Input: Intercept Surveys


- Approximately half of intercept survey respondents in downtown Redlands were from Redlands, and approximately half were visiting from outside the City.
- Of the survey respondents in the State Street area, 67% reported quickly finding parking near their destination, 17% found a space near their destination after circling around for a while, 9% found parking quickly but not near their destination, and 7% spent time looking for parking near their destination but could not find one and parked further away.
- For approximately half of survey respondents, parking availability is an important factor when deciding where to go out for shopping or dining.
- Redlands has been moderately successful at encouraging longer-term parkers to park in lots and structures but could do more to ensure that convenient on-street parking is available for people making short trips.
- Safety concerns often caused employees and business owners to park as near their workplace as possible, and some of their customers felt unsafe as well.
- Employees would appreciate more options to park without time limits.
- The lack of convenient available parking sometimes keeps potential customers away from downtown.

Community Input: National Community Survey Findings

- Ease of travel by car in Redlands was rated as more satisfactory than ease of travel by walking, biking, or public transportation.
- Most respondents rated the ease of public parking and the convenience/location of parking downtown as either good or fair. The ease of finding public parking downtown was rated more satisfactorily than the ease of finding public parking in Redlands in general.
- Forty-three percent of participants considered it reasonable to walk at least three blocks from a parking space to their destination.
- In terms of resource allocation, Downtown parking was the least likely to be seen as a major priority for the City. It was the second least likely to be seen as the top priority, selected by only five percent of respondents. In general, people would prefer resources be allocated to issues of Homelessness, Public Safety, Sustainability and Climate Change, and Quality of Life, rather than Downtown parking.

Plans, Policies, and Parking Management Practices

- The 2017 Initial Downtown Parking Study and the Transit Villages Specific Plan already include parking management strategies and goals for the future of downtown Redlands, including encouraging the turnover of prime spaces, encouraging shared parking, and encouraging the use of sustainable transportation to reduce parking demand.
- AB 2097 limits several management options previously available: a supply-focused approach to parking centered on individual sites, the use of parking in-lieu fees to fund the development of centralized public parking, and the use of parking requirement reductions to incentivize new projects to include features that encourage walking, biking, carpooling, and transit.
- Parking management opportunities drawing from successful approaches used in other cities include integrating parking with TDM development standards, unbundling parking, establishing parking maximums to incentivize public parking provision, creating a parking benefit district as a public-private partnership, implementing demand-based pricing, and encouraging public and shared parking.



03 Downtown Parking Vision, Goals, and Policies

3. Downtown Vision, Goals, and Parking Strategies

This chapter summarizes the goals of the General Plan of general relevance to parking policy decisions, reviews the vision and goals for downtown parking from the Transit Villages Specific Plan, and confirms the vision and goals with new support from community outreach findings and case study research. After the parking vision and goals are established, the next section confirms and provides support for a set of strategies first introduced in the Transit Villages Specific Plan that will help guide parking and access in Downtown Redlands.

General Plan - Vision and Key Themes

Redlands' General Plan includes chapters based on seven key themes – all of which are relevant to decision-making and planning for the future of parking and access in Downtown Redlands:

- Distinctive City
- Prosperous Economy
- Livable Community
- Connected City
- Vital Environment
- Healthy Community
- Sustainable Community

These themes are integrated into an overarching vision identified in the General Plan, developed collectively by the Redlands community: *“We envision Redlands as a distinctive city characterized by its small-town feeling and cultural richness; whose citizens enjoy a livable, healthy, and sustainable community and a prosperous economy.”* This vision is then expanded into eight values—cultural richness, strength, unity, sustainability, health, prosperity, excellence, and safety—foundational concepts woven throughout the ideas and strategies of the General Plan, including the Transit Villages Specific Plan, which covers the downtown area.

Figure 40: View of the Look Theater from Stuart Avenue Parking Structure



Source: Walker Consultants, 2023.

Transit Villages Specific Plan – Parking Vision and Goals

One important goal of the 2035 General Plan is to encourage the concentration of future development in a few core areas, in order to help preserve the open space, agricultural land, and citrus groves on the outskirts of the City. Reducing sprawl and instead concentrating high density development near transit stations enables households to rely more on walking, biking, and public transit for transportation, and to reduce their vehicle ownership and use—which reduces greenhouse gas emissions, improves air quality, and supports public health and community vitality. To ensure the City is prepared to guide future development in a way that accomplishes these goals, the Livable Community chapter of the General Plan called for the development of a Transit Villages Specific Plan. This plan covers the area around each of the City’s train stations, including the Downtown Station area. The Transit Villages Specific Plan was informed by extensive community outreach and adopted in October 2022. It introduces the following vision:

Downtown Redlands Station



Source: Walker Consultants, 2023.

“...to create a cohesive town center with abundant amenities and pedestrian-oriented streets...to encourage a mix of uses to promote economic vitality, create a pedestrian-oriented environment, maintain a distinctive character based on the city’s historical elements, and enhance the civic realm through vibrant streetscapes.”

Parking policy is central to this vision. Parking is at the intersection of transportation and land use, and strategic parking planning and management decisions will be key to achieving the City’s goals of economic vitality, livability, connection, health, and sustainability. The Transit Villages Specific Plan includes an entire chapter dedicated to parking, with concepts for downtown parking management established to align with the larger goals of the General Plan. The *Parking Objectives* section explains that some parking is essential for a thriving downtown, but too much can be detrimental to the street character and pedestrian environment. Downtown parking policies, strategies, and actions should therefore be developed to support the goal of finding:

“...just the right balance, using parking spaces efficiently in order to ensure customers can always find a nearby space easily and conveniently...”

A more detailed list of parking objectives from the Transit Villages Specific Plan includes the following:

1. **On-street parking** in front of stores, restaurants, entertainment venues, and residences.
2. A **“park-once” environment** comprised of a network of small blocks, pedestrian-friendly streets, a fine-grained mix of land uses, and multiple destinations within easy walking distance of one another.
3. Sufficient **demand-based parking** for existing and new development.
4. Downtown **parking management**.

Additional Support for the Parking Vision and Goals

The parking goals from the Transit Villages Specific Plan are supported by the community outreach conducted to inform this report. The objectives are also confirmed as supported by the practices of peer cities identified as successfully managing downtown parking demand, as explored in the previous report section. The case study cities have largely already realized the goals Redlands seeks to achieve, with strong parking policies and programs that promote economic vitality, livability, health, and sustainability in their communities. This section organizes the findings from community engagement and case study research and reveals that the findings lend further support to the parking goals already established by the City.

Support for Creating On-Street Parking Availability

Maintaining on-street parking availability means that one or two spaces should be open on every block so that customers—including those who may have limited physical mobility, be in a hurry, or need to transport bulky items to and from their vehicles—can easily find convenient parking near their destination. Community outreach revealed that this goal is important to people and that Downtown Redlands has room for improvement.

- **Downtown Visitors Intercept Survey Results:** When asked how parking availability influenced their decision of where to go out for shopping and dining, almost half of respondents indicated that they usually try to go places with parking reasonably close to their destination. When asked an open-ended question about thoughts or concerns related to parking in Downtown Redlands, many people expressed difficulties due to a lack of available parking, such as arriving late to appointments or even going to another destination instead of Downtown. In general, people visiting for a shorter time may be more likely to consider it important to find convenient street parking, but the intercept survey revealed that, in Redlands, people staying downtown for less than one hour were less likely than longer-term parkers to report finding parking near their destinations.
- **National Community Survey Results:** The NCS revealed room for improvement in parking availability. When asked to rate the ease of finding parking in Downtown Redlands, some people were satisfied, but 17 percent of respondents selected “Poor” and 27 percent selected “Fair.” When asked to rate the convenience and location of downtown parking, 11 percent selected “Poor” and 34 percent selected “Fair.” Fifty-six percent of respondents thought it reasonable to expect to find parking within 1-2 blocks of their destination, which currently is not always possible in Downtown Redlands.
- **Downtown Employee Conversations:** Conversations with downtown employees also supported the goal of achieving street parking availability, with the lack of convenient spaces or ADA spaces available for

Fully Occupied Street Parking on State Street



Source: Walker Consultants, 2023.

customers identified as an important issue in multiple conversations. Other problems related to street parking availability were customers arriving late for appointments and parking difficulties for those making deliveries and carrying bulky purchases.

- **Business Community Outreach:** Many business owners expressed their concern that the lack of convenient available parking drives potential customers away. This was identified as a particular concern for retail store owners, whose customers are less likely to be meeting others or have a preestablished appointment and may have more flexibility in their plans. Several participants said that a few employees and business owners might park all day in prime downtown spaces, which they believed should be left available for customers. Some people mentioned that difficulty finding parking prevents potential customers from going downtown on their lunch break when they only have an hour.
- **Case Study Cities:** All three of the case study cities have active downtowns and understand the importance of maintaining the availability of easy and convenient on-street parking for customers. These practices are referenced again in the policies and strategies sections.

Support for a “Park-Once” Environment

“Park-Once” environments are places that encourage people to walk from one destination to another, rather than returning to their vehicles and driving between nearby destinations. It involves ensuring that walking from one place to another is easier, more pleasant, and more convenient than trying to drive. The core of Downtown Redlands along State Street already somewhat resembles a park-once environment, with street trees, benches, and few visible surface parking lots, but a few community outreach responses underscore the importance of taking opportunities to preserve or enhance this characteristic downtown.

- **Downtown Visitors Intercept Survey:** An early survey draft included a question designed to capture what share of visitors going to multiple downtown destinations were parking once and walking versus driving from one place to another. However, it soon became clear that walking was already the more convenient option in Downtown Redlands because there was no guarantee an open parking space would even be available in front of a given State Street destination, and having already parked, walking would be quicker than driving and potentially circling around only to park just as far away. Some survey respondents expressed their satisfaction with the current parking situation, commenting that walking is healthy, and they would prefer initially circling for parking over development of additional parking, or observing that vibrant city centers seem to be transitioning toward less parking. Other comments indicated interest in a parking structure (which could also support a park-once environment, if it allowed for the redevelopment of surface lots) but only if it were underground or aesthetically pleasing, so as not to negatively impact the pedestrian experience downtown.
- **National Community Survey:** When asked what they considered a reasonable distance to walk from their vehicle to their destination, seven percent of participants reported finding it reasonable to walk five or more blocks, and 36 percent were willing to walk three to four blocks. These responses suggest that a sizable share of people do not mind walking and might even be willing to walk from the Stuart Avenue Parking Garage to State Street if the walk felt pleasant and safe and was clearly marked with signage and wayfinding. These responses also suggest that opening up the existing/soon to be former City Hall site’s



parking to public parking, or redeveloping the site with additional parking, would satisfy the needs of people headed to State Street who are willing to walk three to four blocks.

- **Downtown Employee Conversations:** One necessary element of a “park-once” environment is the ability to park on the outskirts of a core area for an extended period without time limits. Multiple employees expressed the desire for more parking options without time limits. One person suggested that a downtown trolley or electric scooter share could be part of the solution if long-term parking was located further away.
- **Business Community Outreach:** The business community offered valuable insights and practical considerations worth considering if pursuing a “park-once” strategy. Comments included that having to park and walk a long distance can be unpleasant in the summer heat, and that many customers and employees currently do not feel safe walking downtown or entering a parking structure at night.
- **Case Study Cities:** The sample cities have created attractive pedestrian environments that encourage people to park on the outskirts of the downtown core and walk from one destination to another, rather than returning to their vehicles and driving. A closer look at their policies in the next section will reveal how they have accomplished this, while also maintaining available on-street parking.

Support for Providing Sufficient Demand-Based Parking

According to the Transit Villages Specific Plan, demand-based parking can be accommodated on-street, on-site, and/or in shared and park-once arrangements. Parking for commercial uses is located on the street and in shared lots and garages and is managed by monitoring the number of available parking spaces and employing parking management strategies to ensure enough spaces are available at a given time. The goal of having “sufficient demand-based parking” could be interpreted as an efficiency goal—to identify any private and public parking spaces that often go unused and unlock their full potential so that these already-developed infrastructure investments can allow for increased vehicle access downtown.

- **Downtown Visitors Intercept Survey:** This goal is also supported by the fact that almost half of survey respondents indicated that they usually try to go places with parking reasonably close to their destination. Parking policies designed with the goal of having sufficient demand-based parking will help ensure that potential customers do not go elsewhere due to a lack of parking options downtown.
- **National Community Survey:** Only 5 percent of survey respondents identified downtown parking as *the* top priority for Redlands, but 32 percent did consider downtown parking a “major priority” worthy of additional City resources. Providing improved parking options in the downtown area may involve financial expenditures and staff time, but many community members have identified this as a need.
- **Downtown Employee Conversations:** Employees generate a sizeable share of parking demand; on five sample blocks downtown, 180 employees who had parked in the area were contacted. One major concern among these employees was that the lack of available parking in Downtown Redlands often caused downtown visitors to park in the private spaces reserved for their business. Employees were interested in parking options that could meet their needs for long-term parking in a safe location.
- **Business Community Outreach:** Business owners expressed similar concerns about the parking needs of their employees. They also highlighted the importance of continuing to provide customers with sufficient parking options after the redevelopment of the large parking lot at the Redlands Mall site, which has long served as a significant parking resource for the downtown area.

- **Case Study Cities:** While supporting solo driving may not be the top priority of the case study cities, all of them do provide sufficient accommodation for vehicles and a large array of demand-based parking options that can meet the needs of various types of downtown visitors. Their strategies are consistent with the goal of providing sufficient demand-based parking, as later sections will discuss in greater detail.

Support for Downtown Parking Management

The inclusion of “Downtown Parking Management” as itself a parking objective, rather than simply a means of achieving other goals, underscores the central importance of responding to growth by thoughtfully managing demand, rather than expecting to solve parking issues only by investing in additional supply, and also speaks to the uniqueness of the downtown area. Parking management is more than just another strategy; it is the backbone that allows other strategies and plans to function effectively. Without a parking management program, Redlands would be unable to shape travel and land use in a way that supports the City’s goals for character preservation, economic health and vitality, livability and connectedness, environmental sustainability, or community health. Community support for parking demand management mostly came indirectly, or in the form of suggestions for specific programs, rather than as support for the abstract concept of parking management.

- **Downtown Visitors Intercept Survey:** Some respondents highlighted the need for an employee parking program. Others focused on the importance of improved options for the mobility impaired. A few people suggested that parking meters could help with parking availability. Others spoke of the potential for improved bicycle infrastructure to reduce the demand for parking.
- **National Community Survey:** Almost half of survey respondents rated the ease and convenience of downtown parking as poor or fair, and just over half of survey respondents expect to find parking within one or two blocks of their destination. Given that the downtown area is already built out, ensuring that parking spaces be conveniently accessible within one or two blocks of every downtown destination is something that can only be achieved through parking management.
- **Downtown Employee Conversations:** Employees expressed a wide range of parking concerns and needs that could be addressed through parking management, as well as various potential management solutions. Some employees supported increased enforcement of parking time limits, while others expressed a desire to have safe parking options where they could park for the entirety of their workday.
- **Business Community Outreach:** Support from the business community also came indirectly, in the form of general concern regarding existing and future parking availability, or in the form of specific parking management strategy ideas. Participants also provided examples of places with vibrant downtowns where parking seems to work well, such as Santa Monica, Pasadena, and Hawaii—all of which rely on parking management programs.
- **Case Study Cities:** Santa Monica and Pasadena were mentioned by members of the business community as places with aspirational parking management. Cambridge, Massachusetts is another example of a place that has successfully implemented parking management policies that support an overarching community vision.

Confirmation of Parking Vision and Goals

The key themes of the General Plan, the findings from community engagement via the National Community Survey, downtown intercept surveys, employee conversations, and business community outreach, and the

successful outcomes in case study cities, all confirm the vision and downtown parking objectives set forth in the Transit Villages Specific Plan. In summary, the vision for parking is to find just the right balance between providing too much parking and not enough, to use parking spaces efficiently, and ensure customers who prioritize convenience can always find a nearby space easily and conveniently. For Downtown specifically, the vision is, “to provide sufficient parking to ensure the economic viability and success of the Downtown, to provide that parking cost-effectively and in convenient locations to users, and to efficiently manage parking in a manner that supports a walkable and pedestrian-friendly downtown environment.” The Transit Villages Specific Plan’s parking goals relevant to Downtown are: (1) to ensure on-street parking availability in front of stores, restaurants, and entertainment venues; (2) to promote a “park-once” environment with a network of small blocks, pedestrian-friendly streets, a fine-grained mix of land uses, and multiple destinations within easy walking distance of one another; (3) to ensure there is sufficient demand-based parking for existing and new development; and (4) to provide downtown parking management that meets the needs of the community.

Transit Villages Specific Plan – Parking Strategies

As the primary task of public policy is to align individual incentives with collective goals, the parking and access strategy recommendations in this section are discussed in terms of their relationship to the goals outlined in the previous section. They are also considered in the context of downtown parking occupancy observations and the community outreach findings. Drawing on the “Downtown Parking Strategy and Improvements” section of the Transit Villages Specific Plan, this section confirms already-established strategies to help guide parking and access in Downtown Redlands. These strategies will form the foundation for more specific implementation actions in the next section of the report.

1. Increase Access to Underutilized Off-Street Facilities

Managing existing parking resources will help support the goal of ensuring that the downtown has a sufficient supply of demand-based parking. As detailed in the previous section, parking occupancy observations revealed that *even during peak demand periods, 52 percent of parking spaces in the downtown study area are empty*. In spite of this, 24 percent of downtown visitors surveyed reported that they had not found their parking space quickly. Some empty spaces may have been reserved for private use, others may have been perceived as unsafe, and others may have been located several blocks away from popular destinations, causing drivers to circle the streets immediately surrounding their destination in hopes of finding a more convenient space. The fact that many drivers are circling for parking while over 2,000 spaces within the general vicinity remain empty underscores the potential benefit of implementing strategies to better manage existing parking resources and increasing utilization rates.

This policy means that the City will work to identify underused parking facilities and take steps to ensure that a greater share of downtown parking is made publicly accessible and safe. This could involve facilitating or incentivizing shared use agreements, taking steps to increase public ownership and management, creating

Entrance to Centennial Plaza Garage



Source: Walker Consultants, 2023.

parking programs targeted at specific groups, enhancing wayfinding and signage to direct visitors to appropriate facilities, and improving lighting and security.

2. Manage Street Parking and Prime Off-Street Facilities to Ensure Availability

Ensuring the availability of convenient street parking was one of the parking goals in the previous section, and this goal can be accomplished only through management. This policy involves establishing a target parking occupancy threshold of 85 percent. Put differently, the availability target for street parking should be around 15 percent, which translates to one or two open spaces along every block. As explained in the Transit Villages Specific Plan, providing and preserving convenient on-street parking will “enable patrons to park in front of stores and quickly run an errand or two or grab a cup of coffee.”

Fully Occupied Downtown Street Parking



Source: Walker Consultants, 2023.

Even though observations revealed ample parking availability within the downtown study area during peak demand hours, there were also localized pockets of parking congestion—particularly in the State Street and Citrus Avenue area—where utilization rates exceeded 85 percent. When parking occupancies are greater than 85 percent, users begin to perceive parking as “full” and are likely to spend more time circling to find a space, or even take their business elsewhere. The finding that 27 percent of the 167 spaces in the turnover study area along State Street and adjacent side streets were occupied by long-term parkers during the peak demand period lends further support to policies that will disincentivize long-term parking in prime spaces. Managing on-street parking to optimize availability means that the City may pursue strategies that direct people to the parking facilities most appropriate for their situation, increase parking turnover in prime locations, and ensure that convenient on-street parking spaces are always available for the visitors who value them most.

3. Establish a Downtown Transportation Improvement District

Establishing a Downtown Transportation Improvement District could support all of the parking objectives in the previous section, including ensuring street parking availability, creating a park-once environment, providing sufficient demand-based parking supply, and administering a downtown parking management program.

As explained in the Transit Villages Specific Plan, such a district (also known as a Parking Benefit District) could manage enforcement, maintenance, marketing, branding, security, use of curb space, and construction of new facilities. The District could also be responsible for selecting areas where paid parking should be introduced, setting rates, developing validation programs, and allocating revenue for programs and local improvements that

benefit the area, such as security improvements, streetscape improvements, or incentives to promote walking, biking, and public transit.

Downtown business owners have a significant stake in parking management outcomes, and the business community outreach sessions revealed that they also have a keen awareness of issues, needs, and opportunities in the area. Involving business owners in parking operations and decision making can help ensure the success of the parking management program and continued vitality of the downtown.

4. Improve the Downtown Pedestrian Environment

Improving the downtown environment for pedestrians can also support all the parking objectives for downtown. Examples of pedestrian improvements include planting street trees, installing shade fixtures, installing decorative lighting, making wider sidewalks with decorative hardscapes, and improving the aesthetics of pedestrian walkways through landscaping or public art. Only 59 percent of NCS respondents rated the ease of travel by walking as good or excellent, indicating significant room for improvement. Improving the walkability and security of the downtown environment can increase the attractiveness of parking locations previously deemed undesirable due to their distance from popular destinations, effectively increasing the parking supply. Pedestrian improvements also support the “park-once” objective, since people will be more likely to walk from one destination to another when the walk is perceived as pleasant. Prioritizing walkability has the potential to shape parking demand, and even to slightly reduce it, as some residents who would have previously driven downtown may choose to walk instead. In the NCS survey, 47 percent of respondents considered quality of life a major issue worthy of City resources, and 48 percent said the same for sustainability and climate change. Improving the pedestrian environment supports both goals.

Downtown’s “Umbrella Alley”



Source: Walker Consultants, 2023.

5. Encourage the Use of Sustainable Transportation Modes to Reduce Parking Demand

Encouraging the use of alternative transportation modes to reduce demand can indirectly support each of the downtown parking goals. When there is less demand for parking, existing parking is more likely to be perceived as sufficient, and fewer measures may be necessary to increase supply and availability. Additionally, some of the types of measures that encourage use of alternative transportation modes, such as land use improvements that support transit and biking, also tend to promote a park-once environment, as they result in a less auto-centric urban form. Almost half of downtown visitors surveyed resided in Redlands, showing that it could be feasible for them to travel downtown by bike or e-bike if these modes were encouraged, and visitors from further away might choose to use public transit, if the policy environment encouraged the use of alternative transportation modes.



Several survey respondents expressed a desire for better multimodal infrastructure to relieve parking demand. Other efforts that might reduce parking demand include services such as parking cash out programs, transit pass offerings, bike programs, and car sharing. During the business community outreach session, several people even suggested that a tram, shuttle, or trolley could transport employees and customers downtown.

6. Increase the Supply of Publicly Available Parking

Increasing the public parking supply could support the goal of increasing street parking availability, but *only if the new supply were also more convenient or less expensive than on-street parking*. Increasing the public parking supply could support a “park-once” environment if creating a large increase in supply in one area occurred in conjunction with small decreases in other areas, encouraging most people to park in one central location on the outskirts of the core area. If overall demand were observed to be sufficiently high, increasing the public parking supply could support the City’s goals for parking and access. This increase could occur either through opening private spaces for public use during times when they would otherwise be vacant, through expanding capacity of existing facilities through valet parking, or through the construction of a new parking facility. In general, better utilizing existing parking infrastructure is more likely to be cost-effective and align with the City’s land use goals.

In the 2022 National Community Survey, only 5 percent of respondents selected downtown parking as the issue most worthy of additional resources, but if future surveys demonstrate that parking has become a higher priority for the community and future demand observations reveal higher utilization rates, the City may wish to reconsider how a new parking facility might fit into the overall strategy for a transit-oriented downtown. For example, if sales tax revenue in the downtown area decreased relative to other areas of Redlands or relative to general economic trends, even while parking utilization rates were high, that could signal that dedicating City resources to additional parking supply might help preserve the economic prosperity of the downtown. Having a flexible plan and staying aware of economic trends is essential to parking management.

7. Other Parking Strategies from the Transit Villages Specific Plan

Other recommendations from the Transit Villages Specific Plan included:

- Accommodate Redlands Passenger Rail Commuters
- Modify the Parking Code Requirements
- Introduce Time Limits
- Introduce Pricing

A parking policy of accommodating Redlands Passenger Rail Commuters is no longer necessary, as this was already completed with the construction of the parking garage on Stuart Avenue. Many of the suggestions for parking code modifications in the Transit Villages Specific Plan may no longer be necessary in transit-oriented development (TOD) areas with the passage of AB 2097. The recommendations of introducing time limits and pricing could be considered specific management strategies that could help support the broader policies above, to manage on-street and off-street parking to achieve target utilization rates.

Confirmation of Parking Strategies

In summary, this section confirmed that the parking policies outlined in the Transit Villages Specific Plan will support the community's objectives for parking and access management in Downtown Redlands. Increasing utilization of existing facilities, optimizing on-street availability, establishing a downtown transportation improvement district, improving the pedestrian environment, encouraging alternative transportation, modifying development standards, and increasing the publicly available parking supply all have the potential to realize the parking vision for downtown and achieve the City's objectives. Specific actions, implementation details, and performance indicators associated with each strategy will be developed in the subsequent chapters.

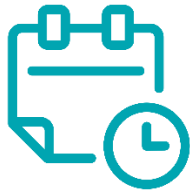


04 Action Steps and Implementation Details

4. Action Steps and Implementation Details

The strategies in the previous chapter provide fiscally responsible and environmentally sustainable ways to support downtown businesses, increase accessibility, and provide an improved parking experience for visitors. This chapter recommends specific action steps for each of the downtown parking strategies outlined in the previous chapter. It also outlines an implementation plan, which includes the following details for each action:

1. Whether each action is recommended to be implemented in the short-, medium-, or long-term.
 - **Short-term:** Strategies that can be implemented in the next six months to one year.
 - **Medium-term:** Strategies that can be implemented within one to three years.
 - **Long-term:** Strategies that can be implemented over the next three to five years or more.
2. Evaluation recommendations and suggested metrics that will allow the City to measure success and track performance over time.



1. Increase Access to Underutilized Off-Street Facilities

Field observations and survey responses revealed that many drivers were circling for parking, while over 2,000 spaces within the downtown study area remained empty. This underscores the potential benefit of implementing strategies to better manage existing parking resources and increase utilization rates. When more parking is public and shared across uses, this increases efficiency, results in a more vibrant and attractive downtown, and can free up financial resources for other investments, such as active transportation infrastructure or safety enhancements. Table 11 shows the action steps associated with this strategy.

Figure 41: Signs Restricting Public Parking on Private Off-Street Facilities



Source: Google Street View, 2023.

Table 11: Action Steps for Increasing Access to Underutilized Facilities

Strategy	Action Steps
Increase public management and ownership	<ol style="list-style-type: none"> 1. Require parking facilities to be unbundled from property lease or purchase. 2. Work with property owners to fully lease and/or purchase underutilized private parking facilities for public use. 3. Prioritize achieving public management or ownership of parking facilities with more spaces available or with more convenient access to State Street, including: <ul style="list-style-type: none"> • Centennial Plaza: 357 spaces (53 spaces here are already public) (M)* • Look Theater: 260 spaces (D) • Redlands Plaza: 98 spaces (U) • Wells Fargo: 70 spaces (W) • First Congregational: 69 spaces (HH) • The Door: 54 spaces (Z) 4. Consider smaller lots as well. There are approximately 185 downtown spaces in miscellaneous smaller lots. Parking structures can cost tens of thousands of dollars per space, or, considering life cycle, the equivalent of hundreds of dollars per month; some business/property owners may be willing to sell their private spaces for a similar rate, and the City may be able to significantly increase the number of publicly managed spaces in prime locations.

*Letters reference the off-street facilities as listed in Table 1 on page 7; facility locations are displayed on Figure 2 on page 4.
 Table continued on the next page.

Strategy	Action Steps
Shared use agreements	<ol style="list-style-type: none"> 1. For downtown property owners uninterested in leasing or selling their off-street parking facilities for public management or ownership, work toward developing shared use agreements to allow public access to parking spaces outside of certain hours. For example, some offices may allow public parking on weekends, or religious institutions may allow public parking on weekdays during business hours. 2. Ensure adequate enforcement so that owners trust their parking will be adequately managed and available for them during the hours it is needed for their establishment.
Utilization of underutilized public facilities	<ol style="list-style-type: none"> 1. Identify publicly owned parking facilities that may have low utilization. 2. Develop a plan to increase access to each facility found to have excess capacity, such as by: <ul style="list-style-type: none"> • Creating a program to give some downtown employees remote access to gated parking facilities (such as the Centennial Plaza Garage, or under City Hall, especially on weekends). • Removing restrictions that limit parking to certain visitors (such as for the Lincoln Memorial Shrine and Library parking, just outside the study area) • Opening weekday employee parking to the public, at least during evenings and weekend events. • Considering partnerships to offer valet parking services. • Improving signage, wayfinding, and pedestrian routes.
Improve signage and wayfinding	<ol style="list-style-type: none"> 1. Identify publicly available parking facilities near State Street, especially those with low utilization, such as: <ul style="list-style-type: none"> • Block 22 (AA) – 30 spaces available during peak, 2 blocks from State Street • Centennial Plaza (M) – 53 spaces already under agreement as permanently publicly available, 1 block from State Street 2. Install signs at high utilization locations (on State Street and at the Citrus Avenue parking structure) directing visitors to other off-street facilities. 3. Develop maps showing public parking locations. Display maps at key downtown locations and on the City website.
Provide safe and convenient parking for State Street employees	<ol style="list-style-type: none"> 1. Collaborate with downtown business owners and employees to understand parking needs, work schedules, and safety and security concerns. 2. Discuss ways to address these concerns, such as: <ul style="list-style-type: none"> • Providing a location with secure access restricted to employees. • Improving lighting at buildings and along the pedestrian route. • Developing an evening escort or valet program or coordinating so employees with similar work schedules can avoid walking to their vehicles alone late in the evenings. 3. Designate an underutilized facility for downtown employee parking and implement a solution that addresses employees' security concerns.

Source: Walker Consultants, 2023.

Implementation: As explained above, the City can help increase access to underutilized off-street facilities by unbundling parking, increasing public ownership, pursuing shared use agreements, increasing utilization of existing public off-street facilities, developing signage and wayfinding, and creating an employee parking plan. Table 12 provides the approximate timeline for each strategy and suggested performance metrics. The subsequent paragraphs provide a more thorough explanation of each action and the associated implementation steps.

Table 12: Implementation Details for Increasing Access to Underutilized Facilities

Action	Timeline	Performance Metrics
Develop ordinance to unbundle parking	Short-term	Share of downtown parking spaces that are unbundled (leased or owned separately) from other property. Number of previously bundled parking spaces that have been unbundled. <i>(Goal is to increase these numbers.)</i>
Negotiate leases or acquisitions of private lots/spaces	Medium-term	Number of parking spaces remaining downtown that are private or reserved even some of the time. <i>(Goal is to lower this number.)</i>
Pursue shared-use agreements	Medium-term	Number of parking spaces remaining downtown that are private or reserved at all times. <i>(Goal is to lower this number.)</i>
Remove restrictions limiting the use of public facilities	Medium-term	Track the utilization rate by public off-street facility, observed at: <ul style="list-style-type: none"> • 1 pm weekday • 7 pm weeknight • 1 pm weekend • 7 pm weekend <i>(Higher utilization is better, but ideally kept under 90 percent to ensure availability.)</i>
Develop and install signage and wayfinding	Medium-term	Share of publicly accessible parking facilities near Downtown Redlands with at least three directional signs indicating the location of the facility.
Create employee parking plan and program	Medium-term	Share of downtown employees who drive who participate in the Employee Parking Program.

Source: Walker Consultants, 2023.

Develop Ordinance to Unbundle Parking

Data collection demonstrated that many properties in the study area have excess parking spaces, some or all of the time. These underutilized spaces represent tens of millions of dollars in real estate and capital investment. In today's transportation system and economy, every land use needs access to parking spaces. However, many spaces are also unused. To require or construct additional parking without attempting to use these spaces for parking is arguably a waste of resources. "Unbundling" parking is the set of policies and actions undertaken to create an equilibrium between the supply and demand of parking, reducing the inefficiencies that result in both high concentrations of localized parking demand in some areas and underutilized spaces in other areas.

Unbundling refers to separating the cost of parking from the cost of renting or purchasing a unit or property.

Benefits of unbundling include:

- The parking spaces that exist will be more efficiently used.
- Non-drivers are not required to pay for parking they don't need.
- The market value of land used as parking becomes clear.

Requiring parking to be unbundled from properties could also facilitate the City managing, through leasing or purchase, existing parking facilities, opening them to the public to increase access and utilization. Unbundling could be required for approval of new developments, on lease change or at sale for existing commercial or residential units or properties, and/or as part of the business license renewal process for commercial properties. The State Street Village development agreement already requires unbundling of parking from residential units.

Unbundling is especially helpful in areas that are not subject to minimum parking requirements, which now includes the entire downtown study area, due to its proximity to high quality public transit as defined by AB 2097. The success of this strategy also hinges on parking management, which seeks to ensure concentrated locations of high parking demand are efficiently disbursed to locations where parking availability is plentiful.

When the cost of parking is made visible and unbundled from the total cost of a lease, the system becomes more efficient as individuals and property owners are able to make economic decisions as to how many parking spaces they actually need, allowing those who need more parking to purchase or lease parking from those who need less. When people are no longer forced to pay for "free" parking as part of the lease or purchase of a unit or property, and have the option to save money, at least some people may be more likely to consider alternative modes of transportation. By creating a market for parking among owners, additional parking spaces become available for others who need them.

The City can research and develop an ordinance that requires the unbundling of parking. The City can communicate how unbundling parking supports the City's goals and how the community will benefit from the policy update. The first metric of success is simply the passing of the ordinance. Measuring performance over time could involve tracking the share of downtown parking spaces that are unbundled (leased or owned separately) from other property, as well as the number of previously bundled spaces that have been unbundled.

Negotiate Leases or Acquisitions of Private Lots/Spaces

When off-street parking facilities are publicly owned, rather than private, the City can ensure they are open to the public and do not sit empty during periods of high downtown parking demand. Purchasing existing parking facilities that are underused is a cost-effective and environmentally friendly way to increase the public parking supply, which also keeps public spending within the local community.

This is a long-term strategy that could begin as soon as parking facilities are unbundled from other property uses and continue for as long as the community finds increasing the public parking supply to be a high priority worthy of investing public resources. The City can identify off-street facilities of interest and connect with property owners, identify funding sources and allocate budget, and develop purchasing agreements. Success could be measured by the number of parking spaces remaining downtown that are private or reserved even some of the time, with the goal of bringing this number down, eventually bringing as many downtown parking resources as possible under common management to improve the efficiency of the system.



Pursue Shared-Use Agreements

This strategy is similar to increasing public ownership through leases and acquisitions but also accounts for the possibility that some property owners may initially be hesitant to trust the City to manage parking in a way that ensures convenient access to parking remains available for their employees or visitors. If property owners wish to retain ownership of their private parking facilities, many may be willing to enter an agreement that allows public parking outside of certain established hours. For example, if adequately compensated, offices may be willing to allow public parking in the evenings and on weekends, or religious institutions may be willing to allow public parking on weekdays. Like the strategy above, developing shared use agreements to lease private parking during hours it typically goes unused is a cost-effective and environmentally friendly way to increase the public parking supply, while also keeping public spending within the local community. It also limits the proliferation of more parking spaces in a district where ample parking has been identified.

This is another long-term strategy that could begin in the near term and continue for as long as the community finds increasing public parking supply to be a high priority worthy of public investment. The City can identify off-street facilities of interest and connect with property owners, allocate budget, and develop shared-use agreements. The City could measure success by tracking the number of parking spaces remaining downtown that are private or reserved at all times, with the goal of bringing this number down so that more parking is available to the public.

Figure 42: Underutilized Private Parking Lots near Downtown Redlands



Source: *Google Street View, 2023.*

Remove Restrictions Limiting the Use of Public Facilities

Increasing the use of off-street facilities also includes those parking facilities which are already publicly owned, but at times underutilized. The City could be responsible for developing a plan to increase access to each facility found to have excess capacity at least some of the time, such as by creating a program to give some downtown employees remote access to gated parking facilities, removing restrictions that limit parking to certain visitors during a public facility's hours of operation, opening weekday employee parking to the public during evening and weekend events, reconsidering overly restrictive parking time limits, and considering partnerships to offer valet parking services if there are opportunities to significantly increase capacity at existing facilities.

Some implementation actions may be piloted or implemented in the short-term, while others may be more appropriate further into the future. The success of this strategy should be measured by periodically collecting parking occupancy data from public off-street facilities at a variety of time periods, such as afternoon and evening weekday and weekend peak hours, or approximately 1 pm and 7 pm on a Thursday and Saturday. In general, higher utilization would indicate success, although keeping utilization of off-street facilities below 90 percent is ideal to maintain availability.

Develop and Install Signage and Wayfinding

If some public parking facilities have spaces available during peak demand hours, signage and wayfinding can help direct drivers to these facilities. The City can identify facilities with availability, suggest potential high-traffic locations for placing signs, and design the signs as well as a map of the downtown area that highlights public parking facilities. Signage should have a unified look and theme. For example, using a numbering system, e.g., Lot 1, Lot 2, etc., could help visitors better locate parking facilities. Signage is especially important for highlighting public parking availability at facilities formerly restricted to private use. Figure 43 provides an example of the City of Santa Barbara’s downtown parking and wayfinding signage system. As shown in the figure, it has a unified theme as well as a naming convention for its public lots.

The City can purchase signs and map displays and physically install them. Information can also be made available on the City website. Signage and wayfinding can be developed and installed in the medium-term and as necessary as additional facilities become available for public parking. Success could be measured by the share of publicly accessible parking facilities near Downtown Redlands with at least three directional signs indicating the location of the parking facility. For larger public parking lots, such as the Citrus Avenue structure, an additional measure of success, above and beyond signage could be the presence of at least one dynamic sign indicating the number of parking spaces currently available.

Figure 43: Example of Parking Wayfinding Signage



Source: Hunt Design accessed via <https://www.huntdesign.com/projects/signage-wayfinding/cities/santa-barbara-signage-wayfinding/>, 2019.

Create Employee Parking Plan and Program

One strategy that could increase the utilization of underused off-street facilities is creating a program that encourages downtown employees to park in certain off-street locations. This could occur in the medium-term. The City could collaborate with downtown business owners and employees to understand parking needs, work schedules, and safety and security concerns, and could create a program that address these concerns, such as providing a location with secure access restricted to employees, improving lighting along at the facility and along the pedestrian route, developing an escort or valet program, or facilitating coordination so employees with similar work schedules can avoid walking to their vehicles alone late in the evenings. In administering the program, the City could potentially collaborate with a downtown Parking Benefit District. Success could be measured by the share of downtown employees who drive to work who participate in the Employee Parking Program.

2. Manage Street Parking and Prime Off-Street Facilities to Ensure Availability

Community outreach revealed that maintaining availability in the most convenient downtown parking locations was an important goal for both downtown visitors and business owners. Some visitors may have limited time or limited physical mobility or need to transport bulky items to and from their vehicles. Parking management is the only way that a popular destination like Downtown Redlands can ensure the continued availability of at least a few spaces in prime parking locations. Table 13 shows the action steps associated with this strategy.

Table 13: Actions Steps for Managing Street Parking and Prime Off-Street Facilities

Strategy	Action Steps
Parking enforcement	1. Budget for a civilian parking enforcement position. (The annual cost of an enforcement staff member position may be comparable to the construction of a few new structured parking spaces, and the position may eventually be partially or entirely funded by parking revenue.) 2. Consider assigning an enforcement officer with additional responsibilities to improve downtown parking. For example, the parking enforcement officer may also collect periodic occupancy data and make parking management suggestions or provide evening parking escort services for employees.
Paid parking pilot	1. Select paid parking pilot locations based on occupancy observations. Consider the following locations: <ul style="list-style-type: none"> • State Street between Orange Street and 9th Street • 5th Street between Redlands Blvd and Citrus Avenue • 6th Street between Redlands Blvd and Vine Street • 7th Street between Redlands Blvd and Citrus Avenue • 8th Street between Redlands Blvd and Citrus Avenue

Table continued on the next page.

Strategy	Action Steps
	<ul style="list-style-type: none"> • 9th Street between Redlands Blvd and Citrus Avenue • Citrus Avenue between Orange Street and 9th Street • Vine Street between Orange Street and 6th Street • Ed Hales Parking Lot • Citrus Avenue Parking Structure <p>(Together, these locations include over 400 parking spaces. Generally, a paid area of at least 80 to 100 spaces is necessary for parking revenues to cover the operational cost of the program.)</p> <p>2. Set initial rates of \$2 per hour for prime street parking spaces and \$1 per hour for the Ed Hales Parking Lot, Citrus Avenue parking structure, and secondary street parking areas.</p> <p>3. Establish target occupancy rates:</p> <ul style="list-style-type: none"> • 85% for street parking (by individual block) • 90% for off-street facilities (for an entire facility) <p>4. Select a payment technology, such as single space meters, multi-space meters, or pay-by-phone. Install technology and signage.</p> <p>5. Monitor utilization rates throughout downtown and adjust prices quarterly. Increase hourly rates by \$0.25 where peak occupancy rates exceed the target thresholds. Decrease by \$0.25 where peak utilization is below 70 percent.</p> <p>6. Develop a plan to conduct periodic occupancy observations at unpriced locations and expand the paid parking area to include any locations where peak utilization exceeds 85 percent on a typical day.</p>
Improve management of loading and deliveries	<p>1. Meet with stakeholders and create a plan for loading and deliveries in the downtown area to ensure delivery vehicles are not occupying prime spaces or creating traffic hazards during peak hours.</p>

Source: Walker Consultants, 2023.

Implementation: As explained above, the City can ensure availability of street parking and prime off-street parking spaces by increasing parking enforcement, implementing a paid parking pilot, and developing a loading and deliveries plan. Table 14 provides the approximate timeline for each strategy and suggested performance metrics.

Table 14: Implementation Details for Managing Street Parking and Prime Off-Street Facilities

Action	Timeline	Performance Metrics
Increase parking enforcement	Medium-term	Person hours spent on enforcement per week. Number of warnings or citations issued per week.
Implement paid parking pilot	Medium-term	Share of public downtown parking spaces on a block face with peak utilization below 85% or an off-street facility with utilization below 90%, during peak hours. Share of business owners and of the public who approve of the program. Downtown sales tax revenue trends: <ul style="list-style-type: none"> • Year-over-year • Relative to other areas
Adjust time limits at underutilized on-street parking areas	Short-term	Share of public downtown parking spaces on outlying block face with peak utilization between 50% and 85%.
Develop and implement loading and deliveries plan	Long-term	Number of business community members involved in plan development.

Source: Walker Consultants, 2023.

Increase Parking Enforcement

Reliable parking enforcement is necessary for parking management efforts to be successful. The City could create a civilian parking services position dedicated to enforcement, and potentially with additional relevant responsibilities, such as collecting periodic occupancy data, making parking management suggestions, or providing safe escort services for employees. The best way to measure the success of increasing parking enforcement is by monitoring the number of hours of enforcement that occur in the Downtown area on a weekly basis. A secondary measure of success could be the number of citations issued; with the goal being the number of citations issued decreasing over time, indicating compliance with paid parking (in the pilot locations) and any time limits. Ultimately, parking enforcement is intended to ensure that the actions needed to make parking available are performed consistently. For this reason, improved parking availability but ample utilization could also be a measure of success of adequate parking enforcement.

Implement Paid Parking Pilot

As long as the most convenient spaces remain free of charge, even increasing the public parking supply may do little to reduce the amount of time people spend looking for a parking space. Time limits are not always a

sufficient or appropriate way to manage demand. They may create a negative experience for customers and visitors to the area or result in employees leaving to move their vehicles every few hours. Enforcing time limits can also require twice as much time and effort as simply determining whether a vehicle has paid to park.

The City can pilot paid parking in prime public parking locations with rates just high enough to ensure at least a few spaces are available for those who need them during the busiest periods. When parking demand is high, drivers will have the option between parking for free and walking a few blocks or paying a small fee to park in a more convenient space. The paid parking pilot could be implemented in the medium-term and then evaluated.

Program development includes creating an overall plan, evaluating the financial feasibility of various technology vendors, and managing program costs and revenues, including setting aside a portion of revenue to be allocated for downtown improvement projects, as explained in the next section. The City can oversee the installation of new infrastructure and the day-to-day program operations. The City can also work to educate residents about the reasoning behind the program and its benefits. Measuring success will involve periodically collecting occupancy data and seeing how many parking spaces are on a block with utilization below 85 percent or in a facility with utilization below 90 percent during peak hours. Other performance metrics include the share of business community members and residents who approve of the program and sales tax revenue in the downtown area relative to prior years, other areas, and general economic trends.



Adjust Time Limits at Underutilized On-Street Parking Locations

Time-limited on-street parking in the study area should be periodically monitored, and time limits should be adjusted or eliminated based on occupancy patterns. Time-limited parking on the periphery of the study area is underutilized; the removal of time restrictions in these areas could open these spaces up for employee or other long-term parking away from the State Street core. The City can be responsible for physical installation or changing of signs and purchasing any additional signage needed.

Develop and Implement Loading and Deliveries Plan

If delivery vehicles are occupying prime downtown parking spaces during peak hours, the City can work with stakeholders to develop a plan to manage loading and deliveries in the downtown area. This is a long-term strategy, to be implemented if paid parking alone is not sufficient to encourage delivery vehicles to avoid making deliveries during peak hours, or deliveries otherwise interfere with efficient parking operations and traffic in the downtown. Initial planning and outreach efforts to engage the business community may reveal specific needs that result in additional implementation activities.

3. Establish a Parking Benefit District

This strategy hinges on stakeholder interest in becoming involved in parking management decisions. Many other downtowns successful enough to need paid parking have found great success with the parking benefit district model, a partnership which gives the downtown business community and resident stakeholders an active role in identifying issues, needs, and opportunities, making decisions, and allocating parking revenue for improvements to the downtown area. Table 15 shows the action steps for establishing a downtown parking benefit district, and Table 16 provides an implementation plan. Figure 44 provides an example of outreach materials used by the City of Houston prior to implementing a parking benefit district along Washington Avenue.

Table 15: Action Steps for Establishing a Parking Benefit District

Strategy	Action Steps
Downtown Parking Benefit District	<ol style="list-style-type: none"> 1. Conduct stakeholder outreach with the business community. 2. Establish preliminary district boundaries (such as the boundaries of the paid parking pilot recommended in the previous section). 3. Establish membership/representatives. 4. Determine the type of governing body (e.g., commission, advisory board, etc.) <ul style="list-style-type: none"> • Establish roles and responsibilities. • Determine authority and options for parking revenue allocation. 5. Schedule regular meetings.

Source: Walker Consultants, 2023.

Table 16: Implementation Details for Establishing a Parking Benefit District

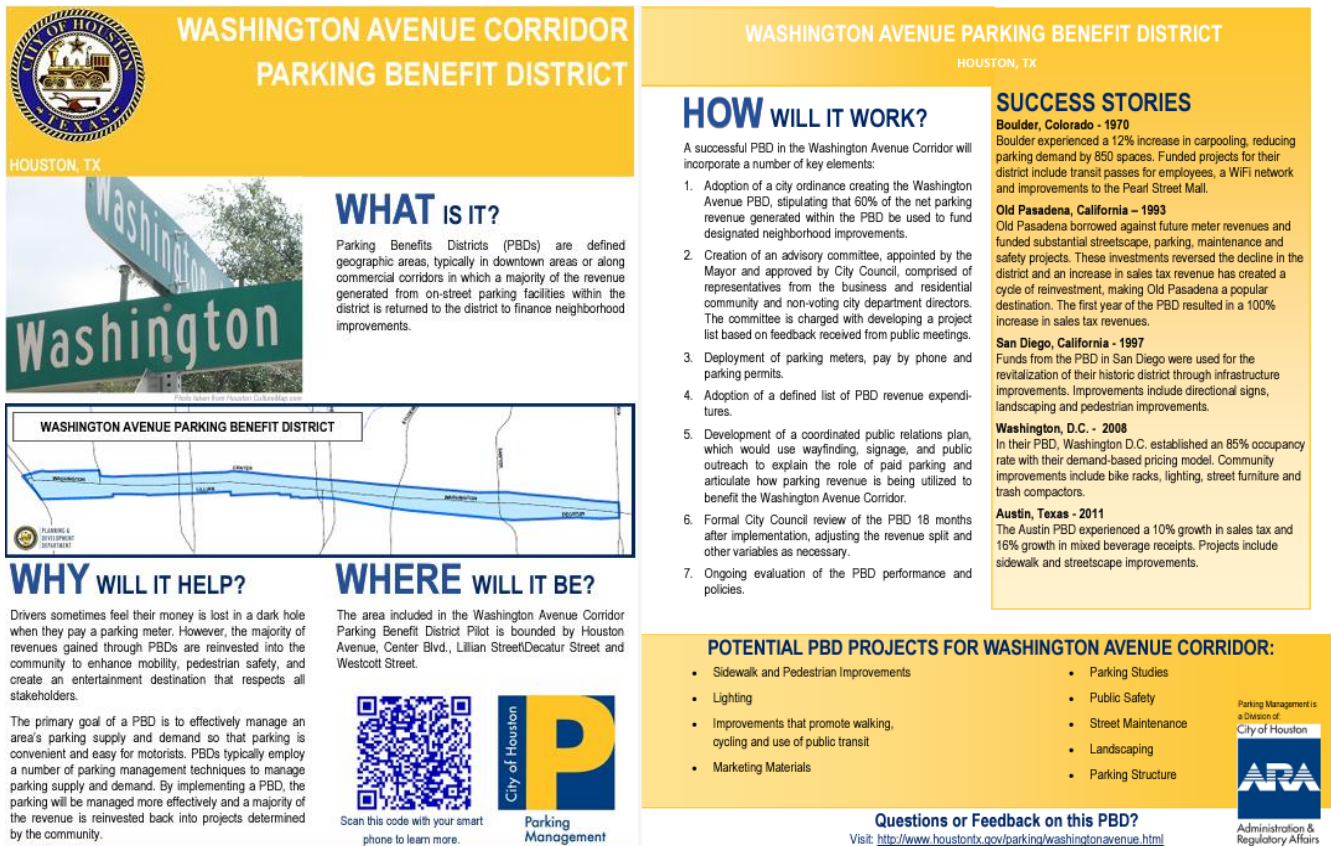
Action	Timeline	Performance Metrics
Establish Downtown Parking Benefit District	Medium-term	Downtown infrastructure projects, services, and/or programs funded by parking revenue allocated by members of the Parking Benefit District. Number of community members involved in district decision making.

Source: Walker Consultants, 2023.

Creating a Parking Benefit District will give the downtown business community and resident stakeholders an active role in identifying parking issues, needs, and opportunities, and allocating parking revenue for improvements to the downtown area. The City can conduct outreach and organize stakeholders. The City can also develop the legal framework for the district formation, membership, meetings, and roles, and oversee parking revenue allocation. If a Parking Benefit District is established, its success can be measured by the number of community members involved in decision-making, and the City can keep a list tracking the downtown infrastructure projects, services, and/or programs funded by parking revenues allocated by the district.



Figure 44: Parking Benefit District Outreach Example



WASHINGTON AVENUE CORRIDOR PARKING BENEFIT DISTRICT
HOUSTON, TX

WASHINGTON AVENUE PARKING BENEFIT DISTRICT
HOUSTON, TX

WHAT IS IT?
 Parking Benefits Districts (PBDs) are defined geographic areas, typically in downtown areas or along commercial corridors in which a majority of the revenue generated from on-street parking facilities within the district is returned to the district to finance neighborhood improvements.

HOW WILL IT WORK?
 A successful PBD in the Washington Avenue Corridor will incorporate a number of key elements:

1. Adoption of a city ordinance creating the Washington Avenue PBD, stipulating that 60% of the net parking revenue generated within the PBD be used to fund designated neighborhood improvements.
2. Creation of an advisory committee, appointed by the Mayor and approved by City Council, comprised of representatives from the business and residential community and non-voting city department directors. The committee is charged with developing a project list based on feedback received from public meetings.
3. Deployment of parking meters, pay by phone and parking permits.
4. Adoption of a defined list of PBD revenue expenditures.
5. Development of a coordinated public relations plan, which would use wayfinding, signage, and public outreach to explain the role of paid parking and articulate how parking revenue is being utilized to benefit the Washington Avenue Corridor.
6. Formal City Council review of the PBD 18 months after implementation, adjusting the revenue split and other variables as necessary.
7. Ongoing evaluation of the PBD performance and policies.

SUCCESS STORIES

Boulder, Colorado - 1970
 Boulder experienced a 12% increase in carpooling, reducing parking demand by 850 spaces. Funded projects for their district include transit passes for employees, a WiFi network and improvements to the Pearl Street Mall.

Old Pasadena, California - 1993
 Old Pasadena borrowed against future meter revenues and funded substantial streetscape, parking, maintenance and safety projects. These investments reversed the decline in the district and an increase in sales tax revenue has created a cycle of reinvestment, making Old Pasadena a popular destination. The first year of the PBD resulted in a 100% increase in sales tax revenues.

San Diego, California - 1997
 Funds from the PBD in San Diego were used for the revitalization of their historic district through infrastructure improvements. Improvements include directional signs, landscaping and pedestrian improvements.

Washington, D.C. - 2008
 In their PBD, Washington D.C. established an 85% occupancy rate with their demand-based pricing model. Community improvements include bike racks, lighting, street furniture and trash compactors.

Austin, Texas - 2011
 The Austin PBD experienced a 10% growth in sales tax and 16% growth in mixed beverage receipts. Projects include sidewalk and streetscape improvements.

WHY WILL IT HELP?
 Drivers sometimes feel their money is lost in a dark hole when they pay a parking meter. However, the majority of revenues gained through PBDs are reinvested into the community to enhance mobility, pedestrian safety, and create an entertainment destination that respects all stakeholders.

The primary goal of a PBD is to effectively manage an area's parking supply and demand so that parking is convenient and easy for motorists. PBDs typically employ a number of parking management techniques to manage parking supply and demand. By implementing a PBD, the parking will be managed more effectively and a majority of the revenue is reinvested back into projects determined by the community.

WHERE WILL IT BE?
 The area included in the Washington Avenue Corridor Parking Benefit District Pilot is bounded by Houston Avenue, Center Blvd., Lillian Street/Decatur Street and Westcott Street.

POTENTIAL PBD PROJECTS FOR WASHINGTON AVENUE CORRIDOR:

- Sidewalk and Pedestrian Improvements
- Lighting
- Improvements that promote walking, cycling and use of public transit
- Marketing Materials
- Parking Studies
- Public Safety
- Street Maintenance
- Landscaping
- Parking Structure

Questions or Feedback on this PBD?
 Visit: <http://www.houstontx.gov/parking/washingtonavenue.html>

City of Houston Parking Management
 Administration & Regulatory Affairs

Source: City of Houston.

4. Improve the Downtown Pedestrian Environment

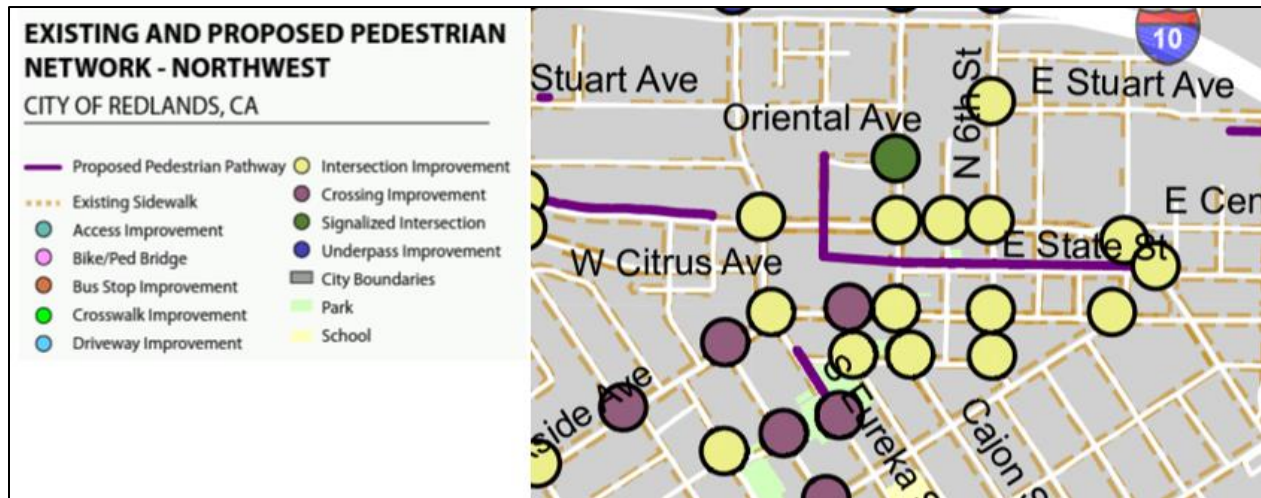
Perceptions of adequate parking provision are related to the quality and effectiveness of pedestrian connections. Every parking trip begins and ends with a pedestrian trip; quality pedestrian infrastructure can be a cost-effective way to increase the supply of parking that serves the downtown area while also improving quality of life.

The Sustainable Mobility Plan already identifies several intersection improvements, crossing improvements, and proposed pedestrian pathways for the Downtown Redlands area (see Figure 45). Most notably, the plan proposes a pedestrian pathway from the Stuart Avenue parking structure and rail station to State Street. The strategies and actions to improve the downtown pedestrian environment recommended in Table 17 below are in addition to the improvements already proposed in the Sustainable Mobility Plan. Three of the intersection improvements from the Sustainable Mobility Plan are already prioritized as Tier 1:

- Citrus Avenue and 6th Street
- Citrus Avenue and Orange Street
- 6th Street and Redlands Boulevard

The improvement to the 6th Street and Redlands Boulevard intersection is important to improve pedestrian access to State Street from the key public parking locations at the Centennial Plaza Garage and other off-street facilities that may become available for public parking in the future. Improvements to the Citrus Avenue intersections can improve access to parking locations south of Citrus Avenue.

Figure 45: Proposed Pedestrian Improvements for Downtown Redlands



Source: Redlands Sustainable Mobility Plan, 2021.

Table 17: Action Steps for Improving the Downtown Pedestrian Environment

Strategy	Action Steps
Enhance Pedestrian Safety	1. Conduct outreach to determine how and where the community thinks safety could be improved. 2. Develop a plan that responds to their concerns, such as by improving lighting and visibility, installing blue light emergency boxes, or hiring a safety ambassador who could provide safe walk services within the area.
Improve Comfort for Pedestrians	1. Identify key downtown street segments where sidewalks have limited shade. 2. Develop a plan to plant street trees and/or install shade structures.
Improve Aesthetics of Pedestrian Environment	1. Identify pedestrian routes connecting State Street to off-street facilities with large supply of publicly available parking. 2. Develop a pedestrian pathway plan to make walking more enjoyable, such as through sidewalk widening, decorative hardscapes, landscaping, and public art.

Source: Walker Consultants, 2023.

Implementation: The City can improve the pedestrian environment downtown by improving safety and the perception of safety, providing shade, and making aesthetic improvements to pedestrian walkways. Table 18 provides the approximate timeline for each strategy and the suggested performance metrics. Additional implementation details are discussed below.

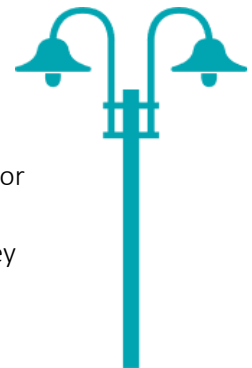
Table 18: Implementation Details for Improving the Downtown Pedestrian Environment

Action	Timeline	Performance Metrics
Install safety improvements	Medium-term	Perceptions of downtown safety (NCS question and/or intercept survey).
Increase shade coverage	Medium-term	Perceptions of thermal comfort. Share of downtown area sidewalks with shade coverage.
Make aesthetic improvements to walkways	Long-term	Number of downtown area sidewalk blocks improved with sidewalk widening, decorative hardscapes, landscaping, and/or public art.

Source: Walker Consultants, 2023.

Install Safety Improvements

Improving pedestrian’s perceptions of security and desire to walk downtown involves conducting outreach to determine the specific actions that would help employees and visitors feel safer walking around downtown. This is a medium-term strategy. Example safety improvements include improving lighting and visibility, installing blue light emergency boxes, or hiring a safety ambassador who could provide safe walk services within the area. Because perceptions of safety are a subjective measure, the best performance metric is simply a survey question asking people how safe they feel walking around downtown. This feedback could be solicited through a downtown intercept survey or a question on Redlands’ annual National Community Survey.



Increase Shade Coverage

Some people cited the summer heat in Redlands as a key barrier to walking more than a few blocks. In response, the City could conduct a shade inventory, identify downtown sidewalks with limited shade coverage, and indicate locations where street trees could be planted, or shade structures could be installed. The City could then carry out the physical changes. If summer heat prevents some people from wanting to park a few blocks away and walk to their destinations, improving shade coverage could be a low-cost way to effectively increase the parking supply serving downtown. Another strategy worth exploring is the use of white roofs to reflect sunlight and reduce heat buildup in the environment. Success could be measured through an intercept or National Community Survey question asking respondents to rate their thermal comfort when walking in downtown Redlands. A more objective performance metric is the share of



downtown area sidewalks that have shade coverage during the hottest period of the day during the summer.

Make Aesthetic Improvements to Walkways

Making aesthetic improvements to walkways is a longer-term strategy that could be carried out gradually over as resources are available. Creating a landscaped buffer between the sidewalk and the street can encourage pedestrian travel, as can installing decorative hardscapes, widening walkways, and installing public art. These strategies can also enhance the character of the area as a whole and may further increase activity in the area. The City can identify sidewalks and routes most frequently used by pedestrians or with the potential to connect key parking facilities with the downtown core, identify specific upgrades for each route, and make changes to the physical infrastructure. Success could be measured in the number of downtown sidewalk blocks improved with sidewalk widening, decorative hardscapes, landscaping, and/or public art.

5. Encourage the Use of Sustainable Transportation Modes to Reduce Parking Demand

When more people use sustainable transportation, parking demand decreases without any corresponding decrease of the economic vitality of the area. Supporting sustainable transportation means existing parking may more likely be perceived as sufficient, and fewer measures may be necessary to increase supply and availability. One key strategy to reduce barriers to sustainable mobility involves improving the City’s bicycle infrastructure, which is addressed in the Sustainable Mobility Plan. The community identified priority areas for improvement, including streets that provide access to downtown, such as 6th Street, Brookside Avenue, and Redlands Boulevard, and bicycle infrastructure improvements are already planned for many of these streets. Table 19 below suggests additional strategies and action steps to encourage the use of sustainable transportation.

Table 19: Action Steps for Encouraging the Use of Sustainable Transportation Modes

Strategy	Action Steps
Secure Bike Parking	1. Install bike racks and secure bike lockers in convenient downtown locations on every block. Lockers for bike parking may be installed along the curb if off-street space is not available on a block. including the following amenities: <ul style="list-style-type: none"> • Large lockers that can accommodate cargo bikes • Lockers that offer charging for e-bikes • Parking and charging for electric scooters 2. Provide free parking for the first 24 hours and offer payment options for longer-term storage. 3. Create a City email address through which residents can suggest locations where bike parking is needed. Keep track of suggestions and install conveniently accessible bicycle racks and lockers as resources are available.
Shared Mobility Pilot	1. Conduct business community and public outreach to gauge interest in various shared mobility services, such as bike share or scooter share. 2. Explore available docked and dockless services.

Table continues on the next page.

Strategy	Action Steps
	3. Partner with a third party and implement a pilot program for shared mobility services, with special consideration to providing “last mile” access between dense residential neighborhoods, transit stations, major employers, and key downtown destinations, including State Street. 4. Evaluate the benefits and challenges of the program and create a framework to govern the future of shared mobility in Redlands.
Parking Cash Out	1. Adopt a local ordinance to enforce and expand upon state law AB 2206 (Parking Cash Out). AB 2206 requires that employers who offer free employee parking in rented or leased spaces offer the equivalent value as a cash-out benefit, but the state law applies only to employers with at least 50 employees, and the City could create the same requirement for smaller employers. 2. Require parking facilities to be unbundled from commercial properties.
Transportation Wallet Program	Offer a flexible transportation benefit to downtown employees, funded by parking revenues. Provide a choice between: <ul style="list-style-type: none"> • Transit passes • Gift card to a local bike shop (to subsidize bike or e-bike purchase/maintenance) • Discounted bundle of daily parking passes
Education and Awareness	1. Offer commute planning assistance for downtown businesses. 2. Implement a sustainable transportation campaign challenging car dependence with active transportation posters, brochures, and other messaging. 3. Provide sustainable transportation information (such as bike routes and transit schedules) via mail to new and relocating residents in Redlands. 4. Plan an annual “come to work car-free” day with incentives, to increase familiarity with sustainable mobility options.
Consider a Downtown Trolley Pilot	1. Explore community interest in a trolley connecting Downtown Redlands with other key destinations, such as major employers, dense residential neighborhoods, and rail stations. 2. Conduct a feasibility study considering potential ridership levels, operating costs, possible routes, and schedule options. 3. If feasible, consider a pilot program for a trolley service. Evaluate the program and make service adjustments based on demand.

Source: Walker Consultants, 2023.

Implementation: The City can encourage the use of sustainable transportation modes by providing secure bike parking, piloting a shared mobility service, developing a parking cash-out program, creating a transportation wallet program, and increasing awareness of alternatives to driving alone. Table 20 provides the approximate timeline for each strategy and suggested performance metrics. Additional implementation details are discussed below.

Table 20: Implementation Details for Encouraging the Use of Sustainable Transportation Modes

Action	Timeline	Performance Metrics
Provide secure bike parking	Medium-term	Share of downtown block faces with at least two convenient curbside bike racks. Share of downtown block faces with at least two secure bike/scooter storage lockers.
Pilot a shared mobility service	Long-term	Number of e-bike and e-scooter secure charging spaces. Number of miles traveled using the shared mobility service (i.e., bike share or scooter share). Number of trips. Number of unique users.
Develop parking cash-out program	Medium-term	Share of downtown employees eligible for parking cash-out. Share of eligible employees participating in the parking-cash out program rather than driving alone.
Create transportation wallet program	Long-term	Share of transportation wallet holders regularly commuting by modes other than solo driving.
Increase awareness of alternatives to driving alone	Medium-term	Share of downtown employee trips taken by sustainable modes. Share of downtown resident trips taken by sustainable modes. Number of participants in car-free travel outreach/education events.
Consider a downtown trolley pilot	Long-term	Average daily ridership.

Source: Walker Consultants, 2023.

Provide Secure Bike Parking

Providing secure bike parking is a medium-term strategy that involves identifying locations for the placement of curbside bicycle racks and secure bicycle lockers, including lockers large enough to accommodate cargo bikes and lockers that offer charging for electric bikes and scooters. The City may survey the downtown area and identify potential bike parking locations, evaluate locker technology options, and manage purchasing. The City may then install and maintain the infrastructure, as well as respond to community requests and suggestions for additional locations for accessible bike racks and lockers. Performance metrics for this strategy include the share of downtown block faces with at least two convenient curbside bike racks, the share of downtown block faces with at least two secure bike/scooter storage lockers, and the number of e-bike and e-scooter secure charging spaces.

Pilot a Shared Mobility Service

Piloting a shared mobility service is a long-term strategy which may involve experimenting with various models and service providers and soliciting feedback before committing to a specific strategy. The City can explore available docked and dockless services and conduct business community and public outreach to gauge interest in various shared mobility services, such as bike share or scooter share, that can help provide “last mile” access between dense residential neighborhoods, transit stations, major employers, and key downtown destinations, including State Street. The City can handle contracting, manage the day-to-day operations of the program, and evaluate the benefits, challenges, and lessons learned from the pilot program to create a framework to govern the future of shared mobility in Redlands. Success can be measured by the number of miles traveled using the shared mobility service, the number of trips, and the number of unique riders.

Designated Dockless Parking for Shared Micro-Mobility Vehicles



Develop a Parking Cash-Out Program

The cost to provide parking for employees is typically significant, with the capital and land costs of providing a structured parking space potentially approaching \$200 to \$300 per month or more, a generous benefit for those who take advantage, a loss to those employees who do not park, and an incentive to drive for those who may have options other than driving but for whom the options are not rewarded. Parking cash-out is a medium-term strategy that requires employers who provide free parking or pay to provide free parking for their employees to offer an equivalent benefit to employees who arrive to work by another mode of travel. The City could draft a local ordinance to enforce and expand upon the State’s Parking Cash Out law that applies only to large employers. The City would then be responsible for implementing the ordinance, and success could be measured by both the share of downtown employees eligible for parking cash-out and the share of eligible employees participating in the parking-cash out program rather than driving alone.

Create a Transportation Wallet Program

Creating a transportation wallet program is a longer-term strategy. Some cities use parking revenues generated within certain areas to support a variety of travel options for those who work or live in those areas. The “transportation wallet” is a flexible benefit, which can offer a choice between a public transit or shared micro-mobility pass, a gift card to a local bike shop to subsidize bike or e-bike purchase or maintenance, or even discounted daily parking passes, should off-street facilities ever experience sufficient demand to warrant pricing. Program design and administration could be a collaborative effort by the City and the Downtown Parking Benefit District, once a district has been established. The program’s success could be measured through a survey of program participants and tracked as the share of transportation wallet holders regularly commuting downtown by modes other than solo driving.

Increase Awareness of Alternatives to Driving Alone

Increasing awareness of alternatives to driving alone is a medium-term strategy that may be ongoing, especially as new modes of transportation become available, or existing services and infrastructure are improved. The City can offer or collaborate with another partner to offer commute planning assistance for downtown businesses. The City can implement a sustainable transportation campaign challenging car dependence with active transportation posters, brochures, and other messaging, and can provide sustainable transportation information (such as bike routes and transit schedules for accessing downtown) via mail to new and relocating residents in Redlands. The City and Downtown Parking Benefit District (once established) can collaboratively plan an annual “come to work car-free” day with incentives, to increase familiarity with sustainable mobility options.

Metrolink Train near Downtown Redlands Station



Source: Walker Consultants, 2023.

Consider a Downtown Trolley Pilot

A downtown trolley is a potential long-term strategy for promoting sustainable transportation. The City can explore community and employee interest in a trolley connecting Downtown Redlands with other key destinations, such as major employers, dense residential neighborhoods, and rail stations. The City can conduct a feasibility study considering potential ridership levels, operating costs, possible routes, and schedule options. If deemed feasible, the City can oversee the finances for the trolley operations and can promote the trolley to residents and visitors. The City can continually evaluate the program and make service adjustments based on demand. Success may be measured by average daily ridership.

6. Increase the Supply of Publicly Available Parking

The public parking supply downtown could be increased either by increasing the number of private spaces made available to the public, increasing the effective capacity of existing facilities with valet parking, or by constructing new parking facilities. Strategy 1, as detailed earlier in this chapter, included actions for increasing the utilization of existing off-street parking resources. Valet assist parking is sometimes a cost-efficient way to increase the effective capacity of existing facilities. Investing public resources in new parking infrastructure can be expensive, and rarely aligns with the goal of creating a future for transit-oriented areas in which sustainable transportation options are at least equally convenient and attractive, or potentially even more attractive, than driving alone. Despite these concerns, Redlands may wish to consider conducting an analysis evaluating the potential benefits and impacts of investing in additional structured parking, potentially as a component of the plans for redevelopment of the existing City Hall site, in order to make a more informed decision. Strategies to negotiate the lease or acquisition of lots/spaces, pursue shared use agreements, and increase utilization of underutilized facilities have already been explained in detail. Table 21 shows the action steps that could be taken for the remaining strategies to increase the public parking supply.

Table 21: Actions Steps for Increasing the Public Parking Supply

Strategy	Action Steps
Increase Capacity with Valet Parking	1. Conduct a feasibility study, considering: <ul style="list-style-type: none"> • Potential increase in effective parking capacity at candidate facilities • Recommended service hours, days, or months • Number of attendants necessary for efficient operations • Expected costs and benefits • Feasibility of funding or partially funding with parking revenues • Comparison with other financial investments in infrastructure or strategies to improve access and overall experience downtown 2. If deemed feasible, cost-effective, and consistent with community goals, develop plans and allocate budget for valet services.
Construction of Additional Structured Parking	1. If, after first (1) increasing the utilization of existing off-street parking resources, and (2) piloting paid parking, the parking situation in Downtown Redlands may be prohibiting some potential visitors from coming to the area, consider investing in additional structured parking through redevelopment of the existing City Hall site. 2. Conduct a study evaluating the feasibility, costs, and benefits of consolidating existing off-street parking lots to a central parking structure location to reduce vehicle traffic in the core downtown area and promote a “park-once” environment. The study should consider the following: <ul style="list-style-type: none"> • Net increase in parking capacity • Impact on the number of trips made to Downtown Redlands <ul style="list-style-type: none"> ○ New trips diverted from other commercial areas in Redlands ○ New trips diverted from other regional destinations • Impact on mode split of downtown trips • Impact on sales and sales tax revenue • Redevelopment potential of existing surface lots • Total cost and cost per space, including maintenance costs • Feasibility of funding or partially funding with parking revenues • Comparison with other financial investments in infrastructure or strategies to improve access and overall experience downtown • Community priorities 3. If a new downtown parking structure is identified as a top community priority and found to align with land use, mobility, and economic vitality goals, develop plans and allocate budget for additional structured parking.

Source: Walker Consultants, 2023.

Implementation: The City can increase the public parking supply by increasing the number of private spaces made available to the public, increasing the effective capacity of existing facilities through valet parking operations, and by constructing new parking facilities. Many implementation actions for expanding the public parking supply have already been discussed in the Increasing Access to Underutilized Off-Street Facilities section (Strategy 1) earlier in this report. Table 22 provides the approximate timeline for considering public investment in additional structured parking and suggested performance metrics. Additional considerations and implementation details are discussed below.

Table 22: Implementation Details for Increasing the Public Parking Supply

Action	Timeline	Performance Metrics
Increase Capacity with Valet Assist Parking	Medium-term	Total number of vehicles parked beyond what the facility’s capacity would be without the valet service. Number of vehicles parked beyond capacity per valet service hour.
Consider investing in additional structured parking facility	Long-term	Number of trips taken downtown. Impact on sales and sales tax revenue. Number of vehicles parked downtown during peak hours.

Source: Walker Consultants, 2023.

Increase Capacity with Valet Assist Parking

Depending on the potential increase in parking capacity at a facility, valet assist parking may be a cost-effective medium- or long-term strategy to increase the public parking supply. Valet assist parking may be a medium-term strategy relevant for special event parking, or a longer-term strategy for regular parking operations. Valet parking typically increases capacity by approximately 15 to 30 percent. Possible candidates for valet parking include the current City Hall parking facilities, or, if the City develops a shared use agreement opening more spaces for public parking and management, the Centennial Plaza Garage. In addition to expanding the effective capacity, valet parking can also create job opportunities that keep money in the local economy, and it can improve perceptions of safety in downtown parking garages simply by the presence of attendants in the facilities where there are none today.

It may be worthwhile to compare the monthly cost per space estimates for valet parking in the context of the cost per space estimates of structured parking. For example, considering construction costs, life cycle, operations, and maintenance, the monthly cost per space in a new parking structure may be in the range of \$300-500—and many spaces may sit empty some of the time or feel unsafe for some drivers. Valet parking is a more flexible strategy, which does not require a permanent investment. It can be continually evaluated and adjusted, implemented during hours, days, or months when parking demand is typically higher. If the City eventually finds it worthwhile to invest in additional structured parking, valet parking may be an interim strategy to increase the parking supply.

The City could conduct an initial feasibility study exploring the potential increase in parking capacity at various publicly managed facilities, recommended hours of valet assist services, the number of valet attendants necessary for efficient operations, the expected cost, and the feasibility of funding or partially funding with parking revenues. If a Downtown Parking Benefit District (PBD) has been established, the study should be conducted in partnership with the PBD. If deemed feasible and cost-effective, the City could manage the budget and contract for valet assist services. Success could be measured by (1) the total number of vehicles parked beyond what the facility's capacity would be without the valet service and (2) the number of vehicles parked beyond regular capacity per valet service hour.


Consider Investing in an Additional Structured Parking Facility

Investing in an additional structured parking facility is a longer-term strategy that may be worth considering if the downtown area were to experience a reduction or stagnation in the number of visitors or business activity due to the parking situation. A cost and benefit analysis regarding the very real cost of parking with the amount of marginal, additional business the parking space will attract, along with alternative options, is a fair exercise.

If the City has already implemented solutions that increase the efficiency with which existing resources are used, a study can be conducted evaluating the feasibility, costs, and benefits of constructing additional structured parking, including opportunities for a structure to allow redevelopment over surface lots in the downtown area and promote a “park-once” environment. The study should consider the net increase in parking capacity, project the impact on the number of new trips made to Downtown Redlands (including trips diverted from other commercial areas in the City), the impact on mode split, the impact on sales and sales tax revenue, the redevelopment potential of existing surface lots, the total cost and cost per space (including maintenance costs), the feasibility of funding the construction with parking revenues, a comparison with other financial investments or strategies to improve access to and the overall experience of downtown, and community priorities for public resource allocation. Cost analysis should include the cost of designing a new parking structure in a manner that it can be adaptively reused if it becomes obsolete for parking needs in the future, as provided for by General Plan section 5-A.80. If a Downtown Parking Benefit District (PBD) has been established, the study should be conducted in partnership with the PBD.

If a new downtown parking structure is identified as a top community priority and found to be consistent with land use, sustainable mobility, and economic vitality goals for the Downtown Transit Village, the City can plan for the location and construction of the new structure and identify any surface lots that may be redeveloped. The City can oversee the budget, ensure parking revenues help cover the cost of the project, and handle any day-to-day operational needs of the new facility. The success of the investment could be measured by the number of trips taken downtown and the change in sales and sales tax revenue, relative to other commercial areas in the City and general economic trends.

In the existing conditions chapter of this report, the existing City Hall site, which will be vacated when City Hall moves into the Citibank building on State Street, is the top candidate for additional structured parking, if desired. This structure could incorporate the already existing subterranean level of parking on the site while also allowing for ground floor retail businesses.



Appendices

Appendix A: Downtown Redlands Intercept Survey

Downtown Redlands Intercept Survey

Time: _____

The survey administrator asked the bolded questions, and then categorized participants' responses for analysis.

1. Where do you live?

- Redlands – downtown area within about a half mile of downtown
- Redlands – elsewhere
- If outside of Redlands, are you:
 - Within 5 miles
 - Within 10 miles
 - 10 or more miles

2. What brings you downtown?

- Work
- Shopping
- Dining
- Professional services or appointment
- Other

3. Where did you park?

- On the street
- In a parking garage
- In a parking lot

4. Did you park near your destination?

- Yes
- No

5. How was the experience of finding parking?

- I found parking quickly near my destination.
- I found a parking space near my destination, but I had to drive around to find it.
- I found a parking space quickly that was away from my destination.
- I found a parking space that was away from my destination, and I had to drive around to find it.

6. How long did you stay/are you planning to stay in Downtown Redlands?

- Less than 1 hour
- 1-2 hours
- 2+ hours

7. When thinking about where to go out for shopping or dining, how does parking availability influence your decision?

- Parking availability is not an important factor for me – I am more interested in the location itself.
- I usually try to go places with parking reasonably close to my destination.

8. Do you have any thoughts or concerns related to downtown Redlands parking?

Appendix B: Downtown Redlands Employee Comments

Block 13:

- They can't leave for lunch, or the public will park in their private spaces. Customers have to circle for parking. Their signs don't have the tow company phone number, so they aren't actually allowed to tow. They would appreciate parking enforcement and more ADA spaces.
- Their elderly customers want to park at the bank but are afraid they would be towed.
- It's especially hard to find a space in the afternoons.
- Older clients can't access their business. The structure is full when employees arrive to work. They take a chance on enforcement; there should be no enforcement if there are no options to park without time limits.
- They close their business and can't work event days and Saturdays and lose income as a result.
- They need better notification for events. They also need more spaces without time limits.
- Time limits are an issue. They take their chances with them when they arrive late.
- Clients park at CVS.
- They would rather take their chances with a ticket for parking on State Street than parking in the structure where they don't feel safe. Hair treatments take over two hours, so they can't move their vehicles. They don't feel safe walking downtown, especially late at night.

Block 18:

- They don't feel safe parking and walking in the early morning before the sun rises.
- During farmers markets, vendors and the public park in their private spaces before their business opens. They would like a structure or parking designated specifically for employees.
- Esri owns a lot just north of 6th Street and businesses rent individual spaces for employee parking, but the public still park there. They would like for Redlands to have a trolley or electric scooters, rather than enforcement or parking meters.
- They leave at 7pm and don't feel safe going to the garage. They leave prime State Street spaces for customers and park on other streets.
- It's difficult for their customers to find parking when they have classes.
- They park in front of their business or on nearby side streets, usually just moving their cars after they go out for lunch.
- The structure does not feel safe. Customers report spending 10 minutes circling for parking when they used to circle only 5 minutes. They arrive late and it backs up business for the day.
- Workers park all day. Enforcement is needed. She pays \$35 monthly for a private space behind her business and thinks it's a good deal.
- Customers complain and sometimes just leave. They always ask their customers where they parked and warn them if they parked in private reserved parking, so they don't get towed. Saturdays are the most difficult.
- It doesn't feel safe walking to the structure. The CitiBank lot may be empty and a good temporary solution. The City doesn't inform businesses of events with enough time for them to properly staff for them.

Block 19:

- People always use the Wells Fargo lot as public parking.
- Wells Fargo allows some employees of other businesses to park there.
- Parking is inconvenient during events; sometimes employees have someone drop them off at work.
- One owner parks on the street in front of her business, and her customers usually park at the bank parking lot.
- They appreciate the lack of enforcement and don't want to upset customers.

Block 25:

- All employees park on Main Street in front of their business. The time limits make it difficult, and they would appreciate parking options without time limits. They shuffle their vehicles every 2 hours, but especially around 1pm it's very difficult.
- Street closures are hard for the business; customers need to access the lot when they have bulky purchases.
- Customers complain about lack of parking.
- Coffee shop customers park in private business spaces. It's a problem. The employees never leave for lunch because they will be late, and their reserved spaces might be taken when they return. They have to leave earlier to arrive on-time for work but are used to it.
- Hairdressers park on the street in front of their business. Downtown needs parking enforcement.
- Employees don't feel safe at night and try to park on the street in front of the business.
- Their employees have always parked in the bank's parking lot and there's never been an issue.
- Customers complain about parking.
- They park on street but not in front of their own or other businesses where someone might complain.
- They have their own private parking, but the public often parks there. They won't tow because of some technical issue, but it ruins their day if someone parks in their lot.
- The employees park on the street and shuffle their vehicles every 2 hours.

Block 26:

- Employees sometimes have to park a block away on Fridays and Saturdays.
- They have two private parking spaces for their customers but no longer even mention it to them since other people always take the spaces and sometimes become aggressive if asked to leave.
- Lack of enforcement on the street is an issue; employees of other businesses park in prime spaces they would like to have available for their customers.

Appendix C: San Clemente Parking Lot Lease Agreement Template

PARKING LOT LEASE AGREEMENT

This PARKING LOT LEASE AGREEMENT (“Agreement”) is made and entered into as of this ____ day of _____, 200__, by and between the [PLEASE PROVIDE EXACT NAME OF TRUST AND NAMES OF (CO)-TRUSTEES] (“Owner”), and the CITY OF SAN CLEMENTE, a California municipal corporation (“City”). Owner and City are hereinafter sometimes referred to collectively as “parties” and individually as a “party.”

R E C I T A L S

A. Owner is the owner in fee of that certain real property located at [ADDRESS], Assessor’s Parcel Numbers (“APN”) [APN NUMBER] located in the downtown area of the City of San Clemente, County of Orange, State of California (the “Property”).

B. City has requested to lease, and Owner is willing to lease, those portions of the Property more particularly depicted in Exhibit “A”, attached hereto and incorporated by this reference (the “Premises”), for the purpose of providing public parking according to the terms and conditions of this Agreement.

C O V E N A N T S

Based upon the foregoing Recitals, which are incorporated into this Agreement by reference, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by both parties, Owner and City hereby agree as follows:

1. Grant of Lease. Owner hereby leases to City, and City hereby leases from Owner, the Premises and all landscaping, improvements, and structures that will be used for the Permitted Uses (defined below) according to the terms and conditions of this Agreement.

2. Term.

2.1 Initial Term. The lease of the Premises shall be for an initial term of five (5) years (the “Initial Term”), commencing upon the date that the City Council approves in accordance with law this fully executed Agreement (the “Commencement Date”) and expiring on the date that is the fifth (5th) anniversary of the Commencement Date.

2.2 Automatic Renewal. Upon the expiration of the Initial Term, the lease of the Premises shall be divided into one (1) year renewable terms, wherein each one (1) year term is hereinafter referred to as a “Renewable Term.” The first Renewable Term shall automatically commence upon the date that is the day immediately after the expiration of the Initial Term, and each subsequent Renewable Term shall automatically commence on the date that is the day immediately after the expiration of the previous Renewable Term. The lease of the Premises for any time after the expiration of the Initial Term (i.e., for any time during any and all Renewable

Terms) is hereinafter referred to as the "Extended Term." The Initial Term and Extended Term are collectively referred to in this Agreement as the "Term."

2.3 Termination of Lease. Either party, in its sole and absolute discretion, may terminate the lease of the Premises either: (i) at the expiration of the Initial Term, or (ii) at any time during the Extended Term. The party seeking to terminate the lease shall deliver to the other party written notice thereof no later than sixty (60) days prior to the date of termination.

3. Rent and Security Deposit.

3.1 Rent. City shall pay to Owner as rent for the Premises [AMOUNT] per month (the "Rent"). The first payment of Rent shall be prorated pursuant to Section 3.4 below (if applicable) and shall be delivered to Owner no later than the date that is three (3) weeks after the Commencement Date. Each and every subsequent payment of Rent shall be delivered to Owner no later than the tenth (10th) day of the month for which the Rent is due.

3.2 Security Deposit. City shall deliver to Owner, no later than the date that is three (3) weeks after the Commencement Date, a security deposit in the amount of [AMOUNT] (the "Security Deposit"). The Security Deposit shall be held by Owner as security for the performance by City of the terms and conditions of this Agreement to be kept and performed by City. Prior to the use of the Security Deposit for any obligation to be performed by City pursuant to this Agreement, Owner shall deliver written notice to City of the reason for the use, and Owner shall provide City with an opportunity to cure any failure to perform said obligation prior to the use of the Security Deposit pursuant to the cure provisions set forth in Section 10 below. If City fully performs every obligation of this Agreement to be performed by it, the Security Deposit or any balance thereof shall be returned to City upon termination of this Agreement.

3.3 Delivery. All payments and charges due under this Agreement shall be paid by City in lawful money of the United States of America, which shall be legal tender at the time of payment, at:

Attn: _____

or to such other person or at such other place as Owner may from time to time designate in writing. Owner shall promptly deliver to City any change in address or person responsible for receiving payment of Rent. City shall not be in default of this Agreement if Owner fails to receive any payment of Rent when Owner fails to promptly deliver any change in address or person responsible for receiving payment.

3.4 Prorated Amounts. Any Rent due under this Agreement for any fractional part of a calendar month shall be prorated based on the ratio that the number of days in that month during the Term bears to the total number of days in that month.

4. Permitted Uses. For the duration of the Term, the Premises shall be used for parking by the general public and incidental uses relating thereto (the “Permitted Uses”), and for no other purpose, subject to the following conditions: (i) no overnight parking shall be permitted; (ii) parking for each vehicle used by a member of the general public shall be limited to four (4) hours for any twenty-four (24) hour period, provided, however, that the time limits may be adjusted by mutual consent of the parties; (iii) any vehicle used by a current employee of [NAME] may park all day on the Premises, but only if such vehicle has a parking permit or sticker for such all day use clearly posted on the vehicle’s bumper or windshield; and (iv) any other rules and regulations that City may impose on the general public for the use of the Premises. With respect to the condition concerning the ability of [NAME] employees to park on the Premises pursuant to clause (iii) above, the parties agree that this parking condition shall remain in effect only so long as [NAME] remains in business at its location as of the Commencement Date, and that in the event [NAME] no longer continues its business operations at such location, City shall have no obligation to comply with the parking condition set forth in clause (iii) above.

5. Improvement and Maintenance of Premises. City, at its own cost and expense, shall be responsible for the improvement and maintenance, as needed, of the Premises for use as a public parking lot, including but not limited to: (i) surfacing the parking lot; (ii) striping parking lot spaces; and (iii) providing signage, as needed. Signage shall indicate, where City determines is appropriate, that the parking lot is open for use by the general public.

6. Insurance.

6.1 General Liability. City shall obtain and keep in force and effect for the entire Term a commercial general liability insurance policy which names Owner as an additional insured, protecting against claims of bodily injury, personal injury and property damage based upon, involving, or arising out of the use or maintenance of the Premises by City. Such insurance shall be on an occurrence basis providing single limit coverage in an amount not less than One Million Dollars (\$1,000,000.00) per occurrence.

6.2 Certificates. City shall provide to Owner a certificate of insurance evidencing insurance coverage as provided herein no later than the date that is three (3) weeks after the Commencement Date, and thereafter as requested by Owner until the termination of this Agreement.

6.3 Self-Insurance. In lieu of the obligations set forth in Section 6.1 and 6.2 above, City may satisfy its obligation to provide general liability insurance for the Premises through a self-insurance program, but only if City remains self-insured for no less than One Million Dollars (\$1,000,000.00) in liability claims. In the event that City is self-insured, City shall deliver to Owner, no later than the date that is three (3) weeks after the Commencement Date, a statement, certificate, or other proof of financial responsibility, duly acknowledged by City’s authorized representative, for One Million Dollar (\$1,000,000.00) in self-insurance.

7. Indemnity. City shall indemnify, defend, and hold harmless Owner and its officers, officials, employees, agents, or representatives (collectively the “Indemnitees”) against any and all claims, demands, causes of action, damages, costs, expenses, losses and liabilities, at

law or in equity arising out of or relating to (i) any activity or work done, permitted, or suffered on the Premises; (ii) use of the Premises by City and its officers, officials, employees, agents, representatives, invitees, patrons, or sub-lessees; or (iii) the acts or omissions of City or its officers, officials, employees, agents, or representatives acting in an official capacity. This indemnity shall specifically include the right to indemnification for any claims, demands, causes of action, damages, costs, expenses, losses and liabilities, at law or in equity arising from the acts or omissions, whether negligent, reckless, willful or otherwise, of any member of the public (as that term is defined below) while that member of the public is or was on or about the Premises. Notwithstanding the forgoing sentences in this Section 7, City shall have no obligation to indemnify, defend, and hold harmless the Indemnitees for any claim, demand, cause of action, damages, costs, expenses, losses and liabilities arising from or relating to (i) a pre-existing environmental condition concerning hazardous substances on or under the Premises; or (ii) any negligent, reckless, or willful act or omission of Indemnitee(s) while on or about the Premises.

For purposes this Agreement, the term “hazardous substance” shall mean any substance or material defined or designated as hazardous or toxic waste, hazardous or toxic material, a hazardous or toxic substance, or other similar term by any federal, state, or local environmental statute, regulation, or ordinance. For purposes of this Section 7, the term “member of the public” shall mean any person other the officers, officials, employees, agents, or representatives, acting in an official capacity, of Owner or City.

8. Peaceable Possession. Owner hereby warrants and represents that it has the authority to lease the Premises and to execute this Agreement. Owner further covenants and agrees that City, upon performing and quietly observing the terms and conditions of this Agreement, shall have the right to hold, occupy, and enjoy the Premises for the Permitted Uses during the Term without any interruption or hindrance from Owner, its successors or assigns, or any person or entity lawfully claiming by or through it.

9. Assignment and Subletting. Upon Owner’s approval, which shall not be unreasonably withheld, conditioned, or delayed, City shall have the right to assign or transfer this Agreement or any interest in this Agreement, and shall have the right to sublet the Premises or any part thereof, for the purpose of operating and maintaining the Premises for the Permitted Uses.

10. Default. The occurrence of any one or more of the following events shall constitute a material default (“default”): (i) the vacating or abandonment of the Premises by City; (ii) the failure by City to pay Rent when due pursuant to this Agreement, and such failure continues for a period of ten (10) days after delivery of written notice from Owner to City of said failure; and (iii) the failure by either party to observe or perform any of the obligations of this Agreement to be observed or performed by the responsible party (other than the obligation described in clause (ii) above), where such failure either: (A) continues for a period of thirty (30) days after delivery of written notice thereof from the party seeking performance, or (B) if performance cannot be completed with thirty (30) days, cure of such failure has not commenced within thirty (30) days after delivery of written notice thereof and diligently prosecuted until completion within sixty (60) days of the expiration of the thirty (30) day period (for a total of ninety (90) days). Upon an event of default and after the expiration of the applicable

cure period, this Agreement and City’s right to lease the Premises shall terminate upon the date that is one day after the date of expiration of the applicable cure period unless the party in default cures the default within the applicable cure period.

11. Miscellaneous.

11.1 Binding on Heirs. This Agreement shall be binding upon the parties hereto and inure to their respective representatives, transferees, successors, and assigns.

11.2 Litigation Expenses. If either party to this Agreement commences an action against the other party to this Agreement arising out of or in connection with this Agreement, the prevailing party shall be entitled to recover reasonable attorneys' fees, expert witness fees, costs of investigation, and costs of suit from the losing party.

11.3 Notices. All notices required to be delivered under this Agreement to another party must be in writing and shall be effective: (i) when personally delivered by the other party or messenger or courier thereof; (ii) three (3) business days after deposit in the United States mail, registered or certified; (iii) one (1) business day after deposit before the daily deadline time with a reputable overnight courier or service; or (iv) upon receipt of a telecopy or fax transmission, provided a hard copy of such transmission shall be thereafter delivered in one of the methods described in the foregoing (i) through (iii); in each case postage fully prepaid and addressed to the respective parties as set forth below or to such other address and to such other persons as the parties may hereafter designate by written notice to the other parties hereto:

To City:	City of San Clemente
Copy to:	
To Owner:	_____

	Attn: _____
Copy to:	_____

	Attn: _____

11.4 Entire Agreement, Waivers, and Amendments. This Agreement incorporates all of the terms and conditions mentioned herein, or incidental hereto, and supersedes all negotiations and previous agreements between the parties with respect to all or part of the subject matter hereof. All waivers of the provisions of this Agreement must be in writing and signed by the appropriate authorities of the party to be charged. A waiver of the breach of the covenants, conditions or obligations under this Agreement by either party shall not be construed as a waiver of any succeeding breach of the same or other covenants, conditions or

obligations of this Agreement. Any amendment or modification to this Agreement must be in writing and executed by the appropriate authorities of City and Owner.

11.5 Interpretation; Governing Law. This Agreement shall be construed according to its fair meaning and as if prepared by all of the parties hereto. This Agreement shall be construed in accordance with the internal laws of the State of California without regard to any conflict of law principles in effect at the time of the execution of this Agreement.

11.6 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

11.7 Force Majeure. In the event that either party is delayed, hindered, or prevented from performing any act required hereunder by reason of strikes, lockouts, or other labor troubles, inability to procure or shortage of materials or supplies, failure of power, energy shortages, restrictive governmental laws or regulations, inclement weather, fire, explosion, earthquake or other casualty, riots, insurrection, war, act of God, or other causes that are without the fault and beyond the reasonable control of such Party, then the performance of the party obligated to perform under this Agreement shall be excused for and extended by the period of such delay.

11.8 Headings. Section and Subsection headings in this Agreement have been inserted solely for the convenience of the parties, and such captions, headings, and titles shall in no way define or limit the scope, intent, or application of any provision of this Agreement.

11.9 Time is of the Essence. Time is of the essence with respect to every provision of this Agreement.

11.10 Computation of Time. Unless otherwise specified in this Agreement, use of the word “days” shall mean calendar days, and any provision requiring the computation of time shall be based upon a standard calendar of three hundred sixty five and one-quarter (365 ¼) days.

11.11 Execution in Counterpart. This Agreement may be executed in several counterparts, and all so executed shall constitute one agreement binding on all parties hereto, notwithstanding that all parties are not signatories to the original or the same counterpart.

[signatures on next page]



IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

“CITY”

CITY OF SAN CLEMENTE,
a California municipal corporation

ATTEST:

By: __ Mayor

City Clerk

APPROVED AS TO FORM:

City Attorney

“OWNER”

By: _____

Its: _____

By: _____

Its: _____



TRAFFIC & PARKING COMMISSION EXPENDITURE TRACKING WORKSHEET

FY 2022-23

5/5/2023

ITEM	TPC MEETING	DESCRIPTION	STATUS	AVAILABLE BUDGET	UNBUDGETED REVENUE	EXPENDITURE/COST ESTIMATE	REMAINING BUDGET	COMMENTS
				\$ 100,000.00				FY 22/23 MUED BUDGET ALLOCATION FOR APPROVED TPC PROJECTS
1	2/23/2022	CENTRAL AVENUE MID-BLOCK CROSSWALK (CHURCH STREET-CITRUS AVENUE)	ADVERTISED FOR BIDS	\$ 100,000.00	\$ 17,456.00	\$ 12,133.43	\$ 105,322.57	\$17,456 REDLANDS SCHOOL DISTRICT COST SHARE EXPENDITURE FOR FY 2022/2023 INCLUDES ONLY EQUIPMENT COST
2	5/27/2021	MARION ROAD/5 TH STREET CROSSWALK	ADVERTISED FOR BIDS	\$ 105,322.57	\$ -	\$ 12,133.43	\$ 93,189.14	EXPENDITURE FOR FY 2022/2023 INCLUDES ONLY EQUIPMENT COST
3	5/27/2021	WABASH AVENUE/HIGHLAND AVENUE CROSSWALK	PENDING HSIP CYCLE 10	\$ 93,189.14	\$ -	\$ -	\$ 93,189.14	NO BUDGET IMPACT - ALLOCATED TO GRANT FUNDED PROJECT
4	4/27/2022	CITYWIDE SPEED SURVEY TO UPDATE SPEED LIMITS	COMPLETE	\$ 93,189.14	\$ -	\$ -	\$ 93,189.14	NO BUDGET IMPACT - COMPLETED IN-HOUSE
5	5/25/2022	WABASH AVENUE MID-BLOCK CROSSWALK (SYLVAN BOULEVARD-MONTECITO LANE)	ADVERTISED FOR BIDS	\$ 93,189.14	\$ 29,098.67	\$ 47,975.57	\$ 74,312.24	\$29,098.67 DEVELOPER OBLIGATION EXPENDITURE FOR FY 2022/2023 INCLUDES ONLY EQUIPMENT COST
6	1/26/2023	FOUR-WAY STOP INTERSECTION AT KANSAS STREET AND STATE STREET	IN CONSTRUCTION	\$ 74,312.24	\$ -	\$ -	\$ 74,312.24	NO BUDGET IMPACT - COMPLETE IN-HOUSE
7	3/23/2023	FOUR-WAY STOP INTERSECTION AT ELIZABETH STREET AND FOUNTAIN AVENUE	PENDING COUNCIL APPROVAL	\$ 74,312.24	\$ -	\$ -	\$ 74,312.24	NO BUDGET IMPACT - COMPLETE IN-HOUSE
8	3/23/2023	NO-PARKING ZONE (10 PM-6 AM) ON INDUSTRIAL PARK AVENUE (NEVADA STREET-ALABAMA STREET) WITH TRUCK EXEMPTION	PENDING COUNCIL APPROVAL	\$ 74,312.24	\$ -	\$ -	\$ 74,312.24	NO BUDGET IMPACT - COMPLETE IN-HOUSE
9	5/25/2023	NO-PARKING ZONE (10 PM-6 AM) ON STREETS LINING SYLVAN PARK	PENDING TPC APPROVAL	\$ 74,312.24	\$ -	\$ -	\$ 74,312.24	NO BUDGET IMPACT - COMPLETE IN-HOUSE

NOTE: ALL ITEMS NOT COMPLETED IN FY 2021/2022 WERE ROLLED OVER TO THE FY 2022/2023 TPC BUDGET

Work Order Status as of May 9, 2023

Traffic and Parking Commission Approved Items Work Order Status

Item	Traffic and Parking Commission Meeting	Description of Request	Recommended for City Council?	City Council Meeting	Approved by City Council?	Work Order Issued	Work Order Status
1	5/27/2021	Install a crosswalk on Fifth Street at Marion Road	Yes	12/7/2021	Yes	Pending	Procuring equipment
2	5/27/2021	Install a crosswalk on Wabash Avenue at Highland Avenue	Yes	N/A	N/A	Pending	Allocated to HSIP Cycle 10 project
3	2/23/2022	Install a midblock crosswalk on Central Avenue between Church Street and Citrus Avenue	Yes	4/19/2022	Yes	N/A	Procuring equipment
4	6/29/2022	Midblock crosswalk on Wabash Avenue between Sylvan Boulevard and Montecito Lane adjacent to Crafton Elementary School	Yes	5/16/2023	Pending	Pending	Procuring equipment
5	1/26/2023	Four-way stop intersection to replace the current two-way stop at Kansas Street and State Street	Yes	3/7/2023	Yes	3/8/2023	Stop signs installed. Crosswalk striping in progress
6	3/23/2023	Four-way stop intersection to replace the current two-way stop at the Elizabeth Street and Fountain Avenue intersection	Yes	5/16/2023	Pending	N/A	Pending Council approval
7	3/23/2023	No-parking zone between 10 PM to 6 AM on Industrial Parking Avenue from Nevada Street and Alabama Street (Truck exemption between Nevada Street and 1675 Industrial Park Avenue)	Yes	N/A	Pending	N/A	Pending Council approval

Status of Work Orders Approved by Staff

Item	Description of Request	Work Order Issued	Work Status
1	Install one speed feedback sign on Ridge Street and two speed feedback signs on Alta Vista Drive	1/23/2023	Complete
2	Remove truck route plaque from existing post on Crescent Avenue at Center Street	2/22/2023	Complete
3	Relocate westbound school speed limit sign to Elizabeth Street at Dwight Street	2/22/2023	Complete
4	Install a speed speed sign on Sunset Drive at Vinton Way	4/4/2023	Complete
5	Paint seven feet of red curb adjacent to driveway at 2200 San Bernardino Avenue	4/13/2023	Pending

CITYWIDE LEFT-TURN POCKET STUDY

REDLANDS, CALIFORNIA
PROJECT NO. 08112022JS

MAY 15, 2023

Prepared for:
City of Redlands
35 Cajon Street, Suite 15A
Redlands, CA 92373

Prepared By:



2141 W. Orangewood Avenue, Suite A
Orange, CA 92868
T: 714.573.0317 | F: 714.573.9584
www.koacorp.com

JC23068

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APPENDICES

- Appendix A – Traffic Count Data
- Appendix B – Evaluation of Study Intersections with No Left-Turn Issues

1.0 INTRODUCTION

1.1 BACKGROUND

The City of Redlands (hereinafter referred to as the ‘City’) has retained KOA Corporation to conduct a high-level, citywide evaluation of the existing road network to assess intersections in need of left-turn pockets in order to enhance vehicular movements without additional right-of-way. This study also includes the evaluation of intersections with existing left-turn pockets that may experience safety or operational issues. The goal of this study is to identify intersections with left-turn issues and to determine recommendations to improve those problematic left-turn movements in order to enhance traffic safety, reduce traffic congestion, and improve the overall traffic flow within the City.

1.2 STUDY INTERSECTIONS

The study locations, as defined through consultation with City staff, includes 69 signalized and 36 non-signalized intersections for a total of 105 study intersections. These intersections were identified by the City to be key locations with existing or potential left-turn issues and therefore were included in this study. The study intersections are listed below in **Table 1.1** and depicted in **Figure 1.1**.

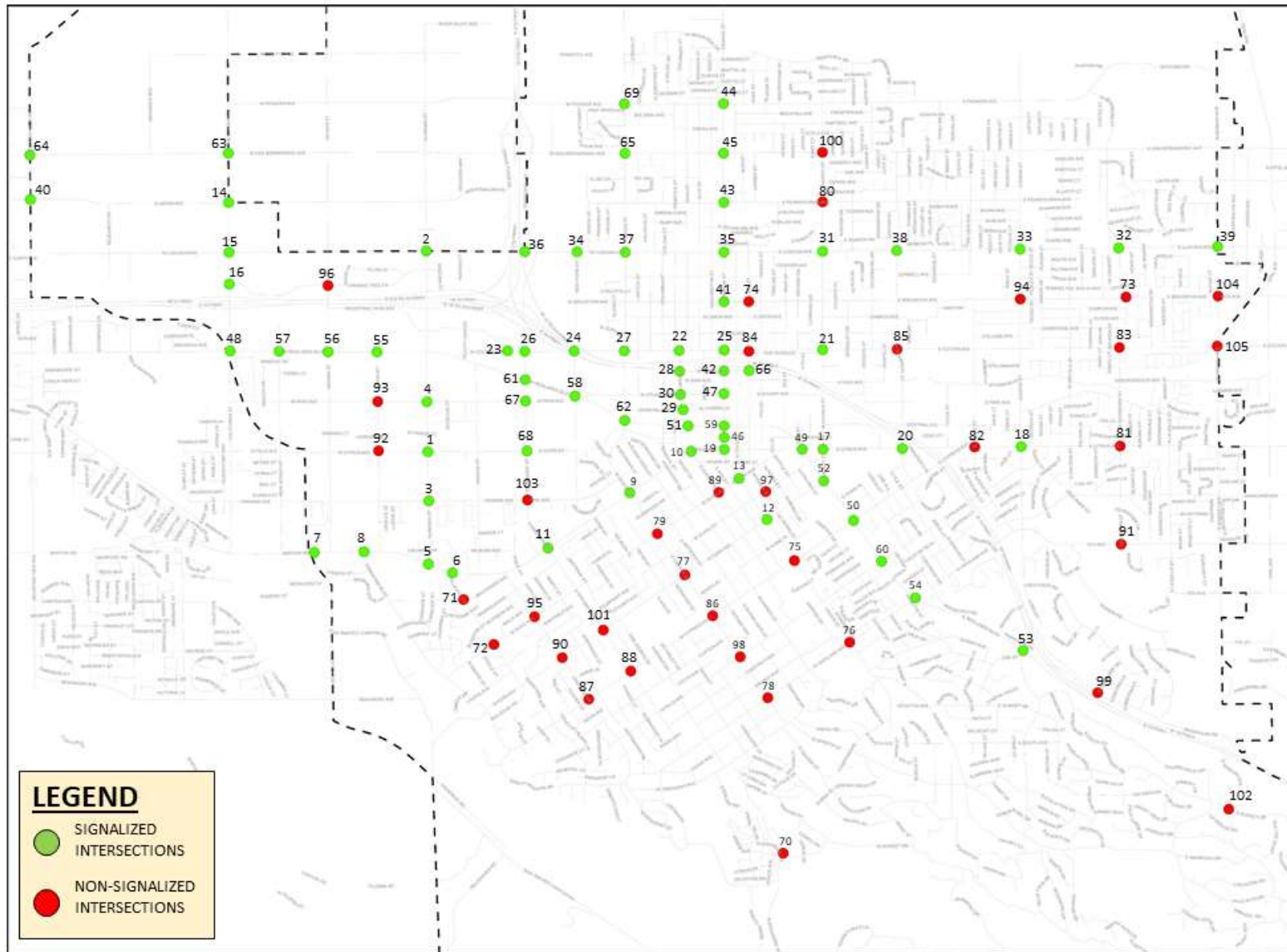
TABLE 1.1 – STUDY INTERSECTIONS

No.	Signalized Intersection
1	Alabama Street & Citrus Avenue / State Street
2	Alabama Street & Lugonia Avenue
3	Alabama Street & Orange Avenue
4	Alabama Street & Park Avenue
5	Barton Road & Alabama Street
6	Barton Road & Bellevue Avenue
7	Barton Road & San Timoteo Canyon Road
8	Barton Road & Terracina Boulevard
9	Brookside Avenue & Center Street
10	Brookside Avenue & Eureka Street
11	Brookside Avenue & San Mateo Street
12	Cajon Street & Fern Avenue
13	Cajon Street & Olive Avenue
14	California Street & Almond Avenue
15	California Street & Lugonia Avenue
16	California Street & Orange Tree Lane
17	Citrus Avenue & Church Street
18	Citrus Avenue & Judson Street / Ford Street
19	Citrus Avenue & Orange Street / Cajon Street
20	Citrus Avenue & University Street
21	Colton Avenue & Church Street
22	Colton Avenue & Eureka Street
23	Colton Avenue & Industrial Park Avenue
24	Colton Avenue & New York Street
25	Colton Avenue & Orange Street

26	Colton Avenue & Tennessee Street
27	Colton Avenue & Texas Street
28	Eureka Street & I-10 Eastbound Ramp / Pearl Avenue
29	Eureka Street & Oriental Avenue
30	Eureka Street & Stuart Avenue
31	Lugonia Avenue & Church Street
32	Lugonia Avenue & Dearborn Street
33	Lugonia Avenue & Judson Street
34	Lugonia Avenue & New York Street
35	Lugonia Avenue & Orange Street
36	Lugonia Avenue & Tennessee Street
37	Lugonia Avenue & Texas Street
38	Lugonia Avenue & University Street
39	Lugonia Avenue / Mentone Blvd & Wabash Avenue
40	Mountain View Avenue & Victoria Avenue / Almond Avenue
41	Orange Street & Brockton Avenue
42	Orange Street & Pearl Avenue
43	Orange Street & Pennsylvania Avenue
44	Orange Street & Pioneer Avenue
45	Orange Street & San Bernardino Avenue
46	Orange Street & State Street
47	Orange Street & Stuart Avenue
48	Redlands Boulevard & California Street
49	Redlands Boulevard & Citrus Avenue
50	Redlands Boulevard & Cypress Avenue
51	Redlands Boulevard & Eureka Street
52	Redlands Boulevard & Fern Avenue / Church Street
53	Redlands Boulevard & Ford Street
54	Redlands Boulevard & Highland Avenue
55	Redlands Boulevard & Iowa Street
56	Redlands Boulevard & Nevada Street
57	Redlands Boulevard & New Jersey Street
58	Redlands Boulevard & New York Street
59	Redlands Boulevard & Orange Street
60	Redlands Boulevard & Palm Avenue
61	Redlands Boulevard & Tennessee Street
62	Redlands Boulevard & Texas Street / Center Street
63	San Bernardino Avenue & California Street
64	San Bernardino Avenue & Mountain View Avenue
65	San Bernardino Avenue & Texas Street
66	Sixth Street & Pearl Avenue / I-10 Eastbound On-Ramp
67	Tennessee Street & Park Avenue
68	Tennessee Street & State Street
69	Texas Street & Pioneer Avenue

No.	Non-Signalized Intersection
70	Alessandro Road & Sunset Drive
71	Bellevue Avenue & Brookside Avenue
72	Bellevue Avenue & Olive Avenue
73	Brockton Avenue & Dearborn Street
74	Brockton Avenue & Sixth Street
75	Cajon Street & Cypress Avenue
76	Cajon Street & Highland Avenue
77	Center Street & Fern Avenue
78	Center Street & Highland Avenue
79	Center Street & Olive Avenue
80	Church Street & Pennsylvania Avenue
81	Citrus Avenue & Dearborn Street
82	Citrus Avenue & Grove Street
83	Colton Avenue & Dearborn Street
84	Colton Avenue & Sixth Street
85	Colton Avenue & University Street
86	Cypress Avenue & Center Street
87	Cypress Avenue & Lakeside Avenue
88	Cypress Avenue & San Mateo Street
89	Eureka Street & Olive Avenue
90	Fern Avenue & Lakeside Avenue
91	Fifth Avenue & Dearborn Street
92	Iowa Street & Citrus Avenue
93	Iowa Street & Park Avenue
94	Judson Street & Brockton Avenue
95	Lakeside Avenue & Olive Avenue
96	Nevada Street & Orange Tree Lane
97	Nordina Street & Clark Street
98	Palm Avenue & Center Street
99	Reservoir Road & Devonshire Drive
100	San Bernardino Avenue & Church Street
101	San Mateo Street & Fern Avenue
102	Sunset Drive North & Wabash Avenue
103	Tennessee Street & Orange Avenue / Pine Avenue
104	Wabash Avenue & Brockton Avenue / Nice Avenue
105	Wabash Avenue & Colton Avenue

FIGURE 1.1 – STUDY INTERSECTION LOCATIONS



2.0 STUDY METHODOLOGY

The identification of left-turn issues at the 105 study intersections was based on review of traffic conditions during the existing weekday PM peak period between 4:00 PM and 6:00 PM, which is considered the most critical period from traffic operations perspective as agreed with City staff. All left-turn movements at each of the study intersections were evaluated.

KOA conducted a comprehensive field review at all of the study intersections to identify the lane geometry, left-turn pocket lengths, and traffic signal phasing characteristics. The field review was supplemented by intersection as-built plans and traffic signal timing plans provided by the City, where available.

The intersection evaluations were based on detailed field observations of the existing left-turn traffic operations at all study intersections to identify issues associated with left-turns. It should be noted that the identified issues are observed traffic operation deficiencies rather than based on traffic modeling tools. The following was observed in the field:

- Insufficient left-turn lane length;
- Vehicle queue spillback out of left-turn pocket;
- Long vehicle queue caused by left-turning vehicles (for approaches without left-turn pocket);
- Inadequate green time for left-turn phase (for signalized intersections); and
- Vehicle queue spillback or inadequate green time for left turn due to heavy vehicles.

To supplement the intersection evaluations, KOA also reviewed vehicle turning movement counts at all study intersections as well as traffic signal timing plans for the signalized intersections.

Based on KOA's field observations and review of the traffic counts and signal timing plans, recommendations including potential traffic improvements were developed. These recommendations could include, but not limited to, the following:

- Extending the storage length of left-turn pocket to reduce the possibility of spillback and blockage problems;
- Introducing a left-turn pocket/lane to reduce the delay caused by the left-turn queue spillback;
- Optimizing the signal timing parameters to reduce the delay caused by left-turn lane spillback; and
- Optimizing the signal phasing sequence to enhance safety and traffic flow.

It is worth noting that the recommended potential traffic improvements assume no additional right-of-way.

3.0 EXISTING CONDITIONS

3.1 EXISTING TRAFFIC VOLUMES

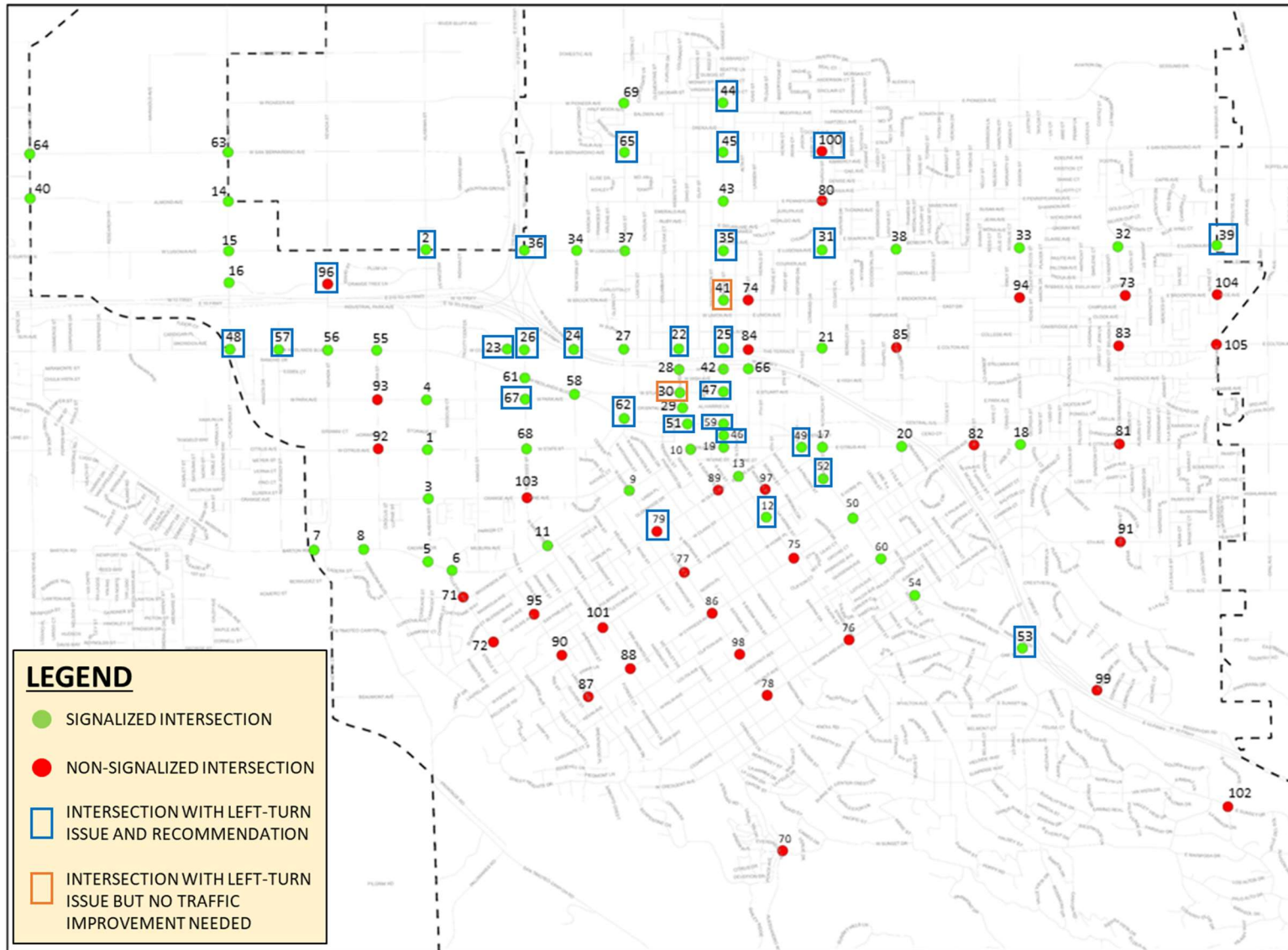
As noted previously, vehicle turning movement counts were reviewed as part of the intersection evaluations. Traffic counts for a typical weekday between 4:00 PM and 6:00 PM from 2021 and 2022 were provided by the City, where available. For traffic counts from 2021, a 2% ambient growth factor was assumed to estimate current traffic volume conditions. For study intersections where historical traffic counts were not available from the City, KOA conducted new traffic counts on a typical weekday during the PM peak period in December 2022. The traffic count data are provided in **Appendix A**.

The PM peak hour traffic volumes at each intersection were determined by bracketing the four highest consecutive 15-minute count volumes during the 4:00 PM to 6:00 PM period. These peak hour traffic volumes were reviewed for the intersection evaluations.

3.2 LOCATIONS OF INTERSECTIONS WITH LEFT-TURN ISSUES

Based on the left-turn evaluations, 31 study intersections including 28 signalized intersections and 3 non-signalized intersections were found to have left-turn issues at one or more intersection approaches. Of the 31 study intersections, recommendations for potential traffic improvements were identified at 29 locations. For the two remaining study intersections located at Eureka Street and Stuart Avenue (Intersection #30) and at Orange Street and Brockton Avenue (Intersection #41), the traffic volumes at the left-turn movements identified to have an issue are very low and therefore it was concluded that no traffic improvements were needed. **Figure 3.1** depicts the 31 study intersection locations.

FIGURE 3.1 – LOCATIONS OF STUDY INTERSECTIONS WITH LEFT-TURN ISSUES

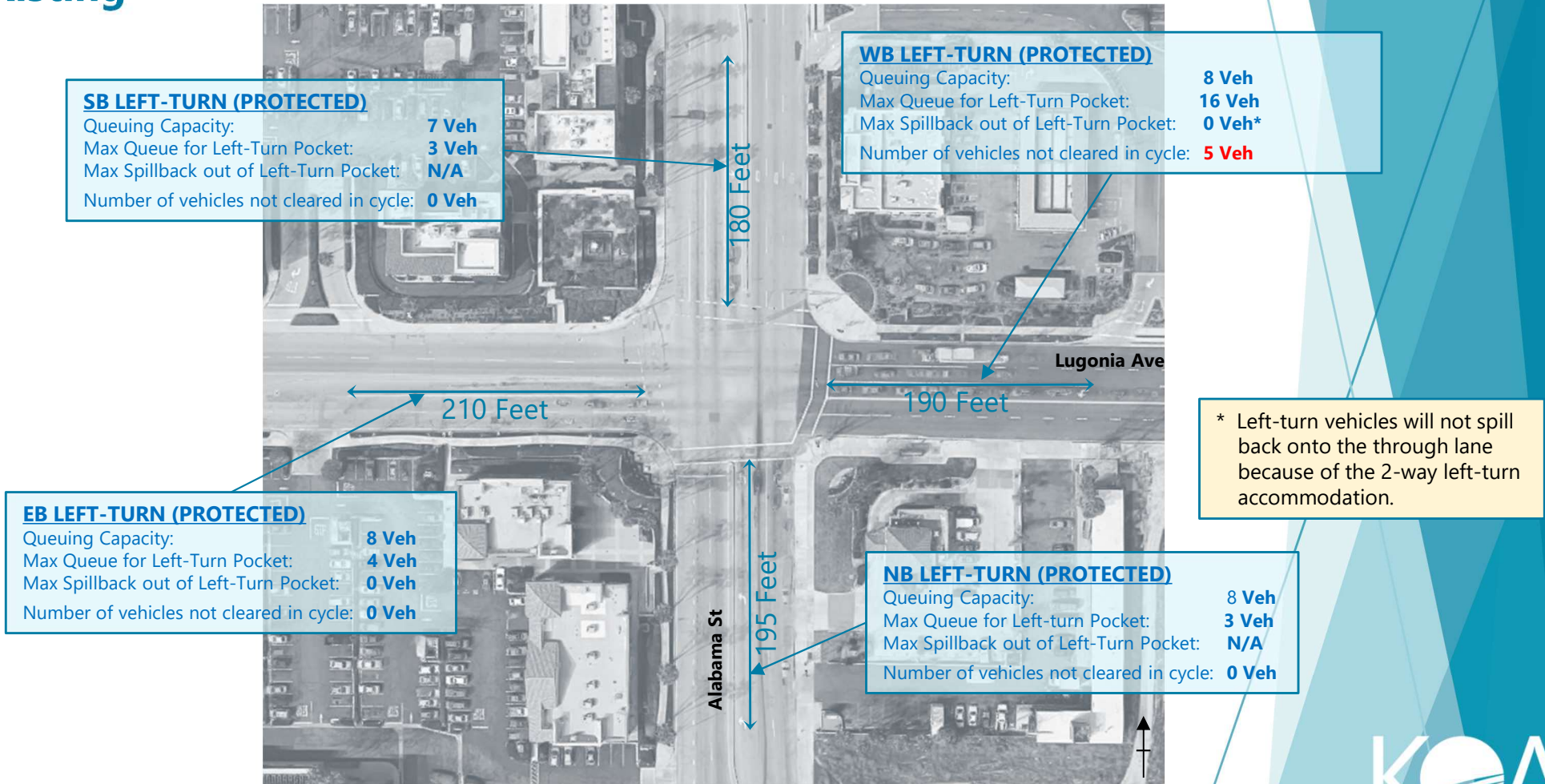


4.0 INTERSECTION EVALUATIONS

The intersection evaluations for the 31 study intersections with left-turn issues and recommendations where identified are shown below.

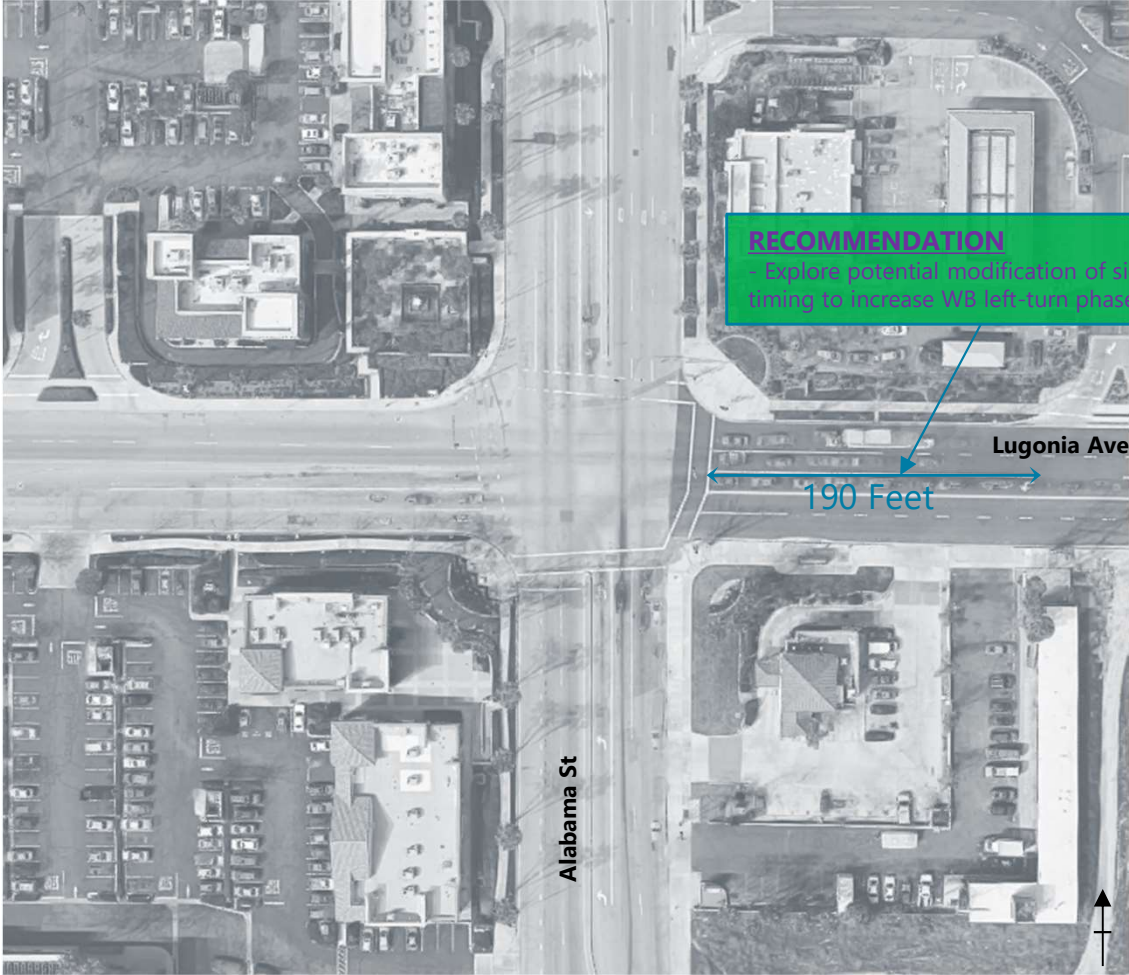
INT #2: ALABAMA ST & LUGONIA AVE

Existing



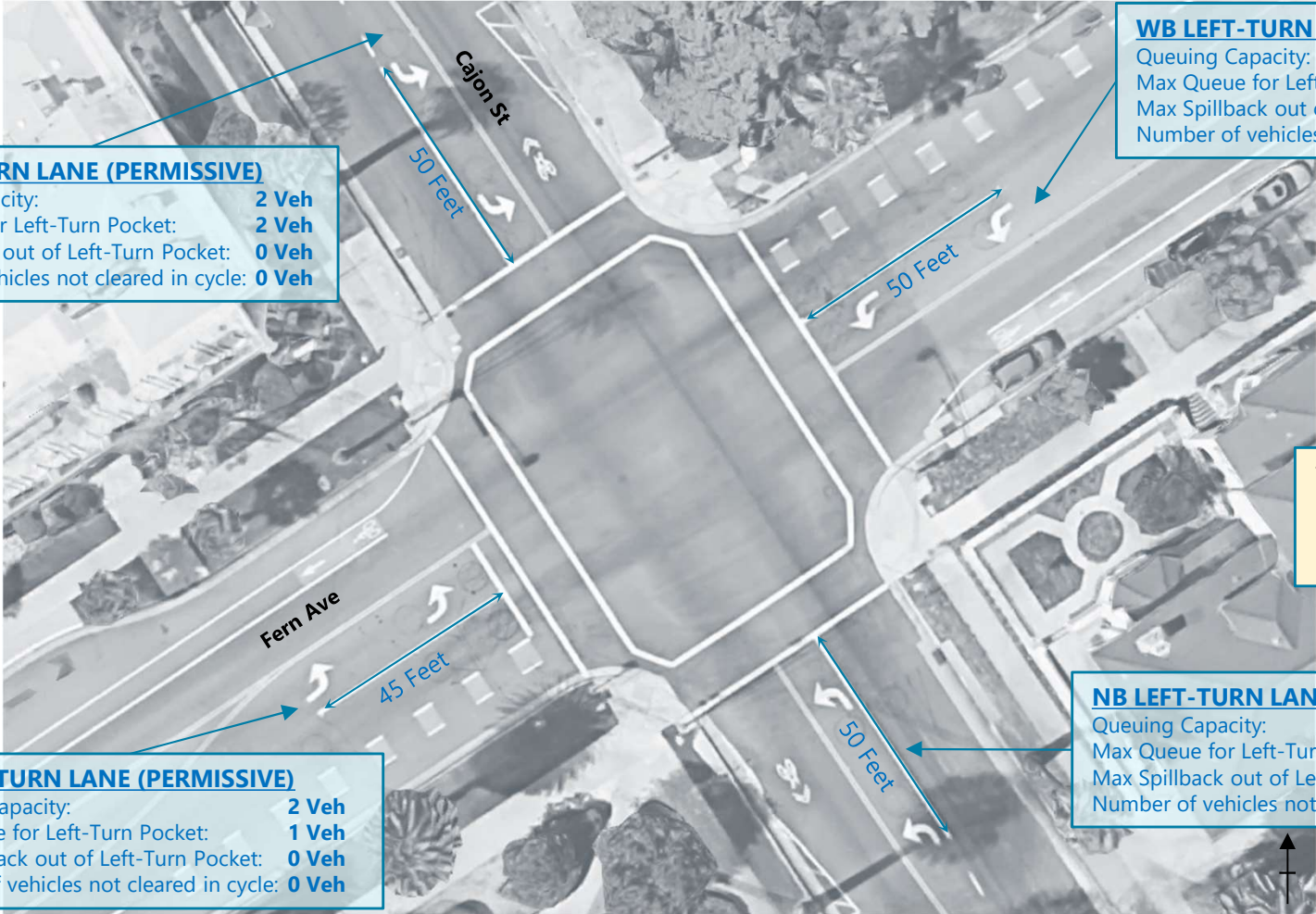
INT #2: ALABAMA ST & LUGONIA AVE

Recommendation



INT #12: CAJON ST & FERN AVE

Existing



SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **1 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #12: CAJON ST & FERN AVE

Recommendation



WB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity:	2 Veh
Max Queue for Left-Turn Pocket:	2 Veh
Max Spillback out of Left-Turn Pocket:	0 Veh*
Number of vehicles not cleared in cycle:	1 Veh

RECOMMENDATION

- Explore signal timing modification to increase phase length

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #22: EUREKA ST & COLTON AVE

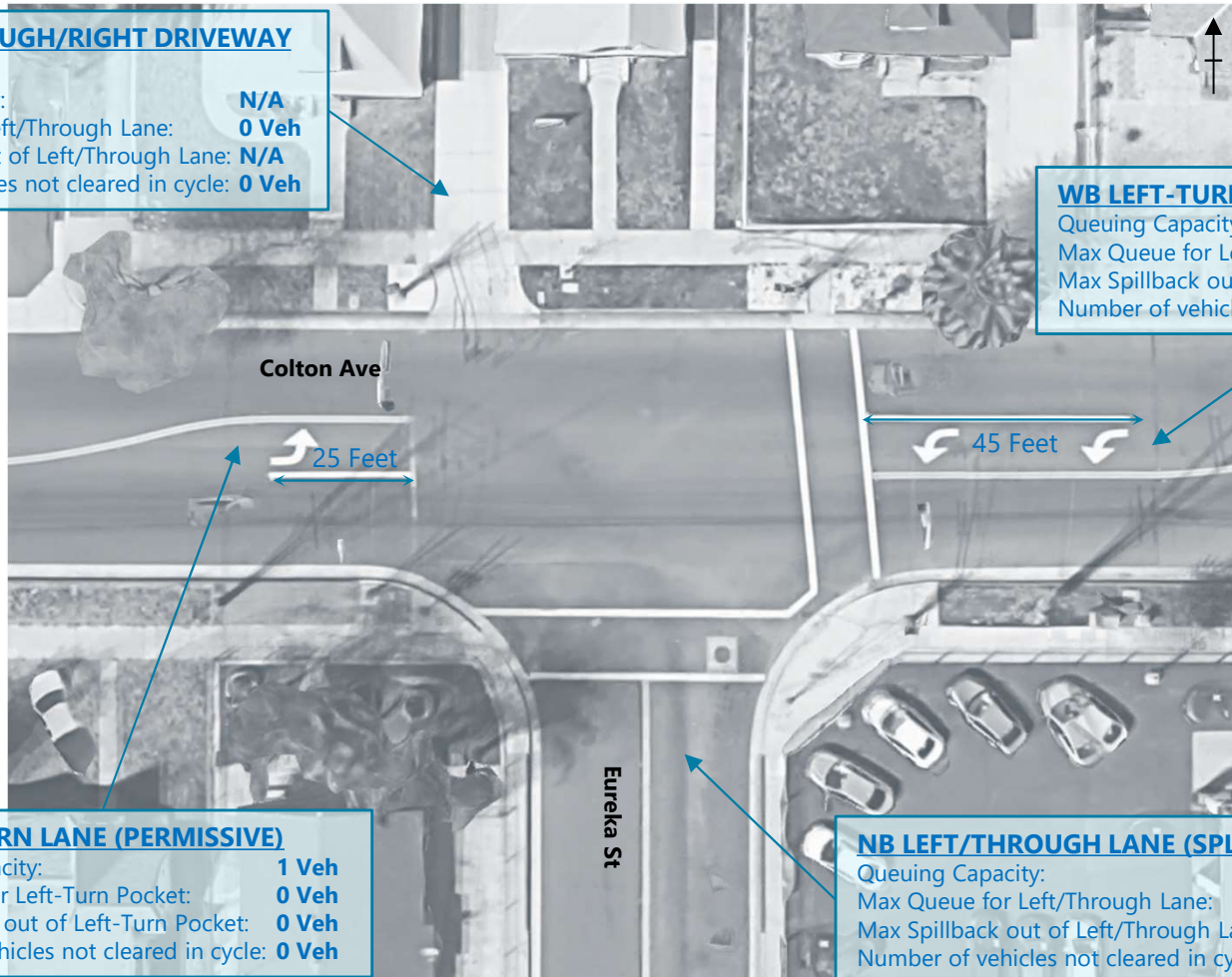
Existing

SB LEFT/THROUGH/RIGHT DRIVEWAY (SPLIT)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



EB LEFT-TURN LANE (PERMISSIVE)

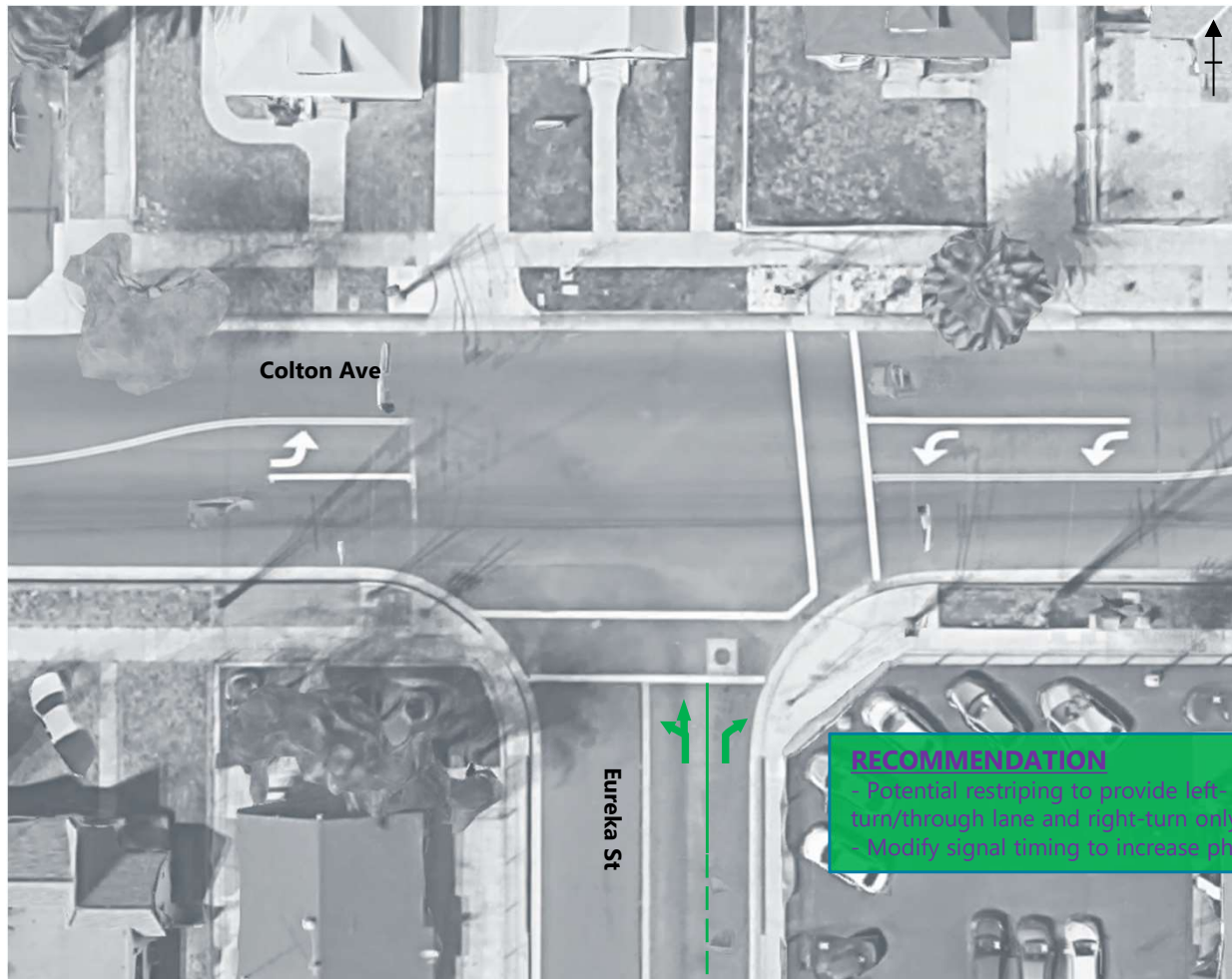
Queuing Capacity: **1 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (SPLIT)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **9 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **6 Veh**

INT #22: EUREKA ST & COLTON AVE

Recommendation

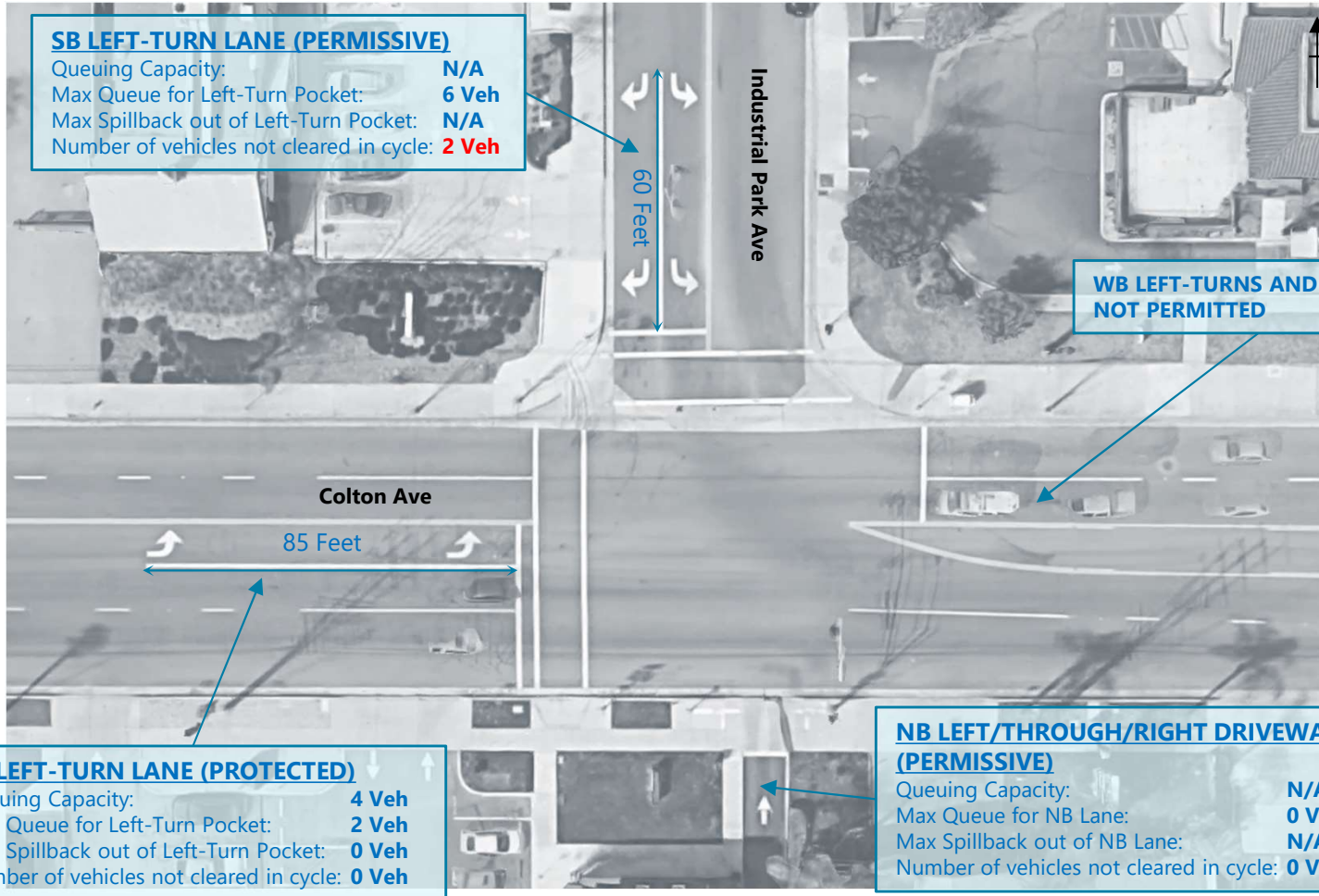


RECOMMENDATION
- Potential restriping to provide left-turn/through lane and right-turn only lane
- Modify signal timing to increase phase length



INT #23: COLTON AVE & INDUSTRIAL PARK AVE

Existing



SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left-Turn Pocket: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **2 Veh**

60 Feet

Industrial Park Ave

WB LEFT-TURNS AND U-TURNS NOT PERMITTED

Colton Ave

85 Feet

EB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH/RIGHT DRIVEWAY (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for NB Lane: **0 Veh**
 Max Spillback out of NB Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

PM Peak Hour Traffic Volumes
 NB: 1 LT, 3 Thru, 10 RT
 SB: 294 LT, 1 Thru, 28 RT
 EB: 15 LT, 360 Thru, 0 RT
 WB: 0 LT, 310 Thru, 218 RT

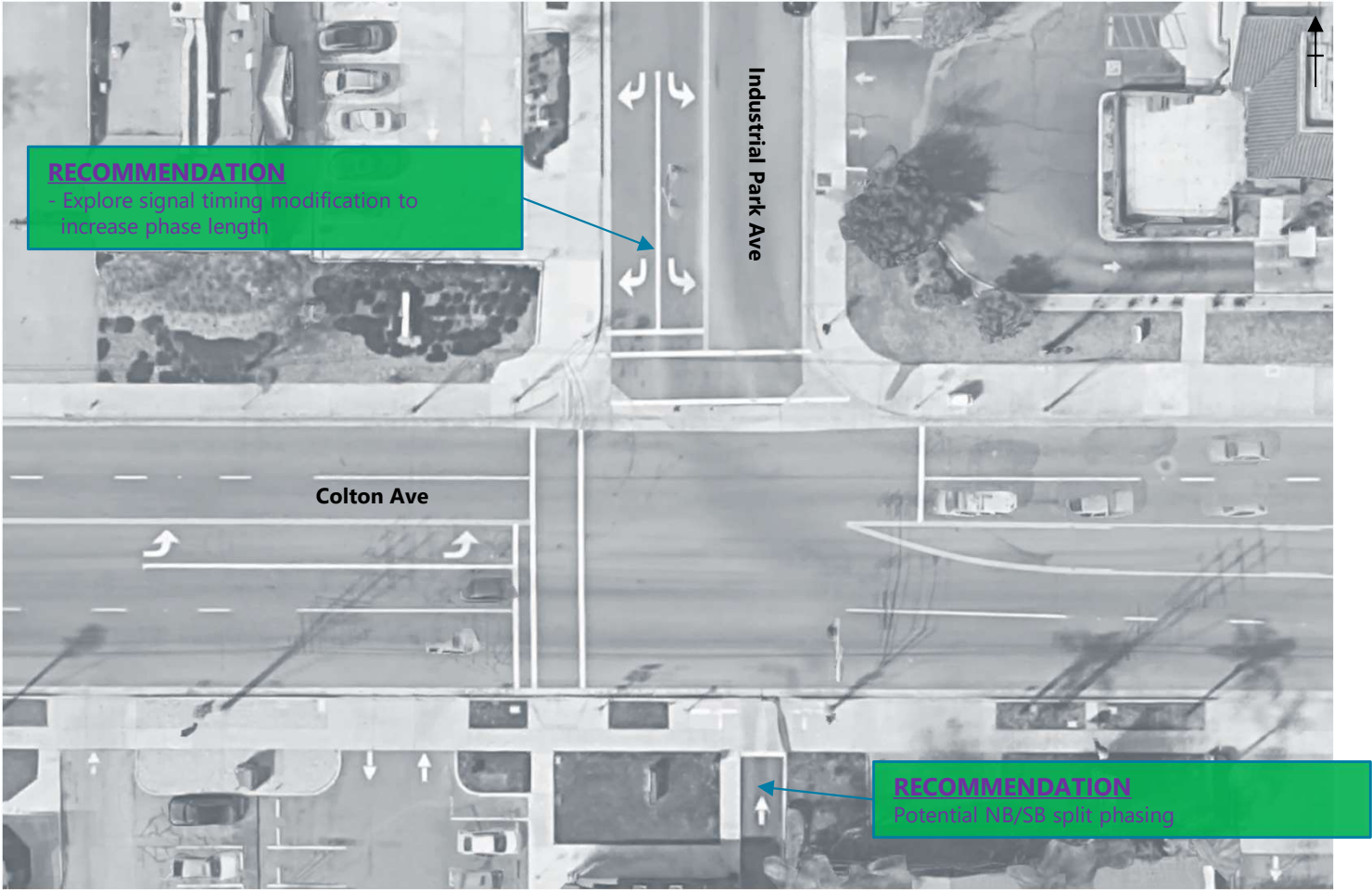
Comments:

- SB left-turning vehicles must yield to oncoming traffic exiting drive-thru; drivers might have the impression that their left-turn is protected and fail to yield.
- NB traffic exiting drive-thru can legally turn left; no signage to indicate otherwise. Could be a potential hazard and/or queuing problem if a driver attempts to turn left and blocks the entire lane.



INT #23: COLTON AVE & INDUSTRIAL PARK AVE

Recommendation



INT #24: COLTON AVE & NEW YORK ST

Existing



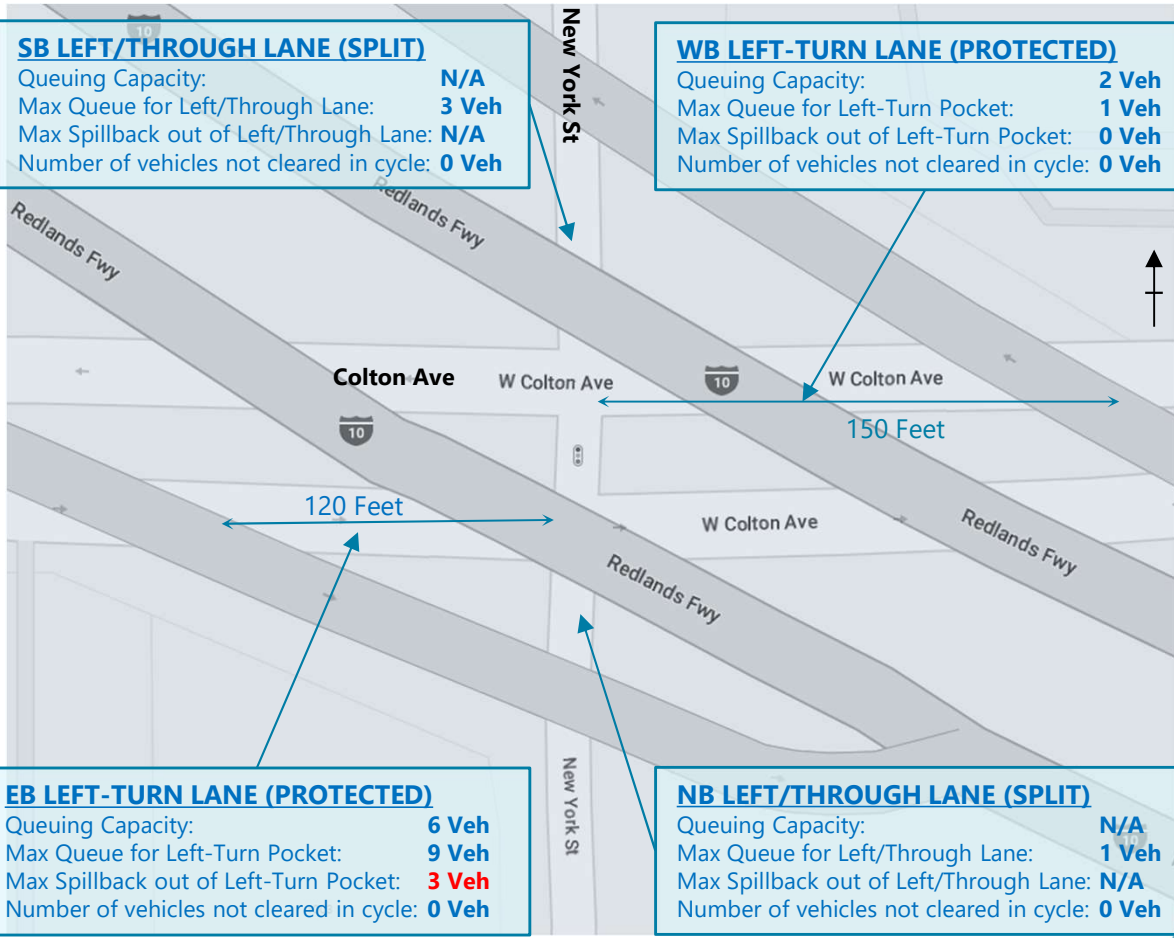
SB APPROACH

SB LEFT/THROUGH LANE (SPLIT)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



WB APPROACH



PM Peak Hour Traffic Volumes
 NB: 31 LT, 51 Thru, 6 RT
 SB: 73 LT, 107 Thru, 56 RT
 EB: 94 LT, 648 Thru, 88 RT
 WB: 14 LT, 271 Thru, 65 RT



EB APPROACH

EB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **9 Veh**
 Max Spillback out of Left-Turn Pocket: **3 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (SPLIT)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

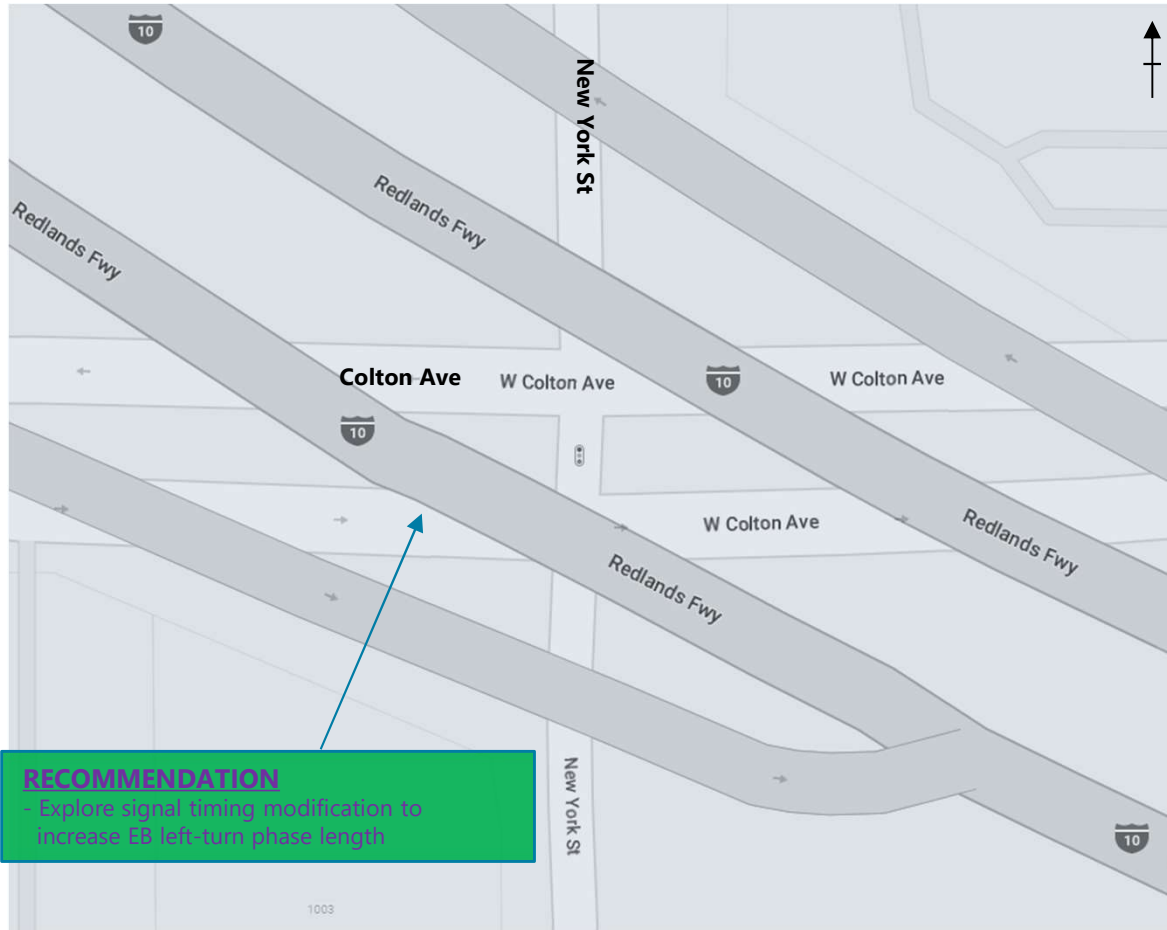


NB APPROACH



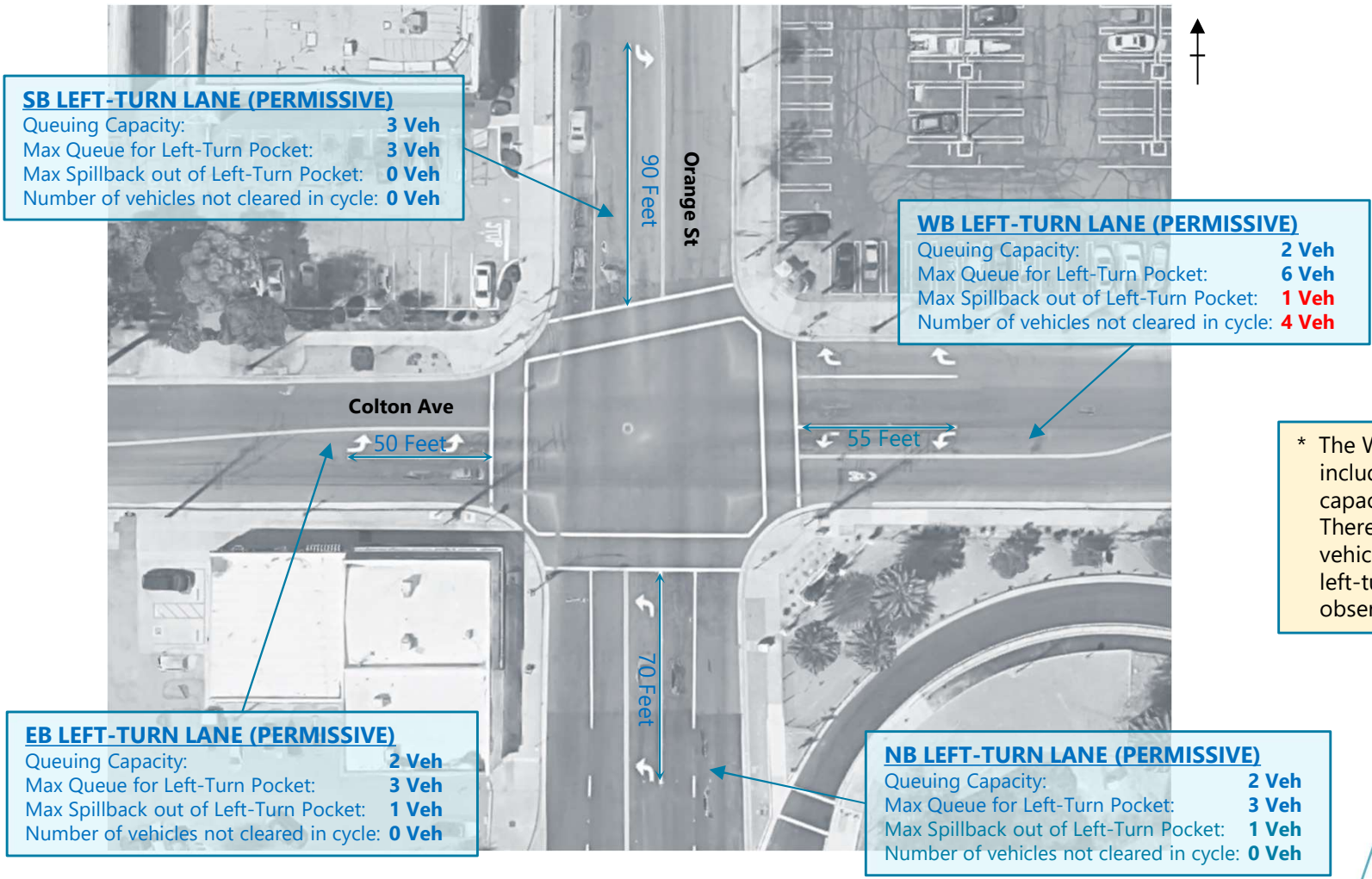
INT #24: COLTON AVE & NEW YORK ST

Recommendation



INT #25: ORANGE ST & COLTON AVE

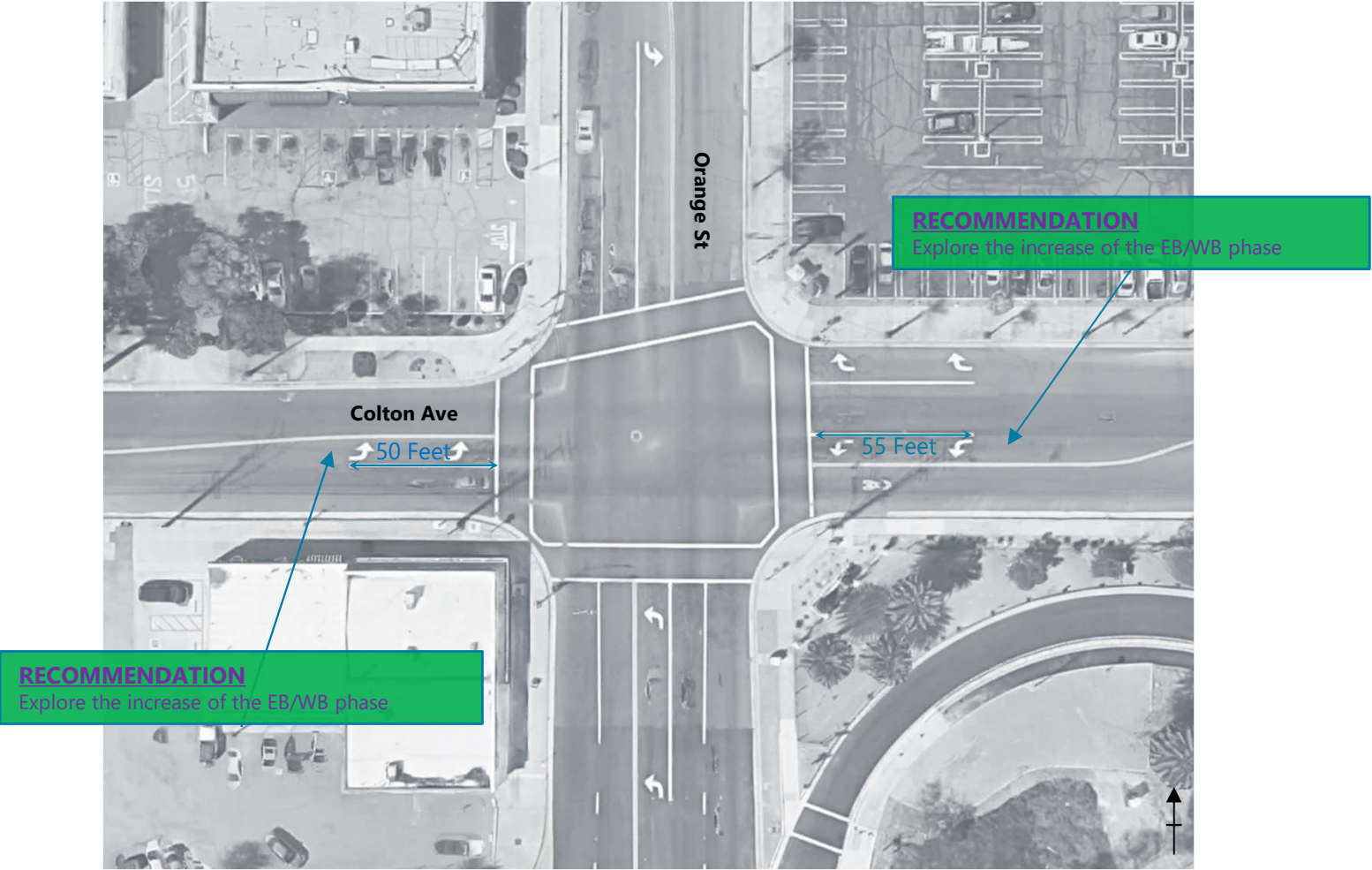
Existing



* The WB left-turn lane including the taper has capacity for five vehicles. Therefore, a maximum of one vehicle spilled back out of the left-turn pocket based on observations.

INT #25: ORANGE ST & COLTON AVE

Recommendation



INT #26: TENNESSEE ST & COLTON AVE

Existing

SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***
 Number of vehicles not cleared in cycle: **2 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **4 Veh ***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.

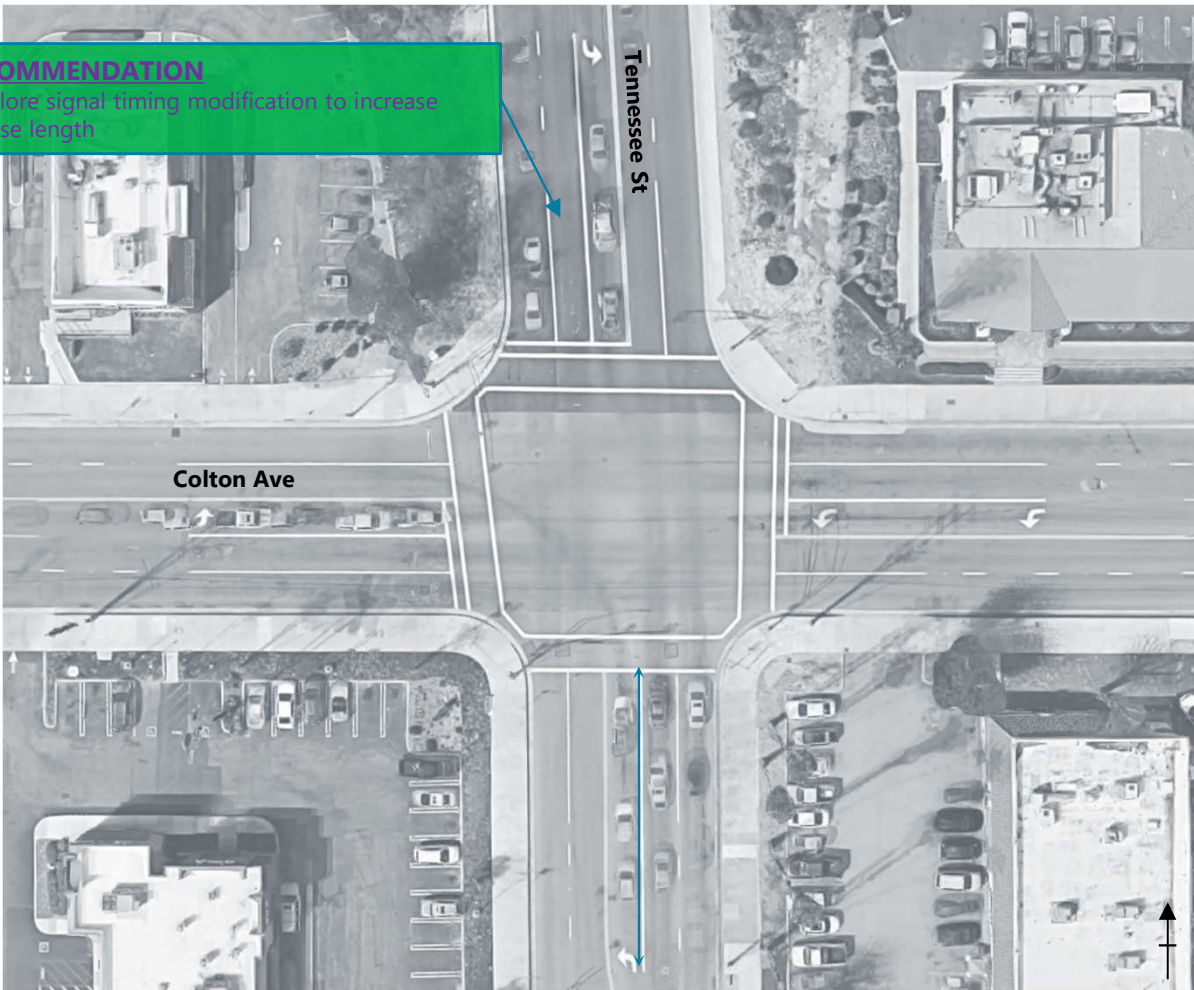


INT #26: TENNESSEE ST & COLTON AVE

Recommendation

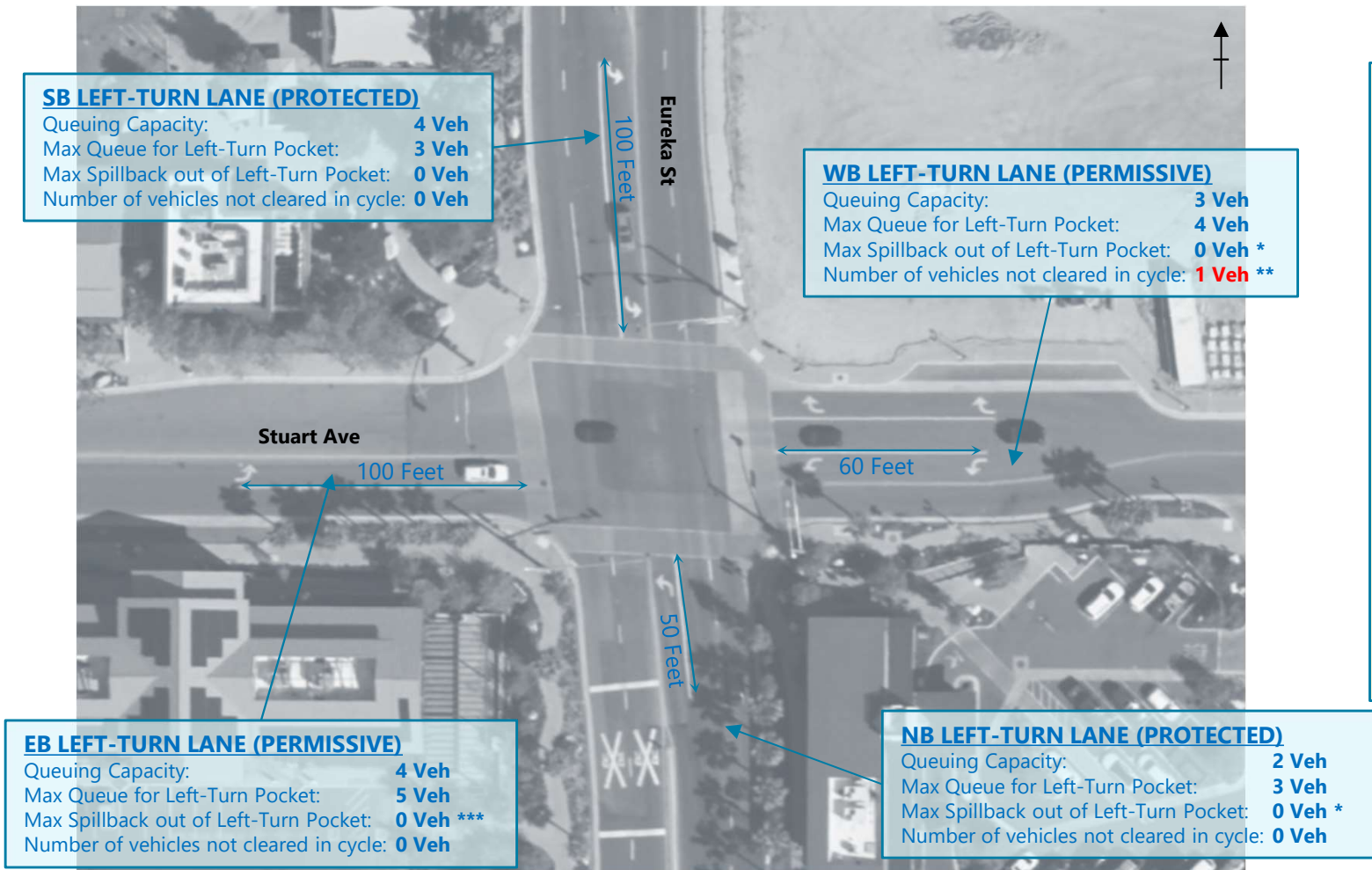
RECOMMENDATION

- Explore signal timing modification to increase phase length



INT #30: EUREKA ST & STUART AVE

Existing



* The left-turn pocket, with additional taper length, is adequate to accommodate the maximum queue. Therefore, no spillback was observed.

** There are 39 vehicles per hour in the westbound left-turn movement, for an average of approx. 1 vehicle per cycle. Due to low left-turn demand, it is concluded that no improvements are needed.

*** The eastbound approach is approximately 23 feet wide. Therefore, the five vehicles observed to queue in the left-turn pocket would not block the through movement.

INT #31: LUGONIA AVE & CHURCH ST

Existing

SB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **2 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh****
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)

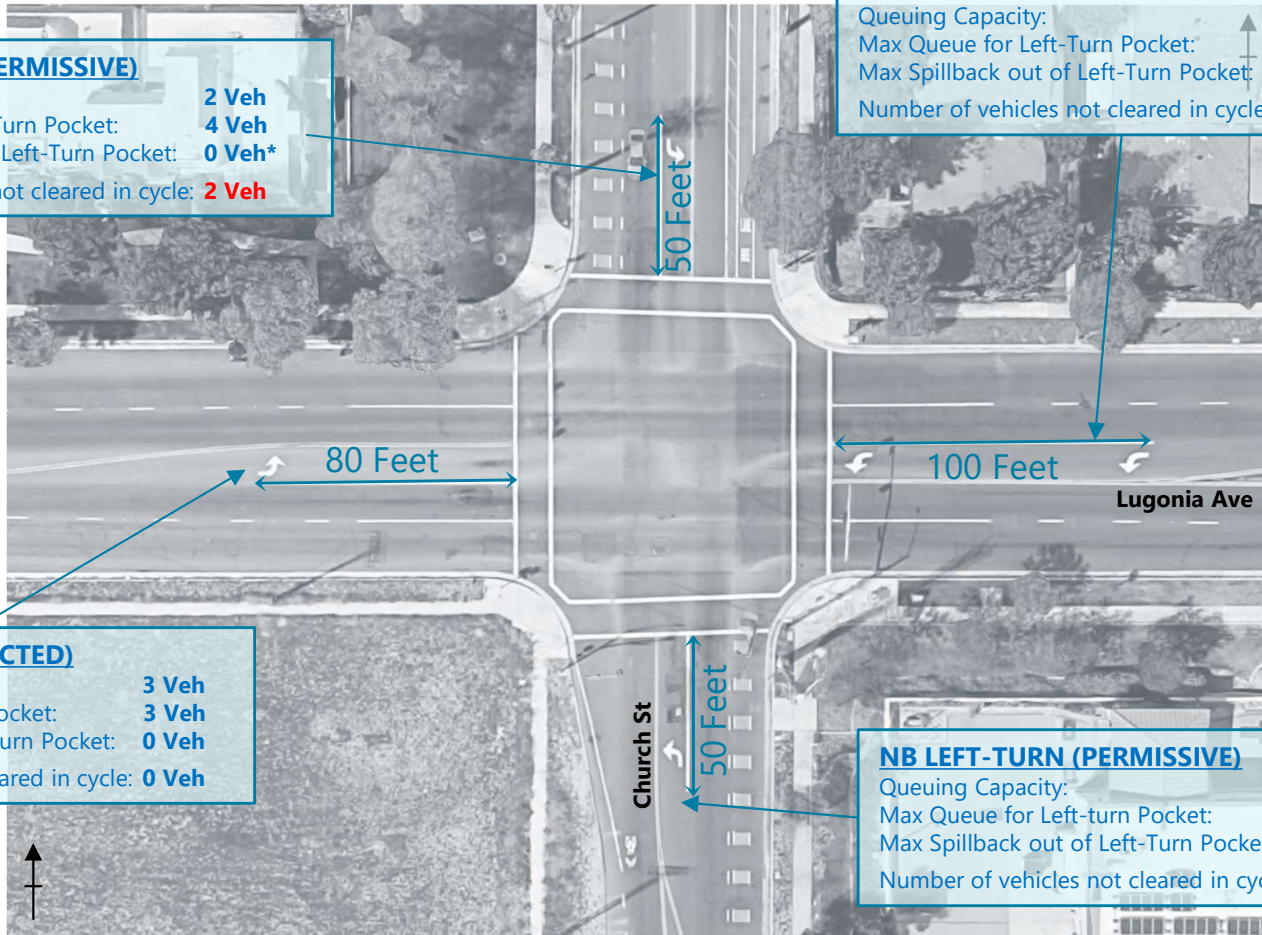
Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **1 Veh**
 Max Queue for Left-turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh****
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

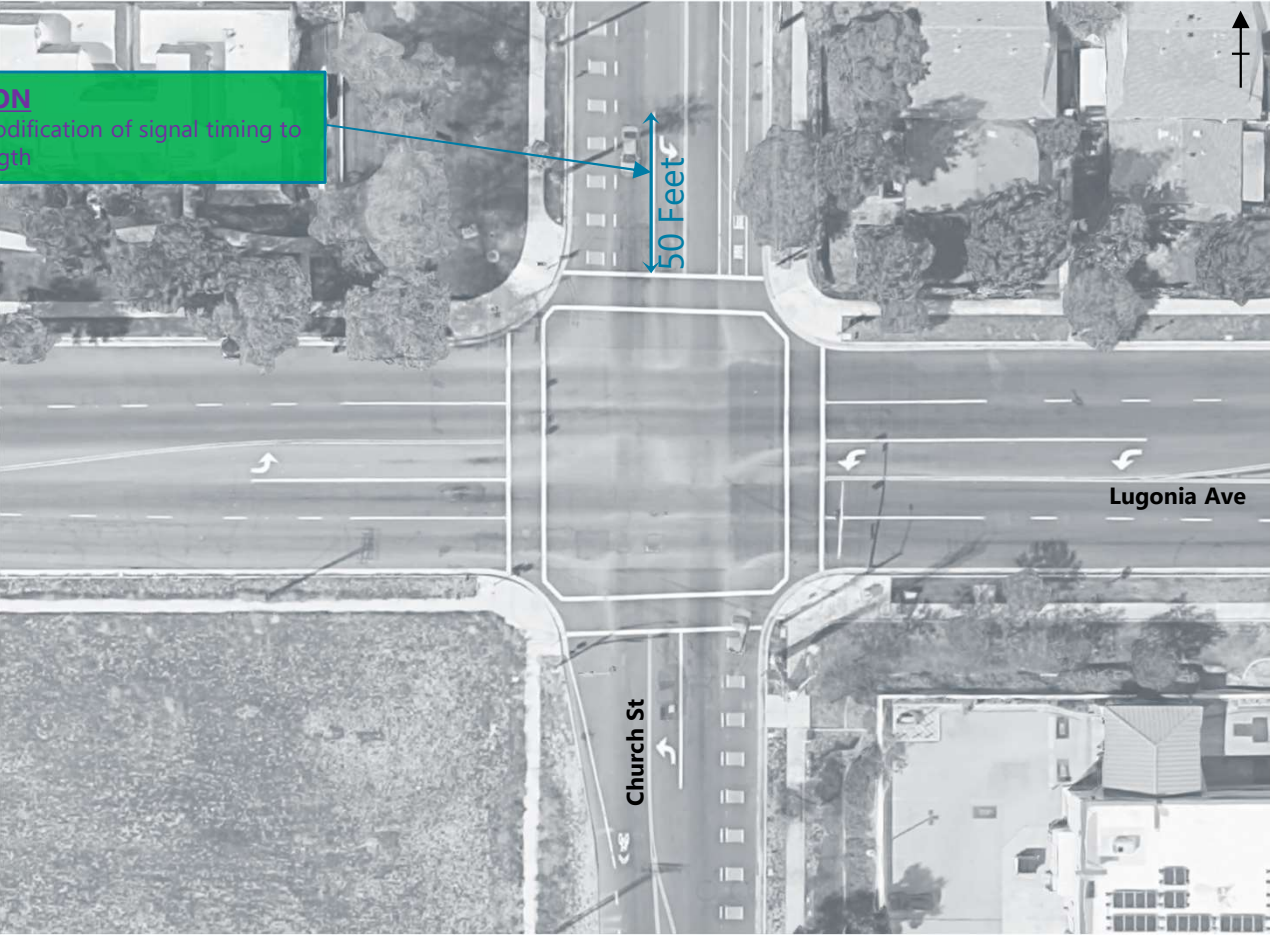
** The left-turn lane including the taper has capacity to accommodate the maximum queue observed. Therefore, there was no vehicle spill back out of left-turn pocket.



INT #31: LUGONIA AVE & CHURCH ST

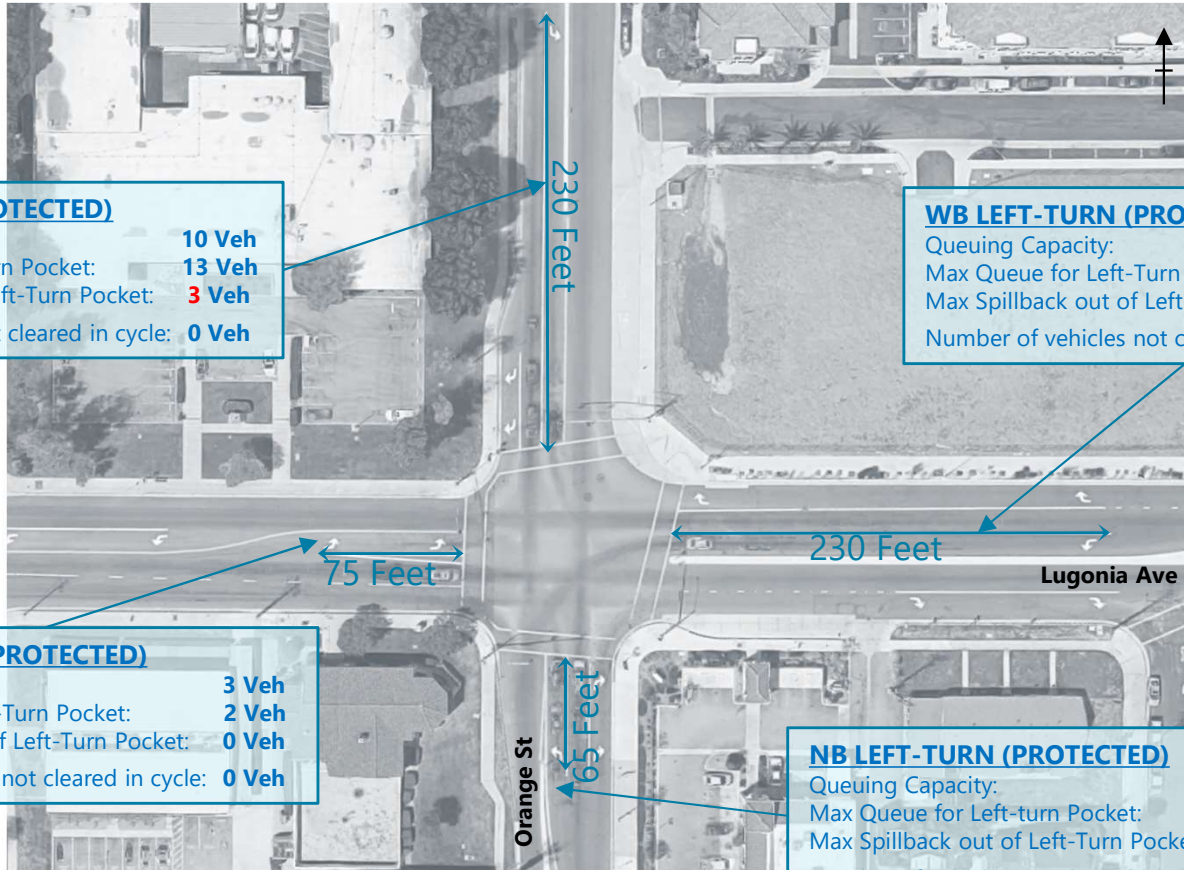
Recommendation

RECOMMENDATION
- Explore potential modification of signal timing to increase SB phase length



INT #35: LUGONIA AVE & ORANGE ST

Existing



SB LEFT-TURN (PROTECTED)

Queuing Capacity: **10 Veh**
 Max Queue for Left-Turn Pocket: **13 Veh**
 Max Spillback out of Left-Turn Pocket: **3 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **10 Veh**
 Max Queue for Left-Turn Pocket: **10 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

* The left-turn lane including taper can accommodate about four vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.

INT #35: LUGONIA AVE & ORANGE ST

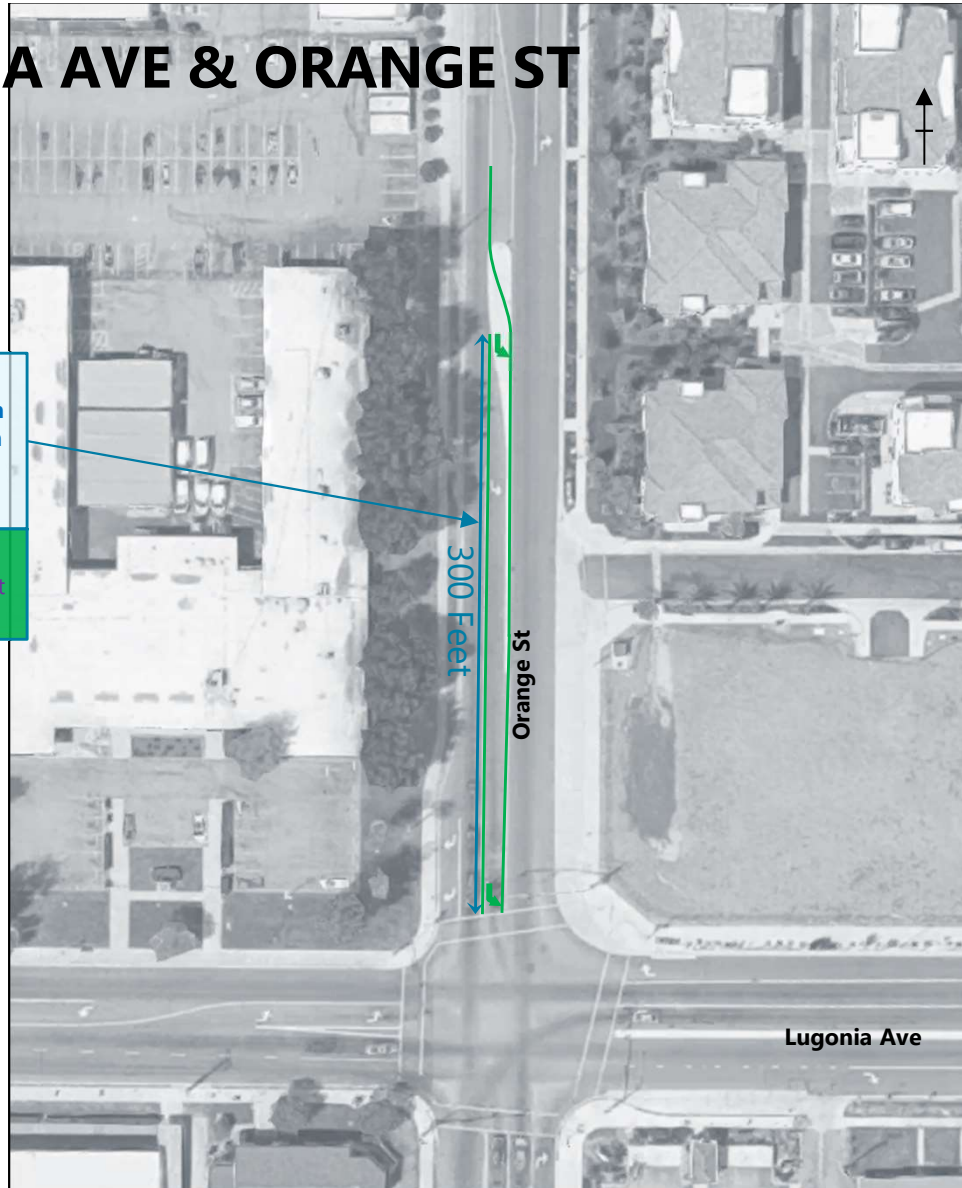
Recommendation

SB LEFT-TURN (PROTECTED)

Queuing Capacity: ~14 Veh
Max Queue for Left-Turn Pocket: 13 Veh
Max Spillback out of Left-Turn Pocket: 0 Veh
Number of vehicles not cleared in cycle: 0 Veh

RECOMMENDATION

- Explore potential increase in left-turn pocket length



INT #36: LUGONIA AVE & TENNESSEE ST

Existing

SB LEFT-TURN (PROTECTED)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

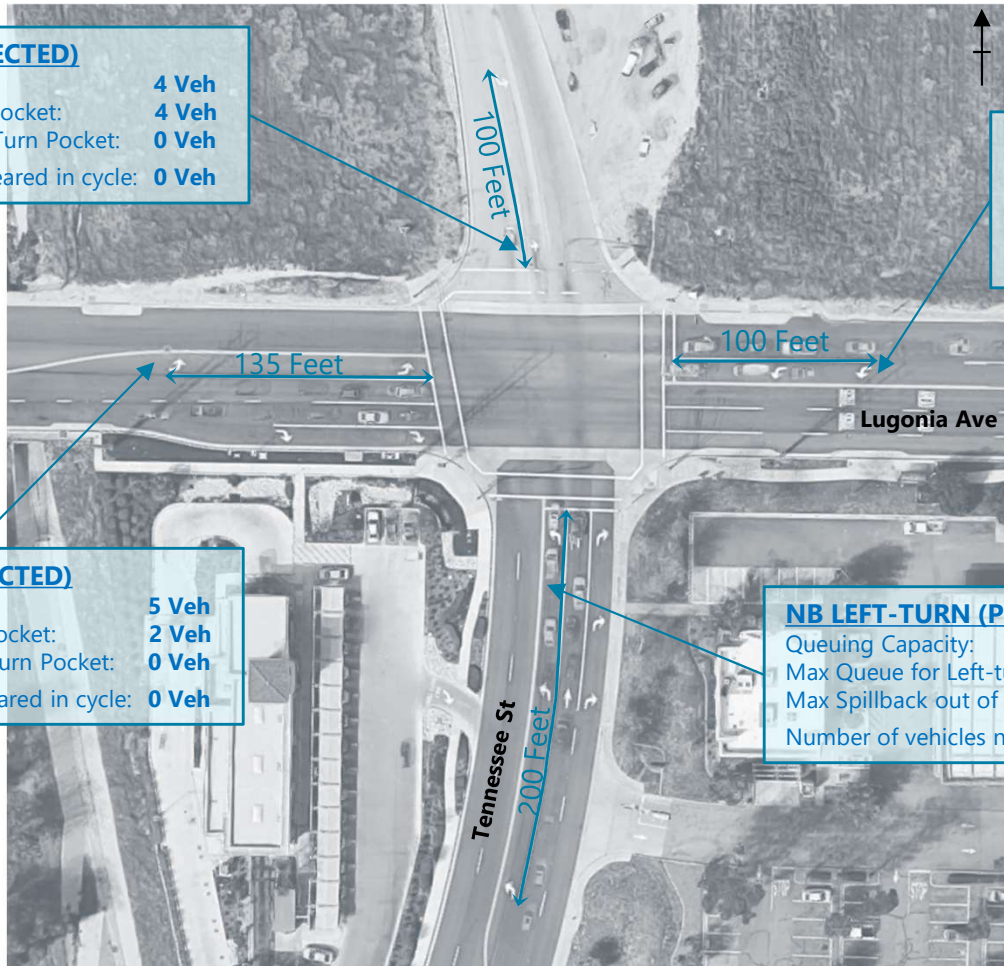
EB LEFT-TURN (PROTECTED)

Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)

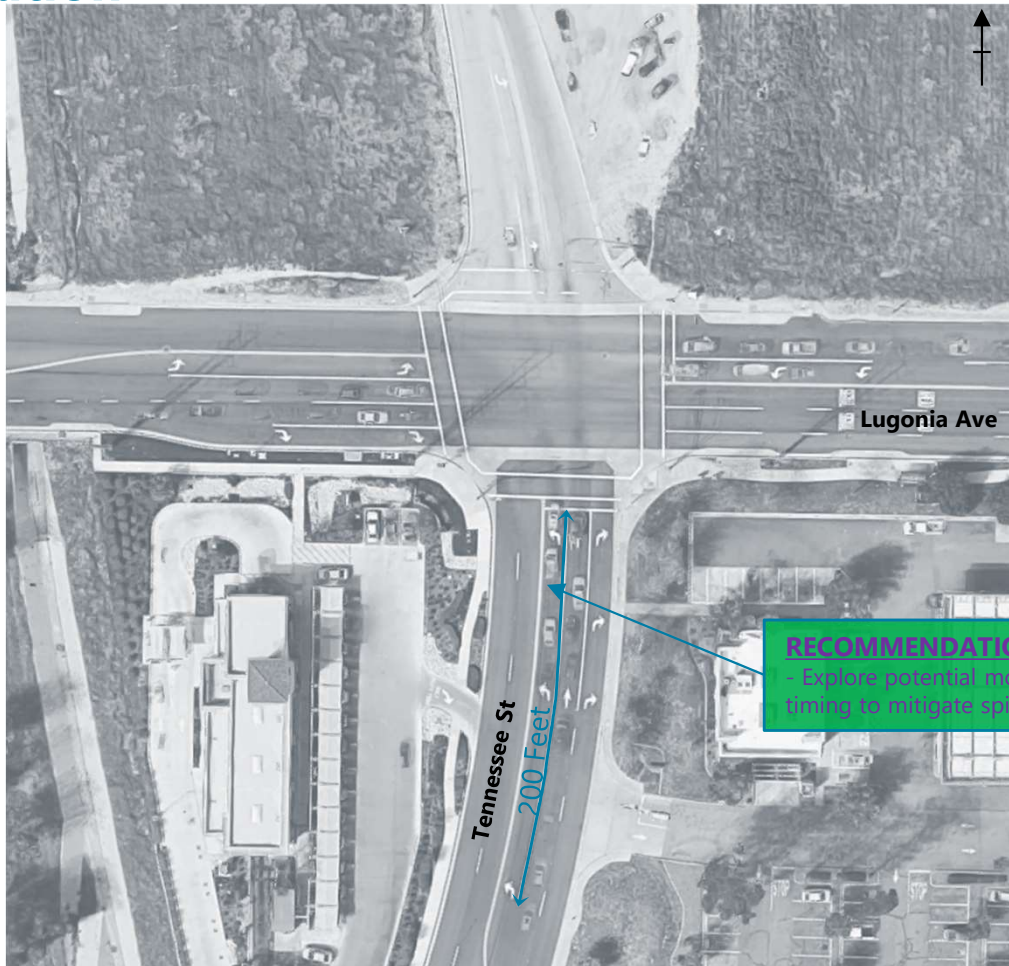
Queuing Capacity: **8 Veh**
 Max Queue for Left-turn Pocket: **12 Veh**
 Max Spillback out of Left-Turn Pocket: **4 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #36: LUGONIA AVE & TENNESSEE ST

Recommendation



RECOMMENDATION

- Explore potential modification of signal timing to mitigate spillback

INT #39: LUGONIA AVE/MENTONE BLVD & WABASH AVE

Existing

SB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **8 Veh**
 Max Spillback out of Left-Turn Pocket: **4 Veh**
 Number of vehicles not cleared in cycle: **4 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh****
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)

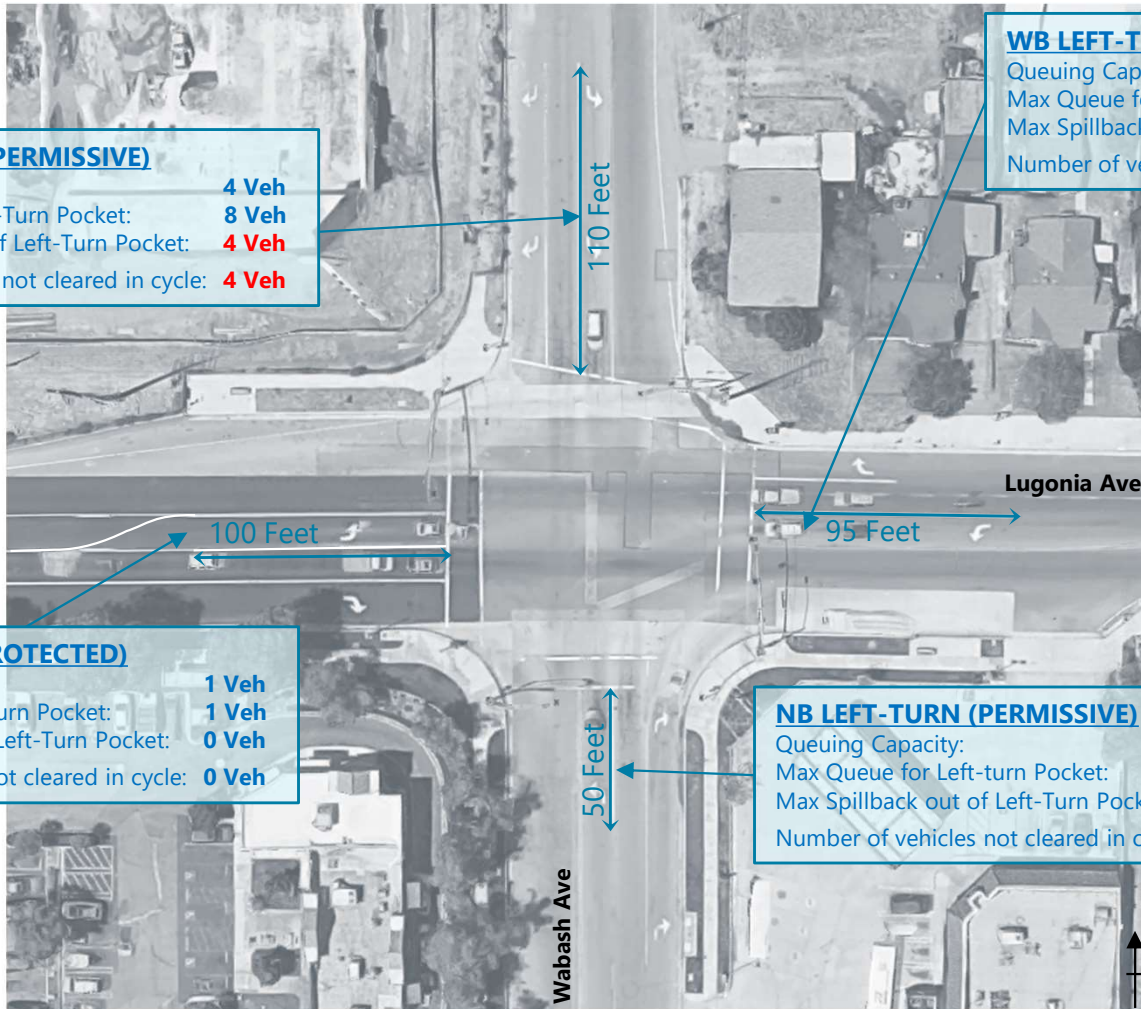
Queuing Capacity: **1 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

** The left-turn lane including taper can accommodate about five vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.

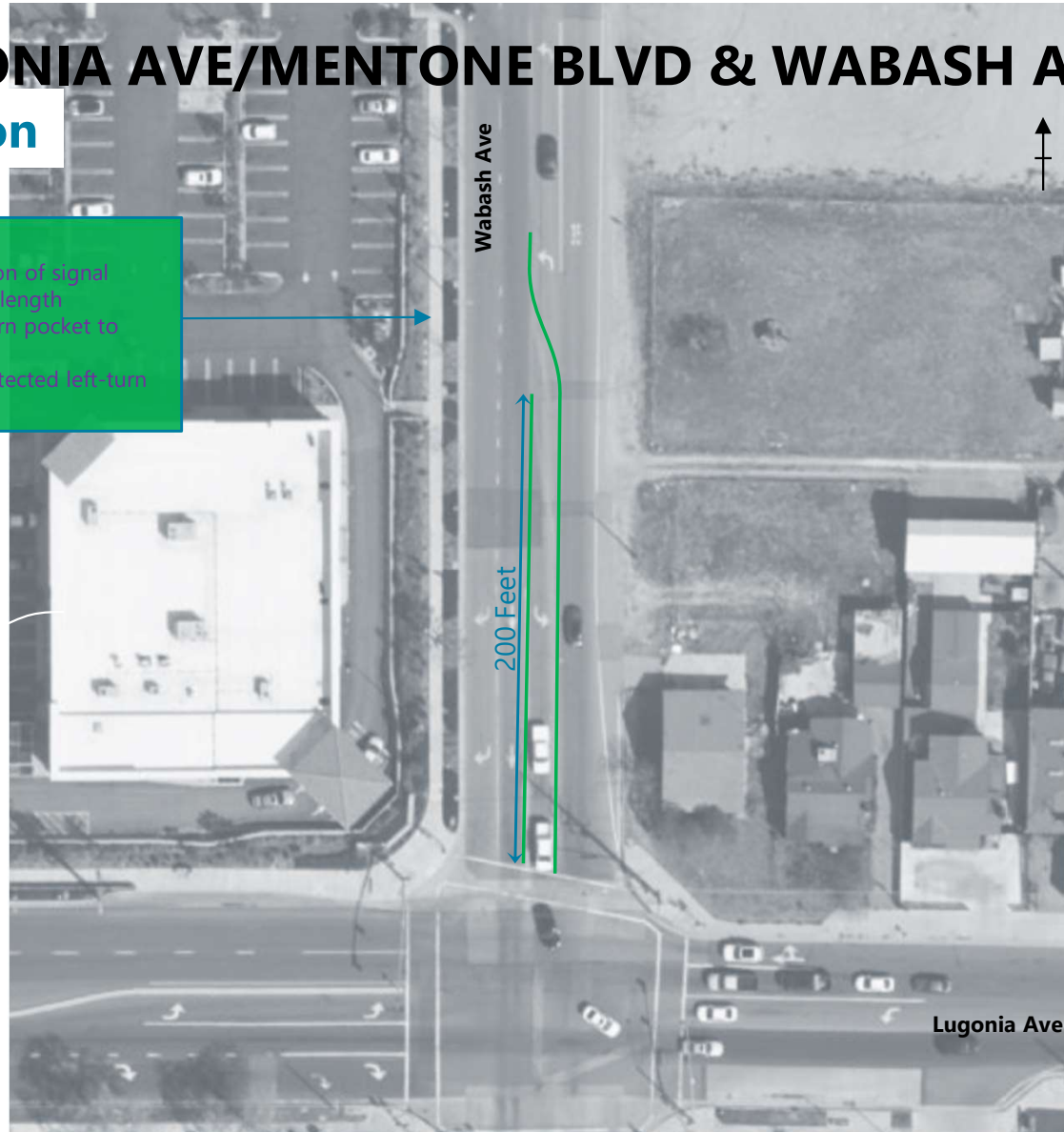


INT #39: LUGONIA AVE/MENTONE BLVD & WABASH AVE

Recommendation

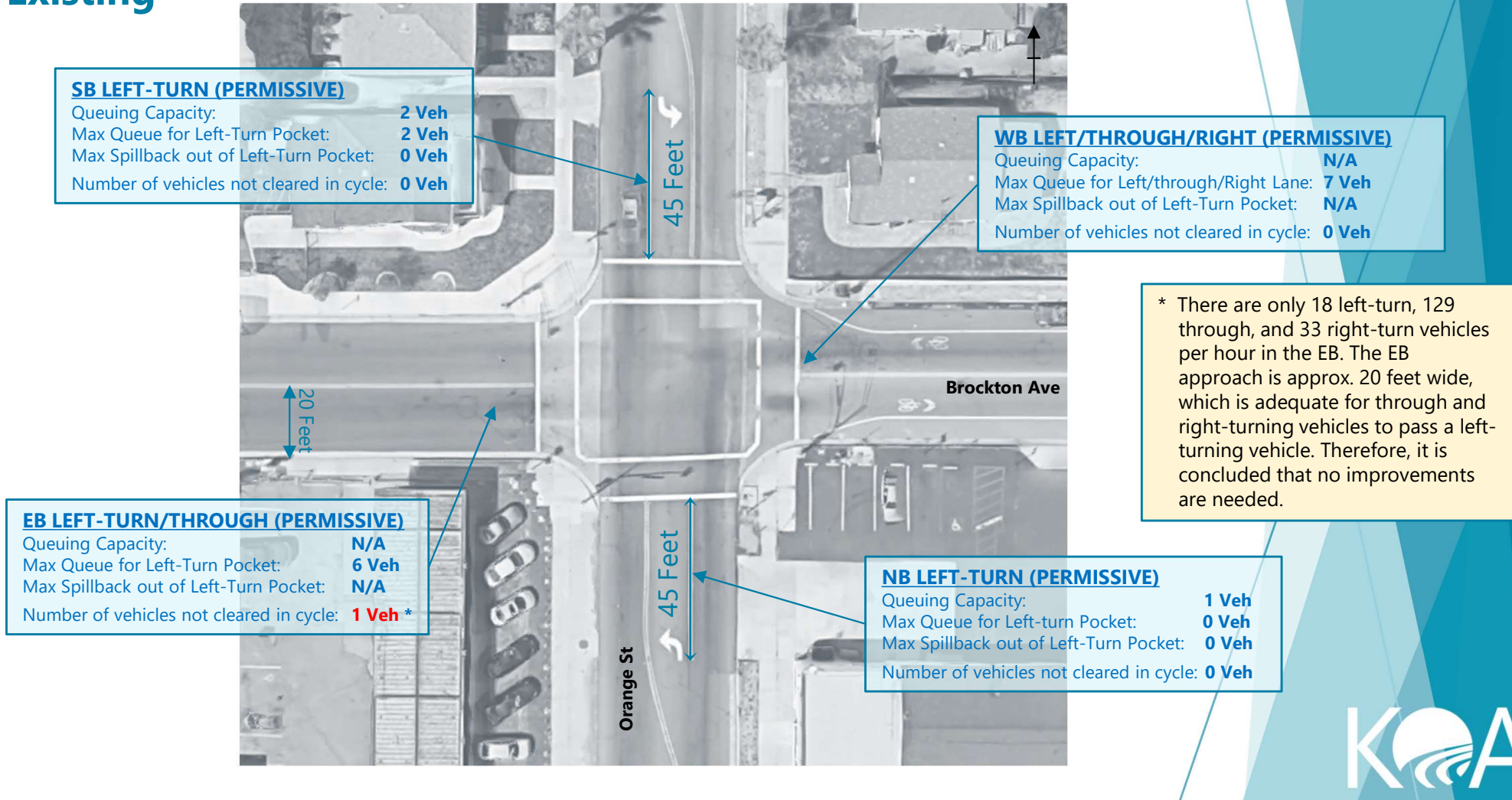
RECOMMENDATION

- Explore potential modification of signal timing to increase SB phase length
- Explore increasing SB left-turn pocket to about 200 feet
- Explore potential SB/NB protected left-turn phase



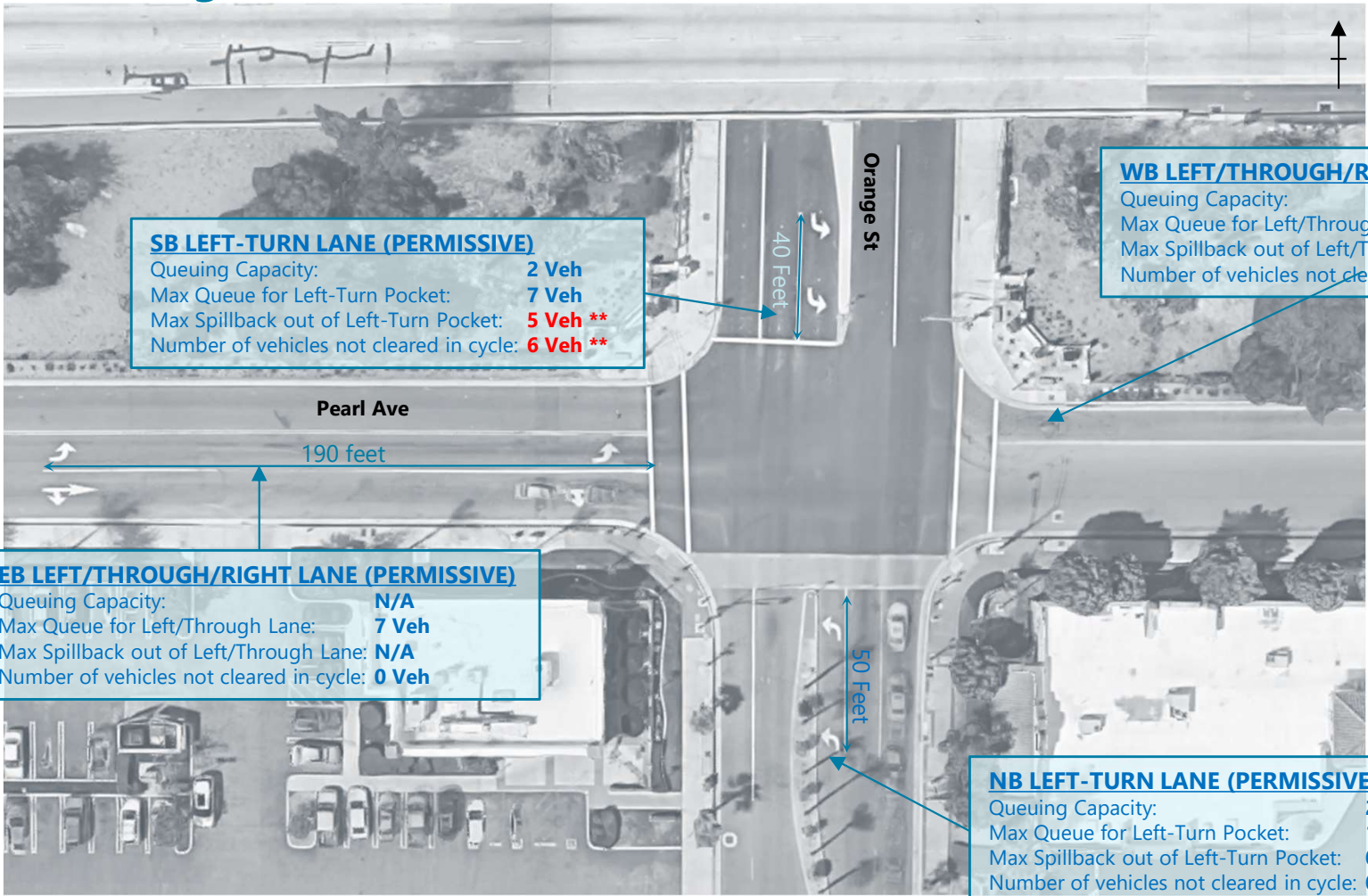
INT #41: ORANGE ST & BROCKTON AVE

Existing



INT #42: ORANGE ST & PEARL AVE

Existing



SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **5 Veh ****
 Number of vehicles not cleared in cycle: **6 Veh ****

WB LEFT/THROUGH/RIGHT LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **6 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH/RIGHT LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **7 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

**** Vehicle spillback caused by heavy vehicle at front of queue**

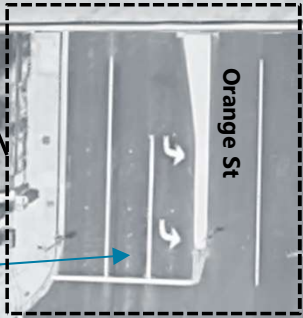
INT #42: ORANGE ST & PEARL AVE

Recommendation

Left-turn pocket extension is not feasible due to existing freeway columns

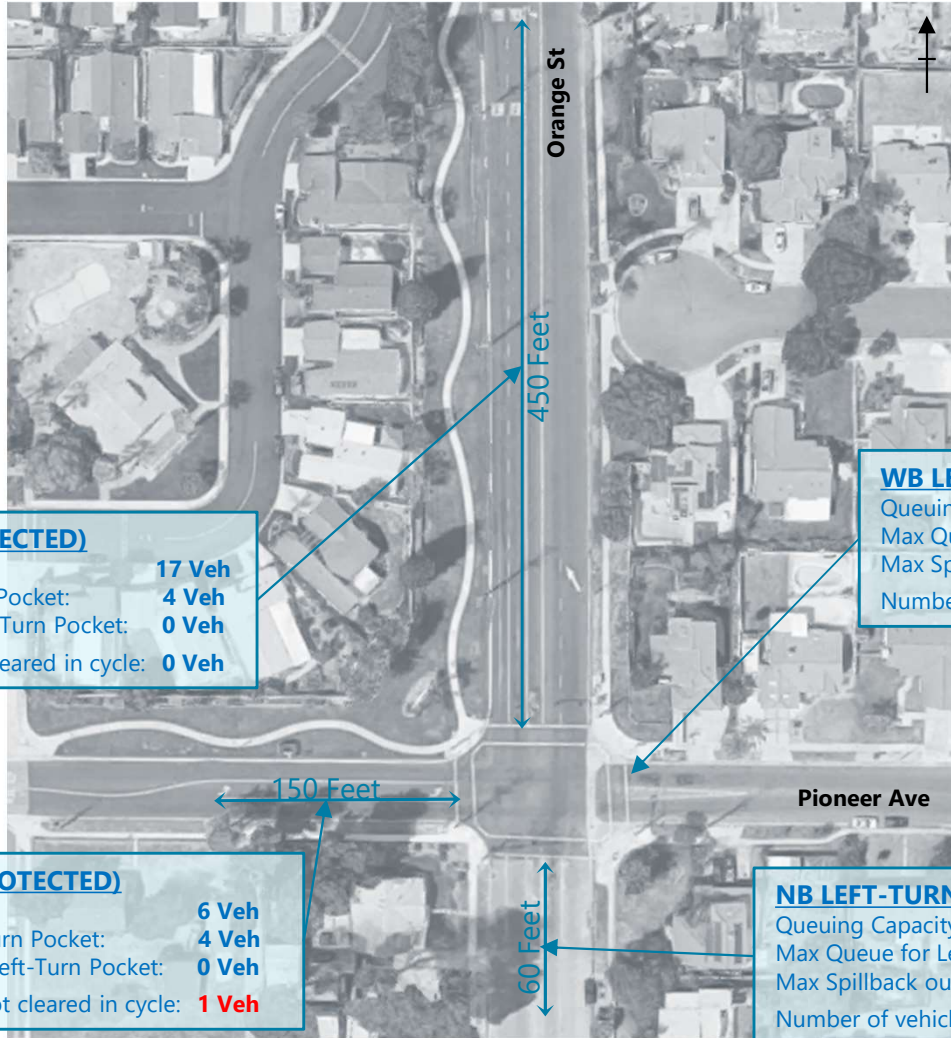


RECOMMENDATION
- Explore signal timing modification to increase phase length



INT #44: ORANGE ST & PIONEER AVE

Existing



SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **17 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)
 Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **1 Veh**

WB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

* The left-turn lane including the taper is about 80 feet, which has capacity for about 3 vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.



INT #44: ORANGE ST & PIONEER AVE

Recommendation

RECOMMENDATION

- Explore potential modification of signal timing to increase EB left turn phase length
- The splits in the signal timing plan do not appear to align with the traffic volumes for each approach. (E.g., Based on the signal timing plan, the total split is greater for EB/WB compared to NB/SB. However, the peak traffic flows are higher in the NB/SB compared to the EB/WB.) The signal timing should be optimized based on the traffic counts.



INT #45: ORANGE ST & SAN BERNARDINO AVE

Existing

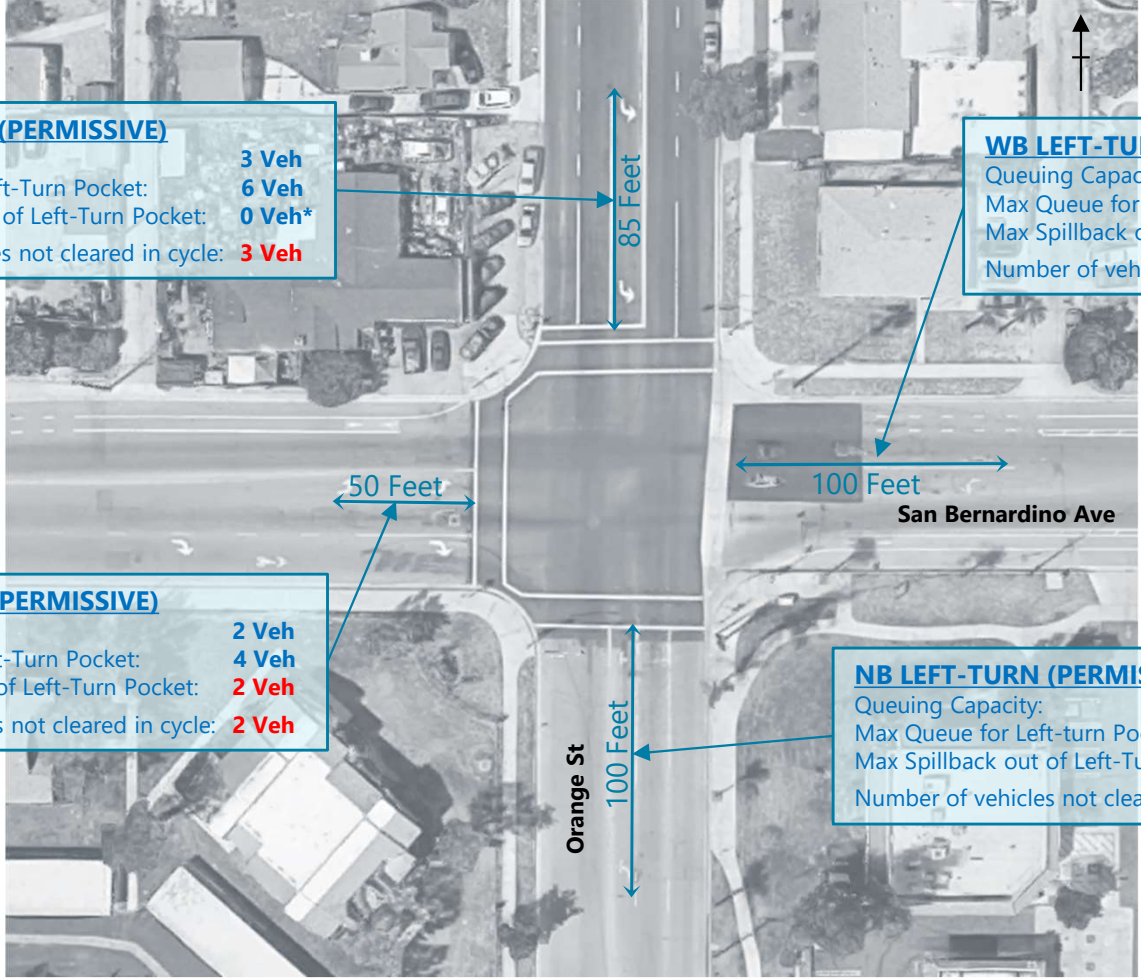
SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **3 Veh**

WB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **2 Veh**
 Number of vehicles not cleared in cycle: **2 Veh**

NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

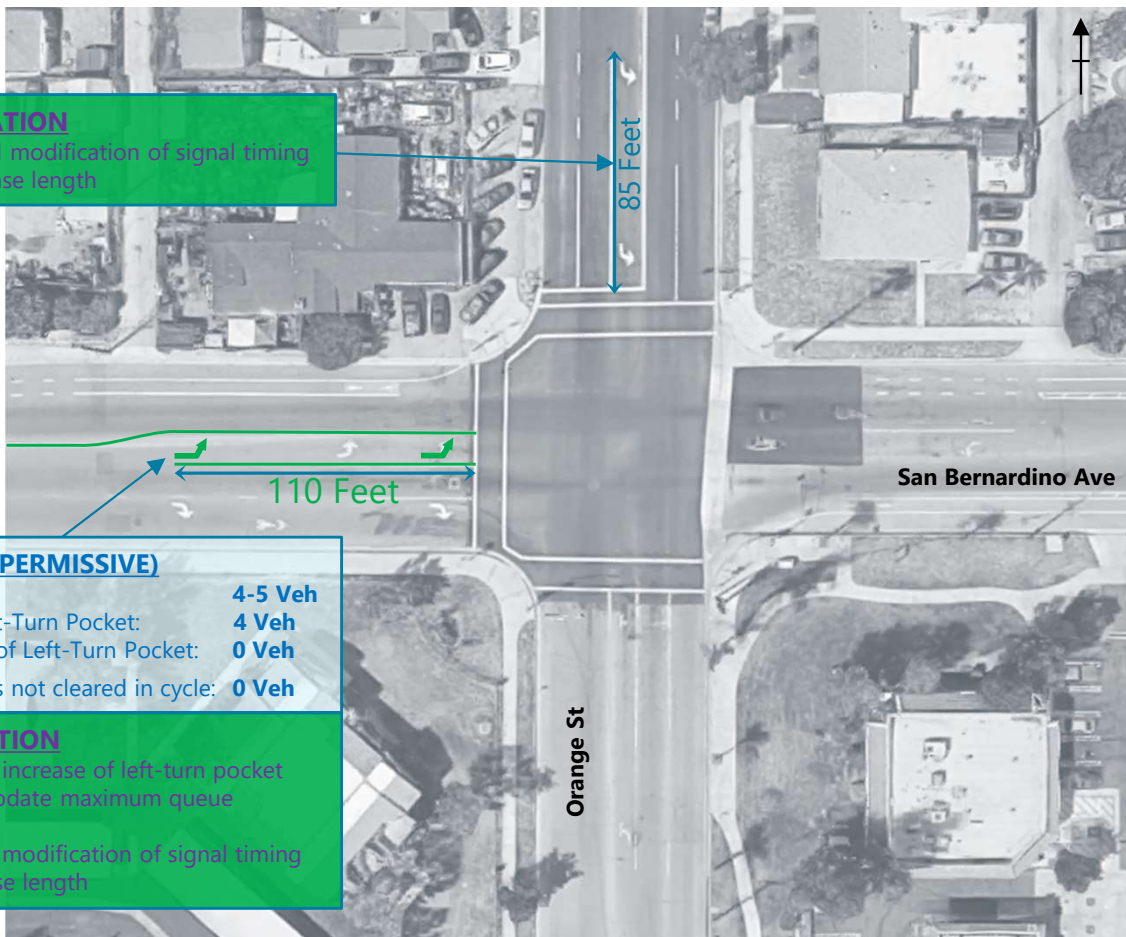
* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #45: ORANGE ST & SAN BERNARDINO AVE

Recommendation

RECOMMENDATION
- Explore potential modification of signal timing to increase SB phase length



EB LEFT-TURN (PERMISSIVE)
Queuing Capacity: **4-5 Veh**
Max Queue for Left-Turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

RECOMMENDATION
- Explore potential increase of left-turn pocket length to accommodate maximum queue observed
- Explore potential modification of signal timing to increase EB phase length



INT #46: ORANGE ST & STATE ST

Existing

SB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Lane: **10 Veh**
 Max Spillback out of Left-Turn Lane: **5 Veh**
 Number of vehicles not cleared in cycle: **10 Veh**

Orange St
 75 Feet

Shopping Center

State St

ONE WAY

EB LEFT/THROUGH/RIGHT LANE (PROTECTED)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

85 Feet

NB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Lane: **1 Veh**
 Max Spillback out of Left-Turn Lane: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

PM Peak Hour Traffic Volumes

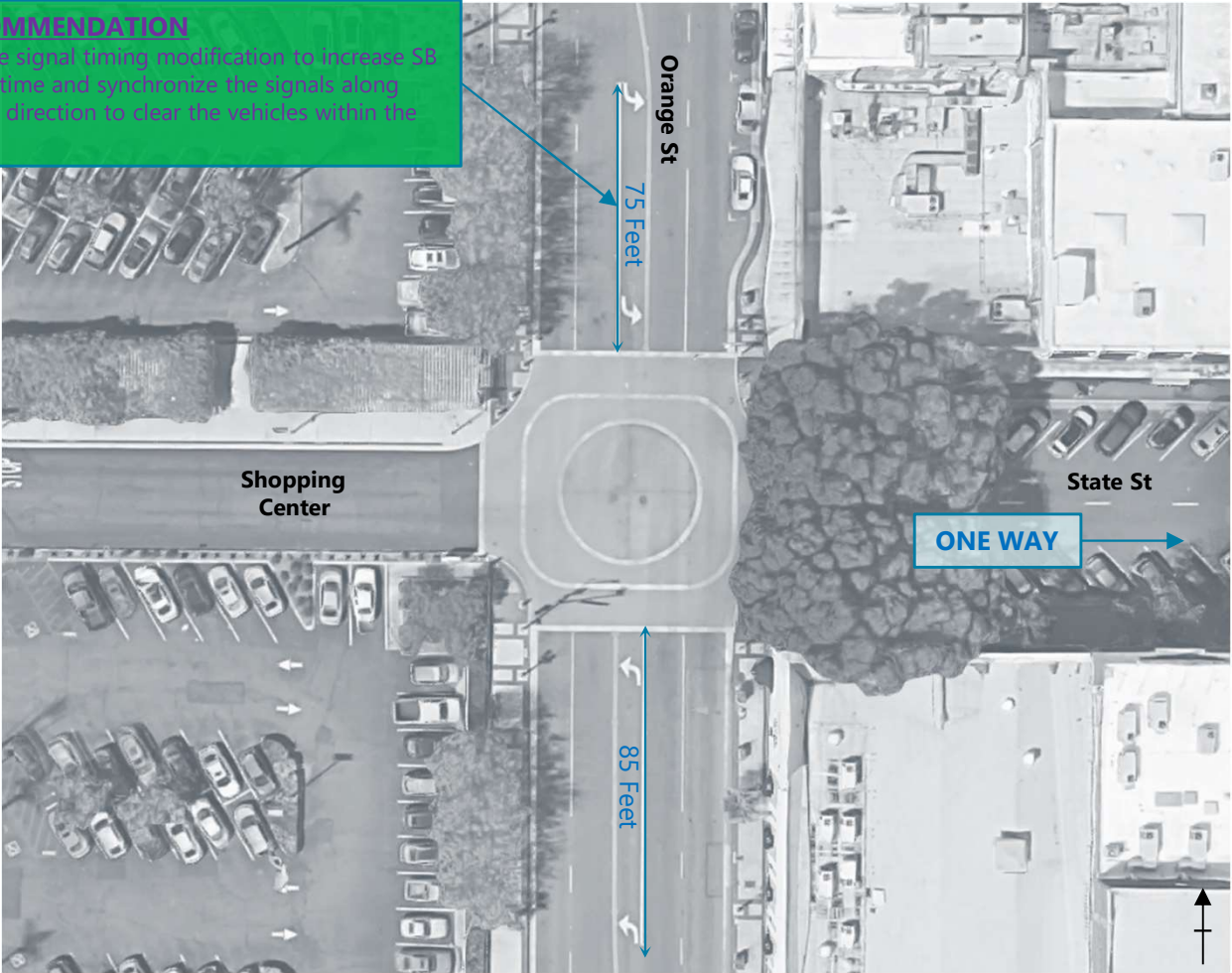
NB: 14 LT, 560 Thru, 100 RT
 SB: 99 LT, 296 Thru, 56 RT
 EB: 42 LT, 11 Thru, 16 RT
 WB: 0 LT, 0 Thru, 0 RT



INT #46: ORANGE ST & STATE ST

Recommendation

RECOMMENDATION
Explore signal timing modification to increase SB green time and synchronize the signals along NB/SB direction to clear the vehicles within the cycle



INT #47: ORANGE ST & STUART AVE

Existing

SB LEFT/THROUGH LANE (PERMISSIVE)

Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **4 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH/RIGHT LANE (PERMISSIVE)

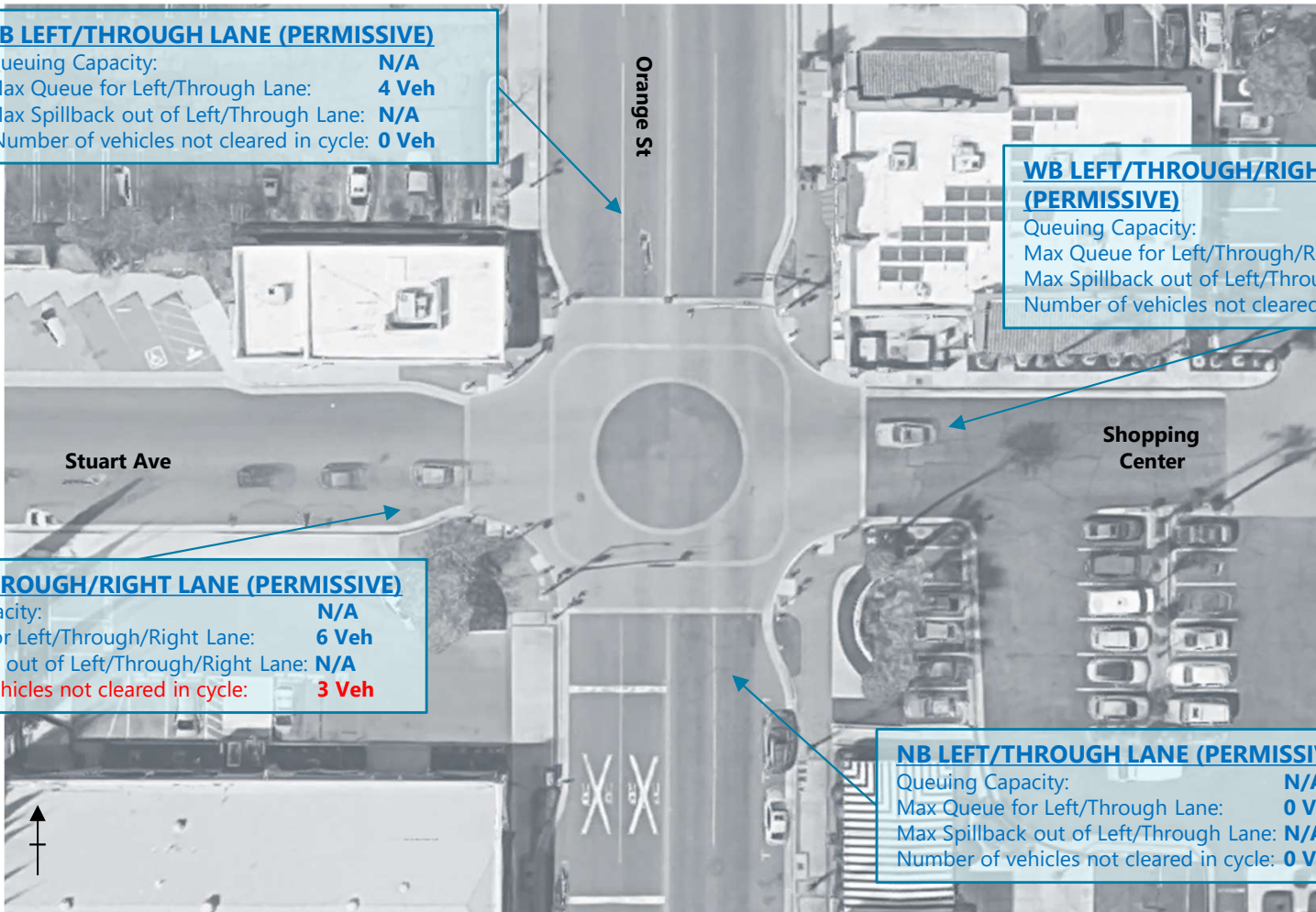
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **4 Veh**
Max Spillback out of Left/Through/Right Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH/RIGHT LANE (PERMISSIVE)

Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **6 Veh**
Max Spillback out of Left/Through/Right Lane: **N/A**
Number of vehicles not cleared in cycle: **3 Veh**

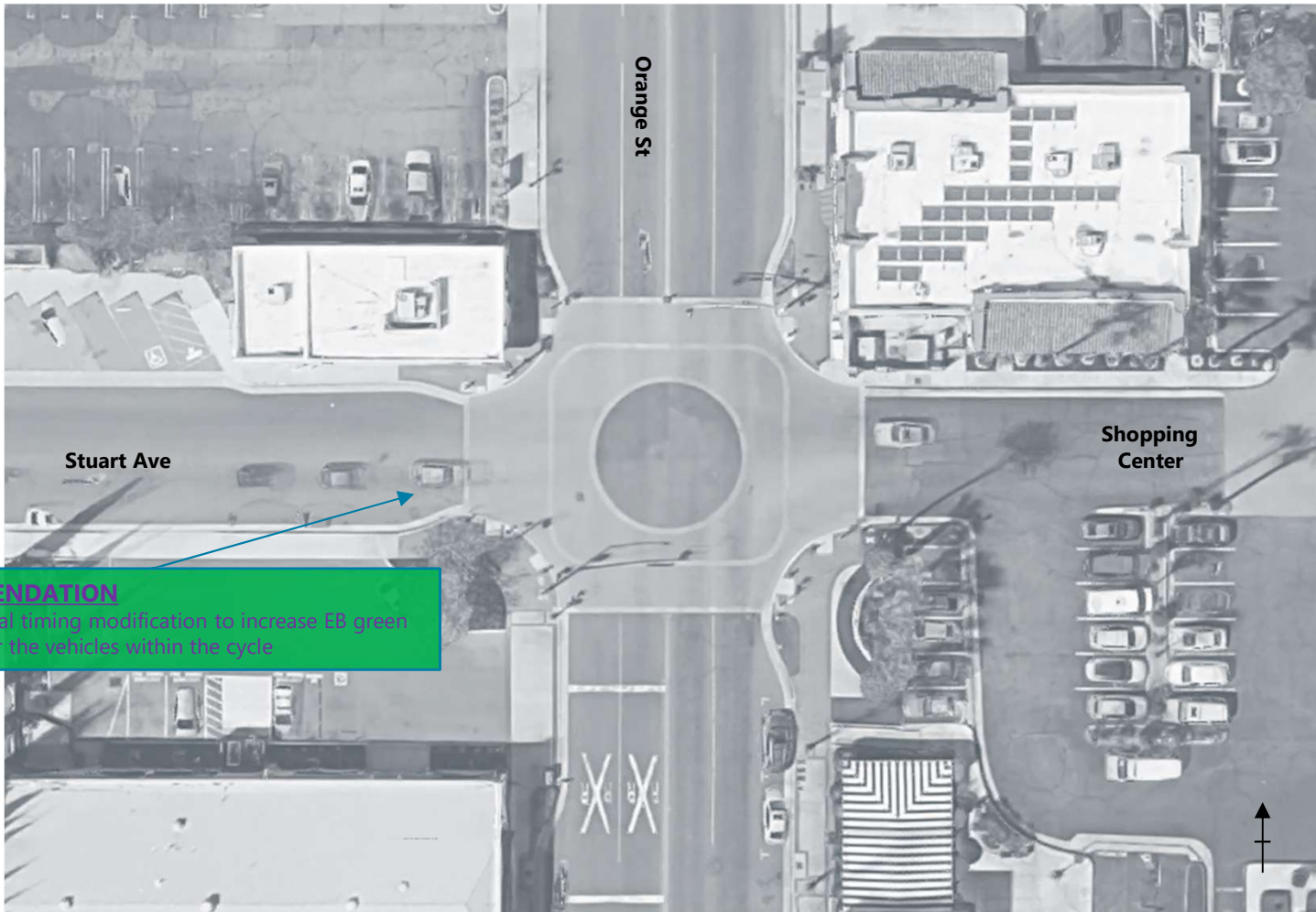
NB LEFT/THROUGH LANE (PERMISSIVE)

Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **0 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**



INT #47: ORANGE ST & STUART AVE

Recommendation



RECOMMENDATION

Explore signal timing modification to increase EB green time to clear the vehicles within the cycle

INT #48: REDLANDS BLVD & CALIFORNIA ST

Existing

SB LEFT-TURN (PROTECTED)

Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **2 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

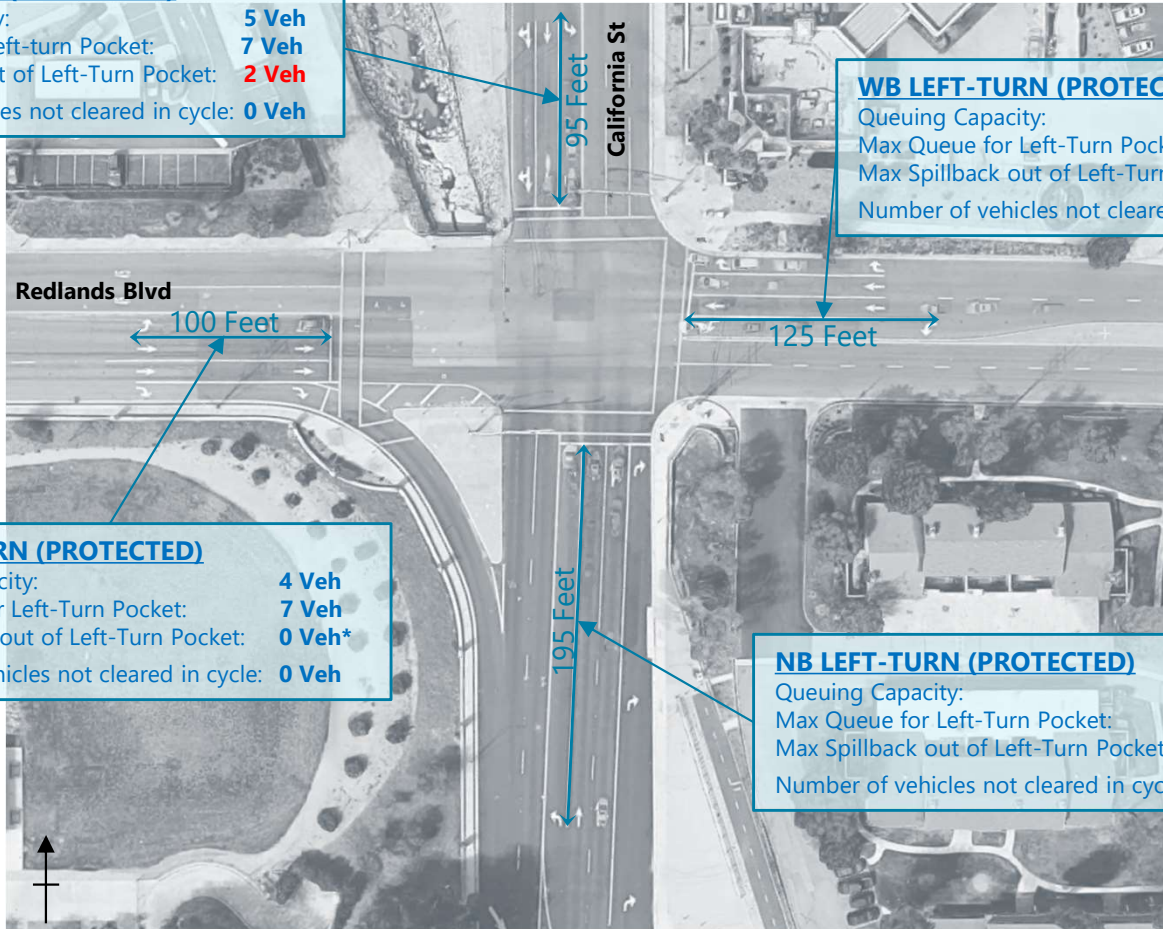
EB LEFT-TURN (PROTECTED)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)

Queuing Capacity: **8 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the striped median accommodation.



INT #48: REDLANDS BLVD & CALIFORNIA ST

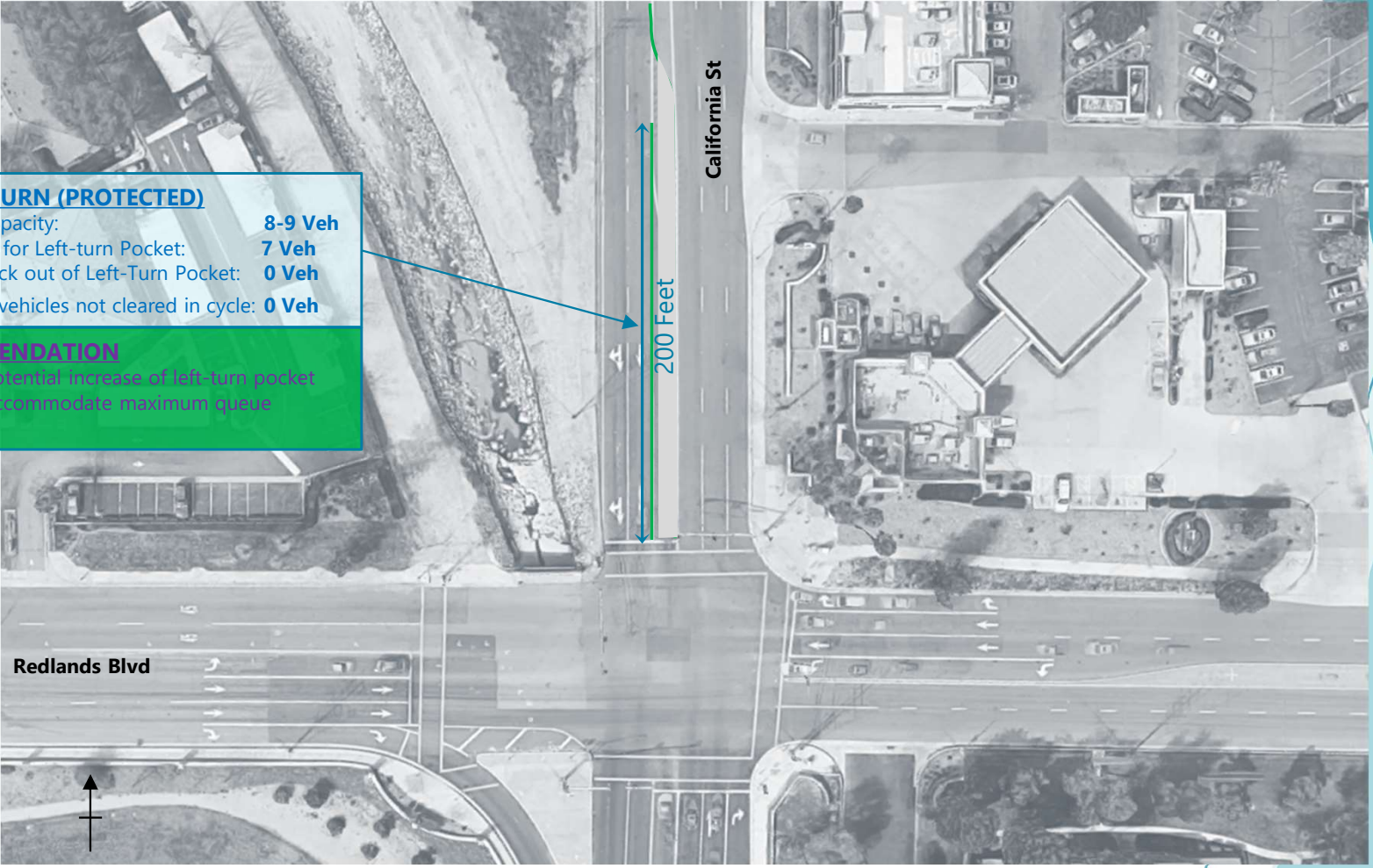
Recommendation

SB LEFT-TURN (PROTECTED)

Queuing Capacity: **8-9 Veh**
Max Queue for Left-turn Pocket: **7 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

RECOMMENDATION

- Explore potential increase of left-turn pocket length to accommodate maximum queue observed



INT #49: REDLANDS BLVD & CITRUS AVE

Existing

SB LEFT/THROUGH LANE (SPLIT)

Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **8 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)

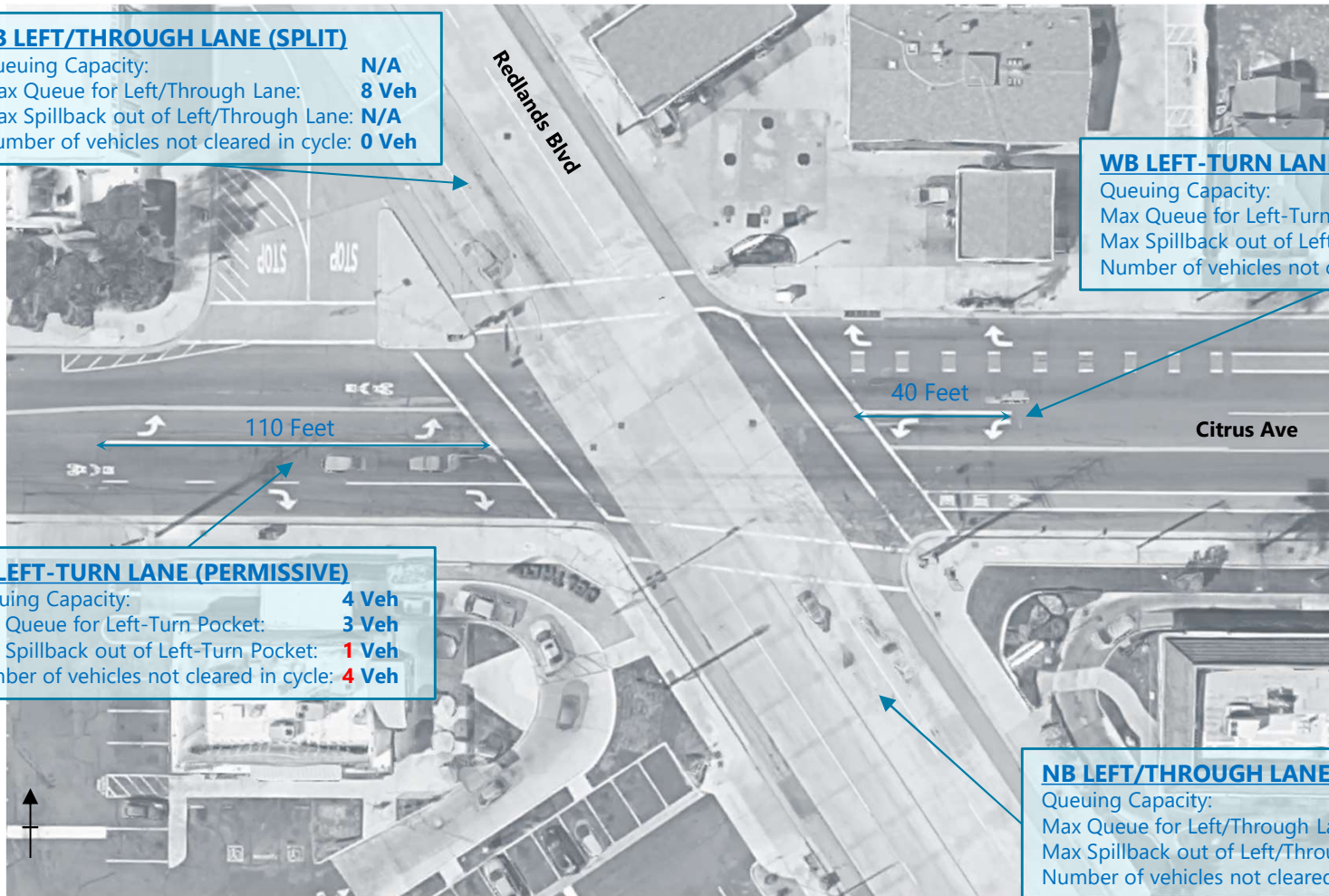
Queuing Capacity: **1 Veh**
Max Queue for Left-Turn Pocket: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **1 Veh**

EB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **3 Veh**
Max Spillback out of Left-Turn Pocket: **1 Veh**
Number of vehicles not cleared in cycle: **4 Veh**

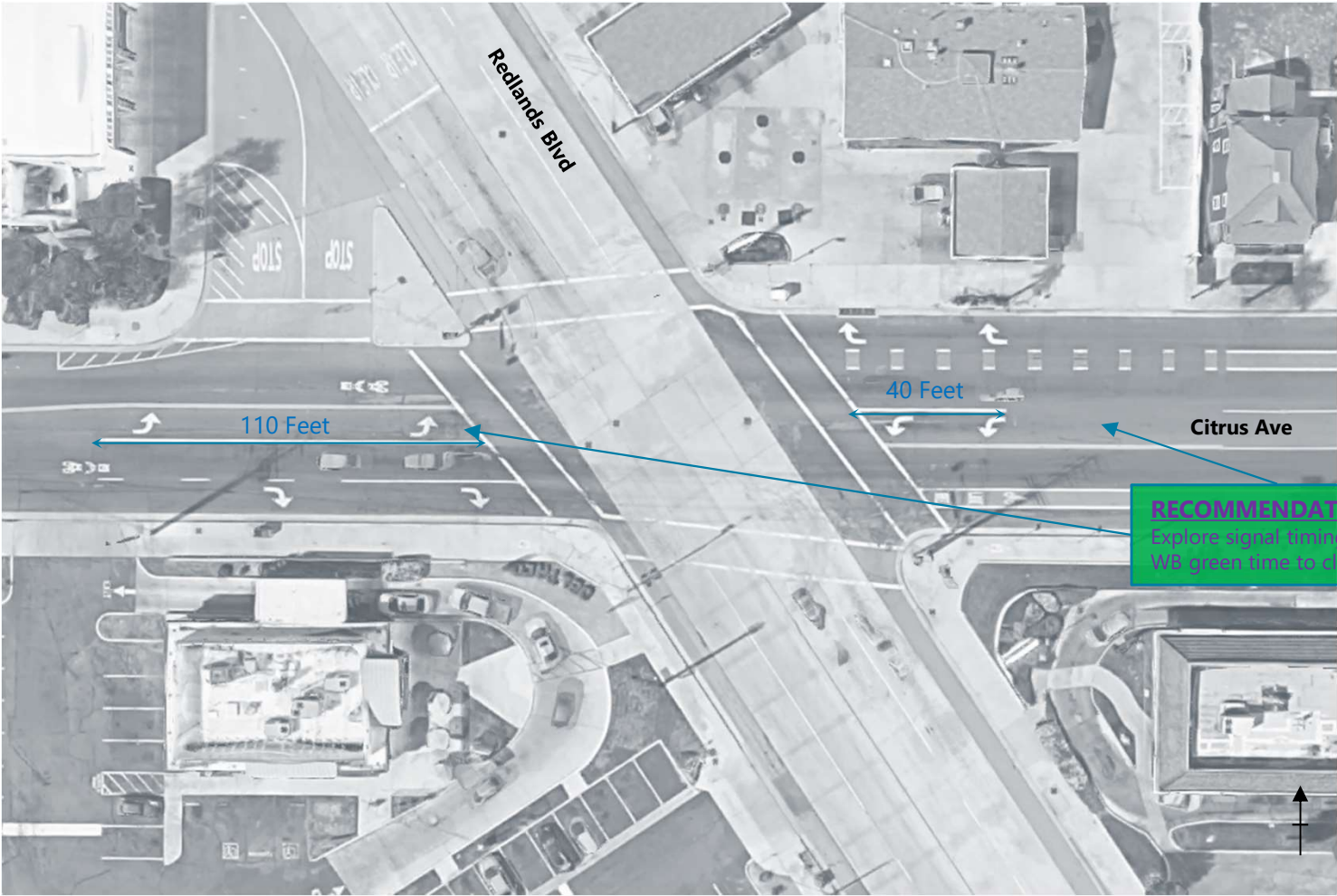
NB LEFT/THROUGH LANE (SPLIT)

Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **6 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**



INT #49: REDLANDS BLVD & CITRUS AVE

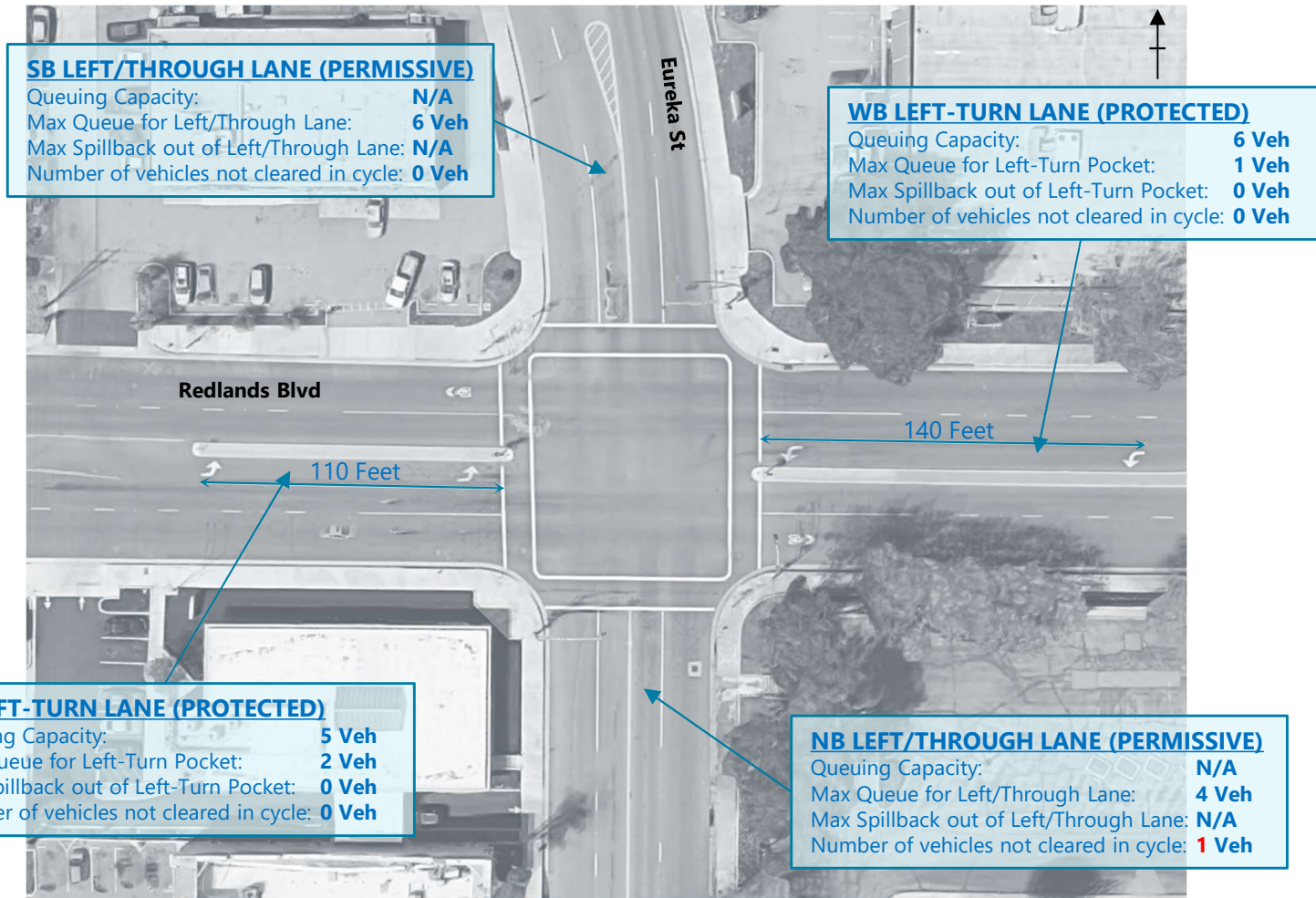
Recommendation



RECOMMENDATION
Explore signal timing modification to increase EB and WB green time to clear the vehicles within the cycle

INT #51: REDLANDS BLVD & EUREKA ST

Existing



PM Peak Hour Traffic Volumes

NB:	30 LT, 179 Thru, 44 RT
SB:	122 LT, 324 Thru, 63 RT
EB:	83 LT, 728 Thru, 59 RT
WB:	37 LT, 269 Thru, 55 RT

INT #51: REDLANDS BLVD & EUREKA ST

Recommendation



PM Peak Hour Traffic Volumes		
NB:	30 LT, 179 Thru, 44 RT	
SB:	122 LT, 324 Thru, 63 RT	
EB:	83 LT, 728 Thru, 59 RT	
WB:	37 LT, 269 Thru, 55 RT	

RECOMMENDATION
Explore potential signal timing modification to increase NB green time to clear the vehicles within the cycle

INT #52: REDLANDS BLVD & FERN AVE/CHURCH ST

Existing

SB LEFT-TURN LANE (PROTECTED)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **2 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH LANE (PERMISSIVE)

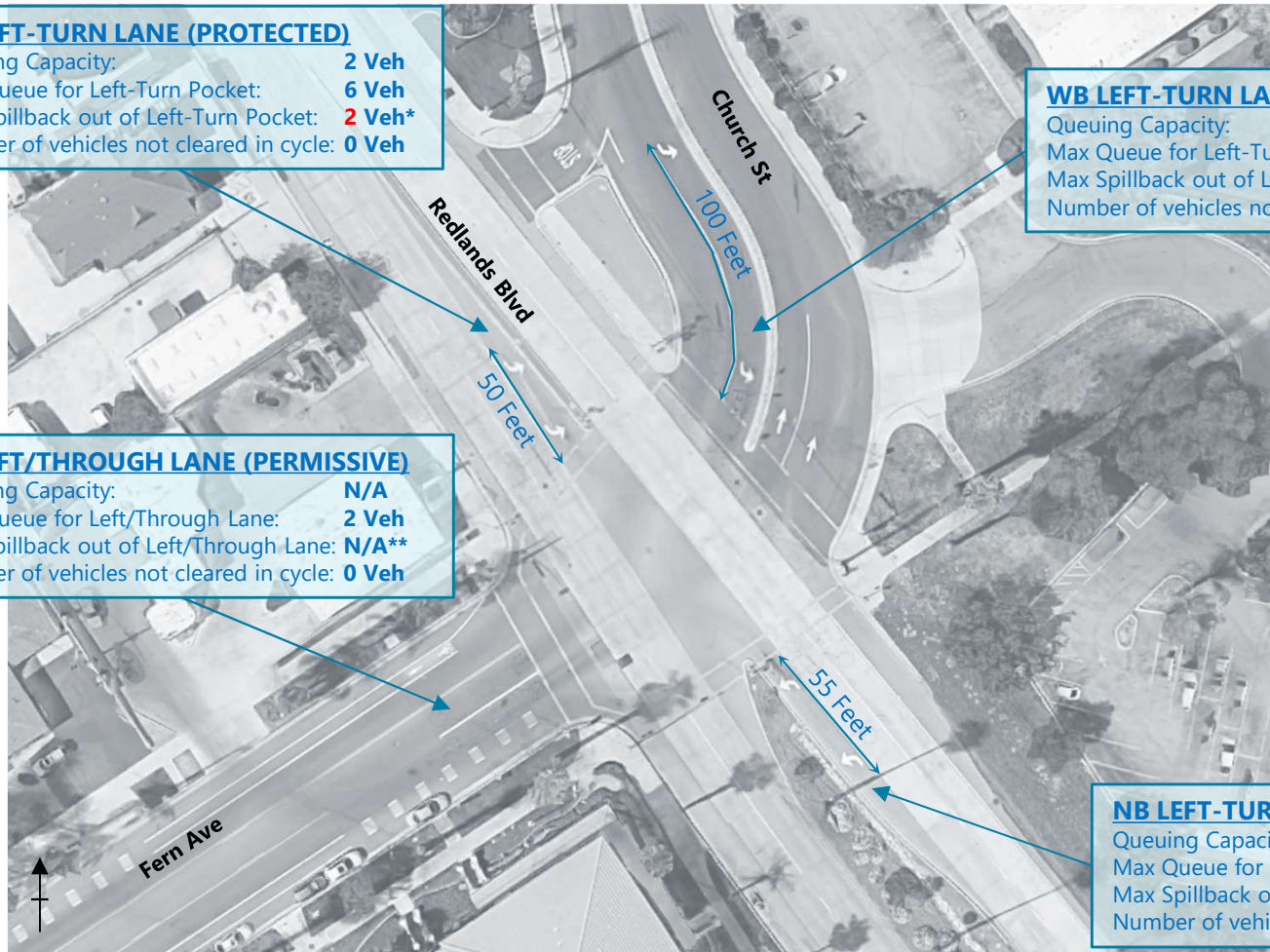
Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left/Through Lane: **N/A****
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PROTECTED)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

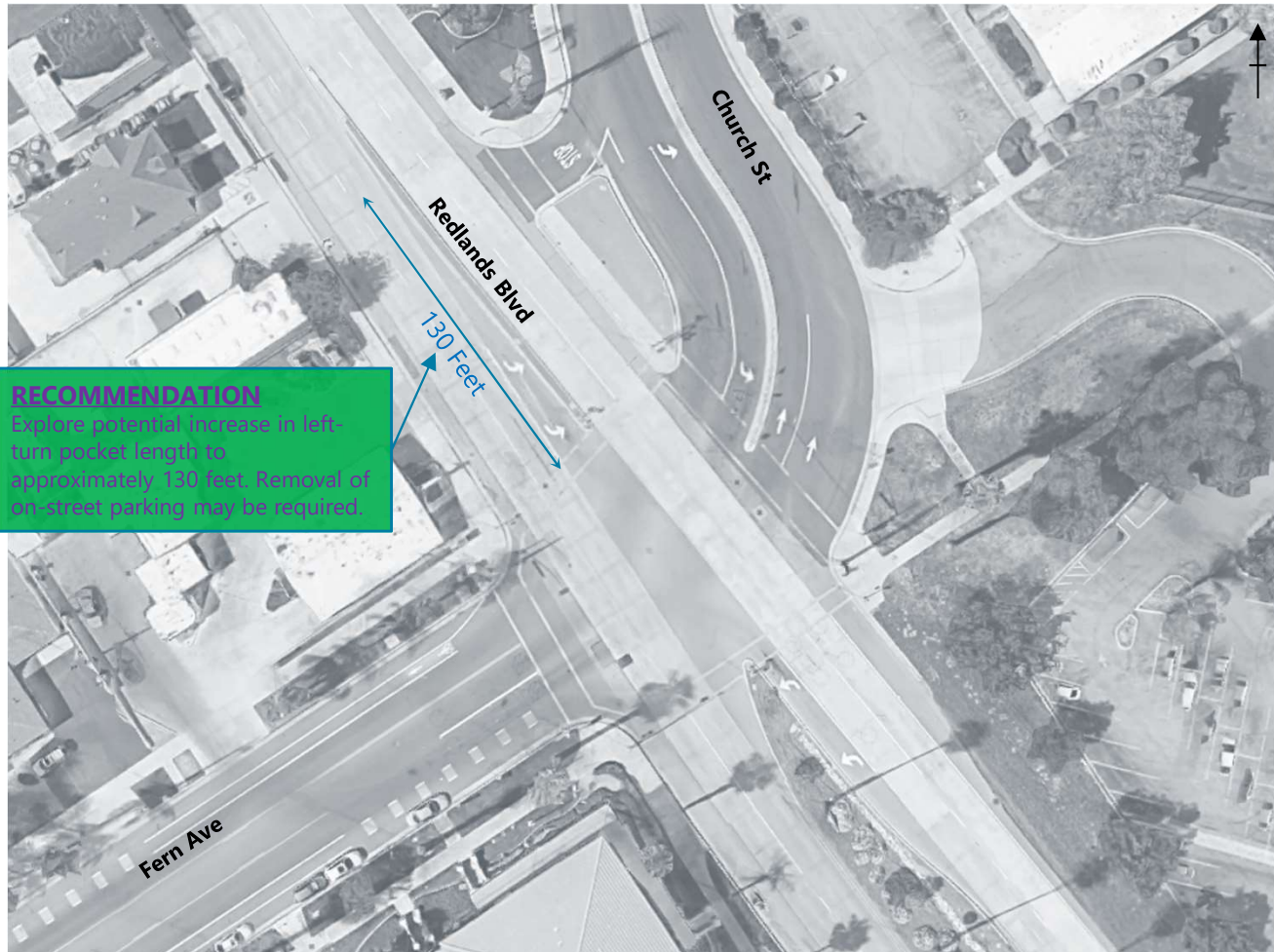
* The SB left-turn lane including the taper has capacity for about four vehicles. Therefore, a maximum of two vehicles spilled back out of the left-turn pocket based on observations.

** Vehicles in the left-turn/through lane will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #52: REDLANDS BLVD & FERN AVE/CHURCH ST

Recommendation



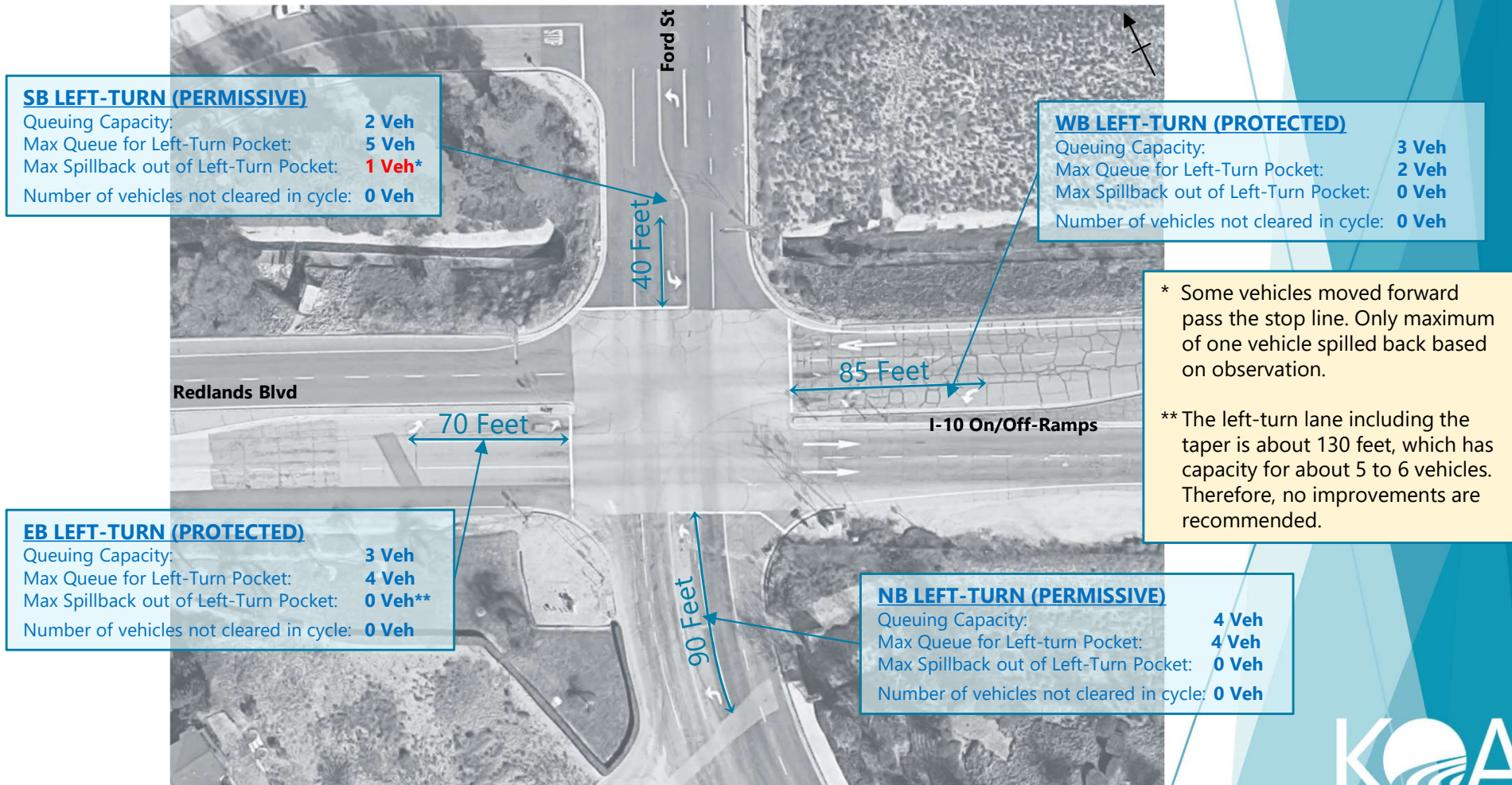
RECOMMENDATION

Explore potential increase in left-turn pocket length to approximately 130 feet. Removal of on-street parking may be required.

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.

INT #53: REDLANDS BLVD & FORD ST

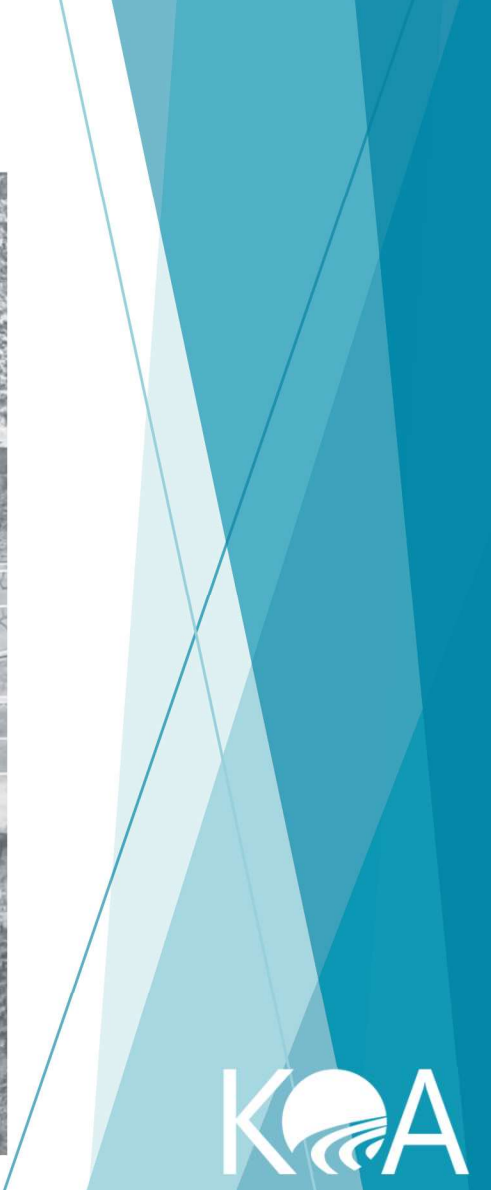
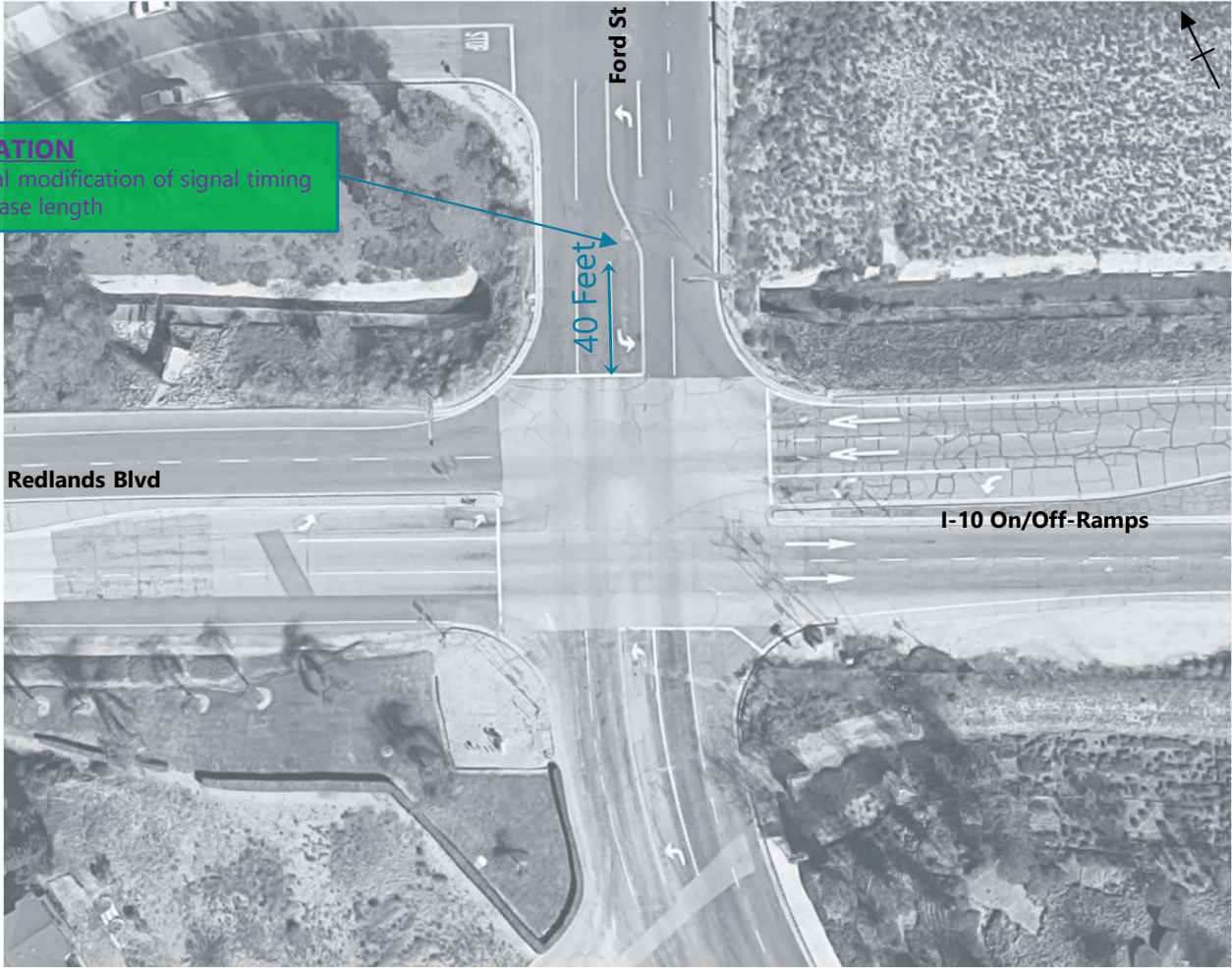
Existing



INT #53: REDLANDS BLVD & FORD ST

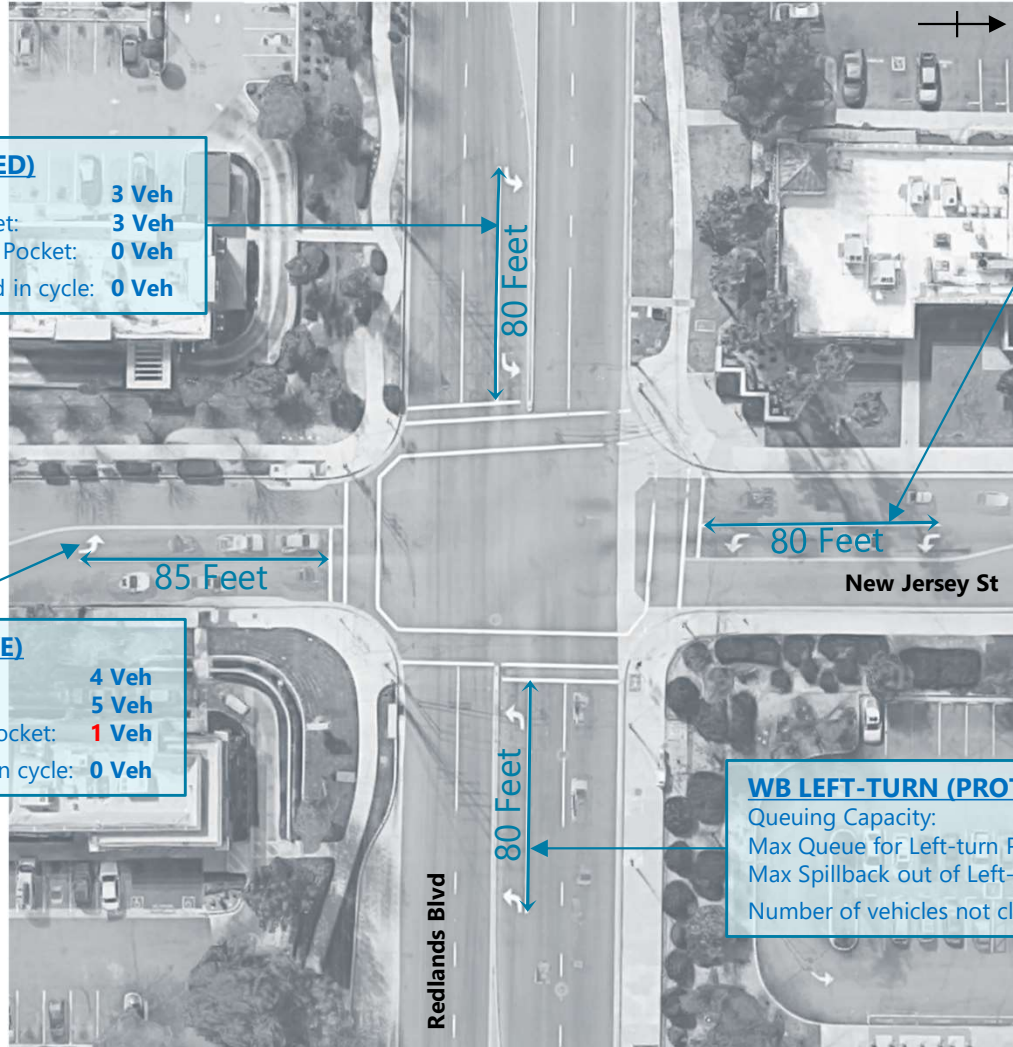
Recommendation

RECOMMENDATION
- Explore potential modification of signal timing to increase SB phase length



INT #57: REDLANDS BLVD & NEW JERSEY ST

Existing



EB LEFT-TURN (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

SB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **3 Veh**
 (Left-turn spillback caused by heavy vehicle)
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PERMISSIVE)

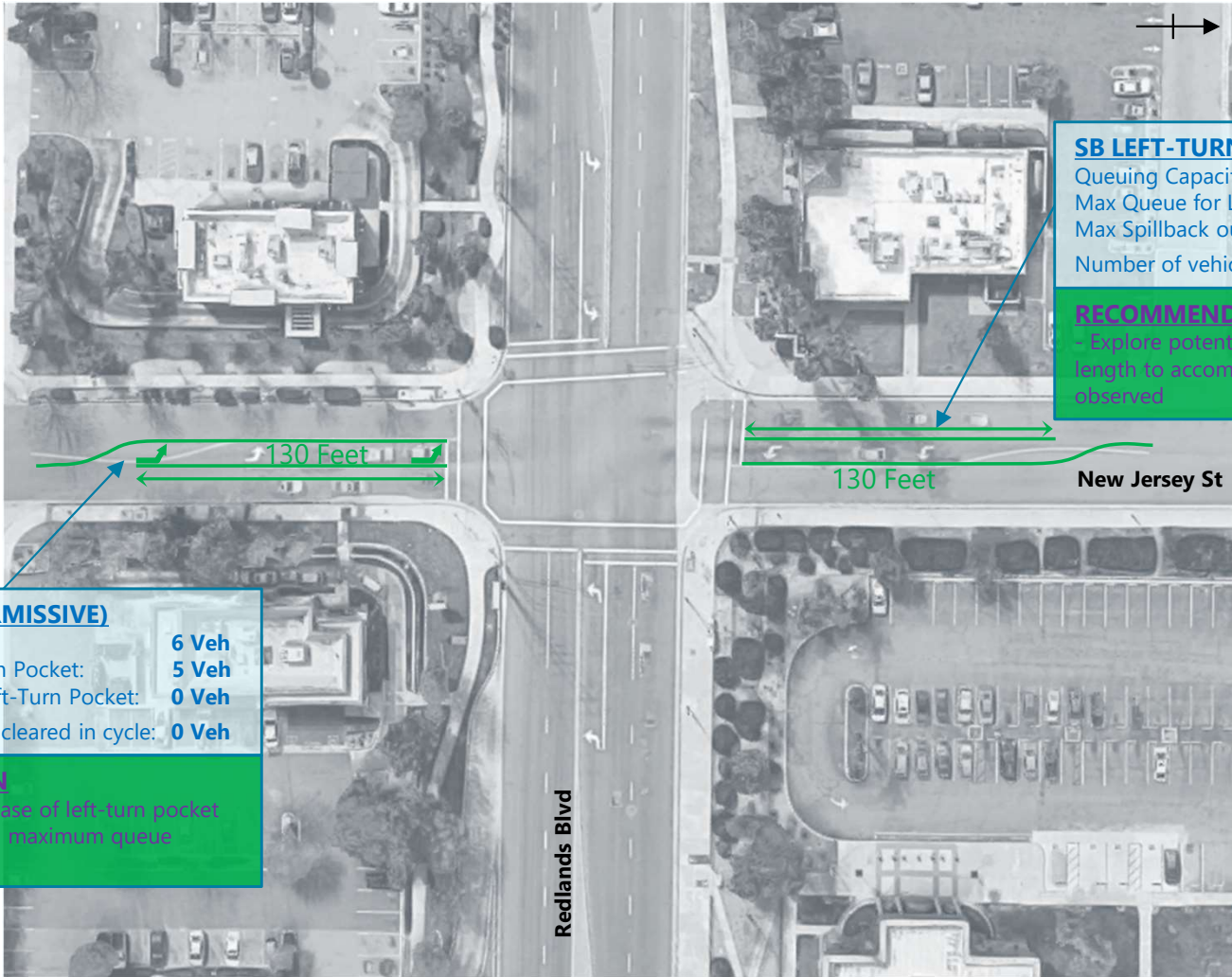
Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **1 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

INT #57: REDLANDS BLVD & NEW JERSEY ST

Recommendation



SB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

RECOMMENDATION

- Explore potential increase of left-turn pocket length to accommodate maximum queue observed

NB LEFT-TURN (PERMISSIVE)

Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

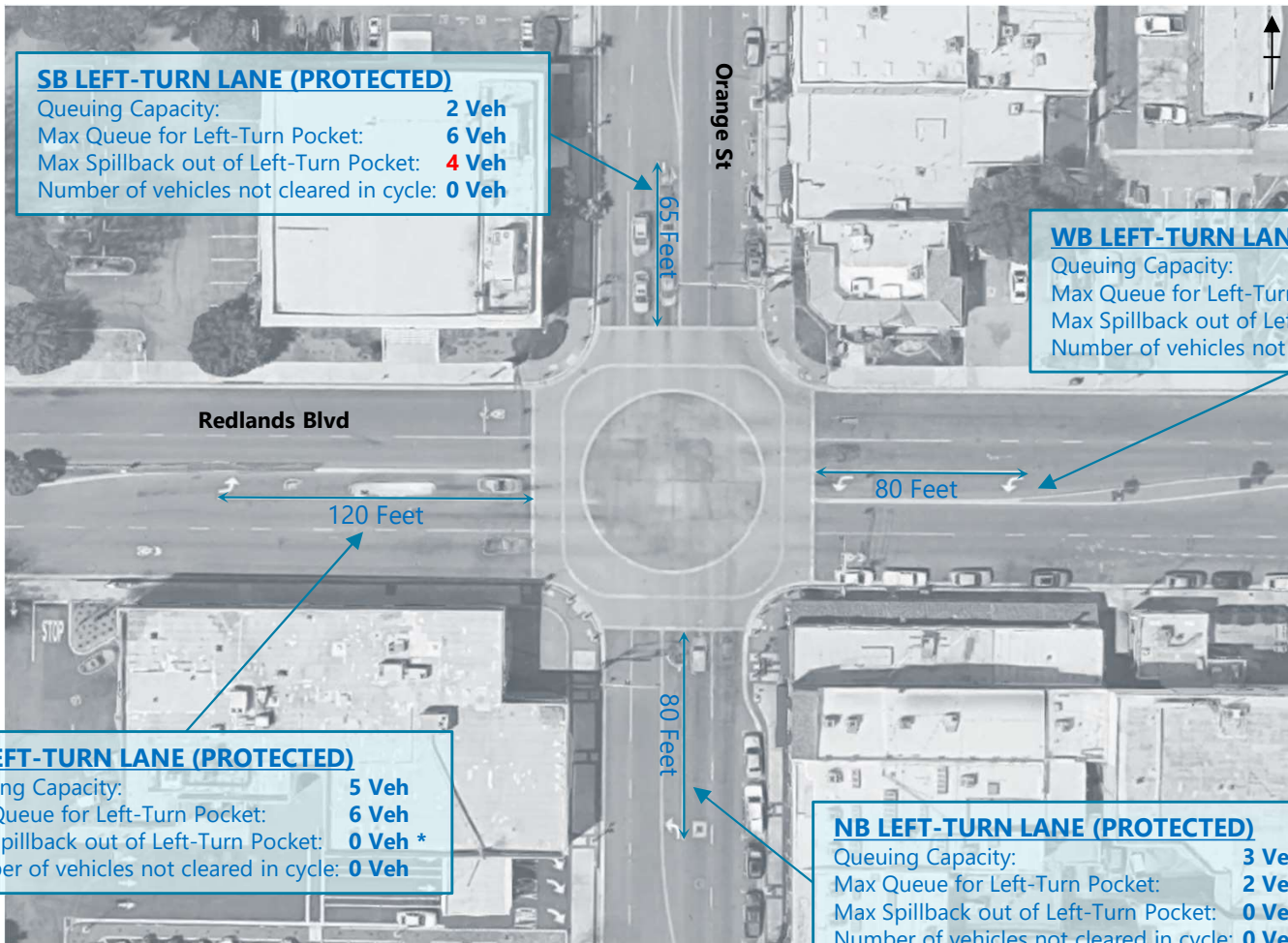
RECOMMENDATION

- Explore potential increase of left-turn pocket length to accommodate maximum queue observed



INT #59: REDLANDS BLVD & ORANGE ST

Existing

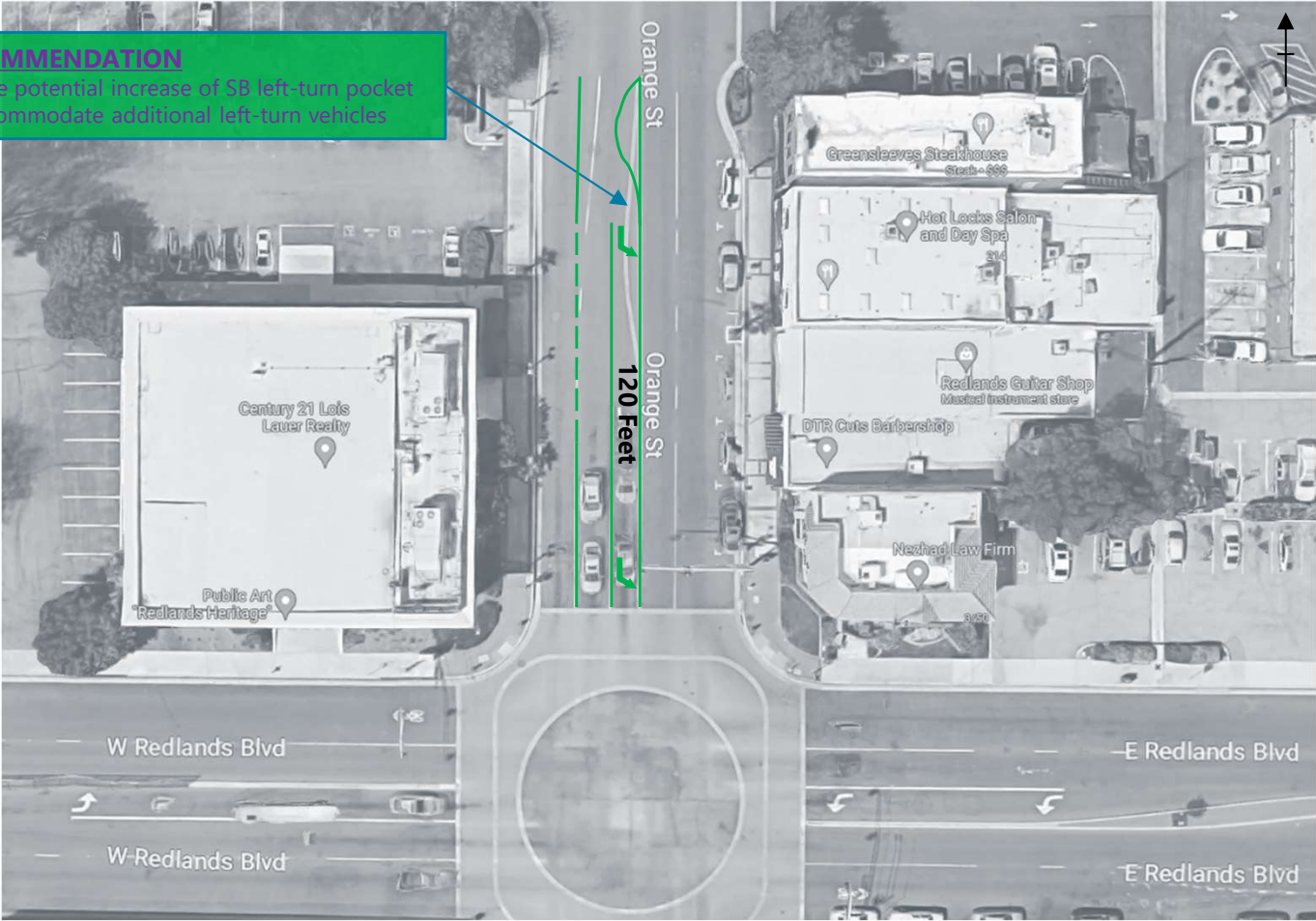


* The EB left-turn lane including the taper is approx. 150 feet, which has capacity for approx. six vehicles. Therefore, no vehicle spillback out of the left-turn pocket was observed.

INT #59: REDLANDS BLVD & ORANGE ST

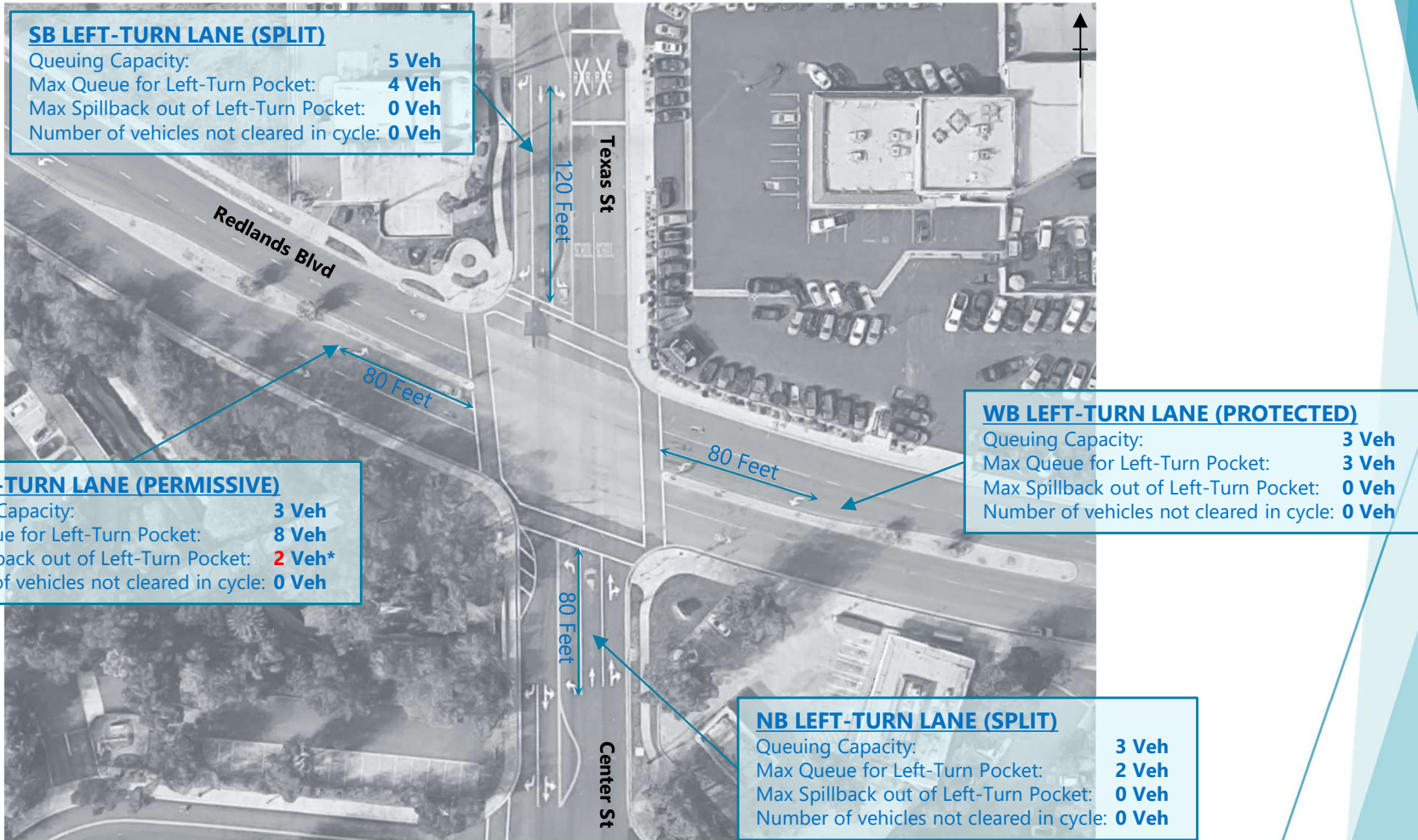
Recommendation

RECOMMENDATION
Explore potential increase of SB left-turn pocket to accommodate additional left-turn vehicles



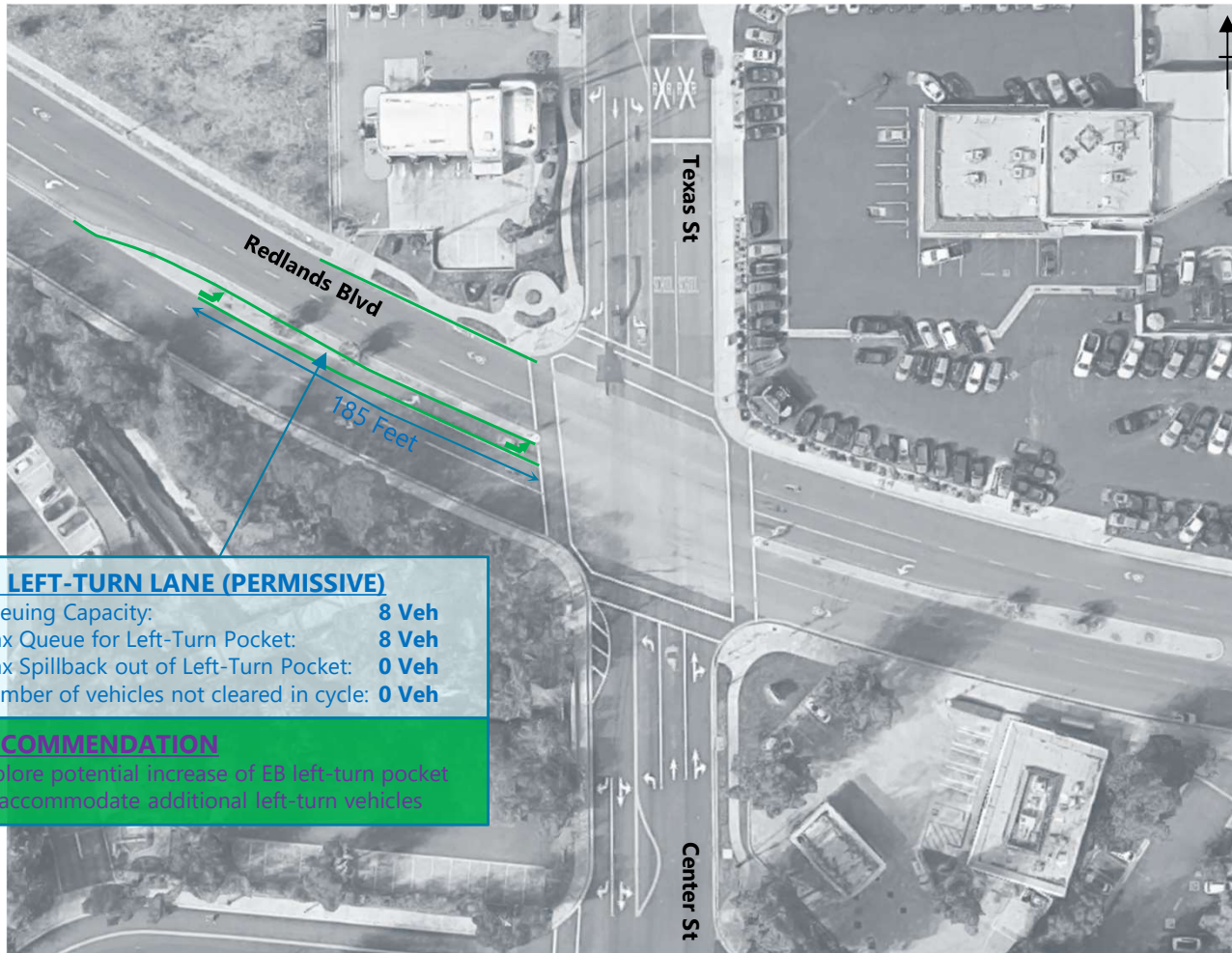
INT #62: REDLANDS BLVD & TEXAS ST

Existing



INT #62: REDLANDS BLVD & TEXAS ST / CENTER ST

Recommendation



EB LEFT-TURN LANE (PERMISSIVE)

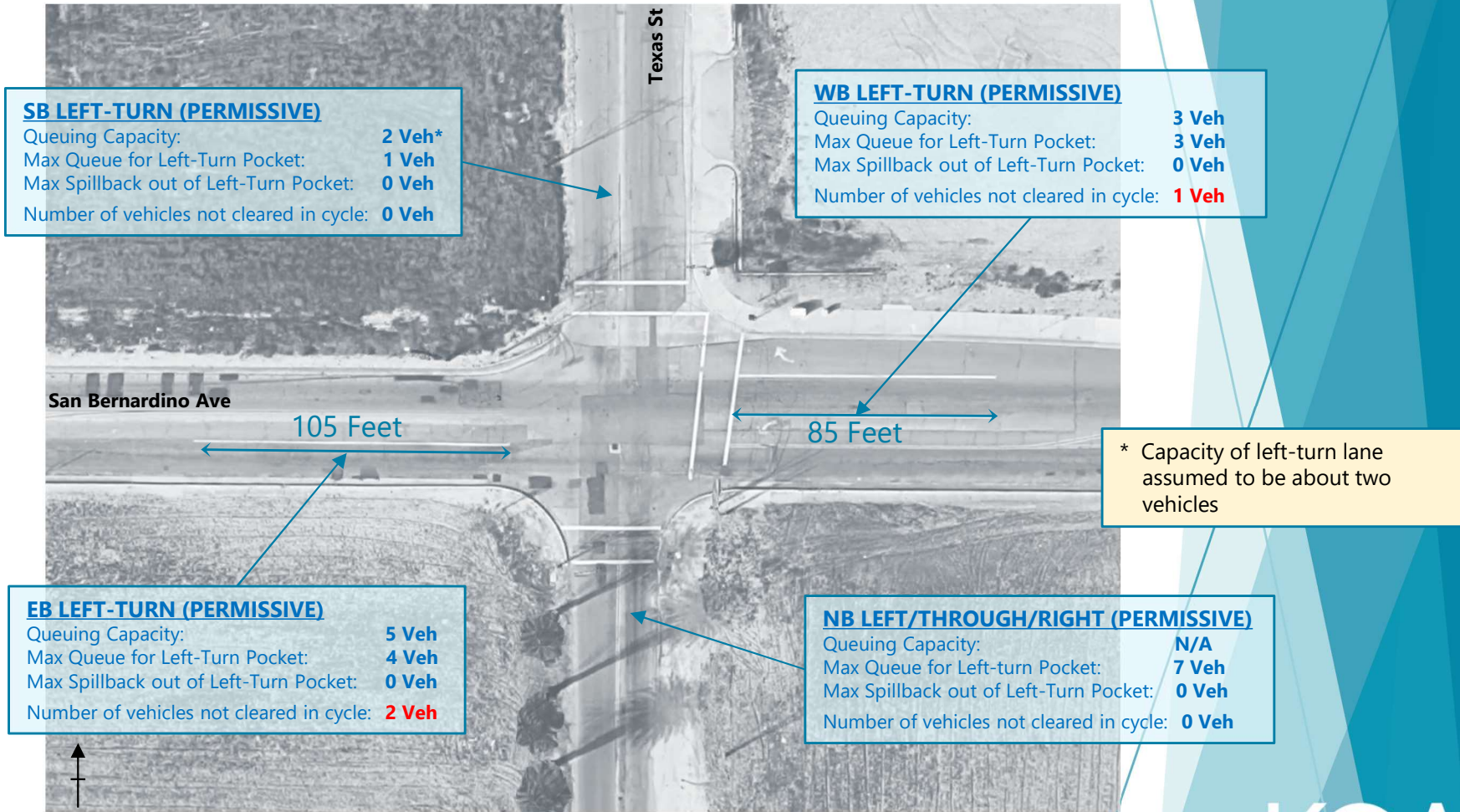
Queuing Capacity: 8 Veh
Max Queue for Left-Turn Pocket: 8 Veh
Max Spillback out of Left-Turn Pocket: 0 Veh
Number of vehicles not cleared in cycle: 0 Veh

RECOMMENDATION

Explore potential increase of EB left-turn pocket to accommodate additional left-turn vehicles

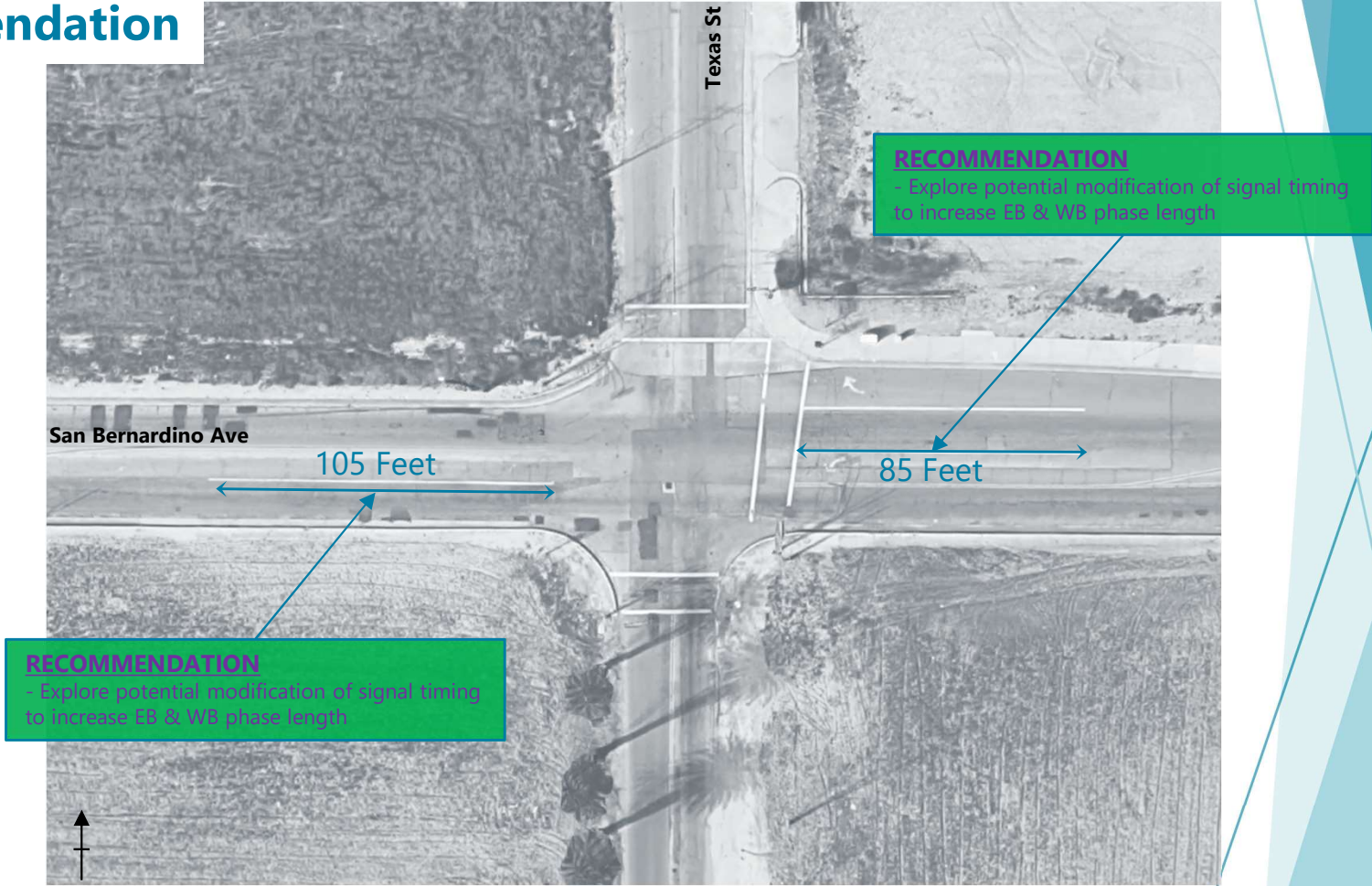
INT #65: SAN BERNARDINO AVE & TEXAS ST

Existing



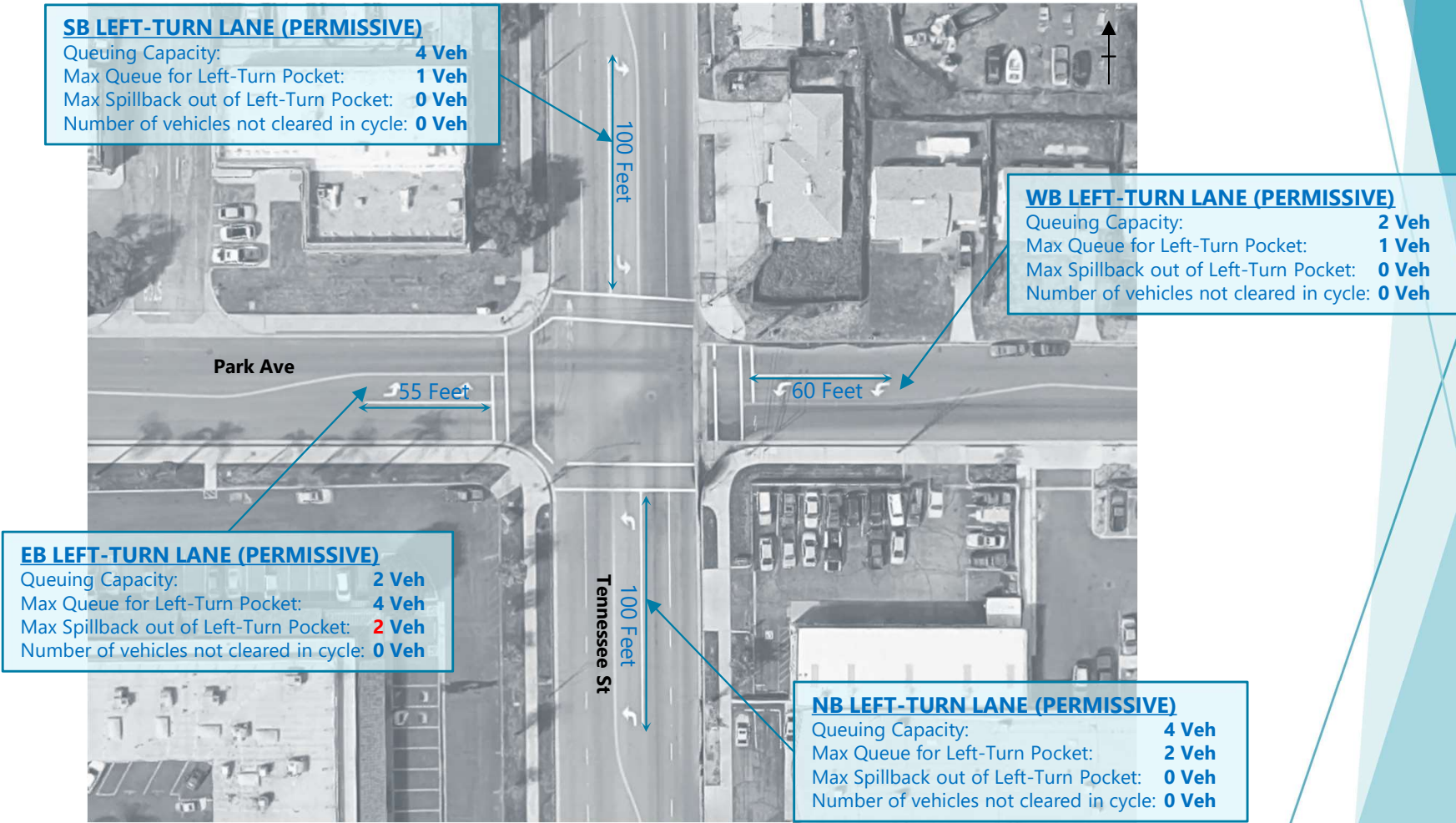
INT #65: SAN BERNARDINO AVE & TEXAS ST

Recommendation



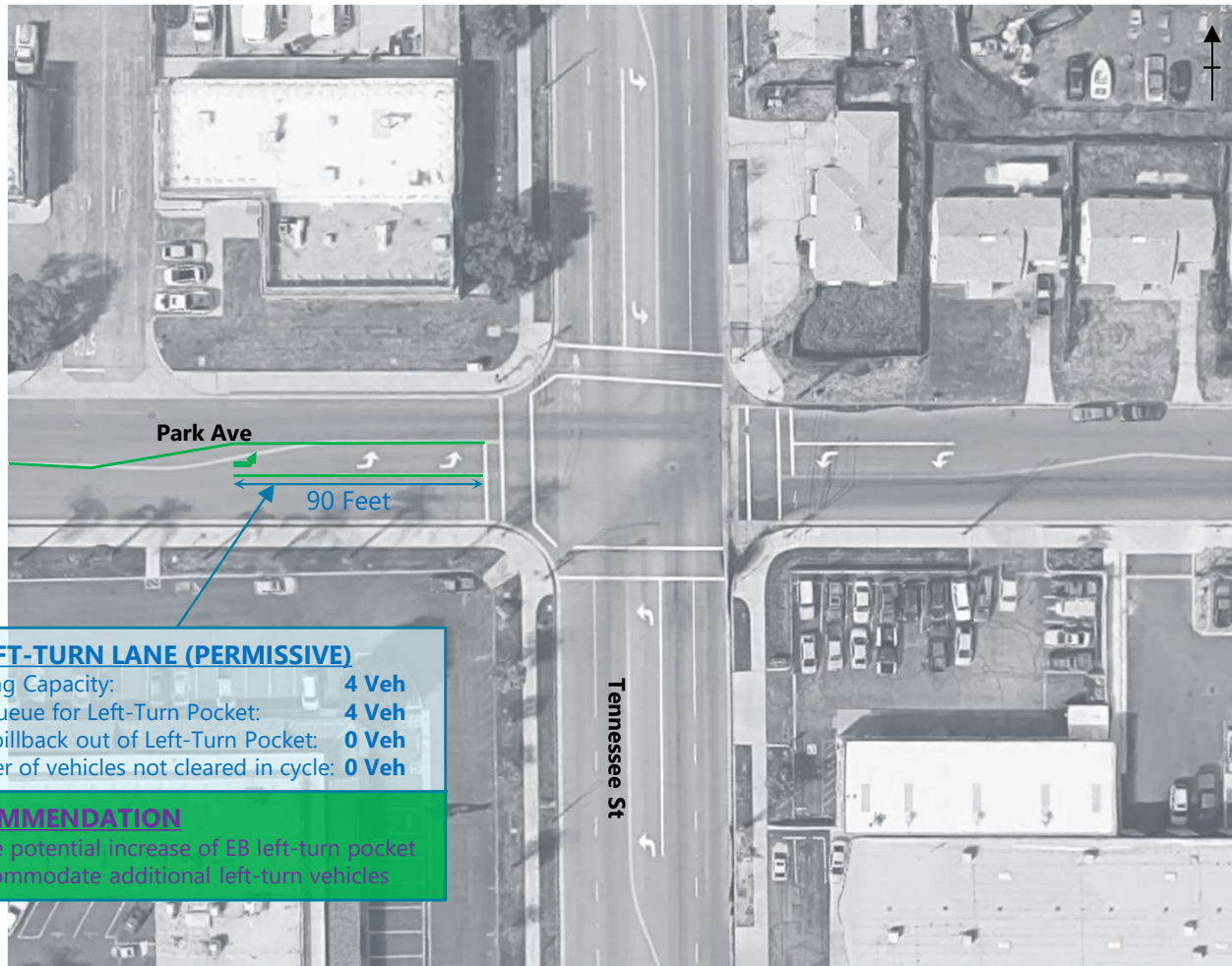
INT #67: TENNESSEE ST & PARK AVE

Existing



INT #67: TENNESSEE ST & PARK AVE

Recommendation

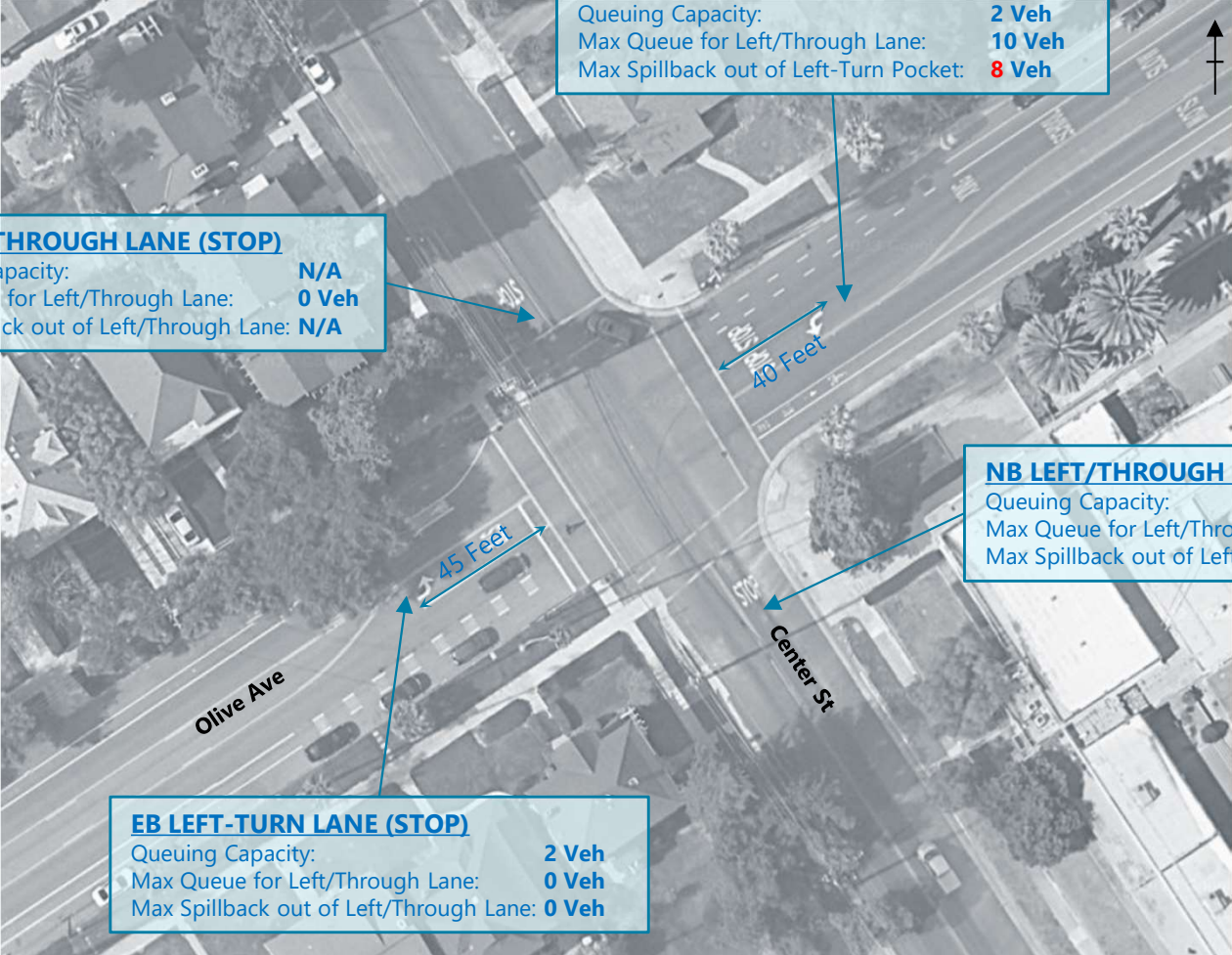


EB LEFT-TURN LANE (PERMISSIVE)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

RECOMMENDATION
Explore potential increase of EB left-turn pocket to accommodate additional left-turn vehicles

INT #79: CENTER ST & OLIVE AVE

Existing



WB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left/Through Lane: **10 Veh**
 Max Spillback out of Left-Turn Pocket: **8 Veh**

SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

NB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

EB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **0 Veh**



INT #79: CENTER ST & OLIVE AVE

Recommendation

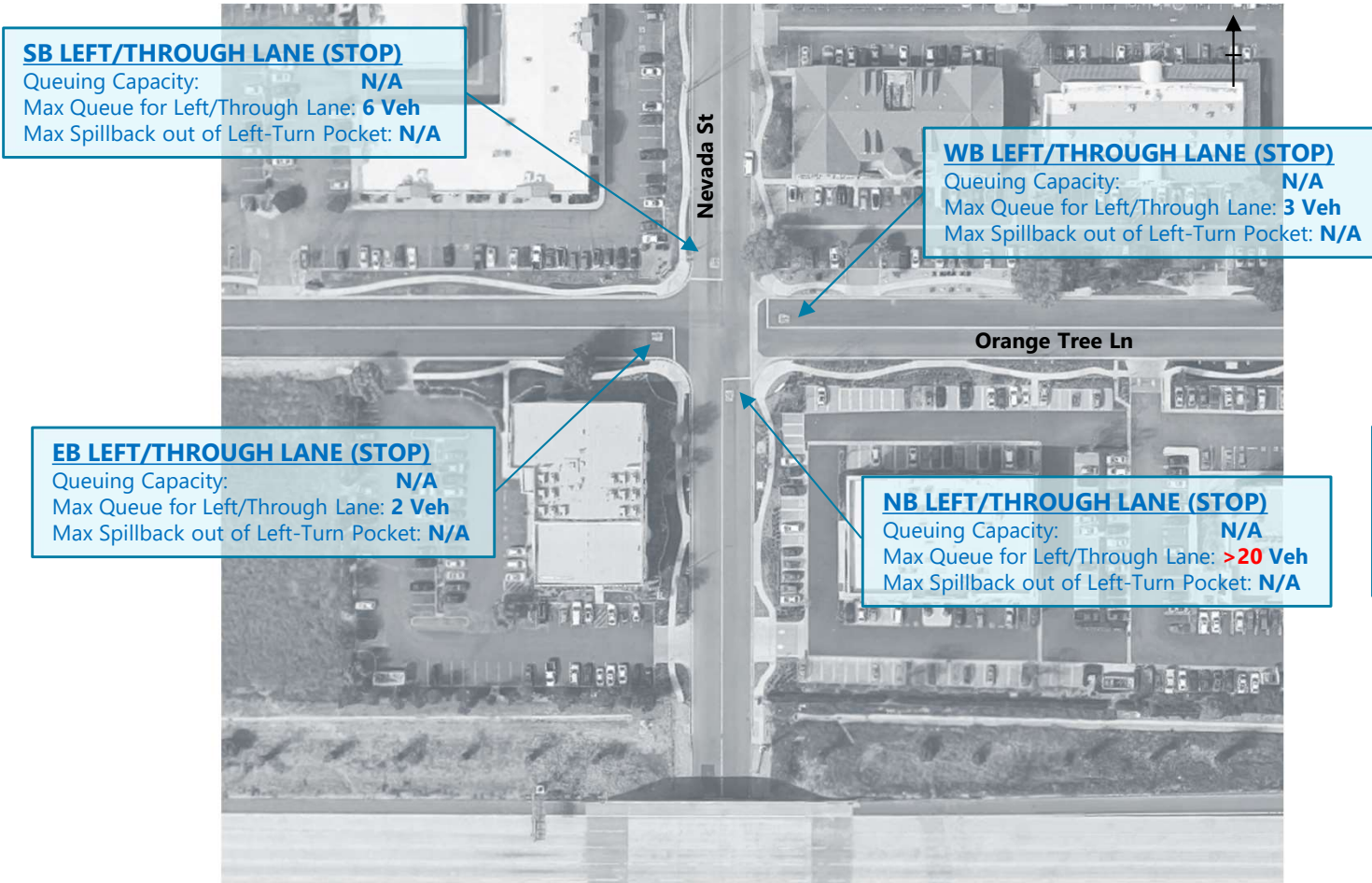
WB LEFT-TURN LANE (STOP)
Queuing Capacity: 10 Veh
Max Queue for Left/Through Lane: 10 Veh
Max Spillback out of Left-Turn Pocket: 0 Veh

RECOMMENDATION
Explore potential increase of WB left-turn pocket to accommodate additional left-turn vehicles



INT #96: NEVADA ST & ORANGE TREE LANE

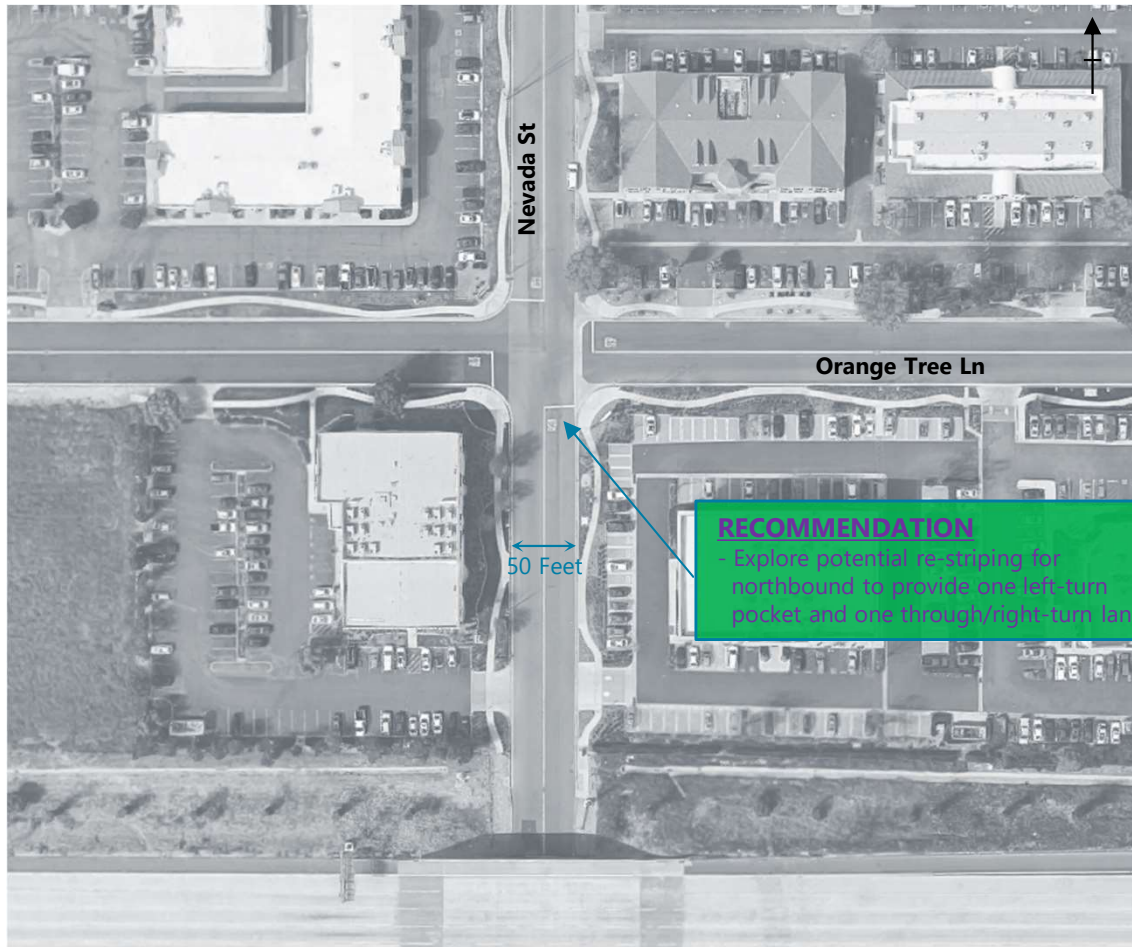
Existing



PM Peak Hour Traffic Volumes	
NB:	83 LT, 348 Thru, 82 RT
SB:	16 LT, 405 Thru, 35 RT
EB:	41 LT, 74 Thru, 90 RT
WB:	129 LT, 118 Thru, 40 RT

INT #96: NEVADA ST & ORANGE TREE LANE

Recommendation



RECOMMENDATION
- Explore potential re-striping for northbound to provide one left-turn pocket and one through/right-turn lane

PM Peak Hour Traffic Volumes	
NB:	83 LT, 348 Thru, 82 RT
SB:	16 LT, 405 Thru, 35 RT
EB:	41 LT, 74 Thru, 90 RT
WB:	129 LT, 118 Thru, 40 RT

INT #100: SAN BERNARDINO AVE & CHURCH ST

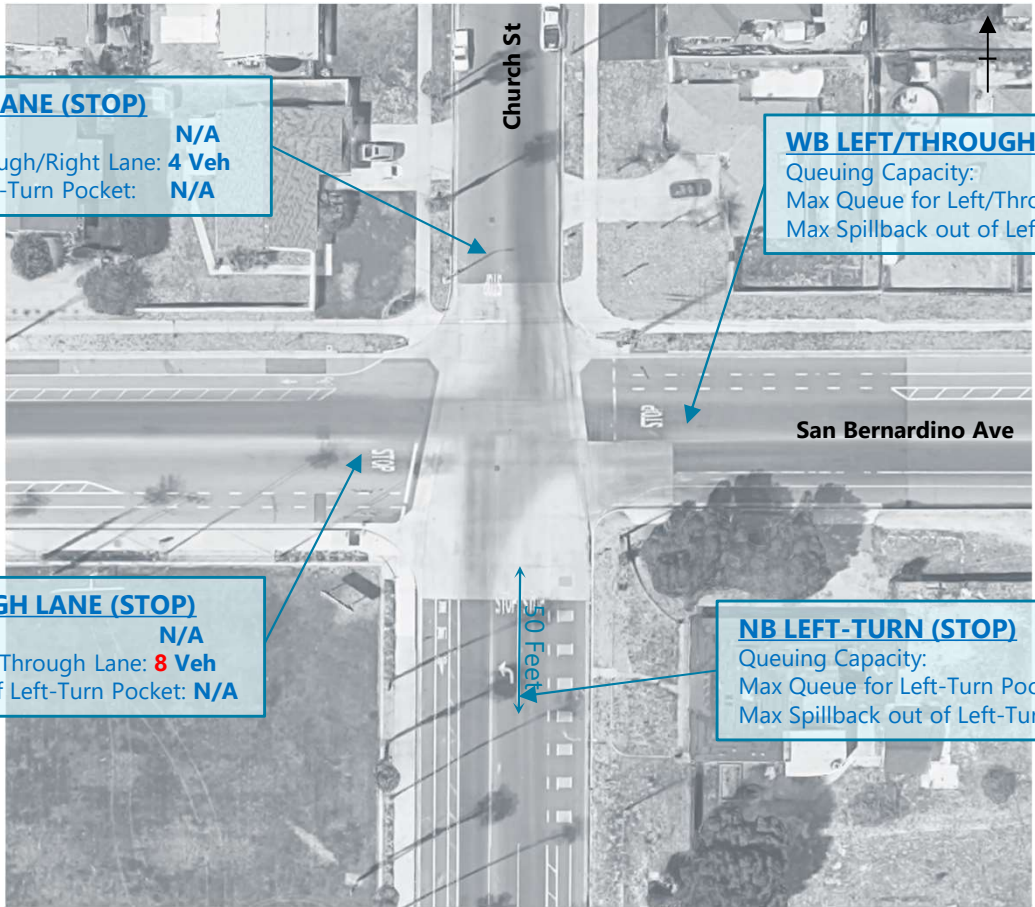
Existing

SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **8 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***



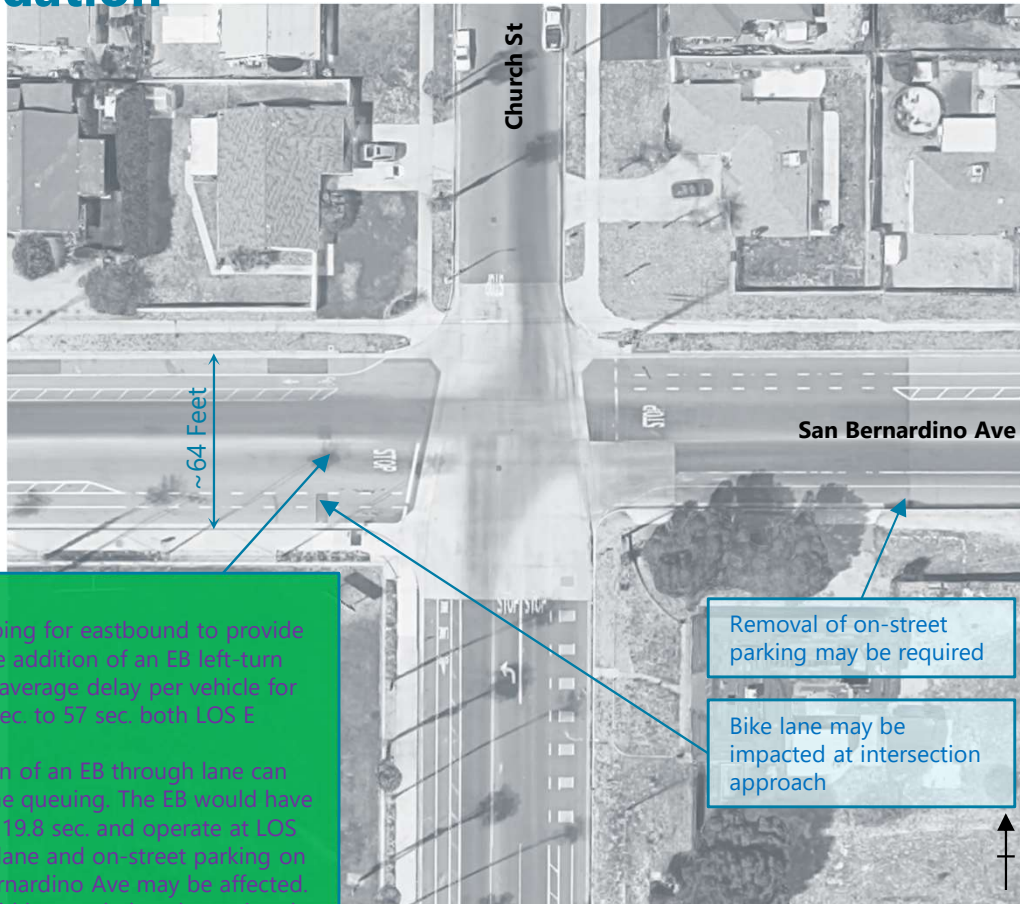
PM Peak Hour Traffic Volumes
 NB: 75 LT, 138 Thru, 38 RT
 EB: 44 LT, 426 Thru, 115 RT
 SB: 42 LT, 107 Thru, 27 RT
 WB: 26 LT, 246 Thru, 37 RT

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #100: SAN BERNARDINO AVE & CHURCH ST

Recommendation



RECOMMENDATION

- Explore potential re-striping for eastbound to provide one left-turn pocket (The addition of an EB left-turn lane would improve the average delay per vehicle for EB approach from 84.3 sec. to 57 sec. both LOS E based on Synchro.)
- Alternatively, the addition of an EB through lane can be explored to reduce the queuing. The EB would have average vehicle delay of 19.8 sec. and operate at LOS C. However, the EB bike lane and on-street parking on the south side of San Bernardino Ave may be affected. An additional study would be needed to determine the feasibility of an additional EB through lane.

PM Peak Hour Traffic Volumes

NB: 75 LT, 138 Thru, 38 RT
SB: 42 LT, 107 Thru, 27 RT
EB: 44 LT, 426 Thru, 115 RT
WB: 26 LT, 246 Thru, 37 RT

Table 4.1 summarizes the left-turn issues as well as recommendations where considered necessary for the 31 study intersections.

TABLE 4.1 – SUMMARY OF LEFT-TURN ISSUES AND RECOMMENDATIONS

No.	Int. No.	Intersection	Control	Left-Turn Issue Identified	Recommendation
1	2	Alabama St & Lugonia Ave	Signalized	WB: Vehicles did not clear the traffic signal cycle	- Explore potential modification of signal timing to increase WB left-turn phase length
2	12	Cajon St & Fern Ave	Signalized	WB: Vehicles did not clear the traffic signal cycle	- Explore potential modification of signal timing to increase WB+EB phase length
3	22	Colton Ave & Eureka St	Signalized	NB: Vehicles did not clear the traffic signal cycle	- Potential restriping to provide left-turn/through lane and right-turn only lane - Explore potential modification of signal timing to increase NB phase length
4	23	Colton Ave & Industrial Park	Signalized	SB: Vehicles did not clear the traffic signal cycle	- Potential modification of signal timing to increase SB phase length - Potential NB/SB split phasing
5	24	Colton Ave & New York St	Signalized	EB: Vehicle spillback out of left-turn pocket	- Signal timing modification to increase EB left-turn phase length
6	25	Colton Ave & Orange St	Signalized	WB: Vehicles did not clear the traffic signal cycle; vehicle spillback out of left-turn pocket	- Signal timing modification to increase EB/WB phase length
7	26	Colton Ave & Tennessee St	Signalized	SB: Vehicles did not clear the traffic signal cycle	- Potential modification of signal timing to increase SB phase length
8	30	Eureka St & Stuart Ave	Signalized	WB: Vehicle did not clear the traffic signal cycle	<i>There are 39 vehicles per hour in the westbound left-turn movement, for an average of approx. 1 vehicle per cycle. Due to low left-turn demand, it is concluded that <u>no improvements are needed.</u></i>
9	31	Lugonia Ave & Church St	Signalized	SB: Vehicles did not clear the traffic signal cycle	- Potential modification of signal timing to increase SB phase length
10	35	Lugonia Ave & Orange St	Signalized	SB: Vehicle spillback out of left-turn pocket	- Potential increase in left-turn pocket length
11	36	Lugonia Ave & Tennessee St	Signalized	NB: Vehicle spillback out of left-turn pocket	- Potential modification of signal timing to mitigate spillback

TABLE 4.1 (CONT.)– SUMMARY OF LEFT-TURN ISSUES AND RECOMMENDATIONS

No.	Int. No.	Intersection	Control	Left-Turn Issue Identified	Recommendation
12	39	Lugonia Ave & Wabash Ave	Signalized	SB: Vehicles did not clear the traffic signal cycle; vehicle spillback out of left-turn pocket	<ul style="list-style-type: none"> - Potential modification of signal timing to increase SB phase length - Explore increasing SB left-turn pocket length to about 200 feet - Explore potential SB/NB protected left-turn phase
13	41	Orange St & Brockton Ave	Signalized	EB: Vehicle did not clear the traffic signal cycle	<p><i>There are only 18 left-turn, 129 through, and 33 right-turn vehicles per hour in the EB. The EB approach is approx. 20 feet wide, which is adequate for through and right-turning vehicles to pass a left-turning vehicle. Therefore, it is concluded that no improvements are needed.</i></p>
14	42	Orange St & Pearl Ave	Signalized	SB: Vehicles did not clear the traffic signal cycle; vehicle spillback out of left-turn pocket	<ul style="list-style-type: none"> - Potential modification of signal timing to increase SB phase length
15	44	Orange St & Pioneer Ave	Signalized	EB: Vehicles did not clear the traffic signal cycle	<ul style="list-style-type: none"> - Explore potential modification of signal timing to increase EB left-turn phase length <p>Note: The splits in the signal timing plan do not appear to align with the traffic volumes for each approach. (E.g., Based on the signal timing plan, the total split is greater for EB/WB compared to NB/SB. However, the peak traffic flows are higher in the NB/SB compared to the EB/WB.) The signal timing should be optimized based on the traffic counts.</p>
16	45	Orange St & San Bernardino Ave	Signalized	<p>SB: Vehicles did not clear the traffic signal cycle</p> <p>EB: Vehicles did not clear the traffic signal cycle; vehicle spillback out of left-turn pocket</p>	<ul style="list-style-type: none"> - Potential modification of signal timing to increase SB and EB phase length - Potential increase of EB left-turn pocket length to accomfate maximum queue observed
17	46	Orange St & State St	Signalized	SB: Vehicles did not clear the traffic signal cycle	<ul style="list-style-type: none"> - Explore signal timing modification to increase SB green time and synchronize the signals along NB/SB direction to clear the vehicles within the cycle

TABLE 4.1 (CONT.)– SUMMARY OF LEFT-TURN ISSUES AND RECOMMENDATIONS

No.	Int. No.	Intersection	Control	Left-Turn Issue Identified	Recommendation
18	47	Orange St & Stuart Ave	Signalized	EB: Vehicles did not clear the traffic signal cycle	- Potential signal timing modification to increase EB green time to clear the vehicles within the cycle
19	48	Redlands Blvd & California St	Signalized	SB: Vehicle spillback out of left-turn pocket	- Potential increase of left-turn pocket length to 200 feet to accommodate maximum queue observed
20	49	Redlands Blvd & Citrus Ave	Signalized	EB: Vehicles did not clear the traffic signal cycle; vehicle spillback out of left-turn pocket	- Explore signal timing modification to increase EB and WB green time to clear the vehicles within the cycle
21	51	Redlands Blvd & Eureka St	Signalized	NB: Vehicle did not clear the traffic signal cycle	- Potential signal timing modification to increase NB green time to clear the vehicles within the cycle
22	52	Redlands Blvd & Fern Ave	Signalized	SB: Vehicle spillback out of left-turn pocket	- Potential increase in left-turn pocket length to approximately 130 feet. Removal of on-street parking may be required.
23	53	Redlands Blvd & Ford St	Signalized	SB: Vehicle did not clear the traffic signal cycle	- Potential modification of signal timing to increase the SB phase length
24	57	Redlands Blvd & New Jersey St	Signalized	SB: Vehicle spillback out of left-turn pocket NB: Vehicle spillback out of left-turn pocket	- Explore potential increase of NB and SB left-turn pocket lengths to 130 feet to accommodate maximum queue observed
25	59	Redlands Blvd & Orange St	Signalized	SB: Vehicle spillback out of left-turn pocket	- Potential increase of SB left-turn pocket to 120 feet to accommodate additional left-turn vehicles
26	62	Redlands Blvd & Texas St / Center St	Signalized	EB: Vehicle spillback out of left-turn pocket	- Potential increase of EB left-turn pocket to 185 feet to accommodate additional left-turn vehicles
27	65	San Bernardino Ave & Texas St	Signalized	WB: Vehicle not cleared in traffic signal cycle EB: Vehicles not cleared in traffic signal cycle	- Potential modification of signal timing to increase EB/WB phase length
28	67	Tennessee St & Park Ave	Signalized	EB: Vehicle spillback out of left-turn pocket	- Potential increase of EB left-turn pocket to 90 feet to accommodate additional left-turn vehicles

TABLE 4.1 (CONT.)– SUMMARY OF LEFT-TURN ISSUES AND RECOMMENDATIONS

No.	Int. No.	Intersection	Control	Left-Turn Issue Identified	Recommendation
29	79	Center St & Olive Ave	Non-Signalized	WB: Vehicle spillback out of left-turn pocket	- Potential increase of WB left-turn pocket to 220 feet to accommodate additional left-turn vehicles
30	96	Nevada St & Orange Tree Lane	Non-Signalized	NB: Excessive queueing in left/through lane	- Potential re-striping for northbound to provide one left-turn pocket and one through/right-turn lane
31	100	San Bernardino Ave & Church St	Non-Signalized	EB: Excessive queueing in left/through lane	- Explore potential re-striping for eastbound to provide one left-turn pocket (The addition of an EB left-turn lane would improve the average delay per vehicle for EB approach from 84.3 sec. to 57 sec. both LOS E based on Synchro.) - Alternatively, the addition of an EB through lane can be explored to reduce the queueing. The EB would have average vehicle delay of 19.8 sec. and operate at LOS C. However, the EB bike lane and on-street parking on the south side of San Bernardino Ave may be affected. An additional study would be needed to determine the feasibility of an additional EB through lane.

The other 74 study intersections were also evaluated but no left-turn issues were identified at those locations based on field observations. The intersection evaluations for these study intersections are provided in **Appendix B**.

5.0 SUMMARY AND WAY FORWARD

Background

The City of Redlands has retained KOA Corporation to conduct a high-level, citywide evaluation of the existing road network to assess intersections in need of left-turn pockets in order to enhance vehicular movements without additional right-of-way. This study also includes the evaluation of intersections with existing left-turn pockets that may experience safety or operational issues.

The goal of this study is to identify intersections with left-turn issues and to determine recommendations to improve those problematic left-turn movements in order to enhance traffic safety, reduce traffic congestion, and improve the overall traffic flow within the City.

Study Intersection Locations

A total of 105 study intersections including 69 signalized and 36 non-signalized intersections were identified for this study through consultation with City staff.

Study Methodology

The identification of left-turn issues was based on review of traffic conditions during the existing weekday PM peak period between 4:00 PM and 6:00 PM, which is considered the most critical period from traffic operations perspective as agreed with City staff.

KOA conducted a comprehensive field review at all of the study intersections to identify the lane geometry, left-turn pocket lengths, and traffic signal phasing characteristics. The field review was supplemented by intersection as-built plans and traffic signal timing plans provided by the City, where available.

KOA performed detailed field observations of the existing left-turn traffic operations at all study intersections and identified issues as listed below.

- Insufficient left-turn lane length;
- Vehicle queue spillback out of left-turn pocket;
- Long vehicle queue caused by left-turning vehicles (for approaches without left-turn pocket);
- Inadequate green time for left-turn phase (for signalized intersections); and
- Vehicle queue spillback or inadequate green time for left turn due to heavy vehicles.

KOA also reviewed vehicle turning movement counts and traffic signal timing plans to supplement the intersection evaluations.

Intersection Evaluations

Based on review of the left-turn conditions at all 105 study intersections, KOA identified 31 study intersections that have left-turn issues. Recommendations for potential traffic improvements were developed for 29 out of the 31 study intersections. The remaining two study intersections have low left-turn

traffic volumes where left-turn issues were identified and therefore it was concluded that no traffic improvements were needed at those two locations. **Figure 4.1** shows the left-turn issues at the 31 study intersections and associated recommendations at 29 of the 31 study intersections. The left-turn issues and recommendations are summarized in **Table 4.1**.

Way Forward

It is anticipated that this project study is only the preamble to further steps toward comprehensive engineering solutions to the identified left-turn issues at the City intersections. With availability of funding (Local/Non-Local), further engineering study including a detailed evaluation of the identified potential traffic improvements should be conducted to determine the implementation feasibility, effectiveness, cost, and any other impacts that might identify additional constraint.

APPENDIX A

TRAFFIC COUNT DATA

City of Redlands
 N/S: Alabama Street
 E/W: Citrus Avenue/State Street
 Weather: Clear

File Name : 001_RED_Alalab_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

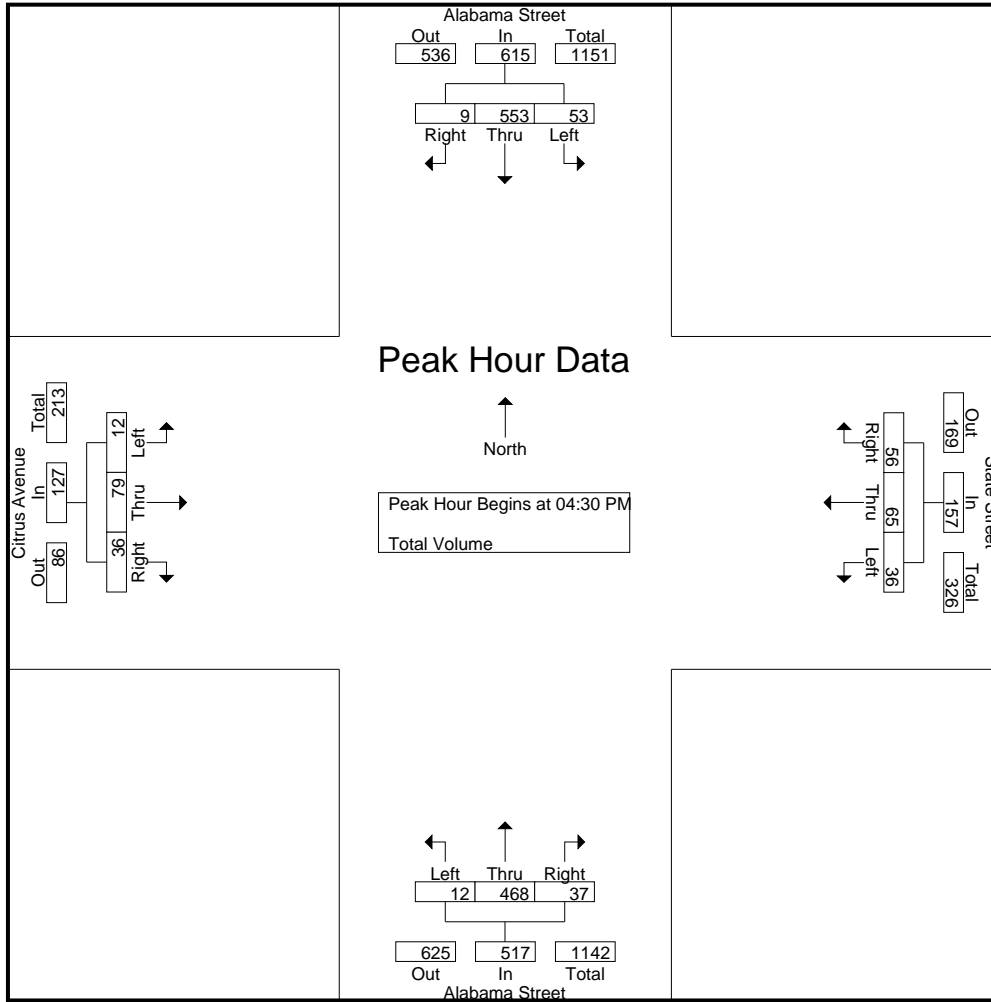
Start Time	Alabama Street Southbound				State Street Westbound				Alabama Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	10	114	3	127	7	13	19	39	0	131	3	134	3	23	9	35	335
04:15 PM	8	116	1	125	11	12	12	35	4	115	6	125	1	15	3	19	304
04:30 PM	7	122	2	131	9	9	16	34	2	117	8	127	1	19	13	33	325
04:45 PM	16	154	2	172	3	21	18	42	4	131	7	142	4	24	7	35	391
Total	41	506	8	555	30	55	65	150	10	494	24	528	9	81	32	122	1355
05:00 PM	19	156	1	176	18	21	10	49	3	120	10	133	4	17	8	29	387
05:15 PM	11	121	4	136	6	14	12	32	3	100	12	115	3	19	8	30	313
05:30 PM	14	141	1	156	5	14	3	22	0	90	7	97	3	22	12	37	312
05:45 PM	14	139	3	156	2	9	10	21	2	76	4	82	1	14	7	22	281
Total	58	557	9	624	31	58	35	124	8	386	33	427	11	72	35	118	1293
Grand Total	99	1063	17	1179	61	113	100	274	18	880	57	955	20	153	67	240	2648
Apprch %	8.4	90.2	1.4		22.3	41.2	36.5		1.9	92.1	6		8.3	63.8	27.9		
Total %	3.7	40.1	0.6	44.5	2.3	4.3	3.8	10.3	0.7	33.2	2.2	36.1	0.8	5.8	2.5	9.1	

Start Time	Alabama Street Southbound				State Street Westbound				Alabama Street Northbound				Citrus 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	7	122	2	131	9	9	16	34	2	117	8	127	1	19	13	33	325
04:45 PM	16	154	2	172	3	21	18	42	4	131	7	142	4	24	7	35	391
05:00 PM	19	156	1	176	18	21	10	49	3	120	10	133	4	17	8	29	387
05:15 PM	11	121	4	136	6	14	12	32	3	100	12	115	3	19	8	30	313
Total Volume	53	553	9	615	36	65	56	157	12	468	37	517	12	79	36	127	1416
% App. Total	8.6	89.9	1.5		22.9	41.4	35.7		2.3	90.5	7.2		9.4	62.2	28.3		
PHF	.697	.886	.563	.874	.500	.774	.778	.801	.750	.893	.771	.910	.750	.823	.692	.907	.905

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 Redlands
 N/S: Alabama Street
 E/W: Citrus Avenue/State Street
 Weather: Clear

File Name : 001_RED_Alalab_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:15 PM				04:00 PM				04:45 PM			
+0 mins.	16	154	2	172	11	12	12	35	0	131	3	134	4	24	7	35
+15 mins.	19	156	1	176	9	9	16	34	4	115	6	125	4	17	8	29
+30 mins.	11	121	4	136	3	21	18	42	2	117	8	127	3	19	8	30
+45 mins.	14	141	1	156	18	21	10	49	4	131	7	142	3	22	12	37
Total Volume	60	572	8	640	41	63	56	160	10	494	24	528	14	82	35	131
% App. Total	9.4	89.4	1.2		25.6	39.4	35		1.9	93.6	4.5		10.7	62.6	26.7	
PHF	.789	.917	.500	.909	.569	.750	.778	.816	.625	.943	.750	.930	.875	.854	.729	.885

City of Redlands
 N/S: Alabama Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 02_RED_Ala_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 Page No : 1

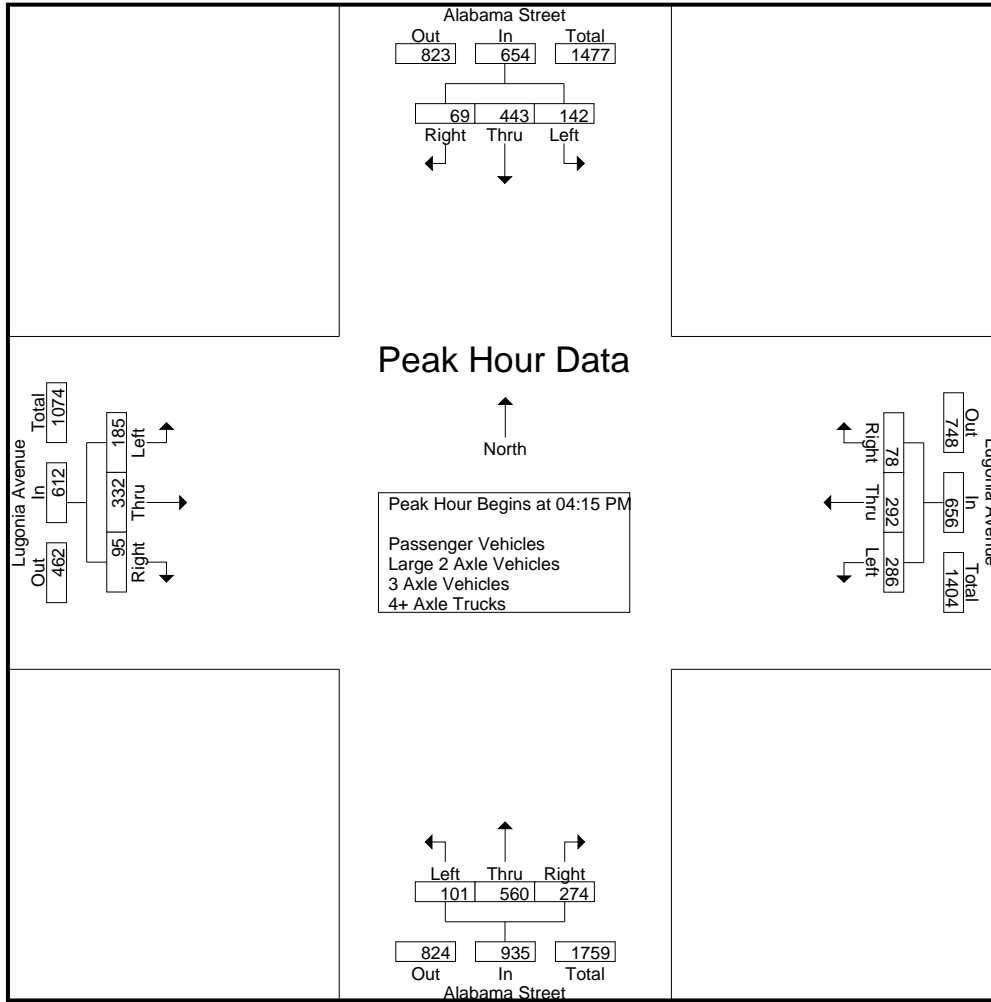
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Alabama Street Southbound				Lugonia Avenue Westbound				Alabama Street Northbound				Lugonia 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	42	130	20	192	65	79	25	169	32	118	63	213	49	78	20	147	721
04:15 PM	44	128	16	188	73	73	15	161	27	135	71	233	46	75	25	146	728
04:30 PM	27	105	19	151	74	79	18	171	24	126	59	209	45	94	28	167	698
04:45 PM	27	108	17	152	73	77	17	167	21	136	61	218	56	84	21	161	698
Total	140	471	72	683	285	308	75	668	104	515	254	873	196	331	94	621	2845
05:00 PM	44	102	17	163	66	63	28	157	29	163	83	275	38	79	21	138	733
05:15 PM	45	82	22	149	65	74	18	157	23	131	75	229	37	105	26	168	703
05:30 PM	33	127	13	173	71	72	17	160	21	132	75	228	35	77	19	131	692
05:45 PM	31	114	26	171	67	71	14	152	24	133	71	228	42	59	12	113	664
Total	153	425	78	656	269	280	77	626	97	559	304	960	152	320	78	550	2792
Grand Total	293	896	150	1339	554	588	152	1294	201	1074	558	1833	348	651	172	1171	5637
Apprch %	21.9	66.9	11.2		42.8	45.4	11.7		11	58.6	30.4		29.7	55.6	14.7		
Total %	5.2	15.9	2.7	23.8	9.8	10.4	2.7	23	3.6	19.1	9.9	32.5	6.2	11.5	3.1	20.8	
Passenger Vehicles	290	854	146	1290	551	583	149	1283	200	1024	556	1780	346	650	169	1165	5518
% Passenger Vehicles	99	95.3	97.3	96.3	99.5	99.1	98	99.1	99.5	95.3	99.6	97.1	99.4	99.8	98.3	99.5	97.9
Large 2 Axle Vehicles	3	6	3	12	3	5	2	10	1	6	1	8	1	1	3	5	35
% Large 2 Axle Vehicles	1	0.7	2	0.9	0.5	0.9	1.3	0.8	0.5	0.6	0.2	0.4	0.3	0.2	1.7	0.4	0.6
3 Axle Vehicles	0	13	1	14	0	0	0	0	0	6	1	7	0	0	0	0	21
% 3 Axle Vehicles	0	1.5	0.7	1	0	0	0	0	0	0.6	0.2	0.4	0	0	0	0	0.4
4+ Axle Trucks	0	23	0	23	0	0	1	1	0	38	0	38	1	0	0	1	63
% 4+ Axle Trucks	0	2.6	0	1.7	0	0	0.7	0.1	0	3.5	0	2.1	0.3	0	0	0.1	1.1

Start Time	Alabama Street Southbound				Lugonia Avenue Westbound				Alabama Street Northbound				Lugonia 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 04:15 PM																	
04:15 PM	44	128	16	188	73	73	15	161	27	135	71	233	46	75	25	146	728
04:30 PM	27	105	19	151	74	79	18	171	24	126	59	209	45	94	28	167	698
04:45 PM	27	108	17	152	73	77	17	167	21	136	61	218	56	84	21	161	698
05:00 PM	44	102	17	163	66	63	28	157	29	163	83	275	38	79	21	138	733
Total Volume	142	443	69	654	286	292	78	656	101	560	274	935	185	332	95	612	2857
% App. Total	21.7	67.7	10.6		43.6	44.5	11.9		10.8	59.9	29.3		30.2	54.2	15.5		
PHF	.807	.865	.908	.870	.966	.924	.696	.959	.871	.859	.825	.850	.826	.883	.848	.916	.974

City of Redlands
 N/S: Alabama Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 02_RED_Ala_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 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:

	04:00 PM				04:00 PM				05:00 PM				04:30 PM			
+0 mins.	42	130	20	192	65	79	25	169	29	163	83	275	45	94	28	167
+15 mins.	44	128	16	188	73	73	15	161	23	131	75	229	56	84	21	161
+30 mins.	27	105	19	151	74	79	18	171	21	132	75	228	38	79	21	138
+45 mins.	27	108	17	152	73	77	17	167	24	133	71	228	37	105	26	168
Total Volume	140	471	72	683	285	308	75	668	97	559	304	960	176	362	96	634
% App. Total	20.5	69	10.5		42.7	46.1	11.2		10.1	58.2	31.7		27.8	57.1	15.1	
PHF	.795	.906	.900	.889	.963	.975	.750	.977	.836	.857	.916	.873	.786	.862	.857	.943

City of Redlands
 N/S: Alabama Street
 E/W: Orange Avenue
 Weather: Clear

File Name : 003_RED_Alalab_Orange PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

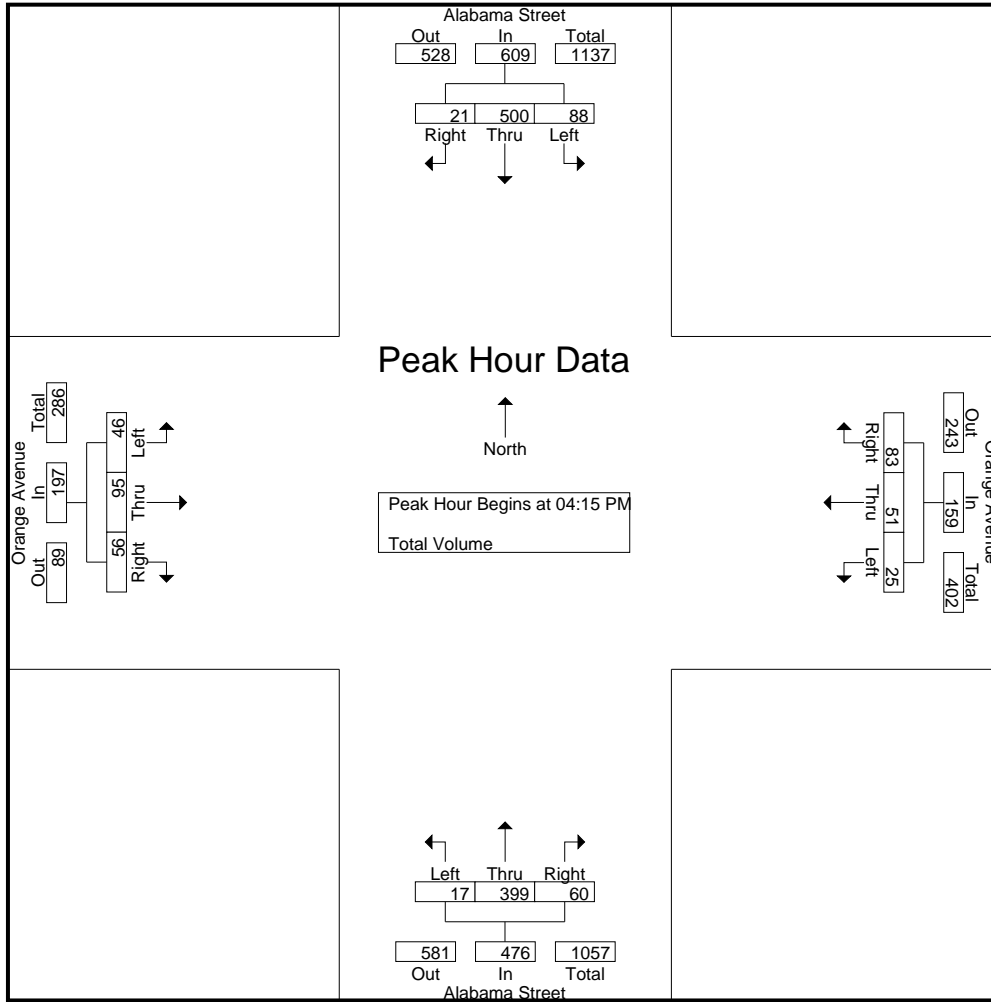
Start Time	Alabama Street Southbound				Orange Avenue Westbound				Alabama Street Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	20	102	3	125	8	7	24	39	4	95	10	109	15	26	9	50	323
04:15 PM	18	124	2	144	6	12	23	41	8	99	17	124	9	15	12	36	345
04:30 PM	21	113	5	139	4	13	18	35	4	93	11	108	10	17	9	36	318
04:45 PM	26	124	9	159	5	17	16	38	2	114	13	129	12	31	17	60	386
Total	85	463	19	567	23	49	81	153	18	401	51	470	46	89	47	182	1372
05:00 PM	23	139	5	167	10	9	26	45	3	93	19	115	15	32	18	65	392
05:15 PM	20	119	5	144	12	11	16	39	1	90	19	110	7	27	10	44	337
05:30 PM	32	117	3	152	14	15	8	37	3	85	9	97	1	25	7	33	319
05:45 PM	31	116	4	151	3	13	7	23	1	75	13	89	3	21	11	35	298
Total	106	491	17	614	39	48	57	144	8	343	60	411	26	105	46	177	1346
Grand Total	191	954	36	1181	62	97	138	297	26	744	111	881	72	194	93	359	2718
Apprch %	16.2	80.8	3		20.9	32.7	46.5		3	84.4	12.6		20.1	54	25.9		
Total %	7	35.1	1.3	43.5	2.3	3.6	5.1	10.9	1	27.4	4.1	32.4	2.6	7.1	3.4	13.2	

Start Time	Alabama Street Southbound				Orange Avenue Westbound				Alabama Street Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	18	124	2	144	6	12	23	41	8	99	17	124	9	15	12	36	345
04:30 PM	21	113	5	139	4	13	18	35	4	93	11	108	10	17	9	36	318
04:45 PM	26	124	9	159	5	17	16	38	2	114	13	129	12	31	17	60	386
05:00 PM	23	139	5	167	10	9	26	45	3	93	19	115	15	32	18	65	392
Total Volume	88	500	21	609	25	51	83	159	17	399	60	476	46	95	56	197	1441
% App. Total	14.4	82.1	3.4		15.7	32.1	52.2		3.6	83.8	12.6		23.4	48.2	28.4		
PHF	.846	.899	.583	.912	.625	.750	.798	.883	.531	.875	.789	.922	.767	.742	.778	.758	.919

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Alabama Street
 E/W: Orange Avenue
 Weather: Clear

File Name : 003_RED_Alalab_Orange PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:15 PM				04:15 PM				04:30 PM			
+0 mins.	26	124	9	159	6	12	23	41	8	99	17	124	10	17	9	36
+15 mins.	23	139	5	167	4	13	18	35	4	93	11	108	12	31	17	60
+30 mins.	20	119	5	144	5	17	16	38	2	114	13	129	15	32	18	65
+45 mins.	32	117	3	152	10	9	26	45	3	93	19	115	7	27	10	44
Total Volume	101	499	22	622	25	51	83	159	17	399	60	476	44	107	54	205
% App. Total	16.2	80.2	3.5		15.7	32.1	52.2		3.6	83.8	12.6		21.5	52.2	26.3	
PHF	.789	.897	.611	.931	.625	.750	.798	.883	.531	.875	.789	.922	.733	.836	.750	.788

City of Redlands
 N/S: Alabama Street
 E/W: Park Avenue
 Weather: Clear

File Name : 004_RED_Alav_Park PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Alabama Street Southbound				Park Avenue Westbound				Alabama Street Northbound				Park 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	14	116	2	132	9	16	17	42	9	142	11	162	19	32	9	60	396
04:15 PM	12	125	6	143	7	19	12	38	5	125	15	145	7	27	7	41	367
04:30 PM	12	109	3	124	8	22	20	50	7	126	7	140	6	19	14	39	353
04:45 PM	10	152	6	168	10	20	20	50	4	137	8	149	4	20	9	33	400
Total	48	502	17	567	34	77	69	180	25	530	41	596	36	98	39	173	1516
05:00 PM	11	138	5	154	12	9	33	54	10	154	24	188	12	40	5	57	453
05:15 PM	6	122	3	131	7	12	15	34	4	120	12	136	5	19	7	31	332
05:30 PM	9	134	5	148	2	12	12	26	2	90	4	96	6	20	12	38	308
05:45 PM	7	139	6	152	8	13	10	31	2	79	3	84	2	8	13	23	290
Total	33	533	19	585	29	46	70	145	18	443	43	504	25	87	37	149	1383
Grand Total	81	1035	36	1152	63	123	139	325	43	973	84	1100	61	185	76	322	2899
Apprch %	7	89.8	3.1		19.4	37.8	42.8		3.9	88.5	7.6		18.9	57.5	23.6		
Total %	2.8	35.7	1.2	39.7	2.2	4.2	4.8	11.2	1.5	33.6	2.9	37.9	2.1	6.4	2.6	11.1	

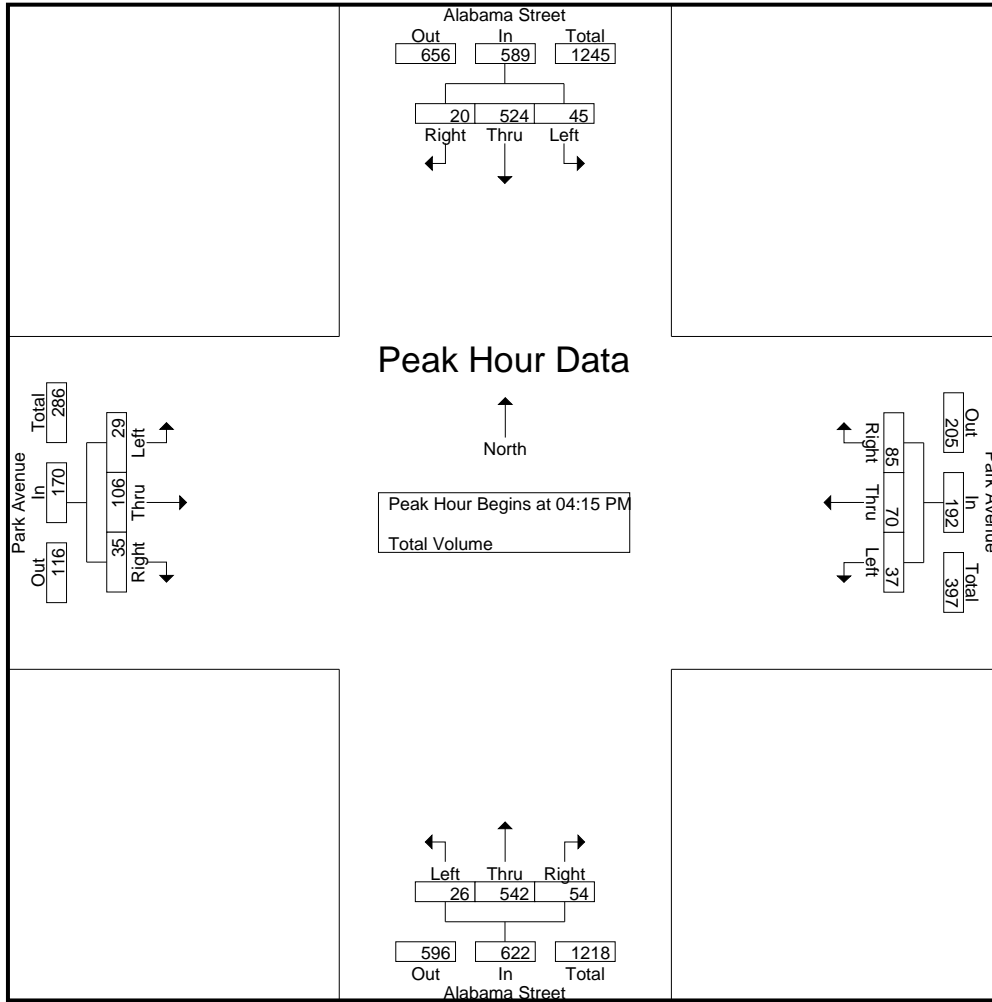
Start Time	Alabama Street Southbound				Park Avenue Westbound				Alabama Street Northbound				Park Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	12	125	6	143	7	19	12	38	5	125	15	145	7	27	7	41	367
04:30 PM	12	109	3	124	8	22	20	50	7	126	7	140	6	19	14	39	353
04:45 PM	10	152	6	168	10	20	20	50	4	137	8	149	4	20	9	33	400
05:00 PM	11	138	5	154	12	9	33	54	10	154	24	188	12	40	5	57	453
Total Volume	45	524	20	589	37	70	85	192	26	542	54	622	29	106	35	170	1573
% App. Total	7.6	89	3.4		19.3	36.5	44.3		4.2	87.1	8.7		17.1	62.4	20.6		
PHF	.938	.862	.833	.876	.771	.795	.644	.889	.650	.880	.563	.827	.604	.663	.625	.746	.868

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Alabama Street
 E/W: Park Avenue
 Weather: Clear

File Name : 004_RED_Alalab_Park PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	10	152	6	168	7	19	12	38	5	125	15	145	19	32	9	60
+15 mins.	11	138	5	154	8	22	20	50	7	126	7	140	7	27	7	41
+30 mins.	6	122	3	131	10	20	20	50	4	137	8	149	6	19	14	39
+45 mins.	9	134	5	148	12	9	33	54	10	154	24	188	4	20	9	33
Total Volume	36	546	19	601	37	70	85	192	26	542	54	622	36	98	39	173
% App. Total	6	90.8	3.2		19.3	36.5	44.3		4.2	87.1	8.7		20.8	56.6	22.5	
PHF	.818	.898	.792	.894	.771	.795	.644	.889	.650	.880	.563	.827	.474	.766	.696	.721

City of Redlands
 N/S: Alabama Street
 E/W: Barton Road
 Weather: Clear

File Name : 005_RED_Alab_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Alabama Street Southbound				Barton Road Westbound				Alabama Street Northbound				Barton Road 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	46	8	43	97	5	114	31	150	2	4	4	10	69	130	4	203	460
04:15 PM	53	11	43	107	9	80	28	117	3	9	2	14	67	141	6	214	452
04:30 PM	60	8	40	108	4	104	34	142	3	3	2	8	58	186	5	249	507
04:45 PM	66	9	34	109	11	68	35	114	0	1	5	6	72	161	8	241	470
Total	225	36	160	421	29	366	128	523	8	17	13	38	266	618	23	907	1889
05:00 PM	71	13	50	134	6	95	26	127	1	9	5	15	54	174	3	231	507
05:15 PM	68	7	37	112	13	95	27	135	1	6	0	7	59	192	13	264	518
05:30 PM	69	9	38	116	10	94	27	131	2	5	3	10	56	164	12	232	489
05:45 PM	78	9	27	114	8	98	21	127	2	2	7	11	50	163	5	218	470
Total	286	38	152	476	37	382	101	520	6	22	15	43	219	693	33	945	1984
Grand Total	511	74	312	897	66	748	229	1043	14	39	28	81	485	1311	56	1852	3873
Apprch %	57	8.2	34.8		6.3	71.7	22		17.3	48.1	34.6		26.2	70.8	3		
Total %	13.2	1.9	8.1	23.2	1.7	19.3	5.9	26.9	0.4	1	0.7	2.1	12.5	33.8	1.4	47.8	

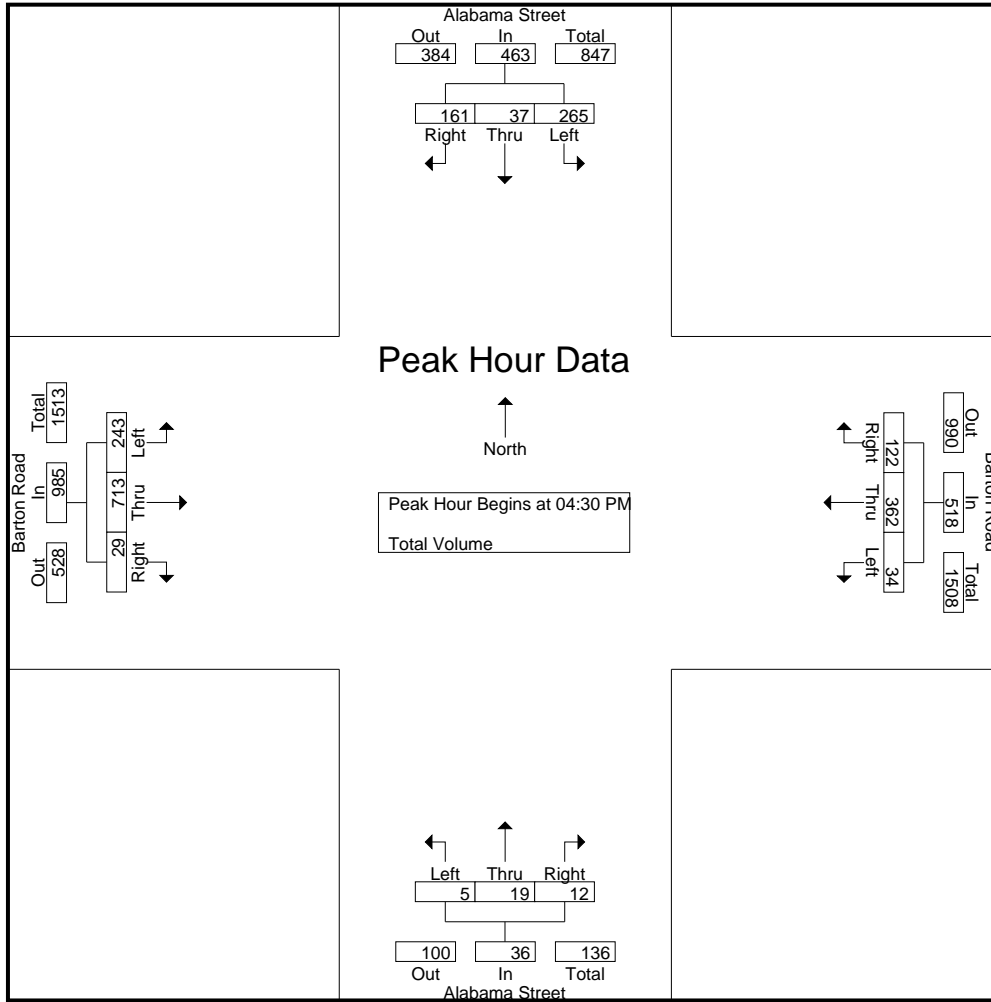
Start Time	Alabama Street Southbound				Barton Road Westbound				Alabama Street Northbound				Barton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	60	8	40	108	4	104	34	142	3	3	2	8	58	186	5	249	507
04:45 PM	66	9	34	109	11	68	35	114	0	1	5	6	72	161	8	241	470
05:00 PM	71	13	50	134	6	95	26	127	1	9	5	15	54	174	3	231	507
05:15 PM	68	7	37	112	13	95	27	135	1	6	0	7	59	192	13	264	518
Total Volume	265	37	161	463	34	362	122	518	5	19	12	36	243	713	29	985	2002
% App. Total	57.2	8	34.8		6.6	69.9	23.6		13.9	52.8	33.3		24.7	72.4	2.9		
PHF	.933	.712	.805	.864	.654	.870	.871	.912	.417	.528	.600	.600	.844	.928	.558	.933	.966

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 Redlands
 N/S: Alabama Street
 E/W: Barton Road
 Weather: Clear

File Name : 005_RED_Alaba_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	05:00 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	71	13	50	134	5	114	31	150	3	9	2	14	58	186	5	249
+15 mins.	68	7	37	112	9	80	28	117	3	3	2	8	72	161	8	241
+30 mins.	69	9	38	116	4	104	34	142	0	1	5	6	54	174	3	231
+45 mins.	78	9	27	114	11	68	35	114	1	9	5	15	59	192	13	264
Total Volume	286	38	152	476	29	366	128	523	7	22	14	43	243	713	29	985
% App. Total	60.1	8	31.9		5.5	70	24.5		16.3	51.2	32.6		24.7	72.4	2.9	
PHF	.917	.731	.760	.888	.659	.803	.914	.872	.583	.611	.700	.717	.844	.928	.558	.933

City of Redlands
 N/S: Bellevue Avenue
 E/W: Barton Road
 Weather: Clear

File Name : 006_RED_Bell_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Brookside Plaza Driveway Southbound				Barton Road Westbound				Bellevue Avenue Northbound				Barton Road 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	34	15	7	56	4	120	29	153	15	9	3	27	10	150	24	184	420
04:15 PM	30	17	5	52	2	78	32	112	23	6	11	40	12	162	24	198	402
04:30 PM	33	10	10	53	4	96	27	127	17	5	5	27	7	221	24	252	459
04:45 PM	33	9	10	52	2	76	28	106	21	11	2	34	14	198	23	235	427
Total	130	51	32	213	12	370	116	498	76	31	21	128	43	731	95	869	1708
05:00 PM	45	16	6	67	4	85	21	110	24	11	2	37	5	213	33	251	465
05:15 PM	24	17	7	48	2	88	24	114	22	4	6	32	10	222	30	262	456
05:30 PM	27	11	5	43	1	101	11	113	19	9	2	30	9	199	32	240	426
05:45 PM	25	13	3	41	1	94	17	112	17	9	7	33	12	199	36	247	433
Total	121	57	21	199	8	368	73	449	82	33	17	132	36	833	131	1000	1780
Grand Total	251	108	53	412	20	738	189	947	158	64	38	260	79	1564	226	1869	3488
Apprch %	60.9	26.2	12.9		2.1	77.9	20		60.8	24.6	14.6		4.2	83.7	12.1		
Total %	7.2	3.1	1.5	11.8	0.6	21.2	5.4	27.2	4.5	1.8	1.1	7.5	2.3	44.8	6.5	53.6	

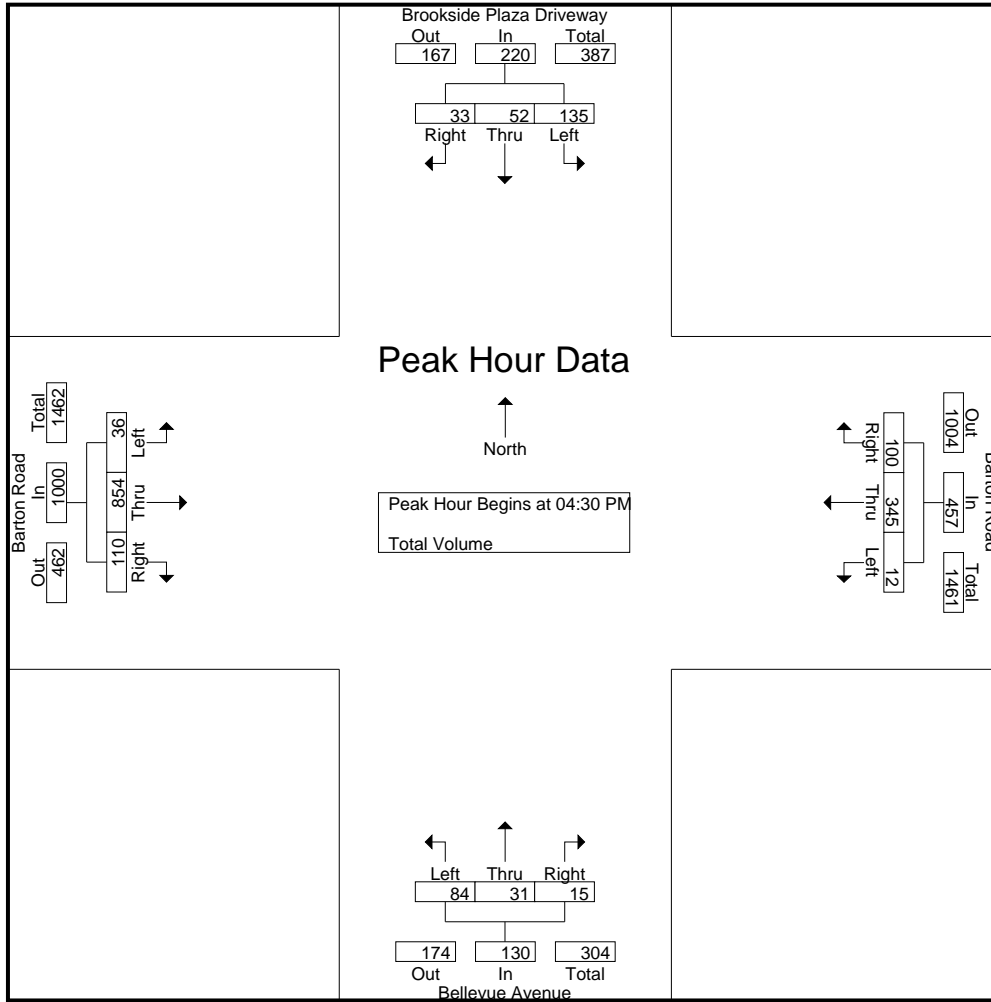
Start Time	Brookside Plaza Driveway Southbound				Barton Road Westbound				Bellevue Avenue Northbound				Barton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	33	10	10	53	4	96	27	127	17	5	5	27	7	221	24	252	459
04:45 PM	33	9	10	52	2	76	28	106	21	11	2	34	14	198	23	235	427
05:00 PM	45	16	6	67	4	85	21	110	24	11	2	37	5	213	33	251	465
05:15 PM	24	17	7	48	2	88	24	114	22	4	6	32	10	222	30	262	456
Total Volume	135	52	33	220	12	345	100	457	84	31	15	130	36	854	110	1000	1807
% App. Total	61.4	23.6	15		2.6	75.5	21.9		64.6	23.8	11.5		3.6	85.4	11		
PHF	.750	.765	.825	.821	.750	.898	.893	.900	.875	.705	.625	.878	.643	.962	.833	.954	.972

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 Redlands
 N/S: Bellevue Avenue
 E/W: Barton Road
 Weather: Clear

File Name : 006_RED_Bell_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	30	17	5	52	4	120	29	153	23	6	11	40	7	221	24	252
+15 mins.	33	10	10	53	2	78	32	112	17	5	5	27	14	198	23	235
+30 mins.	33	9	10	52	4	96	27	127	21	11	2	34	5	213	33	251
+45 mins.	45	16	6	67	2	76	28	106	24	11	2	37	10	222	30	262
Total Volume	141	52	31	224	12	370	116	498	85	33	20	138	36	854	110	1000
% App. Total	62.9	23.2	13.8		2.4	74.3	23.3		61.6	23.9	14.5		3.6	85.4	11	
PHF	.783	.765	.775	.836	.750	.771	.906	.814	.885	.750	.455	.863	.643	.962	.833	.954

City of Redlands
 N/S: San Timoteo Canyon Road
 E/W: Barton Road
 Weather: Clear

File Name : 007_RED_San TC_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

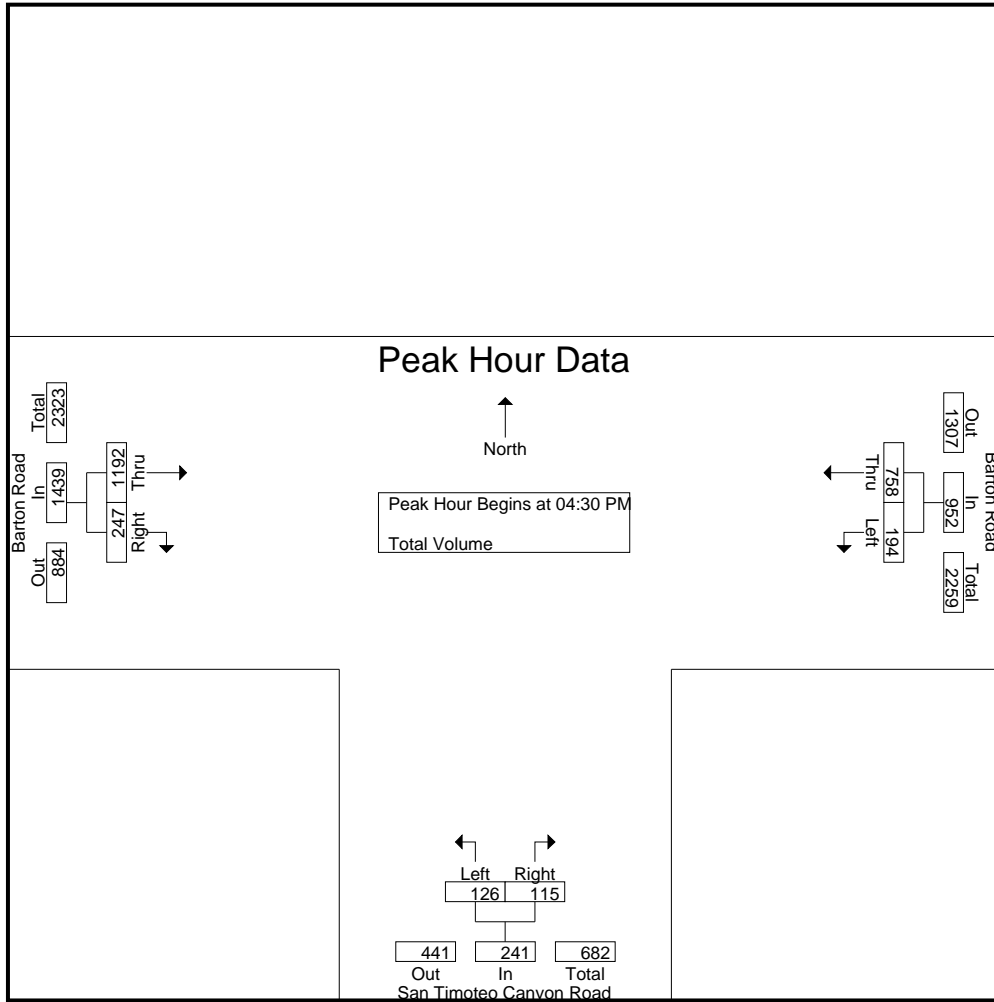
Start Time	Barton Road Westbound			San Timoteo Canyon Road Northbound			Barton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	46	204	250	33	27	60	260	56	316	626
04:15 PM	42	179	221	25	29	54	287	68	355	630
04:30 PM	59	207	266	32	32	64	295	56	351	681
04:45 PM	34	155	189	29	20	49	311	69	380	618
Total	181	745	926	119	108	227	1153	249	1402	2555
05:00 PM	57	218	275	34	31	65	277	84	361	701
05:15 PM	44	178	222	31	32	63	309	38	347	632
05:30 PM	34	175	209	34	30	64	323	40	363	636
05:45 PM	22	160	182	42	23	65	296	45	341	588
Total	157	731	888	141	116	257	1205	207	1412	2557
Grand Total	338	1476	1814	260	224	484	2358	456	2814	5112
Apprch %	18.6	81.4		53.7	46.3		83.8	16.2		
Total %	6.6	28.9	35.5	5.1	4.4	9.5	46.1	8.9	55	

Start Time	Barton Road Westbound			San Timoteo Canyon Road Northbound			Barton Road Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	59	207	266	32	32	64	295	56	351	681
04:45 PM	34	155	189	29	20	49	311	69	380	618
05:00 PM	57	218	275	34	31	65	277	84	361	701
05:15 PM	44	178	222	31	32	63	309	38	347	632
Total Volume	194	758	952	126	115	241	1192	247	1439	2632
% App. Total	20.4	79.6		52.3	47.7		82.8	17.2		
PHF	.822	.869	.865	.926	.898	.927	.958	.735	.947	.939

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 Redlands
 N/S: San Timoteo Canyon Road
 E/W: Barton Road
 Weather: Clear

File Name : 007_RED_San TC_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 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			05:00 PM			04:45 PM		
+0 mins.	59	207	266	34	31	65	311	69	380
+15 mins.	34	155	189	31	32	63	277	84	361
+30 mins.	57	218	275	34	30	64	309	38	347
+45 mins.	44	178	222	42	23	65	323	40	363
Total Volume	194	758	952	141	116	257	1220	231	1451
% App. Total	20.4	79.6		54.9	45.1		84.1	15.9	
PHF	.822	.869	.865	.839	.906	.988	.944	.688	.955

City of Redlands
 N/S: Terracina Boulevard
 E/W: Barton Road
 Weather: Clear

File Name : 008_RED_Terra_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Medical Center Driveway Southbound				Barton Road Westbound				Terracina Boulevard Northbound				Barton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	4	5	29	154	0	183	81	2	25	108	3	174	85	262	558
04:15 PM	2	0	8	10	25	122	0	147	64	0	23	87	3	209	95	307	551
04:30 PM	3	4	9	16	22	134	2	158	88	0	27	115	3	207	93	303	592
04:45 PM	2	4	4	10	33	98	0	131	74	1	30	105	1	202	104	307	553
Total	8	8	25	41	109	508	2	619	307	3	105	415	10	792	377	1179	2254
05:00 PM	1	1	7	9	24	148	2	174	84	0	19	103	1	222	100	323	609
05:15 PM	1	0	4	5	26	122	0	148	71	0	22	93	1	234	84	319	565
05:30 PM	0	0	2	2	21	125	1	147	65	0	19	84	2	221	108	331	564
05:45 PM	0	0	1	1	10	101	0	111	49	1	11	61	1	172	88	261	434
Total	2	1	14	17	81	496	3	580	269	1	71	341	5	849	380	1234	2172
Grand Total	10	9	39	58	190	1004	5	1199	576	4	176	756	15	1641	757	2413	4426
Apprch %	17.2	15.5	67.2		15.8	83.7	0.4		76.2	0.5	23.3		0.6	68	31.4		
Total %	0.2	0.2	0.9	1.3	4.3	22.7	0.1	27.1	13	0.1	4	17.1	0.3	37.1	17.1	54.5	

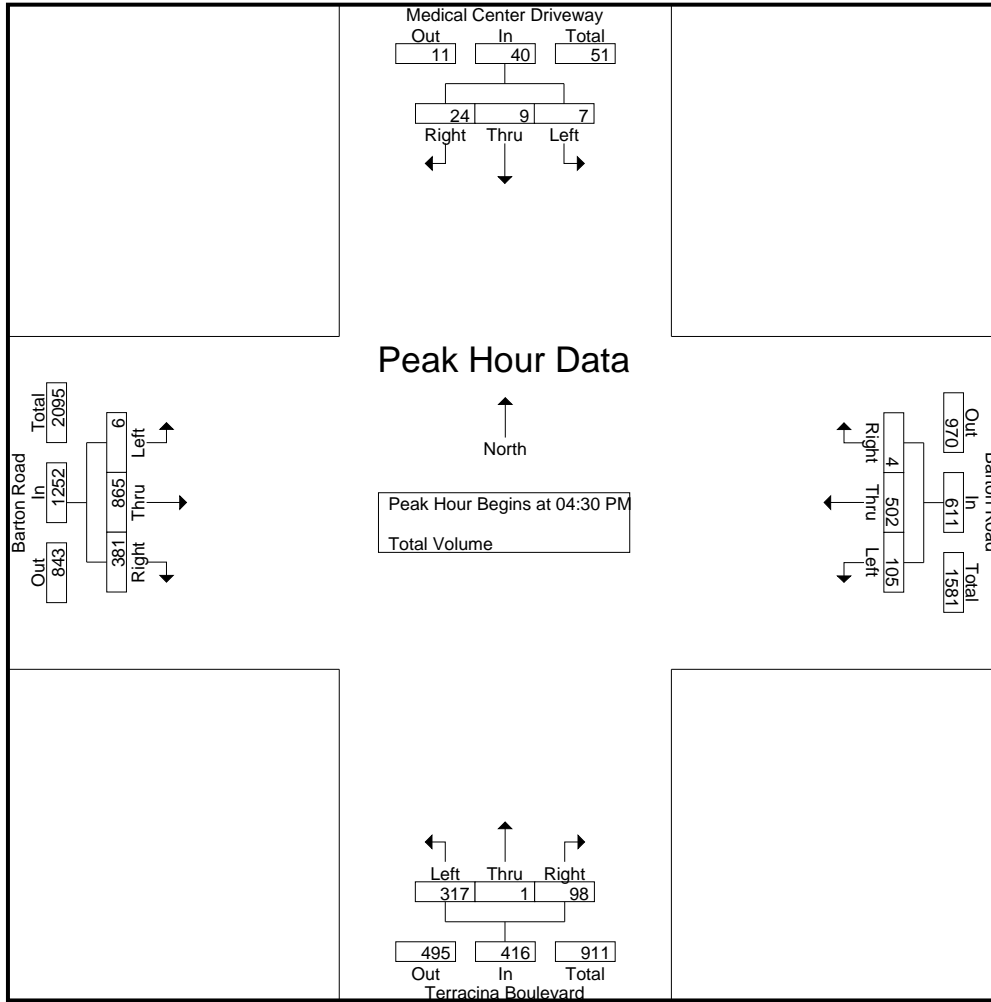
Start Time	Medical Center Driveway Southbound				Barton Road Westbound				Terracina Boulevard Northbound				Barton Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	3	4	9	16	22	134	2	158	88	0	27	115	3	207	93	303	592
04:45 PM	2	4	4	10	33	98	0	131	74	1	30	105	1	202	104	307	553
05:00 PM	1	1	7	9	24	148	2	174	84	0	19	103	1	222	100	323	609
05:15 PM	1	0	4	5	26	122	0	148	71	0	22	93	1	234	84	319	565
Total Volume	7	9	24	40	105	502	4	611	317	1	98	416	6	865	381	1252	2319
% App. Total	17.5	22.5	60		17.2	82.2	0.7		76.2	0.2	23.6		0.5	69.1	30.4		
PHF	.583	.563	.667	.625	.795	.848	.500	.878	.901	.250	.817	.904	.500	.924	.916	.969	.952

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 Redlands
 N/S: Terracina Boulevard
 E/W: Barton Road
 Weather: Clear

File Name : 008_RED_Terra_Bar PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	2	0	8	10	29	154	0	183	88	0	27	115	1	202	104	307
+15 mins.	3	4	9	16	25	122	0	147	74	1	30	105	1	222	100	323
+30 mins.	2	4	4	10	22	134	2	158	84	0	19	103	1	234	84	319
+45 mins.	1	1	7	9	33	98	0	131	71	0	22	93	2	221	108	331
Total Volume	8	9	28	45	109	508	2	619	317	1	98	416	5	879	396	1280
% App. Total	17.8	20	62.2		17.6	82.1	0.3		76.2	0.2	23.6		0.4	68.7	30.9	
PHF	.667	.563	.778	.703	.826	.825	.250	.846	.901	.250	.817	.904	.625	.939	.917	.967

City of Redlands
 N/S: Center Street
 E/W: Brookside Avenue
 Weather: Clear

File Name : 01_RED_Center_Brookside PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

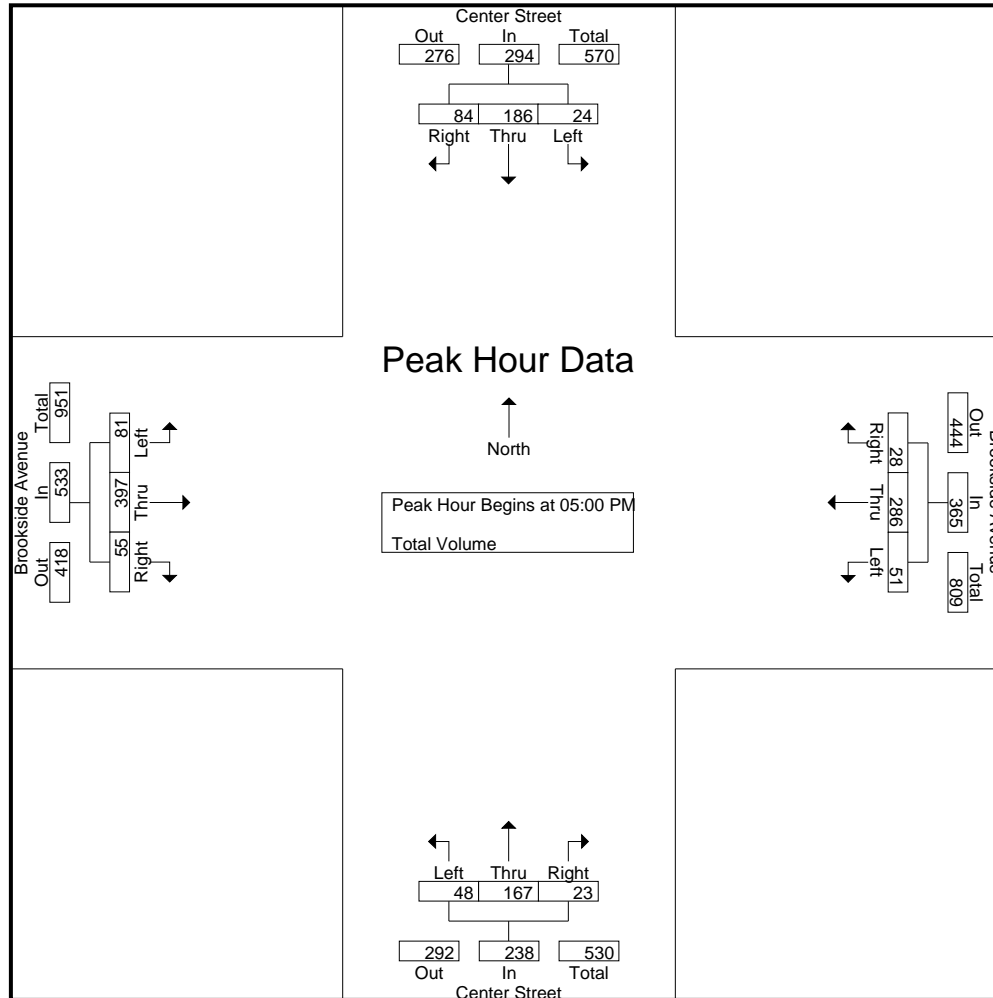
Groups Printed- Total Volume

Start Time	Center Street Southbound					Brookside Avenue Westbound					Center Street Northbound					Brookside Avenue Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	6	42	18	7	66	12	62	6	2	80	10	44	18	6	72	15	100	6	2	121	17	339	356
04:15 PM	8	40	16	7	64	14	57	4	1	75	7	33	8	2	48	17	91	12	2	120	12	307	319
04:30 PM	3	56	24	13	83	9	74	8	2	91	8	41	5	2	54	17	106	9	6	132	23	360	383
04:45 PM	7	35	13	9	55	14	56	6	2	76	8	40	7	0	55	16	101	10	4	127	15	313	328
Total	24	173	71	36	268	49	249	24	7	322	33	158	38	10	229	65	398	37	14	500	67	1319	1386
05:00 PM	4	48	20	13	72	13	68	11	2	92	12	32	9	6	53	14	101	15	7	130	28	347	375
05:15 PM	11	42	23	15	76	13	74	6	2	93	10	52	2	0	64	26	108	13	4	147	21	380	401
05:30 PM	3	47	22	13	72	10	74	5	1	89	14	44	8	2	66	18	104	15	8	137	24	364	388
05:45 PM	6	49	19	9	74	15	70	6	5	91	12	39	4	3	55	23	84	12	7	119	24	339	363
Total	24	186	84	50	294	51	286	28	10	365	48	167	23	11	238	81	397	55	26	533	97	1430	1527
Grand Total	48	359	155	86	562	100	535	52	17	687	81	325	61	21	467	146	795	92	40	1033	164	2749	2913
Apprch %	8.5	63.9	27.6			14.6	77.9	7.6			17.3	69.6	13.1			14.1	77	8.9					
Total %	1.7	13.1	5.6		20.4	3.6	19.5	1.9		25	2.9	11.8	2.2		17	5.3	28.9	3.3		37.6	5.6	94.4	

Start Time	Center Street Southbound				Brookside Avenue Westbound				Center Street Northbound				Brookside 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 05:00 PM																	
05:00 PM	4	48	20	72	13	68	11	92	12	32	9	53	14	101	15	130	347
05:15 PM	11	42	23	76	13	74	6	93	10	52	2	64	26	108	13	147	380
05:30 PM	3	47	22	72	10	74	5	89	14	44	8	66	18	104	15	137	364
05:45 PM	6	49	19	74	15	70	6	91	12	39	4	55	23	84	12	119	339
Total Volume	24	186	84	294	51	286	28	365	48	167	23	238	81	397	55	533	1430
% App. Total	8.2	63.3	28.6		14	78.4	7.7		20.2	70.2	9.7		15.2	74.5	10.3		
PHF	.545	.949	.913	.967	.850	.966	.636	.981	.857	.803	.639	.902	.779	.919	.917	.906	.941

City of Redlands
 N/S: Center Street
 E/W: Brookside Avenue
 Weather: Clear

File Name : 01_RED_Center_Brookside PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 2



Location: Redlands
 N/S: Center Street
 E/W: Brookside Avenue



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Center Street	East Leg Brookside Avenue	South Leg Center Street	West Leg Brookside Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	0	1	2
7:15 AM	1	1	3	0	5
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	0
8:00 AM	1	1	0	0	2
8:15 AM	1	0	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	1	2	1	1	5
TOTAL VOLUMES:	4	5	4	3	16

	North Leg Center Street	East Leg Brookside Avenue	South Leg Center Street	West Leg Brookside Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	2	0	0	0	2
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	2	0	0	0	2
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	4	0	2	1	7

Location: Redlands
 N/S: Center Street
 E/W: Brookside Avenue



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Center Street			Westbound Brookside Avenue			Northbound Center Street			Eastbound Brookside Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	1	1	0	0	1	0	0	1	0	0	0	0	4
7:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
7:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
7:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	1	3
8:30 AM	0	0	0	0	2	0	0	0	0	0	1	2	5
8:45 AM	1	0	0	0	0	0	0	0	1	1	1	1	5
TOTAL VOLUMES:	2	3	0	0	5	0	0	3	1	1	4	4	23

	Southbound Center Street			Westbound Brookside Avenue			Northbound Center Street			Eastbound Brookside 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	1	0	1
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	1	0	0	0	2	0	0	0	0	0	1	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	1	0	0	0	0	0	0	1	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
TOTAL VOLUMES:	1	1	0	1	3	0	0	0	0	0	6	1	13

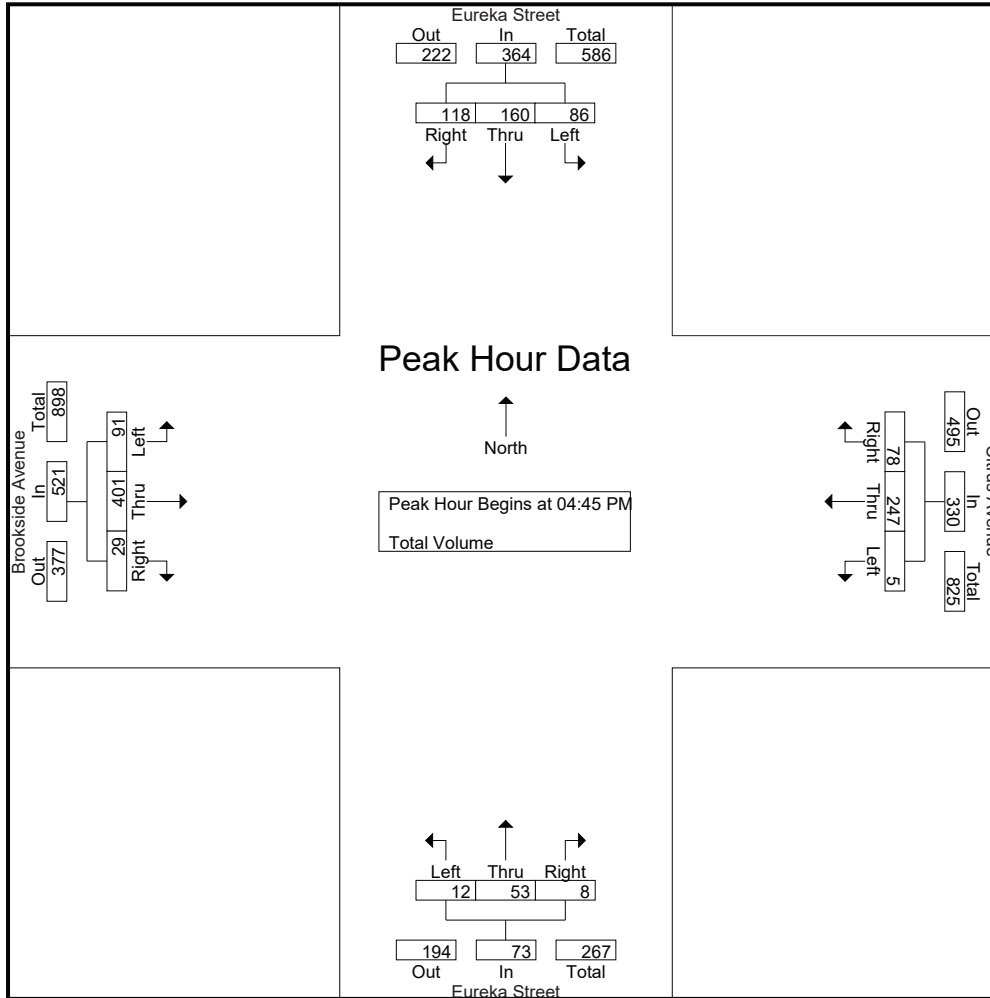
City of Redlands
 N/S: Eureka Street
 E/W: Brookside Avenue/Citrus Avenue
 Weather: Clear

File Name : 06_RED_Eureka_Citrus PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

Groups Printed- Total Volume

Start Time	Eureka Street Southbound					Citrus Avenue Westbound					Eureka Street Northbound					Brookside Avenue Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	17	35	34	13	86	2	46	11	2	59	3	9	5	1	17	23	109	2	0	134	16	296	312
04:15 PM	22	44	25	9	91	4	50	13	1	67	4	10	0	0	14	21	100	8	1	129	11	301	312
04:30 PM	24	21	40	17	85	2	58	17	4	77	1	12	1	0	14	21	102	4	1	127	22	303	325
04:45 PM	26	33	33	13	92	2	57	17	7	76	2	12	3	1	17	26	97	8	1	131	22	316	338
Total	89	133	132	52	354	10	211	58	14	279	10	43	9	2	62	91	408	22	3	521	71	1216	1287
05:00 PM	20	38	31	11	89	1	63	16	1	80	4	21	1	1	26	20	101	8	3	129	16	324	340
05:15 PM	23	48	28	6	99	0	65	20	7	85	1	13	2	1	16	16	105	7	2	128	16	328	344
05:30 PM	17	41	26	15	84	2	62	25	5	89	5	7	2	2	14	29	98	6	0	133	22	320	342
05:45 PM	15	36	39	8	90	1	58	12	1	71	1	3	0	0	4	16	74	4	0	94	9	259	268
Total	75	163	124	40	362	4	248	73	14	325	11	44	5	4	60	81	378	25	5	484	63	1231	1294
Grand Total	164	296	256	92	716	14	459	131	28	604	21	87	14	6	122	172	786	47	8	1005	134	2447	2581
Apprch %	22.9	41.3	35.8			2.3	76	21.7			17.2	71.3	11.5			17.1	78.2	4.7					
Total %	6.7	12.1	10.5		29.3	0.6	18.8	5.4		24.7	0.9	3.6	0.6		5	7	32.1	1.9		41.1	5.2	94.8	

Start Time	Eureka Street Southbound				Citrus Avenue Westbound				Eureka Street Northbound				Brookside 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 04:45 PM																	
04:45 PM	26	33	33	92	2	57	17	76	2	12	3	17	26	97	8	131	316
05:00 PM	20	38	31	89	1	63	16	80	4	21	1	26	20	101	8	129	324
05:15 PM	23	48	28	99	0	65	20	85	1	13	2	16	16	105	7	128	328
05:30 PM	17	41	26	84	2	62	25	89	5	7	2	14	29	98	6	133	320
Total Volume	86	160	118	364	5	247	78	330	12	53	8	73	91	401	29	521	1288
% App. Total	23.6	44	32.4		1.5	74.8	23.6		16.4	72.6	11		17.5	77	5.6		
PHF	.827	.833	.894	.919	.625	.950	.780	.927	.600	.631	.667	.702	.784	.955	.906	.979	.982



Location: Redlands
 N/S: Eureka Street
 E/W: Brookside Ave/Citrus Ave



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Eureka Street	East Leg Citrus Avenue	South Leg Eureka Street	West Leg Brookside Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	2	0	3	3	8
7:30 AM	0	2	4	0	6
7:45 AM	0	1	2	3	6
8:00 AM	2	2	1	2	7
8:15 AM	2	0	7	2	11
8:30 AM	1	1	3	0	5
8:45 AM	4	1	1	1	7
TOTAL VOLUMES:	11	7	22	11	51

	North Leg Eureka Street	East Leg Citrus Avenue	South Leg Eureka Street	West Leg Brookside Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	2	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	1	1	0	2
4:45 PM	1	0	1	0	2
5:00 PM	2	0	0	1	3
5:15 PM	2	0	2	1	5
5:30 PM	0	0	2	0	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	5	1	8	2	16

Location: Redlands
 N/S: Eureka Street
 E/W: Brookside Ave/Citrus Ave



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Eureka Street			Westbound Citrus Avenue			Northbound Eureka Street			Eastbound Brookside Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
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	1	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	2	0	0	0	0	0	1	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	0	0	0	0	6	0	0	0	0	0	5	1	12

	Southbound Eureka Street			Westbound Citrus Avenue			Northbound Eureka Street			Eastbound Brookside 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	1	0	0	0	0	0	0	0	1	0	2
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL VOLUMES:	0	0	2	0	3	1	0	0	0	2	4	0	12

City of Redlands
 N/S: San Mateo Street
 E/W: Brookside Avenue
 Weather: Clear

File Name : 011_RED_San M_Brook PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	San Mateo Street Southbound				Brookside Avenue Westbound				San Mateo Street Northbound				Brookside 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	14	78	25	117	6	99	17	122	25	57	12	94	22	92	47	161	494
04:15 PM	9	70	18	97	5	78	17	100	17	59	9	85	11	112	41	164	446
04:30 PM	16	73	23	112	3	76	15	94	29	43	6	78	23	148	53	224	508
04:45 PM	7	81	15	103	9	72	9	90	23	60	4	87	18	123	47	188	468
Total	46	302	81	429	23	325	58	406	94	219	31	344	74	475	188	737	1916
05:00 PM	14	91	22	127	10	105	9	124	18	59	8	85	14	116	61	191	527
05:15 PM	13	72	10	95	2	93	7	102	18	49	2	69	20	141	54	215	481
05:30 PM	14	87	16	117	10	93	10	113	21	45	4	70	12	126	58	196	496
05:45 PM	5	62	20	87	5	82	10	97	15	44	1	60	14	122	44	180	424
Total	46	312	68	426	27	373	36	436	72	197	15	284	60	505	217	782	1928
Grand Total	92	614	149	855	50	698	94	842	166	416	46	628	134	980	405	1519	3844
Apprch %	10.8	71.8	17.4		5.9	82.9	11.2		26.4	66.2	7.3		8.8	64.5	26.7		
Total %	2.4	16	3.9	22.2	1.3	18.2	2.4	21.9	4.3	10.8	1.2	16.3	3.5	25.5	10.5	39.5	

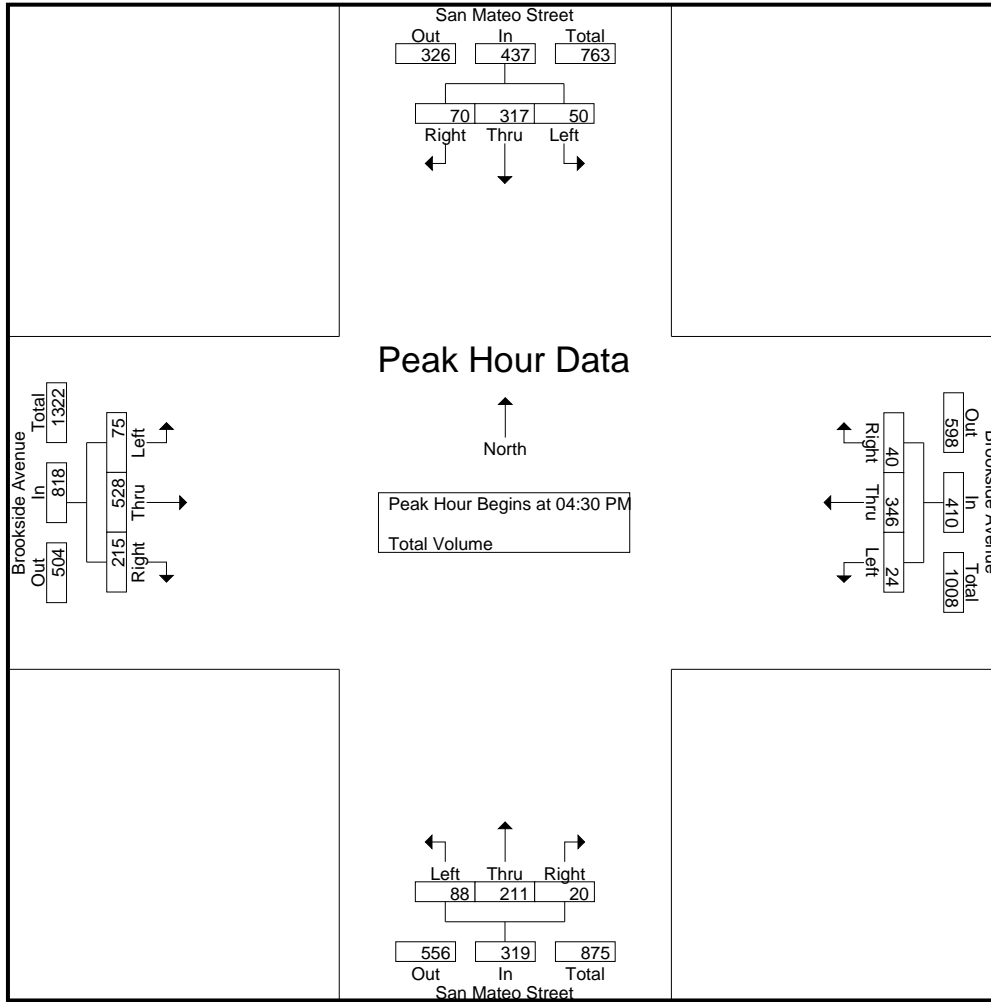
Start Time	San Mateo Street Southbound				Brookside Avenue Westbound				San Mateo Street Northbound				Brookside Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	16	73	23	112	3	76	15	94	29	43	6	78	23	148	53	224	508
04:45 PM	7	81	15	103	9	72	9	90	23	60	4	87	18	123	47	188	468
05:00 PM	14	91	22	127	10	105	9	124	18	59	8	85	14	116	61	191	527
05:15 PM	13	72	10	95	2	93	7	102	18	49	2	69	20	141	54	215	481
Total Volume	50	317	70	437	24	346	40	410	88	211	20	319	75	528	215	818	1984
% App. Total	11.4	72.5	16		5.9	84.4	9.8		27.6	66.1	6.3		9.2	64.5	26.3		
PHF	.781	.871	.761	.860	.600	.824	.667	.827	.759	.879	.625	.917	.815	.892	.881	.913	.941

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 Redlands
 N/S: San Mateo Street
 E/W: Brookside Avenue
 Weather: Clear

File Name : 011_RED_San M_Brook PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	7	81	15	103	10	105	9	124	25	57	12	94	23	148	53	224
+15 mins.	14	91	22	127	2	93	7	102	17	59	9	85	18	123	47	188
+30 mins.	13	72	10	95	10	93	10	113	29	43	6	78	14	116	61	191
+45 mins.	14	87	16	117	5	82	10	97	23	60	4	87	20	141	54	215
Total Volume	48	331	63	442	27	373	36	436	94	219	31	344	75	528	215	818
% App. Total	10.9	74.9	14.3		6.2	85.6	8.3		27.3	63.7	9		9.2	64.5	26.3	
PHF	.857	.909	.716	.870	.675	.888	.900	.879	.810	.913	.646	.915	.815	.892	.881	.913

City of Redlands
 N/S: Cajon Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 012_RED_Cajon_Fern PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Cajon Street Southbound				Fern Avenue Westbound				Cajon Street Northbound				Fern 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	8	76	5	89	13	25	7	45	6	63	6	75	13	42	11	66	275
04:15 PM	21	80	9	110	2	20	9	31	3	43	10	56	10	33	12	55	252
04:30 PM	17	94	6	117	5	28	6	39	4	62	4	70	7	32	5	44	270
04:45 PM	14	99	7	120	3	31	10	44	7	59	7	73	9	33	12	54	291
Total	60	349	27	436	23	104	32	159	20	227	27	274	39	140	40	219	1088
05:00 PM	22	87	5	114	8	22	9	39	7	62	6	75	16	29	13	58	286
05:15 PM	12	86	5	103	7	28	5	40	1	60	4	65	10	46	8	64	272
05:30 PM	10	75	7	92	7	23	3	33	5	48	11	64	12	28	8	48	237
05:45 PM	16	75	7	98	2	19	9	30	3	60	9	72	8	51	5	64	264
Total	60	323	24	407	24	92	26	142	16	230	30	276	46	154	34	234	1059
Grand Total	120	672	51	843	47	196	58	301	36	457	57	550	85	294	74	453	2147
Apprch %	14.2	79.7	6		15.6	65.1	19.3		6.5	83.1	10.4		18.8	64.9	16.3		
Total %	5.6	31.3	2.4	39.3	2.2	9.1	2.7	14	1.7	21.3	2.7	25.6	4	13.7	3.4	21.1	

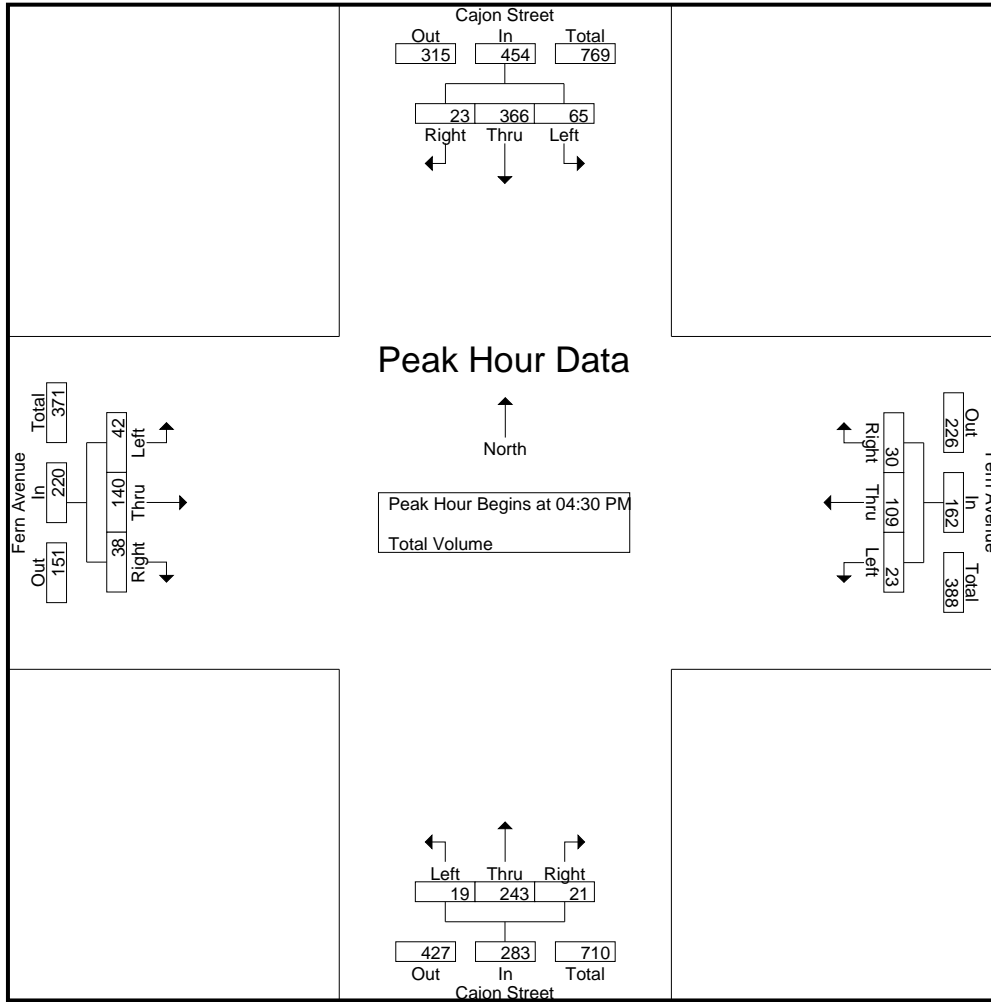
Start Time	Cajon Street Southbound				Fern Avenue Westbound				Cajon Street Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	17	94	6	117	5	28	6	39	4	62	4	70	7	32	5	44	270
04:45 PM	14	99	7	120	3	31	10	44	7	59	7	73	9	33	12	54	291
05:00 PM	22	87	5	114	8	22	9	39	7	62	6	75	16	29	13	58	286
05:15 PM	12	86	5	103	7	28	5	40	1	60	4	65	10	46	8	64	272
Total Volume	65	366	23	454	23	109	30	162	19	243	21	283	42	140	38	220	1119
% App. Total	14.3	80.6	5.1		14.2	67.3	18.5		6.7	85.9	7.4		19.1	63.6	17.3		
PHF	.739	.924	.821	.946	.719	.879	.750	.920	.679	.980	.750	.943	.656	.761	.731	.859	.961

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

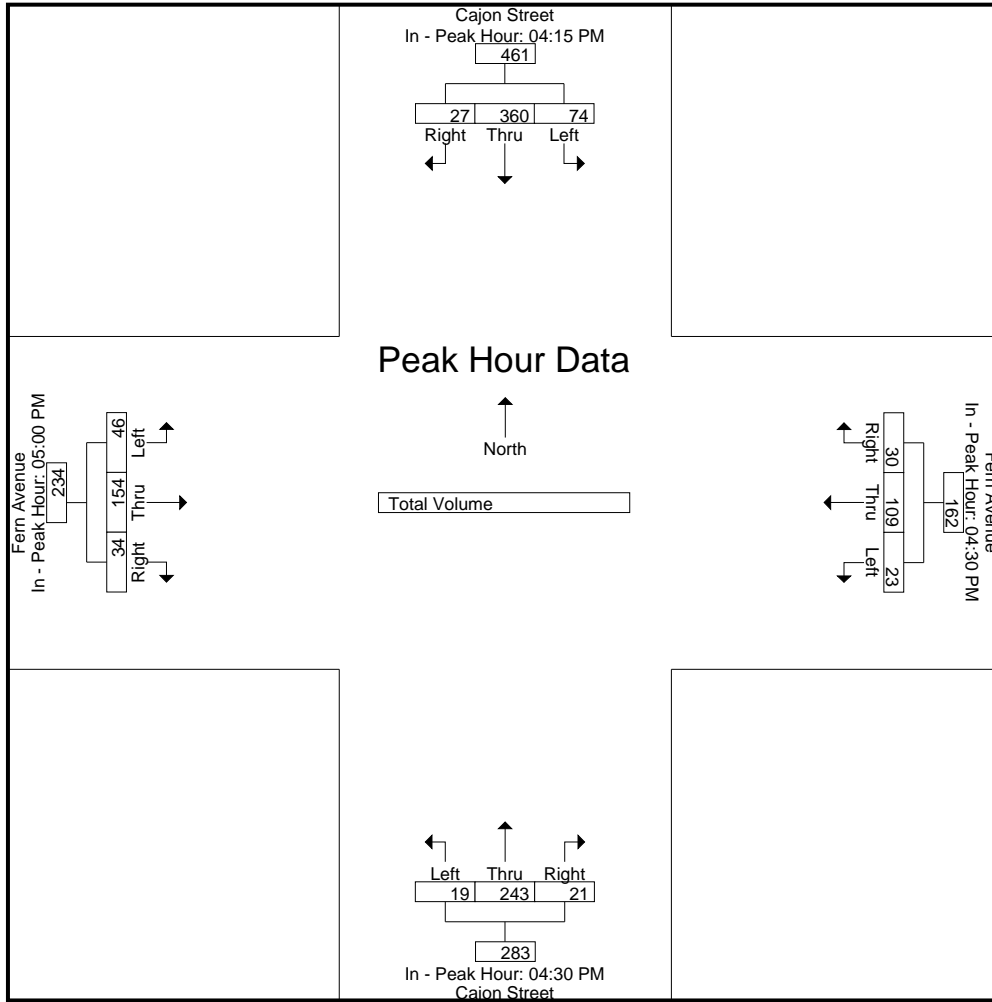
City of Redlands
 N/S: Cajon Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 012_RED_Cajon_Fern PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:30 PM				04:30 PM				05:00 PM			
+0 mins.	21	80	9	110	5	28	6	39	4	62	4	70	16	29	13	58
+15 mins.	17	94	6	117	3	31	10	44	7	59	7	73	10	46	8	64
+30 mins.	14	99	7	120	8	22	9	39	7	62	6	75	12	28	8	48
+45 mins.	22	87	5	114	7	28	5	40	1	60	4	65	8	51	5	64
Total Volume	74	360	27	461	23	109	30	162	19	243	21	283	46	154	34	234
% App. Total	16.1	78.1	5.9		14.2	67.3	18.5		6.7	85.9	7.4		19.7	65.8	14.5	
PHF	.841	.909	.750	.960	.719	.879	.750	.920	.679	.980	.750	.943	.719	.755	.654	.914



City of Redlands
 N/S: Cajon Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 013_RED_Cajon_Olive PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Cajon Street Southbound				Olive Avenue Westbound				Cajon Street Northbound				Olive 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	9	66	6	81	11	28	14	53	8	81	6	95	20	36	15	71	300
04:15 PM	8	86	4	98	10	23	16	49	5	67	7	79	16	28	14	58	284
04:30 PM	6	87	12	105	20	24	15	59	7	71	9	87	24	29	16	69	320
04:45 PM	6	78	8	92	15	31	13	59	4	65	10	79	19	27	21	67	297
Total	29	317	30	376	56	106	58	220	24	284	32	340	79	120	66	265	1201
05:00 PM	8	68	9	85	10	35	21	66	6	112	7	125	19	40	25	84	360
05:15 PM	12	75	3	90	16	27	11	54	6	68	6	80	17	31	16	64	288
05:30 PM	7	68	15	90	10	27	9	46	5	55	9	69	14	27	16	57	262
05:45 PM	3	69	7	79	9	20	4	33	7	60	7	74	7	23	15	45	231
Total	30	280	34	344	45	109	45	199	24	295	29	348	57	121	72	250	1141
Grand Total	59	597	64	720	101	215	103	419	48	579	61	688	136	241	138	515	2342
Apprch %	8.2	82.9	8.9		24.1	51.3	24.6		7	84.2	8.9		26.4	46.8	26.8		
Total %	2.5	25.5	2.7	30.7	4.3	9.2	4.4	17.9	2	24.7	2.6	29.4	5.8	10.3	5.9	22	

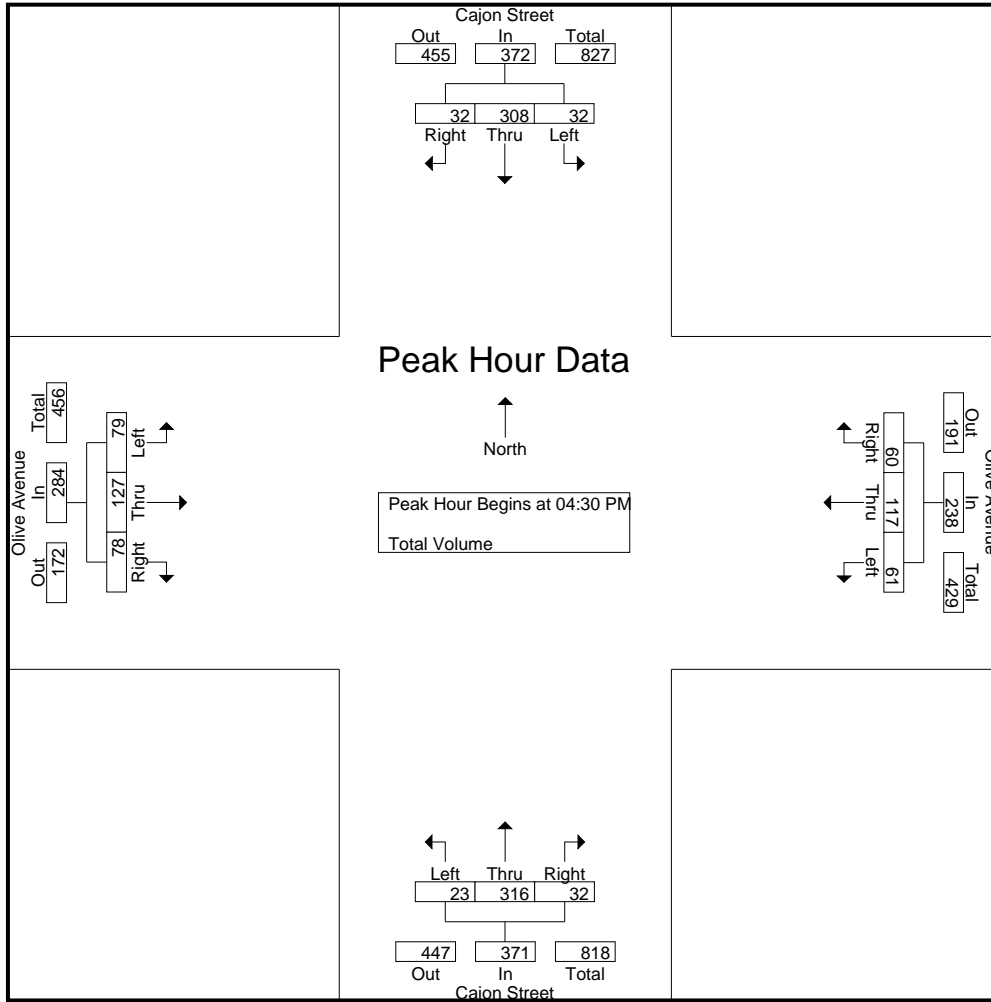
Start Time	Cajon Street Southbound				Olive Avenue Westbound				Cajon Street Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	6	87	12	105	20	24	15	59	7	71	9	87	24	29	16	69	320
04:45 PM	6	78	8	92	15	31	13	59	4	65	10	79	19	27	21	67	297
05:00 PM	8	68	9	85	10	35	21	66	6	112	7	125	19	40	25	84	360
05:15 PM	12	75	3	90	16	27	11	54	6	68	6	80	17	31	16	64	288
Total Volume	32	308	32	372	61	117	60	238	23	316	32	371	79	127	78	284	1265
% App. Total	8.6	82.8	8.6		25.6	49.2	25.2		6.2	85.2	8.6		27.8	44.7	27.5		
PHF	.667	.885	.667	.886	.763	.836	.714	.902	.821	.705	.800	.742	.823	.794	.780	.845	.878

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 Redlands
 N/S: Cajon Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 013_RED_Cajon_Olive PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	8	86	4	98	20	24	15	59	7	71	9	87	24	29	16	69
+15 mins.	6	87	12	105	15	31	13	59	4	65	10	79	19	27	21	67
+30 mins.	6	78	8	92	10	35	21	66	6	112	7	125	19	40	25	84
+45 mins.	8	68	9	85	16	27	11	54	6	68	6	80	17	31	16	64
Total Volume	28	319	33	380	61	117	60	238	23	316	32	371	79	127	78	284
% App. Total	7.4	83.9	8.7		25.6	49.2	25.2		6.2	85.2	8.6		27.8	44.7	27.5	
PHF	.875	.917	.688	.905	.763	.836	.714	.902	.821	.705	.800	.742	.823	.794	.780	.845

City of Redlands
 N/S: California Street
 E/W: Almond Avenue
 Weather: Clear

File Name : 014_RED_Cali_Almond PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	California Street Southbound				Almond Avenue Westbound				California Street Northbound				Almond 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	1	89	3	93	13	13	5	31	6	75	11	92	4	32	11	47	263
04:15 PM	3	87	3	93	8	20	3	31	6	67	5	78	3	27	9	39	241
04:30 PM	4	108	2	114	8	16	3	27	4	74	5	83	6	33	10	49	273
04:45 PM	6	79	2	87	7	8	0	15	5	86	15	106	4	36	10	50	258
Total	14	363	10	387	36	57	11	104	21	302	36	359	17	128	40	185	1035
05:00 PM	4	84	2	90	15	13	4	32	11	85	7	103	4	41	12	57	282
05:15 PM	3	82	1	86	10	21	3	34	9	92	12	113	4	44	19	67	300
05:30 PM	5	80	4	89	10	22	3	35	25	125	9	159	3	44	20	67	350
05:45 PM	2	68	1	71	9	20	0	29	31	91	6	128	4	35	6	45	273
Total	14	314	8	336	44	76	10	130	76	393	34	503	15	164	57	236	1205
Grand Total	28	677	18	723	80	133	21	234	97	695	70	862	32	292	97	421	2240
Apprch %	3.9	93.6	2.5		34.2	56.8	9		11.3	80.6	8.1		7.6	69.4	23		
Total %	1.2	30.2	0.8	32.3	3.6	5.9	0.9	10.4	4.3	31	3.1	38.5	1.4	13	4.3	18.8	

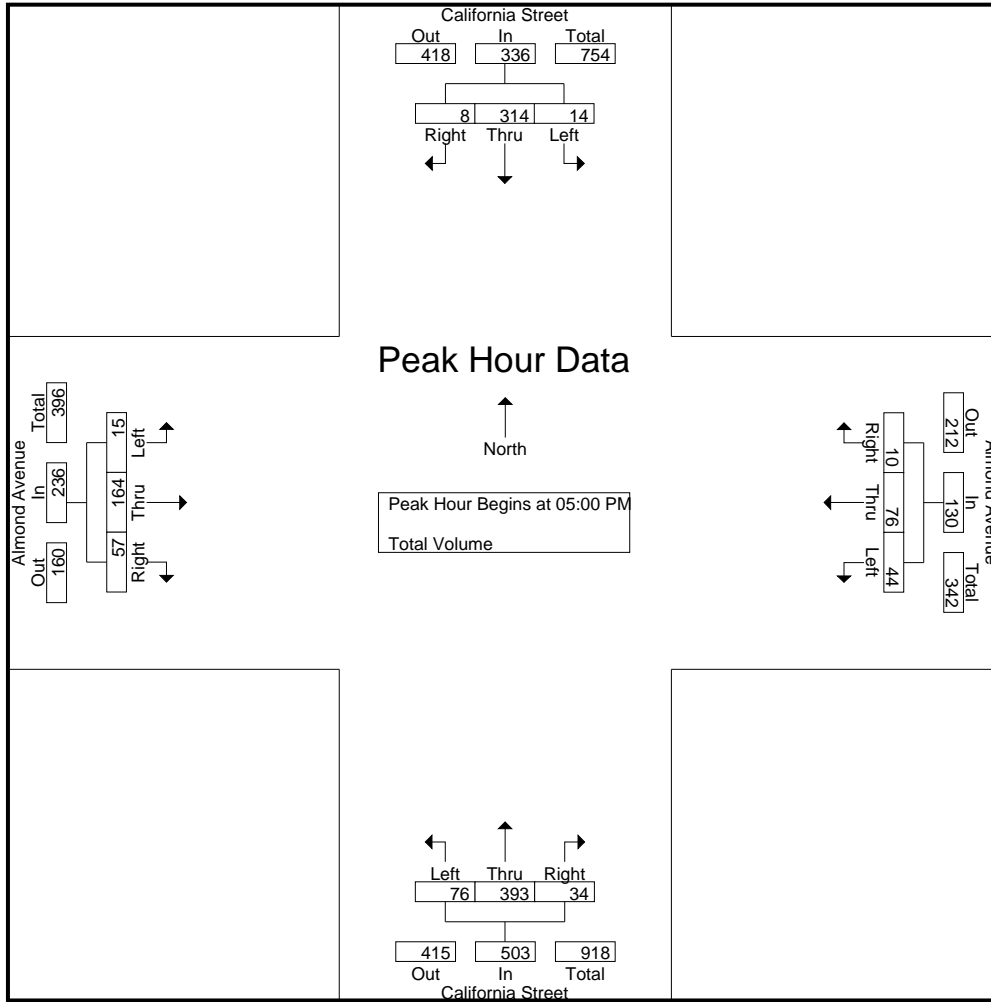
Start Time	California Street Southbound				Almond Avenue Westbound				California Street Northbound				Almond Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	4	84	2	90	15	13	4	32	11	85	7	103	4	41	12	57	282
05:15 PM	3	82	1	86	10	21	3	34	9	92	12	113	4	44	19	67	300
05:30 PM	5	80	4	89	10	22	3	35	25	125	9	159	3	44	20	67	350
05:45 PM	2	68	1	71	9	20	0	29	31	91	6	128	4	35	6	45	273
Total Volume	14	314	8	336	44	76	10	130	76	393	34	503	15	164	57	236	1205
% App. Total	4.2	93.5	2.4		33.8	58.5	7.7		15.1	78.1	6.8		6.4	69.5	24.2		
PHF	.700	.935	.500	.933	.733	.864	.625	.929	.613	.786	.708	.791	.938	.932	.713	.881	.861

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: California Street
 E/W: Almond Avenue
 Weather: Clear

File Name : 014_RED_Cali_Almond PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	1	89	3	93	15	13	4	32	11	85	7	103	4	36	10	50
+15 mins.	3	87	3	93	10	21	3	34	9	92	12	113	4	41	12	57
+30 mins.	4	108	2	114	10	22	3	35	25	125	9	159	4	44	19	67
+45 mins.	6	79	2	87	9	20	0	29	31	91	6	128	3	44	20	67
Total Volume	14	363	10	387	44	76	10	130	76	393	34	503	15	165	61	241
% App. Total	3.6	93.8	2.6		33.8	58.5	7.7		15.1	78.1	6.8		6.2	68.5	25.3	
PHF	.583	.840	.833	.849	.733	.864	.625	.929	.613	.786	.708	.791	.938	.938	.763	.899

City of Redlands
 N/S: California Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 02_RED_Cali_Lugonia PM
 Site Code : 99922140
 Start Date : 2/17/2022
 Page No : 1

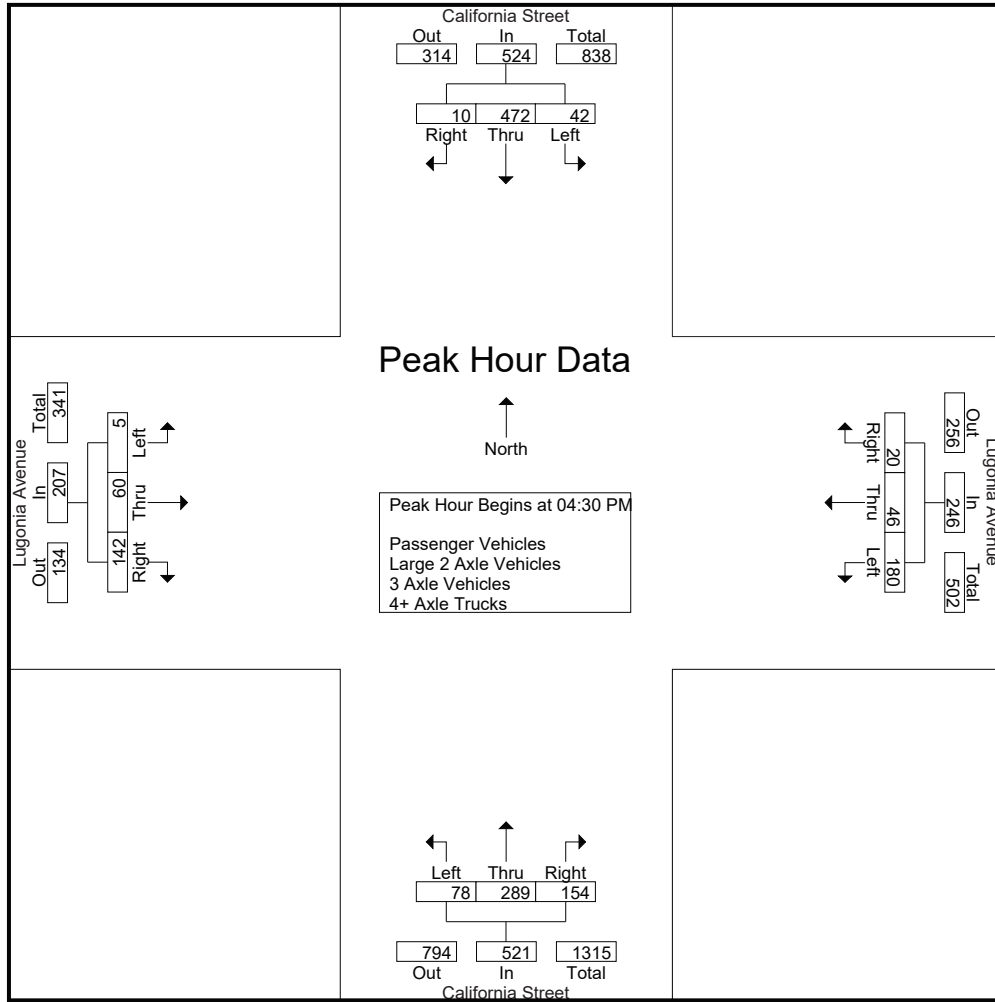
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	California Street Southbound				Lugonia Avenue Westbound				California Street Northbound				Lugonia 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	15	120	8	143	25	13	7	45	27	86	40	153	2	24	36	62	403
04:15 PM	21	107	3	131	37	10	8	55	21	74	38	133	2	20	40	62	381
04:30 PM	9	128	1	138	42	9	6	57	19	54	36	109	1	24	47	72	376
04:45 PM	10	113	2	125	35	12	1	48	15	65	28	108	1	14	33	48	329
Total	55	468	14	537	139	44	22	205	82	279	142	503	6	82	156	244	1489
05:00 PM	9	111	2	122	58	12	5	75	23	86	40	149	0	15	36	51	397
05:15 PM	14	120	5	139	45	13	8	66	21	84	50	155	3	7	26	36	396
05:30 PM	9	109	0	118	34	12	2	48	25	92	37	154	0	9	30	39	359
05:45 PM	6	84	4	94	38	12	2	52	22	68	41	131	0	19	20	39	316
Total	38	424	11	473	175	49	17	241	91	330	168	589	3	50	112	165	1468
Grand Total	93	892	25	1010	314	93	39	446	173	609	310	1092	9	132	268	409	2957
Apprch %	9.2	88.3	2.5		70.4	20.9	8.7		15.8	55.8	28.4		2.2	32.3	65.5		
Total %	3.1	30.2	0.8	34.2	10.6	3.1	1.3	15.1	5.9	20.6	10.5	36.9	0.3	4.5	9.1	13.8	
Passenger Vehicles	92	793	23	908	310	91	38	439	142	523	304	969	8	132	240	380	2696
% Passenger Vehicles	98.9	88.9	92	89.9	98.7	97.8	97.4	98.4	82.1	85.9	98.1	88.7	88.9	100	89.6	92.9	91.2
Large 2 Axle Vehicles	0	13	0	13	2	2	0	4	7	10	4	21	1	0	2	3	41
% Large 2 Axle Vehicles	0	1.5	0	1.3	0.6	2.2	0	0.9	4	1.6	1.3	1.9	11.1	0	0.7	0.7	1.4
3 Axle Vehicles	0	14	0	14	1	0	0	1	7	13	0	20	0	0	9	9	44
% 3 Axle Vehicles	0	1.6	0	1.4	0.3	0	0	0.2	4	2.1	0	1.8	0	0	3.4	2.2	1.5
4+ Axle Trucks	1	72	2	75	1	0	1	2	17	63	2	82	0	0	17	17	176
% 4+ Axle Trucks	1.1	8.1	8	7.4	0.3	0	2.6	0.4	9.8	10.3	0.6	7.5	0	0	6.3	4.2	6

Start Time	California Street Southbound				Lugonia Avenue Westbound				California Street Northbound				Lugonia 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	9	128	1	138	42	9	6	57	19	54	36	109	1	24	47	72	376
04:45 PM	10	113	2	125	35	12	1	48	15	65	28	108	1	14	33	48	329
05:00 PM	9	111	2	122	58	12	5	75	23	86	40	149	0	15	36	51	397
05:15 PM	14	120	5	139	45	13	8	66	21	84	50	155	3	7	26	36	396
Total Volume	42	472	10	524	180	46	20	246	78	289	154	521	5	60	142	207	1498
% App. Total	8	90.1	1.9		73.2	18.7	8.1		15	55.5	29.6		2.4	29	68.6		
PHF	.750	.922	.500	.942	.776	.885	.625	.820	.848	.840	.770	.840	.417	.625	.755	.719	.943

City of Redlands
 N/S: California Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 02_RED_Cali_Lugonia PM
 Site Code : 99922140
 Start Date : 2/17/2022
 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:

	04:00 PM				04:30 PM				05:00 PM				04:00 PM			
+0 mins.	15	120	8	143	42	9	6	57	23	86	40	149	2	24	36	62
+15 mins.	21	107	3	131	35	12	1	48	21	84	50	155	2	20	40	62
+30 mins.	9	128	1	138	58	12	5	75	25	92	37	154	1	24	47	72
+45 mins.	10	113	2	125	45	13	8	66	22	68	41	131	1	14	33	48
Total Volume	55	468	14	537	180	46	20	246	91	330	168	589	6	82	156	244
% App. Total	10.2	87.2	2.6		73.2	18.7	8.1		15.4	56	28.5		2.5	33.6	63.9	
PHF	.655	.914	.438	.939	.776	.885	.625	.820	.910	.897	.840	.950	.750	.854	.830	.847

Location: Redlands
 N/S: California Street
 E/W: Lugonia Avenue



Date: 2/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg California Street Pedestrians	East Leg Lugonia Avenue Pedestrians	South Leg California Street Pedestrians	West Leg Lugonia Avenue 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 California Street Pedestrians	East Leg Lugonia Avenue Pedestrians	South Leg California Street Pedestrians	West Leg Lugonia Avenue Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	3	3
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	1	1
TOTAL VOLUMES:	1	0	0	4	5

Location: Redlands
 N/S: California Street
 E/W: Lugonia Avenue



Date: 2/17/2022
 Day: Thursday

BICYCLES

	Southbound California Street			Westbound Lugonia Avenue			Northbound California Street			Eastbound Lugonia 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	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	1	0	0	0	0	0	0	0	0	2

	Southbound California Street			Westbound Lugonia Avenue			Northbound California Street			Eastbound Lugonia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	3	0	0	1	0	0	2	0	0	0	0	6

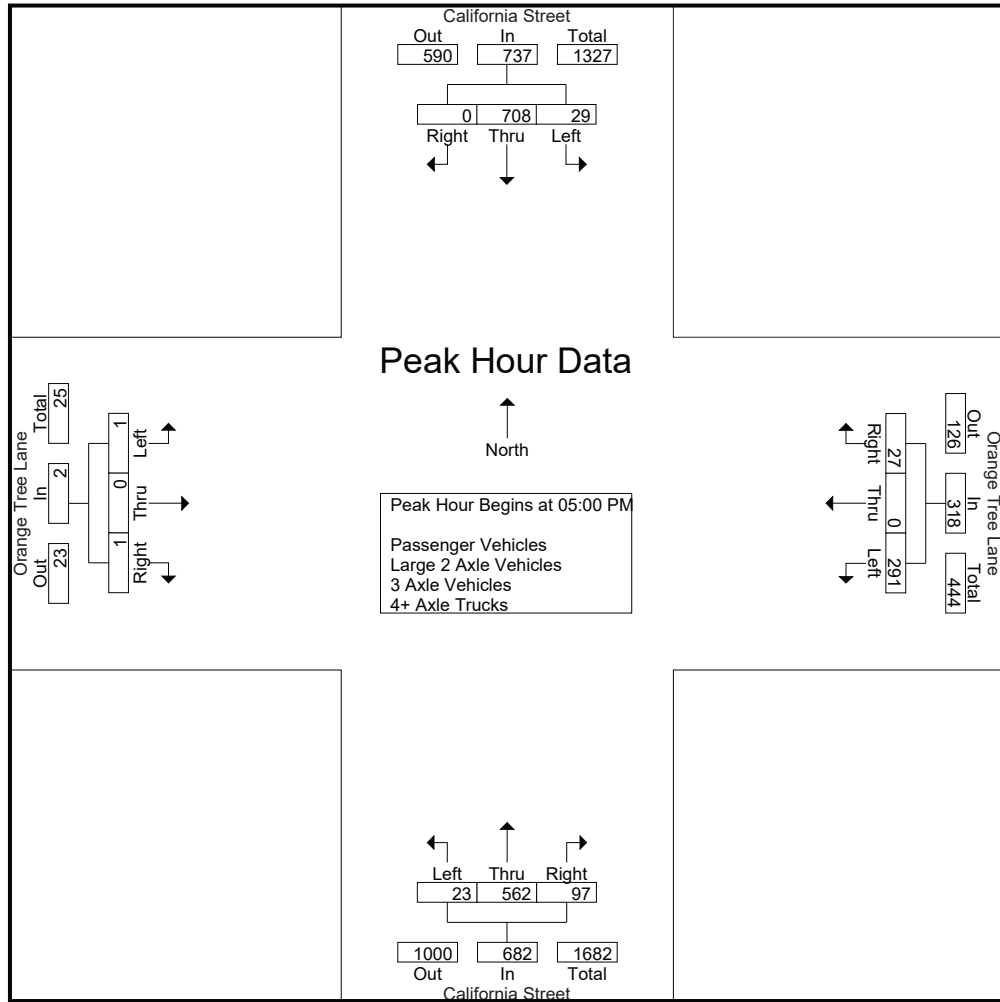
City of Redlands
 N/S: California Street
 E/W: Orange Tree Lane
 Weather: Clear

File Name : 04_RED_Cali_Orange PM
 Site Code : 99922140
 Start Date : 2/17/2022
 Page No : 1

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

Start Time	California Street Southbound				Orange Tree Lane Westbound				California Street Northbound				Orange Tree Lane 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	9	153	0	162	73	0	5	78	7	142	29	178	0	0	0	0	418
04:15 PM	5	200	0	205	53	0	3	56	3	128	33	164	0	0	0	0	425
04:30 PM	9	212	0	221	62	1	4	67	2	97	24	123	0	0	0	0	411
04:45 PM	5	178	1	184	55	0	9	64	1	100	34	135	0	0	0	0	383
Total	28	743	1	772	243	1	21	265	13	467	120	600	0	0	0	0	1637
05:00 PM	10	186	0	196	95	0	12	107	8	129	35	172	1	0	0	1	476
05:15 PM	8	185	0	193	65	0	5	70	3	148	27	178	0	0	0	0	441
05:30 PM	6	179	0	185	69	0	6	75	6	150	13	169	0	0	0	0	429
05:45 PM	5	158	0	163	62	0	4	66	6	135	22	163	0	0	1	1	393
Total	29	708	0	737	291	0	27	318	23	562	97	682	1	0	1	2	1739
Grand Total	57	1451	1	1509	534	1	48	583	36	1029	217	1282	1	0	1	2	3376
Apprch %	3.8	96.2	0.1		91.6	0.2	8.2		2.8	80.3	16.9		50	0	50		
Total %	1.7	43	0	44.7	15.8	0	1.4	17.3	1.1	30.5	6.4	38	0	0	0	0.1	
Passenger Vehicles	52	1321	1	1374	526	1	47	574	36	908	200	1144	1	0	1	2	3094
% Passenger Vehicles	91.2	91	100	91.1	98.5	100	97.9	98.5	100	88.2	92.2	89.2	100	0	100	100	91.6
Large 2 Axle Vehicles	2	16	0	18	5	0	1	6	0	23	6	29	0	0	0	0	53
% Large 2 Axle Vehicles	3.5	1.1	0	1.2	0.9	0	2.1	1	0	2.2	2.8	2.3	0	0	0	0	1.6
3 Axle Vehicles	1	24	0	25	0	0	0	0	0	23	2	25	0	0	0	0	50
% 3 Axle Vehicles	1.8	1.7	0	1.7	0	0	0	0	0	2.2	0.9	2	0	0	0	0	1.5
4+ Axle Trucks	2	90	0	92	3	0	0	3	0	75	9	84	0	0	0	0	179
% 4+ Axle Trucks	3.5	6.2	0	6.1	0.6	0	0	0.5	0	7.3	4.1	6.6	0	0	0	0	5.3

Start Time	California Street Southbound				Orange Tree Lane Westbound				California Street Northbound				Orange Tree Lane 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 05:00 PM																	
05:00 PM	10	186	0	196	95	0	12	107	8	129	35	172	1	0	0	1	476
05:15 PM	8	185	0	193	65	0	5	70	3	148	27	178	0	0	0	0	441
05:30 PM	6	179	0	185	69	0	6	75	6	150	13	169	0	0	0	0	429
05:45 PM	5	158	0	163	62	0	4	66	6	135	22	163	0	0	1	1	393
Total Volume	29	708	0	737	291	0	27	318	23	562	97	682	1	0	1	2	1739
% App. Total	3.9	96.1	0		91.5	0	8.5		3.4	82.4	14.2		50	0	50		
PHF	.725	.952	.000	.940	.766	.000	.563	.743	.719	.937	.693	.958	.250	.000	.250	.500	.913



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				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	5	200	0	205	95	0	12	107	8	129	35	172	1	0	0	1
+15 mins.	9	212	0	221	65	0	5	70	3	148	27	178	0	0	0	0
+30 mins.	5	178	1	184	69	0	6	75	6	150	13	169	0	0	0	0
+45 mins.	10	186	0	196	62	0	4	66	6	135	22	163	0	0	1	1
Total Volume	29	776	1	806	291	0	27	318	23	562	97	682	1	0	1	2
% App. Total	3.6	96.3	0.1		91.5	0	8.5		3.4	82.4	14.2		50	0	50	
PHF	.725	.915	.250	.912	.766	.000	.563	.743	.719	.937	.693	.958	.250	.000	.250	.500

Location: Redlands
 N/S: California Street
 E/W: Orange Tree Lane



Date: 2/17/2022
 Day: Thursday

PEDESTRIANS

	North Leg California Street	East Leg Orange Tree Lane	South Leg California Street	West Leg Orange Tree Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	1	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	1	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	2	4

	North Leg California Street	East Leg Orange Tree Lane	South Leg California Street	West Leg Orange Tree Lane	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	2	0	0	3
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	1	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	1	0	0	1	2
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	2	2	1	4	9

Location: Redlands
 N/S: California Street
 E/W: Orange Tree Lane



Date: 2/17/2022
 Day: Thursday

BICYCLES

	Southbound California Street			Westbound Orange Tree Lane			Northbound California Street			Eastbound Orange Tree Lane			
	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	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	0	0	0	0	0	0	2

	Southbound California Street			Westbound Orange Tree Lane			Northbound California Street			Eastbound Orange Tree Lane			
	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	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	2	0	0	0	0	0	4	0	0	0	0	6

City of Redlands
 N/S: Church Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 017_RED_Church_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Church Street Southbound				Citrus Avenue Westbound				Church Street Northbound				Citrus 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	10	47	29	86	21	50	6	77	5	24	19	48	14	75	6	95	306
04:15 PM	9	29	29	67	8	64	5	77	6	32	17	55	25	93	5	123	322
04:30 PM	22	33	24	79	17	45	3	65	4	30	16	50	12	81	4	97	291
04:45 PM	10	44	28	82	16	61	1	78	6	37	14	57	20	90	7	117	334
Total	51	153	110	314	62	220	15	297	21	123	66	210	71	339	22	432	1253
05:00 PM	16	47	30	93	14	65	5	84	5	40	18	63	23	109	4	136	376
05:15 PM	23	44	19	86	12	61	4	77	4	32	14	50	21	89	4	114	327
05:30 PM	13	26	13	52	6	57	1	64	7	19	6	32	27	80	5	112	260
05:45 PM	9	32	20	61	10	43	2	55	18	33	19	70	16	64	3	83	269
Total	61	149	82	292	42	226	12	280	34	124	57	215	87	342	16	445	1232
Grand Total	112	302	192	606	104	446	27	577	55	247	123	425	158	681	38	877	2485
Apprch %	18.5	49.8	31.7		18	77.3	4.7		12.9	58.1	28.9		18	77.7	4.3		
Total %	4.5	12.2	7.7	24.4	4.2	17.9	1.1	23.2	2.2	9.9	4.9	17.1	6.4	27.4	1.5	35.3	

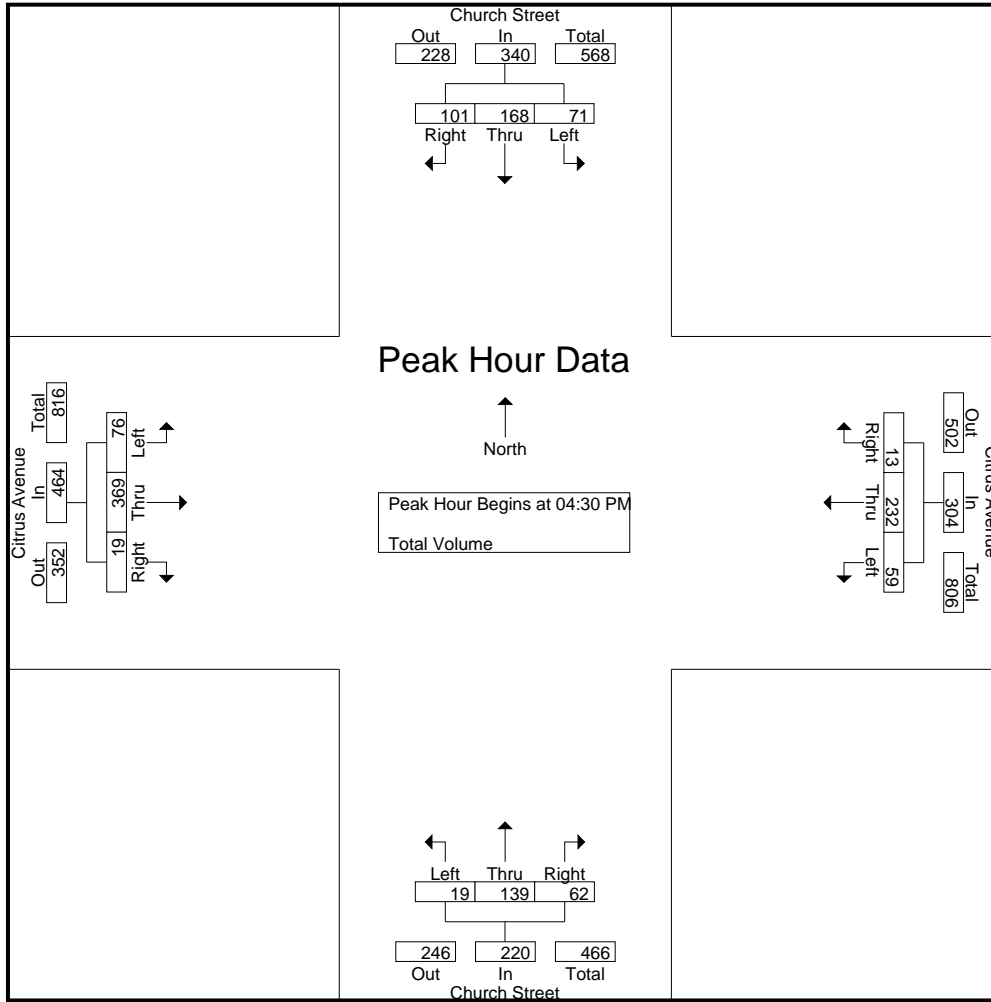
Start Time	Church Street Southbound				Citrus Avenue Westbound				Church Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	22	33	24	79	17	45	3	65	4	30	16	50	12	81	4	97	291
04:45 PM	10	44	28	82	16	61	1	78	6	37	14	57	20	90	7	117	334
05:00 PM	16	47	30	93	14	65	5	84	5	40	18	63	23	109	4	136	376
05:15 PM	23	44	19	86	12	61	4	77	4	32	14	50	21	89	4	114	327
Total Volume	71	168	101	340	59	232	13	304	19	139	62	220	76	369	19	464	1328
% App. Total	20.9	49.4	29.7		19.4	76.3	4.3		8.6	63.2	28.2		16.4	79.5	4.1		
PHF	.772	.894	.842	.914	.868	.892	.650	.905	.792	.869	.861	.873	.826	.846	.679	.853	.883

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 Redlands
 N/S: Church Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 017_RED_Church_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:15 PM				04:15 PM				04:45 PM			
+0 mins.	22	33	24	79	8	64	5	77	6	32	17	55	20	90	7	117
+15 mins.	10	44	28	82	17	45	3	65	4	30	16	50	23	109	4	136
+30 mins.	16	47	30	93	16	61	1	78	6	37	14	57	21	89	4	114
+45 mins.	23	44	19	86	14	65	5	84	5	40	18	63	27	80	5	112
Total Volume	71	168	101	340	55	235	14	304	21	139	65	225	91	368	20	479
% App. Total	20.9	49.4	29.7		18.1	77.3	4.6		9.3	61.8	28.9		19	76.8	4.2	
PHF	.772	.894	.842	.914	.809	.904	.700	.905	.875	.869	.903	.893	.843	.844	.714	.881

City of Redlands
 N/S: Judson Street/Ford Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 018_RED_Judson_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Judson Street Southbound				Citrus Avenue Westbound				Ford Street Northbound				Citrus 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	9	41	18	68	5	68	4	77	9	34	15	58	26	111	14	151	354
04:15 PM	3	38	22	63	7	43	6	56	10	34	16	60	27	113	16	156	335
04:30 PM	7	41	16	64	10	67	8	85	10	37	7	54	27	89	18	134	337
04:45 PM	8	42	25	75	8	71	6	85	7	44	8	59	40	113	11	164	383
Total	27	162	81	270	30	249	24	303	36	149	46	231	120	426	59	605	1409
05:00 PM	9	50	20	79	3	67	4	74	11	41	21	73	40	110	7	157	383
05:15 PM	4	38	17	59	3	59	4	66	9	31	13	53	31	99	7	137	315
05:30 PM	4	39	18	61	6	46	2	54	9	34	14	57	25	87	11	123	295
05:45 PM	5	47	18	70	3	52	1	56	13	33	11	57	28	83	8	119	302
Total	22	174	73	269	15	224	11	250	42	139	59	240	124	379	33	536	1295
Grand Total	49	336	154	539	45	473	35	553	78	288	105	471	244	805	92	1141	2704
Apprch %	9.1	62.3	28.6		8.1	85.5	6.3		16.6	61.1	22.3		21.4	70.6	8.1		
Total %	1.8	12.4	5.7	19.9	1.7	17.5	1.3	20.5	2.9	10.7	3.9	17.4	9	29.8	3.4	42.2	

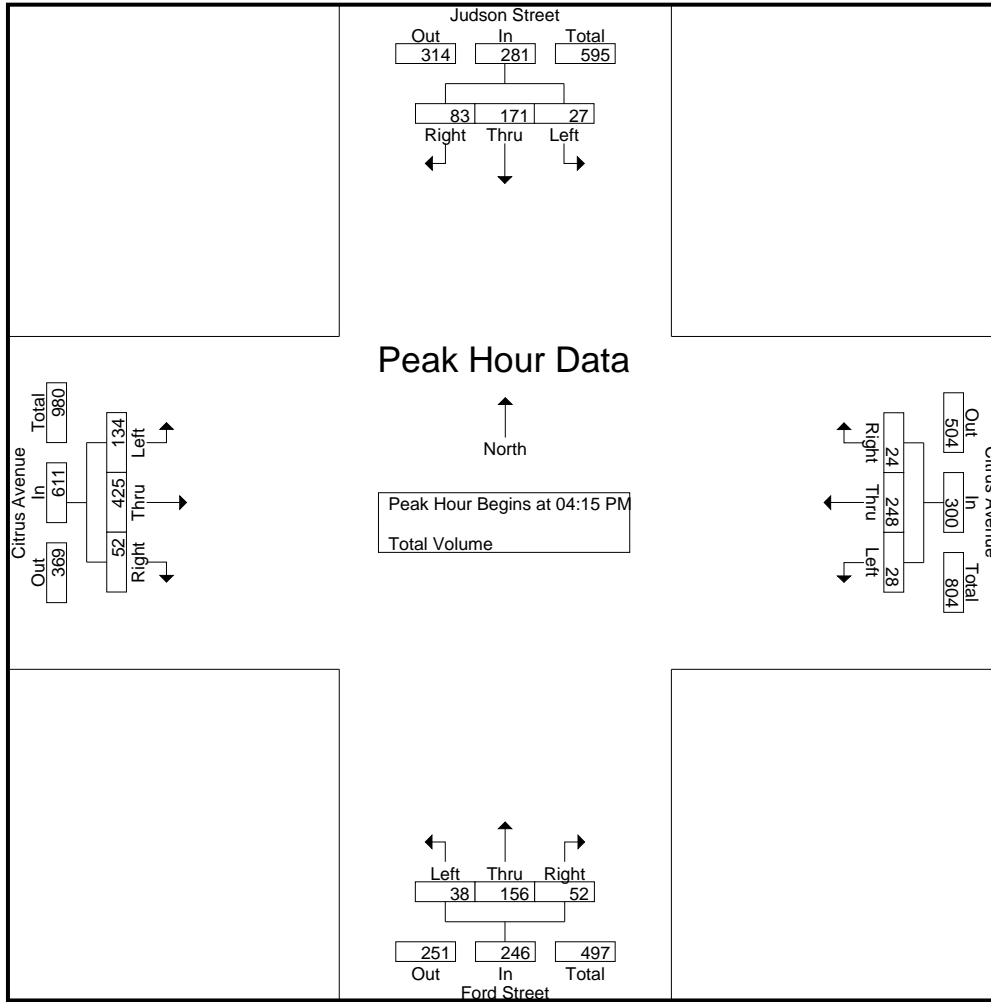
Start Time	Judson Street Southbound				Citrus Avenue Westbound				Ford Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	3	38	22	63	7	43	6	56	10	34	16	60	27	113	16	156	335
04:30 PM	7	41	16	64	10	67	8	85	10	37	7	54	27	89	18	134	337
04:45 PM	8	42	25	75	8	71	6	85	7	44	8	59	40	113	11	164	383
05:00 PM	9	50	20	79	3	67	4	74	11	41	21	73	40	110	7	157	383
Total Volume	27	171	83	281	28	248	24	300	38	156	52	246	134	425	52	611	1438
% App. Total	9.6	60.9	29.5		9.3	82.7	8		15.4	63.4	21.1		21.9	69.6	8.5		
PHF	.750	.855	.830	.889	.700	.873	.750	.882	.864	.886	.619	.842	.838	.940	.722	.931	.939

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Judson Street/Ford Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 018_RED_Judson_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:30 PM				04:15 PM				04:15 PM			
+0 mins.	3	38	22	63	10	67	8	85	10	34	16	60	27	113	16	156
+15 mins.	7	41	16	64	8	71	6	85	10	37	7	54	27	89	18	134
+30 mins.	8	42	25	75	3	67	4	74	7	44	8	59	40	113	11	164
+45 mins.	9	50	20	79	3	59	4	66	11	41	21	73	40	110	7	157
Total Volume	27	171	83	281	24	264	22	310	38	156	52	246	134	425	52	611
% App. Total	9.6	60.9	29.5		7.7	85.2	7.1		15.4	63.4	21.1		21.9	69.6	8.5	
PHF	.750	.855	.830	.889	.600	.930	.688	.912	.864	.886	.619	.842	.838	.940	.722	.931

City of Redlands
 N/S: Orange Street/Cajon Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 19_RED_Orange_Citrus PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

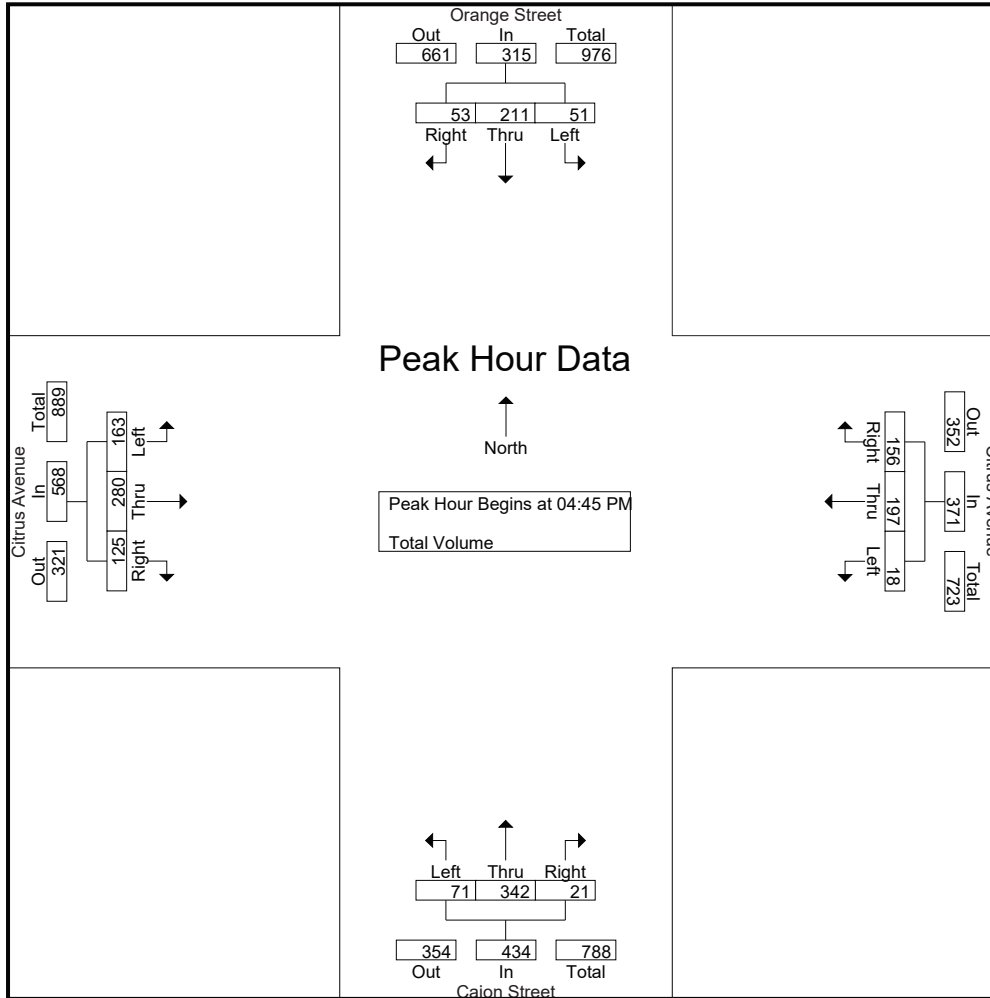
Groups Printed- Total Volume

Start Time	Orange Street Southbound					Citrus Avenue Westbound					Cajon Street Northbound					Citrus Avenue Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	12	42	10	2	64	7	39	39	6	85	11	78	7	1	96	39	70	29	12	138	21	383	404
04:15 PM	6	51	11	3	68	6	39	28	13	73	16	66	4	1	86	26	69	30	13	125	30	352	382
04:30 PM	9	54	11	4	74	3	44	25	7	72	13	74	7	1	94	30	68	29	11	127	23	367	390
04:45 PM	12	52	10	2	74	8	44	39	4	91	22	84	6	1	112	34	74	32	9	140	16	417	433
Total	39	199	42	11	280	24	166	131	30	321	62	302	24	4	388	129	281	120	45	530	90	1519	1609
05:00 PM	10	54	12	3	76	6	50	37	6	93	18	96	4	1	118	46	76	27	9	149	19	436	455
05:15 PM	12	54	14	2	80	2	57	29	8	88	15	86	4	1	105	44	76	33	10	153	21	426	447
05:30 PM	17	51	17	4	85	2	46	51	10	99	16	76	7	2	99	39	54	33	11	126	27	409	436
05:45 PM	11	49	15	2	75	8	40	36	7	84	20	56	8	1	84	21	50	23	5	94	15	337	352
Total	50	208	58	11	316	18	193	153	31	364	69	314	23	5	406	150	256	116	35	522	82	1608	1690
Grand Total	89	407	100	22	596	42	359	284	61	685	131	616	47	9	794	279	537	236	80	1052	172	3127	3299
Apprch %	14.9	68.3	16.8			6.1	52.4	41.5			16.5	77.6	5.9			26.5	51	22.4					
Total %	2.8	13	3.2		19.1	1.3	11.5	9.1		21.9	4.2	19.7	1.5		25.4	8.9	17.2	7.5		33.6	5.2	94.8	

Start Time	Orange Street Southbound				Citrus Avenue Westbound				Cajon Street Northbound				Citrus 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 04:45 PM																	
04:45 PM	12	52	10	74	8	44	39	91	22	84	6	112	34	74	32	140	417
05:00 PM	10	54	12	76	6	50	37	93	18	96	4	118	46	76	27	149	436
05:15 PM	12	54	14	80	2	57	29	88	15	86	4	105	44	76	33	153	426
05:30 PM	17	51	17	85	2	46	51	99	16	76	7	99	39	54	33	126	409
Total Volume	51	211	53	315	18	197	156	371	71	342	21	434	163	280	125	568	1688
% App. Total	16.2	67	16.8		4.9	53.1	42		16.4	78.8	4.8		28.7	49.3	22		
PHF	.750	.977	.779	.926	.563	.864	.765	.937	.807	.891	.750	.919	.886	.921	.947	.928	.968

City of Redlands
 N/S: Orange Street/Cajon Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 19_RED_Orange_Citrus PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 2



Location: Redlands
 N/S: Orange Street/Cajon Street
 E/W: Citrus Avenue



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Orange Street	East Leg Citrus Avenue	South Leg Cajon Street	West Leg Citrus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	2	5	2	1	10
7:30 AM	2	0	3	2	7
7:45 AM	5	4	2	4	15
8:00 AM	3	2	1	0	6
8:15 AM	4	1	2	1	8
8:30 AM	4	4	2	1	11
8:45 AM	3	3	4	2	12
TOTAL VOLUMES:	23	19	16	11	69

	North Leg Orange Street	East Leg Citrus Avenue	South Leg Cajon Street	West Leg Citrus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	12	7	4	4	27
4:15 PM	13	6	1	1	21
4:30 PM	6	1	1	0	8
4:45 PM	15	2	0	2	19
5:00 PM	17	3	0	3	23
5:15 PM	15	3	2	0	20
5:30 PM	15	2	0	2	19
5:45 PM	9	5	1	0	15
TOTAL VOLUMES:	102	29	9	12	152

Location: Redlands
 N/S: Orange Street/Cajon Street
 E/W: Citrus Avenue



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Orange Street			Westbound Citrus Avenue			Northbound Cajon Street			Eastbound Citrus Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	2	0	0	1	0	1	0	0	4
8:45 AM	0	1	0	0	0	0	0	0	0	0	1	1	3
TOTAL VOLUMES:	0	2	0	0	5	0	0	1	0	1	3	1	13

	Southbound Orange Street			Westbound Citrus Avenue			Northbound Cajon Street			Eastbound Citrus 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	1	0	1
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	2	0	0	1	0	0	1	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	0	1	0	0	4	0	0	1	0	0	3	1	10

City of Redlands
 N/S: University Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 020_RED_Uni_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	University Street Southbound				Citrus Avenue Westbound				University Street Northbound				Citrus 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	74	38	27	139	4	38	52	94	4	33	0	37	21	74	14	109	379
04:15 PM	59	37	24	120	1	39	37	77	1	36	1	38	25	78	8	111	346
04:30 PM	48	33	18	99	3	45	32	80	3	27	0	30	21	90	16	127	336
04:45 PM	67	47	21	135	0	58	55	113	2	40	1	43	23	81	10	114	405
Total	248	155	90	493	8	180	176	364	10	136	2	148	90	323	48	461	1466
05:00 PM	56	46	24	126	3	52	52	107	3	31	0	34	23	108	10	141	408
05:15 PM	57	49	20	126	3	48	51	102	2	31	0	33	21	90	16	127	388
05:30 PM	57	30	16	103	1	43	46	90	2	27	1	30	21	87	11	119	342
05:45 PM	58	39	15	112	4	39	38	81	5	31	0	36	18	64	10	92	321
Total	228	164	75	467	11	182	187	380	12	120	1	133	83	349	47	479	1459
Grand Total	476	319	165	960	19	362	363	744	22	256	3	281	173	672	95	940	2925
Apprch %	49.6	33.2	17.2		2.6	48.7	48.8		7.8	91.1	1.1		18.4	71.5	10.1		
Total %	16.3	10.9	5.6	32.8	0.6	12.4	12.4	25.4	0.8	8.8	0.1	9.6	5.9	23	3.2	32.1	

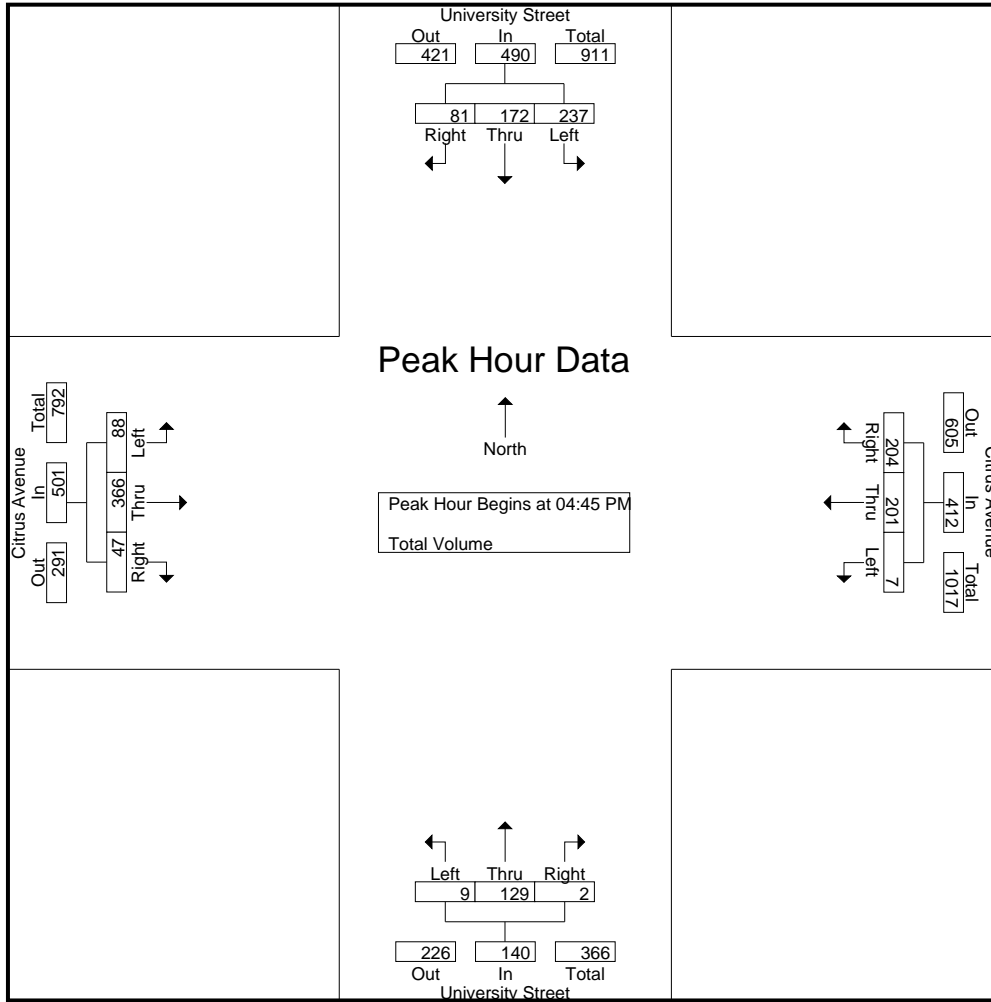
Start Time	University Street Southbound				Citrus Avenue Westbound				University Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	67	47	21	135	0	58	55	113	2	40	1	43	23	81	10	114	405
05:00 PM	56	46	24	126	3	52	52	107	3	31	0	34	23	108	10	141	408
05:15 PM	57	49	20	126	3	48	51	102	2	31	0	33	21	90	16	127	388
05:30 PM	57	30	16	103	1	43	46	90	2	27	1	30	21	87	11	119	342
Total Volume	237	172	81	490	7	201	204	412	9	129	2	140	88	366	47	501	1543
% App. Total	48.4	35.1	16.5		1.7	48.8	49.5		6.4	92.1	1.4		17.6	73.1	9.4		
PHF	.884	.878	.844	.907	.583	.866	.927	.912	.750	.806	.500	.814	.957	.847	.734	.888	.945

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: University Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 020_RED_Uni_Citrus PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				04:45 PM				04:00 PM				04:30 PM			
+0 mins.	74	38	27	139	0	58	55	113	4	33	0	37	21	90	16	127
+15 mins.	59	37	24	120	3	52	52	107	1	36	1	38	23	81	10	114
+30 mins.	48	33	18	99	3	48	51	102	3	27	0	30	23	108	10	141
+45 mins.	67	47	21	135	1	43	46	90	2	40	1	43	21	90	16	127
Total Volume	248	155	90	493	7	201	204	412	10	136	2	148	88	369	52	509
% App. Total	50.3	31.4	18.3		1.7	48.8	49.5		6.8	91.9	1.4		17.3	72.5	10.2	
PHF	.838	.824	.833	.887	.583	.866	.927	.912	.625	.850	.500	.860	.957	.854	.813	.902

City of Redlands
 N/S: Church Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 021_RED_Church_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Church Street Southbound				Colton Avenue Westbound				Church Street Northbound				Colton 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	3	53	32	88	12	35	2	49	12	56	16	84	33	91	4	128	349
04:15 PM	2	56	26	84	3	46	7	56	13	63	16	92	36	68	7	111	343
04:30 PM	4	46	22	72	10	43	2	55	8	61	28	97	39	79	14	132	356
04:45 PM	3	62	21	86	4	46	7	57	8	58	21	87	31	70	17	118	348
Total	12	217	101	330	29	170	18	217	41	238	81	360	139	308	42	489	1396
05:00 PM	2	54	22	78	9	38	3	50	9	85	20	114	34	80	8	122	364
05:15 PM	2	50	20	72	3	47	4	54	12	70	17	99	34	86	4	124	349
05:30 PM	4	38	23	65	5	51	8	64	4	50	14	68	23	73	8	104	301
05:45 PM	5	48	17	70	8	37	7	52	8	62	14	84	32	66	4	102	308
Total	13	190	82	285	25	173	22	220	33	267	65	365	123	305	24	452	1322
Grand Total	25	407	183	615	54	343	40	437	74	505	146	725	262	613	66	941	2718
Apprch %	4.1	66.2	29.8		12.4	78.5	9.2		10.2	69.7	20.1		27.8	65.1	7		
Total %	0.9	15	6.7	22.6	2	12.6	1.5	16.1	2.7	18.6	5.4	26.7	9.6	22.6	2.4	34.6	

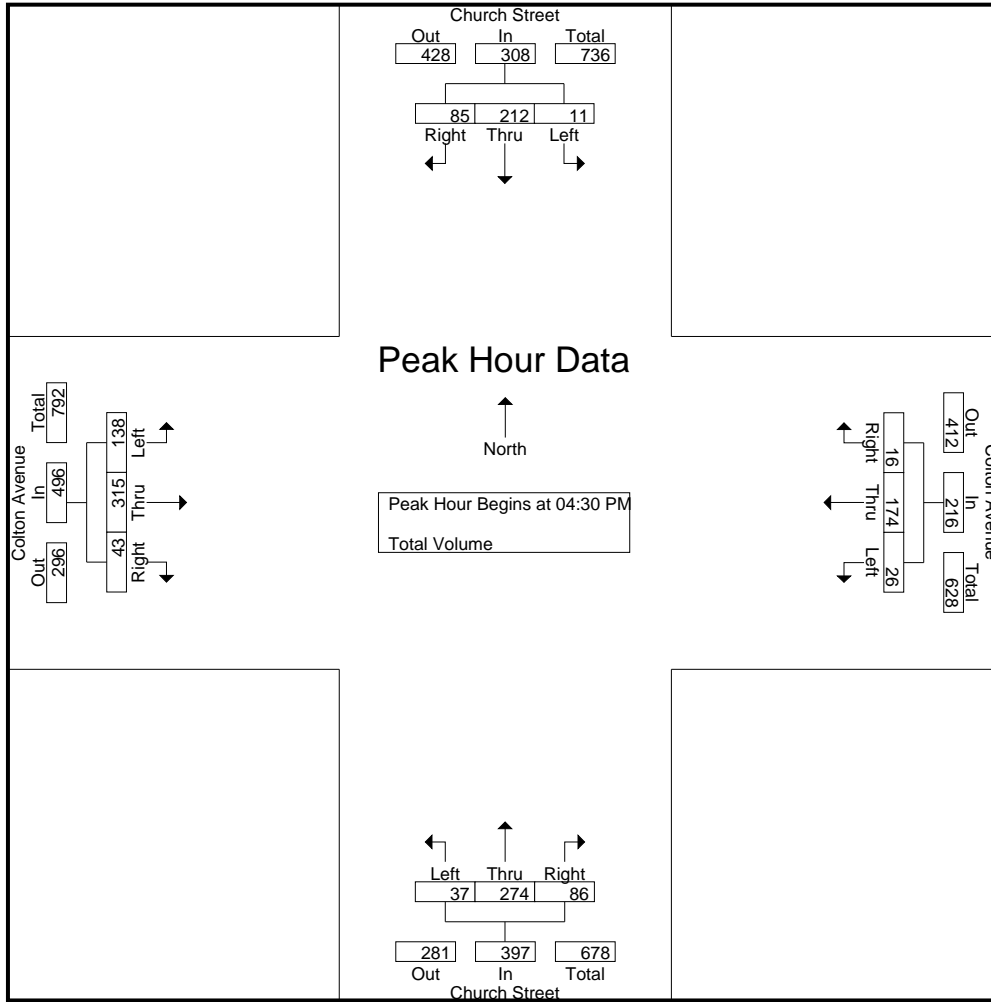
Start Time	Church Street Southbound				Colton Avenue Westbound				Church Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	4	46	22	72	10	43	2	55	8	61	28	97	39	79	14	132	356
04:45 PM	3	62	21	86	4	46	7	57	8	58	21	87	31	70	17	118	348
05:00 PM	2	54	22	78	9	38	3	50	9	85	20	114	34	80	8	122	364
05:15 PM	2	50	20	72	3	47	4	54	12	70	17	99	34	86	4	124	349
Total Volume	11	212	85	308	26	174	16	216	37	274	86	397	138	315	43	496	1417
% App. Total	3.6	68.8	27.6		12	80.6	7.4		9.3	69	21.7		27.8	63.5	8.7		
PHF	.688	.855	.966	.895	.650	.926	.571	.947	.771	.806	.768	.871	.885	.916	.632	.939	.973

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 Redlands
 N/S: Church Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 021_RED_Church_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				04:45 PM				04:30 PM				04:30 PM			
+0 mins.	3	53	32	88	4	46	7	57	8	61	28	97	39	79	14	132
+15 mins.	2	56	26	84	9	38	3	50	8	58	21	87	31	70	17	118
+30 mins.	4	46	22	72	3	47	4	54	9	85	20	114	34	80	8	122
+45 mins.	3	62	21	86	5	51	8	64	12	70	17	99	34	86	4	124
Total Volume	12	217	101	330	21	182	22	225	37	274	86	397	138	315	43	496
% App. Total	3.6	65.8	30.6		9.3	80.9	9.8		9.3	69	21.7		27.8	63.5	8.7	
PHF	.750	.875	.789	.938	.583	.892	.688	.879	.771	.806	.768	.871	.885	.916	.632	.939

City of Redlands
 N/S: Eureka Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 022_RED_Eur_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Private Driveway Southbound				Colton Avenue Westbound				Eureka Street Northbound				Colton 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	11	69	0	80	23	0	36	59	0	138	15	153	292
04:15 PM	0	0	0	0	11	78	0	89	30	0	38	68	0	154	17	171	328
04:30 PM	0	0	0	0	17	80	0	97	17	0	31	48	0	131	15	146	291
04:45 PM	0	0	0	0	13	58	0	71	23	0	40	63	0	153	10	163	297
Total	0	0	0	0	52	285	0	337	93	0	145	238	0	576	57	633	1208
05:00 PM	0	0	0	0	10	80	0	90	19	0	35	54	0	136	15	151	295
05:15 PM	0	0	0	0	19	93	0	112	26	0	30	56	0	165	15	180	348
05:30 PM	0	0	0	0	18	74	0	92	14	0	33	47	0	116	13	129	268
05:45 PM	0	0	0	0	12	71	0	83	32	1	37	70	0	124	11	135	288
Total	0	0	0	0	59	318	0	377	91	1	135	227	0	541	54	595	1199
Grand Total	0	0	0	0	111	603	0	714	184	1	280	465	0	1117	111	1228	2407
Apprch %	0	0	0	0	15.5	84.5	0	71.4	39.6	0.2	60.2	65.1	0	91	9	100	
Total %	0	0	0	0	4.6	25.1	0	29.7	7.6	0	11.6	19.3	0	46.4	4.6	51	

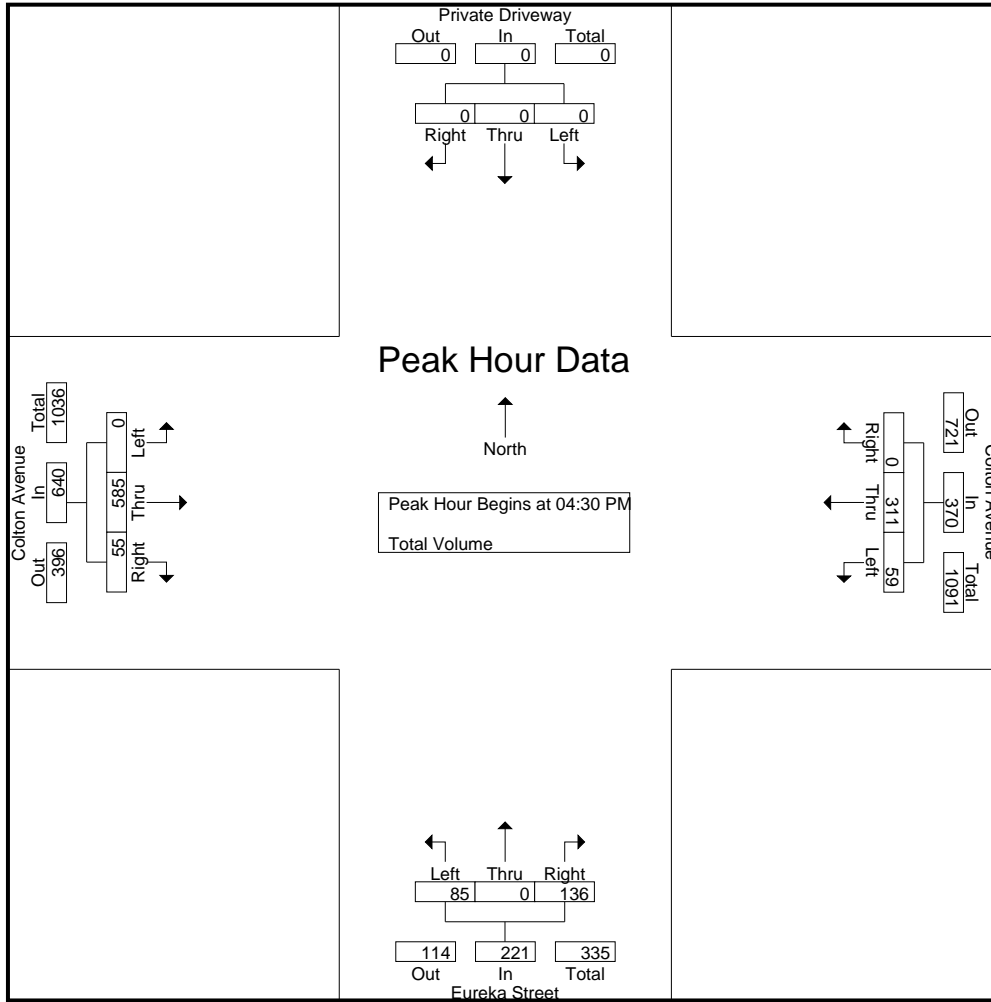
Start Time	Private Driveway Southbound				Colton Avenue Westbound				Eureka Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	0	0	0	0	17	80	0	97	17	0	31	48	0	131	15	146	291
04:45 PM	0	0	0	0	13	58	0	71	23	0	40	63	0	153	10	163	297
05:00 PM	0	0	0	0	10	80	0	90	19	0	35	54	0	136	15	151	295
05:15 PM	0	0	0	0	19	93	0	112	26	0	30	56	0	165	15	180	348
Total Volume	0	0	0	0	59	311	0	370	85	0	136	221	0	585	55	640	1231
% App. Total	0	0	0	0	15.9	84.1	0	71.4	38.5	0	61.5	65.1	0	91.4	8.6	100	
PHF	.000	.000	.000	.000	.776	.836	.000	.826	.817	.000	.850	.877	.000	.886	.917	.889	.884

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 Redlands
 N/S: Eureka Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 022_RED_Eur_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	0	0	0	10	80	0	90	23	0	36	59	0	131	15	146
+15 mins.	0	0	0	0	19	93	0	112	30	0	38	68	0	153	10	163
+30 mins.	0	0	0	0	18	74	0	92	17	0	31	48	0	136	15	151
+45 mins.	0	0	0	0	12	71	0	83	23	0	40	63	0	165	15	180
Total Volume	0	0	0	0	59	318	0	377	93	0	145	238	0	585	55	640
% App. Total	0	0	0	0	15.6	84.4	0		39.1	0	60.9		0	91.4	8.6	
PHF	.000	.000	.000	.000	.776	.855	.000	.842	.775	.000	.906	.875	.000	.886	.917	.889

City of Redlands
 N/S: Industrial Park Avenue
 E/W: Colton Avenue
 Weather: Clear

File Name : 023_RED_Ind_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Industrial Park Avenue Southbound				Colton Avenue Westbound				Arby's Driveway Northbound				Colton 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	71	0	6	77	0	86	56	142	1	2	6	9	6	105	0	111	339
04:15 PM	83	1	8	92	0	82	69	151	0	0	3	3	2	85	0	87	333
04:30 PM	71	0	8	79	0	62	50	112	0	0	0	0	2	86	0	88	279
04:45 PM	69	0	6	75	0	80	43	123	0	1	1	2	5	84	0	89	289
Total	294	1	28	323	0	310	218	528	1	3	10	14	15	360	0	375	1240
05:00 PM	69	0	11	80	0	75	27	102	0	0	3	3	6	112	0	118	303
05:15 PM	82	0	7	89	0	59	36	95	1	1	4	6	6	86	0	92	282
05:30 PM	63	0	4	67	0	78	42	120	1	0	2	3	3	87	0	90	280
05:45 PM	47	0	5	52	0	57	46	103	1	0	4	5	0	93	0	93	253
Total	261	0	27	288	0	269	151	420	3	1	13	17	15	378	0	393	1118
Grand Total	555	1	55	611	0	579	369	948	4	4	23	31	30	738	0	768	2358
Apprch %	90.8	0.2	9		0	61.1	38.9		12.9	12.9	74.2		3.9	96.1	0		
Total %	23.5	0	2.3	25.9	0	24.6	15.6	40.2	0.2	0.2	1	1.3	1.3	31.3	0	32.6	

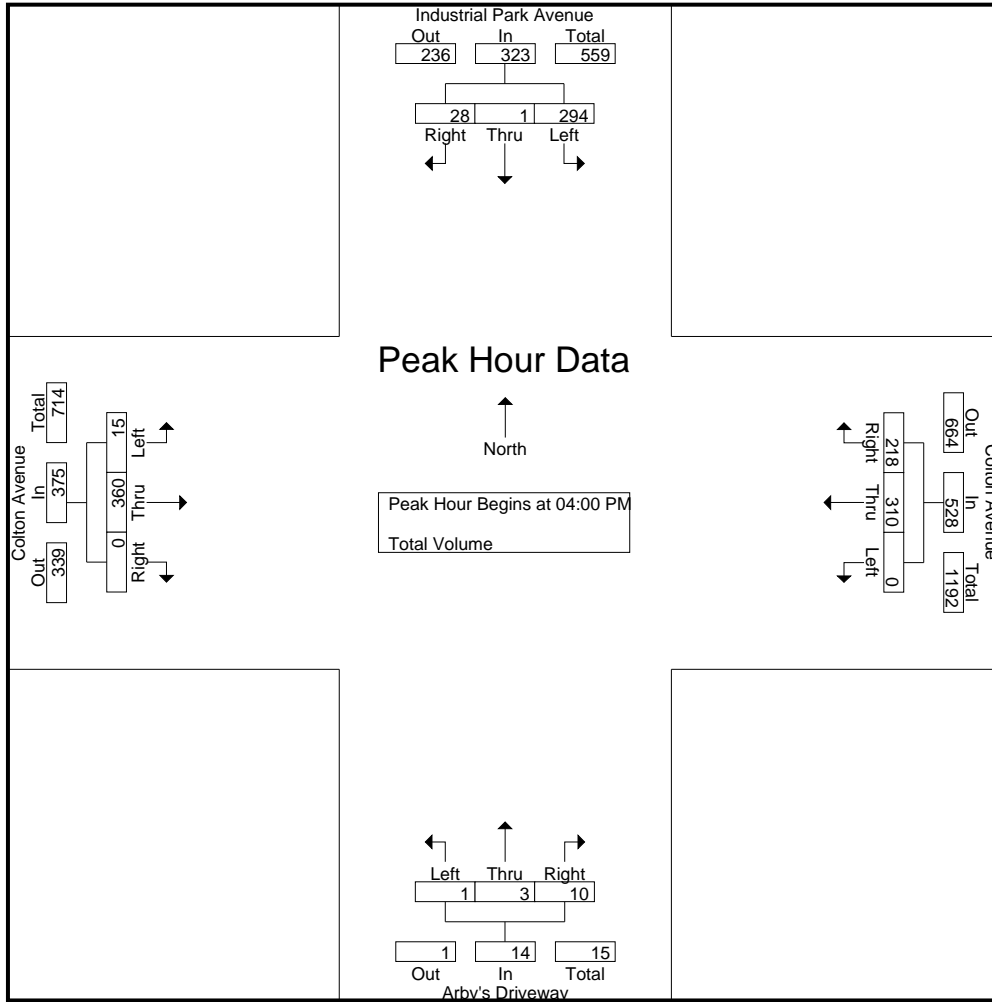
Start Time	Industrial Park Avenue Southbound				Colton Avenue Westbound				Arby's Driveway Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	71	0	6	77	0	86	56	142	1	2	6	9	6	105	0	111	339
04:15 PM	83	1	8	92	0	82	69	151	0	0	3	3	2	85	0	87	333
04:30 PM	71	0	8	79	0	62	50	112	0	0	0	0	2	86	0	88	279
04:45 PM	69	0	6	75	0	80	43	123	0	1	1	2	5	84	0	89	289
Total Volume	294	1	28	323	0	310	218	528	1	3	10	14	15	360	0	375	1240
% App. Total	91	0.3	8.7		0	58.7	41.3		7.1	21.4	71.4		4	96	0		
PHF	.886	.250	.875	.878	.000	.901	.790	.874	.250	.375	.417	.389	.625	.857	.000	.845	.914

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

City of Redlands
 N/S: Industrial Park Avenue
 E/W: Colton Avenue
 Weather: Clear

File Name : 023_RED_Ind_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	83	1	8	92	0	86	56	142	0	0	3	3	6	112	0	118
+15 mins.	71	0	8	79	0	82	69	151	1	1	4	6	6	86	0	92
+30 mins.	69	0	6	75	0	62	50	112	1	0	2	3	3	87	0	90
+45 mins.	69	0	11	80	0	80	43	123	1	0	4	5	0	93	0	93
Total Volume	292	1	33	326	0	310	218	528	3	1	13	17	15	378	0	393
% App. Total	89.6	0.3	10.1		0	58.7	41.3		17.6	5.9	76.5		3.8	96.2	0	
PHF	.880	.250	.750	.886	.000	.901	.790	.874	.750	.250	.813	.708	.625	.844	.000	.833

City of Redlands
 N/S: New York Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 024_RED_NY_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	New York Street Southbound				Colton Avenue Westbound				New York Street Northbound				Colton 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	18	16	21	55	2	73	17	92	5	14	1	20	24	139	21	184	351
04:15 PM	27	18	23	68	0	88	17	105	5	12	1	18	19	147	18	184	375
04:30 PM	18	23	17	58	4	79	17	100	5	8	0	13	15	151	18	184	355
04:45 PM	15	26	13	54	2	68	17	87	6	7	3	16	25	169	27	221	378
Total	78	83	74	235	8	308	68	384	21	41	5	67	83	606	84	773	1459
05:00 PM	15	24	14	53	6	73	12	91	13	19	1	33	29	151	21	201	378
05:15 PM	24	33	12	69	2	57	19	78	8	13	2	23	18	171	20	209	379
05:30 PM	19	24	17	60	4	73	17	94	4	12	0	16	22	157	20	199	369
05:45 PM	16	17	12	45	1	58	13	72	4	9	0	13	18	126	16	160	290
Total	74	98	55	227	13	261	61	335	29	53	3	85	87	605	77	769	1416
Grand Total	152	181	129	462	21	569	129	719	50	94	8	152	170	1211	161	1542	2875
Apprch %	32.9	39.2	27.9		2.9	79.1	17.9		32.9	61.8	5.3		11	78.5	10.4		
Total %	5.3	6.3	4.5	16.1	0.7	19.8	4.5	25	1.7	3.3	0.3	5.3	5.9	42.1	5.6	53.6	

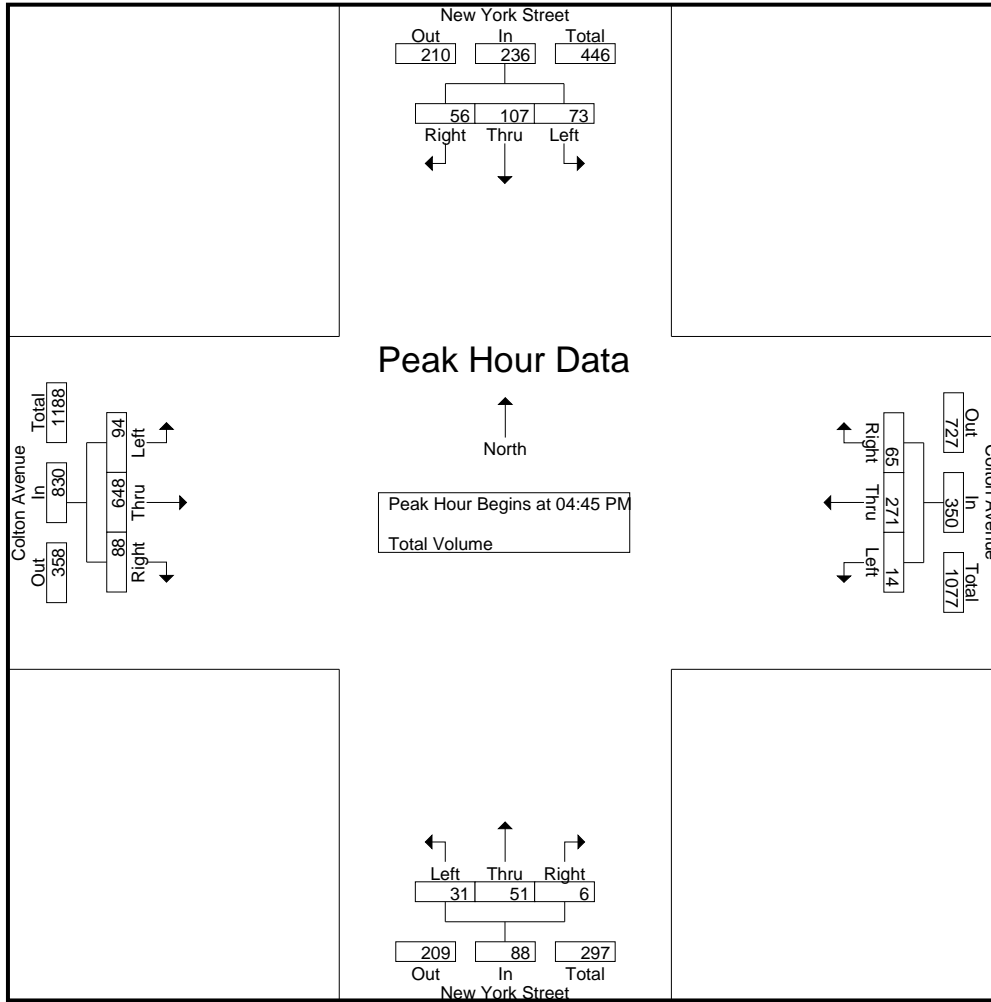
Start Time	New York Street Southbound				Colton Avenue Westbound				New York Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	15	26	13	54	2	68	17	87	6	7	3	16	25	169	27	221	378
05:00 PM	15	24	14	53	6	73	12	91	13	19	1	33	29	151	21	201	378
05:15 PM	24	33	12	69	2	57	19	78	8	13	2	23	18	171	20	209	379
05:30 PM	19	24	17	60	4	73	17	94	4	12	0	16	22	157	20	199	369
Total Volume	73	107	56	236	14	271	65	350	31	51	6	88	94	648	88	830	1504
% App. Total	30.9	45.3	23.7		4	77.4	18.6		35.2	58	6.8		11.3	78.1	10.6		
PHF	.760	.811	.824	.855	.583	.928	.855	.931	.596	.671	.500	.667	.810	.947	.815	.939	.992

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: New York Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 024_RED_NY_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:00 PM				04:45 PM				04:45 PM			
+0 mins.	15	26	13	54	2	73	17	92	6	7	3	16	25	169	27	221
+15 mins.	15	24	14	53	0	88	17	105	13	19	1	33	29	151	21	201
+30 mins.	24	33	12	69	4	79	17	100	8	13	2	23	18	171	20	209
+45 mins.	19	24	17	60	2	68	17	87	4	12	0	16	22	157	20	199
Total Volume	73	107	56	236	8	308	68	384	31	51	6	88	94	648	88	830
% App. Total	30.9	45.3	23.7		2.1	80.2	17.7		35.2	58	6.8		11.3	78.1	10.6	
PHF	.760	.811	.824	.855	.500	.875	1.000	.914	.596	.671	.500	.667	.810	.947	.815	.939

City of Redlands
 N/S: Orange Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 025_RED_Org_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				Colton Avenue Westbound				Orange Street Northbound				Colton 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	17	135	11	163	37	60	30	127	11	107	17	135	28	103	42	173	598
04:15 PM	25	119	18	162	37	53	17	107	14	85	13	112	27	106	44	177	558
04:30 PM	26	140	10	176	36	67	20	123	14	105	25	144	32	116	31	179	622
04:45 PM	24	132	15	171	23	58	30	111	7	94	17	118	24	101	35	160	560
Total	92	526	54	672	133	238	97	468	46	391	72	509	111	426	152	689	2338
05:00 PM	26	130	11	167	32	53	19	104	11	94	14	119	19	113	23	155	545
05:15 PM	24	115	14	153	28	84	31	143	9	97	22	128	38	112	38	188	612
05:30 PM	21	116	10	147	26	73	26	125	10	93	22	125	30	91	29	150	547
05:45 PM	25	110	5	140	26	57	14	97	7	82	20	109	24	103	20	147	493
Total	96	471	40	607	112	267	90	469	37	366	78	481	111	419	110	640	2197
Grand Total	188	997	94	1279	245	505	187	937	83	757	150	990	222	845	262	1329	4535
Apprch %	14.7	78	7.3		26.1	53.9	20		8.4	76.5	15.2		16.7	63.6	19.7		
Total %	4.1	22	2.1	28.2	5.4	11.1	4.1	20.7	1.8	16.7	3.3	21.8	4.9	18.6	5.8	29.3	

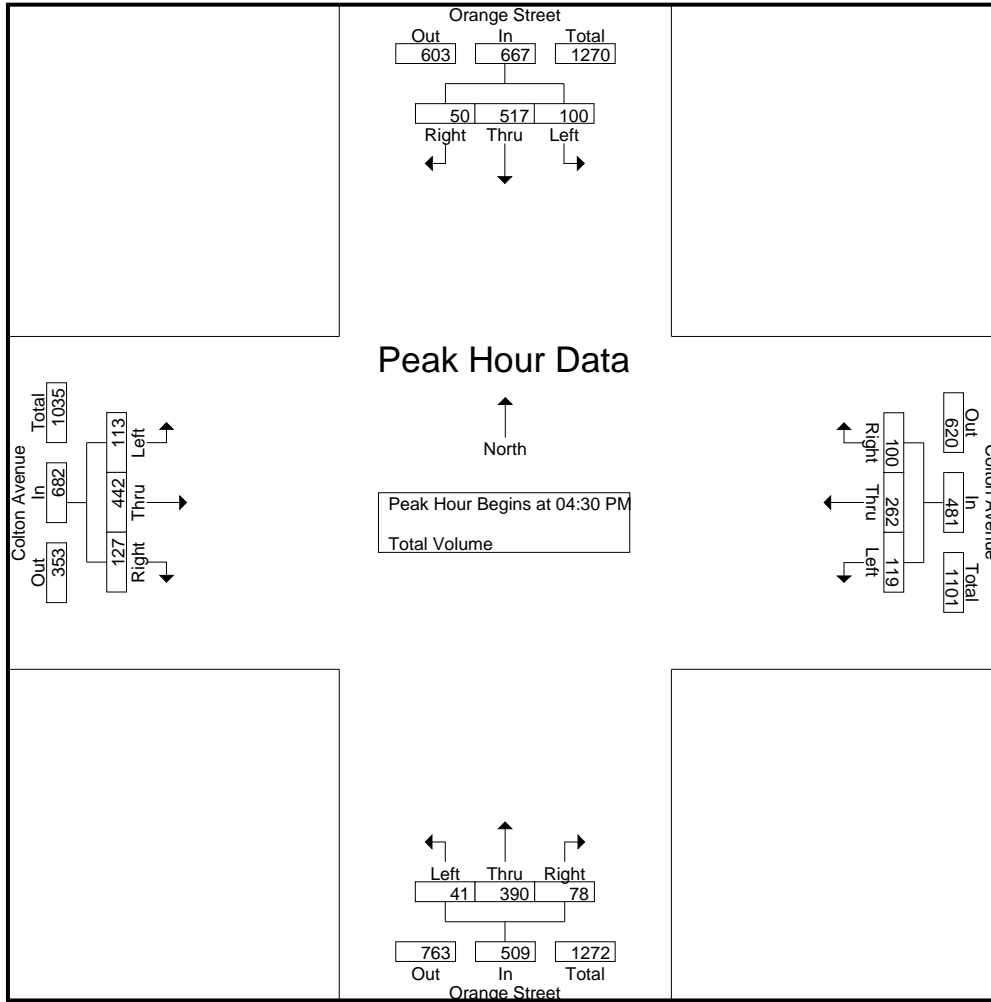
Start Time	Orange Street Southbound				Colton Avenue Westbound				Orange Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	26	140	10	176	36	67	20	123	14	105	25	144	32	116	31	179	622
04:45 PM	24	132	15	171	23	58	30	111	7	94	17	118	24	101	35	160	560
05:00 PM	26	130	11	167	32	53	19	104	11	94	14	119	19	113	23	155	545
05:15 PM	24	115	14	153	28	84	31	143	9	97	22	128	38	112	38	188	612
Total Volume	100	517	50	667	119	262	100	481	41	390	78	509	113	442	127	682	2339
% App. Total	15	77.5	7.5		24.7	54.5	20.8		8.1	76.6	15.3		16.6	64.8	18.6		
PHF	.962	.923	.833	.947	.826	.780	.806	.841	.732	.929	.780	.884	.743	.953	.836	.907	.940

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

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Redlands
 N/S: Orange Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 025_RED_Org_Colton PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:45 PM				04:00 PM				04:00 PM			
+0 mins.	25	119	18	162	23	58	30	111	11	107	17	135	28	103	42	173
+15 mins.	26	140	10	176	32	53	19	104	14	85	13	112	27	106	44	177
+30 mins.	24	132	15	171	28	84	31	143	14	105	25	144	32	116	31	179
+45 mins.	26	130	11	167	26	73	26	125	7	94	17	118	24	101	35	160
Total Volume	101	521	54	676	109	268	106	483	46	391	72	509	111	426	152	689
% App. Total	14.9	77.1	8		22.6	55.5	21.9		9	76.8	14.1		16.1	61.8	22.1	
PHF	.971	.930	.750	.960	.852	.798	.855	.844	.821	.914	.720	.884	.867	.918	.864	.962

City of Redlands
 N/S: Tennessee Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 11C_RED_Ten_Colt PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

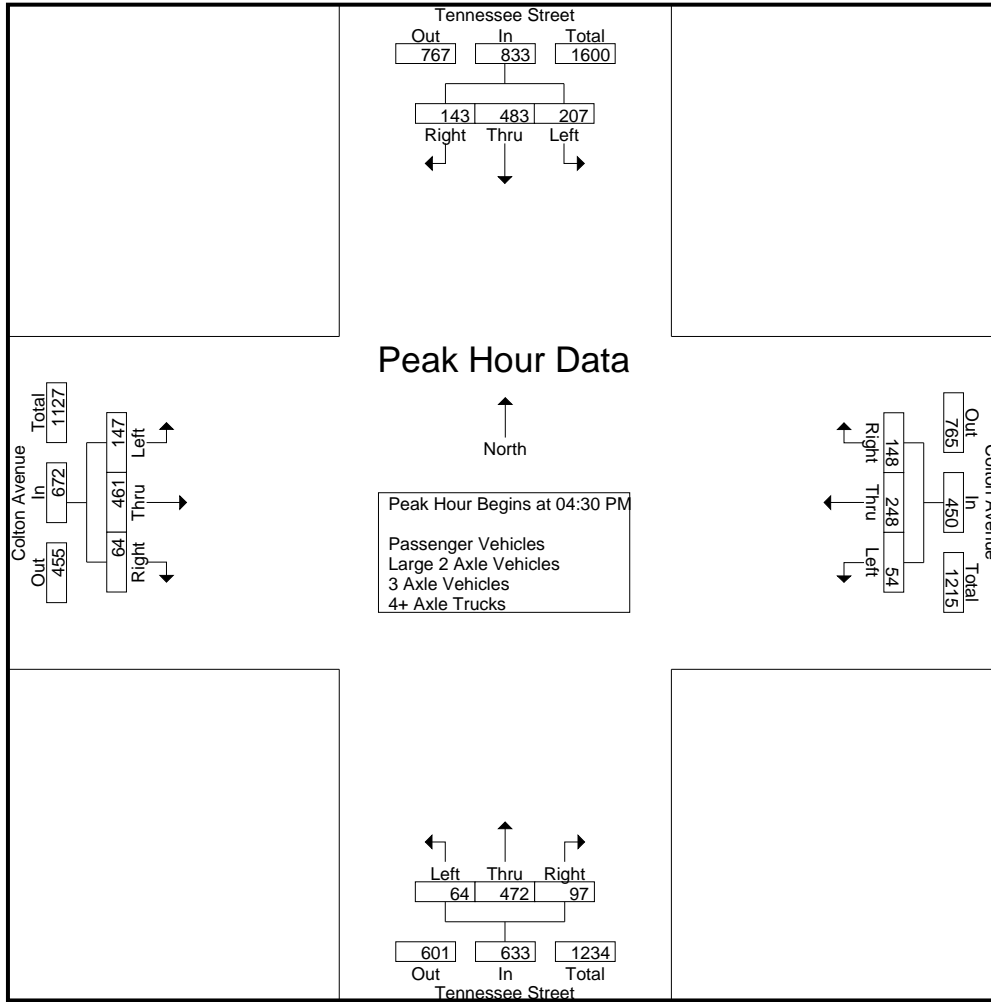
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Tennessee Street Southbound				Colton Avenue Westbound				Tennessee Street Northbound				Colton 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	30	106	46	182	16	75	38	129	22	131	21	174	36	105	15	156	641
04:15 PM	48	107	39	194	8	69	36	113	15	118	20	153	40	92	11	143	603
04:30 PM	48	90	46	184	17	58	39	114	18	115	24	157	36	111	12	159	614
04:45 PM	54	135	33	222	17	47	33	97	12	103	22	137	36	104	21	161	617
Total	180	438	164	782	58	249	146	453	67	467	87	621	148	412	59	619	2475
05:00 PM	48	120	28	196	10	69	47	126	13	119	20	152	37	118	17	172	646
05:15 PM	57	138	36	231	10	74	29	113	21	135	31	187	38	128	14	180	711
05:30 PM	46	110	33	189	18	45	29	92	13	122	22	157	48	112	12	172	610
05:45 PM	55	120	36	211	9	43	28	80	20	101	14	135	39	78	15	132	558
Total	206	488	133	827	47	231	133	411	67	477	87	631	162	436	58	656	2525
Grand Total	386	926	297	1609	105	480	279	864	134	944	174	1252	310	848	117	1275	5000
Apprch %	24	57.6	18.5		12.2	55.6	32.3		10.7	75.4	13.9		24.3	66.5	9.2		
Total %	7.7	18.5	5.9	32.2	2.1	9.6	5.6	17.3	2.7	18.9	3.5	25	6.2	17	2.3	25.5	
Passenger Vehicles	382	909	297	1588	103	478	273	854	134	926	174	1234	308	844	117	1269	4945
% Passenger Vehicles	99	98.2	100	98.7	98.1	99.6	97.8	98.8	100	98.1	100	98.6	99.4	99.5	100	99.5	98.9
Large 2 Axle Vehicles	2	11	0	13	2	1	3	6	0	11	0	11	1	4	0	5	35
% Large 2 Axle Vehicles	0.5	1.2	0	0.8	1.9	0.2	1.1	0.7	0	1.2	0	0.9	0.3	0.5	0	0.4	0.7
3 Axle Vehicles	0	5	0	5	0	1	0	1	0	5	0	5	0	0	0	0	11
% 3 Axle Vehicles	0	0.5	0	0.3	0	0.2	0	0.1	0	0.5	0	0.4	0	0	0	0	0.2
4+ Axle Trucks	2	1	0	3	0	0	3	3	0	2	0	2	1	0	0	1	9
% 4+ Axle Trucks	0.5	0.1	0	0.2	0	0	1.1	0.3	0	0.2	0	0.2	0.3	0	0	0.1	0.2

Start Time	Tennessee Street Southbound				Colton Avenue Westbound				Tennessee Street Northbound				Colton 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	48	90	46	184	17	58	39	114	18	115	24	157	36	111	12	159	614
04:45 PM	54	135	33	222	17	47	33	97	12	103	22	137	36	104	21	161	617
05:00 PM	48	120	28	196	10	69	47	126	13	119	20	152	37	118	17	172	646
05:15 PM	57	138	36	231	10	74	29	113	21	135	31	187	38	128	14	180	711
Total Volume	207	483	143	833	54	248	148	450	64	472	97	633	147	461	64	672	2588
% App. Total	24.8	58	17.2		12	55.1	32.9		10.1	74.6	15.3		21.9	68.6	9.5		
PHF	.908	.875	.777	.902	.794	.838	.787	.893	.762	.874	.782	.846	.967	.900	.762	.933	.910

City of Redlands
 N/S: Tennessee Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 11C_RED_Ten_Colt PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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:

	04:45 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	54	135	33	222	16	75	38	129	18	115	24	157	36	104	21	161
+15 mins.	48	120	28	196	8	69	36	113	12	103	22	137	37	118	17	172
+30 mins.	57	138	36	231	17	58	39	114	13	119	20	152	38	128	14	180
+45 mins.	46	110	33	189	17	47	33	97	21	135	31	187	48	112	12	172
Total Volume	205	503	130	838	58	249	146	453	64	472	97	633	159	462	64	685
% App. Total	24.5	60	15.5		12.8	55	32.2		10.1	74.6	15.3		23.2	67.4	9.3	
PHF	.899	.911	.903	.907	.853	.830	.936	.878	.762	.874	.782	.846	.828	.902	.762	.951

City of Redlands
 N/S: Texas Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 18_RED_TX_Colt PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

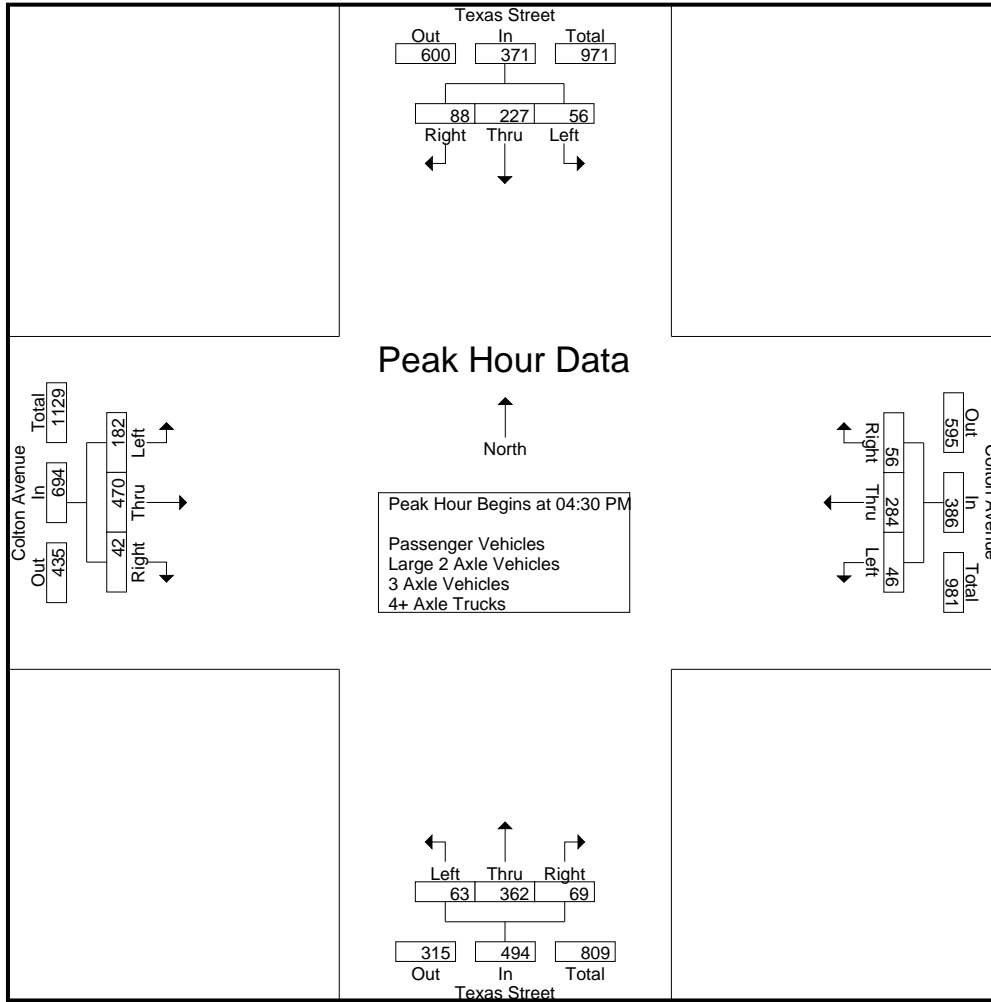
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Texas Street Southbound				Colton Avenue Westbound				Texas Street Northbound				Colton 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	14	66	20	100	12	81	13	106	13	54	17	84	36	96	15	147	437
04:15 PM	14	52	13	79	13	77	12	102	8	67	15	90	31	99	7	137	408
04:30 PM	18	63	22	103	10	75	13	98	15	76	12	103	33	120	9	162	466
04:45 PM	13	58	20	91	13	63	17	93	11	81	18	110	50	124	15	189	483
Total	59	239	75	373	48	296	55	399	47	278	62	387	150	439	46	635	1794
05:00 PM	15	51	29	95	10	72	12	94	26	97	20	143	51	109	7	167	499
05:15 PM	10	55	17	82	13	74	14	101	11	108	19	138	48	117	11	176	497
05:30 PM	12	59	13	84	16	65	16	97	10	78	14	102	39	125	9	173	456
05:45 PM	19	45	13	77	11	65	15	91	11	53	20	84	33	107	8	148	400
Total	56	210	72	338	50	276	57	383	58	336	73	467	171	458	35	664	1852
Grand Total	115	449	147	711	98	572	112	782	105	614	135	854	321	897	81	1299	3646
Apprch %	16.2	63.2	20.7		12.5	73.1	14.3		12.3	71.9	15.8		24.7	69.1	6.2		
Total %	3.2	12.3	4	19.5	2.7	15.7	3.1	21.4	2.9	16.8	3.7	23.4	8.8	24.6	2.2	35.6	
Passenger Vehicles	113	447	146	706	95	570	111	776	104	607	135	846	320	895	81	1296	3624
% Passenger Vehicles	98.3	99.6	99.3	99.3	96.9	99.7	99.1	99.2	99	98.9	100	99.1	99.7	99.8	100	99.8	99.4
Large 2 Axle Vehicles	1	2	1	4	2	2	1	5	0	4	0	4	1	1	0	2	15
% Large 2 Axle Vehicles	0.9	0.4	0.7	0.6	2	0.3	0.9	0.6	0	0.7	0	0.5	0.3	0.1	0	0.2	0.4
3 Axle Vehicles	0	0	0	0	1	0	0	1	1	2	0	3	0	1	0	1	5
% 3 Axle Vehicles	0	0	0	0	1	0	0	0.1	1	0.3	0	0.4	0	0.1	0	0.1	0.1
4+ Axle Trucks	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% 4+ Axle Trucks	0.9	0	0	0.1	0	0	0	0	0	0.2	0	0.1	0	0	0	0	0.1

Start Time	Texas Street Southbound				Colton Avenue Westbound				Texas Street Northbound				Colton 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	18	63	22	103	10	75	13	98	15	76	12	103	33	120	9	162	466
04:45 PM	13	58	20	91	13	63	17	93	11	81	18	110	50	124	15	189	483
05:00 PM	15	51	29	95	10	72	12	94	26	97	20	143	51	109	7	167	499
05:15 PM	10	55	17	82	13	74	14	101	11	108	19	138	48	117	11	176	497
Total Volume	56	227	88	371	46	284	56	386	63	362	69	494	182	470	42	694	1945
% App. Total	15.1	61.2	23.7		11.9	73.6	14.5		12.8	73.3	14		26.2	67.7	6.1		
PHF	.778	.901	.759	.900	.885	.947	.824	.955	.606	.838	.863	.864	.892	.948	.700	.918	.974

City of Redlands
 N/S: Texas Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 18_RED_TX_Colt PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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:

	04:00 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	14	66	20	100	12	81	13	106	15	76	12	103	50	124	15	189
+15 mins.	14	52	13	79	13	77	12	102	11	81	18	110	51	109	7	167
+30 mins.	18	63	22	103	10	75	13	98	26	97	20	143	48	117	11	176
+45 mins.	13	58	20	91	13	63	17	93	11	108	19	138	39	125	9	173
Total Volume	59	239	75	373	48	296	55	399	63	362	69	494	188	475	42	705
% App. Total	15.8	64.1	20.1		12	74.2	13.8		12.8	73.3	14		26.7	67.4	6	
PHF	.819	.905	.852	.905	.923	.914	.809	.941	.606	.838	.863	.864	.922	.950	.700	.933

City of Redlands
 N/S: Eureka Street
 E/W: I-10 EB Off Ramp/Pearl Avenue
 Weather: Clear

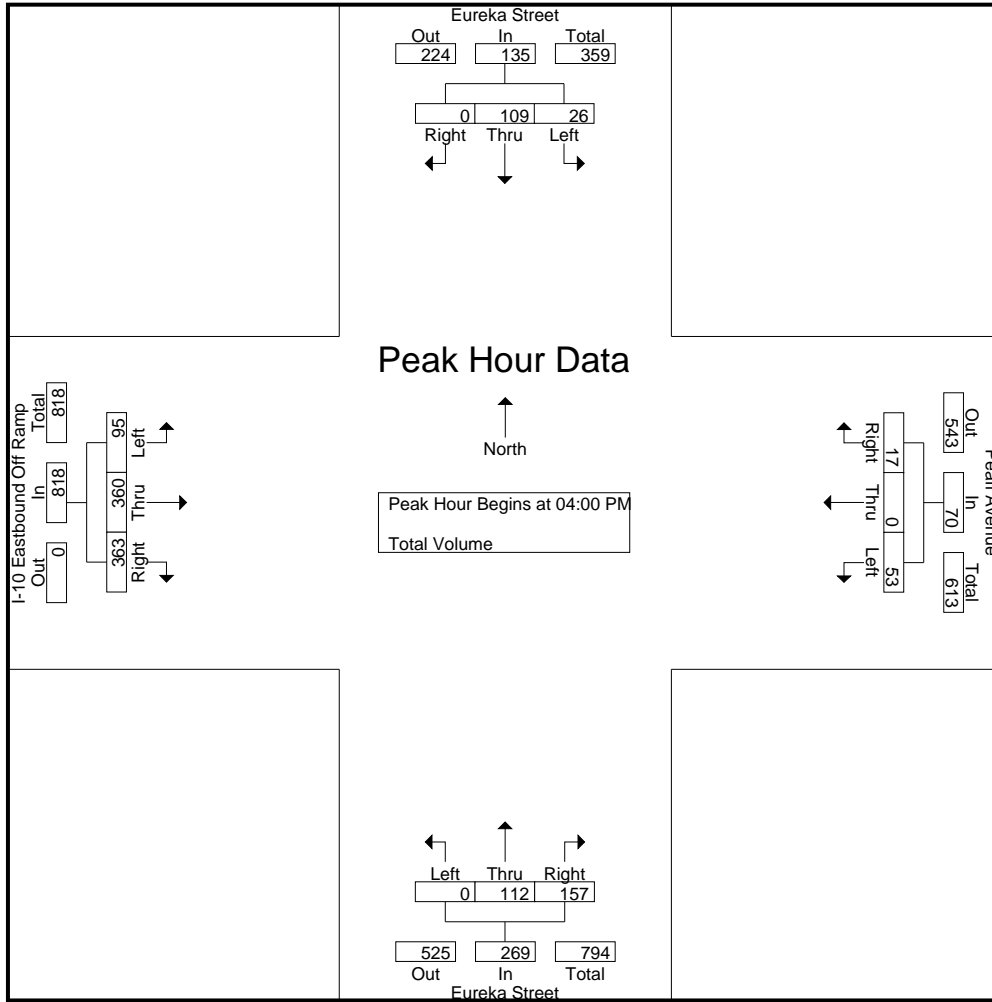
File Name : 028_RED_Eur_10E PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Eureka Street Southbound				Pearl Avenue Westbound				Eureka Street Northbound				I-10 Eastbound Off Ramp 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	3	27	0	30	10	0	5	15	0	35	37	72	29	103	100	232	349
04:15 PM	7	18	0	25	12	0	3	15	0	24	36	60	19	88	91	198	298
04:30 PM	9	30	0	39	12	0	3	15	0	27	43	70	27	97	81	205	329
04:45 PM	7	34	0	41	19	0	6	25	0	26	41	67	20	72	91	183	316
Total	26	109	0	135	53	0	17	70	0	112	157	269	95	360	363	818	1292
05:00 PM	5	31	1	37	27	0	3	30	0	31	63	94	19	71	83	173	334
05:15 PM	5	28	0	33	25	0	1	26	0	31	48	79	11	78	72	161	299
05:30 PM	8	26	0	34	9	0	0	9	0	21	34	55	18	80	79	177	275
05:45 PM	9	29	0	38	26	0	2	28	0	30	43	73	25	97	79	201	340
Total	27	114	1	142	87	0	6	93	0	113	188	301	73	326	313	712	1248
Grand Total	53	223	1	277	140	0	23	163	0	225	345	570	168	686	676	1530	2540
Apprch %	19.1	80.5	0.4		85.9	0	14.1		0	39.5	60.5		11	44.8	44.2		
Total %	2.1	8.8	0	10.9	5.5	0	0.9	6.4	0	8.9	13.6	22.4	6.6	27	26.6	60.2	

Start Time	Eureka Street Southbound				Pearl Avenue Westbound				Eureka Street Northbound				I-10 Eastbound Off Ramp 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	3	27	0	30	10	0	5	15	0	35	37	72	29	103	100	232	349
04:15 PM	7	18	0	25	12	0	3	15	0	24	36	60	19	88	91	198	298
04:30 PM	9	30	0	39	12	0	3	15	0	27	43	70	27	97	81	205	329
04:45 PM	7	34	0	41	19	0	6	25	0	26	41	67	20	72	91	183	316
Total Volume	26	109	0	135	53	0	17	70	0	112	157	269	95	360	363	818	1292
% App. Total	19.3	80.7	0		75.7	0	24.3		0	41.6	58.4		11.6	44	44.4		
PHF	.722	.801	.000	.823	.697	.000	.708	.700	.000	.800	.913	.934	.819	.874	.908	.881	.926

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



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

	04:30 PM				04:30 PM				04:30 PM				04:00 PM			
+0 mins.	9	30	0	39	12	0	3	15	0	27	43	70	29	103	100	232
+15 mins.	7	34	0	41	19	0	6	25	0	26	41	67	19	88	91	198
+30 mins.	5	31	1	37	27	0	3	30	0	31	63	94	27	97	81	205
+45 mins.	5	28	0	33	25	0	1	26	0	31	48	79	20	72	91	183
Total Volume	26	123	1	150	83	0	13	96	0	115	195	310	95	360	363	818
% App. Total	17.3	82	0.7		86.5	0	13.5		0	37.1	62.9		11.6	44	44.4	
PHF	.722	.904	.250	.915	.769	.000	.542	.800	.000	.927	.774	.824	.819	.874	.908	.881

City of Redlands
 N/S: Eureka Street
 E/W: Oriental Avenue
 Weather: Clear

File Name : 029_RED_Eur_Oriental PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

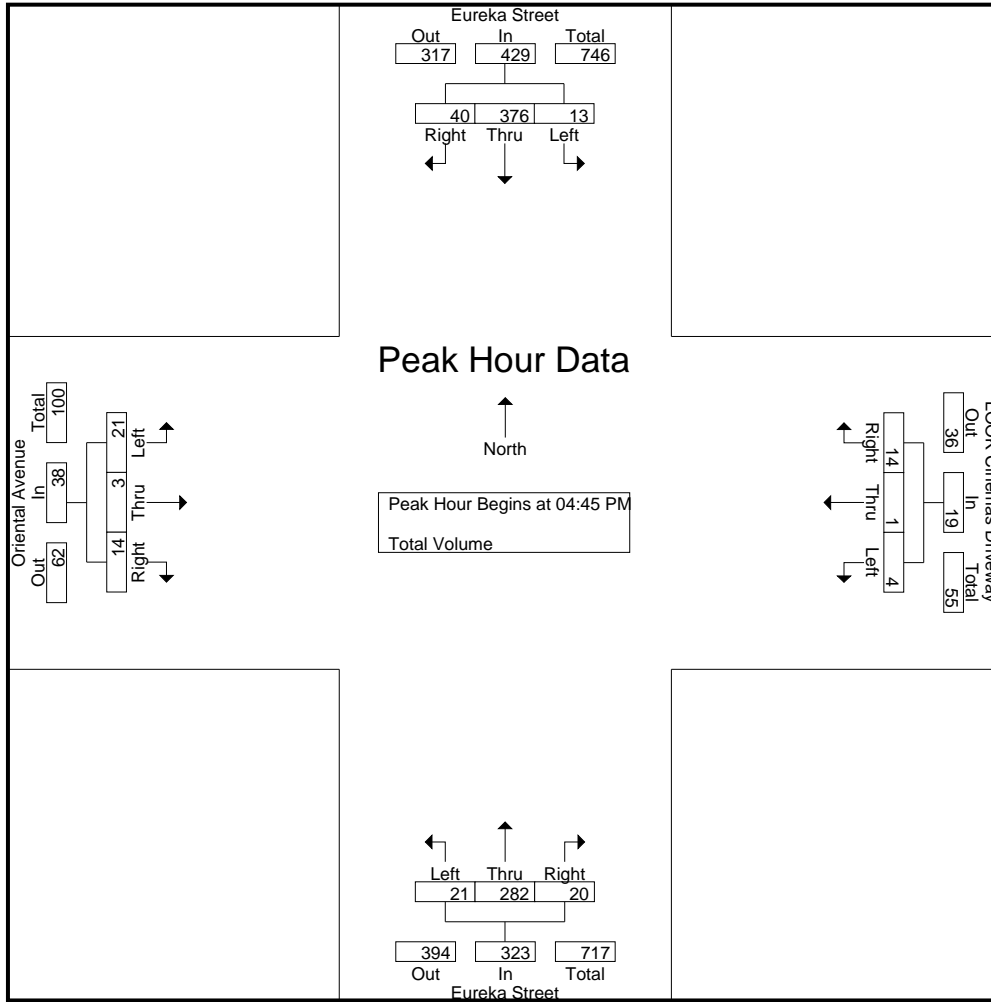
Start Time	Eureka Street Southbound				LOOK Cinemas Driveway Westbound				Eureka Street Northbound				Oriental Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	4	111	8	123	3	0	3	6	2	52	3	57	10	0	3	13	199
04:15 PM	4	111	4	119	0	1	2	3	5	58	1	64	4	0	4	8	194
04:30 PM	2	77	7	86	2	0	7	9	3	58	2	63	3	0	2	5	163
04:45 PM	3	102	4	109	1	1	3	5	6	76	2	84	6	1	5	12	210
Total	13	401	23	437	6	2	15	23	16	244	8	268	23	1	14	38	766
05:00 PM	3	108	7	118	1	0	4	5	9	79	4	92	4	1	1	6	221
05:15 PM	4	78	10	92	1	0	4	5	6	77	11	94	3	1	4	8	199
05:30 PM	3	88	19	110	1	0	3	4	0	50	3	53	8	0	4	12	179
05:45 PM	2	89	11	102	0	0	7	7	5	63	6	74	6	0	3	9	192
Total	12	363	47	422	3	0	18	21	20	269	24	313	21	2	12	35	791
Grand Total	25	764	70	859	9	2	33	44	36	513	32	581	44	3	26	73	1557
Apprch %	2.9	88.9	8.1		20.5	4.5	75		6.2	88.3	5.5		60.3	4.1	35.6		
Total %	1.6	49.1	4.5	55.2	0.6	0.1	2.1	2.8	2.3	32.9	2.1	37.3	2.8	0.2	1.7	4.7	

Start Time	Eureka Street Southbound				LOOK Cinemas Driveway Westbound				Eureka Street Northbound				Oriental Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	3	102	4	109	1	1	3	5	6	76	2	84	6	1	5	12	210
05:00 PM	3	108	7	118	1	0	4	5	9	79	4	92	4	1	1	6	221
05:15 PM	4	78	10	92	1	0	4	5	6	77	11	94	3	1	4	8	199
05:30 PM	3	88	19	110	1	0	3	4	0	50	3	53	8	0	4	12	179
Total Volume	13	376	40	429	4	1	14	19	21	282	20	323	21	3	14	38	809
% App. Total	3	87.6	9.3		21.1	5.3	73.7		6.5	87.3	6.2		55.3	7.9	36.8		
PHF	.813	.870	.526	.909	1.00	.250	.875	.950	.583	.892	.455	.859	.656	.750	.700	.792	.915

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

City of Redlands
 N/S: Eureka Street
 E/W: Oriental Avenue
 Weather: Clear

File Name : 029_RED_Eur_Oriental PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				04:30 PM				04:30 PM				04:00 PM			
+0 mins.	4	111	8	123	2	0	7	9	3	58	2	63	10	0	3	13
+15 mins.	4	111	4	119	1	1	3	5	6	76	2	84	4	0	4	8
+30 mins.	2	77	7	86	1	0	4	5	9	79	4	92	3	0	2	5
+45 mins.	3	102	4	109	1	0	4	5	6	77	11	94	6	1	5	12
Total Volume	13	401	23	437	5	1	18	24	24	290	19	333	23	1	14	38
% App. Total	3	91.8	5.3		20.8	4.2	75		7.2	87.1	5.7		60.5	2.6	36.8	
PHF	.813	.903	.719	.888	.625	.250	.643	.667	.667	.918	.432	.886	.575	.250	.700	.731

City of Redlands
 N/S: Eureka Street
 E/W: Stuart Avenue
 Weather: Clear

File Name : 030_RED_Eur_Stuart PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Eureka Street Southbound				Stuart Avenue Westbound				Eureka Street Northbound				Stuart 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	18	94	7	119	10	15	6	31	15	40	13	68	21	25	12	58	276
04:15 PM	23	92	2	117	11	21	10	42	11	36	15	62	25	32	18	75	296
04:30 PM	14	66	10	90	7	8	4	19	15	40	12	67	21	23	15	59	235
04:45 PM	20	84	11	115	6	16	6	28	23	48	17	88	31	34	16	81	312
Total	75	336	30	441	34	60	26	120	64	164	57	285	98	114	61	273	1119
05:00 PM	30	83	6	119	15	14	6	35	18	61	12	91	28	27	21	76	321
05:15 PM	20	69	14	103	6	11	9	26	18	45	18	81	18	27	14	59	269
05:30 PM	13	84	3	100	9	11	4	24	12	34	13	59	21	22	16	59	242
05:45 PM	24	94	6	124	8	17	6	31	25	47	10	82	13	25	12	50	287
Total	87	330	29	446	38	53	25	116	73	187	53	313	80	101	63	244	1119
Grand Total	162	666	59	887	72	113	51	236	137	351	110	598	178	215	124	517	2238
Apprch %	18.3	75.1	6.7		30.5	47.9	21.6		22.9	58.7	18.4		34.4	41.6	24		
Total %	7.2	29.8	2.6	39.6	3.2	5	2.3	10.5	6.1	15.7	4.9	26.7	8	9.6	5.5	23.1	

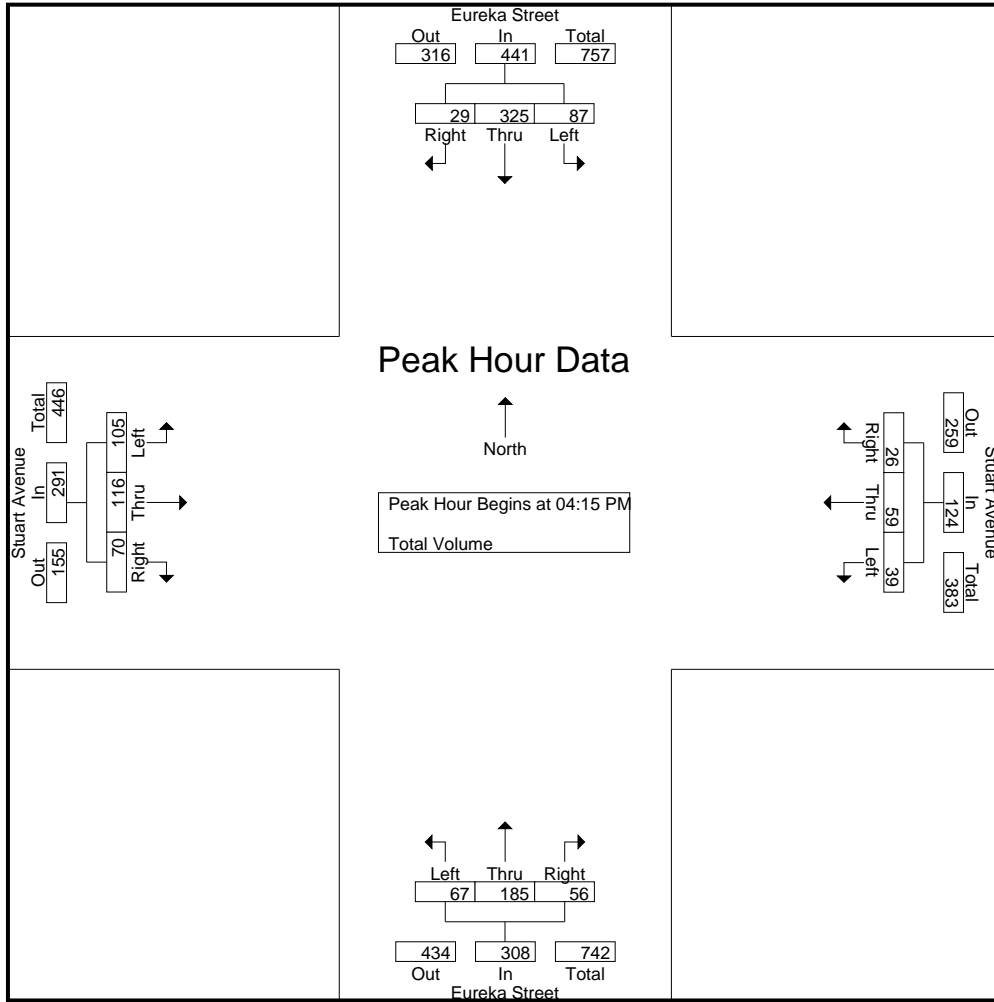
Start Time	Eureka Street Southbound				Stuart Avenue Westbound				Eureka Street Northbound				Stuart Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	23	92	2	117	11	21	10	42	11	36	15	62	25	32	18	75	296
04:30 PM	14	66	10	90	7	8	4	19	15	40	12	67	21	23	15	59	235
04:45 PM	20	84	11	115	6	16	6	28	23	48	17	88	31	34	16	81	312
05:00 PM	30	83	6	119	15	14	6	35	18	61	12	91	28	27	21	76	321
Total Volume	87	325	29	441	39	59	26	124	67	185	56	308	105	116	70	291	1164
% App. Total	19.7	73.7	6.6		31.5	47.6	21		21.8	60.1	18.2		36.1	39.9	24.1		
PHF	.725	.883	.659	.926	.650	.702	.650	.738	.728	.758	.824	.846	.847	.853	.833	.898	.907

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Eureka Street
 E/W: Stuart Avenue
 Weather: Clear

File Name : 030_RED_Eur_Stuart PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	05:00 PM				04:15 PM				04:30 PM				04:15 PM			
+0 mins.	30	83	6	119	11	21	10	42	15	40	12	67	25	32	18	75
+15 mins.	20	69	14	103	7	8	4	19	23	48	17	88	21	23	15	59
+30 mins.	13	84	3	100	6	16	6	28	18	61	12	91	31	34	16	81
+45 mins.	24	94	6	124	15	14	6	35	18	45	18	81	28	27	21	76
Total Volume	87	330	29	446	39	59	26	124	74	194	59	327	105	116	70	291
% App. Total	19.5	74	6.5		31.5	47.6	21		22.6	59.3	18		36.1	39.9	24.1	
PHF	.725	.878	.518	.899	.650	.702	.650	.738	.804	.795	.819	.898	.847	.853	.833	.898

City of Redlands
 N/S: Church Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 031_RED_Church_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Church Street Southbound				Lugonia Avenue Westbound				Church Street Northbound				Lugonia 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	24	45	16	85	14	112	29	155	15	40	33	88	5	170	14	189	517
04:15 PM	12	50	6	68	13	111	20	144	20	55	36	111	4	187	18	209	532
04:30 PM	21	43	6	70	17	104	18	139	18	49	33	100	8	178	10	196	505
04:45 PM	10	39	10	59	15	105	14	134	11	53	27	91	7	182	15	204	488
Total	67	177	38	282	59	432	81	572	64	197	129	390	24	717	57	798	2042
05:00 PM	16	43	10	69	16	124	11	151	14	50	27	91	12	197	10	219	530
05:15 PM	13	42	6	61	6	113	17	136	15	72	23	110	8	191	10	209	516
05:30 PM	22	33	4	59	11	123	20	154	12	48	35	95	11	189	9	209	517
05:45 PM	20	49	8	77	11	87	24	122	4	67	24	95	13	208	14	235	529
Total	71	167	28	266	44	447	72	563	45	237	109	391	44	785	43	872	2092
Grand Total	138	344	66	548	103	879	153	1135	109	434	238	781	68	1502	100	1670	4134
Apprch %	25.2	62.8	12		9.1	77.4	13.5		14	55.6	30.5		4.1	89.9	6		
Total %	3.3	8.3	1.6	13.3	2.5	21.3	3.7	27.5	2.6	10.5	5.8	18.9	1.6	36.3	2.4	40.4	

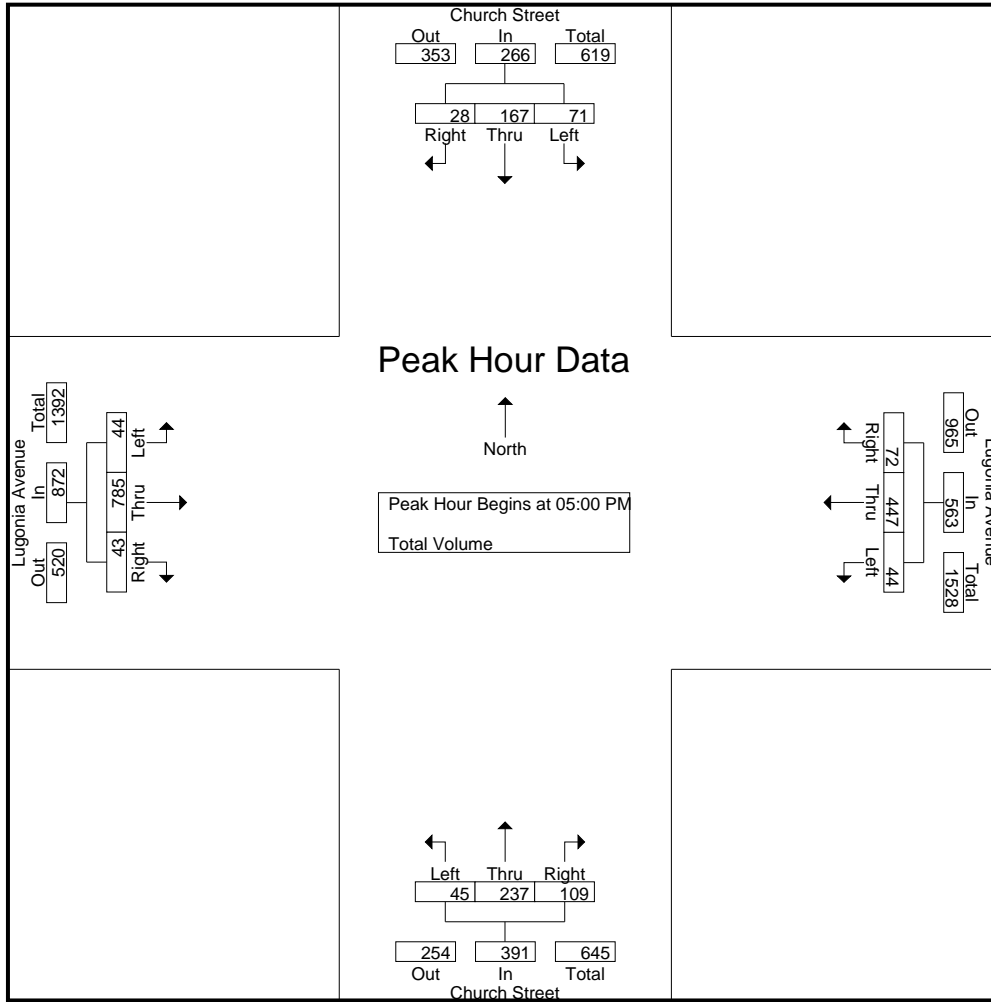
Start Time	Church Street Southbound				Lugonia Avenue Westbound				Church Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	16	43	10	69	16	124	11	151	14	50	27	91	12	197	10	219	530
05:15 PM	13	42	6	61	6	113	17	136	15	72	23	110	8	191	10	209	516
05:30 PM	22	33	4	59	11	123	20	154	12	48	35	95	11	189	9	209	517
05:45 PM	20	49	8	77	11	87	24	122	4	67	24	95	13	208	14	235	529
Total Volume	71	167	28	266	44	447	72	563	45	237	109	391	44	785	43	872	2092
% App. Total	26.7	62.8	10.5		7.8	79.4	12.8		11.5	60.6	27.9		5	90	4.9		
PHF	.807	.852	.700	.864	.688	.901	.750	.914	.750	.823	.779	.889	.846	.944	.768	.928	.987

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Church Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 031_RED_Church_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				04:45 PM				04:15 PM				05:00 PM			
+0 mins.	24	45	16	85	15	105	14	134	20	55	36	111	12	197	10	219
+15 mins.	12	50	6	68	16	124	11	151	18	49	33	100	8	191	10	209
+30 mins.	21	43	6	70	6	113	17	136	11	53	27	91	11	189	9	209
+45 mins.	10	39	10	59	11	123	20	154	14	50	27	91	13	208	14	235
Total Volume	67	177	38	282	48	465	62	575	63	207	123	393	44	785	43	872
% App. Total	23.8	62.8	13.5		8.3	80.9	10.8		16	52.7	31.3		5	90	4.9	
PHF	.698	.885	.594	.829	.750	.938	.775	.933	.788	.941	.854	.885	.846	.944	.768	.928

City of Redlands
 N/S: Dearborn Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 07_RED_Dearborn_Lugonia_PM
 Site Code : 12221531
 Start Date : 9/29/2021
 Page No : 1

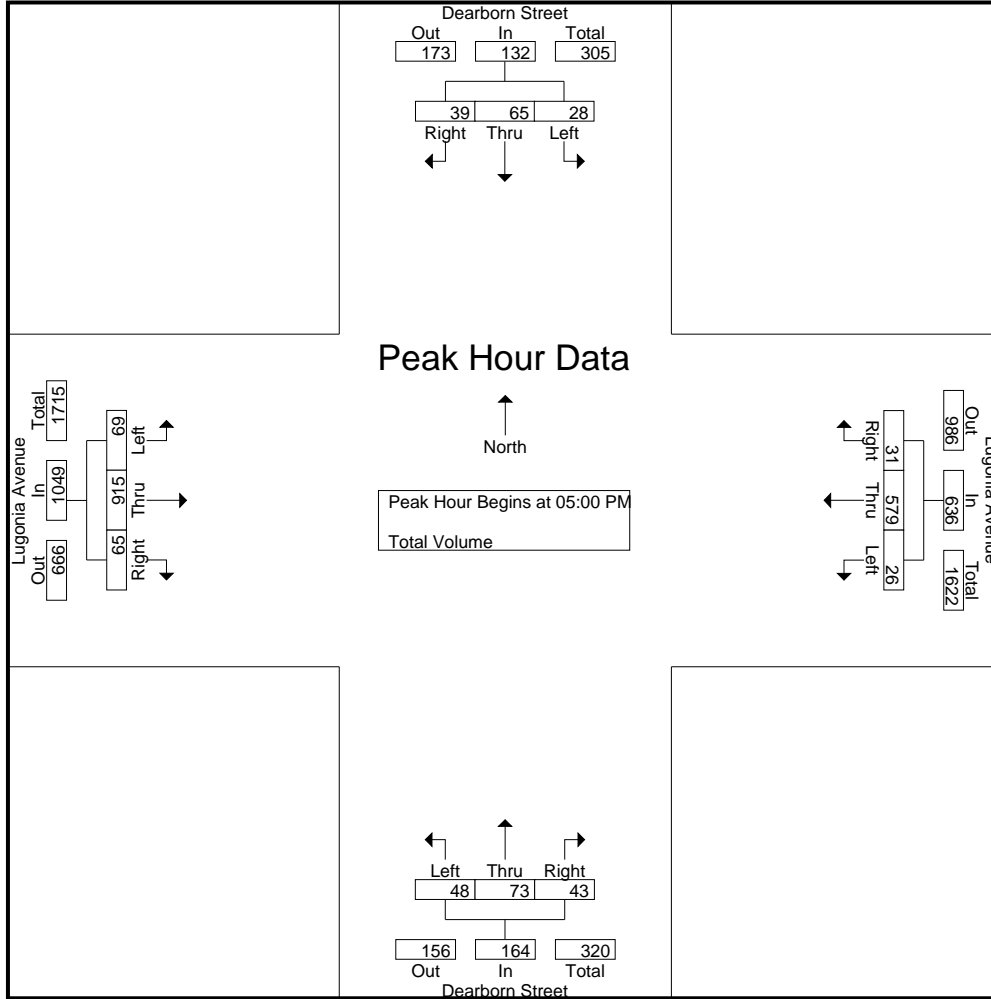
Groups Printed- Total Volume

Start Time	Dearborn Street Southbound				Lugonia Avenue Westbound				Dearborn Street Northbound				Lugonia 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	3	13	3	19	10	189	6	205	10	6	8	24	4	217	10	231	479
04:15 PM	4	18	4	26	9	154	2	165	9	8	10	27	11	243	15	269	487
04:30 PM	9	15	5	29	6	142	3	151	7	7	10	24	11	216	11	238	442
04:45 PM	10	10	6	26	9	148	4	161	10	15	10	35	13	261	10	284	506
Total	26	56	18	100	34	633	15	682	36	36	38	110	39	937	46	1022	1914
05:00 PM	6	17	9	32	2	149	10	161	13	25	10	48	18	232	16	266	507
05:15 PM	9	18	14	41	12	124	8	144	9	18	10	37	20	214	20	254	476
05:30 PM	10	18	3	31	8	142	7	157	14	14	11	39	12	236	13	261	488
05:45 PM	3	12	13	28	4	164	6	174	12	16	12	40	19	233	16	268	510
Total	28	65	39	132	26	579	31	636	48	73	43	164	69	915	65	1049	1981
Grand Total	54	121	57	232	60	1212	46	1318	84	109	81	274	108	1852	111	2071	3895
Apprch %	23.3	52.2	24.6		4.6	92	3.5		30.7	39.8	29.6		5.2	89.4	5.4		
Total %	1.4	3.1	1.5	6	1.5	31.1	1.2	33.8	2.2	2.8	2.1	7	2.8	47.5	2.8	53.2	

Start Time	Dearborn Street Southbound				Lugonia Avenue Westbound				Dearborn Street Northbound				Lugonia 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 05:00 PM																	
05:00 PM	6	17	9	32	2	149	10	161	13	25	10	48	18	232	16	266	507
05:15 PM	9	18	14	41	12	124	8	144	9	18	10	37	20	214	20	254	476
05:30 PM	10	18	3	31	8	142	7	157	14	14	11	39	12	236	13	261	488
05:45 PM	3	12	13	28	4	164	6	174	12	16	12	40	19	233	16	268	510
Total Volume	28	65	39	132	26	579	31	636	48	73	43	164	69	915	65	1049	1981
% App. Total	21.2	49.2	29.5		4.1	91	4.9		29.3	44.5	26.2		6.6	87.2	6.2		
PHF	.700	.903	.696	.805	.542	.883	.775	.914	.857	.730	.896	.854	.863	.969	.813	.979	.971

City of Redlands
 N/S: Dearborn Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 07_RED_Dearborn_Lugonia_PM
 Site Code : 12221531
 Start Date : 9/29/2021
 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:

	05:00 PM				04:00 PM				05:00 PM				04:45 PM			
+0 mins.	6	17	9	32	10	189	6	205	13	25	10	48	13	261	10	284
+15 mins.	9	18	14	41	9	154	2	165	9	18	10	37	18	232	16	266
+30 mins.	10	18	3	31	6	142	3	151	14	14	11	39	20	214	20	254
+45 mins.	3	12	13	28	9	148	4	161	12	16	12	40	12	236	13	261
Total Volume	28	65	39	132	34	633	15	682	48	73	43	164	63	943	59	1065
% App. Total	21.2	49.2	29.5		5	92.8	2.2		29.3	44.5	26.2		5.9	88.5	5.5	
PHF	.700	.903	.696	.805	.850	.837	.625	.832	.857	.730	.896	.854	.788	.903	.738	.938

City of Redlands
 N/S: Judson Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 033_RED_Jud_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Judson Street Southbound				Lugonia Avenue Westbound				Judson Street Northbound				Lugonia 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	17	27	10	54	11	160	19	190	15	31	30	76	4	215	25	244	564
04:15 PM	37	28	5	70	13	154	32	199	11	36	15	62	6	192	17	215	546
04:30 PM	20	30	2	52	19	156	29	204	18	33	32	83	4	197	22	223	562
04:45 PM	14	27	4	45	16	166	10	192	12	23	25	60	4	216	12	232	529
Total	88	112	21	221	59	636	90	785	56	123	102	281	18	820	76	914	2201
05:00 PM	26	23	5	54	22	160	11	193	11	15	15	41	4	216	20	240	528
05:15 PM	22	37	6	65	12	151	24	187	12	29	19	60	3	222	26	251	563
05:30 PM	21	28	4	53	9	139	11	159	13	18	25	56	7	207	21	235	503
05:45 PM	31	33	7	71	16	154	14	184	14	33	23	70	6	196	18	220	545
Total	100	121	22	243	59	604	60	723	50	95	82	227	20	841	85	946	2139
Grand Total	188	233	43	464	118	1240	150	1508	106	218	184	508	38	1661	161	1860	4340
Apprch %	40.5	50.2	9.3		7.8	82.2	9.9		20.9	42.9	36.2		2	89.3	8.7		
Total %	4.3	5.4	1	10.7	2.7	28.6	3.5	34.7	2.4	5	4.2	11.7	0.9	38.3	3.7	42.9	

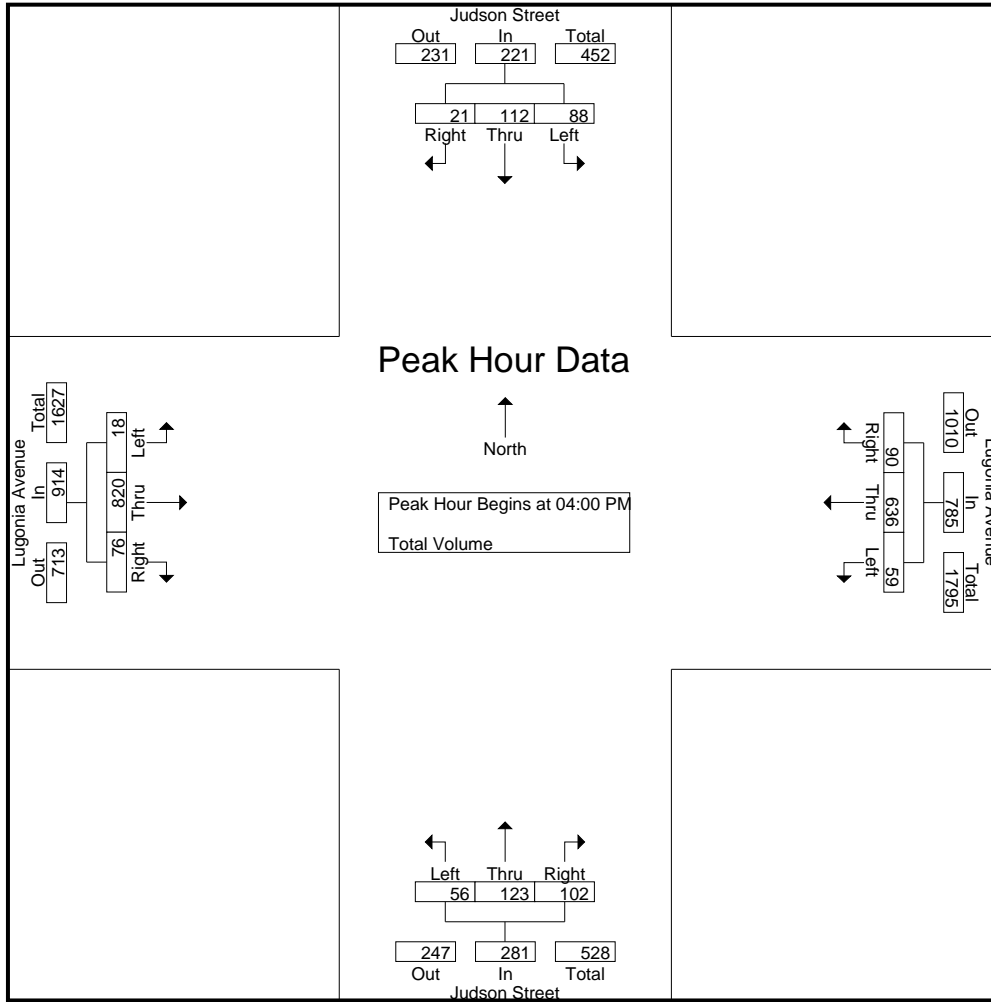
Start Time	Judson Street Southbound				Lugonia Avenue Westbound				Judson Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	17	27	10	54	11	160	19	190	15	31	30	76	4	215	25	244	564
04:15 PM	37	28	5	70	13	154	32	199	11	36	15	62	6	192	17	215	546
04:30 PM	20	30	2	52	19	156	29	204	18	33	32	83	4	197	22	223	562
04:45 PM	14	27	4	45	16	166	10	192	12	23	25	60	4	216	12	232	529
Total Volume	88	112	21	221	59	636	90	785	56	123	102	281	18	820	76	914	2201
% App. Total	39.8	50.7	9.5		7.5	81	11.5		19.9	43.8	36.3		2	89.7	8.3		
PHF	.595	.933	.525	.789	.776	.958	.703	.962	.778	.854	.797	.846	.750	.949	.760	.936	.976

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

City of Redlands
 N/S: Judson Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 033_RED_Jud_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	05:00 PM				04:15 PM				04:00 PM				04:45 PM			
+0 mins.	26	23	5	54	13	154	32	199	15	31	30	76	4	216	12	232
+15 mins.	22	37	6	65	19	156	29	204	11	36	15	62	4	216	20	240
+30 mins.	21	28	4	53	16	166	10	192	18	33	32	83	3	222	26	251
+45 mins.	31	33	7	71	22	160	11	193	12	23	25	60	7	207	21	235
Total Volume	100	121	22	243	70	636	82	788	56	123	102	281	18	861	79	958
% App. Total	41.2	49.8	9.1		8.9	80.7	10.4		19.9	43.8	36.3		1.9	89.9	8.2	
PHF	.806	.818	.786	.856	.795	.958	.641	.966	.778	.854	.797	.846	.643	.970	.760	.954

City of Redlands
 N/S: New York Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 07_RED_New_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 Page No : 1

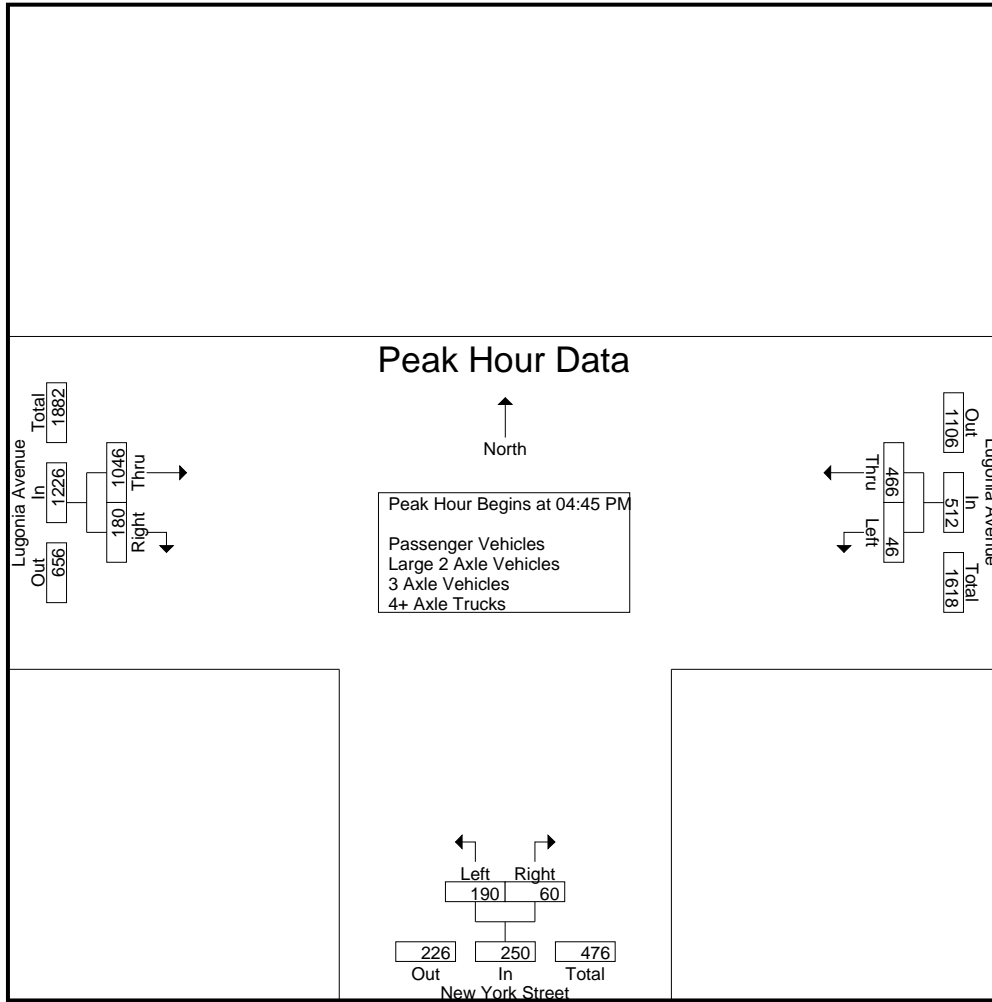
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Lugonia Avenue Westbound			New York Street Northbound			Lugonia Avenue Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	6	124	130	57	14	71	243	48	291	492
04:15 PM	9	133	142	35	16	51	260	44	304	497
04:30 PM	7	107	114	48	17	65	232	46	278	457
04:45 PM	8	115	123	43	19	62	257	42	299	484
Total	30	479	509	183	66	249	992	180	1172	1930
05:00 PM	15	125	140	55	14	69	251	37	288	497
05:15 PM	11	122	133	50	11	61	265	52	317	511
05:30 PM	12	104	116	42	16	58	273	49	322	496
05:45 PM	14	128	142	30	11	41	246	43	289	472
Total	52	479	531	177	52	229	1035	181	1216	1976
Grand Total	82	958	1040	360	118	478	2027	361	2388	3906
Apprch %	7.9	92.1		75.3	24.7		84.9	15.1		
Total %	2.1	24.5	26.6	9.2	3	12.2	51.9	9.2	61.1	
Passenger Vehicles	79	946	1025	355	116	471	2004	357	2361	3857
% Passenger Vehicles	96.3	98.7	98.6	98.6	98.3	98.5	98.9	98.9	98.9	98.7
Large 2 Axle Vehicles	3	11	14	4	2	6	20	4	24	44
% Large 2 Axle Vehicles	3.7	1.1	1.3	1.1	1.7	1.3	1	1.1	1	1.1
3 Axle Vehicles	0	0	0	0	0	0	2	0	2	2
% 3 Axle Vehicles	0	0	0	0	0	0	0.1	0	0.1	0.1
4+ Axle Trucks	0	1	1	1	0	1	1	0	1	3
% 4+ Axle Trucks	0	0.1	0.1	0.3	0	0.2	0	0	0	0.1

Start Time	Lugonia Avenue Westbound			New York Street Northbound			Lugonia Avenue Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	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 04:45 PM										
04:45 PM	8	115	123	43	19	62	257	42	299	484
05:00 PM	15	125	140	55	14	69	251	37	288	497
05:15 PM	11	122	133	50	11	61	265	52	317	511
05:30 PM	12	104	116	42	16	58	273	49	322	496
Total Volume	46	466	512	190	60	250	1046	180	1226	1988
% App. Total	9	91		76	24		85.3	14.7		
PHF	.767	.932	.914	.864	.789	.906	.958	.865	.952	.973

City of Redlands
 N/S: New York Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 07_RED_New_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 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:

	05:00 PM			04:30 PM			04:45 PM		
+0 mins.	15	125	140	48	17	65	257	42	299
+15 mins.	11	122	133	43	19	62	251	37	288
+30 mins.	12	104	116	55	14	69	265	52	317
+45 mins.	14	128	142	50	11	61	273	49	322
Total Volume	52	479	531	196	61	257	1046	180	1226
% App. Total	9.8	90.2		76.3	23.7		85.3	14.7	
PHF	.867	.936	.935	.891	.803	.931	.958	.865	.952

City of Redlands
 N/S: Orange Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 035_RED_Org_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				Lugonia Avenue Westbound				Orange Street Northbound				Lugonia 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	28	105	15	148	28	103	18	149	20	91	19	130	14	168	44	226	653
04:15 PM	26	104	15	145	31	77	24	132	12	94	16	122	21	146	36	203	602
04:30 PM	36	99	6	141	28	81	28	137	14	94	16	124	26	163	31	220	622
04:45 PM	41	112	9	162	11	80	25	116	15	112	16	143	16	163	39	218	639
Total	131	420	45	596	98	341	95	534	61	391	67	519	77	640	150	867	2516
05:00 PM	41	103	11	155	34	84	35	153	13	94	22	129	24	172	36	232	669
05:15 PM	36	103	15	154	27	93	31	151	10	112	12	134	18	170	34	222	661
05:30 PM	37	103	11	151	23	72	33	128	13	101	19	133	19	148	43	210	622
05:45 PM	38	99	21	158	26	83	21	130	10	82	32	124	27	178	30	235	647
Total	152	408	58	618	110	332	120	562	46	389	85	520	88	668	143	899	2599
Grand Total	283	828	103	1214	208	673	215	1096	107	780	152	1039	165	1308	293	1766	5115
Apprch %	23.3	68.2	8.5		19	61.4	19.6		10.3	75.1	14.6		9.3	74.1	16.6		
Total %	5.5	16.2	2	23.7	4.1	13.2	4.2	21.4	2.1	15.2	3	20.3	3.2	25.6	5.7	34.5	

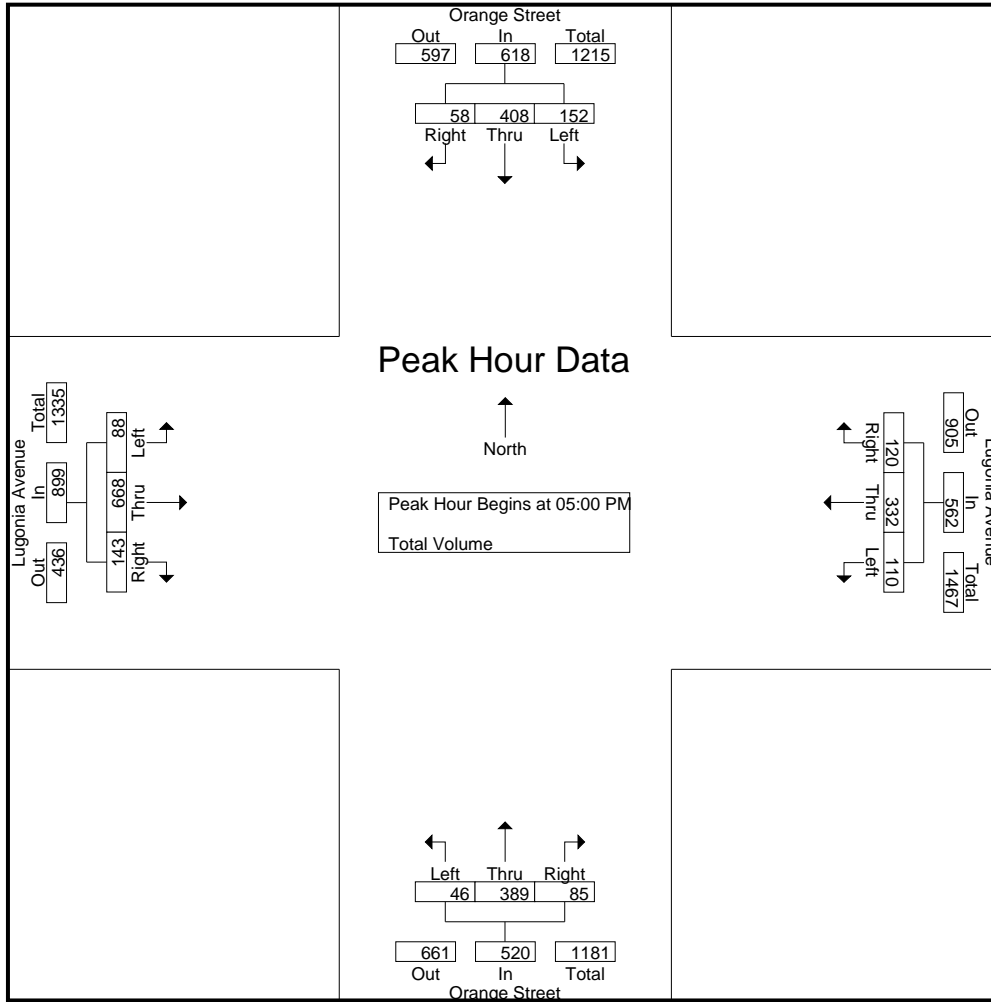
Start Time	Orange Street Southbound				Lugonia Avenue Westbound				Orange Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	41	103	11	155	34	84	35	153	13	94	22	129	24	172	36	232	669
05:15 PM	36	103	15	154	27	93	31	151	10	112	12	134	18	170	34	222	661
05:30 PM	37	103	11	151	23	72	33	128	13	101	19	133	19	148	43	210	622
05:45 PM	38	99	21	158	26	83	21	130	10	82	32	124	27	178	30	235	647
Total Volume	152	408	58	618	110	332	120	562	46	389	85	520	88	668	143	899	2599
% App. Total	24.6	66	9.4		19.6	59.1	21.4		8.8	74.8	16.3		9.8	74.3	15.9		
PHF	.927	.990	.690	.978	.809	.892	.857	.918	.885	.868	.664	.970	.815	.938	.831	.956	.971

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Orange Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 035_RED_Org_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				05:00 PM				04:45 PM				05:00 PM			
+0 mins.	41	112	9	162	34	84	35	153	15	112	16	143	24	172	36	232
+15 mins.	41	103	11	155	27	93	31	151	13	94	22	129	18	170	34	222
+30 mins.	36	103	15	154	23	72	33	128	10	112	12	134	19	148	43	210
+45 mins.	37	103	11	151	26	83	21	130	13	101	19	133	27	178	30	235
Total Volume	155	421	46	622	110	332	120	562	51	419	69	539	88	668	143	899
% App. Total	24.9	67.7	7.4		19.6	59.1	21.4		9.5	77.7	12.8		9.8	74.3	15.9	
PHF	.945	.940	.767	.960	.809	.892	.857	.918	.850	.935	.784	.942	.815	.938	.831	.956

City of Redlands
 N/S: Tennessee Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 036_RED_Tenn_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

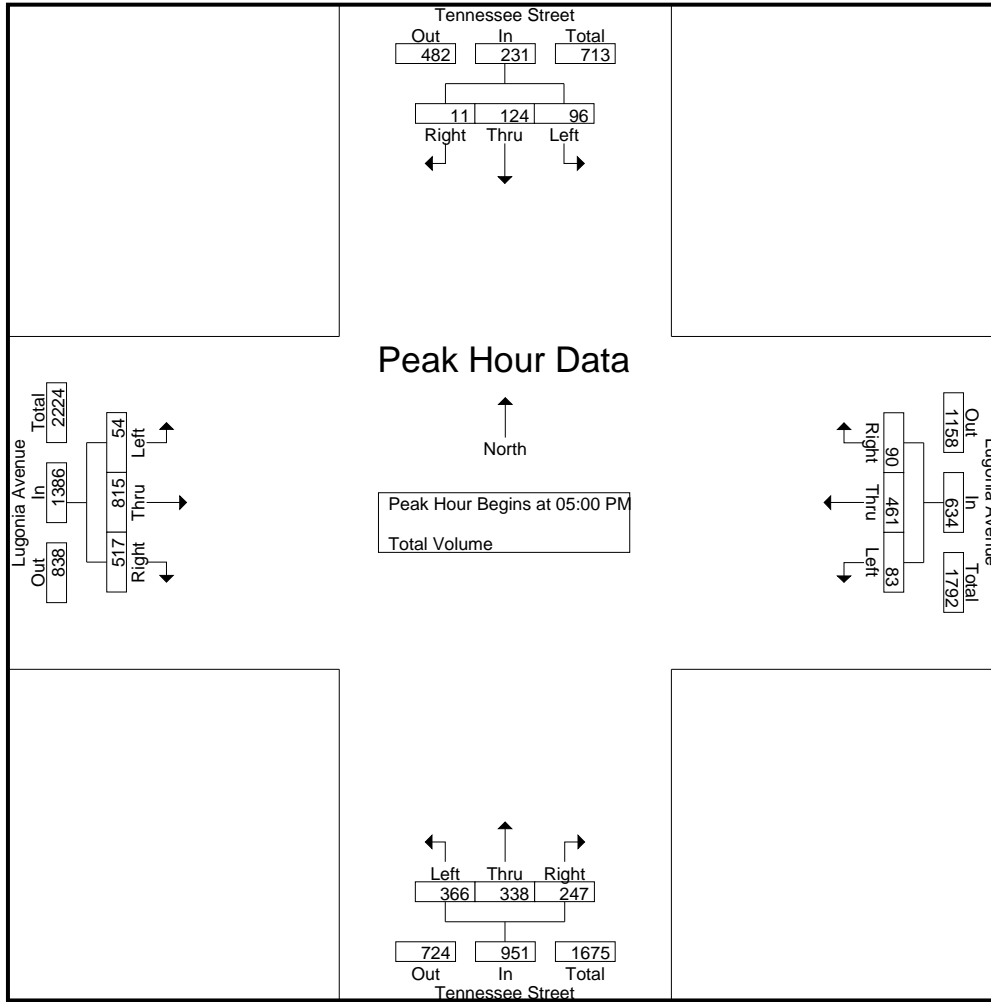
Start Time	Tennessee Street Southbound				Lugonia Avenue Westbound				Tennessee Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	20	32	2	54	29	132	21	182	82	57	53	192	15	204	132	351	779
04:15 PM	18	30	3	51	31	127	19	177	100	72	63	235	11	183	134	328	791
04:30 PM	24	30	3	57	15	106	25	146	84	70	51	205	16	212	131	359	767
04:45 PM	21	26	2	49	20	102	21	143	81	57	48	186	18	210	129	357	735
Total	83	118	10	211	95	467	86	648	347	256	215	818	60	809	526	1395	3072
05:00 PM	21	37	3	61	26	105	23	154	86	77	56	219	21	218	115	354	788
05:15 PM	31	33	3	67	17	120	21	158	100	101	71	272	13	193	165	371	868
05:30 PM	21	28	1	50	15	111	26	152	94	82	65	241	11	214	118	343	786
05:45 PM	23	26	4	53	25	125	20	170	86	78	55	219	9	190	119	318	760
Total	96	124	11	231	83	461	90	634	366	338	247	951	54	815	517	1386	3202
Grand Total	179	242	21	442	178	928	176	1282	713	594	462	1769	114	1624	1043	2781	6274
Apprch %	40.5	54.8	4.8		13.9	72.4	13.7		40.3	33.6	26.1		4.1	58.4	37.5		
Total %	2.9	3.9	0.3	7	2.8	14.8	2.8	20.4	11.4	9.5	7.4	28.2	1.8	25.9	16.6	44.3	

Start Time	Tennessee Street Southbound				Lugonia Avenue Westbound				Tennessee Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	21	37	3	61	26	105	23	154	86	77	56	219	21	218	115	354	788
05:15 PM	31	33	3	67	17	120	21	158	100	101	71	272	13	193	165	371	868
05:30 PM	21	28	1	50	15	111	26	152	94	82	65	241	11	214	118	343	786
05:45 PM	23	26	4	53	25	125	20	170	86	78	55	219	9	190	119	318	760
Total Volume	96	124	11	231	83	461	90	634	366	338	247	951	54	815	517	1386	3202
% App. Total	41.6	53.7	4.8		13.1	72.7	14.2		38.5	35.5	26		3.9	58.8	37.3		
PHF	.774	.838	.688	.862	.798	.922	.865	.932	.915	.837	.870	.874	.643	.935	.783	.934	.922

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

City of Redlands
 N/S: Tennessee Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 036_RED_Tenn_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:00 PM				05:00 PM				04:30 PM			
+0 mins.	24	30	3	57	29	132	21	182	86	77	56	219	16	212	131	359
+15 mins.	21	26	2	49	31	127	19	177	100	101	71	272	18	210	129	357
+30 mins.	21	37	3	61	15	106	25	146	94	82	65	241	21	218	115	354
+45 mins.	31	33	3	67	20	102	21	143	86	78	55	219	13	193	165	371
Total Volume	97	126	11	234	95	467	86	648	366	338	247	951	68	833	540	1441
% App. Total	41.5	53.8	4.7		14.7	72.1	13.3		38.5	35.5	26		4.7	57.8	37.5	
PHF	.782	.851	.917	.873	.766	.884	.860	.890	.915	.837	.870	.874	.810	.955	.818	.971

City of Redlands
 N/S: Texas Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 08_RED_Texas_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 Page No : 1

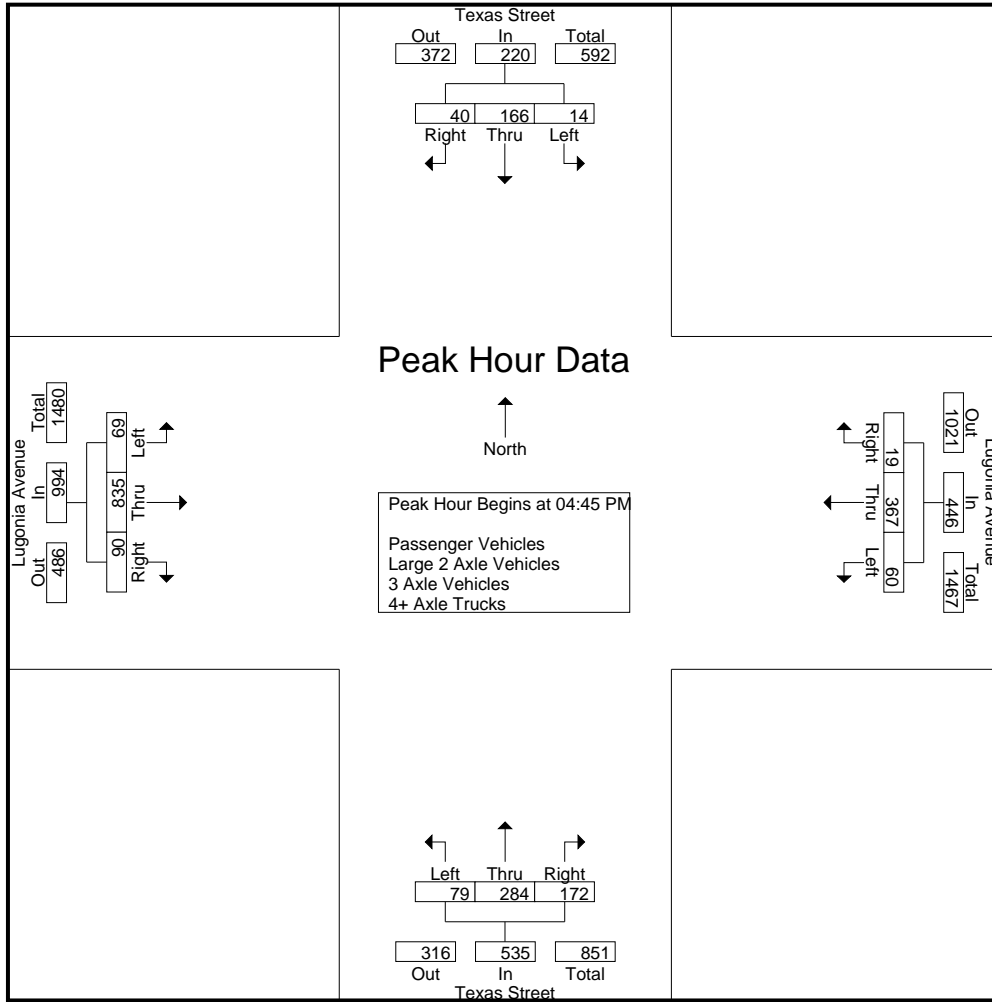
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Texas Street Southbound				Lugonia Avenue Westbound				Texas Street Northbound				Lugonia 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	3	41	5	49	16	99	3	118	17	48	32	97	18	201	28	247	511
04:15 PM	1	34	15	50	15	96	9	120	24	86	32	142	11	219	21	251	563
04:30 PM	2	28	10	40	17	76	4	97	14	67	26	107	21	183	23	227	471
04:45 PM	3	42	9	54	20	97	6	123	19	54	45	118	7	208	29	244	539
Total	9	145	39	193	68	368	22	458	74	255	135	464	57	811	101	969	2084
05:00 PM	2	39	9	50	11	100	2	113	22	82	55	159	17	207	16	240	562
05:15 PM	5	39	15	59	16	83	7	106	21	90	40	151	24	206	17	247	563
05:30 PM	4	46	7	57	13	87	4	104	17	58	32	107	21	214	28	263	531
05:45 PM	2	26	7	35	19	102	4	125	17	43	27	87	15	187	22	224	471
Total	13	150	38	201	59	372	17	448	77	273	154	504	77	814	83	974	2127
Grand Total	22	295	77	394	127	740	39	906	151	528	289	968	134	1625	184	1943	4211
Apprch %	5.6	74.9	19.5		14	81.7	4.3		15.6	54.5	29.9		6.9	83.6	9.5		
Total %	0.5	7	1.8	9.4	3	17.6	0.9	21.5	3.6	12.5	6.9	23	3.2	38.6	4.4	46.1	
Passenger Vehicles	22	295	76	393	123	730	39	892	150	525	286	961	134	1601	184	1919	4165
% Passenger Vehicles	100	100	98.7	99.7	96.9	98.6	100	98.5	99.3	99.4	99	99.3	100	98.5	100	98.8	98.9
Large 2 Axle Vehicles	0	0	1	1	3	9	0	12	1	2	3	6	0	20	0	20	39
% Large 2 Axle Vehicles	0	0	1.3	0.3	2.4	1.2	0	1.3	0.7	0.4	1	0.6	0	1.2	0	1	0.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0.2	0	0.1	0	0.2	0	0.2	0.1
4+ Axle Trucks	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
% 4+ Axle Trucks	0	0	0	0	0.8	0.1	0	0.2	0	0	0	0	0	0.1	0	0.1	0.1

Start Time	Texas Street Southbound				Lugonia Avenue Westbound				Texas Street Northbound				Lugonia 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 04:45 PM																	
04:45 PM	3	42	9	54	20	97	6	123	19	54	45	118	7	208	29	244	539
05:00 PM	2	39	9	50	11	100	2	113	22	82	55	159	17	207	16	240	562
05:15 PM	5	39	15	59	16	83	7	106	21	90	40	151	24	206	17	247	563
05:30 PM	4	46	7	57	13	87	4	104	17	58	32	107	21	214	28	263	531
Total Volume	14	166	40	220	60	367	19	446	79	284	172	535	69	835	90	994	2195
% App. Total	6.4	75.5	18.2		13.5	82.3	4.3		14.8	53.1	32.1		6.9	84	9.1		
PHF	.700	.902	.667	.932	.750	.918	.679	.907	.898	.789	.782	.841	.719	.975	.776	.945	.975

City of Redlands
 N/S: Texas Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 08_RED_Texas_Lug PM
 Site Code : 05722365
 Start Date : 4/28/2022
 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:

	04:45 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	3	42	9	54	16	99	3	118	14	67	26	107	7	208	29	244
+15 mins.	2	39	9	50	15	96	9	120	19	54	45	118	17	207	16	240
+30 mins.	5	39	15	59	17	76	4	97	22	82	55	159	24	206	17	247
+45 mins.	4	46	7	57	20	97	6	123	21	90	40	151	21	214	28	263
Total Volume	14	166	40	220	68	368	22	458	76	293	166	535	69	835	90	994
% App. Total	6.4	75.5	18.2		14.8	80.3	4.8		14.2	54.8	31		6.9	84	9.1	
PHF	.700	.902	.667	.932	.850	.929	.611	.931	.864	.814	.755	.841	.719	.975	.776	.945

City of Redlands
 N/S: University Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 038_RED_Uni_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	University Street Southbound				Lugonia Avenue Westbound				University Street Northbound				Lugonia 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	3	12	4	19	37	138	1	176	20	12	35	67	12	198	14	224	486
04:15 PM	6	13	4	23	45	122	8	175	13	21	60	94	11	202	18	231	523
04:30 PM	9	17	5	31	49	126	2	177	6	15	36	57	3	207	17	227	492
04:45 PM	3	14	7	24	41	136	3	180	15	20	54	89	10	209	25	244	537
Total	21	56	20	97	172	522	14	708	54	68	185	307	36	816	74	926	2038
05:00 PM	3	13	7	23	32	123	3	158	23	18	49	90	3	194	23	220	491
05:15 PM	5	17	4	26	41	129	2	172	17	13	44	74	5	209	21	235	507
05:30 PM	0	7	4	11	40	124	3	167	23	21	42	86	2	213	24	239	503
05:45 PM	3	20	2	25	32	104	4	140	17	10	39	66	8	230	29	267	498
Total	11	57	17	85	145	480	12	637	80	62	174	316	18	846	97	961	1999
Grand Total	32	113	37	182	317	1002	26	1345	134	130	359	623	54	1662	171	1887	4037
Apprch %	17.6	62.1	20.3		23.6	74.5	1.9		21.5	20.9	57.6		2.9	88.1	9.1		
Total %	0.8	2.8	0.9	4.5	7.9	24.8	0.6	33.3	3.3	3.2	8.9	15.4	1.3	41.2	4.2	46.7	

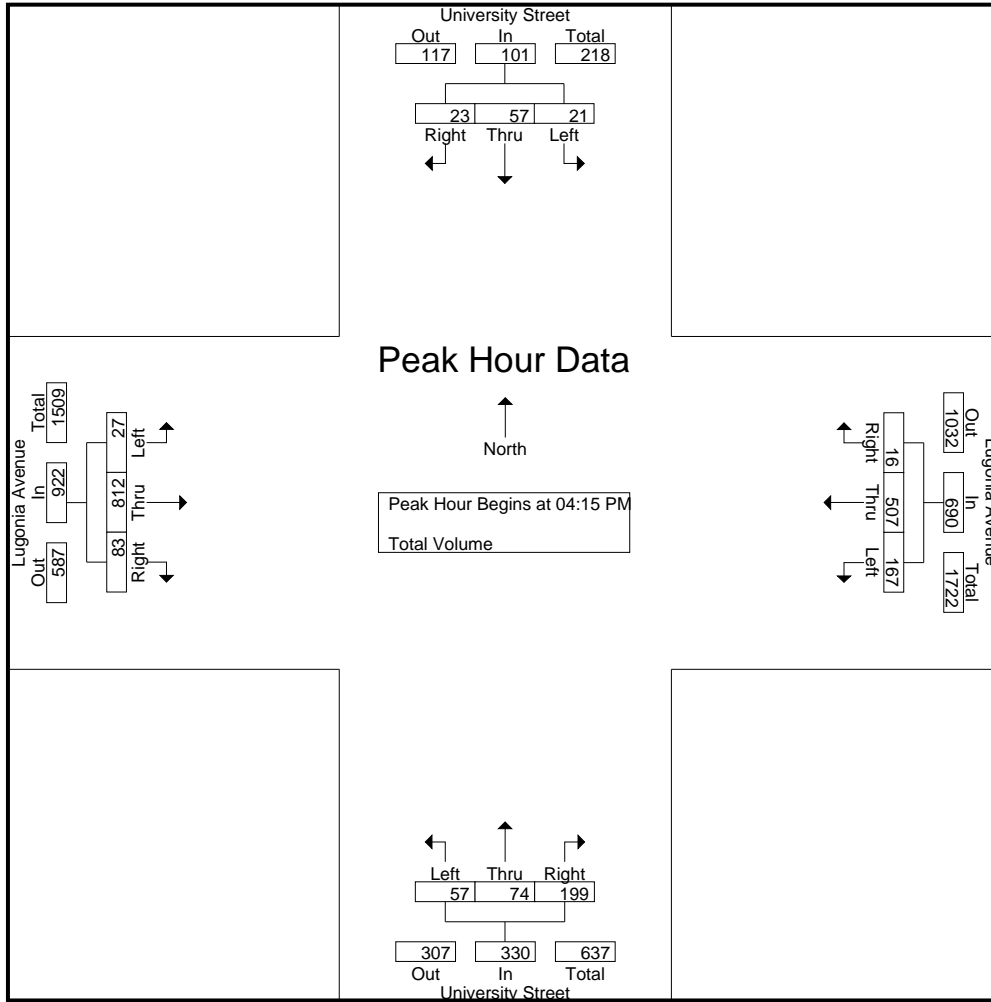
Start Time	University Street Southbound				Lugonia Avenue Westbound				University Street Northbound				Lugonia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	6	13	4	23	45	122	8	175	13	21	60	94	11	202	18	231	523
04:30 PM	9	17	5	31	49	126	2	177	6	15	36	57	3	207	17	227	492
04:45 PM	3	14	7	24	41	136	3	180	15	20	54	89	10	209	25	244	537
05:00 PM	3	13	7	23	32	123	3	158	23	18	49	90	3	194	23	220	491
Total Volume	21	57	23	101	167	507	16	690	57	74	199	330	27	812	83	922	2043
% App. Total	20.8	56.4	22.8		24.2	73.5	2.3		17.3	22.4	60.3		2.9	88.1	9		
PHF	.583	.838	.821	.815	.852	.932	.500	.958	.620	.881	.829	.878	.614	.971	.830	.945	.951

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: University Street
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 038_RED_Uni_Lugonia PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:00 PM				04:45 PM				05:00 PM			
+0 mins.	9	17	5	31	37	138	1	176	15	20	54	89	3	194	23	220
+15 mins.	3	14	7	24	45	122	8	175	23	18	49	90	5	209	21	235
+30 mins.	3	13	7	23	49	126	2	177	17	13	44	74	2	213	24	239
+45 mins.	5	17	4	26	41	136	3	180	23	21	42	86	8	230	29	267
Total Volume	20	61	23	104	172	522	14	708	78	72	189	339	18	846	97	961
% App. Total	19.2	58.7	22.1		24.3	73.7	2		23	21.2	55.8		1.9	88	10.1	
PHF	.556	.897	.821	.839	.878	.946	.438	.983	.848	.857	.875	.942	.563	.920	.836	.900

City of Redlands
 N/S: Wabash Avenue
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 08_RED_Wabash_Lugonia_PM
 Site Code : 12221531
 Start Date : 9/29/2021
 Page No : 1

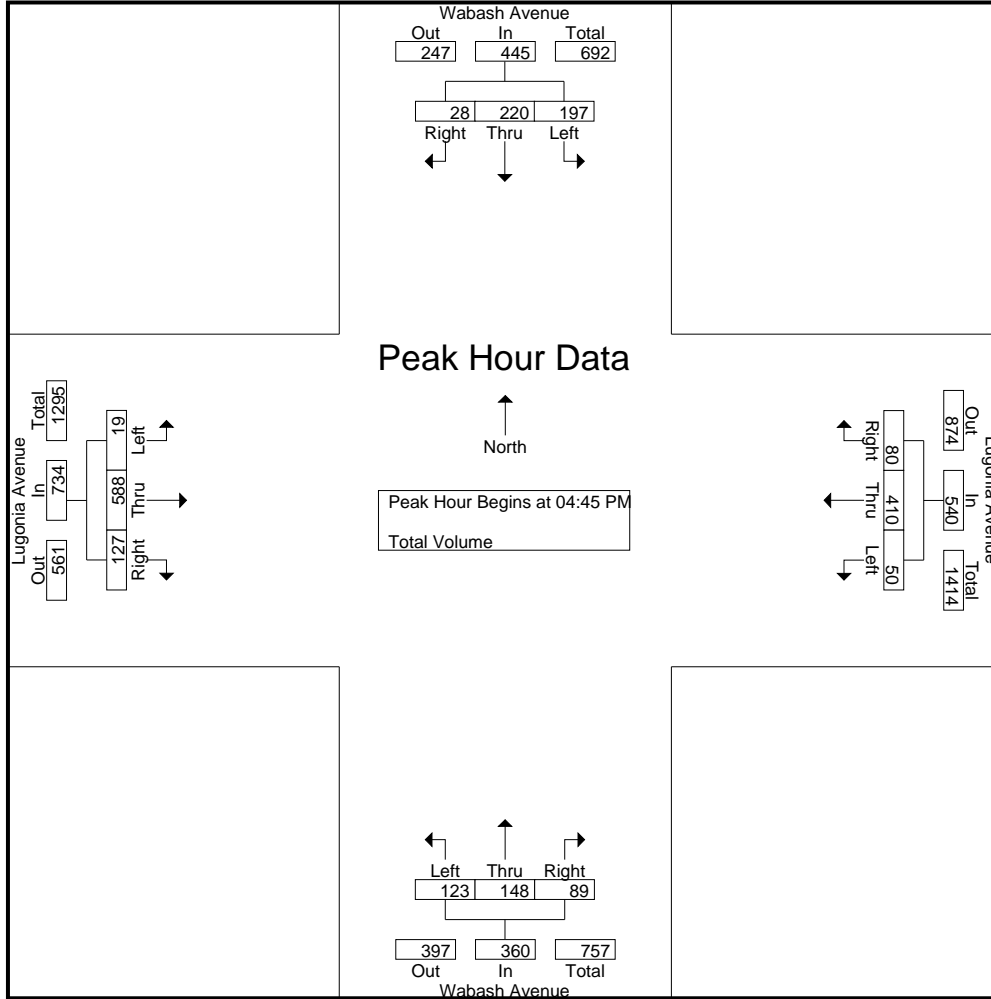
Groups Printed- Total Volume

Start Time	Wabash Avenue Southbound				Lugonia Avenue Westbound				Wabash Avenue Northbound				Lugonia 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	42	34	5	81	13	128	8	149	31	36	24	91	4	132	30	166	487
04:15 PM	46	47	7	100	14	104	7	125	28	40	22	90	7	151	29	187	502
04:30 PM	39	47	6	92	12	106	18	136	24	40	19	83	2	127	24	153	464
04:45 PM	52	54	5	111	11	100	19	130	38	39	19	96	2	159	42	203	540
Total	179	182	23	384	50	438	52	540	121	155	84	360	15	569	125	709	1993
05:00 PM	45	47	9	101	13	104	25	142	35	43	28	106	7	144	23	174	523
05:15 PM	48	63	8	119	12	108	21	141	23	38	28	89	6	145	33	184	533
05:30 PM	52	56	6	114	14	98	15	127	27	28	14	69	4	140	29	173	483
05:45 PM	45	38	5	88	16	104	16	136	30	35	33	98	6	136	32	174	496
Total	190	204	28	422	55	414	77	546	115	144	103	362	23	565	117	705	2035
Grand Total	369	386	51	806	105	852	129	1086	236	299	187	722	38	1134	242	1414	4028
Apprch %	45.8	47.9	6.3		9.7	78.5	11.9		32.7	41.4	25.9		2.7	80.2	17.1		
Total %	9.2	9.6	1.3	20	2.6	21.2	3.2	27	5.9	7.4	4.6	17.9	0.9	28.2	6	35.1	

Start Time	Wabash Avenue Southbound				Lugonia Avenue Westbound				Wabash Avenue Northbound				Lugonia 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 04:45 PM																	
04:45 PM	52	54	5	111	11	100	19	130	38	39	19	96	2	159	42	203	540
05:00 PM	45	47	9	101	13	104	25	142	35	43	28	106	7	144	23	174	523
05:15 PM	48	63	8	119	12	108	21	141	23	38	28	89	6	145	33	184	533
05:30 PM	52	56	6	114	14	98	15	127	27	28	14	69	4	140	29	173	483
Total Volume	197	220	28	445	50	410	80	540	123	148	89	360	19	588	127	734	2079
% App. Total	44.3	49.4	6.3		9.3	75.9	14.8		34.2	41.1	24.7		2.6	80.1	17.3		
PHF	.947	.873	.778	.935	.893	.949	.800	.951	.809	.860	.795	.849	.679	.925	.756	.904	.963

City of Redlands
 N/S: Wabash Avenue
 E/W: Lugonia Avenue
 Weather: Clear

File Name : 08_RED_Wabash_Lugonia_PM
 Site Code : 12221531
 Start Date : 9/29/2021
 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:

	04:45 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	52	54	5	111	12	106	18	136	28	40	22	90	2	159	42	203
+15 mins.	45	47	9	101	11	100	19	130	24	40	19	83	7	144	23	174
+30 mins.	48	63	8	119	13	104	25	142	38	39	19	96	6	145	33	184
+45 mins.	52	56	6	114	12	108	21	141	35	43	28	106	4	140	29	173
Total Volume	197	220	28	445	48	418	83	549	125	162	88	375	19	588	127	734
% App. Total	44.3	49.4	6.3		8.7	76.1	15.1		33.3	43.2	23.5		2.6	80.1	17.3	
PHF	.947	.873	.778	.935	.923	.968	.830	.967	.822	.942	.786	.884	.679	.925	.756	.904

City of Redlands
 N/S: Mountain View Avenue
 E/W: Victoria Avenue/Almond Avenue
 Weather: Clear

File Name : 040_RED_Mtn View_Alm PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Mountain View Avenue Southbound				Almond Avenue Westbound				Mountain View Avenue Northbound				Victoria 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	14	103	2	119	19	30	16	65	10	58	17	85	4	32	13	49	318
04:15 PM	10	73	3	86	25	18	17	60	10	67	16	93	5	36	8	49	288
04:30 PM	17	111	4	132	35	23	16	74	7	66	11	84	5	37	13	55	345
04:45 PM	16	107	8	131	22	23	11	56	8	62	22	92	3	33	9	45	324
Total	57	394	17	468	101	94	60	255	35	253	66	354	17	138	43	198	1275
05:00 PM	12	110	6	128	19	27	21	67	6	80	12	98	5	38	4	47	340
05:15 PM	14	82	3	99	19	30	18	67	7	106	16	129	4	36	5	45	340
05:30 PM	15	105	6	126	23	35	20	78	8	88	17	113	6	38	8	52	369
05:45 PM	10	76	1	87	24	42	19	85	12	81	18	111	1	29	10	40	323
Total	51	373	16	440	85	134	78	297	33	355	63	451	16	141	27	184	1372
Grand Total	108	767	33	908	186	228	138	552	68	608	129	805	33	279	70	382	2647
Apprch %	11.9	84.5	3.6		33.7	41.3	25		8.4	75.5	16		8.6	73	18.3		
Total %	4.1	29	1.2	34.3	7	8.6	5.2	20.9	2.6	23	4.9	30.4	1.2	10.5	2.6	14.4	

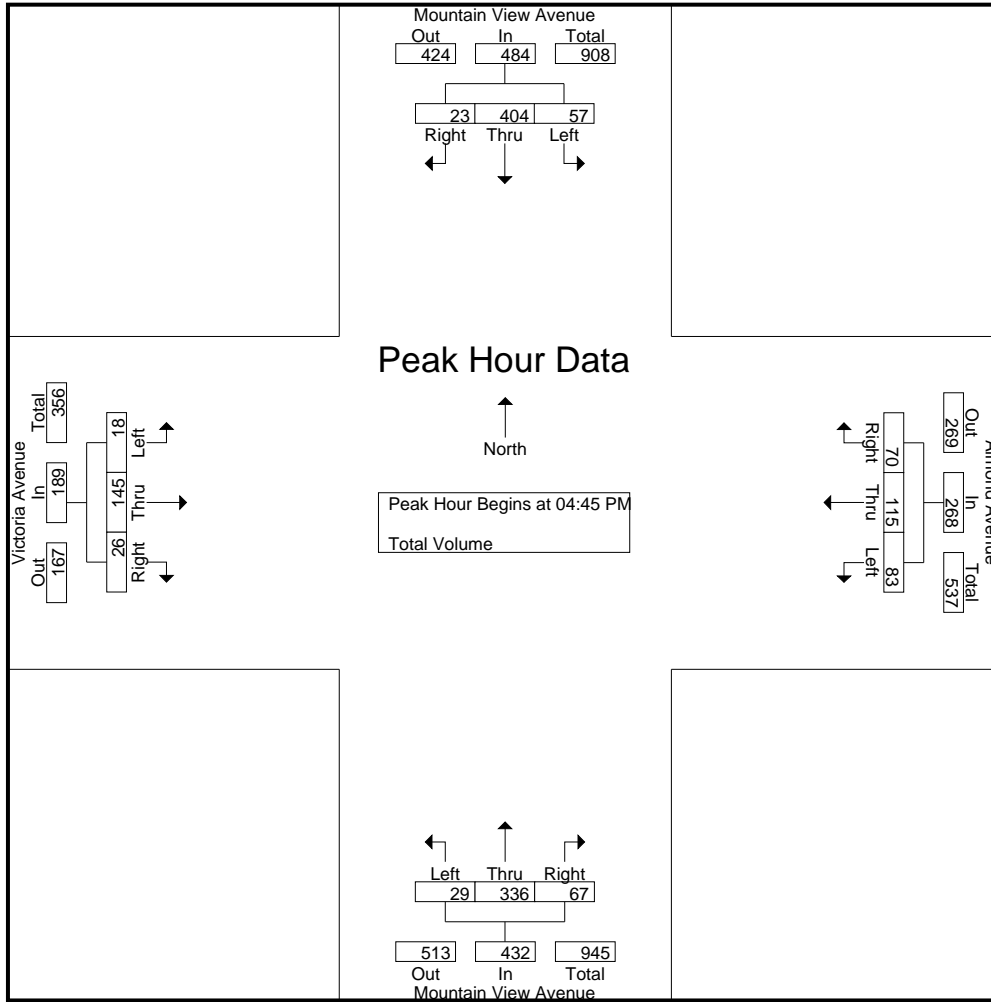
Start Time	Mountain View Avenue Southbound				Almond Avenue Westbound				Mountain View Avenue Northbound				Victoria Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	16	107	8	131	22	23	11	56	8	62	22	92	3	33	9	45	324
05:00 PM	12	110	6	128	19	27	21	67	6	80	12	98	5	38	4	47	340
05:15 PM	14	82	3	99	19	30	18	67	7	106	16	129	4	36	5	45	340
05:30 PM	15	105	6	126	23	35	20	78	8	88	17	113	6	38	8	52	369
Total Volume	57	404	23	484	83	115	70	268	29	336	67	432	18	145	26	189	1373
% App. Total	11.8	83.5	4.8		31	42.9	26.1		6.7	77.8	15.5		9.5	76.7	13.8		
PHF	.891	.918	.719	.924	.902	.821	.833	.859	.906	.792	.761	.837	.750	.954	.722	.909	.930

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: Mountain View Avenue
 E/W: Victoria Avenue/Almond Avenue
 Weather: Clear

File Name : 040_RED_Mtn View_Alm PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	17	111	4	132	19	27	21	67	6	80	12	98	4	32	13	49
+15 mins.	16	107	8	131	19	30	18	67	7	106	16	129	5	36	8	49
+30 mins.	12	110	6	128	23	35	20	78	8	88	17	113	5	37	13	55
+45 mins.	14	82	3	99	24	42	19	85	12	81	18	111	3	33	9	45
Total Volume	59	410	21	490	85	134	78	297	33	355	63	451	17	138	43	198
% App. Total	12	83.7	4.3		28.6	45.1	26.3		7.3	78.7	14		8.6	69.7	21.7	
PHF	.868	.923	.656	.928	.885	.798	.929	.874	.688	.837	.875	.874	.850	.932	.827	.900

City of Redlands
 N/S: Orange Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 041_RED_Org_Brock PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				Brockton Avenue Westbound				Orange Street Northbound				Brockton 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	16	162	4	182	17	12	8	37	5	140	20	165	4	36	8	48	432
04:15 PM	10	145	4	159	26	18	8	52	8	112	8	128	2	29	5	36	375
04:30 PM	7	152	4	163	23	13	8	44	6	141	20	167	0	32	7	39	413
04:45 PM	13	164	4	181	14	6	12	32	11	122	21	154	7	30	10	47	414
Total	46	623	16	685	80	49	36	165	30	515	69	614	13	127	30	170	1634
05:00 PM	12	154	8	174	18	24	11	53	9	142	16	167	5	44	9	58	452
05:15 PM	15	151	4	170	17	22	3	42	4	119	15	138	6	23	7	36	386
05:30 PM	10	128	8	146	13	18	9	40	10	136	11	157	8	40	6	54	397
05:45 PM	4	149	3	156	11	15	10	36	5	107	20	132	4	18	11	33	357
Total	41	582	23	646	59	79	33	171	28	504	62	594	23	125	33	181	1592
Grand Total	87	1205	39	1331	139	128	69	336	58	1019	131	1208	36	252	63	351	3226
Apprch %	6.5	90.5	2.9		41.4	38.1	20.5		4.8	84.4	10.8		10.3	71.8	17.9		
Total %	2.7	37.4	1.2	41.3	4.3	4	2.1	10.4	1.8	31.6	4.1	37.4	1.1	7.8	2	10.9	

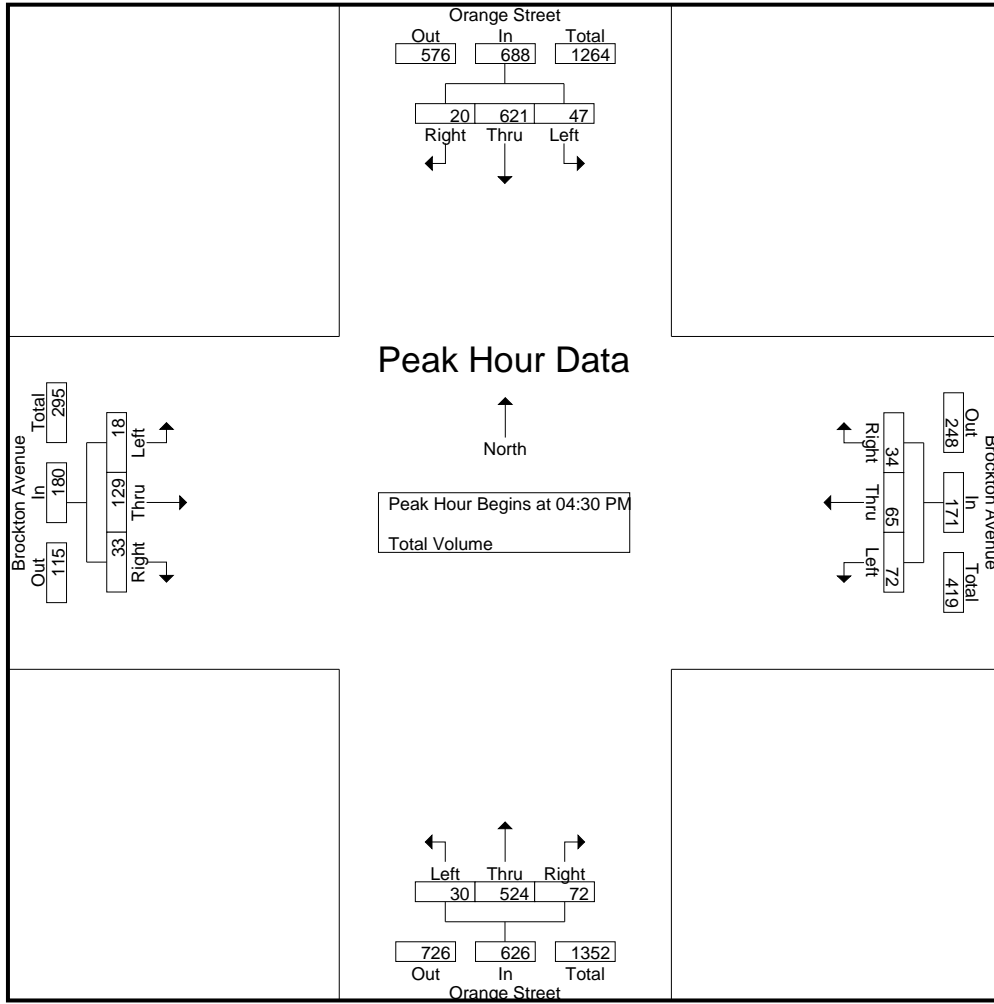
Start Time	Orange Street Southbound				Brockton Avenue Westbound				Orange Street Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	7	152	4	163	23	13	8	44	6	141	20	167	0	32	7	39	413
04:45 PM	13	164	4	181	14	6	12	32	11	122	21	154	7	30	10	47	414
05:00 PM	12	154	8	174	18	24	11	53	9	142	16	167	5	44	9	58	452
05:15 PM	15	151	4	170	17	22	3	42	4	119	15	138	6	23	7	36	386
Total Volume	47	621	20	688	72	65	34	171	30	524	72	626	18	129	33	180	1665
% App. Total	6.8	90.3	2.9		42.1	38	19.9		4.8	83.7	11.5		10	71.7	18.3		
PHF	.783	.947	.625	.950	.783	.677	.708	.807	.682	.923	.857	.937	.643	.733	.825	.776	.921

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 Redlands
 N/S: Orange Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 041_RED_Org_Brock PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:15 PM				04:30 PM				04:45 PM			
+0 mins.	7	152	4	163	26	18	8	52	6	141	20	167	7	30	10	47
+15 mins.	13	164	4	181	23	13	8	44	11	122	21	154	5	44	9	58
+30 mins.	12	154	8	174	14	6	12	32	9	142	16	167	6	23	7	36
+45 mins.	15	151	4	170	18	24	11	53	4	119	15	138	8	40	6	54
Total Volume	47	621	20	688	81	61	39	181	30	524	72	626	26	137	32	195
% App. Total	6.8	90.3	2.9		44.8	33.7	21.5		4.8	83.7	11.5		13.3	70.3	16.4	
PHF	.783	.947	.625	.950	.779	.635	.813	.854	.682	.923	.857	.937	.813	.778	.800	.841

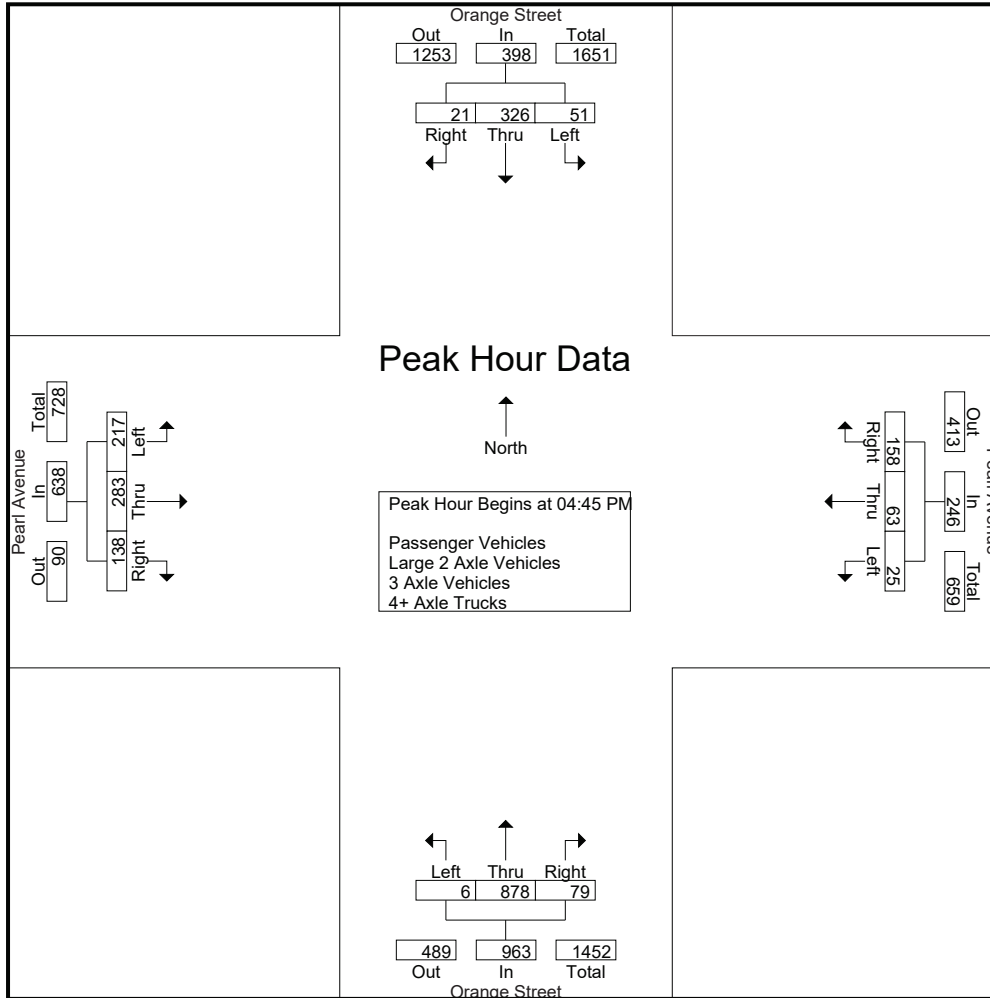
City of Redlands
 N/S: Orange Street
 E/W: Pearl Avenue
 Weather: Clear

File Name : 15_RED_Orange_Pearl PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

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

Start Time	Orange Street Southbound					Pearl Avenue Westbound					Orange Street Northbound					Pearl Avenue Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	14	76	6	0	96	6	7	31	11	44	2	189	19	2	210	50	58	32	6	140	19	490	509
04:15 PM	12	77	9	4	98	6	19	26	6	51	1	174	19	3	194	61	76	22	3	159	16	502	518
04:30 PM	9	80	9	1	98	8	10	42	8	60	2	185	15	2	202	52	66	41	12	159	23	519	542
04:45 PM	12	88	5	0	105	7	18	40	10	65	2	204	23	2	229	47	66	32	7	145	19	544	563
Total	47	321	29	5	397	27	54	139	35	220	7	752	76	9	835	210	266	127	28	603	77	2055	2132
05:00 PM	15	78	7	1	100	5	12	39	7	56	2	228	23	2	253	59	80	30	5	169	15	578	593
05:15 PM	14	90	3	0	107	7	15	41	8	63	0	231	16	0	247	52	74	42	8	168	16	585	601
05:30 PM	10	70	6	1	86	6	18	38	4	62	2	215	17	2	234	59	63	34	4	156	11	538	549
05:45 PM	9	94	4	0	107	5	16	28	9	49	3	183	15	2	201	56	60	41	4	157	15	514	529
Total	48	332	20	2	400	23	61	146	28	230	7	857	71	6	935	226	277	147	21	650	57	2215	2272
Grand Total	95	653	49	7	797	50	115	285	63	450	14	1609	147	15	1770	436	543	274	49	1253	134	4270	4404
Apprch %	11.9	81.9	6.1			11.1	25.6	63.3			0.8	90.9	8.3			34.8	43.3	21.9					
Total %	2.2	15.3	1.1		18.7	1.2	2.7	6.7		10.5	0.3	37.7	3.4		41.5	10.2	12.7	6.4		29.3	3	97	
Passenger Vehicles	93	647	49		796	50	114	283		509	14	1597	145		1770	424	542	272		1287	0	0	4362
% Passenger Vehicles	97.9	99.1	100		99	100	99.1	99.3	98.4	99.2	100	99.3	98.6	93.3	99.2	97.2	99.8	99.3	100	98.8	0	0	99
Large 2 Axle Vehicles	2	6	0		8	0	1	1		3	0	12	2		15	7	1	0		8	0	0	34
% Large 2 Axle Vehicles	2.1	0.9	0	0	1	0	0.9	0.4	1.6	0.6	0	0.7	1.4	6.7	0.8	1.6	0.2	0	0	0.6	0	0	0.8
3 Axle Vehicles	0	0	0		0	0	0	1		1	0	0	0		0	0	0	0		0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0.4	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0		0	0	0	0		0	0	0	0		0	5	0	2		7	0	0	7
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0	0.7	0	0.5	0	0	0.2

Start Time	Orange Street Southbound				Pearl Avenue Westbound				Orange Street Northbound				Pearl 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 04:45 PM																	
04:45 PM	12	88	5	105	7	18	40	65	2	204	23	229	47	66	32	145	544
05:00 PM	15	78	7	100	5	12	39	56	2	228	23	253	59	80	30	169	578
05:15 PM	14	90	3	107	7	15	41	63	0	231	16	247	52	74	42	168	585
05:30 PM	10	70	6	86	6	18	38	62	2	215	17	234	59	63	34	156	538
Total Volume	51	326	21	398	25	63	158	246	6	878	79	963	217	283	138	638	2245
% App. Total	12.8	81.9	5.3		10.2	25.6	64.2		0.6	91.2	8.2		34	44.4	21.6		
PHF	.850	.906	.750	.930	.893	.875	.963	.946	.750	.950	.859	.952	.919	.884	.821	.944	.959



Location: Redlands
 N/S: Orange Street
 E/W: Pearl Avenue



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Orange Street	East Leg Pearl Avenue	South Leg Orange Street	West Leg Pearl Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	2	2
7:15 AM	0	1	2	1	4
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	1	1
8:00 AM	0	1	0	0	1
8:15 AM	0	4	0	4	8
8:30 AM	0	3	0	1	4
8:45 AM	0	1	0	2	3
TOTAL VOLUMES:	0	10	2	12	24

	North Leg Orange Street	East Leg Pearl Avenue	South Leg Orange Street	West Leg Pearl Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	1	2	3
4:15 PM	0	1	0	1	2
4:30 PM	0	1	0	0	1
4:45 PM	0	1	0	1	2
5:00 PM	1	1	4	4	10
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	2	2
5:45 PM	0	0	0	2	2
TOTAL VOLUMES:	1	4	5	12	22

Location: Redlands
 N/S: Orange Street
 E/W: Pearl Avenue



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Orange Street			Westbound Pearl Avenue			Northbound Orange Street			Eastbound Pearl 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	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	0	1	0	0	0	1	4

	Southbound Orange Street			Westbound Pearl Avenue			Northbound Orange Street			Eastbound Pearl 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	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	1	0	0	1	0	0	0	0	0	0	0	2

City of Redlands
 N/S: Orange Street
 E/W: Pennsylvania Avenue
 Weather: Clear

File Name : 043_RED_Org_Pen PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				Pennsylvania Avenue Westbound				Orange Street Northbound				Pennsylvania 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	12	119	9	140	33	29	28	90	2	116	9	127	16	19	3	38	395
04:15 PM	7	110	15	132	8	18	16	42	6	117	12	135	11	21	5	37	346
04:30 PM	16	126	10	152	15	24	17	56	11	127	16	154	18	34	7	59	421
04:45 PM	17	150	13	180	11	22	15	48	4	148	11	163	18	22	4	44	435
Total	52	505	47	604	67	93	76	236	23	508	48	579	63	96	19	178	1597
05:00 PM	10	132	10	152	9	15	15	39	10	134	3	147	13	30	6	49	387
05:15 PM	10	144	8	162	4	16	6	26	9	150	8	167	14	30	9	53	408
05:30 PM	15	117	6	138	8	17	9	34	9	135	11	155	10	28	6	44	371
05:45 PM	14	142	7	163	23	14	16	53	7	114	16	137	14	29	4	47	400
Total	49	535	31	615	44	62	46	152	35	533	38	606	51	117	25	193	1566
Grand Total	101	1040	78	1219	111	155	122	388	58	1041	86	1185	114	213	44	371	3163
Apprch %	8.3	85.3	6.4		28.6	39.9	31.4		4.9	87.8	7.3		30.7	57.4	11.9		
Total %	3.2	32.9	2.5	38.5	3.5	4.9	3.9	12.3	1.8	32.9	2.7	37.5	3.6	6.7	1.4	11.7	

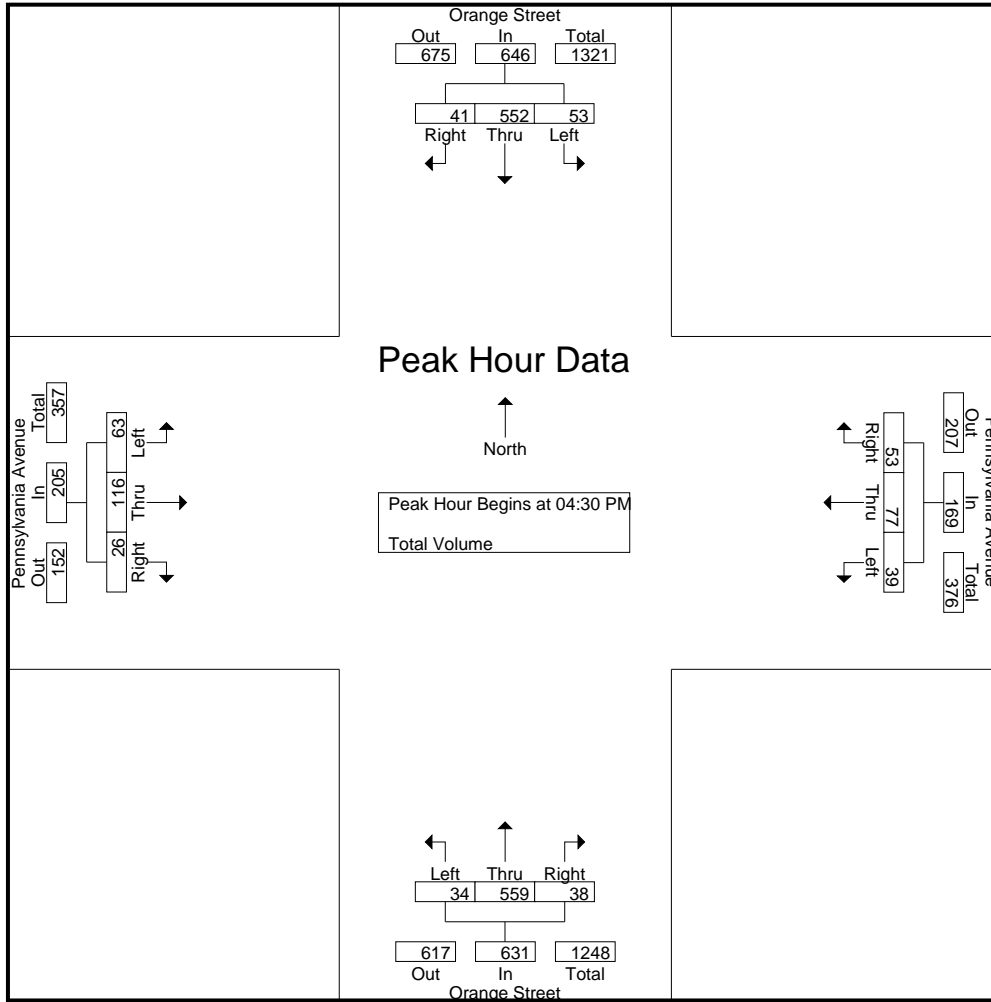
Start Time	Orange Street Southbound				Pennsylvania Avenue Westbound				Orange Street Northbound				Pennsylvania Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	16	126	10	152	15	24	17	56	11	127	16	154	18	34	7	59	421
04:45 PM	17	150	13	180	11	22	15	48	4	148	11	163	18	22	4	44	435
05:00 PM	10	132	10	152	9	15	15	39	10	134	3	147	13	30	6	49	387
05:15 PM	10	144	8	162	4	16	6	26	9	150	8	167	14	30	9	53	408
Total Volume	53	552	41	646	39	77	53	169	34	559	38	631	63	116	26	205	1651
% App. Total	8.2	85.4	6.3		23.1	45.6	31.4		5.4	88.6	6		30.7	56.6	12.7		
PHF	.779	.920	.788	.897	.650	.802	.779	.754	.773	.932	.594	.945	.875	.853	.722	.869	.949

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 Redlands
 N/S: Orange Street
 E/W: Pennsylvania Avenue
 Weather: Clear

File Name : 043_RED_Org_Pen PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:00 PM				04:45 PM				04:30 PM			
+0 mins.	16	126	10	152	33	29	28	90	4	148	11	163	18	34	7	59
+15 mins.	17	150	13	180	8	18	16	42	10	134	3	147	18	22	4	44
+30 mins.	10	132	10	152	15	24	17	56	9	150	8	167	13	30	6	49
+45 mins.	10	144	8	162	11	22	15	48	9	135	11	155	14	30	9	53
Total Volume	53	552	41	646	67	93	76	236	32	567	33	632	63	116	26	205
% App. Total	8.2	85.4	6.3		28.4	39.4	32.2		5.1	89.7	5.2		30.7	56.6	12.7	
PHF	.779	.920	.788	.897	.508	.802	.679	.656	.800	.945	.750	.946	.875	.853	.722	.869

City of Redlands
 N/S: Orange Street
 E/W: Pioneer Avenue
 Weather: Clear

File Name : 044_RED_Org_Pion PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				Pioneer Avenue Westbound				Orange Street Northbound				Pioneer 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	58	132	22	212	13	17	45	75	16	178	13	207	61	30	13	104	598
04:15 PM	55	131	20	206	5	8	32	45	11	152	11	174	47	35	6	88	513
04:30 PM	40	137	14	191	3	8	48	59	10	180	9	199	62	44	15	121	570
04:45 PM	70	192	25	287	4	11	46	61	14	181	10	205	44	31	10	85	638
Total	223	592	81	896	25	44	171	240	51	691	43	785	214	140	44	398	2319
05:00 PM	53	151	23	227	4	15	42	61	6	138	11	155	54	34	11	99	542
05:15 PM	70	171	41	282	6	21	40	67	7	196	10	213	62	57	10	129	691
05:30 PM	73	135	26	234	8	17	64	89	7	156	14	177	55	46	8	109	609
05:45 PM	52	121	23	196	8	20	43	71	16	161	11	188	58	41	11	110	565
Total	248	578	113	939	26	73	189	288	36	651	46	733	229	178	40	447	2407
Grand Total	471	1170	194	1835	51	117	360	528	87	1342	89	1518	443	318	84	845	4726
Apprch %	25.7	63.8	10.6		9.7	22.2	68.2		5.7	88.4	5.9		52.4	37.6	9.9		
Total %	10	24.8	4.1	38.8	1.1	2.5	7.6	11.2	1.8	28.4	1.9	32.1	9.4	6.7	1.8	17.9	

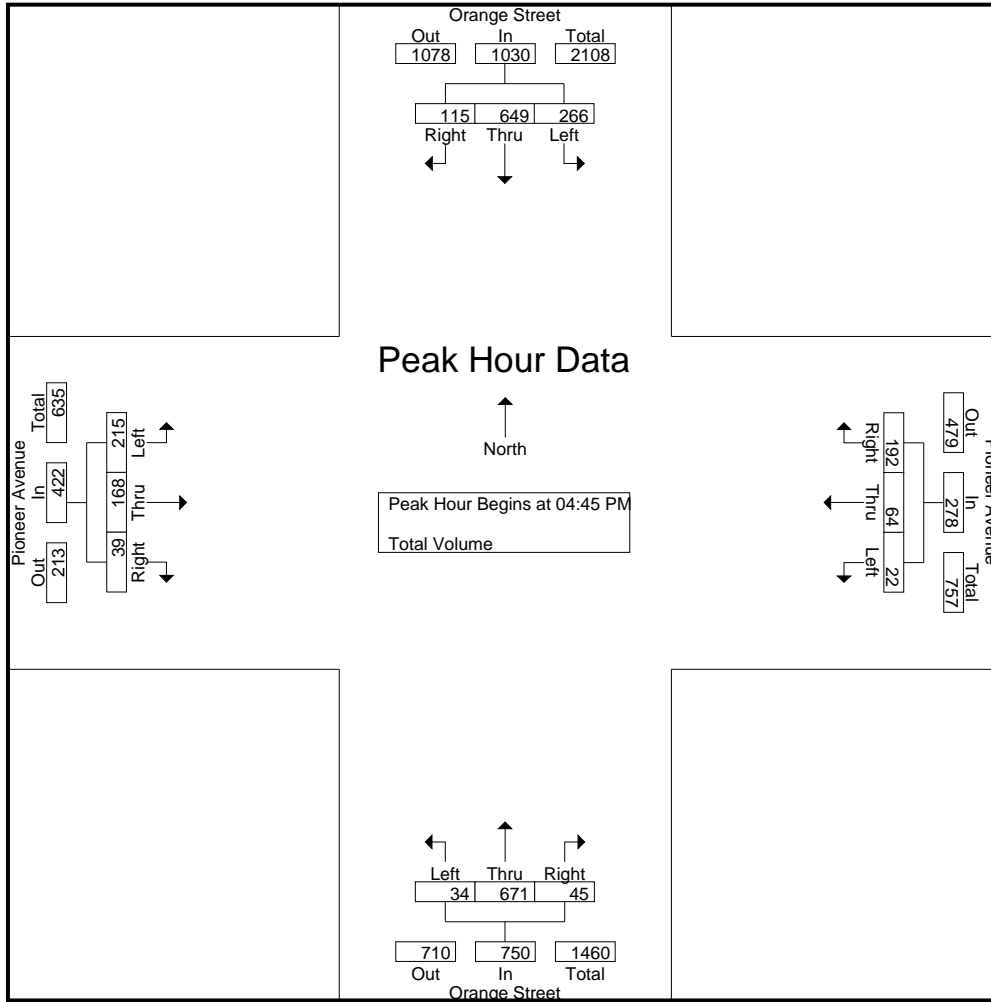
Start Time	Orange Street Southbound				Pioneer Avenue Westbound				Orange Street Northbound				Pioneer Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	70	192	25	287	4	11	46	61	14	181	10	205	44	31	10	85	638
05:00 PM	53	151	23	227	4	15	42	61	6	138	11	155	54	34	11	99	542
05:15 PM	70	171	41	282	6	21	40	67	7	196	10	213	62	57	10	129	691
05:30 PM	73	135	26	234	8	17	64	89	7	156	14	177	55	46	8	109	609
Total Volume	266	649	115	1030	22	64	192	278	34	671	45	750	215	168	39	422	2480
% App. Total	25.8	63	11.2		7.9	23	69.1		4.5	89.5	6		50.9	39.8	9.2		
PHF	.911	.845	.701	.897	.688	.762	.750	.781	.607	.856	.804	.880	.867	.737	.886	.818	.897

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: Orange Street
 E/W: Pioneer Avenue
 Weather: Clear

File Name : 044_RED_Org_Pion PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				05:00 PM				04:00 PM				05:00 PM			
+0 mins.	70	192	25	287	4	15	42	61	16	178	13	207	54	34	11	99
+15 mins.	53	151	23	227	6	21	40	67	11	152	11	174	62	57	10	129
+30 mins.	70	171	41	282	8	17	64	89	10	180	9	199	55	46	8	109
+45 mins.	73	135	26	234	8	20	43	71	14	181	10	205	58	41	11	110
Total Volume	266	649	115	1030	26	73	189	288	51	691	43	785	229	178	40	447
% App. Total	25.8	63	11.2		9	25.3	65.6		6.5	88	5.5		51.2	39.8	8.9	
PHF	.911	.845	.701	.897	.813	.869	.738	.809	.797	.954	.827	.948	.923	.781	.909	.866

City of Redlands
 N/S: Orange Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 045_RED_Org_San B PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Orange Street Southbound				San Bernardino Avenue Westbound				Orange Street Northbound				San Bernardino 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	32	109	30	171	8	61	21	90	14	136	13	163	33	110	21	164	588
04:15 PM	38	84	26	148	11	61	12	84	14	115	9	138	36	116	30	182	552
04:30 PM	31	114	23	168	12	55	28	95	16	120	14	150	48	92	27	167	580
04:45 PM	37	137	16	190	13	65	22	100	23	145	9	177	37	105	20	162	629
Total	138	444	95	677	44	242	83	369	67	516	45	628	154	423	98	675	2349
05:00 PM	35	116	12	163	9	61	23	93	22	116	17	155	46	104	24	174	585
05:15 PM	47	131	22	200	4	45	21	70	20	141	12	173	55	115	18	188	631
05:30 PM	22	98	27	147	12	50	11	73	21	118	10	149	46	83	27	156	525
05:45 PM	31	116	11	158	10	52	25	87	12	112	11	135	53	98	25	176	556
Total	135	461	72	668	35	208	80	323	75	487	50	612	200	400	94	694	2297
Grand Total	273	905	167	1345	79	450	163	692	142	1003	95	1240	354	823	192	1369	4646
Apprch %	20.3	67.3	12.4		11.4	65	23.6		11.5	80.9	7.7		25.9	60.1	14		
Total %	5.9	19.5	3.6	28.9	1.7	9.7	3.5	14.9	3.1	21.6	2	26.7	7.6	17.7	4.1	29.5	

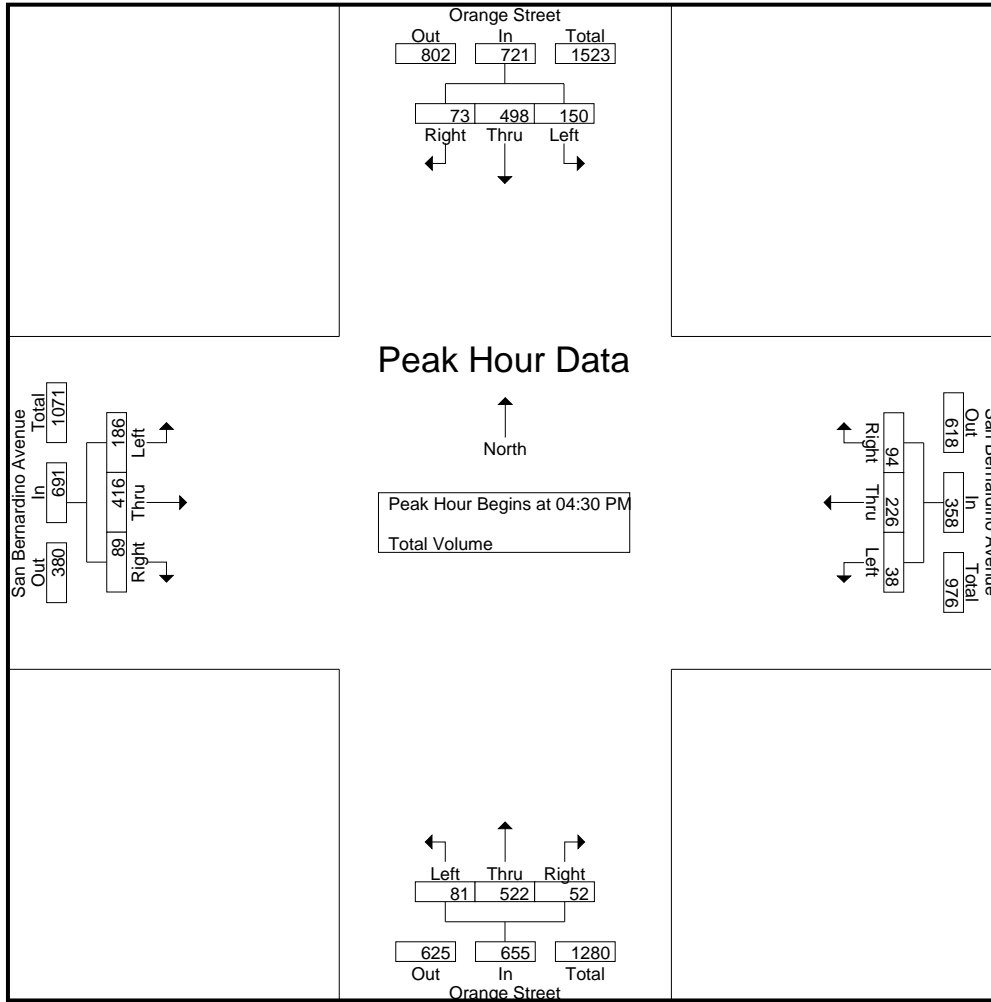
Start Time	Orange Street Southbound				San Bernardino Avenue Westbound				Orange Street Northbound				San Bernardino Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	31	114	23	168	12	55	28	95	16	120	14	150	48	92	27	167	580
04:45 PM	37	137	16	190	13	65	22	100	23	145	9	177	37	105	20	162	629
05:00 PM	35	116	12	163	9	61	23	93	22	116	17	155	46	104	24	174	585
05:15 PM	47	131	22	200	4	45	21	70	20	141	12	173	55	115	18	188	631
Total Volume	150	498	73	721	38	226	94	358	81	522	52	655	186	416	89	691	2425
% App. Total	20.8	69.1	10.1		10.6	63.1	26.3		12.4	79.7	7.9		26.9	60.2	12.9		
PHF	.798	.909	.793	.901	.731	.869	.839	.895	.880	.900	.765	.925	.845	.904	.824	.919	.961

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 Redlands
 N/S: Orange Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 045_RED_Org_San B PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:15 PM				04:30 PM				05:00 PM			
+0 mins.	31	114	23	168	11	61	12	84	16	120	14	150	46	104	24	174
+15 mins.	37	137	16	190	12	55	28	95	23	145	9	177	55	115	18	188
+30 mins.	35	116	12	163	13	65	22	100	22	116	17	155	46	83	27	156
+45 mins.	47	131	22	200	9	61	23	93	20	141	12	173	53	98	25	176
Total Volume	150	498	73	721	45	242	85	372	81	522	52	655	200	400	94	694
% App. Total	20.8	69.1	10.1		12.1	65.1	22.8		12.4	79.7	7.9		28.8	57.6	13.5	
PHF	.798	.909	.793	.901	.865	.931	.759	.930	.880	.900	.765	.925	.909	.870	.870	.923

City of Redlands
 N/S: Orange Street
 E/W: State Street
 Weather: Clear

File Name : 17_RED_Orange_State PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

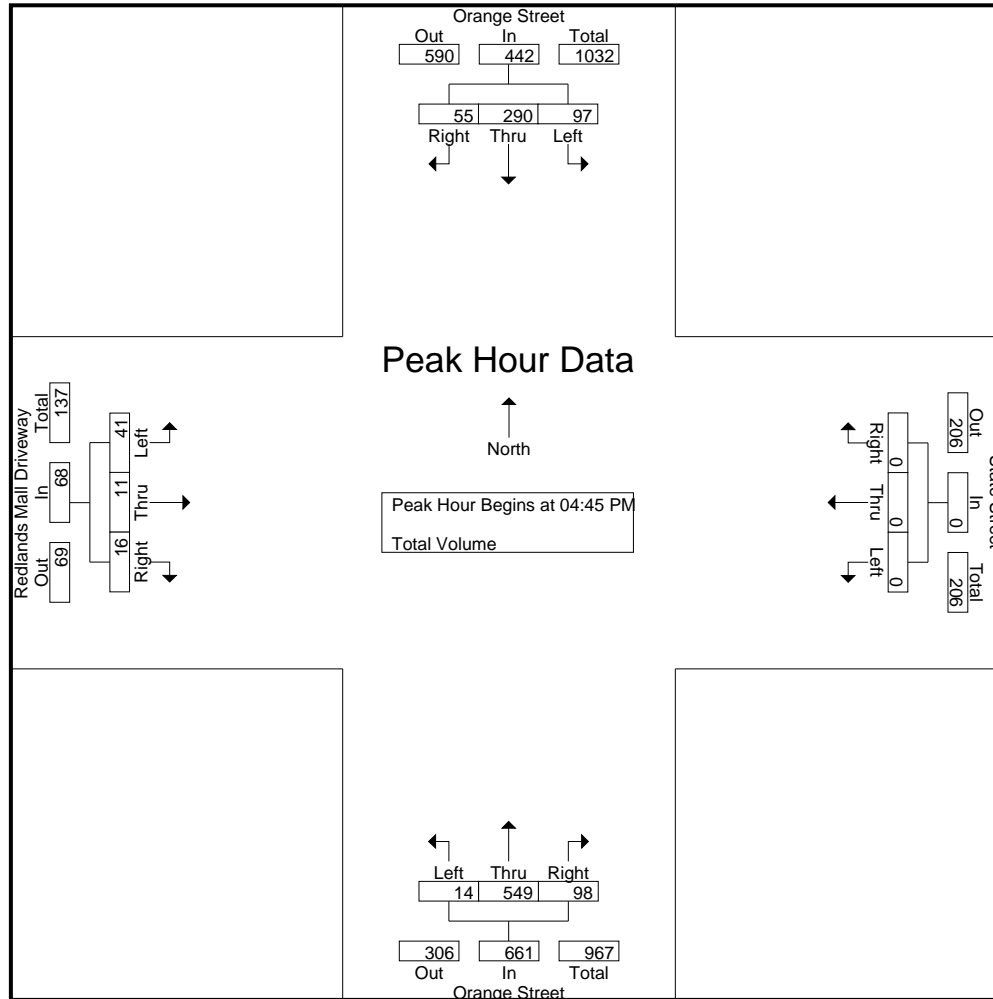
Groups Printed- Total Volume

Start Time	Orange Street Southbound					State Street Westbound					Orange Street Northbound					Redlands Mall Driveway Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	28	62	15	2	105	0	0	0	0	0	2	128	27	2	157	6	5	2	2	13	6	275	281
04:15 PM	18	61	14	1	93	0	0	0	0	0	4	95	20	4	119	16	2	5	2	23	7	235	242
04:30 PM	18	75	12	0	105	0	0	0	0	0	2	108	20	2	130	11	5	3	2	19	4	254	258
04:45 PM	22	68	21	3	111	0	0	0	0	0	5	124	30	2	159	12	3	3	1	18	6	288	294
Total	86	266	62	6	414	0	0	0	0	0	13	455	97	10	565	45	15	13	7	73	23	1052	1075
05:00 PM	22	69	17	2	108	0	0	0	0	0	2	157	20	0	179	10	3	6	1	19	3	306	309
05:15 PM	30	73	11	2	114	0	0	0	0	0	4	136	17	3	157	9	1	3	2	13	7	284	291
05:30 PM	23	80	6	0	109	0	0	0	0	0	3	132	31	1	166	10	4	4	1	18	2	293	295
05:45 PM	25	73	12	0	110	0	0	0	0	0	0	98	17	1	115	8	3	2	1	13	2	238	240
Total	100	295	46	4	441	0	0	0	0	0	9	523	85	5	617	37	11	15	5	63	14	1121	1135
Grand Total	186	561	108	10	855	0	0	0	0	0	22	978	182	15	1182	82	26	28	12	136	37	2173	2210
Apprch %	21.8	65.6	12.6			0	0	0			1.9	82.7	15.4			60.3	19.1	20.6					
Total %	8.6	25.8	5		39.3	0	0	0			1	45	8.4		54.4	3.8	1.2	1.3		6.3	1.7	98.3	

Start Time	Orange Street Southbound				State Street Westbound				Orange Street Northbound				Redlands Mall Driveway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	22	68	21	111	0	0	0	0	5	124	30	159	12	3	3	18	288
05:00 PM	22	69	17	108	0	0	0	0	2	157	20	179	10	3	6	19	306
05:15 PM	30	73	11	114	0	0	0	0	4	136	17	157	9	1	3	13	284
05:30 PM	23	80	6	109	0	0	0	0	3	132	31	166	10	4	4	18	293
Total Volume	97	290	55	442	0	0	0	0	14	549	98	661	41	11	16	68	1171
% App. Total	21.9	65.6	12.4		0	0	0		2.1	83.1	14.8		60.3	16.2	23.5		
PHF	.808	.906	.655	.969	.000	.000	.000	.000	.700	.874	.790	.923	.854	.688	.667	.895	.957

City of Redlands
 N/S: Orange Street
 E/W: State Street
 Weather: Clear

File Name : 17_RED_Orange_State PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 2



Location: Redlands
 N/S: Orange Street
 E/W: State Street



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Orange Street	East Leg State Street	South Leg Orange Street	West Leg Redlands Mall Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	4	0	0	0	4
7:15 AM	0	2	0	2	4
7:30 AM	1	0	1	1	3
7:45 AM	1	0	4	4	9
8:00 AM	0	0	0	0	0
8:15 AM	3	0	6	1	10
8:30 AM	1	2	3	3	9
8:45 AM	1	2	0	2	5
TOTAL VOLUMES:	11	6	14	13	44

	North Leg Orange Street	East Leg State Street	South Leg Orange Street	West Leg Redlands Mall Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	23	5	8	3	39
4:15 PM	14	10	8	6	38
4:30 PM	26	8	7	13	54
4:45 PM	21	4	14	1	40
5:00 PM	21	13	7	7	48
5:15 PM	9	11	5	4	29
5:30 PM	8	3	14	1	26
5:45 PM	14	7	15	5	41
TOTAL VOLUMES:	136	61	78	40	315

Location: Redlands
 N/S: Orange Street
 E/W: State Street



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Orange Street			Westbound State Street			Northbound Orange Street			Eastbound Redlands Mall Driveway			
	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	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	1	1	0	3

	Southbound Orange Street			Westbound State Street			Northbound Orange Street			Eastbound Redlands Mall Driveway			
	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	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	4	0	1	1	0	6

City of Redlands
 N/S: Orange Street
 E/W: Stuart Avenue
 Weather: Clear

File Name : 047_RED_Org_Stuart PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

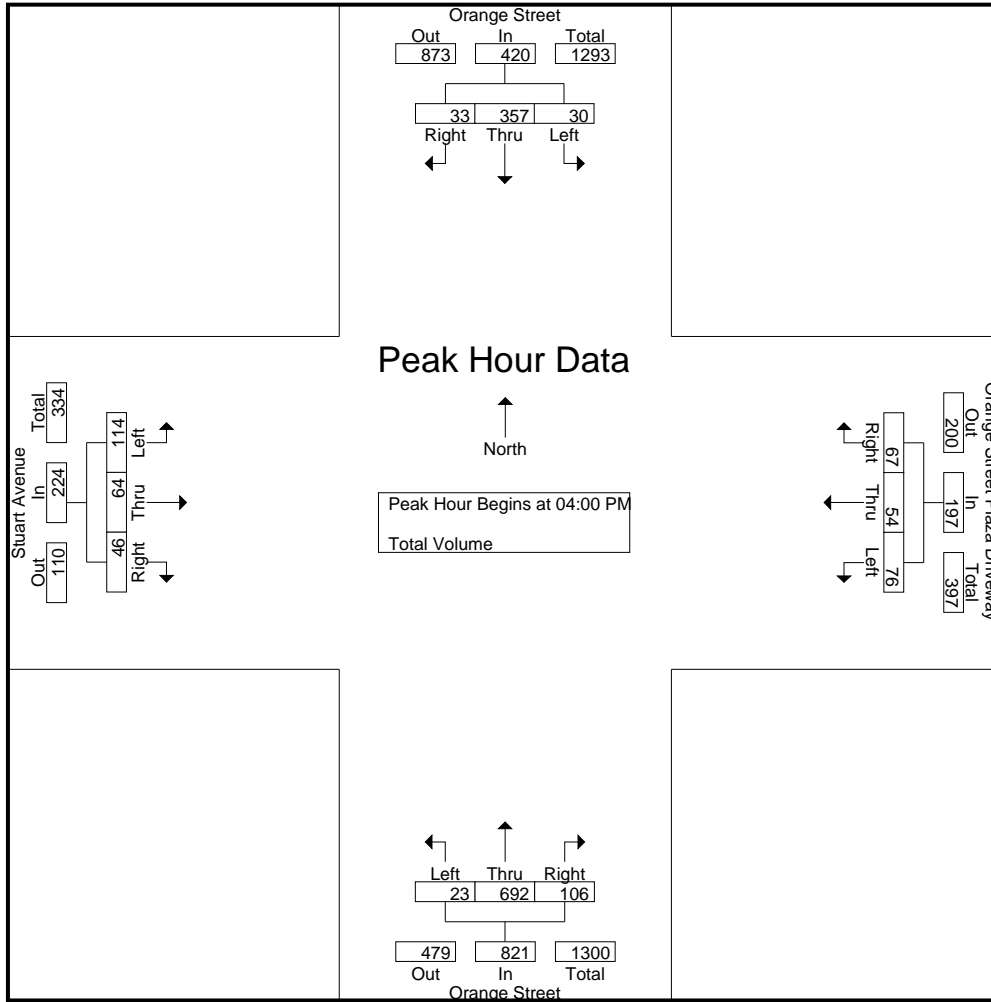
Groups Printed- Total Volume

Start Time	Orange Street Southbound				Orange Street Plaza Driveway Westbound				Orange Street Northbound				Stuart 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	8	98	11	117	18	16	20	54	5	183	29	217	29	13	11	53	441
04:15 PM	5	82	12	99	15	17	18	50	6	176	26	208	24	20	11	55	412
04:30 PM	6	85	5	96	22	8	19	49	6	185	28	219	33	13	9	55	419
04:45 PM	11	92	5	108	21	13	10	44	6	148	23	177	28	18	15	61	390
Total	30	357	33	420	76	54	67	197	23	692	106	821	114	64	46	224	1662
05:00 PM	7	68	7	82	12	9	10	31	5	201	27	233	36	12	11	59	405
05:15 PM	7	83	7	97	21	10	10	41	5	172	41	218	35	18	13	66	422
05:30 PM	6	89	7	102	25	11	23	59	3	166	33	202	29	10	5	44	407
05:45 PM	6	93	16	115	20	9	17	46	7	111	33	151	25	13	12	50	362
Total	26	333	37	396	78	39	60	177	20	650	134	804	125	53	41	219	1596
Grand Total	56	690	70	816	154	93	127	374	43	1342	240	1625	239	117	87	443	3258
Apprch %	6.9	84.6	8.6		41.2	24.9	34		2.6	82.6	14.8		54	26.4	19.6		
Total %	1.7	21.2	2.1	25	4.7	2.9	3.9	11.5	1.3	41.2	7.4	49.9	7.3	3.6	2.7	13.6	

Start Time	Orange Street Southbound				Orange Street Plaza Driveway Westbound				Orange Street Northbound				Stuart 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 04:00 PM																	
04:00 PM	8	98	11	117	18	16	20	54	5	183	29	217	29	13	11	53	441
04:15 PM	5	82	12	99	15	17	18	50	6	176	26	208	24	20	11	55	412
04:30 PM	6	85	5	96	22	8	19	49	6	185	28	219	33	13	9	55	419
04:45 PM	11	92	5	108	21	13	10	44	6	148	23	177	28	18	15	61	390
Total Volume	30	357	33	420	76	54	67	197	23	692	106	821	114	64	46	224	1662
% App. Total	7.1	85	7.9		38.6	27.4	34		2.8	84.3	12.9		50.9	28.6	20.5		
PHF	.682	.911	.688	.897	.864	.794	.838	.912	.958	.935	.914	.937	.864	.800	.767	.918	.942

City of Redlands
 N/S: Orange Street
 E/W: Stuart Avenue
 Weather: Clear

File Name : 047_RED_Org_Stuart PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:00 PM				04:00 PM				04:30 PM				04:30 PM			
+0 mins.	8	98	11	117	18	16	20	54	6	185	28	219	33	13	9	55
+15 mins.	5	82	12	99	15	17	18	50	6	148	23	177	28	18	15	61
+30 mins.	6	85	5	96	22	8	19	49	5	201	27	233	36	12	11	59
+45 mins.	11	92	5	108	21	13	10	44	5	172	41	218	35	18	13	66
Total Volume	30	357	33	420	76	54	67	197	22	706	119	847	132	61	48	241
% App. Total	7.1	85	7.9		38.6	27.4	34		2.6	83.4	14		54.8	25.3	19.9	
PHF	.682	.911	.688	.897	.864	.794	.838	.912	.917	.878	.726	.909	.917	.847	.800	.913

City of Redlands
 N/S: California Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 048_RED_Clai_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	California Street Southbound				Redlands Boulevard Westbound				California Street Northbound				Redlands Boulevard 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	43	76	28	147	13	109	76	198	22	102	21	145	55	174	30	259	749
04:15 PM	58	88	21	167	16	124	96	236	21	84	17	122	31	161	25	217	742
04:30 PM	42	88	16	146	25	124	65	214	32	106	30	168	64	181	41	286	814
04:45 PM	69	98	27	194	15	106	64	185	26	75	15	116	55	167	34	256	751
Total	212	350	92	654	69	463	301	833	101	367	83	551	205	683	130	1018	3056
05:00 PM	60	81	36	177	24	145	73	242	35	162	12	209	43	190	37	270	898
05:15 PM	51	57	27	135	21	114	54	189	19	81	12	112	53	174	29	256	692
05:30 PM	61	89	63	213	23	111	57	191	24	81	15	120	43	171	38	252	776
05:45 PM	42	77	41	160	14	81	45	140	20	55	13	88	23	152	23	198	586
Total	214	304	167	685	82	451	229	762	98	379	52	529	162	687	127	976	2952
Grand Total	426	654	259	1339	151	914	530	1595	199	746	135	1080	367	1370	257	1994	6008
Apprch %	31.8	48.8	19.3		9.5	57.3	33.2		18.4	69.1	12.5		18.4	68.7	12.9		
Total %	7.1	10.9	4.3	22.3	2.5	15.2	8.8	26.5	3.3	12.4	2.2	18	6.1	22.8	4.3	33.2	

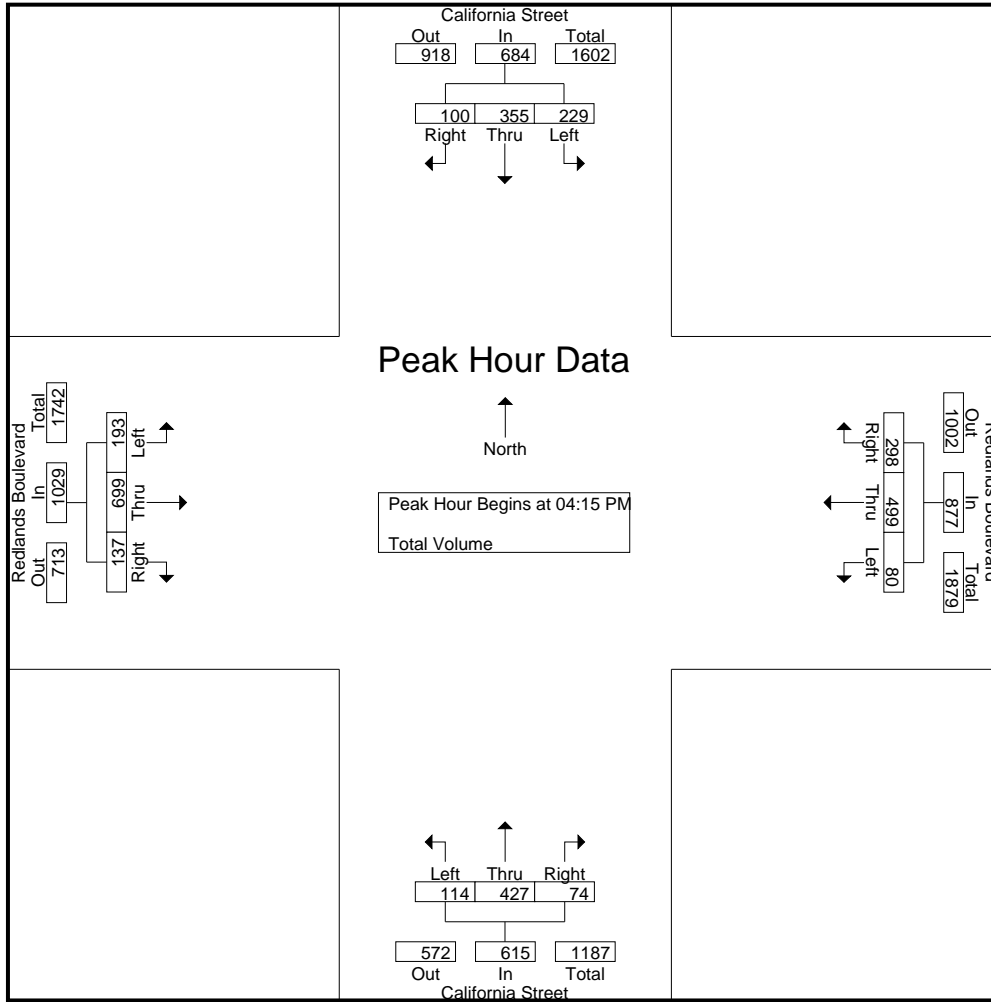
Start Time	California Street Southbound				Redlands Boulevard Westbound				California Street Northbound				Redlands Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	58	88	21	167	16	124	96	236	21	84	17	122	31	161	25	217	742
04:30 PM	42	88	16	146	25	124	65	214	32	106	30	168	64	181	41	286	814
04:45 PM	69	98	27	194	15	106	64	185	26	75	15	116	55	167	34	256	751
05:00 PM	60	81	36	177	24	145	73	242	35	162	12	209	43	190	37	270	898
Total Volume	229	355	100	684	80	499	298	877	114	427	74	615	193	699	137	1029	3205
% App. Total	33.5	51.9	14.6		9.1	56.9	34		18.5	69.4	12		18.8	67.9	13.3		
PHF	.830	.906	.694	.881	.800	.860	.776	.906	.814	.659	.617	.736	.754	.920	.835	.899	.892

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: California Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 048_RED_Clai_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:15 PM				04:15 PM				04:30 PM			
+0 mins.	69	98	27	194	16	124	96	236	21	84	17	122	64	181	41	286
+15 mins.	60	81	36	177	25	124	65	214	32	106	30	168	55	167	34	256
+30 mins.	51	57	27	135	15	106	64	185	26	75	15	116	43	190	37	270
+45 mins.	61	89	63	213	24	145	73	242	35	162	12	209	53	174	29	256
Total Volume	241	325	153	719	80	499	298	877	114	427	74	615	215	712	141	1068
% App. Total	33.5	45.2	21.3		9.1	56.9	34		18.5	69.4	12		20.1	66.7	13.2	
PHF	.873	.829	.607	.844	.800	.860	.776	.906	.814	.659	.617	.736	.840	.937	.860	.934

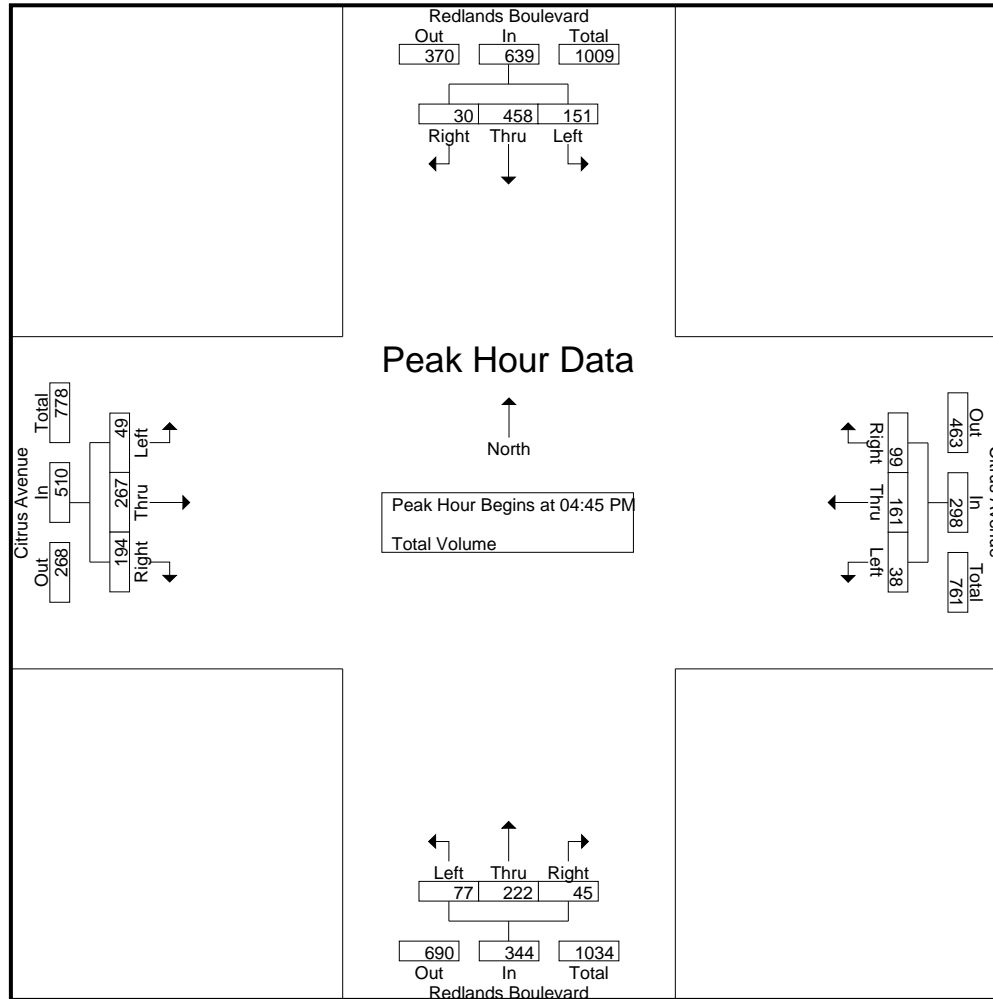
City of Redlands
 N/S: Redlands Boulevard
 E/W: Citrus Avenue
 Weather: Clear

File Name : 20_RED_Redlands_Citrus PM
 Site Code : 05121330
 Start Date : 7/7/2021
 Page No : 1

Groups Printed- Total Volume

Start Time	Redlands Boulevard Southbound					Citrus Avenue Westbound					Redlands Boulevard Northbound					Citrus Avenue Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	32	92	5	0	129	13	39	20	8	72	21	62	14	3	97	9	44	52	21	105	32	403	435
04:15 PM	40	87	5	0	132	10	46	27	13	83	17	62	10	3	89	5	51	39	22	95	38	399	437
04:30 PM	43	108	11	0	162	12	38	16	6	66	15	52	8	4	75	13	53	35	21	101	31	404	435
04:45 PM	44	118	6	0	168	10	37	27	13	74	14	52	12	3	78	8	69	52	28	129	44	449	493
Total	159	405	27	0	591	45	160	90	40	295	67	228	44	13	339	35	217	178	92	430	145	1655	1800
05:00 PM	37	111	8	0	156	4	47	23	15	74	17	59	10	1	86	14	68	43	23	125	39	441	480
05:15 PM	42	118	9	0	169	11	40	31	10	82	27	63	12	4	102	10	61	48	19	119	33	472	505
05:30 PM	28	111	7	0	146	13	37	18	12	68	19	48	11	3	78	17	69	51	28	137	43	429	472
05:45 PM	25	81	6	0	112	10	42	25	8	77	22	67	13	3	102	9	51	38	26	98	37	389	426
Total	132	421	30	0	583	38	166	97	45	301	85	237	46	11	368	50	249	180	96	479	152	1731	1883
Grand Total	291	826	57	0	1174	83	326	187	85	596	152	465	90	24	707	85	466	358	188	909	297	3386	3683
Apprch %	24.8	70.4	4.9			13.9	54.7	31.4			21.5	65.8	12.7			9.4	51.3	39.4					
Total %	8.6	24.4	1.7		34.7	2.5	9.6	5.5		17.6	4.5	13.7	2.7		20.9	2.5	13.8	10.6		26.8	8.1	91.9	

Start Time	Redlands Boulevard Southbound				Citrus Avenue Westbound				Redlands Boulevard Northbound				Citrus 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 04:45 PM																	
04:45 PM	44	118	6	168	10	37	27	74	14	52	12	78	8	69	52	129	449
05:00 PM	37	111	8	156	4	47	23	74	17	59	10	86	14	68	43	125	441
05:15 PM	42	118	9	169	11	40	31	82	27	63	12	102	10	61	48	119	472
05:30 PM	28	111	7	146	13	37	18	68	19	48	11	78	17	69	51	137	429
Total Volume	151	458	30	639	38	161	99	298	77	222	45	344	49	267	194	510	1791
% App. Total	23.6	71.7	4.7		12.8	54	33.2		22.4	64.5	13.1		9.6	52.4	38		
PHF	.858	.970	.833	.945	.731	.856	.798	.909	.713	.881	.938	.843	.721	.967	.933	.931	.949



Location: Redlands
 N/S: Redlands Boulevard
 E/W: Citrus Avenue



Date: 7/7/2021
 Day: Wednesday

PEDESTRIANS

	North Leg Orange Street	East Leg Citrus Avenue	South Leg Redlands Boulevard	West Leg Citrus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	2	2	4
7:15 AM	2	0	1	0	3
7:30 AM	2	2	1	1	6
7:45 AM	0	0	0	1	1
8:00 AM	1	2	1	0	4
8:15 AM	0	0	2	0	2
8:30 AM	1	0	0	0	1
8:45 AM	1	1	0	1	3
TOTAL VOLUMES:	7	5	7	5	24

	North Leg Orange Street	East Leg Citrus Avenue	South Leg Redlands Boulevard	West Leg Citrus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	1	1	2
4:15 PM	0	2	1	0	3
4:30 PM	1	1	1	0	3
4:45 PM	0	0	0	0	0
5:00 PM	0	4	4	0	8
5:15 PM	0	0	0	0	0
5:30 PM	3	0	1	2	6
5:45 PM	0	2	3	3	8
TOTAL VOLUMES:	4	9	11	6	30

Location: Redlands
 N/S: Redlands Boulevard
 E/W: Citrus Avenue



Date: 7/7/2021
 Day: Wednesday

BICYCLES

	Southbound Orange Street			Westbound Citrus Avenue			Northbound Redlands Boulevard			Eastbound Citrus Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	3	0	1	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	1	0	0	0	6	0	2	0	0	0	3	0	12

	Southbound Orange Street			Westbound Citrus Avenue			Northbound Redlands Boulevard			Eastbound Citrus Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	0	0	0	0	0	1	0	3
5:15 PM	0	1	0	0	2	0	1	0	0	0	0	0	4
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
TOTAL VOLUMES:	2	3	0	0	2	1	1	0	0	0	5	0	14

City of Redlands
 N/S: Redlands Boulevard
 E/W: Cypress Avenue
 Weather: Clear

File Name : 050_RED_Redl_Cyp PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

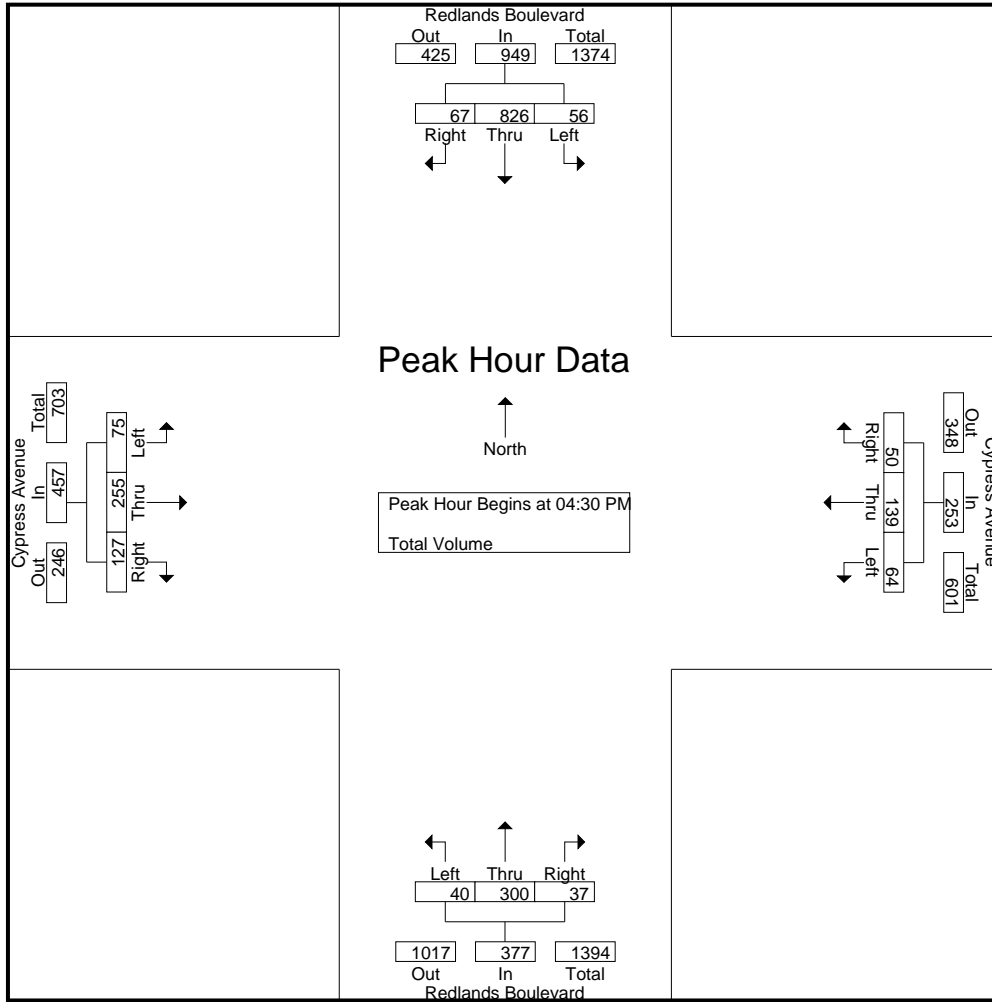
Start Time	Redlands Boulevard Southbound				Cypress Avenue Westbound				Redlands Boulevard Northbound				Cypress Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	13	163	15	191	20	43	14	77	14	81	4	99	25	51	27	103	470
04:15 PM	25	197	14	236	16	29	6	51	9	83	8	100	23	64	22	109	496
04:30 PM	12	209	18	239	16	33	10	59	11	86	6	103	15	58	26	99	500
04:45 PM	14	181	12	207	21	34	11	66	9	71	11	91	20	70	31	121	485
Total	64	750	59	873	73	139	41	253	43	321	29	393	83	243	106	432	1951
05:00 PM	12	213	15	240	14	28	22	64	9	69	12	90	20	59	40	119	513
05:15 PM	18	223	22	263	13	44	7	64	11	74	8	93	20	68	30	118	538
05:30 PM	26	188	21	235	9	33	12	54	16	58	8	82	17	64	33	114	485
05:45 PM	13	155	14	182	10	30	14	54	14	72	11	97	21	58	27	106	439
Total	69	779	72	920	46	135	55	236	50	273	39	362	78	249	130	457	1975
Grand Total	133	1529	131	1793	119	274	96	489	93	594	68	755	161	492	236	889	3926
Apprch %	7.4	85.3	7.3		24.3	56	19.6		12.3	78.7	9		18.1	55.3	26.5		
Total %	3.4	38.9	3.3	45.7	3	7	2.4	12.5	2.4	15.1	1.7	19.2	4.1	12.5	6	22.6	

Start Time	Redlands Boulevard Southbound				Cypress Avenue Westbound				Redlands Boulevard Northbound				Cypress 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	12	209	18	239	16	33	10	59	11	86	6	103	15	58	26	99	500
04:45 PM	14	181	12	207	21	34	11	66	9	71	11	91	20	70	31	121	485
05:00 PM	12	213	15	240	14	28	22	64	9	69	12	90	20	59	40	119	513
05:15 PM	18	223	22	263	13	44	7	64	11	74	8	93	20	68	30	118	538
Total Volume	56	826	67	949	64	139	50	253	40	300	37	377	75	255	127	457	2036
% App. Total	5.9	87	7.1		25.3	54.9	19.8		10.6	79.6	9.8		16.4	55.8	27.8		
PHF	.778	.926	.761	.902	.762	.790	.568	.958	.909	.872	.771	.915	.938	.911	.794	.944	.946

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 Redlands
 N/S: Redlands Boulevard
 E/W: Cypress Avenue
 Weather: Clear

File Name : 050_RED_Redl_Cyp PM
 Site Code : 221080
 Start Date : 12/7/2022
 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				04:00 PM				04:00 PM				04:45 PM			
+0 mins.	12	209	18	239	20	43	14	77	14	81	4	99	20	70	31	121
+15 mins.	14	181	12	207	16	29	6	51	9	83	8	100	20	59	40	119
+30 mins.	12	213	15	240	16	33	10	59	11	86	6	103	20	68	30	118
+45 mins.	18	223	22	263	21	34	11	66	9	71	11	91	17	64	33	114
Total Volume	56	826	67	949	73	139	41	253	43	321	29	393	77	261	134	472
% App. Total	5.9	87	7.1		28.9	54.9	16.2		10.9	81.7	7.4		16.3	55.3	28.4	
PHF	.778	.926	.761	.902	.869	.808	.732	.821	.768	.933	.659	.954	.963	.932	.838	.975

City of Redlands
 N/S: Eureka Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 21_RED_Eur_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

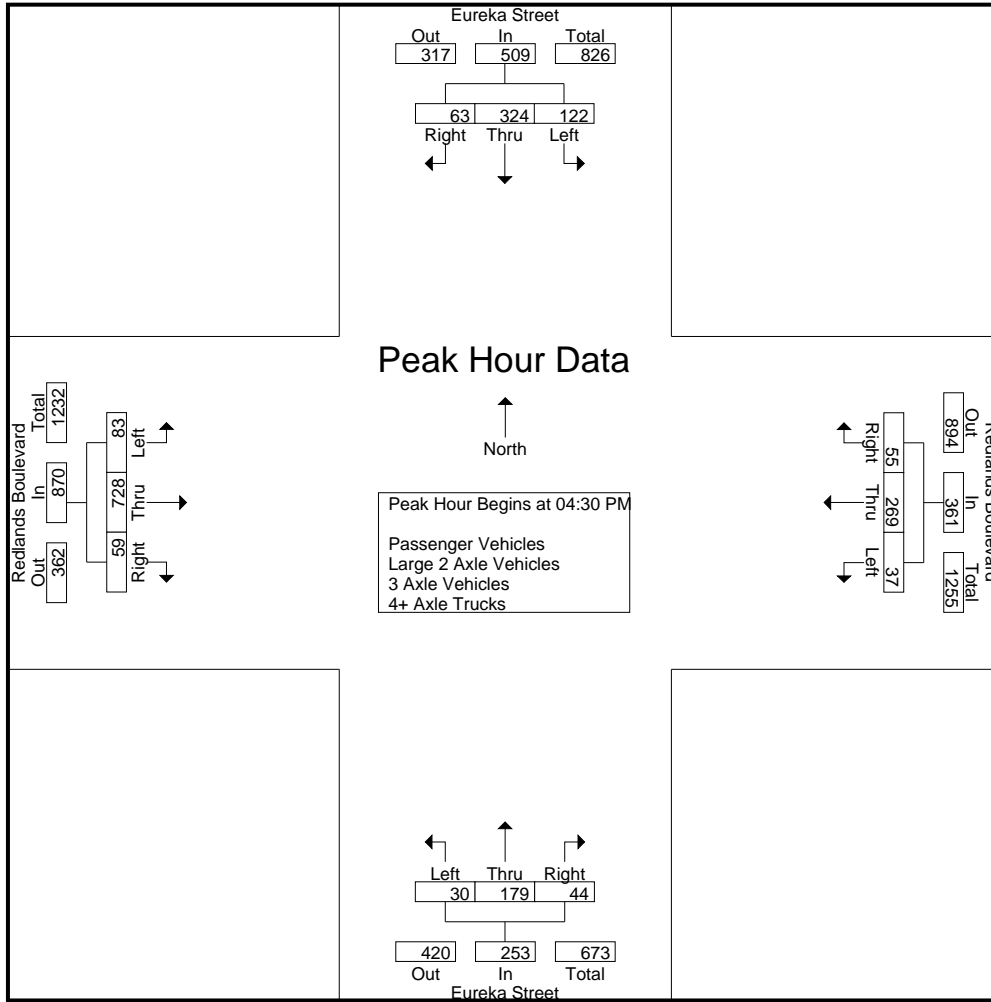
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Eureka Street Southbound				Redlands Boulevard Westbound				Eureka Street Northbound				Redlands Boulevard 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	28	70	28	126	10	70	19	99	12	36	9	57	18	147	15	180	462
04:15 PM	27	64	14	105	13	80	16	109	8	40	12	60	21	170	14	205	479
04:30 PM	30	83	15	128	13	60	19	92	9	43	11	63	18	183	15	216	499
04:45 PM	34	80	23	137	11	73	11	95	8	41	9	58	17	163	14	194	484
Total	119	297	80	496	47	283	65	395	37	160	41	238	74	663	58	795	1924
05:00 PM	29	86	14	129	5	63	15	83	10	53	16	79	21	192	13	226	517
05:15 PM	29	75	11	115	8	73	10	91	3	42	8	53	27	190	17	234	493
05:30 PM	31	78	16	125	5	55	9	69	5	42	4	51	22	170	18	210	455
05:45 PM	37	81	14	132	8	68	13	89	5	40	11	56	19	132	14	165	442
Total	126	320	55	501	26	259	47	332	23	177	39	239	89	684	62	835	1907
Grand Total	245	617	135	997	73	542	112	727	60	337	80	477	163	1347	120	1630	3831
Apprch %	24.6	61.9	13.5		10	74.6	15.4		12.6	70.6	16.8		10	82.6	7.4		
Total %	6.4	16.1	3.5	26	1.9	14.1	2.9	19	1.6	8.8	2.1	12.5	4.3	35.2	3.1	42.5	
Passenger Vehicles	240	614	135	989	71	538	111	720	58	335	77	470	163	1339	119	1621	3800
% Passenger Vehicles	98	99.5	100	99.2	97.3	99.3	99.1	99	96.7	99.4	96.2	98.5	100	99.4	99.2	99.4	99.2
Large 2 Axle Vehicles	5	3	0	8	2	4	1	7	2	2	3	7	0	8	1	9	31
% Large 2 Axle Vehicles	2	0.5	0	0.8	2.7	0.7	0.9	1	3.3	0.6	3.8	1.5	0	0.6	0.8	0.6	0.8
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Eureka Street Southbound				Redlands Boulevard Westbound				Eureka Street Northbound				Redlands Boulevard 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	30	83	15	128	13	60	19	92	9	43	11	63	18	183	15	216	499
04:45 PM	34	80	23	137	11	73	11	95	8	41	9	58	17	163	14	194	484
05:00 PM	29	86	14	129	5	63	15	83	10	53	16	79	21	192	13	226	517
05:15 PM	29	75	11	115	8	73	10	91	3	42	8	53	27	190	17	234	493
Total Volume	122	324	63	509	37	269	55	361	30	179	44	253	83	728	59	870	1993
% App. Total	24	63.7	12.4		10.2	74.5	15.2		11.9	70.8	17.4		9.5	83.7	6.8		
PHF	.897	.942	.685	.929	.712	.921	.724	.950	.750	.844	.688	.801	.769	.948	.868	.929	.964

City of Redlands
 N/S: Eureka Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 21_RED_Eur_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	30	83	15	128	10	70	19	99	8	40	12	60	18	183	15	216
+15 mins.	34	80	23	137	13	80	16	109	9	43	11	63	17	163	14	194
+30 mins.	29	86	14	129	13	60	19	92	8	41	9	58	21	192	13	226
+45 mins.	29	75	11	115	11	73	11	95	10	53	16	79	27	190	17	234
Total Volume	122	324	63	509	47	283	65	395	35	177	48	260	83	728	59	870
% App. Total	24	63.7	12.4		11.9	71.6	16.5		13.5	68.1	18.5		9.5	83.7	6.8	
PHF	.897	.942	.685	.929	.904	.884	.855	.906	.875	.835	.750	.823	.769	.948	.868	.929

City of Redlands
 N/S: Redlands Boulevard
 E/W: Fern Avenue/Church Street
 Weather: Clear

File Name : 052_RED_Redl_Fern PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

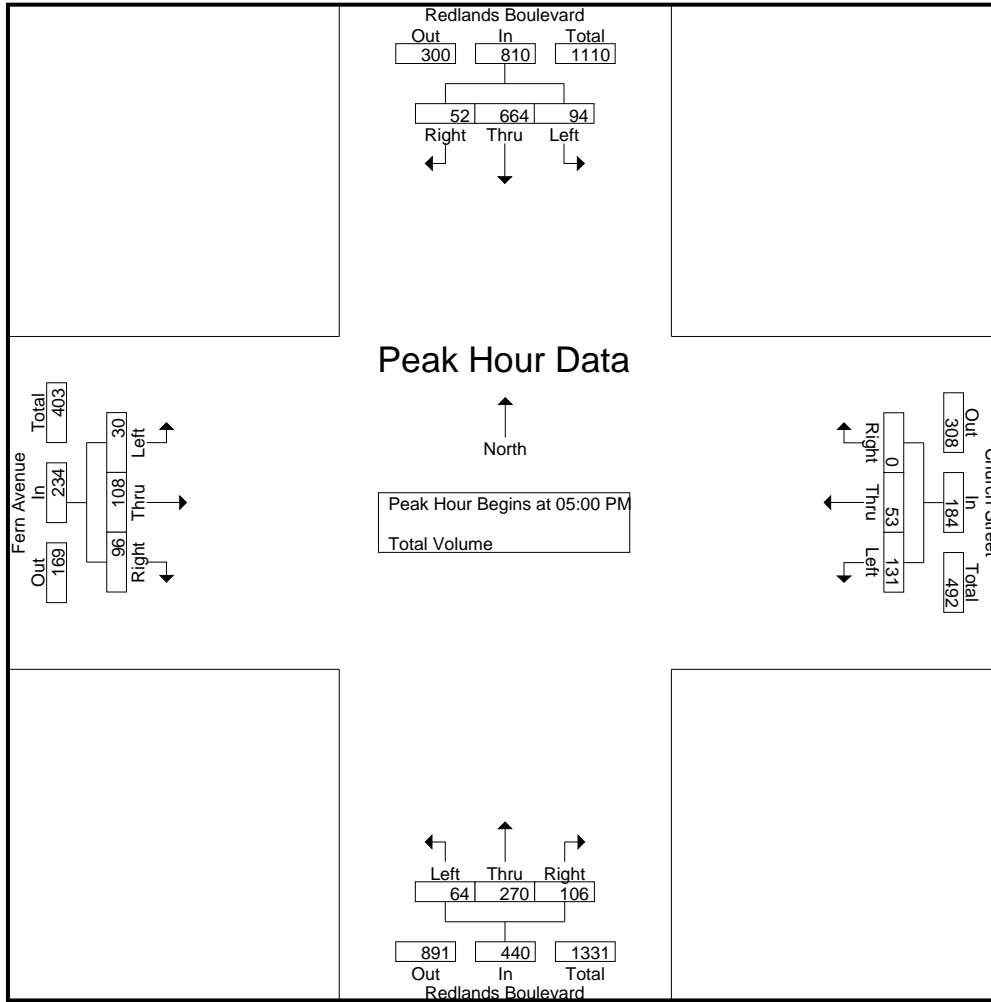
Start Time	Redlands Boulevard Southbound				Church Street Westbound				Redlands Boulevard Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	9	147	14	170	42	9	0	51	14	92	14	120	8	17	25	50	391
04:15 PM	3	153	8	164	25	22	0	47	11	77	24	112	10	19	23	52	375
04:30 PM	7	160	9	176	22	19	0	41	12	69	25	106	7	22	28	57	380
04:45 PM	13	167	14	194	23	19	0	42	11	67	20	98	10	20	16	46	380
Total	32	627	45	704	112	69	0	181	48	305	83	436	35	78	92	205	1526
05:00 PM	10	178	12	200	33	17	0	50	23	85	31	139	11	23	36	70	459
05:15 PM	8	201	14	223	43	13	0	56	10	71	22	103	9	20	22	51	433
05:30 PM	32	154	10	196	24	12	0	36	18	56	18	92	6	31	22	59	383
05:45 PM	44	131	16	191	31	11	0	42	13	58	35	106	4	34	16	54	393
Total	94	664	52	810	131	53	0	184	64	270	106	440	30	108	96	234	1668
Grand Total	126	1291	97	1514	243	122	0	365	112	575	189	876	65	186	188	439	3194
Apprch %	8.3	85.3	6.4		66.6	33.4	0		12.8	65.6	21.6		14.8	42.4	42.8		
Total %	3.9	40.4	3	47.4	7.6	3.8	0	11.4	3.5	18	5.9	27.4	2	5.8	5.9	13.7	

Start Time	Redlands Boulevard Southbound				Church Street Westbound				Redlands Boulevard Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	10	178	12	200	33	17	0	50	23	85	31	139	11	23	36	70	459
05:15 PM	8	201	14	223	43	13	0	56	10	71	22	103	9	20	22	51	433
05:30 PM	32	154	10	196	24	12	0	36	18	56	18	92	6	31	22	59	383
05:45 PM	44	131	16	191	31	11	0	42	13	58	35	106	4	34	16	54	393
Total Volume	94	664	52	810	131	53	0	184	64	270	106	440	30	108	96	234	1668
% App. Total	11.6	82	6.4		71.2	28.8	0		14.5	61.4	24.1		12.8	46.2	41		
PHF	.534	.826	.813	.908	.762	.779	.000	.821	.696	.794	.757	.791	.682	.794	.667	.836	.908

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

City of Redlands
 N/S: Redlands Boulevard
 E/W: Fern Avenue/Church Street
 Weather: Clear

File Name : 052_RED_Redl_Fern PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM				04:30 PM				04:15 PM				05:00 PM			
+0 mins.	13	167	14	194	22	19	0	41	11	77	24	112	11	23	36	70
+15 mins.	10	178	12	200	23	19	0	42	12	69	25	106	9	20	22	51
+30 mins.	8	201	14	223	33	17	0	50	11	67	20	98	6	31	22	59
+45 mins.	32	154	10	196	43	13	0	56	23	85	31	139	4	34	16	54
Total Volume	63	700	50	813	121	68	0	189	57	298	100	455	30	108	96	234
% App. Total	7.7	86.1	6.2		64	36	0		12.5	65.5	22		12.8	46.2	41	
PHF	.492	.871	.893	.911	.703	.895	.000	.844	.620	.876	.806	.818	.682	.794	.667	.836

City of Redlands
 N/S: Ford Street
 E/W: Redlands Boulevard/I-10 EB Ramps
 Weather: Clear

File Name : 053_RED_Ford_Redl PM
 Site Code : 221080
 Start Date : 12/14/2022
 Page No : 1

Groups Printed- Total Volume

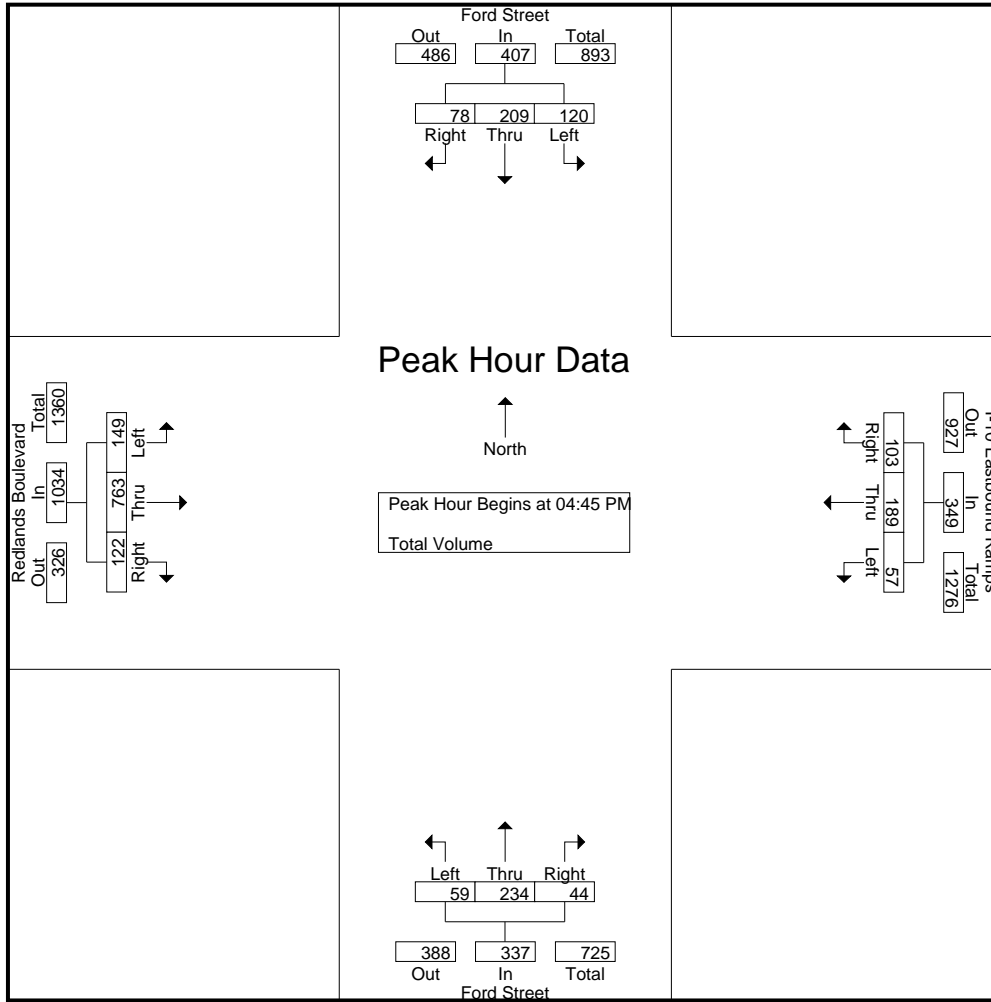
Start Time	Ford Street Southbound				I-10 Eastbound Ramps Westbound				Ford Street Northbound				Redlands Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	26	47	34	107	10	50	25	85	21	58	10	89	33	142	20	195	476
04:15 PM	35	53	18	106	8	55	26	89	14	64	14	92	26	161	26	213	500
04:30 PM	22	56	22	100	10	41	18	69	22	49	22	93	34	157	29	220	482
04:45 PM	31	47	27	105	14	44	17	75	13	70	16	99	25	179	28	232	511
Total	114	203	101	418	42	190	86	318	70	241	62	373	118	639	103	860	1969
05:00 PM	36	55	19	110	11	52	27	90	14	60	13	87	34	203	30	267	554
05:15 PM	19	48	20	87	14	42	29	85	22	49	9	80	38	220	39	297	549
05:30 PM	34	59	12	105	18	51	30	99	10	55	6	71	52	161	25	238	513
05:45 PM	24	49	14	87	6	41	27	74	15	59	7	81	33	130	21	184	426
Total	113	211	65	389	49	186	113	348	61	223	35	319	157	714	115	986	2042
Grand Total	227	414	166	807	91	376	199	666	131	464	97	692	275	1353	218	1846	4011
Apprch %	28.1	51.3	20.6		13.7	56.5	29.9		18.9	67.1	14		14.9	73.3	11.8		
Total %	5.7	10.3	4.1	20.1	2.3	9.4	5	16.6	3.3	11.6	2.4	17.3	6.9	33.7	5.4	46	

Start Time	Ford Street Southbound				I-10 Eastbound Ramps Westbound				Ford Street Northbound				Redlands Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	31	47	27	105	14	44	17	75	13	70	16	99	25	179	28	232	511
05:00 PM	36	55	19	110	11	52	27	90	14	60	13	87	34	203	30	267	554
05:15 PM	19	48	20	87	14	42	29	85	22	49	9	80	38	220	39	297	549
05:30 PM	34	59	12	105	18	51	30	99	10	55	6	71	52	161	25	238	513
Total Volume	120	209	78	407	57	189	103	349	59	234	44	337	149	763	122	1034	2127
% App. Total	29.5	51.4	19.2		16.3	54.2	29.5		17.5	69.4	13.1		14.4	73.8	11.8		
PHF	.833	.886	.722	.925	.792	.909	.858	.881	.670	.836	.688	.851	.716	.867	.782	.870	.960

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

City of Redlands
 N/S: Ford Street
 E/W: Redlands Boulevard/I-10 EB Ramps
 Weather: Clear

File Name : 053_RED_Ford_Redl PM
 Site Code : 221080
 Start Date : 12/14/2022
 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:

	04:15 PM				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	35	53	18	106	14	44	17	75	21	58	10	89	25	179	28	232
+15 mins.	22	56	22	100	11	52	27	90	14	64	14	92	34	203	30	267
+30 mins.	31	47	27	105	14	42	29	85	22	49	22	93	38	220	39	297
+45 mins.	36	55	19	110	18	51	30	99	13	70	16	99	52	161	25	238
Total Volume	124	211	86	421	57	189	103	349	70	241	62	373	149	763	122	1034
% App. Total	29.5	50.1	20.4		16.3	54.2	29.5		18.8	64.6	16.6		14.4	73.8	11.8	
PHF	.861	.942	.796	.957	.792	.909	.858	.881	.795	.861	.705	.942	.716	.867	.782	.870

City of Redlands
 N/S: Highland Avenue
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 054_RED_High_Red PM
 Site Code : 221080
 Start Date : 12/14/2022
 Page No : 1

Groups Printed- Total Volume

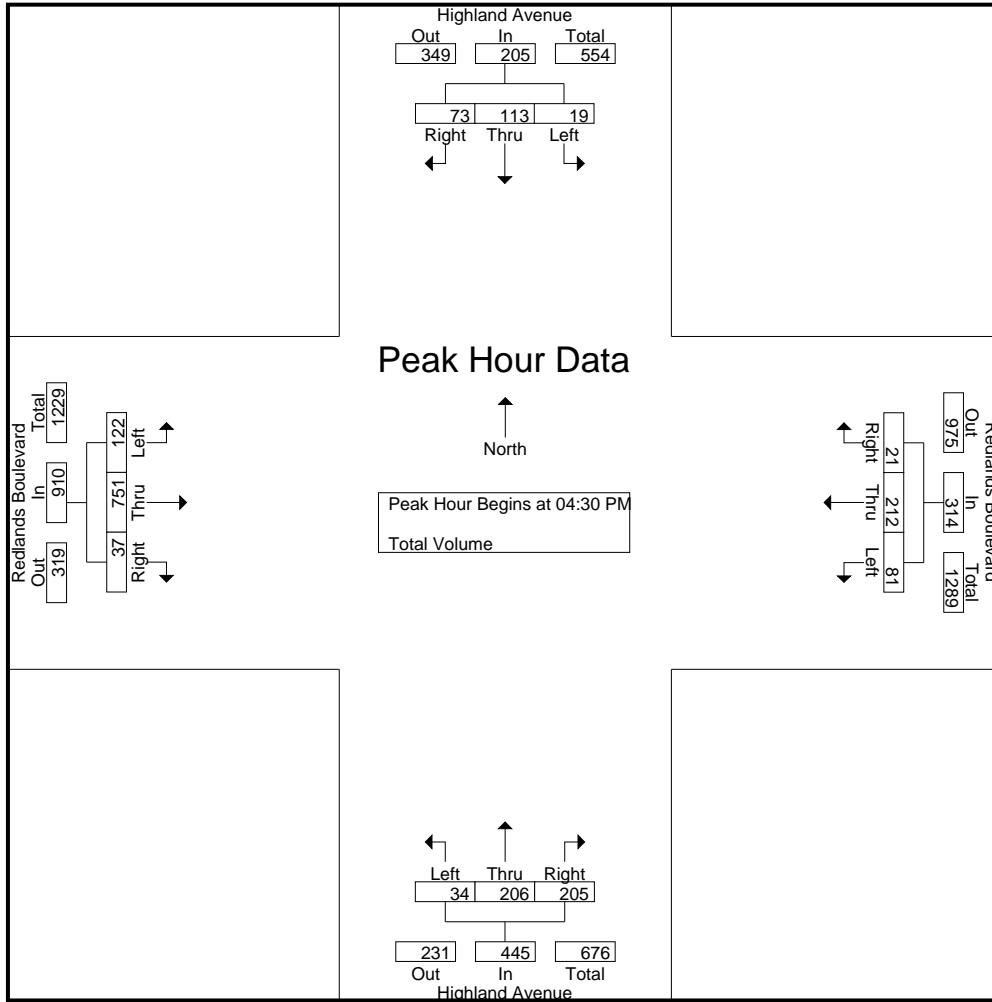
Start Time	Highland Avenue Southbound				Redlands Boulevard Westbound				Highland Avenue Northbound				Redlands Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	5	33	21	59	34	58	7	99	8	48	45	101	28	130	12	170	429
04:15 PM	8	40	22	70	23	50	3	76	14	53	42	109	26	149	9	184	439
04:30 PM	7	12	19	38	17	59	9	85	8	44	46	98	28	173	9	210	431
04:45 PM	5	23	20	48	19	50	6	75	8	53	53	114	26	168	7	201	438
Total	25	108	82	215	93	217	25	335	38	198	186	422	108	620	37	765	1737
05:00 PM	4	37	20	61	28	46	3	77	11	52	49	112	36	188	9	233	483
05:15 PM	3	41	14	58	17	57	3	77	7	57	57	121	32	222	12	266	522
05:30 PM	2	27	11	40	20	48	1	69	7	48	52	107	30	168	9	207	423
05:45 PM	4	27	9	40	25	48	2	75	20	41	32	93	21	157	9	187	395
Total	13	132	54	199	90	199	9	298	45	198	190	433	119	735	39	893	1823
Grand Total	38	240	136	414	183	416	34	633	83	396	376	855	227	1355	76	1658	3560
Apprch %	9.2	58	32.9		28.9	65.7	5.4		9.7	46.3	44		13.7	81.7	4.6		
Total %	1.1	6.7	3.8	11.6	5.1	11.7	1	17.8	2.3	11.1	10.6	24	6.4	38.1	2.1	46.6	

Start Time	Highland Avenue Southbound				Redlands Boulevard Westbound				Highland Avenue Northbound				Redlands Boulevard 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	7	12	19	38	17	59	9	85	8	44	46	98	28	173	9	210	431
04:45 PM	5	23	20	48	19	50	6	75	8	53	53	114	26	168	7	201	438
05:00 PM	4	37	20	61	28	46	3	77	11	52	49	112	36	188	9	233	483
05:15 PM	3	41	14	58	17	57	3	77	7	57	57	121	32	222	12	266	522
Total Volume	19	113	73	205	81	212	21	314	34	206	205	445	122	751	37	910	1874
% App. Total	9.3	55.1	35.6		25.8	67.5	6.7		7.6	46.3	46.1		13.4	82.5	4.1		
PHF	.679	.689	.913	.840	.723	.898	.583	.924	.773	.904	.899	.919	.847	.846	.771	.855	.898

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 Redlands
 N/S: Highland Avenue
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 054_RED_High_Red PM
 Site Code : 221080
 Start Date : 12/14/2022
 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:

	04:15 PM				04:00 PM				04:45 PM				04:30 PM			
+0 mins.	8	40	22	70	34	58	7	99	8	53	53	114	28	173	9	210
+15 mins.	7	12	19	38	23	50	3	76	11	52	49	112	26	168	7	201
+30 mins.	5	23	20	48	17	59	9	85	7	57	57	121	36	188	9	233
+45 mins.	4	37	20	61	19	50	6	75	7	48	52	107	32	222	12	266
Total Volume	24	112	81	217	93	217	25	335	33	210	211	454	122	751	37	910
% App. Total	11.1	51.6	37.3		27.8	64.8	7.5		7.3	46.3	46.5		13.4	82.5	4.1	
PHF	.750	.700	.920	.775	.684	.919	.694	.846	.750	.921	.925	.938	.847	.846	.771	.855

City of Redlands
 N/S: Iowa Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 055_RED_Iowa_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

Groups Printed- Total Volume

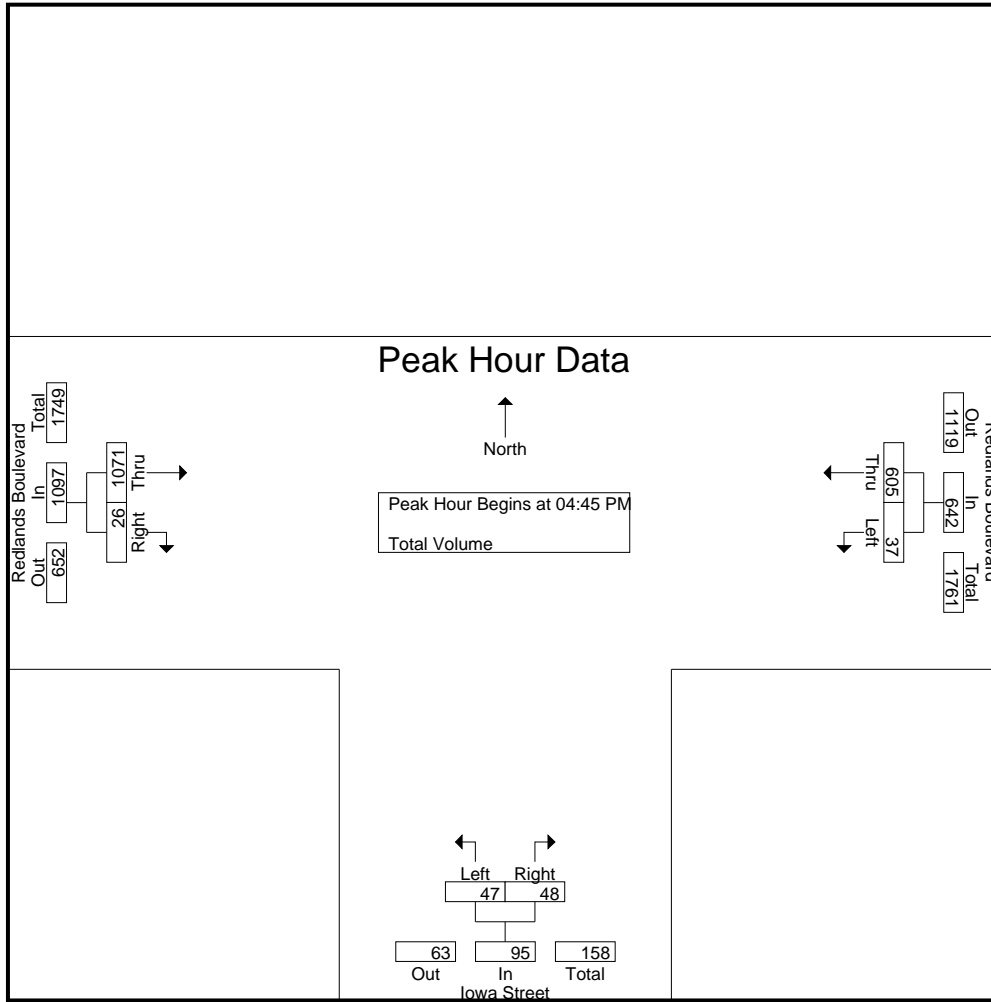
Start Time	Redlands Boulevard Westbound			Iowa Street Northbound			Redlands Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	11	145	156	23	14	37	214	4	218	411
04:15 PM	8	133	141	10	20	30	232	2	234	405
04:30 PM	17	135	152	10	20	30	271	7	278	460
04:45 PM	9	140	149	9	12	21	238	10	248	418
Total	45	553	598	52	66	118	955	23	978	1694
05:00 PM	6	162	168	26	14	40	283	6	289	497
05:15 PM	8	163	171	8	6	14	258	3	261	446
05:30 PM	14	140	154	4	16	20	292	7	299	473
05:45 PM	6	120	126	5	10	15	244	3	247	388
Total	34	585	619	43	46	89	1077	19	1096	1804
Grand Total	79	1138	1217	95	112	207	2032	42	2074	3498
Apprch %	6.5	93.5		45.9	54.1		98	2		
Total %	2.3	32.5	34.8	2.7	3.2	5.9	58.1	1.2	59.3	

Start Time	Redlands Boulevard Westbound			Iowa Street Northbound			Redlands Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:45 PM	9	140	149	9	12	21	238	10	248	418
05:00 PM	6	162	168	26	14	40	283	6	289	497
05:15 PM	8	163	171	8	6	14	258	3	261	446
05:30 PM	14	140	154	4	16	20	292	7	299	473
Total Volume	37	605	642	47	48	95	1071	26	1097	1834
% App. Total	5.8	94.2		49.5	50.5		97.6	2.4		
PHF	.661	.928	.939	.452	.750	.594	.917	.650	.917	.923

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

City of Redlands
 N/S: Iowa Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 055_RED_Iowa_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:45 PM			04:15 PM			04:45 PM		
+0 mins.	9	140	149	10	20	30	238	10	248
+15 mins.	6	162	168	10	20	30	283	6	289
+30 mins.	8	163	171	9	12	21	258	3	261
+45 mins.	14	140	154	26	14	40	292	7	299
Total Volume	37	605	642	55	66	121	1071	26	1097
% App. Total	5.8	94.2		45.5	54.5		97.6	2.4	
PHF	.661	.928	.939	.529	.825	.756	.917	.650	.917

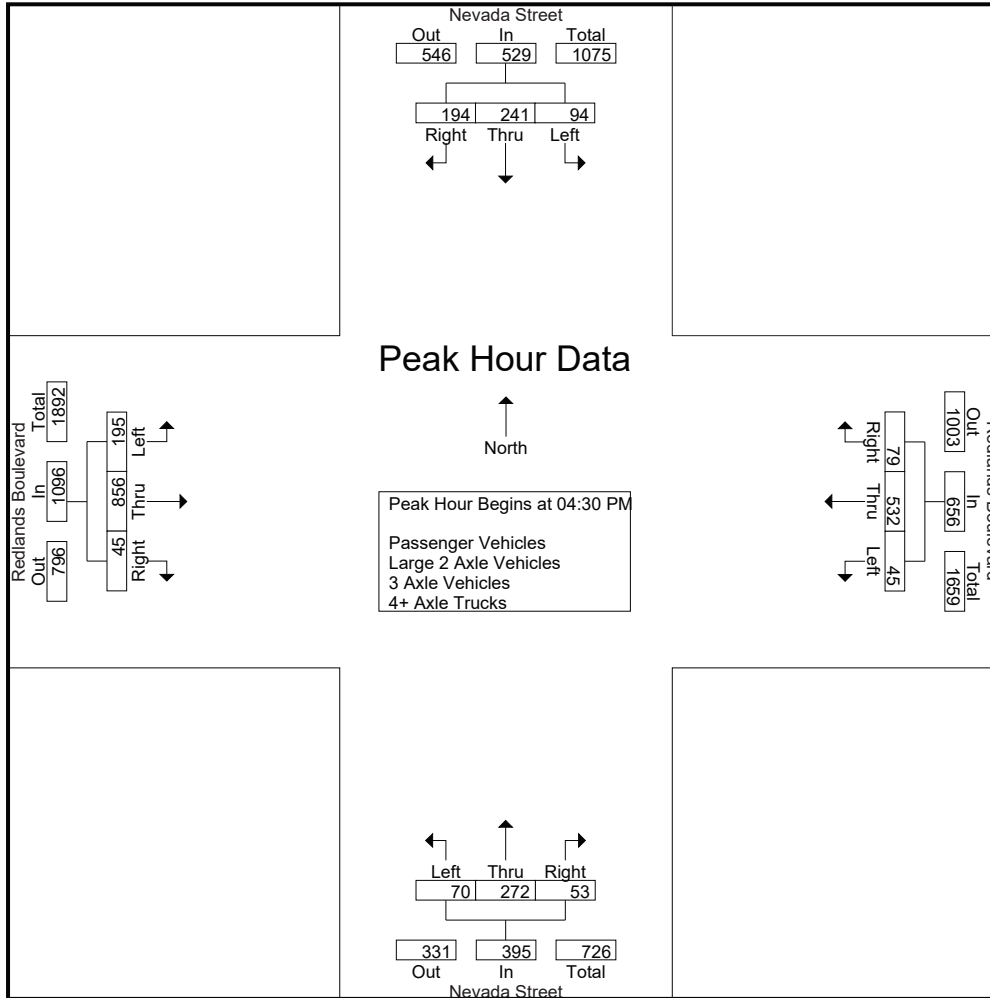
City of Redlands
 N/S: Nevada Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 01_RED_NV_Red PM
 Site Code : 05121643
 Start Date : 11/2/2021
 Page No : 1

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

Start Time	Nevada Street Southbound					Redlands Boulevard Westbound					Nevada Street Northbound					Redlands Boulevard Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
04:00 PM	21	46	43	12	110	13	143	27	7	183	11	53	10	3	74	51	181	11	2	243	24	610	634
04:15 PM	15	53	43	14	111	15	148	22	5	185	11	57	10	3	78	46	186	6	1	238	23	612	635
04:30 PM	29	61	44	17	134	10	124	18	2	152	14	56	12	3	82	38	196	11	2	245	24	613	637
04:45 PM	17	63	46	17	126	16	137	20	3	173	19	70	9	2	98	45	227	13	3	285	25	682	707
Total	82	223	176	60	481	54	552	87	17	693	55	236	41	11	332	180	790	41	8	1011	96	2517	2613
05:00 PM	27	69	55	17	151	7	128	21	2	156	17	87	24	4	128	70	225	14	5	309	28	744	772
05:15 PM	21	48	49	15	118	12	143	20	2	175	20	59	8	1	87	42	208	7	1	257	19	637	656
05:30 PM	22	50	41	13	113	14	129	12	5	155	13	28	15	1	56	53	206	8	0	267	19	591	610
05:45 PM	17	40	48	21	105	12	107	22	4	141	14	56	10	3	80	31	180	4	0	215	28	541	569
Total	87	207	193	66	487	45	507	75	13	627	64	230	57	9	351	196	819	33	6	1048	94	2513	2607
Grand Total	169	430	369	126	968	99	1059	162	30	1320	119	466	98	20	683	376	1609	74	14	2059	190	5030	5220
Apprch %	17.5	44.4	38.1			7.5	80.2	12.3			17.4	68.2	14.3			18.3	78.1	3.6					
Total %	3.4	8.5	7.3		19.2	2	21.1	3.2		26.2	2.4	9.3	1.9		13.6	7.5	32	1.5		40.9	3.6	96.4	
Passenger Vehicles	168	428	368		1090	99	1040	152		1321	118	463	97		698	363	1585	70		2032	0	0	5141
% Passenger Vehicles	99.4	99.5	99.7	100	99.6	100	98.2	93.8	100	97.9	99.2	99.4	99	100	99.3	96.5	98.5	94.6	100	98	0	0	98.5
Large 2 Axle Vehicles	1	1	1		3	0	12	3		15	1	3	1		5	4	17	3		24	0	0	47
% Large 2 Axle Vehicles	0.6	0.2	0.3		0.3	0	1.1	1.9		1.1	0.8	0.6	1		0.7	1.1	1.1	4.1		1.2	0	0	0.9
3 Axle Vehicles	0	0	0		0	0	3	0		3	0	0	0		0	0	2	0		2	0	0	5
% 3 Axle Vehicles	0	0	0		0	0	0.3	0		0.2	0	0	0		0	0	0.1	0		0.1	0	0	0.1
4+ Axle Trucks	0	1	0		1	0	4	7		11	0	0	0		0	9	5	1		15	0	0	27
% 4+ Axle Trucks	0	0.2	0		0.1	0	0.4	4.3		0.8	0	0	0		0	2.4	0.3	1.4		0.7	0	0	0.5

Start Time	Nevada Street Southbound				Redlands Boulevard Westbound				Nevada Street Northbound				Redlands Boulevard 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	29	61	44	134	10	124	18	152	14	56	12	82	38	196	11	245	613
04:45 PM	17	63	46	126	16	137	20	173	19	70	9	98	45	227	13	285	682
05:00 PM	27	69	55	151	7	128	21	156	17	87	24	128	70	225	14	309	744
05:15 PM	21	48	49	118	12	143	20	175	20	59	8	87	42	208	7	257	637
Total Volume	94	241	194	529	45	532	79	656	70	272	53	395	195	856	45	1096	2676
% App. Total	17.8	45.6	36.7		6.9	81.1	12		17.7	68.9	13.4		17.8	78.1	4.1		
PHF	.810	.873	.882	.876	.703	.930	.940	.937	.875	.782	.552	.771	.696	.943	.804	.887	.899



Location: Redlands
 N/S: Nevada Street
 E/W: Redlands Boulevard



Date: 11/2/2021
 Day: Tuesday

PEDESTRIANS

	North Leg Nevada Street	East Leg Redlands Boulevard	South Leg Nevada Street	West Leg Redlands Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	2	2	4
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	0	0	1	0	1
8:30 AM	2	0	2	0	4
8:45 AM	1	0	1	0	2
TOTAL VOLUMES:	5	0	6	2	13

	North Leg Nevada Street	East Leg Redlands Boulevard	South Leg Nevada Street	West Leg Redlands Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	2	0	0	0	2
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	1	0	1	0	2
5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	4	0	3	0	7

Location: Redlands
 N/S: Nevada Street
 E/W: Redlands Boulevard



Date: 11/2/2021
 Day: Tuesday

BICYCLES

	Southbound Nevada Street			Westbound Redlands Boulevard			Northbound Nevada Street			Eastbound Redlands Boulevard			
	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	1	0	0	0	0	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	1	0	0	1	0	0	0	0	4

	Southbound Nevada Street			Westbound Redlands Boulevard			Northbound Nevada Street			Eastbound Redlands Boulevard			
	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	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0	0	1

City of Redlands
 N/S: New Jersey Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 057_RED_NJ_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 Page No : 1

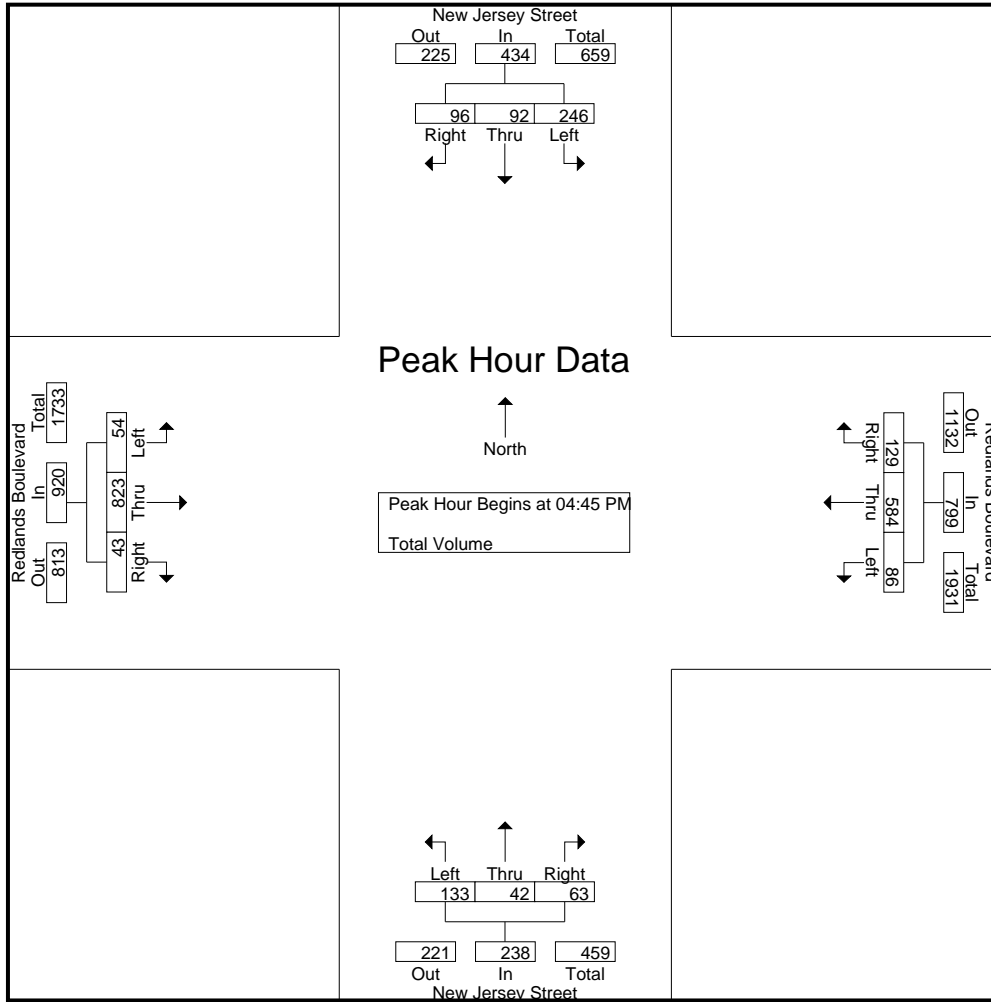
Groups Printed- Total Volume

Start Time	New Jersey Street Southbound				Redlands Boulevard Westbound				New Jersey Street Northbound				Redlands Boulevard 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	43	32	20	95	14	128	39	181	40	16	14	70	15	170	15	200	546
04:15 PM	63	18	36	117	8	160	43	211	37	17	15	69	9	185	11	205	602
04:30 PM	61	27	25	113	14	141	32	187	32	15	15	62	11	178	14	203	565
04:45 PM	76	17	20	113	20	110	41	171	43	10	16	69	12	206	8	226	579
Total	243	94	101	438	56	539	155	750	152	58	60	270	47	739	48	834	2292
05:00 PM	57	28	24	109	23	171	30	224	37	14	21	72	14	183	9	206	611
05:15 PM	60	21	32	113	16	150	29	195	30	10	9	49	16	212	9	237	594
05:30 PM	53	26	20	99	27	153	29	209	23	8	17	48	12	222	17	251	607
05:45 PM	61	18	19	98	15	124	27	166	23	7	8	38	22	174	10	206	508
Total	231	93	95	419	81	598	115	794	113	39	55	207	64	791	45	900	2320
Grand Total	474	187	196	857	137	1137	270	1544	265	97	115	477	111	1530	93	1734	4612
Apprch %	55.3	21.8	22.9		8.9	73.6	17.5		55.6	20.3	24.1		6.4	88.2	5.4		
Total %	10.3	4.1	4.2	18.6	3	24.7	5.9	33.5	5.7	2.1	2.5	10.3	2.4	33.2	2	37.6	

Start Time	New Jersey Street Southbound				Redlands Boulevard Westbound				New Jersey Street Northbound				Redlands Boulevard 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 04:45 PM																	
04:45 PM	76	17	20	113	20	110	41	171	43	10	16	69	12	206	8	226	579
05:00 PM	57	28	24	109	23	171	30	224	37	14	21	72	14	183	9	206	611
05:15 PM	60	21	32	113	16	150	29	195	30	10	9	49	16	212	9	237	594
05:30 PM	53	26	20	99	27	153	29	209	23	8	17	48	12	222	17	251	607
Total Volume	246	92	96	434	86	584	129	799	133	42	63	238	54	823	43	920	2391
% App. Total	56.7	21.2	22.1		10.8	73.1	16.1		55.9	17.6	26.5		5.9	89.5	4.7		
PHF	.809	.821	.750	.960	.796	.854	.787	.892	.773	.750	.750	.826	.844	.927	.632	.916	.978

City of Redlands
 N/S: New Jersey Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 057_RED_NJ_Redl PM
 Site Code : 221080
 Start Date : 12/7/2022
 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:

	04:15 PM				04:45 PM				04:15 PM				04:45 PM			
+0 mins.	63	18	36	117	20	110	41	171	37	17	15	69	12	206	8	226
+15 mins.	61	27	25	113	23	171	30	224	32	15	15	62	14	183	9	206
+30 mins.	76	17	20	113	16	150	29	195	43	10	16	69	16	212	9	237
+45 mins.	57	28	24	109	27	153	29	209	37	14	21	72	12	222	17	251
Total Volume	257	90	105	452	86	584	129	799	149	56	67	272	54	823	43	920
% App. Total	56.9	19.9	23.2		10.8	73.1	16.1		54.8	20.6	24.6		5.9	89.5	4.7	
PHF	.845	.804	.729	.966	.796	.854	.787	.892	.866	.824	.798	.944	.844	.927	.632	.916

City of Redlands
 N/S: New York Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 16_RED_NY_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

Groups Printed- Total Volume

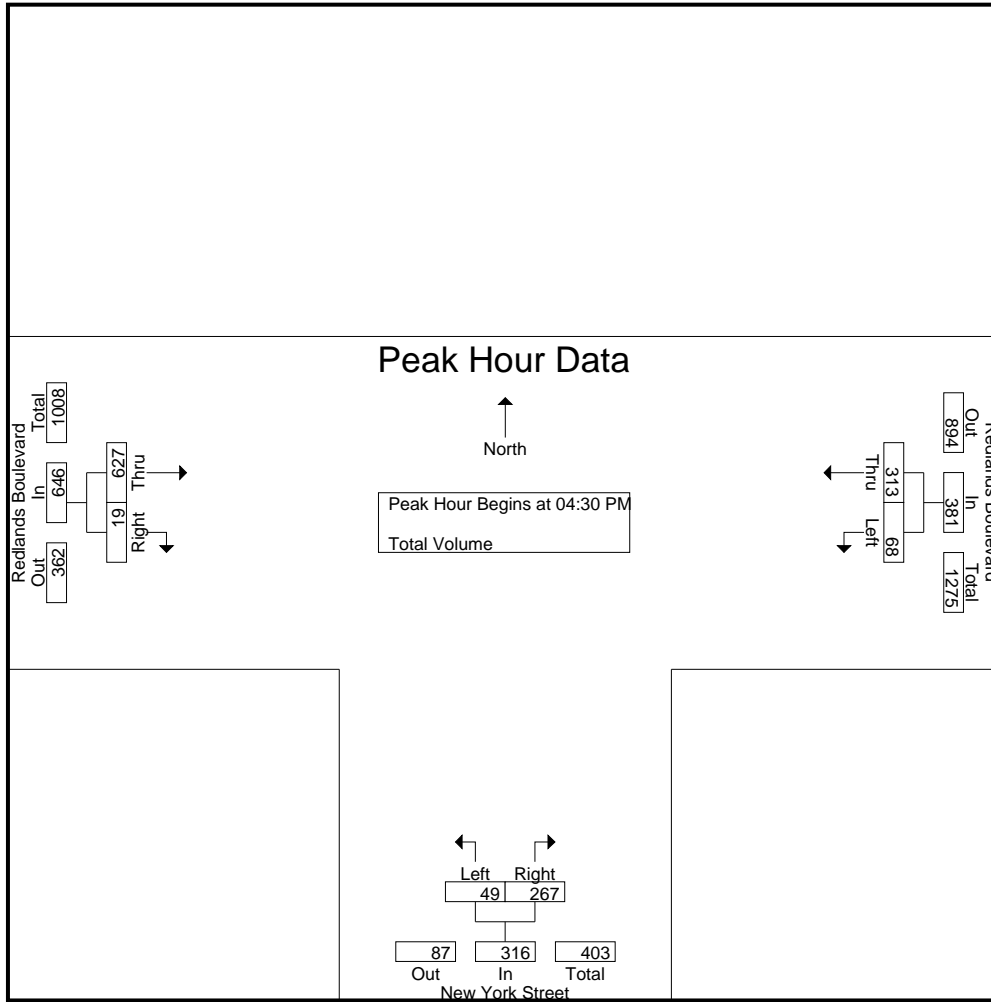
Start Time	Redlands Boulevard Westbound			New York Street Northbound			Redlands Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	20	91	111	13	59	72	129	3	132	315
04:15 PM	20	80	100	8	59	67	129	4	133	300
04:30 PM	14	71	85	15	62	77	155	3	158	320
04:45 PM	30	90	120	5	57	62	136	4	140	322
Total	84	332	416	41	237	278	549	14	563	1257
05:00 PM	14	73	87	19	79	98	158	5	163	348
05:15 PM	10	79	89	10	69	79	178	7	185	353
05:30 PM	14	69	83	8	46	54	151	4	155	292
05:45 PM	14	96	110	3	40	43	137	7	144	297
Total	52	317	369	40	234	274	624	23	647	1290
Grand Total	136	649	785	81	471	552	1173	37	1210	2547
Apprch %	17.3	82.7		14.7	85.3		96.9	3.1		
Total %	5.3	25.5	30.8	3.2	18.5	21.7	46.1	1.5	47.5	

Start Time	Redlands Boulevard Westbound			New York Street Northbound			Redlands Boulevard Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	14	71	85	15	62	77	155	3	158	320
04:45 PM	30	90	120	5	57	62	136	4	140	322
05:00 PM	14	73	87	19	79	98	158	5	163	348
05:15 PM	10	79	89	10	69	79	178	7	185	353
Total Volume	68	313	381	49	267	316	627	19	646	1343
% App. Total	17.8	82.2		15.5	84.5		97.1	2.9		
PHF	.567	.869	.794	.645	.845	.806	.881	.679	.873	.951

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 Redlands
 N/S: New York Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 16_RED_NY_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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:

	04:00 PM			04:30 PM			05:00 PM		
+0 mins.	20	91	111	15	62	77	158	5	163
+15 mins.	20	80	100	5	57	62	178	7	185
+30 mins.	14	71	85	19	79	98	151	4	155
+45 mins.	30	90	120	10	69	79	137	7	144
Total Volume	84	332	416	49	267	316	624	23	647
% App. Total	20.2	79.8		15.5	84.5		96.4	3.6	
PHF	.700	.912	.867	.645	.845	.806	.876	.821	.874

City of Redlands
 N/S: Orange Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 22_RED_Ora_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

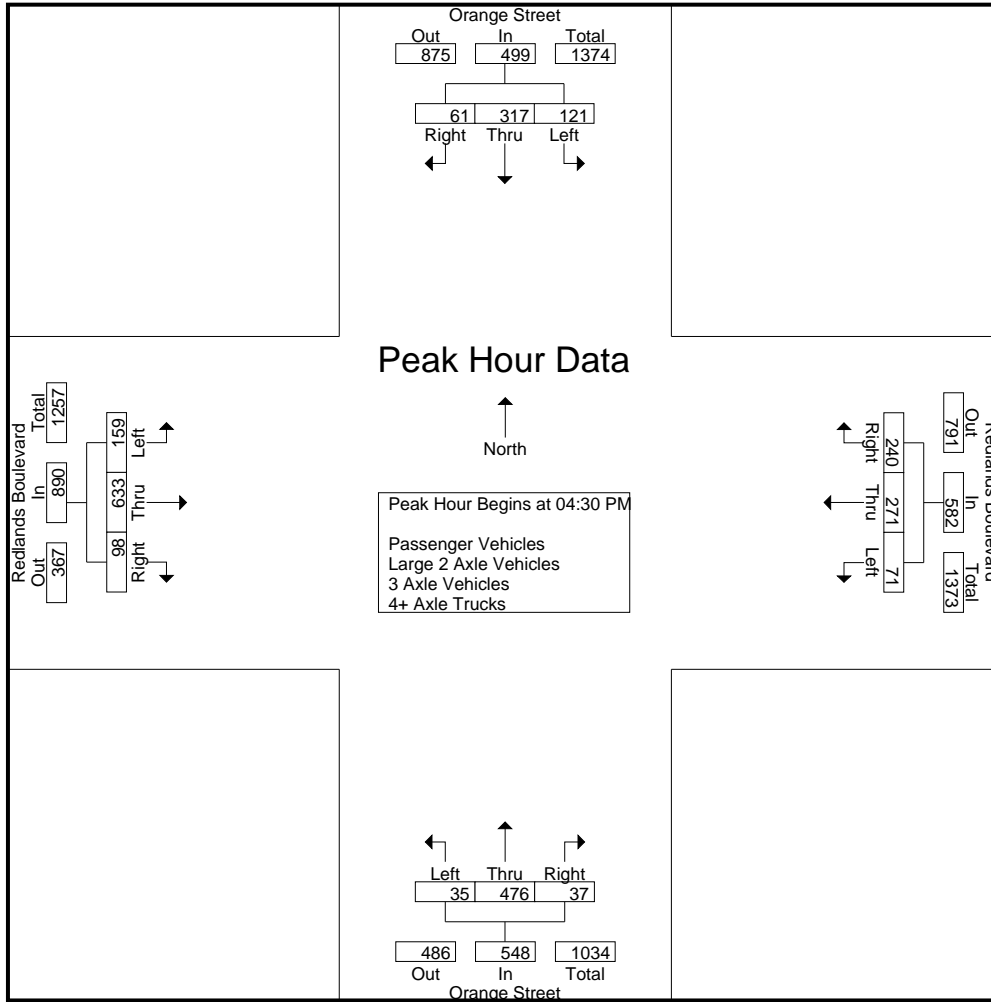
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Orange Street Southbound				Redlands Boulevard Westbound				Orange Street Northbound				Redlands Boulevard 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	33	82	19	134	10	69	63	142	8	101	10	119	32	113	15	160	555
04:15 PM	31	63	22	116	14	82	60	156	11	88	11	110	45	140	25	210	592
04:30 PM	26	86	13	125	15	72	57	144	7	101	9	117	46	154	24	224	610
04:45 PM	26	76	20	122	19	65	58	142	12	127	8	147	33	146	29	208	619
Total	116	307	74	497	58	288	238	584	38	417	38	493	156	553	93	802	2376
05:00 PM	38	76	12	126	20	78	77	175	5	142	6	153	33	168	22	223	677
05:15 PM	31	79	16	126	17	56	48	121	11	106	14	131	47	165	23	235	613
05:30 PM	30	69	18	117	9	45	52	106	2	128	10	140	30	122	30	182	545
05:45 PM	37	78	15	130	9	67	61	137	7	115	14	136	41	125	25	191	594
Total	136	302	61	499	55	246	238	539	25	491	44	560	151	580	100	831	2429
Grand Total	252	609	135	996	113	534	476	1123	63	908	82	1053	307	1133	193	1633	4805
Apprch %	25.3	61.1	13.6		10.1	47.6	42.4		6	86.2	7.8		18.8	69.4	11.8		
Total %	5.2	12.7	2.8	20.7	2.4	11.1	9.9	23.4	1.3	18.9	1.7	21.9	6.4	23.6	4	34	
Passenger Vehicles	250	608	133	991	113	527	472	1112	63	908	82	1053	302	1122	192	1616	4772
% Passenger Vehicles	99.2	99.8	98.5	99.5	100	98.7	99.2	99	100	100	100	100	98.4	99	99.5	99	99.3
Large 2 Axle Vehicles	1	1	2	4	0	7	4	11	0	0	0	0	5	10	1	16	31
% Large 2 Axle Vehicles	0.4	0.2	1.5	0.4	0	1.3	0.8	1	0	0	0	0	1.6	0.9	0.5	1	0.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0
4+ Axle Trucks	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0.4	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Orange Street Southbound				Redlands Boulevard Westbound				Orange Street Northbound				Redlands Boulevard 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	26	86	13	125	15	72	57	144	7	101	9	117	46	154	24	224	610
04:45 PM	26	76	20	122	19	65	58	142	12	127	8	147	33	146	29	208	619
05:00 PM	38	76	12	126	20	78	77	175	5	142	6	153	33	168	22	223	677
05:15 PM	31	79	16	126	17	56	48	121	11	106	14	131	47	165	23	235	613
Total Volume	121	317	61	499	71	271	240	582	35	476	37	548	159	633	98	890	2519
% App. Total	24.2	63.5	12.2		12.2	46.6	41.2		6.4	86.9	6.8		17.9	71.1	11		
PHF	.796	.922	.763	.990	.888	.869	.779	.831	.729	.838	.661	.895	.846	.942	.845	.947	.930

City of Redlands
 N/S: Orange Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 22_RED_Ora_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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				04:15 PM				04:45 PM				04:30 PM			
+0 mins.	26	86	13	125	14	82	60	156	12	127	8	147	46	154	24	224
+15 mins.	26	76	20	122	15	72	57	144	5	142	6	153	33	146	29	208
+30 mins.	38	76	12	126	19	65	58	142	11	106	14	131	33	168	22	223
+45 mins.	31	79	16	126	20	78	77	175	2	128	10	140	47	165	23	235
Total Volume	121	317	61	499	68	297	252	617	30	503	38	571	159	633	98	890
% App. Total	24.2	63.5	12.2		11	48.1	40.8		5.3	88.1	6.7		17.9	71.1	11	
PHF	.796	.922	.763	.990	.850	.905	.818	.881	.625	.886	.679	.933	.846	.942	.845	.947

City of Redlands
 N/S: Redlands Boulevard
 E/W: Palm Avenue
 Weather: Clear

File Name : 060_RED_Redl_Palm PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Redlands Boulevard Southbound				Palm Avenue Westbound				Redlands Boulevard Northbound				Palm 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	19	141	8	168	1	17	3	21	10	62	1	73	10	23	25	58	320
04:15 PM	12	173	16	201	1	14	10	25	25	73	2	100	11	26	19	56	382
04:30 PM	19	160	9	188	0	11	9	20	15	87	1	103	10	29	30	69	380
04:45 PM	16	177	5	198	0	18	7	25	9	78	0	87	4	25	25	54	364
Total	66	651	38	755	2	60	29	91	59	300	4	363	35	103	99	237	1446
05:00 PM	13	206	8	227	1	16	10	27	7	64	2	73	6	32	33	71	398
05:15 PM	15	209	6	230	4	16	5	25	17	71	2	90	4	25	28	57	402
05:30 PM	20	200	4	224	0	10	13	23	11	72	1	84	12	27	23	62	393
05:45 PM	19	214	10	243	1	13	6	20	11	56	0	67	4	23	22	49	379
Total	67	829	28	924	6	55	34	95	46	263	5	314	26	107	106	239	1572
Grand Total	133	1480	66	1679	8	115	63	186	105	563	9	677	61	210	205	476	3018
Apprch %	7.9	88.1	3.9		4.3	61.8	33.9		15.5	83.2	1.3		12.8	44.1	43.1		
Total %	4.4	49	2.2	55.6	0.3	3.8	2.1	6.2	3.5	18.7	0.3	22.4	2	7	6.8	15.8	

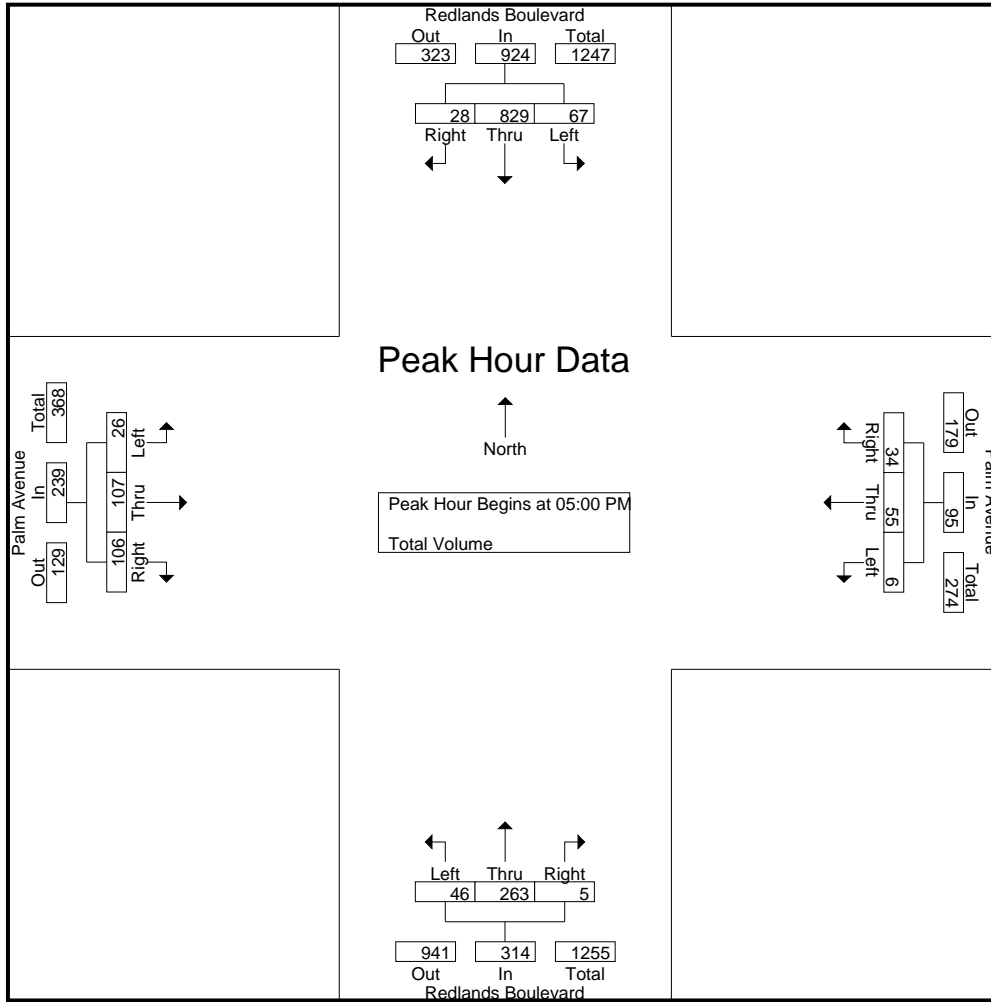
Start Time	Redlands Boulevard Southbound				Palm Avenue Westbound				Redlands Boulevard Northbound				Palm Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	13	206	8	227	1	16	10	27	7	64	2	73	6	32	33	71	398
05:15 PM	15	209	6	230	4	16	5	25	17	71	2	90	4	25	28	57	402
05:30 PM	20	200	4	224	0	10	13	23	11	72	1	84	12	27	23	62	393
05:45 PM	19	214	10	243	1	13	6	20	11	56	0	67	4	23	22	49	379
Total Volume	67	829	28	924	6	55	34	95	46	263	5	314	26	107	106	239	1572
% App. Total	7.3	89.7	3		6.3	57.9	35.8		14.6	83.8	1.6		10.9	44.8	44.4		
PHF	.838	.968	.700	.951	.375	.859	.654	.880	.676	.913	.625	.872	.542	.836	.803	.842	.978

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Redlands Boulevard
 E/W: Palm Avenue
 Weather: Clear

File Name : 060_RED_Redl_Palm PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:45 PM				04:00 PM				04:30 PM			
+0 mins.	13	206	8	227	0	18	7	25	10	62	1	73	10	29	30	69
+15 mins.	15	209	6	230	1	16	10	27	25	73	2	100	4	25	25	54
+30 mins.	20	200	4	224	4	16	5	25	15	87	1	103	6	32	33	71
+45 mins.	19	214	10	243	0	10	13	23	9	78	0	87	4	25	28	57
Total Volume	67	829	28	924	5	60	35	100	59	300	4	363	24	111	116	251
% App. Total	7.3	89.7	3		5	60	35		16.3	82.6	1.1		9.6	44.2	46.2	
PHF	.838	.968	.700	.951	.313	.833	.673	.926	.590	.862	.500	.881	.600	.867	.879	.884

City of Redlands
 N/S: Tennessee Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 12_RED_Ten_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

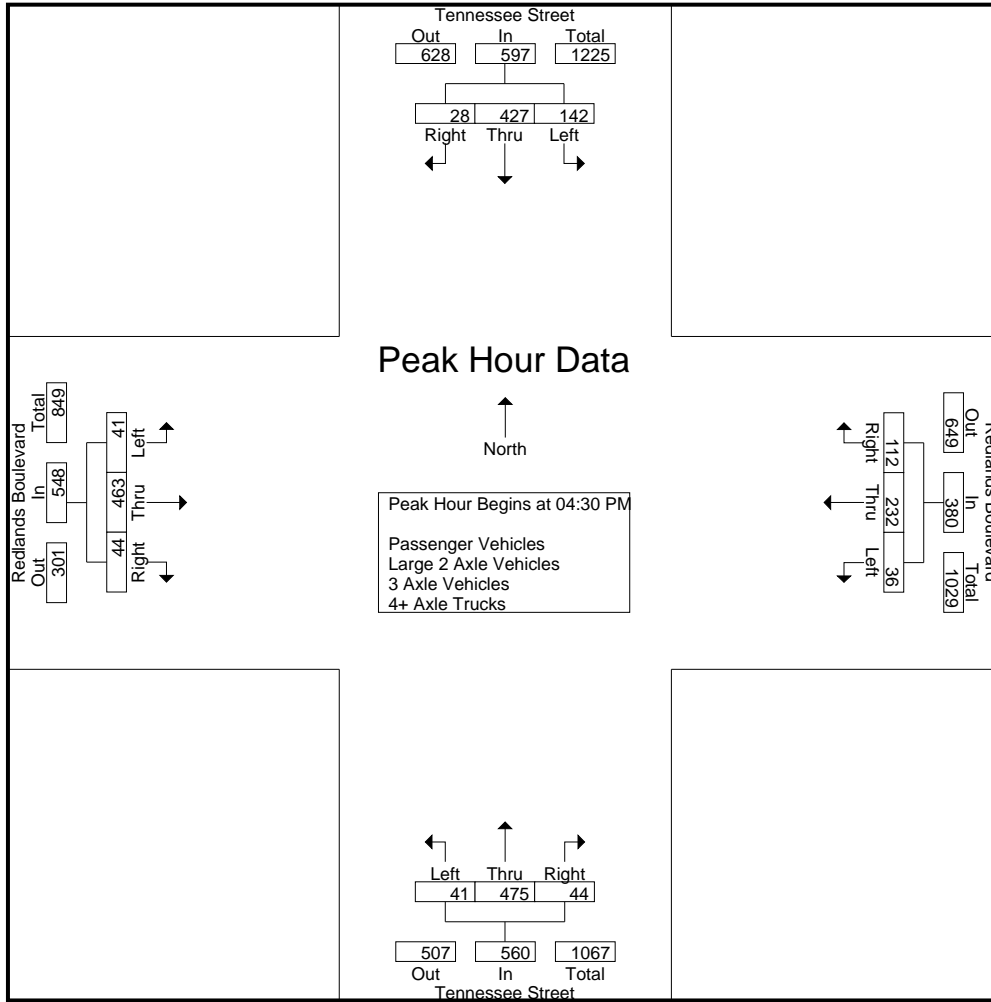
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Tennessee Street Southbound				Redlands Boulevard Westbound				Tennessee Street Northbound				Redlands Boulevard 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	27	104	9	140	14	65	30	109	9	125	11	145	11	93	11	115	509
04:15 PM	24	91	2	117	12	54	27	93	11	118	14	143	6	91	14	111	464
04:30 PM	33	92	4	129	10	51	24	85	12	122	13	147	9	111	7	127	488
04:45 PM	34	115	11	160	8	65	24	97	6	92	11	109	8	102	14	124	490
Total	118	402	26	546	44	235	105	384	38	457	49	544	34	397	46	477	1951
05:00 PM	32	95	4	131	5	66	34	105	12	153	11	176	10	126	16	152	564
05:15 PM	43	125	9	177	13	50	30	93	11	108	9	128	14	124	7	145	543
05:30 PM	37	97	10	144	12	42	26	80	15	103	9	127	11	104	9	124	475
05:45 PM	39	101	10	150	6	65	33	104	10	102	7	119	10	108	6	124	497
Total	151	418	33	602	36	223	123	382	48	466	36	550	45	462	38	545	2079
Grand Total	269	820	59	1148	80	458	228	766	86	923	85	1094	79	859	84	1022	4030
Apprch %	23.4	71.4	5.1		10.4	59.8	29.8		7.9	84.4	7.8		7.7	84.1	8.2		
Total %	6.7	20.3	1.5	28.5	2	11.4	5.7	19	2.1	22.9	2.1	27.1	2	21.3	2.1	25.4	
Passenger Vehicles	268	809	56	1133	80	454	226	760	86	910	84	1080	78	851	83	1012	3985
% Passenger Vehicles	99.6	98.7	94.9	98.7	100	99.1	99.1	99.2	100	98.6	98.8	98.7	98.7	99.1	98.8	99	98.9
Large 2 Axle Vehicles	1	6	2	9	0	4	1	5	0	8	1	9	0	7	1	8	31
% Large 2 Axle Vehicles	0.4	0.7	3.4	0.8	0	0.9	0.4	0.7	0	0.9	1.2	0.8	0	0.8	1.2	0.8	0.8
3 Axle Vehicles	0	4	0	4	0	0	1	1	0	4	0	4	0	0	0	0	9
% 3 Axle Vehicles	0	0.5	0	0.3	0	0	0.4	0.1	0	0.4	0	0.4	0	0	0	0	0.2
4+ Axle Trucks	0	1	1	2	0	0	0	0	0	1	0	1	1	1	0	2	5
% 4+ Axle Trucks	0	0.1	1.7	0.2	0	0	0	0	0	0.1	0	0.1	1.3	0.1	0	0.2	0.1

Start Time	Tennessee Street Southbound				Redlands Boulevard Westbound				Tennessee Street Northbound				Redlands Boulevard 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	33	92	4	129	10	51	24	85	12	122	13	147	9	111	7	127	488
04:45 PM	34	115	11	160	8	65	24	97	6	92	11	109	8	102	14	124	490
05:00 PM	32	95	4	131	5	66	34	105	12	153	11	176	10	126	16	152	564
05:15 PM	43	125	9	177	13	50	30	93	11	108	9	128	14	124	7	145	543
Total Volume	142	427	28	597	36	232	112	380	41	475	44	560	41	463	44	548	2085
% App. Total	23.8	71.5	4.7		9.5	61.1	29.5		7.3	84.8	7.9		7.5	84.5	8		
PHF	.826	.854	.636	.843	.692	.879	.824	.905	.854	.776	.846	.795	.732	.919	.688	.901	.924

City of Redlands
 N/S: Tennessee Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 12_RED_Ten_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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:

	04:45 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	34	115	11	160	14	65	30	109	11	118	14	143	9	111	7	127
+15 mins.	32	95	4	131	12	54	27	93	12	122	13	147	8	102	14	124
+30 mins.	43	125	9	177	10	51	24	85	6	92	11	109	10	126	16	152
+45 mins.	37	97	10	144	8	65	24	97	12	153	11	176	14	124	7	145
Total Volume	146	432	34	612	44	235	105	384	41	485	49	575	41	463	44	548
% App. Total	23.9	70.6	5.6		11.5	61.2	27.3		7.1	84.3	8.5		7.5	84.5	8	
PHF	.849	.864	.773	.864	.786	.904	.875	.881	.854	.792	.875	.817	.732	.919	.688	.901

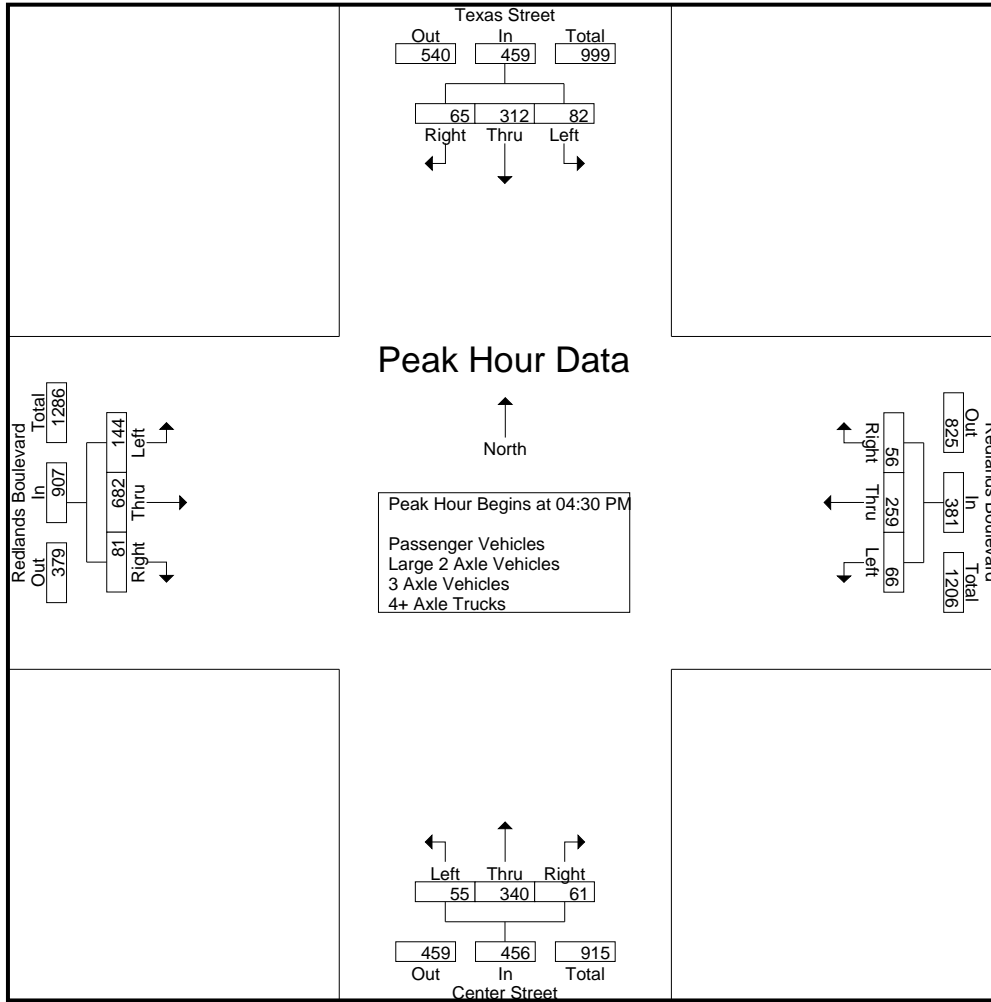
City of Redlands
 N/S: Texas Street/Center Street
 E/W: Redlands Boulevard
 Weather: Clear

File Name : 19_RED_TX_Red PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

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

Start Time	Texas Street Southbound				Redlands Boulevard Westbound				Center Street Northbound				Redlands Boulevard 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	26	74	19	119	20	76	10	106	13	70	16	99	16	132	24	172	496
04:15 PM	14	84	18	116	20	62	11	93	15	55	19	89	32	164	20	216	514
04:30 PM	16	76	12	104	11	66	14	91	13	69	10	92	27	160	20	207	494
04:45 PM	24	71	20	115	19	75	12	106	16	92	21	129	27	154	18	199	549
Total	80	305	69	454	70	279	47	396	57	286	66	409	102	610	82	794	2053
05:00 PM	15	73	14	102	21	59	22	102	13	89	13	115	47	185	18	250	569
05:15 PM	27	92	19	138	15	59	8	82	13	90	17	120	43	183	25	251	591
05:30 PM	21	72	18	111	14	50	10	74	11	84	17	112	24	148	21	193	490
05:45 PM	15	63	21	99	15	74	9	98	13	62	13	88	30	144	21	195	480
Total	78	300	72	450	65	242	49	356	50	325	60	435	144	660	85	889	2130
Grand Total	158	605	141	904	135	521	96	752	107	611	126	844	246	1270	167	1683	4183
Apprch %	17.5	66.9	15.6		18	69.3	12.8		12.7	72.4	14.9		14.6	75.5	9.9		
Total %	3.8	14.5	3.4	21.6	3.2	12.5	2.3	18	2.6	14.6	3	20.2	5.9	30.4	4	40.2	
Passenger Vehicles	156	603	141	900	132	516	96	744	105	605	123	833	244	1262	166	1672	4149
% Passenger Vehicles	98.7	99.7	100	99.6	97.8	99	100	98.9	98.1	99	97.6	98.7	99.2	99.4	99.4	99.3	99.2
Large 2 Axle Vehicles	2	2	0	4	3	5	0	8	2	2	3	7	2	7	1	10	29
% Large 2 Axle Vehicles	1.3	0.3	0	0.4	2.2	1	0	1.1	1.9	0.3	2.4	0.8	0.8	0.6	0.6	0.6	0.7
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0.5	0	0.4	0	0	0	0	0.1
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0.2	0	0.1	0	0.1	0	0.1	0

Start Time	Texas Street Southbound				Redlands Boulevard Westbound				Center Street Northbound				Redlands Boulevard 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	16	76	12	104	11	66	14	91	13	69	10	92	27	160	20	207	494
04:45 PM	24	71	20	115	19	75	12	106	16	92	21	129	27	154	18	199	549
05:00 PM	15	73	14	102	21	59	22	102	13	89	13	115	47	185	18	250	569
05:15 PM	27	92	19	138	15	59	8	82	13	90	17	120	43	183	25	251	591
Total Volume	82	312	65	459	66	259	56	381	55	340	61	456	144	682	81	907	2203
% App. Total	17.9	68	14.2		17.3	68	14.7		12.1	74.6	13.4		15.9	75.2	8.9		
PHF	.759	.848	.813	.832	.786	.863	.636	.899	.859	.924	.726	.884	.766	.922	.810	.903	.932



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

	04:45 PM				04:00 PM				04:45 PM				04:30 PM			
+0 mins.	24	71	20	115	20	76	10	106	16	92	21	129	27	160	20	207
+15 mins.	15	73	14	102	20	62	11	93	13	89	13	115	27	154	18	199
+30 mins.	27	92	19	138	11	66	14	91	13	90	17	120	47	185	18	250
+45 mins.	21	72	18	111	19	75	12	106	11	84	17	112	43	183	25	251
Total Volume	87	308	71	466	70	279	47	396	53	355	68	476	144	682	81	907
% App. Total	18.7	66.1	15.2		17.7	70.5	11.9		11.1	74.6	14.3		15.9	75.2	8.9	
PHF	.806	.837	.888	.844	.875	.918	.839	.934	.828	.965	.810	.922	.766	.922	.810	.903

City of Redlands
 N/S: California Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 063_RED_Cali_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	California Street Southbound				San Bernardino Avenue Westbound				California Street Northbound				San Bernardino 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	3	30	11	44	16	70	3	89	43	27	7	77	13	126	47	186	396
04:15 PM	2	35	13	50	17	88	2	107	49	28	12	89	13	134	37	184	430
04:30 PM	3	65	16	84	17	92	2	111	95	42	13	150	12	145	49	206	551
04:45 PM	1	23	8	32	13	77	1	91	61	19	15	95	10	184	36	230	448
Total	9	153	48	210	63	327	8	398	248	116	47	411	48	589	169	806	1825
05:00 PM	0	27	12	39	12	65	1	78	37	24	12	73	17	155	63	235	425
05:15 PM	0	23	12	35	16	70	0	86	56	26	16	98	12	187	49	248	467
05:30 PM	2	23	9	34	12	83	0	95	45	15	10	70	19	216	53	288	487
05:45 PM	0	12	7	19	13	64	2	79	34	22	10	66	10	175	48	233	397
Total	2	85	40	127	53	282	3	338	172	87	48	307	58	733	213	1004	1776
Grand Total	11	238	88	337	116	609	11	736	420	203	95	718	106	1322	382	1810	3601
Apprch %	3.3	70.6	26.1		15.8	82.7	1.5		58.5	28.3	13.2		5.9	73	21.1		
Total %	0.3	6.6	2.4	9.4	3.2	16.9	0.3	20.4	11.7	5.6	2.6	19.9	2.9	36.7	10.6	50.3	

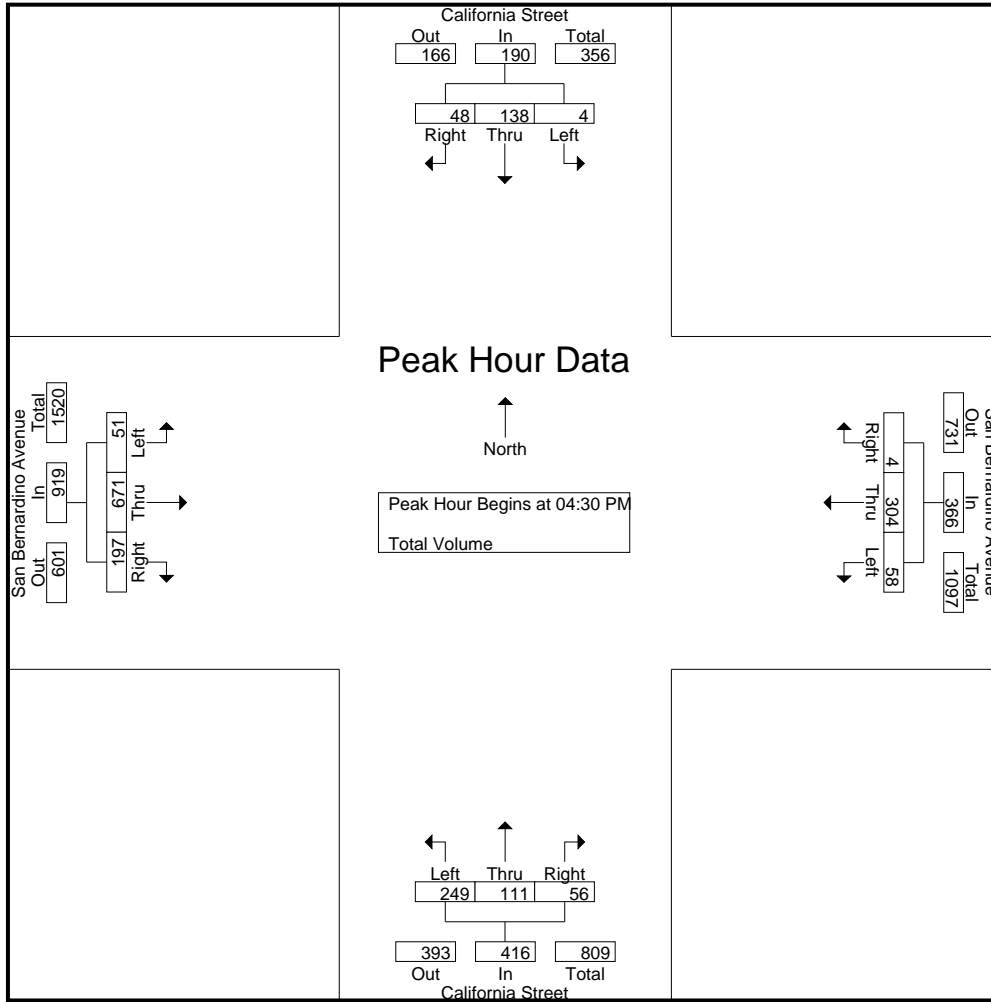
Start Time	California Street Southbound				San Bernardino Avenue Westbound				California Street Northbound				San Bernardino Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	3	65	16	84	17	92	2	111	95	42	13	150	12	145	49	206	551
04:45 PM	1	23	8	32	13	77	1	91	61	19	15	95	10	184	36	230	448
05:00 PM	0	27	12	39	12	65	1	78	37	24	12	73	17	155	63	235	425
05:15 PM	0	23	12	35	16	70	0	86	56	26	16	98	12	187	49	248	467
Total Volume	4	138	48	190	58	304	4	366	249	111	56	416	51	671	197	919	1891
% App. Total	2.1	72.6	25.3		15.8	83.1	1.1		59.9	26.7	13.5		5.5	73	21.4		
PHF	.333	.531	.750	.565	.853	.826	.500	.824	.655	.661	.875	.693	.750	.897	.782	.926	.858

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 Redlands
 N/S: California Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 063_RED_Cali_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:00 PM				04:30 PM				05:00 PM			
+0 mins.	3	30	11	44	16	70	3	89	95	42	13	150	17	155	63	235
+15 mins.	2	35	13	50	17	88	2	107	61	19	15	95	12	187	49	248
+30 mins.	3	65	16	84	17	92	2	111	37	24	12	73	19	216	53	288
+45 mins.	1	23	8	32	13	77	1	91	56	26	16	98	10	175	48	233
Total Volume	9	153	48	210	63	327	8	398	249	111	56	416	58	733	213	1004
% App. Total	4.3	72.9	22.9		15.8	82.2	2		59.9	26.7	13.5		5.8	73	21.2	
PHF	.750	.588	.750	.625	.926	.889	.667	.896	.655	.661	.875	.693	.763	.848	.845	.872

City of Redlands
 N/S: Mountain View Avenue
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 064_RED_Mtn V_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Mountain View Avenue Southbound				San Bernardino Avenue Westbound				Mountain View Avenue Northbound				San Bernardino 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	54	66	1	121	29	93	68	190	15	67	32	114	3	121	22	146	571
04:15 PM	41	52	7	100	31	87	38	156	19	46	28	93	3	125	17	145	494
04:30 PM	46	72	5	123	35	113	74	222	15	45	34	94	7	138	19	164	603
04:45 PM	48	55	0	103	34	73	65	172	25	67	25	117	5	166	22	193	585
Total	189	245	13	447	129	366	245	740	74	225	119	418	18	550	80	648	2253
05:00 PM	56	68	7	131	31	72	48	151	11	49	28	88	2	152	19	173	543
05:15 PM	76	50	0	126	31	74	45	150	16	59	22	97	4	172	19	195	568
05:30 PM	68	81	6	155	25	87	47	159	23	59	22	104	3	193	18	214	632
05:45 PM	47	33	2	82	23	73	46	142	16	51	18	85	5	164	10	179	488
Total	247	232	15	494	110	306	186	602	66	218	90	374	14	681	66	761	2231
Grand Total	436	477	28	941	239	672	431	1342	140	443	209	792	32	1231	146	1409	4484
Apprch %	46.3	50.7	3		17.8	50.1	32.1		17.7	55.9	26.4		2.3	87.4	10.4		
Total %	9.7	10.6	0.6	21	5.3	15	9.6	29.9	3.1	9.9	4.7	17.7	0.7	27.5	3.3	31.4	

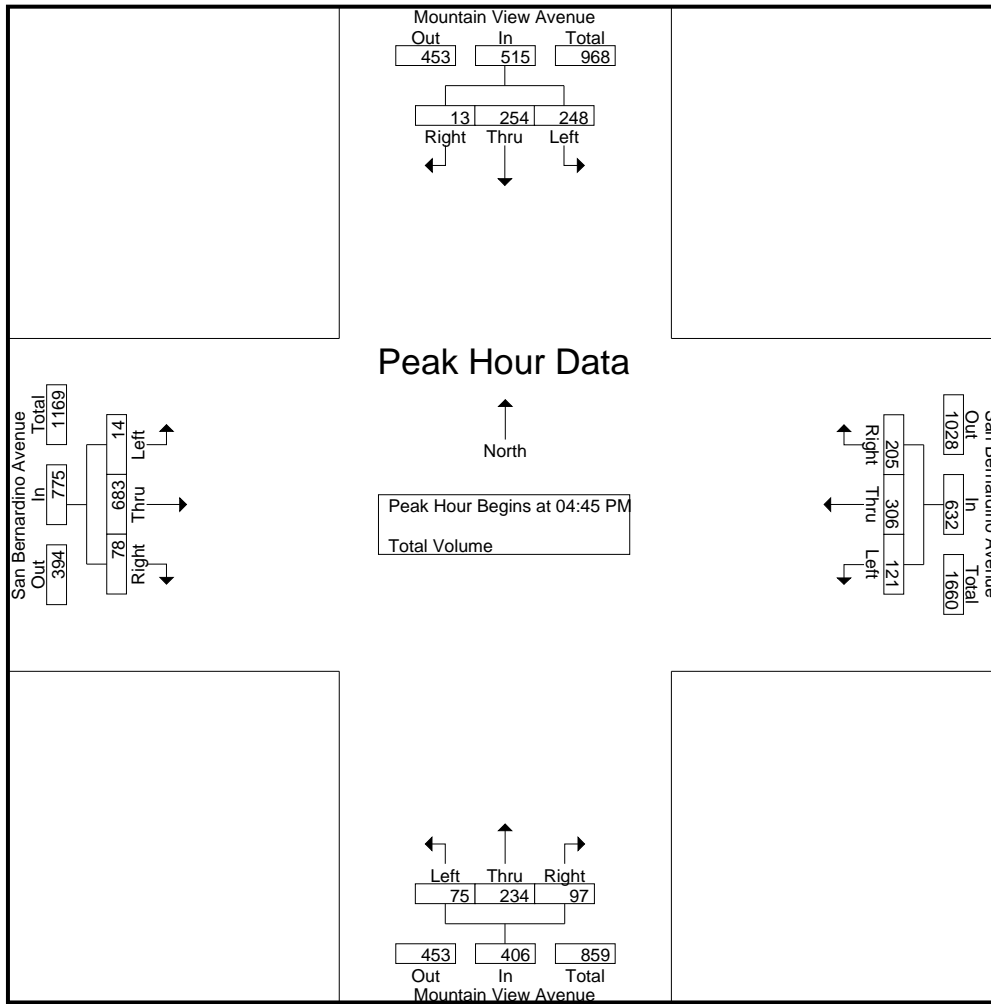
Start Time	Mountain View Avenue Southbound				San Bernardino Avenue Westbound				Mountain View Avenue Northbound				San Bernardino Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	48	55	0	103	34	73	65	172	25	67	25	117	5	166	22	193	585
05:00 PM	56	68	7	131	31	72	48	151	11	49	28	88	2	152	19	173	543
05:15 PM	76	50	0	126	31	74	45	150	16	59	22	97	4	172	19	195	568
05:30 PM	68	81	6	155	25	87	47	159	23	59	22	104	3	193	18	214	632
Total Volume	248	254	13	515	121	306	205	632	75	234	97	406	14	683	78	775	2328
% App. Total	48.2	49.3	2.5		19.1	48.4	32.4		18.5	57.6	23.9		1.8	88.1	10.1		
PHF	.816	.784	.464	.831	.890	.879	.788	.919	.750	.873	.866	.868	.700	.885	.886	.905	.921

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: Mountain View Avenue
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 064_RED_Mtn V_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:00 PM				04:00 PM				04:45 PM			
+0 mins.	48	55	0	103	29	93	68	190	15	67	32	114	5	166	22	193
+15 mins.	56	68	7	131	31	87	38	156	19	46	28	93	2	152	19	173
+30 mins.	76	50	0	126	35	113	74	222	15	45	34	94	4	172	19	195
+45 mins.	68	81	6	155	34	73	65	172	25	67	25	117	3	193	18	214
Total Volume	248	254	13	515	129	366	245	740	74	225	119	418	14	683	78	775
% App. Total	48.2	49.3	2.5		17.4	49.5	33.1		17.7	53.8	28.5		1.8	88.1	10.1	
PHF	.816	.784	.464	.831	.921	.810	.828	.833	.740	.840	.875	.893	.700	.885	.886	.905

City of Redlands
 N/S: Texas Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 02_RED_Tex_San B PM
 Site Code : 05722809
 Start Date : 9/21/2022
 Page No : 1

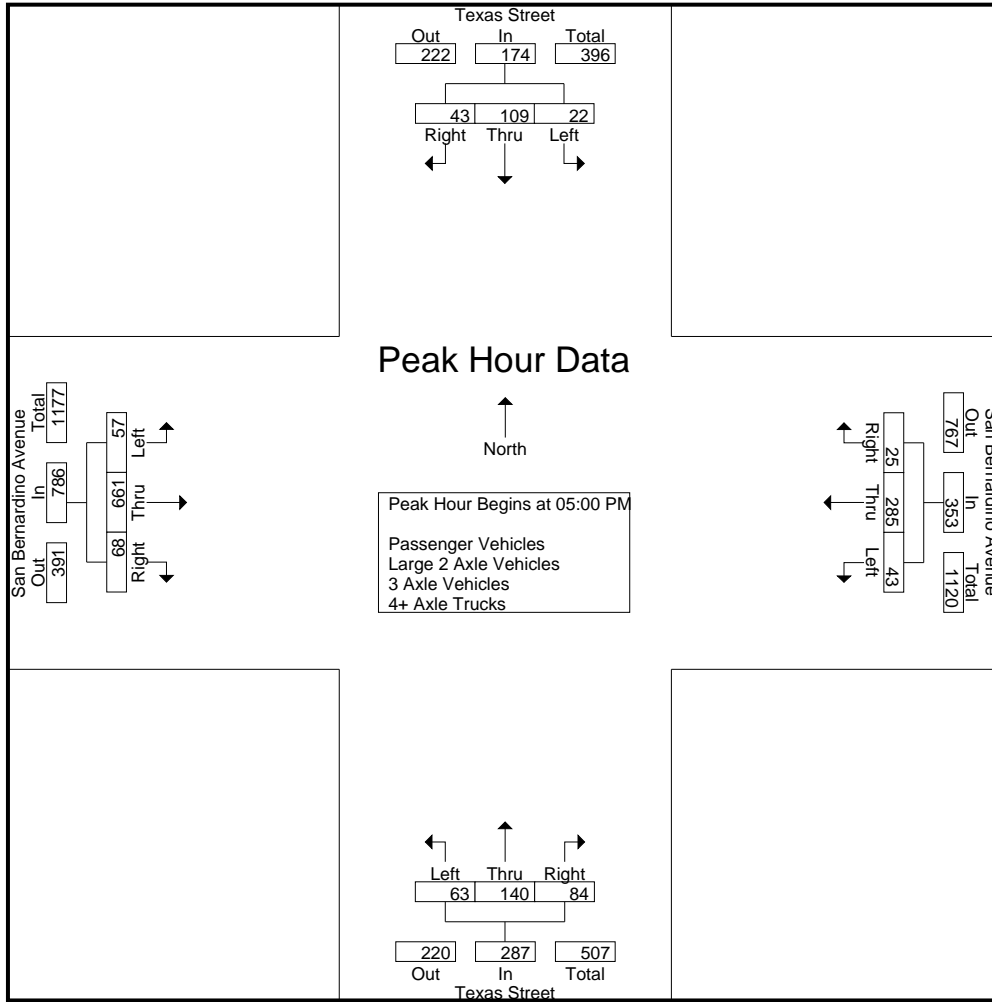
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Texas Street Southbound				San Bernardino Avenue Westbound				Texas Street Northbound				San Bernardino 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	5	24	13	42	9	71	8	88	18	38	16	72	21	135	10	166	368
04:15 PM	7	28	8	43	9	77	2	88	16	26	10	52	18	148	10	176	359
04:30 PM	9	22	9	40	16	75	2	93	23	32	6	61	12	138	16	166	360
04:45 PM	2	30	10	42	14	88	3	105	18	23	22	63	13	158	16	187	397
Total	23	104	40	167	48	311	15	374	75	119	54	248	64	579	52	695	1484
05:00 PM	5	21	12	38	7	67	3	77	14	33	21	68	14	154	16	184	367
05:15 PM	6	30	11	47	8	67	2	77	11	35	27	73	17	155	15	187	384
05:30 PM	5	24	12	41	16	80	8	104	15	37	17	69	8	159	20	187	401
05:45 PM	6	34	8	48	12	71	12	95	23	35	19	77	18	193	17	228	448
Total	22	109	43	174	43	285	25	353	63	140	84	287	57	661	68	786	1600
Grand Total	45	213	83	341	91	596	40	727	138	259	138	535	121	1240	120	1481	3084
Apprch %	13.2	62.5	24.3		12.5	82	5.5		25.8	48.4	25.8		8.2	83.7	8.1		
Total %	1.5	6.9	2.7	11.1	3	19.3	1.3	23.6	4.5	8.4	4.5	17.3	3.9	40.2	3.9	48	
Passenger Vehicles	41	210	77	328	91	576	40	707	137	259	137	533	120	1229	119	1468	3036
% Passenger Vehicles	91.1	98.6	92.8	96.2	100	96.6	100	97.2	99.3	100	99.3	99.6	99.2	99.1	99.2	99.1	98.4
Large 2 Axle Vehicles	2	3	3	8	0	14	0	14	1	0	1	2	0	11	1	12	36
% Large 2 Axle Vehicles	4.4	1.4	3.6	2.3	0	2.3	0	1.9	0.7	0	0.7	0.4	0	0.9	0.8	0.8	1.2
3 Axle Vehicles	2	0	3	5	0	0	0	0	0	0	0	0	1	0	0	1	6
% 3 Axle Vehicles	4.4	0	3.6	1.5	0	0	0	0	0	0	0	0	0.8	0	0	0.1	0.2
4+ Axle Trucks	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	6
% 4+ Axle Trucks	0	0	0	0	0	1	0	0.8	0	0	0	0	0	0	0	0	0.2

Start Time	Texas Street Southbound				San Bernardino Avenue Westbound				Texas Street Northbound				San Bernardino 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 05:00 PM																	
05:00 PM	5	21	12	38	7	67	3	77	14	33	21	68	14	154	16	184	367
05:15 PM	6	30	11	47	8	67	2	77	11	35	27	73	17	155	15	187	384
05:30 PM	5	24	12	41	16	80	8	104	15	37	17	69	8	159	20	187	401
05:45 PM	6	34	8	48	12	71	12	95	23	35	19	77	18	193	17	228	448
Total Volume	22	109	43	174	43	285	25	353	63	140	84	287	57	661	68	786	1600
% App. Total	12.6	62.6	24.7		12.2	80.7	7.1		22	48.8	29.3		7.3	84.1	8.7		
PHF	.917	.801	.896	.906	.672	.891	.521	.849	.685	.946	.778	.932	.792	.856	.850	.862	.893

City of Redlands
 N/S: Texas Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 02_RED_Tex_San B PM
 Site Code : 05722809
 Start Date : 9/21/2022
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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:

	05:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	5	21	12	38	9	71	8	88	14	33	21	68	14	154	16	184
+15 mins.	6	30	11	47	9	77	2	88	11	35	27	73	17	155	15	187
+30 mins.	5	24	12	41	16	75	2	93	15	37	17	69	8	159	20	187
+45 mins.	6	34	8	48	14	88	3	105	23	35	19	77	18	193	17	228
Total Volume	22	109	43	174	48	311	15	374	63	140	84	287	57	661	68	786
% App. Total	12.6	62.6	24.7		12.8	83.2	4		22	48.8	29.3		7.3	84.1	8.7	
PHF	.917	.801	.896	.906	.750	.884	.469	.890	.685	.946	.778	.932	.792	.856	.850	.862

City of Redlands
 N/S: 6th Street
 E/W: Pearl Avenue/I-10 Eastbound On Ramp
 Weather: Clear

File Name : 066_RED_6th_Pearl PM
 Site Code : 221080
 Start Date : 12/14/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	6th Street Southbound				I-10 Eastbound On Ramp Westbound				6th Street Northbound				Pearl 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	43	67	22	132	0	0	0	0	27	42	34	103	22	69	38	129	364
04:15 PM	62	58	18	138	0	0	0	0	26	42	29	97	16	70	30	116	351
04:30 PM	62	62	24	148	0	0	0	0	39	45	36	120	34	64	29	127	395
04:45 PM	57	74	37	168	0	0	0	0	30	48	24	102	18	65	18	101	371
Total	224	261	101	586	0	0	0	0	122	177	123	422	90	268	115	473	1481
05:00 PM	53	58	45	156	0	0	0	0	46	24	43	113	29	63	25	117	386
05:15 PM	51	54	27	132	0	0	0	0	28	35	33	96	17	67	13	97	325
05:30 PM	42	53	19	114	0	0	0	0	24	27	27	78	22	66	24	112	304
05:45 PM	36	60	32	128	0	0	0	0	28	21	8	57	21	70	28	119	304
Total	182	225	123	530	0	0	0	0	126	107	111	344	89	266	90	445	1319
Grand Total	406	486	224	1116	0	0	0	0	248	284	234	766	179	534	205	918	2800
Apprch %	36.4	43.5	20.1		0	0	0		32.4	37.1	30.5		19.5	58.2	22.3		
Total %	14.5	17.4	8	39.9	0	0	0	0	8.9	10.1	8.4	27.4	6.4	19.1	7.3	32.8	

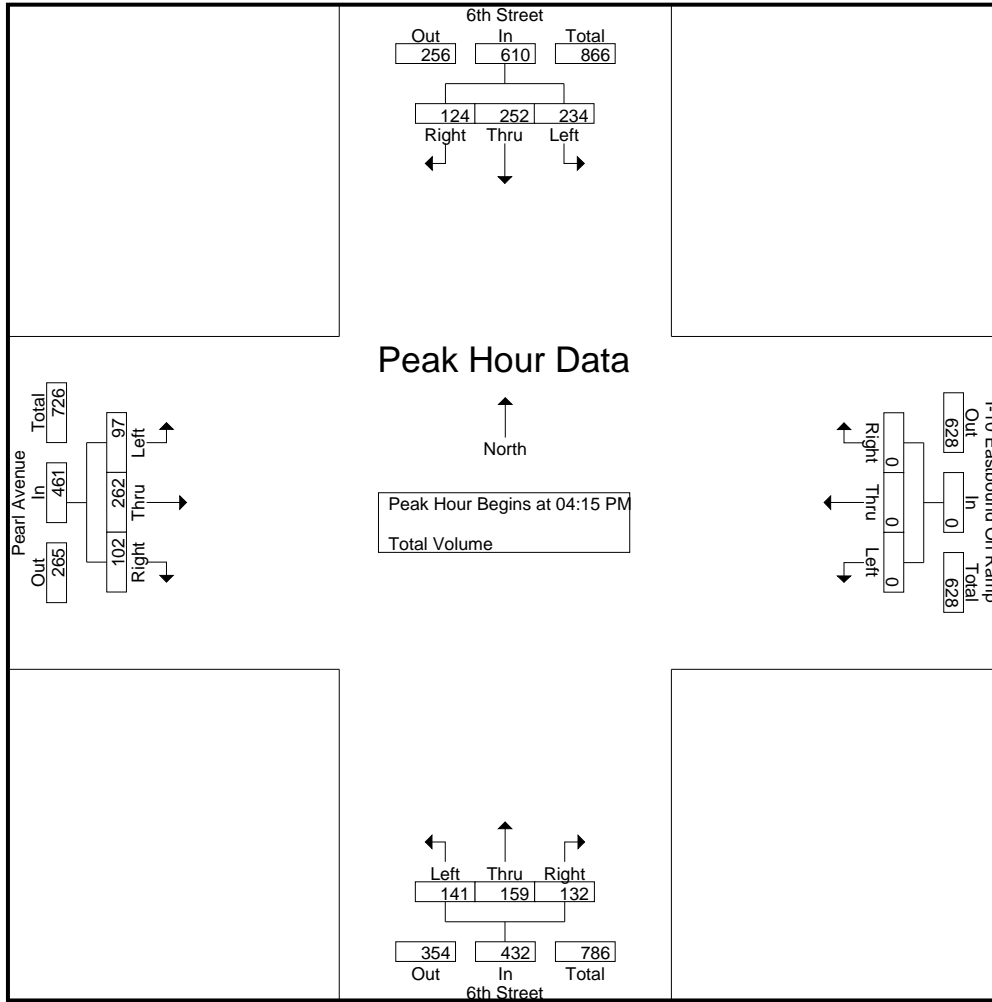
Start Time	6th Street Southbound				I-10 Eastbound On Ramp Westbound				6th Street Northbound				Pearl Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	62	58	18	138	0	0	0	0	26	42	29	97	16	70	30	116	351
04:30 PM	62	62	24	148	0	0	0	0	39	45	36	120	34	64	29	127	395
04:45 PM	57	74	37	168	0	0	0	0	30	48	24	102	18	65	18	101	371
05:00 PM	53	58	45	156	0	0	0	0	46	24	43	113	29	63	25	117	386
Total Volume	234	252	124	610	0	0	0	0	141	159	132	432	97	262	102	461	1503
% App. Total	38.4	41.3	20.3		0	0	0		32.6	36.8	30.6		21	56.8	22.1		
PHF	.944	.851	.689	.908	.000	.000	.000	.000	.766	.828	.767	.900	.713	.936	.850	.907	.951

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: 6th Street
 E/W: Pearl Avenue/I-10 Eastbound On Ramp
 Weather: Clear

File Name : 066_RED_6th_Pearl PM
 Site Code : 221080
 Start Date : 12/14/2022
 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:

	04:15 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	62	58	18	138	0	0	0	0	26	42	29	97	22	69	38	129
+15 mins.	62	62	24	148	0	0	0	0	39	45	36	120	16	70	30	116
+30 mins.	57	74	37	168	0	0	0	0	30	48	24	102	34	64	29	127
+45 mins.	53	58	45	156	0	0	0	0	46	24	43	113	18	65	18	101
Total Volume	234	252	124	610	0	0	0	0	141	159	132	432	90	268	115	473
% App. Total	38.4	41.3	20.3		0	0	0		32.6	36.8	30.6		19	56.7	24.3	
PHF	.944	.851	.689	.908	.000	.000	.000	.000	.766	.828	.767	.900	.662	.957	.757	.917

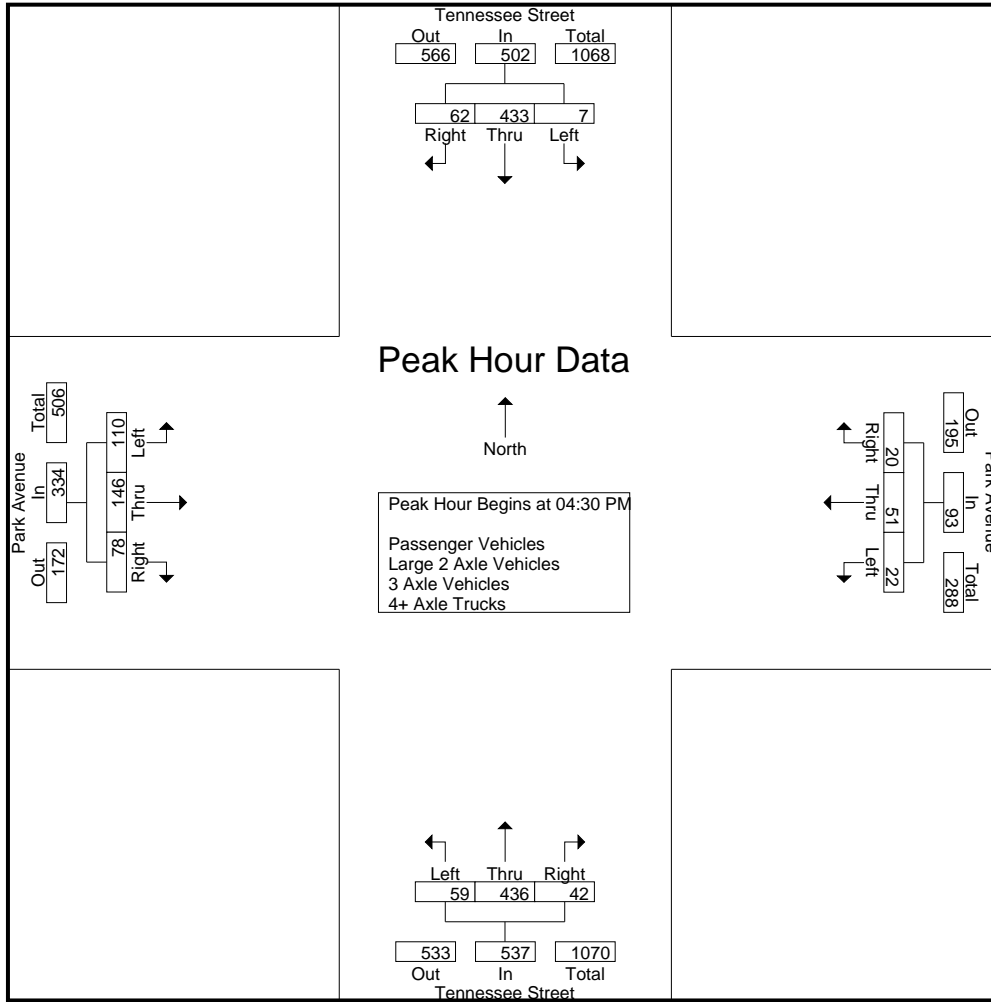
City of Redlands
 N/S: Tennessee Street
 E/W: Park Avenue
 Weather: Clear

File Name : 13_RED_Ten_Park PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

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

Start Time	Tennessee Street Southbound				Park Avenue Westbound				Tennessee Street Northbound				Park 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	1	98	15	114	5	16	5	26	15	111	11	137	35	26	19	80	357
04:15 PM	3	106	14	123	4	12	10	26	22	106	8	136	18	28	18	64	349
04:30 PM	2	97	14	113	5	13	6	24	14	109	8	131	36	37	16	89	357
04:45 PM	0	107	16	123	5	16	3	24	23	94	6	123	20	31	13	64	334
Total	6	408	59	473	19	57	24	100	74	420	33	527	109	122	66	297	1397
05:00 PM	5	101	20	126	6	11	6	23	11	137	17	165	36	40	25	101	415
05:15 PM	0	128	12	140	6	11	5	22	11	96	11	118	18	38	24	80	360
05:30 PM	1	106	15	122	4	10	11	25	7	94	8	109	25	20	9	54	310
05:45 PM	0	103	10	113	6	5	8	19	0	95	9	104	24	22	10	56	292
Total	6	438	57	501	22	37	30	89	29	422	45	496	103	120	68	291	1377
Grand Total	12	846	116	974	41	94	54	189	103	842	78	1023	212	242	134	588	2774
Apprch %	1.2	86.9	11.9		21.7	49.7	28.6		10.1	82.3	7.6		36.1	41.2	22.8		
Total %	0.4	30.5	4.2	35.1	1.5	3.4	1.9	6.8	3.7	30.4	2.8	36.9	7.6	8.7	4.8	21.2	
Passenger Vehicles	12	837	113	962	40	92	54	186	101	838	78	1017	205	241	134	580	2745
% Passenger Vehicles	100	98.9	97.4	98.8	97.6	97.9	100	98.4	98.1	99.5	100	99.4	96.7	99.6	100	98.6	99
Large 2 Axle Vehicles	0	4	3	7	1	2	0	3	2	3	0	5	3	1	0	4	19
% Large 2 Axle Vehicles	0	0.5	2.6	0.7	2.4	2.1	0	1.6	1.9	0.4	0	0.5	1.4	0.4	0	0.7	0.7
3 Axle Vehicles	0	4	0	4	0	0	0	0	0	0	0	0	4	0	0	4	8
% 3 Axle Vehicles	0	0.5	0	0.4	0	0	0	0	0	0	0	0	1.9	0	0	0.7	0.3
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% 4+ Axle Trucks	0	0.1	0	0.1	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1

Start Time	Tennessee Street Southbound				Park Avenue Westbound				Tennessee Street Northbound				Park 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	2	97	14	113	5	13	6	24	14	109	8	131	36	37	16	89	357
04:45 PM	0	107	16	123	5	16	3	24	23	94	6	123	20	31	13	64	334
05:00 PM	5	101	20	126	6	11	6	23	11	137	17	165	36	40	25	101	415
05:15 PM	0	128	12	140	6	11	5	22	11	96	11	118	18	38	24	80	360
Total Volume	7	433	62	502	22	51	20	93	59	436	42	537	110	146	78	334	1466
% App. Total	1.4	86.3	12.4		23.7	54.8	21.5		11	81.2	7.8		32.9	43.7	23.4		
PHF	.350	.846	.775	.896	.917	.797	.833	.969	.641	.796	.618	.814	.764	.913	.780	.827	.883



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

	04:45 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	0	107	16	123	5	16	5	26	22	106	8	136	36	37	16	89
+15 mins.	5	101	20	126	4	12	10	26	14	109	8	131	20	31	13	64
+30 mins.	0	128	12	140	5	13	6	24	23	94	6	123	36	40	25	101
+45 mins.	1	106	15	122	5	16	3	24	11	137	17	165	18	38	24	80
Total Volume	6	442	63	511	19	57	24	100	70	446	39	555	110	146	78	334
% App. Total	1.2	86.5	12.3		19	57	24		12.6	80.4	7		32.9	43.7	23.4	
PHF	.300	.863	.788	.913	.950	.891	.600	.962	.761	.814	.574	.841	.764	.913	.780	.827

City of Redlands
 N/S: Tennessee Street
 E/W: State Street
 Weather: Clear

File Name : 14_RED_Ten_State PM
 Site Code : 00322438
 Start Date : 5/11/2022
 Page No : 1

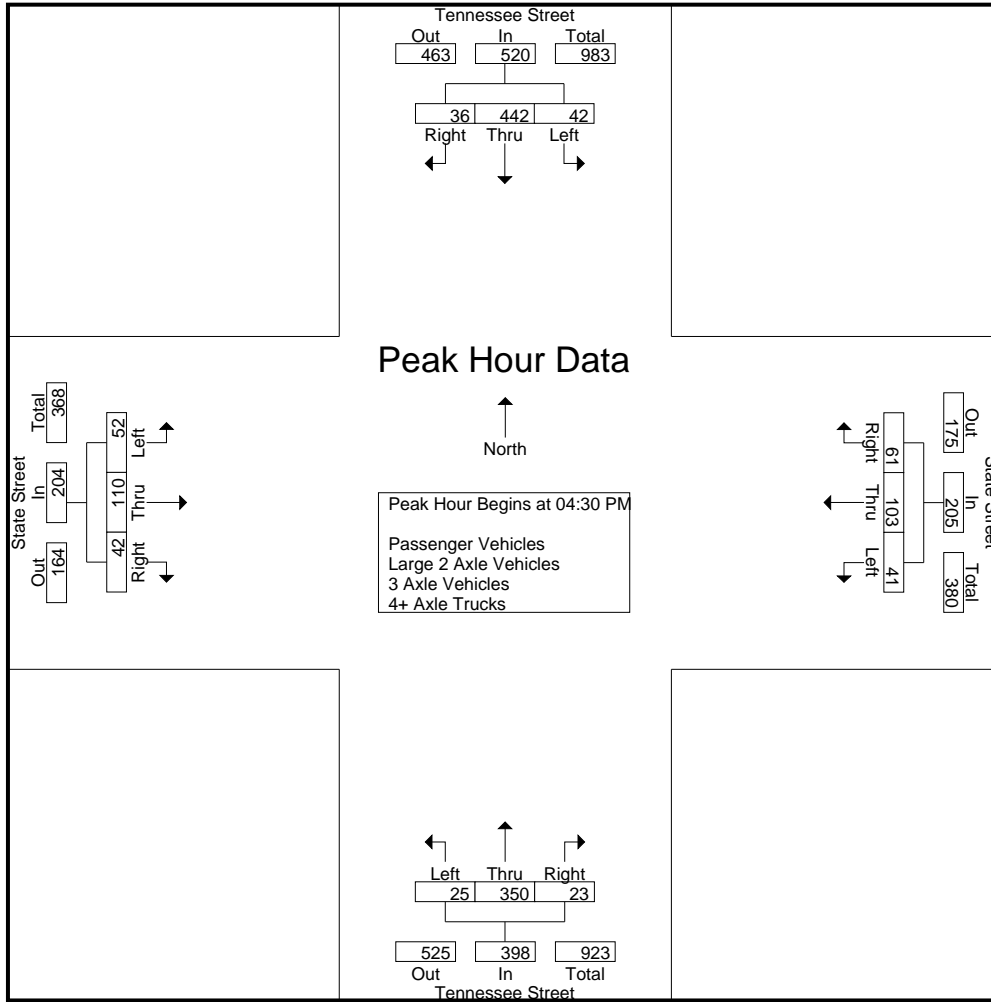
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Tennessee Street Southbound				State Street Westbound				Tennessee Street Northbound				State Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	13	92	12	117	3	16	20	39	7	93	3	103	11	17	14	42	301
04:15 PM	9	99	11	119	7	19	16	42	8	80	3	91	14	14	12	40	292
04:30 PM	8	100	10	118	10	26	18	54	3	85	7	95	15	22	7	44	311
04:45 PM	10	103	8	121	11	29	12	52	9	82	6	97	9	30	13	52	322
Total	40	394	41	475	31	90	66	187	27	340	19	386	49	83	46	178	1226
05:00 PM	14	116	9	139	11	30	17	58	3	99	4	106	22	39	17	78	381
05:15 PM	10	123	9	142	9	18	14	41	10	84	6	100	6	19	5	30	313
05:30 PM	9	113	3	125	13	9	8	30	9	84	3	96	4	24	13	41	292
05:45 PM	9	100	3	112	17	26	17	60	6	66	4	76	10	10	12	32	280
Total	42	452	24	518	50	83	56	189	28	333	17	378	42	92	47	181	1266
Grand Total	82	846	65	993	81	173	122	376	55	673	36	764	91	175	93	359	2492
Apprch %	8.3	85.2	6.5		21.5	46	32.4		7.2	88.1	4.7		25.3	48.7	25.9		
Total %	3.3	33.9	2.6	39.8	3.3	6.9	4.9	15.1	2.2	27	1.4	30.7	3.7	7	3.7	14.4	
Passenger Vehicles	81	842	61	984	81	168	121	370	55	672	36	763	87	170	93	350	2467
% Passenger Vehicles	98.8	99.5	93.8	99.1	100	97.1	99.2	98.4	100	99.9	100	99.9	95.6	97.1	100	97.5	99
Large 2 Axle Vehicles	0	2	2	4	0	5	1	6	0	1	0	1	2	5	0	7	18
% Large 2 Axle Vehicles	0	0.2	3.1	0.4	0	2.9	0.8	1.6	0	0.1	0	0.1	2.2	2.9	0	1.9	0.7
3 Axle Vehicles	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
% 3 Axle Vehicles	0	0.2	3.1	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0.2
4+ Axle Trucks	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	3
% 4+ Axle Trucks	1.2	0	0	0.1	0	0	0	0	0	0	0	0	2.2	0	0	0.6	0.1

Start Time	Tennessee Street Southbound				State Street Westbound				Tennessee Street Northbound				State Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	8	100	10	118	10	26	18	54	3	85	7	95	15	22	7	44	311
04:45 PM	10	103	8	121	11	29	12	52	9	82	6	97	9	30	13	52	322
05:00 PM	14	116	9	139	11	30	17	58	3	99	4	106	22	39	17	78	381
05:15 PM	10	123	9	142	9	18	14	41	10	84	6	100	6	19	5	30	313
Total Volume	42	442	36	520	41	103	61	205	25	350	23	398	52	110	42	204	1327
% App. Total	8.1	85	6.9		20	50.2	29.8		6.3	87.9	5.8		25.5	53.9	20.6		
PHF	.750	.898	.900	.915	.932	.858	.847	.884	.625	.884	.821	.939	.591	.705	.618	.654	.871

City of Redlands
 N/S: Tennessee Street
 E/W: State Street
 Weather: Clear

File Name : 14_RED_Ten_State PM
 Site Code : 00322438
 Start Date : 5/11/2022
 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:

	04:45 PM				04:15 PM				04:45 PM				04:15 PM			
+0 mins.	10	103	8	121	7	19	16	42	9	82	6	97	14	14	12	40
+15 mins.	14	116	9	139	10	26	18	54	3	99	4	106	15	22	7	44
+30 mins.	10	123	9	142	11	29	12	52	10	84	6	100	9	30	13	52
+45 mins.	9	113	3	125	11	30	17	58	9	84	3	96	22	39	17	78
Total Volume	43	455	29	527	39	104	63	206	31	349	19	399	60	105	49	214
% App. Total	8.2	86.3	5.5		18.9	50.5	30.6		7.8	87.5	4.8		28	49.1	22.9	
PHF	.768	.925	.806	.928	.886	.867	.875	.888	.775	.881	.792	.941	.682	.673	.721	.686

City of Redlands
 N/S: Texas Street
 E/W: Pioneer Avenue
 Weather: Clear

File Name : 01_RED_Tex_Pio PM
 Site Code : 05722809
 Start Date : 9/21/2022
 Page No : 1

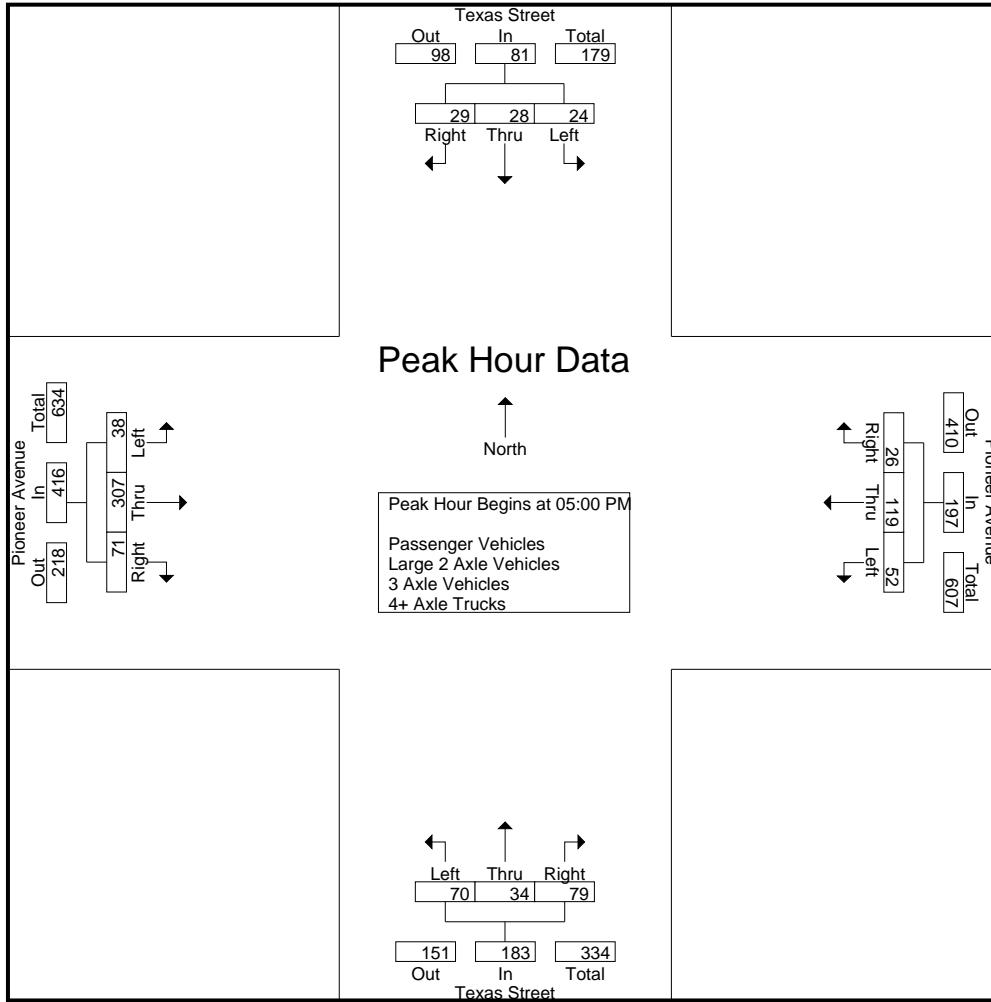
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Texas Street Southbound				Pioneer Avenue Westbound				Texas Street Northbound				Pioneer 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	11	6	12	29	6	22	0	28	13	14	17	44	9	65	19	93	194
04:15 PM	2	4	2	8	12	27	2	41	10	8	25	43	4	52	22	78	170
04:30 PM	4	9	5	18	8	12	0	20	8	6	18	32	9	61	14	84	154
04:45 PM	2	4	3	9	16	22	2	40	11	8	17	36	8	62	15	85	170
Total	19	23	22	64	42	83	4	129	42	36	77	155	30	240	70	340	688
05:00 PM	1	7	5	13	11	20	6	37	12	6	19	37	10	72	12	94	181
05:15 PM	8	11	7	26	14	35	14	63	9	15	19	43	15	82	18	115	247
05:30 PM	9	6	13	28	11	32	4	47	21	8	21	50	10	84	19	113	238
05:45 PM	6	4	4	14	16	32	2	50	28	5	20	53	3	69	22	94	211
Total	24	28	29	81	52	119	26	197	70	34	79	183	38	307	71	416	877
Grand Total	43	51	51	145	94	202	30	326	112	70	156	338	68	547	141	756	1565
Apprch %	29.7	35.2	35.2		28.8	62	9.2		33.1	20.7	46.2		9	72.4	18.7		
Total %	2.7	3.3	3.3	9.3	6	12.9	1.9	20.8	7.2	4.5	10	21.6	4.3	35	9	48.3	
Passenger Vehicles	42	45	49	136	93	202	30	325	112	70	156	338	68	546	141	755	1554
% Passenger Vehicles	97.7	88.2	96.1	93.8	98.9	100	100	99.7	100	100	100	100	100	99.8	100	99.9	99.3
Large 2 Axle Vehicles	1	3	2	6	1	0	0	1	0	0	0	0	0	1	0	1	8
% Large 2 Axle Vehicles	2.3	5.9	3.9	4.1	1.1	0	0	0.3	0	0	0	0	0	0.2	0	0.1	0.5
3 Axle Vehicles	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% 3 Axle Vehicles	0	3.9	0	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	2	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0.1

Start Time	Texas Street Southbound				Pioneer Avenue Westbound				Texas Street Northbound				Pioneer 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 05:00 PM																	
05:00 PM	1	7	5	13	11	20	6	37	12	6	19	37	10	72	12	94	181
05:15 PM	8	11	7	26	14	35	14	63	9	15	19	43	15	82	18	115	247
05:30 PM	9	6	13	28	11	32	4	47	21	8	21	50	10	84	19	113	238
05:45 PM	6	4	4	14	16	32	2	50	28	5	20	53	3	69	22	94	211
Total Volume	24	28	29	81	52	119	26	197	70	34	79	183	38	307	71	416	877
% App. Total	29.6	34.6	35.8		26.4	60.4	13.2		38.3	18.6	43.2		9.1	73.8	17.1		
PHF	.667	.636	.558	.723	.813	.850	.464	.782	.625	.567	.940	.863	.633	.914	.807	.904	.888

City of Redlands
 N/S: Texas Street
 E/W: Pioneer Avenue
 Weather: Clear

File Name : 01_RED_Tex_Pio PM
 Site Code : 05722809
 Start Date : 9/21/2022
 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:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	1	7	5	13	11	20	6	37	12	6	19	37	10	72	12	94
+15 mins.	8	11	7	26	14	35	14	63	9	15	19	43	15	82	18	115
+30 mins.	9	6	13	28	11	32	4	47	21	8	21	50	10	84	19	113
+45 mins.	6	4	4	14	16	32	2	50	28	5	20	53	3	69	22	94
Total Volume	24	28	29	81	52	119	26	197	70	34	79	183	38	307	71	416
% App. Total	29.6	34.6	35.8		26.4	60.4	13.2		38.3	18.6	43.2		9.1	73.8	17.1	
PHF	.667	.636	.558	.723	.813	.850	.464	.782	.625	.567	.940	.863	.633	.914	.807	.904

City of Redlands
 N/S: Alessandro Road
 E/W: Sunset Drive
 Weather: Clear

File Name : 070_RED_Ales_Sun PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive 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	3	1	3	7	1	61	6	68	1	0	1	2	2	57	1	60	137
04:15 PM	8	2	1	11	1	65	5	71	3	0	0	3	6	66	2	74	159
04:30 PM	7	0	3	10	0	58	2	60	4	3	2	9	3	56	3	62	141
04:45 PM	3	0	4	7	1	63	5	69	2	2	2	6	5	57	1	63	145
Total	21	3	11	35	3	247	18	268	10	5	5	20	16	236	7	259	582
05:00 PM	0	1	4	5	2	51	10	63	2	0	5	7	2	66	2	70	145
05:15 PM	1	0	2	3	3	62	1	66	1	5	1	7	1	107	7	115	191
05:30 PM	1	1	3	5	0	54	1	55	4	1	3	8	7	68	5	80	148
05:45 PM	1	0	2	3	1	59	2	62	3	0	3	6	3	46	3	52	123
Total	3	2	11	16	6	226	14	246	10	6	12	28	13	287	17	317	607
Grand Total	24	5	22	51	9	473	32	514	20	11	17	48	29	523	24	576	1189
Apprch %	47.1	9.8	43.1		1.8	92	6.2		41.7	22.9	35.4		5	90.8	4.2		
Total %	2	0.4	1.9	4.3	0.8	39.8	2.7	43.2	1.7	0.9	1.4	4	2.4	44	2	48.4	

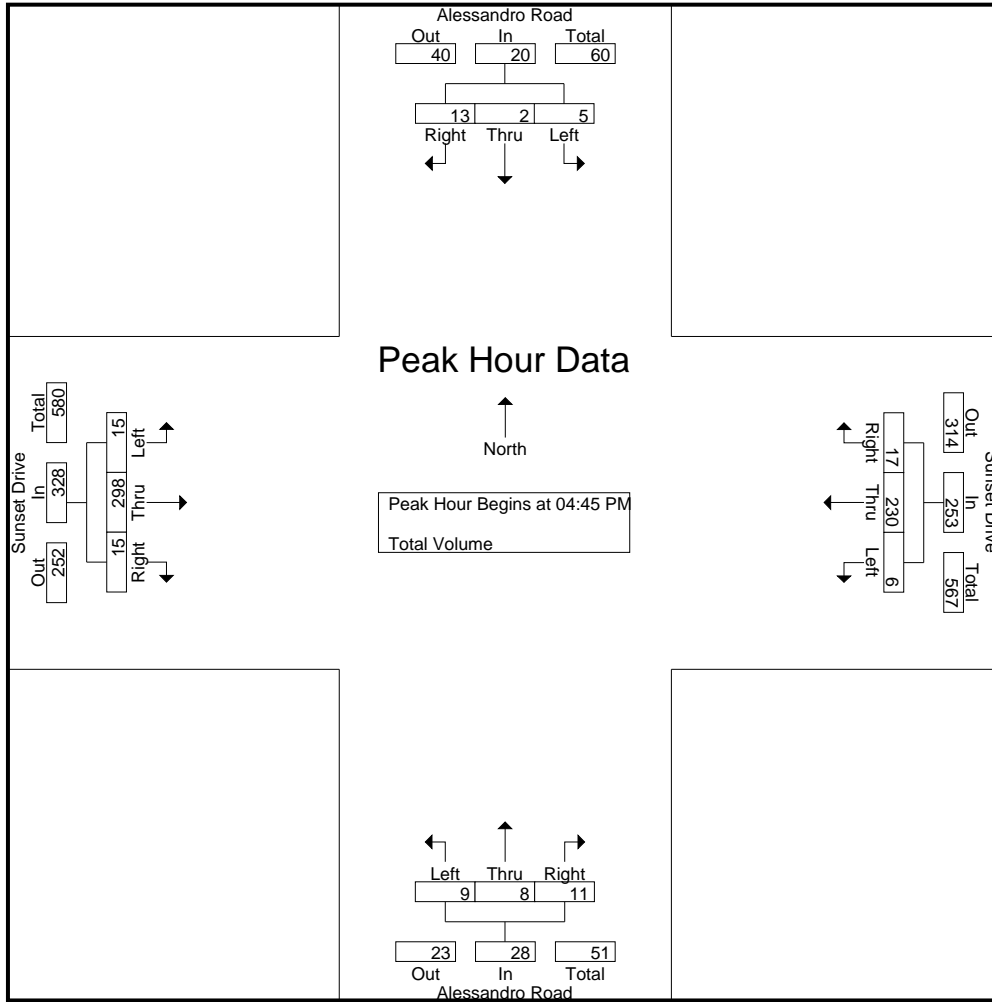
Start Time	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	3	0	4	7	1	63	5	69	2	2	2	6	5	57	1	63	145
05:00 PM	0	1	4	5	2	51	10	63	2	0	5	7	2	66	2	70	145
05:15 PM	1	0	2	3	3	62	1	66	1	5	1	7	1	107	7	115	191
05:30 PM	1	1	3	5	0	54	1	55	4	1	3	8	7	68	5	80	148
Total Volume	5	2	13	20	6	230	17	253	9	8	11	28	15	298	15	328	629
% App. Total	25	10	65		2.4	90.9	6.7		32.1	28.6	39.3		4.6	90.9	4.6		
PHF	.417	.500	.813	.714	.500	.913	.425	.917	.563	.400	.550	.875	.536	.696	.536	.713	.823

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: Alessandro Road
 E/W: Sunset Drive
 Weather: Clear

File Name : 070_RED_Ales_Sun PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	3	1	3	7	1	61	6	68	4	3	2	9	5	57	1	63
+15 mins.	8	2	1	11	1	65	5	71	2	2	2	6	2	66	2	70
+30 mins.	7	0	3	10	0	58	2	60	2	0	5	7	1	107	7	115
+45 mins.	3	0	4	7	1	63	5	69	1	5	1	7	7	68	5	80
Total Volume	21	3	11	35	3	247	18	268	9	10	10	29	15	298	15	328
% App. Total	60	8.6	31.4		1.1	92.2	6.7		31	34.5	34.5		4.6	90.9	4.6	
PHF	.656	.375	.688	.795	.750	.950	.750	.944	.563	.500	.500	.806	.536	.696	.536	.713

City of Redlands
 N/S: Bellevue Avenue
 E/W: Brookside Avenue
 Weather: Clear

File Name : 071_RED_Belle_Brook PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Bellevue Avenue Southbound				Brookside Avenue Westbound				Bellevue Avenue Northbound				Brookside 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	2	7	4	13	3	20	1	24	5	4	3	12	6	22	6	34	83
04:15 PM	1	7	3	11	4	11	2	17	6	6	5	17	2	20	1	23	68
04:30 PM	0	3	5	8	1	15	1	17	4	4	7	15	1	31	5	37	77
04:45 PM	2	2	1	5	1	22	2	25	4	3	3	10	6	33	5	44	84
Total	5	19	13	37	9	68	6	83	19	17	18	54	15	106	17	138	312
05:00 PM	5	5	5	15	3	25	0	28	8	16	1	25	7	48	1	56	124
05:15 PM	1	4	7	12	0	19	2	21	0	4	4	8	5	26	4	35	76
05:30 PM	1	7	4	12	1	15	0	16	4	1	1	6	2	25	2	29	63
05:45 PM	1	3	4	8	3	9	1	13	0	3	3	6	1	27	2	30	57
Total	8	19	20	47	7	68	3	78	12	24	9	45	15	126	9	150	320
Grand Total	13	38	33	84	16	136	9	161	31	41	27	99	30	232	26	288	632
Apprch %	15.5	45.2	39.3		9.9	84.5	5.6		31.3	41.4	27.3		10.4	80.6	9		
Total %	2.1	6	5.2	13.3	2.5	21.5	1.4	25.5	4.9	6.5	4.3	15.7	4.7	36.7	4.1	45.6	

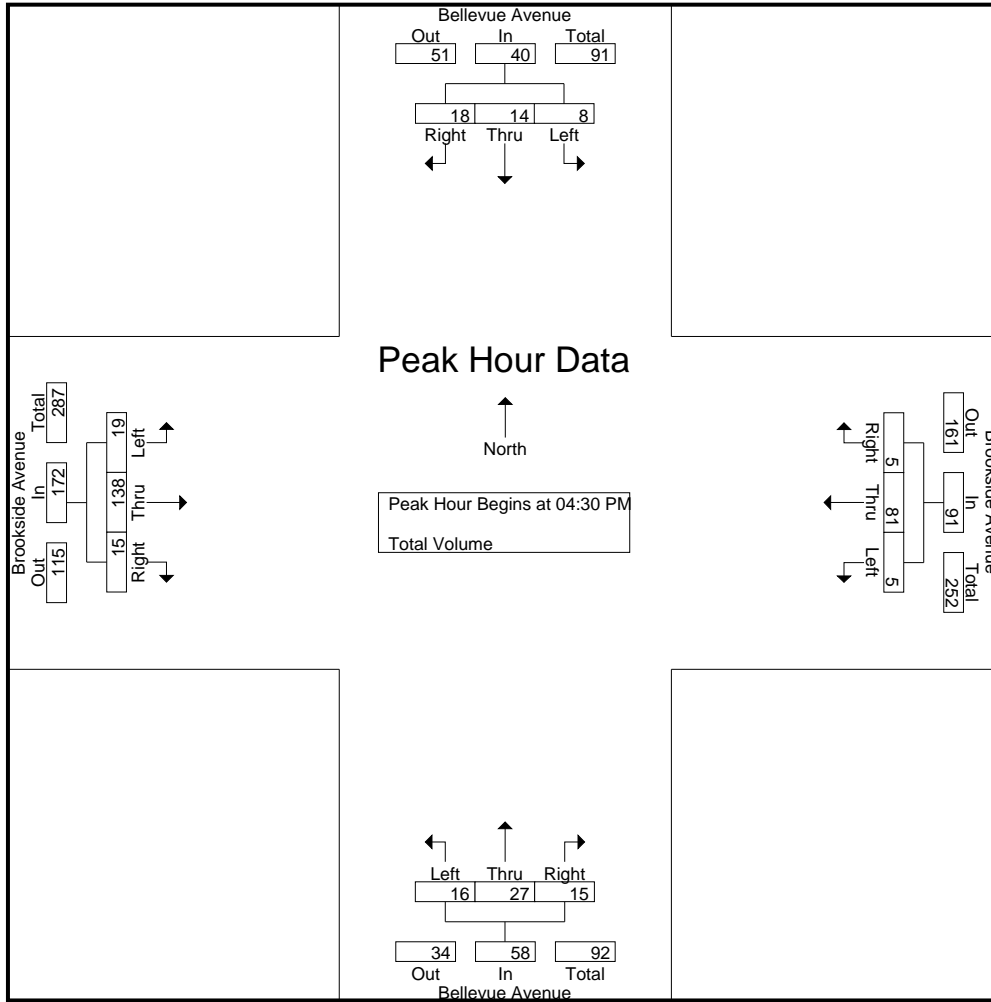
Start Time	Bellevue Avenue Southbound				Brookside Avenue Westbound				Bellevue Avenue Northbound				Brookside Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	0	3	5	8	1	15	1	17	4	4	7	15	1	31	5	37	77
04:45 PM	2	2	1	5	1	22	2	25	4	3	3	10	6	33	5	44	84
05:00 PM	5	5	5	15	3	25	0	28	8	16	1	25	7	48	1	56	124
05:15 PM	1	4	7	12	0	19	2	21	0	4	4	8	5	26	4	35	76
Total Volume	8	14	18	40	5	81	5	91	16	27	15	58	19	138	15	172	361
% App. Total	20	35	45		5.5	89	5.5		27.6	46.6	25.9		11	80.2	8.7		
PHF	.400	.700	.643	.667	.417	.810	.625	.813	.500	.422	.536	.580	.679	.719	.750	.768	.728

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 Redlands
 N/S: Bellevue Avenue
 E/W: Brookside Avenue
 Weather: Clear

File Name : 071_RED_Belle_Brook PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:30 PM				04:15 PM				04:30 PM			
+0 mins.	5	5	5	15	1	15	1	17	6	6	5	17	1	31	5	37
+15 mins.	1	4	7	12	1	22	2	25	4	4	7	15	6	33	5	44
+30 mins.	1	7	4	12	3	25	0	28	4	3	3	10	7	48	1	56
+45 mins.	1	3	4	8	0	19	2	21	8	16	1	25	5	26	4	35
Total Volume	8	19	20	47	5	81	5	91	22	29	16	67	19	138	15	172
% App. Total	17	40.4	42.6		5.5	89	5.5		32.8	43.3	23.9		11	80.2	8.7	
PHF	.400	.679	.714	.783	.417	.810	.625	.813	.688	.453	.571	.670	.679	.719	.750	.768

City of Redlands
 N/S: Bellevue Avenue
 E/W: Olive Avenue
 Weather: Clear

File Name : 072_RED_Belle_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

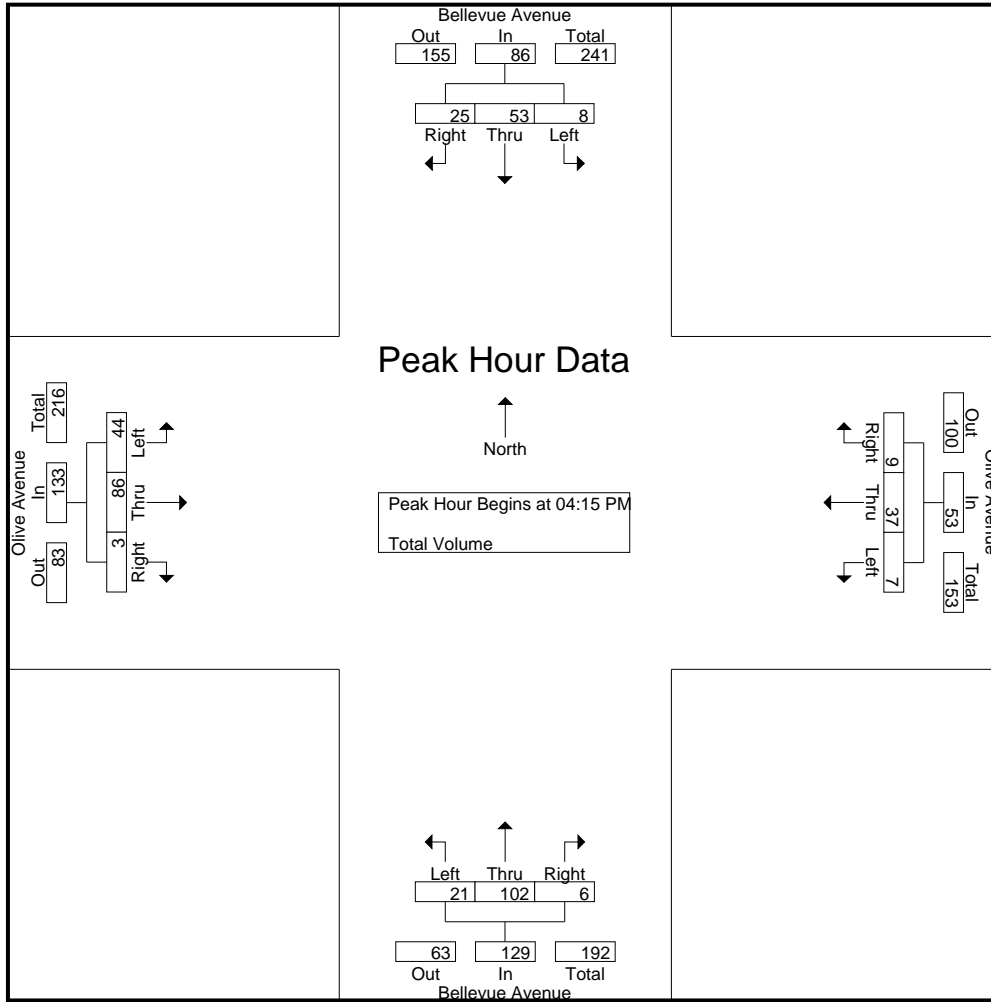
Start Time	Bellevue Avenue Southbound				Olive Avenue Westbound				Bellevue Avenue Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	4	11	4	19	2	9	2	13	9	19	0	28	3	17	1	21	81
04:15 PM	1	14	8	23	4	6	3	13	3	23	1	27	10	10	0	20	83
04:30 PM	3	17	4	24	0	7	1	8	3	28	1	32	14	18	2	34	98
04:45 PM	2	12	7	21	3	11	2	16	7	22	2	31	9	26	0	35	103
Total	10	54	23	87	9	33	8	50	22	92	4	118	36	71	3	110	365
05:00 PM	2	10	6	18	0	13	3	16	8	29	2	39	11	32	1	44	117
05:15 PM	1	9	4	14	0	11	4	15	6	14	0	20	6	17	2	25	74
05:30 PM	2	11	5	18	0	7	1	8	4	17	0	21	4	17	1	22	69
05:45 PM	2	8	5	15	1	7	1	9	1	16	2	19	8	20	2	30	73
Total	7	38	20	65	1	38	9	48	19	76	4	99	29	86	6	121	333
Grand Total	17	92	43	152	10	71	17	98	41	168	8	217	65	157	9	231	698
Apprch %	11.2	60.5	28.3		10.2	72.4	17.3		18.9	77.4	3.7		28.1	68	3.9		
Total %	2.4	13.2	6.2	21.8	1.4	10.2	2.4	14	5.9	24.1	1.1	31.1	9.3	22.5	1.3	33.1	

Start Time	Bellevue Avenue Southbound				Olive Avenue Westbound				Bellevue Avenue Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	1	14	8	23	4	6	3	13	3	23	1	27	10	10	0	20	83
04:30 PM	3	17	4	24	0	7	1	8	3	28	1	32	14	18	2	34	98
04:45 PM	2	12	7	21	3	11	2	16	7	22	2	31	9	26	0	35	103
05:00 PM	2	10	6	18	0	13	3	16	8	29	2	39	11	32	1	44	117
Total Volume	8	53	25	86	7	37	9	53	21	102	6	129	44	86	3	133	401
% App. Total	9.3	61.6	29.1		13.2	69.8	17		16.3	79.1	4.7		33.1	64.7	2.3		
PHF	.667	.779	.781	.896	.438	.712	.750	.828	.656	.879	.750	.827	.786	.672	.375	.756	.857

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Bellevue Avenue
 E/W: Olive Avenue
 Weather: Clear

File Name : 072_RED_Belle_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:30 PM				04:15 PM				04:30 PM			
+0 mins.	4	11	4	19	0	7	1	8	3	23	1	27	14	18	2	34
+15 mins.	1	14	8	23	3	11	2	16	3	28	1	32	9	26	0	35
+30 mins.	3	17	4	24	0	13	3	16	7	22	2	31	11	32	1	44
+45 mins.	2	12	7	21	0	11	4	15	8	29	2	39	6	17	2	25
Total Volume	10	54	23	87	3	42	10	55	21	102	6	129	40	93	5	138
% App. Total	11.5	62.1	26.4		5.5	76.4	18.2		16.3	79.1	4.7		29	67.4	3.6	
PHF	.625	.794	.719	.906	.250	.808	.625	.859	.656	.879	.750	.827	.714	.727	.625	.784

City of Redlands
 N/S: Dearborn Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 073_RED_Dearb_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

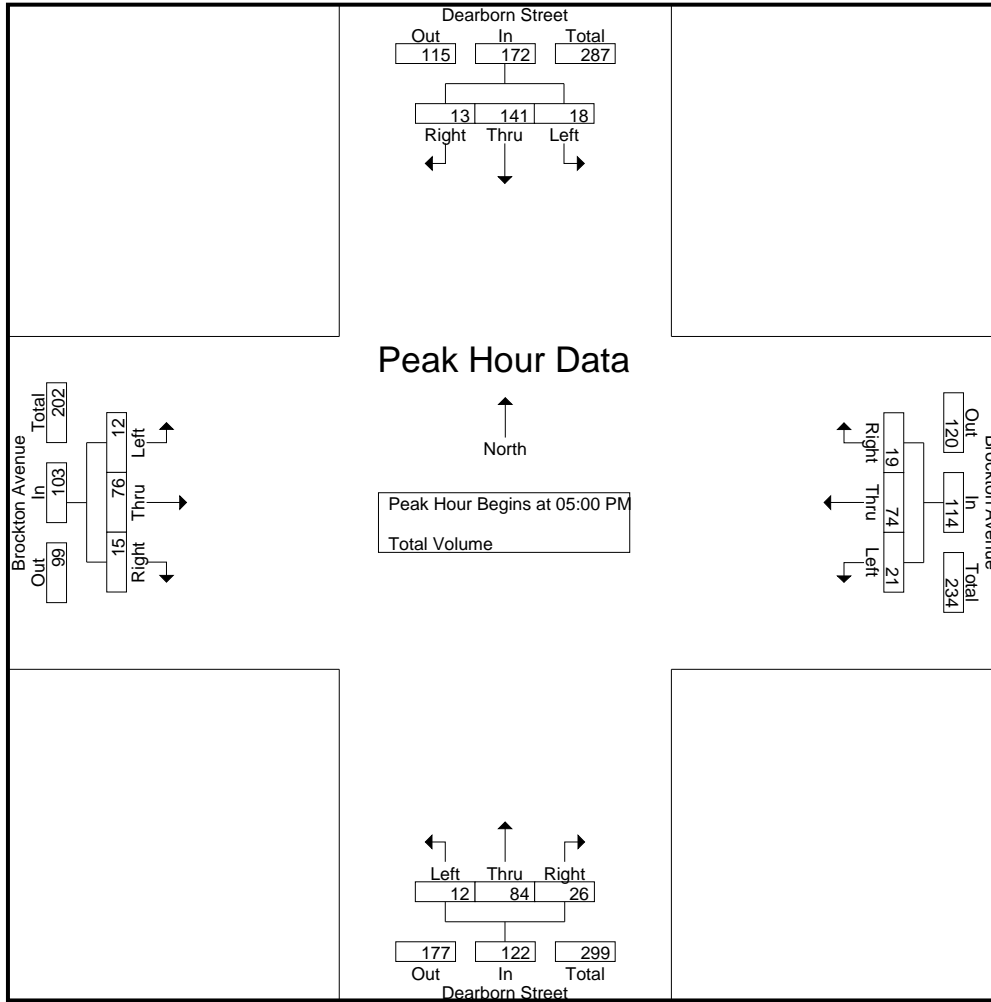
Start Time	Dearborn Street Southbound				Brockton Avenue Westbound				Dearborn Street Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	4	20	5	29	9	18	7	34	5	30	12	47	3	17	2	22	132
04:15 PM	7	32	1	40	4	17	2	23	3	25	12	40	5	16	3	24	127
04:30 PM	2	29	4	35	5	20	1	26	0	27	11	38	3	24	2	29	128
04:45 PM	6	31	5	42	1	13	2	16	2	26	11	39	3	14	2	19	116
Total	19	112	15	146	19	68	12	99	10	108	46	164	14	71	9	94	503
05:00 PM	5	21	2	28	6	13	7	26	2	23	8	33	7	16	1	24	111
05:15 PM	7	36	5	48	3	19	5	27	4	28	7	39	0	27	4	31	145
05:30 PM	5	36	4	45	7	20	3	30	2	13	4	19	3	17	7	27	121
05:45 PM	1	48	2	51	5	22	4	31	4	20	7	31	2	16	3	21	134
Total	18	141	13	172	21	74	19	114	12	84	26	122	12	76	15	103	511
Grand Total	37	253	28	318	40	142	31	213	22	192	72	286	26	147	24	197	1014
Apprch %	11.6	79.6	8.8		18.8	66.7	14.6		7.7	67.1	25.2		13.2	74.6	12.2		
Total %	3.6	25	2.8	31.4	3.9	14	3.1	21	2.2	18.9	7.1	28.2	2.6	14.5	2.4	19.4	

Start Time	Dearborn Street Southbound				Brockton Avenue Westbound				Dearborn Street Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	5	21	2	28	6	13	7	26	2	23	8	33	7	16	1	24	111
05:15 PM	7	36	5	48	3	19	5	27	4	28	7	39	0	27	4	31	145
05:30 PM	5	36	4	45	7	20	3	30	2	13	4	19	3	17	7	27	121
05:45 PM	1	48	2	51	5	22	4	31	4	20	7	31	2	16	3	21	134
Total Volume	18	141	13	172	21	74	19	114	12	84	26	122	12	76	15	103	511
% App. Total	10.5	82	7.6		18.4	64.9	16.7		9.8	68.9	21.3		11.7	73.8	14.6		
PHF	.643	.734	.650	.843	.750	.841	.679	.919	.750	.750	.813	.782	.429	.704	.536	.831	.881

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

City of Redlands
 N/S: Dearborn Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 073_RED_Dearb_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	5	21	2	28	6	13	7	26	5	30	12	47	3	24	2	29
+15 mins.	7	36	5	48	3	19	5	27	3	25	12	40	3	14	2	19
+30 mins.	5	36	4	45	7	20	3	30	0	27	11	38	7	16	1	24
+45 mins.	1	48	2	51	5	22	4	31	2	26	11	39	0	27	4	31
Total Volume	18	141	13	172	21	74	19	114	10	108	46	164	13	81	9	103
% App. Total	10.5	82	7.6		18.4	64.9	16.7		6.1	65.9	28		12.6	78.6	8.7	
PHF	.643	.734	.650	.843	.750	.841	.679	.919	.500	.900	.958	.872	.464	.750	.563	.831

City of Redlands
 N/S: 6th Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 074_RED_6th_Brock PM
 Site Code : 221080
 Start Date : 12/14/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	6th Street Southbound				Brockton Avenue Westbound				6th Street Northbound				Brockton 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	1	5	2	8	7	30	1	38	5	6	11	22	4	48	4	56	124
04:15 PM	1	11	1	13	11	45	0	56	8	3	8	19	0	63	2	65	153
04:30 PM	3	3	2	8	11	51	1	63	7	5	15	27	2	62	8	72	170
04:45 PM	4	6	6	16	8	54	0	62	6	5	11	22	0	52	8	60	160
Total	9	25	11	45	37	180	2	219	26	19	45	90	6	225	22	253	607
05:00 PM	1	8	1	10	9	34	0	43	7	4	9	20	2	58	3	63	136
05:15 PM	2	7	2	11	7	30	2	39	3	8	17	28	1	47	2	50	128
05:30 PM	0	6	2	8	9	32	0	41	7	5	10	22	3	60	5	68	139
05:45 PM	2	4	2	8	4	29	0	33	1	7	9	17	0	42	2	44	102
Total	5	25	7	37	29	125	2	156	18	24	45	87	6	207	12	225	505
Grand Total	14	50	18	82	66	305	4	375	44	43	90	177	12	432	34	478	1112
Apprch %	17.1	61	22		17.6	81.3	1.1		24.9	24.3	50.8		2.5	90.4	7.1		
Total %	1.3	4.5	1.6	7.4	5.9	27.4	0.4	33.7	4	3.9	8.1	15.9	1.1	38.8	3.1	43	

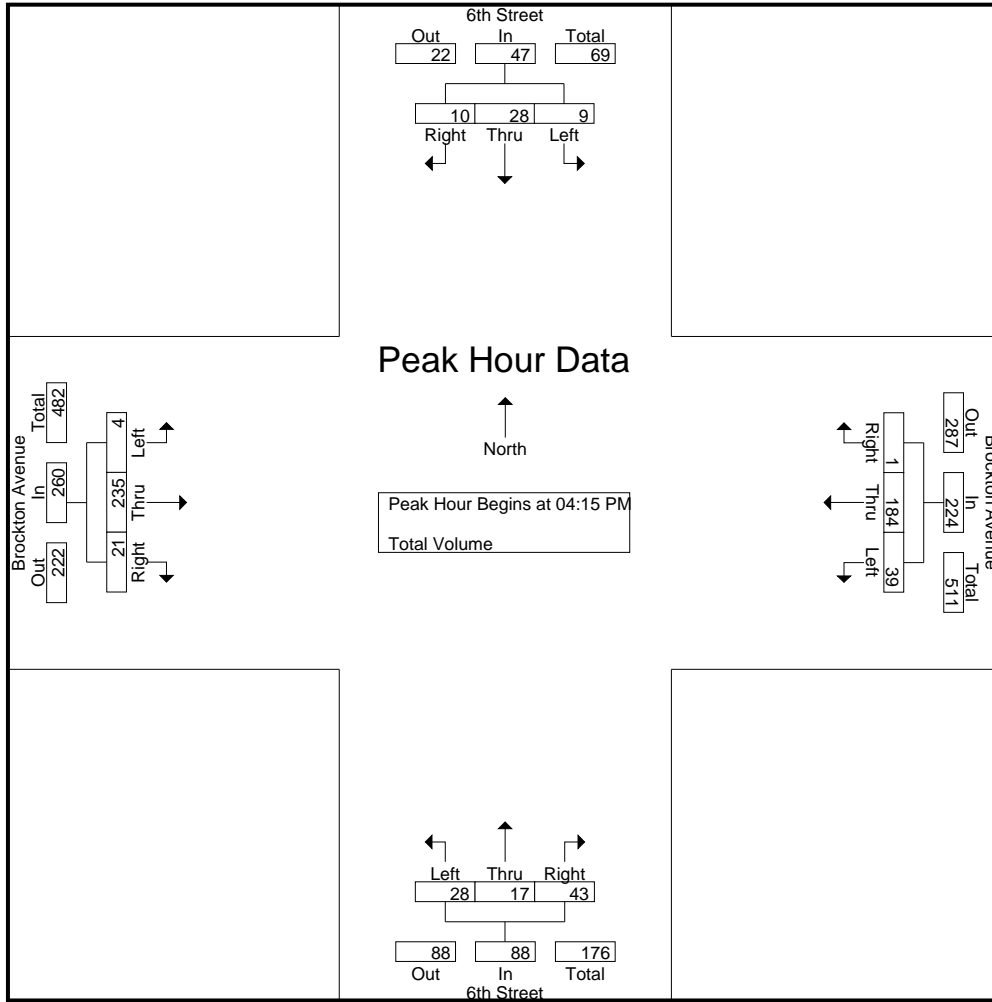
Start Time	6th Street Southbound				Brockton Avenue Westbound				6th Street Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	1	11	1	13	11	45	0	56	8	3	8	19	0	63	2	65	153
04:30 PM	3	3	2	8	11	51	1	63	7	5	15	27	2	62	8	72	170
04:45 PM	4	6	6	16	8	54	0	62	6	5	11	22	0	52	8	60	160
05:00 PM	1	8	1	10	9	34	0	43	7	4	9	20	2	58	3	63	136
Total Volume	9	28	10	47	39	184	1	224	28	17	43	88	4	235	21	260	619
% App. Total	19.1	59.6	21.3		17.4	82.1	0.4		31.8	19.3	48.9		1.5	90.4	8.1		
PHF	.563	.636	.417	.734	.886	.852	.250	.889	.875	.850	.717	.815	.500	.933	.656	.903	.910

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: 6th Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 074_RED_6th_Brock PM
 Site Code : 221080
 Start Date : 12/14/2022
 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:

	04:15 PM				04:15 PM				04:30 PM				04:15 PM			
+0 mins.	1	11	1	13	11	45	0	56	7	5	15	27	0	63	2	65
+15 mins.	3	3	2	8	11	51	1	63	6	5	11	22	2	62	8	72
+30 mins.	4	6	6	16	8	54	0	62	7	4	9	20	0	52	8	60
+45 mins.	1	8	1	10	9	34	0	43	3	8	17	28	2	58	3	63
Total Volume	9	28	10	47	39	184	1	224	23	22	52	97	4	235	21	260
% App. Total	19.1	59.6	21.3		17.4	82.1	0.4		23.7	22.7	53.6		1.5	90.4	8.1	
PHF	.563	.636	.417	.734	.886	.852	.250	.889	.821	.688	.765	.866	.500	.933	.656	.903

City of Redlands
 N/S: Cajon Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 75_RED_Cajon_Cypr PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Cajon Street Southbound				Cypress Avenue Westbound				Cajon Street Northbound				Cypress 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	14	62	8	84	7	52	12	71	4	67	8	79	10	45	8	63	297
04:15 PM	27	55	10	92	5	50	16	71	3	64	9	76	16	76	9	101	340
04:30 PM	18	74	11	103	4	56	24	84	9	68	6	83	11	78	4	93	363
04:45 PM	19	79	10	108	3	52	19	74	4	58	4	66	12	47	4	63	311
Total	78	270	39	387	19	210	71	300	20	257	27	304	49	246	25	320	1311
05:00 PM	22	76	8	106	10	50	10	70	2	43	7	52	18	66	9	93	321
05:15 PM	20	54	13	87	9	33	14	56	6	62	4	72	10	62	6	78	293
05:30 PM	13	81	10	104	5	38	9	52	7	43	6	56	12	78	15	105	317
05:45 PM	23	90	8	121	0	47	10	57	6	36	5	47	13	67	17	97	322
Total	78	301	39	418	24	168	43	235	21	184	22	227	53	273	47	373	1253
Grand Total	156	571	78	805	43	378	114	535	41	441	49	531	102	519	72	693	2564
Apprch %	19.4	70.9	9.7		8	70.7	21.3		7.7	83.1	9.2		14.7	74.9	10.4		
Total %	6.1	22.3	3	31.4	1.7	14.7	4.4	20.9	1.6	17.2	1.9	20.7	4	20.2	2.8	27	

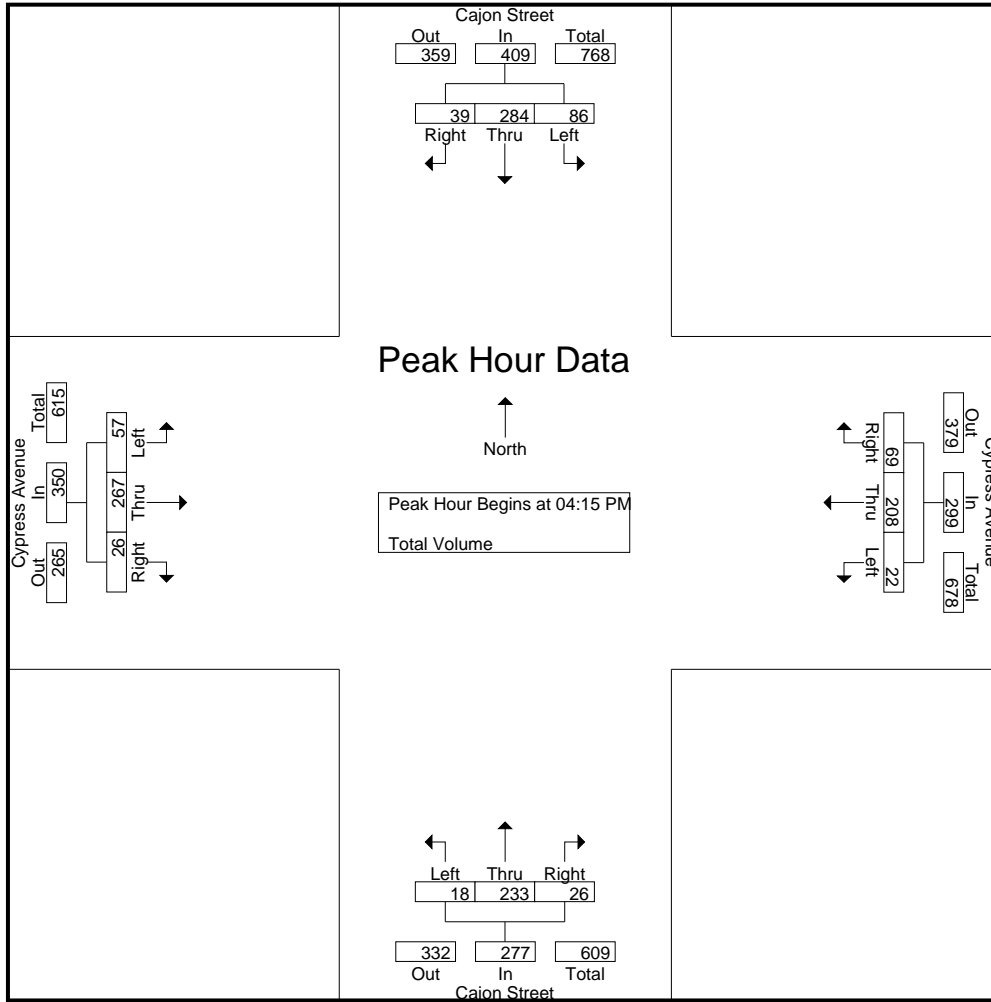
Start Time	Cajon Street Southbound				Cypress Avenue Westbound				Cajon Street Northbound				Cypress Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	27	55	10	92	5	50	16	71	3	64	9	76	16	76	9	101	340
04:30 PM	18	74	11	103	4	56	24	84	9	68	6	83	11	78	4	93	363
04:45 PM	19	79	10	108	3	52	19	74	4	58	4	66	12	47	4	63	311
05:00 PM	22	76	8	106	10	50	10	70	2	43	7	52	18	66	9	93	321
Total Volume	86	284	39	409	22	208	69	299	18	233	26	277	57	267	26	350	1335
% App. Total	21	69.4	9.5		7.4	69.6	23.1		6.5	84.1	9.4		16.3	76.3	7.4		
PHF	.796	.899	.886	.947	.550	.929	.719	.890	.500	.857	.722	.834	.792	.856	.722	.866	.919

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Cajon Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 75_RED_Cajon_Cypr PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	22	76	8	106	7	52	12	71	4	67	8	79	18	66	9	93
+15 mins.	20	54	13	87	5	50	16	71	3	64	9	76	10	62	6	78
+30 mins.	13	81	10	104	4	56	24	84	9	68	6	83	12	78	15	105
+45 mins.	23	90	8	121	3	52	19	74	4	58	4	66	13	67	17	97
Total Volume	78	301	39	418	19	210	71	300	20	257	27	304	53	273	47	373
% App. Total	18.7	72	9.3		6.3	70	23.7		6.6	84.5	8.9		14.2	73.2	12.6	
PHF	.848	.836	.750	.864	.679	.938	.740	.893	.556	.945	.750	.916	.736	.875	.691	.888

City of Redlands
 N/S: Cajon Street
 E/W: Highland Avenue
 Weather: Clear

File Name : 76_RED_Cajon_High PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Cajon Street Southbound				Highland Avenue Westbound				Cajon Street Northbound				Highland 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	19	66	7	92	3	43	10	56	9	33	5	47	8	79	11	98	293
04:15 PM	12	44	13	69	2	40	5	47	5	51	3	59	6	67	16	89	264
04:30 PM	19	48	12	79	13	39	9	61	8	34	4	46	4	76	17	97	283
04:45 PM	29	59	16	104	3	49	5	57	2	29	7	38	6	73	12	91	290
Total	79	217	48	344	21	171	29	221	24	147	19	190	24	295	56	375	1130
05:00 PM	25	53	10	88	2	32	9	43	7	37	4	48	3	73	17	93	272
05:15 PM	22	66	10	98	6	36	4	46	6	32	7	45	5	83	18	106	295
05:30 PM	23	65	6	94	10	23	1	34	3	29	5	37	6	70	17	93	258
05:45 PM	17	93	8	118	8	30	2	40	4	21	4	29	5	68	9	82	269
Total	87	277	34	398	26	121	16	163	20	119	20	159	19	294	61	374	1094
Grand Total	166	494	82	742	47	292	45	384	44	266	39	349	43	589	117	749	2224
Apprch %	22.4	66.6	11.1		12.2	76	11.7		12.6	76.2	11.2		5.7	78.6	15.6		
Total %	7.5	22.2	3.7	33.4	2.1	13.1	2	17.3	2	12	1.8	15.7	1.9	26.5	5.3	33.7	

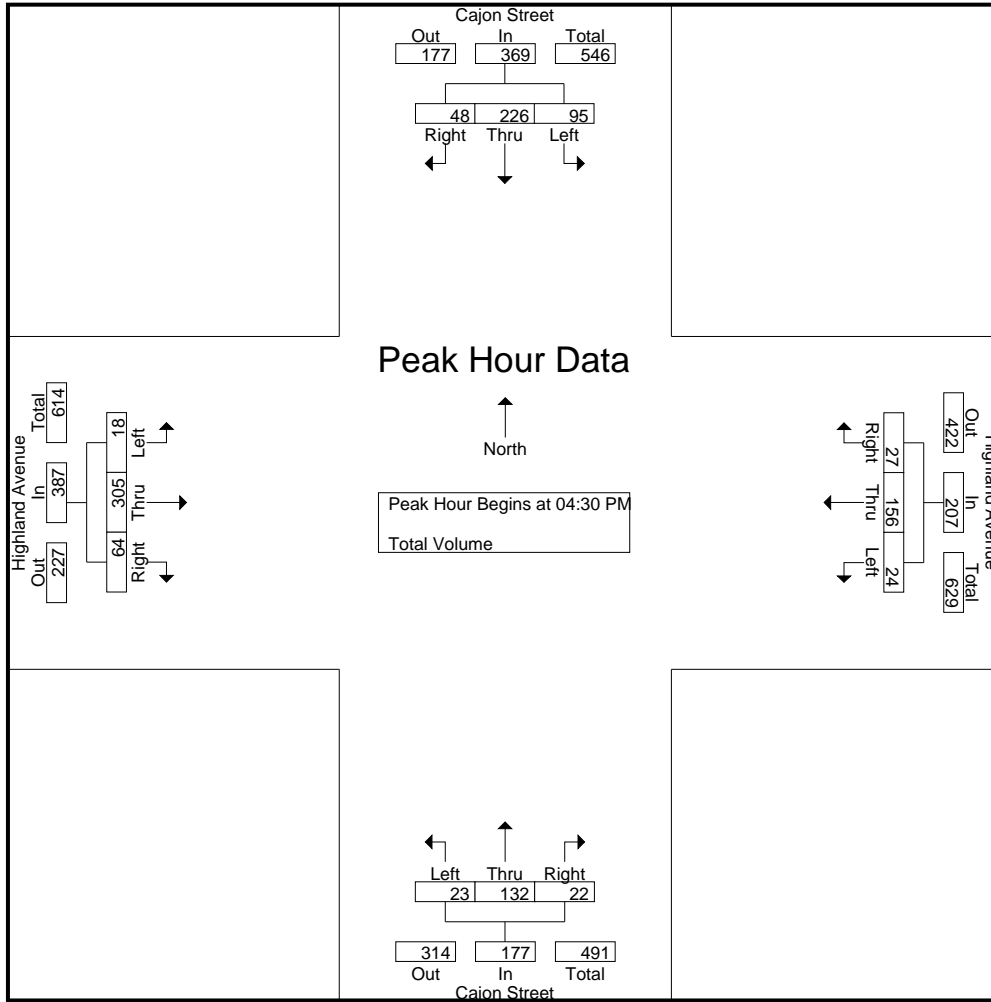
Start Time	Cajon Street Southbound				Highland Avenue Westbound				Cajon Street Northbound				Highland Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	19	48	12	79	13	39	9	61	8	34	4	46	4	76	17	97	283
04:45 PM	29	59	16	104	3	49	5	57	2	29	7	38	6	73	12	91	290
05:00 PM	25	53	10	88	2	32	9	43	7	37	4	48	3	73	17	93	272
05:15 PM	22	66	10	98	6	36	4	46	6	32	7	45	5	83	18	106	295
Total Volume	95	226	48	369	24	156	27	207	23	132	22	177	18	305	64	387	1140
% App. Total	25.7	61.2	13		11.6	75.4	13		13	74.6	12.4		4.7	78.8	16.5		
PHF	.819	.856	.750	.887	.462	.796	.750	.848	.719	.892	.786	.922	.750	.919	.889	.913	.966

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 Redlands
 N/S: Cajon Street
 E/W: Highland Avenue
 Weather: Clear

File Name : 76_RED_Cajon_High PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	25	53	10	88	3	43	10	56	5	51	3	59	4	76	17	97
+15 mins.	22	66	10	98	2	40	5	47	8	34	4	46	6	73	12	91
+30 mins.	23	65	6	94	13	39	9	61	2	29	7	38	3	73	17	93
+45 mins.	17	93	8	118	3	49	5	57	7	37	4	48	5	83	18	106
Total Volume	87	277	34	398	21	171	29	221	22	151	18	191	18	305	64	387
% App. Total	21.9	69.6	8.5		9.5	77.4	13.1		11.5	79.1	9.4		4.7	78.8	16.5	
PHF	.870	.745	.850	.843	.404	.872	.725	.906	.688	.740	.643	.809	.750	.919	.889	.913

City of Redlands
 N/S: Center Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 077_RED_Center_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Center Street Southbound				Fern Avenue Westbound				Center Street Northbound				Fern 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	4	62	9	75	5	24	4	33	4	43	2	49	6	25	8	39	196
04:15 PM	8	74	3	85	5	16	3	24	8	47	8	63	1	31	4	36	208
04:30 PM	7	59	7	73	8	18	2	28	7	51	4	62	4	29	16	49	212
04:45 PM	3	71	6	80	2	29	5	36	9	52	13	74	5	28	7	40	230
Total	22	266	25	313	20	87	14	121	28	193	27	248	16	113	35	164	846
05:00 PM	6	73	3	82	9	19	3	31	5	48	10	63	4	33	10	47	223
05:15 PM	5	88	2	95	8	27	7	42	8	48	9	65	3	26	9	38	240
05:30 PM	2	57	2	61	9	20	7	36	8	37	11	56	3	29	8	40	193
05:45 PM	5	68	5	78	12	19	4	35	5	30	5	40	0	28	6	34	187
Total	18	286	12	316	38	85	21	144	26	163	35	224	10	116	33	159	843
Grand Total	40	552	37	629	58	172	35	265	54	356	62	472	26	229	68	323	1689
Apprch %	6.4	87.8	5.9		21.9	64.9	13.2		11.4	75.4	13.1		8	70.9	21.1		
Total %	2.4	32.7	2.2	37.2	3.4	10.2	2.1	15.7	3.2	21.1	3.7	27.9	1.5	13.6	4	19.1	

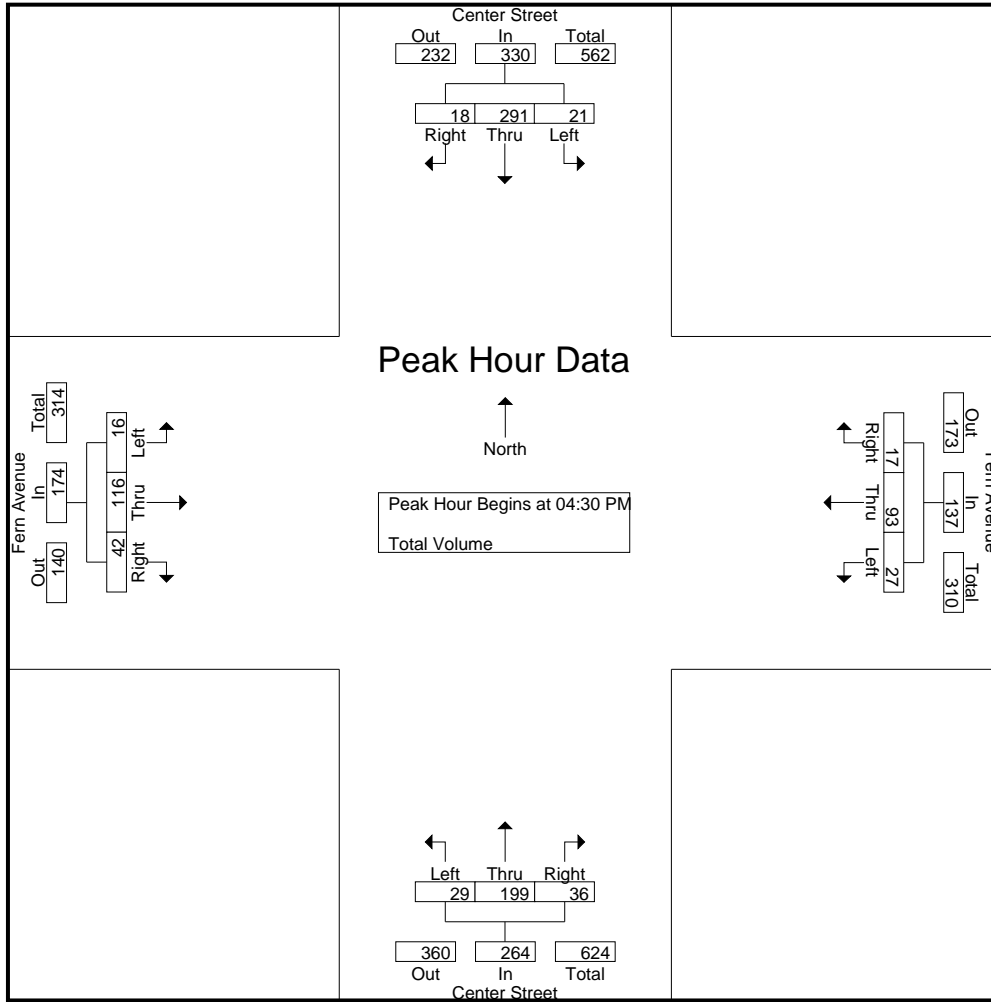
Start Time	Center Street Southbound				Fern Avenue Westbound				Center Street Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	7	59	7	73	8	18	2	28	7	51	4	62	4	29	16	49	212
04:45 PM	3	71	6	80	2	29	5	36	9	52	13	74	5	28	7	40	230
05:00 PM	6	73	3	82	9	19	3	31	5	48	10	63	4	33	10	47	223
05:15 PM	5	88	2	95	8	27	7	42	8	48	9	65	3	26	9	38	240
Total Volume	21	291	18	330	27	93	17	137	29	199	36	264	16	116	42	174	905
% App. Total	6.4	88.2	5.5		19.7	67.9	12.4		11	75.4	13.6		9.2	66.7	24.1		
PHF	.750	.827	.643	.868	.750	.802	.607	.815	.806	.957	.692	.892	.800	.879	.656	.888	.943

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 Redlands
 N/S: Center Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 077_RED_Center_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:45 PM				04:30 PM				04:30 PM			
+0 mins.	7	59	7	73	2	29	5	36	7	51	4	62	4	29	16	49
+15 mins.	3	71	6	80	9	19	3	31	9	52	13	74	5	28	7	40
+30 mins.	6	73	3	82	8	27	7	42	5	48	10	63	4	33	10	47
+45 mins.	5	88	2	95	9	20	7	36	8	48	9	65	3	26	9	38
Total Volume	21	291	18	330	28	95	22	145	29	199	36	264	16	116	42	174
% App. Total	6.4	88.2	5.5		19.3	65.5	15.2		11	75.4	13.6		9.2	66.7	24.1	
PHF	.750	.827	.643	.868	.778	.819	.786	.863	.806	.957	.692	.892	.800	.879	.656	.888

City of Redlands
 N/S: Center Street
 E/W: Highland Avenue
 Weather: Clear

File Name : 078_RED_Center_High PM
 Site Code : 221080
 Start Date : 12/15/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Center Street Southbound				Highland Avenue Westbound				Center Street Northbound				Highland 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	15	67	3	85	41	30	6	77	5	29	27	61	3	49	6	58	281
04:15 PM	13	74	3	90	37	23	6	66	1	50	53	104	3	52	5	60	320
04:30 PM	23	69	4	96	27	26	8	61	4	48	59	111	3	33	7	43	311
04:45 PM	15	61	3	79	29	18	4	51	1	49	54	104	2	47	6	55	289
Total	66	271	13	350	134	97	24	255	11	176	193	380	11	181	24	216	1201
05:00 PM	15	65	4	84	38	18	7	63	0	50	32	82	5	63	6	74	303
05:15 PM	15	79	4	98	37	28	4	69	1	49	39	89	4	69	12	85	341
05:30 PM	16	62	3	81	30	22	2	54	1	40	27	68	3	51	5	59	262
05:45 PM	17	59	6	82	18	21	3	42	5	58	43	106	5	39	5	49	279
Total	63	265	17	345	123	89	16	228	7	197	141	345	17	222	28	267	1185
Grand Total	129	536	30	695	257	186	40	483	18	373	334	725	28	403	52	483	2386
Apprch %	18.6	77.1	4.3		53.2	38.5	8.3		2.5	51.4	46.1		5.8	83.4	10.8		
Total %	5.4	22.5	1.3	29.1	10.8	7.8	1.7	20.2	0.8	15.6	14	30.4	1.2	16.9	2.2	20.2	

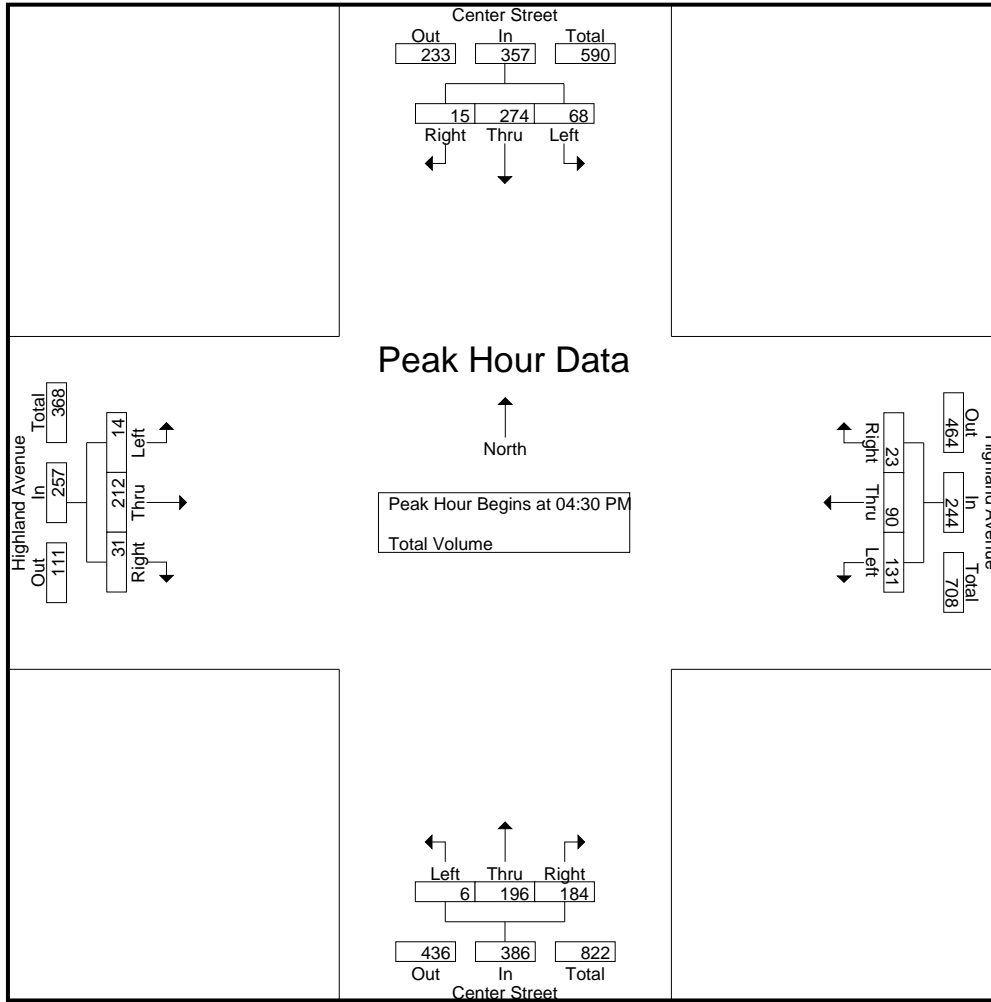
Start Time	Center Street Southbound				Highland Avenue Westbound				Center Street Northbound				Highland Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	23	69	4	96	27	26	8	61	4	48	59	111	3	33	7	43	311
04:45 PM	15	61	3	79	29	18	4	51	1	49	54	104	2	47	6	55	289
05:00 PM	15	65	4	84	38	18	7	63	0	50	32	82	5	63	6	74	303
05:15 PM	15	79	4	98	37	28	4	69	1	49	39	89	4	69	12	85	341
Total Volume	68	274	15	357	131	90	23	244	6	196	184	386	14	212	31	257	1244
% App. Total	19	76.8	4.2		53.7	36.9	9.4		1.6	50.8	47.7		5.4	82.5	12.1		
PHF	.739	.867	.938	.911	.862	.804	.719	.884	.375	.980	.780	.869	.700	.768	.646	.756	.912

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 Redlands
 N/S: Center Street
 E/W: Highland Avenue
 Weather: Clear

File Name : 078_RED_Center_High PM
 Site Code : 221080
 Start Date : 12/15/2022
 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				04:00 PM				04:15 PM				04:45 PM			
+0 mins.	23	69	4	96	41	30	6	77	1	50	53	104	2	47	6	55
+15 mins.	15	61	3	79	37	23	6	66	4	48	59	111	5	63	6	74
+30 mins.	15	65	4	84	27	26	8	61	1	49	54	104	4	69	12	85
+45 mins.	15	79	4	98	29	18	4	51	0	50	32	82	3	51	5	59
Total Volume	68	274	15	357	134	97	24	255	6	197	198	401	14	230	29	273
% App. Total	19	76.8	4.2		52.5	38	9.4		1.5	49.1	49.4		5.1	84.2	10.6	
PHF	.739	.867	.938	.911	.817	.808	.750	.828	.375	.985	.839	.903	.700	.833	.604	.803

City of Redlands
 N/S: Center Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 079_RED_Center_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Center Street Southbound				Olive Avenue Westbound				Center Street Northbound				Olive 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	1	58	5	64	16	23	7	46	3	47	3	53	8	20	3	31	194
04:15 PM	8	78	8	94	6	22	8	36	5	42	5	52	5	29	5	39	221
04:30 PM	9	59	7	75	6	27	12	45	3	43	8	54	9	27	4	40	214
04:45 PM	10	77	5	92	9	23	6	38	3	54	11	68	8	37	3	48	246
Total	28	272	25	325	37	95	33	165	14	186	27	227	30	113	15	158	875
05:00 PM	8	66	11	85	12	26	8	46	4	48	3	55	10	29	4	43	229
05:15 PM	5	75	10	90	18	16	7	41	8	51	8	67	6	33	4	43	241
05:30 PM	10	68	9	87	5	23	9	37	2	43	5	50	5	30	2	37	211
05:45 PM	15	63	5	83	8	14	7	29	6	26	2	34	8	24	5	37	183
Total	38	272	35	345	43	79	31	153	20	168	18	206	29	116	15	160	864
Grand Total	66	544	60	670	80	174	64	318	34	354	45	433	59	229	30	318	1739
Apprch %	9.9	81.2	9		25.2	54.7	20.1		7.9	81.8	10.4		18.6	72	9.4		
Total %	3.8	31.3	3.5	38.5	4.6	10	3.7	18.3	2	20.4	2.6	24.9	3.4	13.2	1.7	18.3	

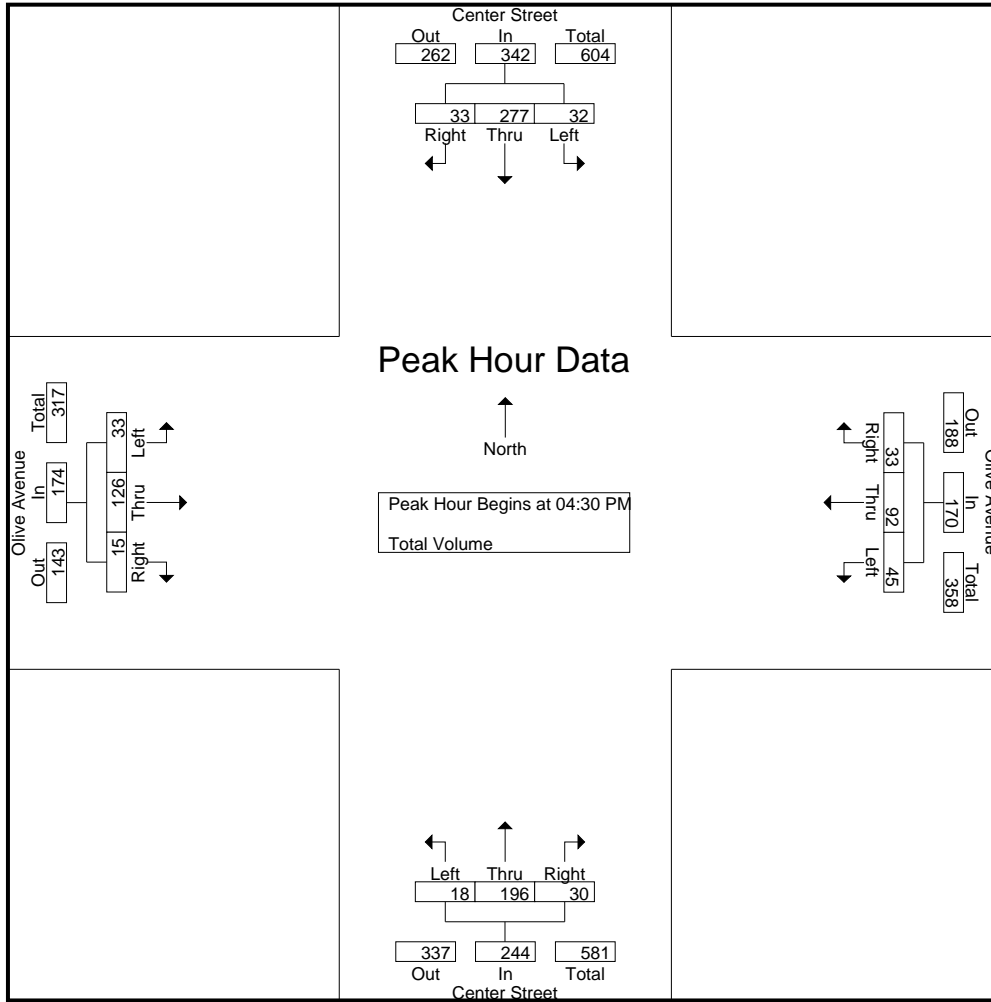
Start Time	Center Street Southbound				Olive Avenue Westbound				Center Street Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	9	59	7	75	6	27	12	45	3	43	8	54	9	27	4	40	214
04:45 PM	10	77	5	92	9	23	6	38	3	54	11	68	8	37	3	48	246
05:00 PM	8	66	11	85	12	26	8	46	4	48	3	55	10	29	4	43	229
05:15 PM	5	75	10	90	18	16	7	41	8	51	8	67	6	33	4	43	241
Total Volume	32	277	33	342	45	92	33	170	18	196	30	244	33	126	15	174	930
% App. Total	9.4	81	9.6		26.5	54.1	19.4		7.4	80.3	12.3		19	72.4	8.6		
PHF	.800	.899	.750	.929	.625	.852	.688	.924	.563	.907	.682	.897	.825	.851	.938	.906	.945

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 Redlands
 N/S: Center Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 079_RED_Center_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	10	77	5	92	6	27	12	45	3	43	8	54	9	27	4	40
+15 mins.	8	66	11	85	9	23	6	38	3	54	11	68	8	37	3	48
+30 mins.	5	75	10	90	12	26	8	46	4	48	3	55	10	29	4	43
+45 mins.	10	68	9	87	18	16	7	41	8	51	8	67	6	33	4	43
Total Volume	33	286	35	354	45	92	33	170	18	196	30	244	33	126	15	174
% App. Total	9.3	80.8	9.9		26.5	54.1	19.4		7.4	80.3	12.3		19	72.4	8.6	
PHF	.825	.929	.795	.962	.625	.852	.688	.924	.563	.907	.682	.897	.825	.851	.938	.906

City of Redlands
 N/S: Church Street
 E/W: Pennsylvania Avenue
 Weather: Clear

File Name : 080_RED_Church_Penn PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

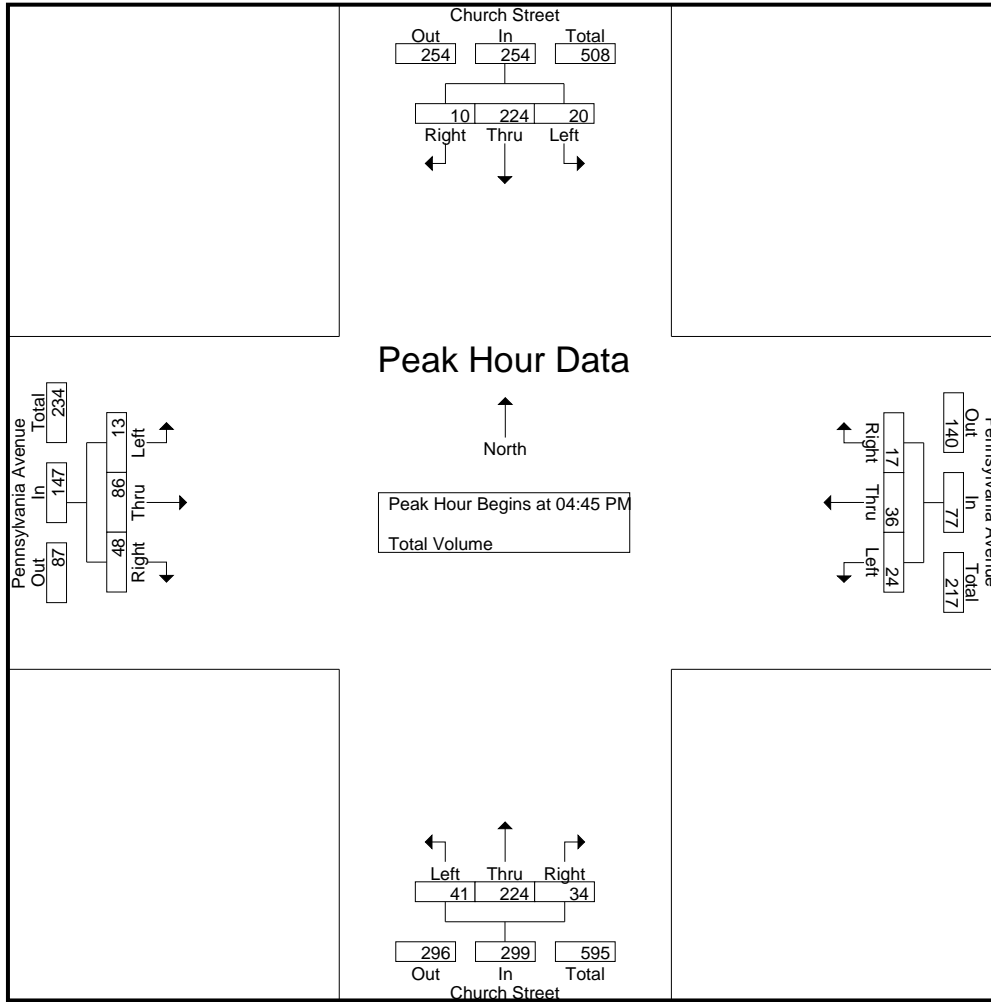
Start Time	Church Street Southbound				Pennsylvania Avenue Westbound				Church Street Northbound				Pennsylvania Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	6	36	0	42	4	7	3	14	9	50	8	67	5	21	13	39	162
04:15 PM	6	36	7	49	9	11	4	24	9	47	4	60	2	8	19	29	162
04:30 PM	6	35	1	42	2	10	6	18	10	47	11	68	4	15	11	30	158
04:45 PM	3	57	6	66	5	11	7	23	17	50	10	77	2	22	12	36	202
Total	21	164	14	199	20	39	20	79	45	194	33	272	13	66	55	134	684
05:00 PM	5	58	2	65	7	6	2	15	7	50	11	68	6	21	15	42	190
05:15 PM	5	51	1	57	3	12	5	20	9	50	5	64	3	26	9	38	179
05:30 PM	7	58	1	66	9	7	3	19	8	74	8	90	2	17	12	31	206
05:45 PM	5	43	6	54	3	8	0	11	17	40	9	66	3	9	12	24	155
Total	22	210	10	242	22	33	10	65	41	214	33	288	14	73	48	135	730
Grand Total	43	374	24	441	42	72	30	144	86	408	66	560	27	139	103	269	1414
Apprch %	9.8	84.8	5.4		29.2	50	20.8		15.4	72.9	11.8		10	51.7	38.3		
Total %	3	26.4	1.7	31.2	3	5.1	2.1	10.2	6.1	28.9	4.7	39.6	1.9	9.8	7.3	19	

Start Time	Church Street Southbound				Pennsylvania Avenue Westbound				Church Street Northbound				Pennsylvania Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	3	57	6	66	5	11	7	23	17	50	10	77	2	22	12	36	202
05:00 PM	5	58	2	65	7	6	2	15	7	50	11	68	6	21	15	42	190
05:15 PM	5	51	1	57	3	12	5	20	9	50	5	64	3	26	9	38	179
05:30 PM	7	58	1	66	9	7	3	19	8	74	8	90	2	17	12	31	206
Total Volume	20	224	10	254	24	36	17	77	41	224	34	299	13	86	48	147	777
% App. Total	7.9	88.2	3.9		31.2	46.8	22.1		13.7	74.9	11.4		8.8	58.5	32.7		
PHF	.714	.966	.417	.962	.667	.750	.607	.837	.603	.757	.773	.831	.542	.827	.800	.875	.943

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

City of Redlands
 N/S: Church Street
 E/W: Pennsylvania Avenue
 Weather: Clear

File Name : 080_RED_Church_Penn PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:15 PM				04:45 PM				04:45 PM			
+0 mins.	3	57	6	66	9	11	4	24	17	50	10	77	2	22	12	36
+15 mins.	5	58	2	65	2	10	6	18	7	50	11	68	6	21	15	42
+30 mins.	5	51	1	57	5	11	7	23	9	50	5	64	3	26	9	38
+45 mins.	7	58	1	66	7	6	2	15	8	74	8	90	2	17	12	31
Total Volume	20	224	10	254	23	38	19	80	41	224	34	299	13	86	48	147
% App. Total	7.9	88.2	3.9		28.8	47.5	23.8		13.7	74.9	11.4		8.8	58.5	32.7	
PHF	.714	.966	.417	.962	.639	.864	.679	.833	.603	.757	.773	.831	.542	.827	.800	.875

City of Redlands
 N/S: Dearborn Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 081_RED_Dear_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

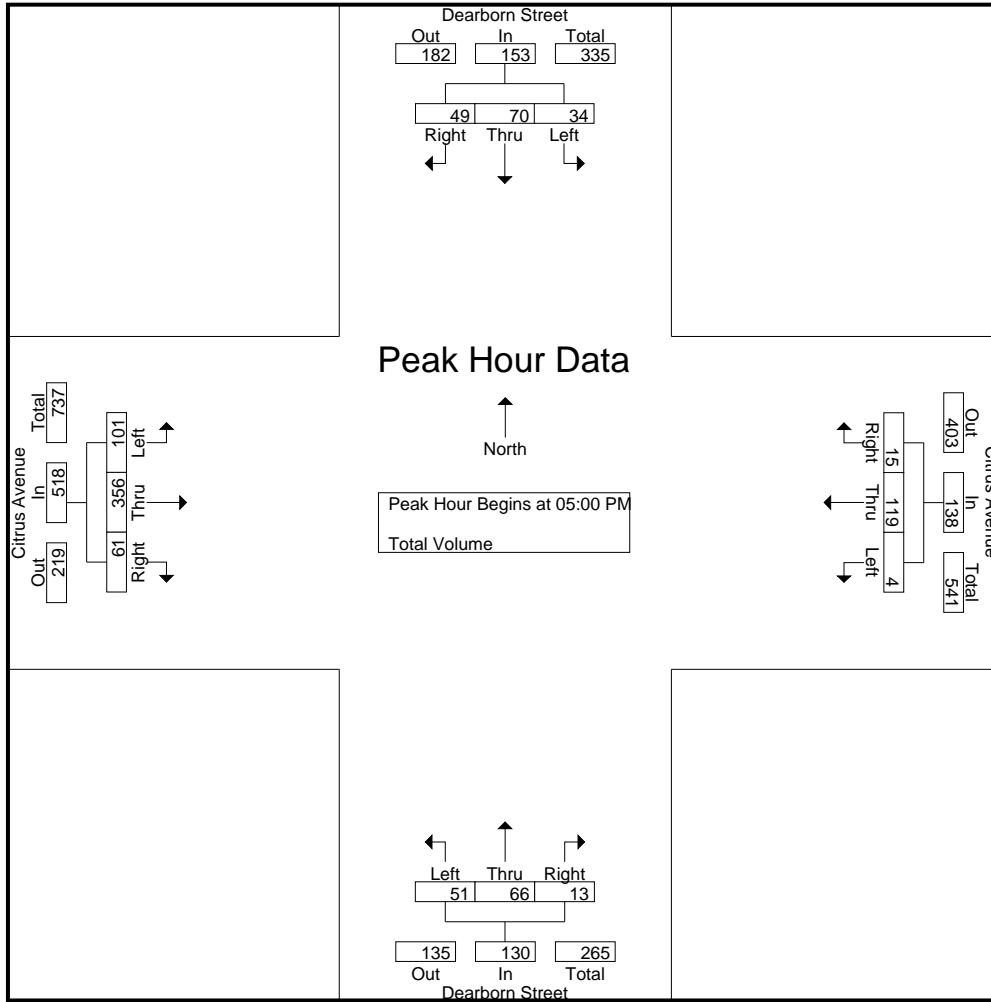
Start Time	Dearborn Street Southbound				Citrus Avenue Westbound				Dearborn Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	17	18	37	2	38	4	44	13	22	2	37	23	84	16	123	241
04:15 PM	2	15	14	31	3	40	0	43	8	25	3	36	19	55	18	92	202
04:30 PM	3	15	25	43	1	35	3	39	15	11	2	28	25	56	12	93	203
04:45 PM	2	15	11	28	3	37	5	45	16	11	1	28	29	71	23	123	224
Total	9	62	68	139	9	150	12	171	52	69	8	129	96	266	69	431	870
05:00 PM	2	16	9	27	0	27	5	32	23	19	2	44	21	59	13	93	196
05:15 PM	7	16	16	39	2	33	6	41	11	14	1	26	35	54	13	102	208
05:30 PM	8	14	13	35	1	26	3	30	8	14	4	26	20	119	11	150	241
05:45 PM	17	24	11	52	1	33	1	35	9	19	6	34	25	124	24	173	294
Total	34	70	49	153	4	119	15	138	51	66	13	130	101	356	61	518	939
Grand Total	43	132	117	292	13	269	27	309	103	135	21	259	197	622	130	949	1809
Apprch %	14.7	45.2	40.1		4.2	87.1	8.7		39.8	52.1	8.1		20.8	65.5	13.7		
Total %	2.4	7.3	6.5	16.1	0.7	14.9	1.5	17.1	5.7	7.5	1.2	14.3	10.9	34.4	7.2	52.5	

Start Time	Dearborn Street Southbound				Citrus Avenue Westbound				Dearborn Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	2	16	9	27	0	27	5	32	23	19	2	44	21	59	13	93	196
05:15 PM	7	16	16	39	2	33	6	41	11	14	1	26	35	54	13	102	208
05:30 PM	8	14	13	35	1	26	3	30	8	14	4	26	20	119	11	150	241
05:45 PM	17	24	11	52	1	33	1	35	9	19	6	34	25	124	24	173	294
Total Volume	34	70	49	153	4	119	15	138	51	66	13	130	101	356	61	518	939
% App. Total	22.2	45.8	32		2.9	86.2	10.9		39.2	50.8	10		19.5	68.7	11.8		
PHF	.500	.729	.766	.736	.500	.902	.625	.841	.554	.868	.542	.739	.721	.718	.635	.749	.798

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

City of Redlands
 N/S: Dearborn Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 081_RED_Dear_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:00 PM				04:15 PM				05:00 PM			
+0 mins.	2	16	9	27	2	38	4	44	8	25	3	36	21	59	13	93
+15 mins.	7	16	16	39	3	40	0	43	15	11	2	28	35	54	13	102
+30 mins.	8	14	13	35	1	35	3	39	16	11	1	28	20	119	11	150
+45 mins.	17	24	11	52	3	37	5	45	23	19	2	44	25	124	24	173
Total Volume	34	70	49	153	9	150	12	171	62	66	8	136	101	356	61	518
% App. Total	22.2	45.8	32		5.3	87.7	7		45.6	48.5	5.9		19.5	68.7	11.8	
PHF	.500	.729	.766	.736	.750	.938	.600	.950	.674	.660	.667	.773	.721	.718	.635	.749

City of Redlands
 N/S: Grove Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 082_RED_Grove_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Grove Street Southbound				Citrus Avenue Westbound				Grove Street Northbound				Citrus 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	4	5	17	26	5	88	4	97	10	4	1	15	14	157	7	178	316
04:15 PM	3	11	7	21	2	87	3	92	12	7	2	21	11	124	8	143	277
04:30 PM	2	5	17	24	1	104	1	106	8	7	2	17	25	135	9	169	316
04:45 PM	5	7	15	27	4	93	2	99	7	5	4	16	22	153	14	189	331
Total	14	28	56	98	12	372	10	394	37	23	9	69	72	569	38	679	1240
05:00 PM	0	11	12	23	1	112	5	118	5	3	3	11	24	140	10	174	326
05:15 PM	7	6	8	21	1	80	6	87	5	5	1	11	12	143	9	164	283
05:30 PM	8	6	23	37	2	66	4	72	9	7	1	17	18	191	16	225	351
05:45 PM	8	4	10	22	0	77	4	81	7	6	2	15	24	207	11	242	360
Total	23	27	53	103	4	335	19	358	26	21	7	54	78	681	46	805	1320
Grand Total	37	55	109	201	16	707	29	752	63	44	16	123	150	1250	84	1484	2560
Apprch %	18.4	27.4	54.2		2.1	94	3.9		51.2	35.8	13		10.1	84.2	5.7		
Total %	1.4	2.1	4.3	7.9	0.6	27.6	1.1	29.4	2.5	1.7	0.6	4.8	5.9	48.8	3.3	58	

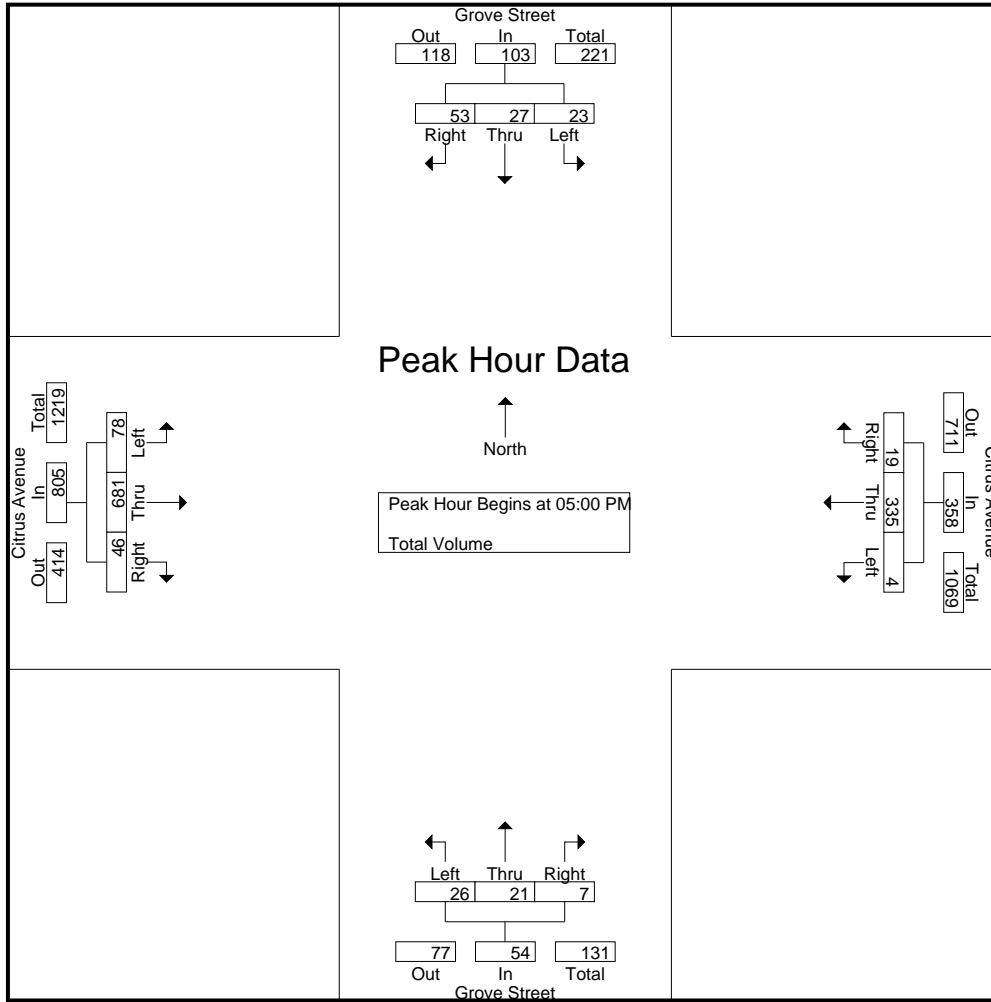
Start Time	Grove Street Southbound				Citrus Avenue Westbound				Grove Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	0	11	12	23	1	112	5	118	5	3	3	11	24	140	10	174	326
05:15 PM	7	6	8	21	1	80	6	87	5	5	1	11	12	143	9	164	283
05:30 PM	8	6	23	37	2	66	4	72	9	7	1	17	18	191	16	225	351
05:45 PM	8	4	10	22	0	77	4	81	7	6	2	15	24	207	11	242	360
Total Volume	23	27	53	103	4	335	19	358	26	21	7	54	78	681	46	805	1320
% App. Total	22.3	26.2	51.5		1.1	93.6	5.3		48.1	38.9	13		9.7	84.6	5.7		
PHF	.719	.614	.576	.696	.500	.748	.792	.758	.722	.750	.583	.794	.813	.822	.719	.832	.917

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Grove Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 082_RED_Grove_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:15 PM				04:00 PM				05:00 PM			
+0 mins.	5	7	15	27	2	87	3	92	10	4	1	15	24	140	10	174
+15 mins.	0	11	12	23	1	104	1	106	12	7	2	21	12	143	9	164
+30 mins.	7	6	8	21	4	93	2	99	8	7	2	17	18	191	16	225
+45 mins.	8	6	23	37	1	112	5	118	7	5	4	16	24	207	11	242
Total Volume	20	30	58	108	8	396	11	415	37	23	9	69	78	681	46	805
% App. Total	18.5	27.8	53.7		1.9	95.4	2.7		53.6	33.3	13		9.7	84.6	5.7	
PHF	.625	.682	.630	.730	.500	.884	.550	.879	.771	.821	.563	.821	.813	.822	.719	.832

City of Redlands
 N/S: Dearborn Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 083_RED_Dear_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Dearborn Street Southbound				Colton Avenue Westbound				Dearborn Street Northbound				Colton 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	4	22	2	28	8	51	3	62	10	37	4	51	11	63	9	83	224
04:15 PM	4	26	10	40	2	42	1	45	2	24	3	29	10	51	3	64	178
04:30 PM	5	23	5	33	6	52	3	61	6	23	10	39	11	63	7	81	214
04:45 PM	1	25	3	29	4	42	4	50	6	29	5	40	10	41	14	65	184
Total	14	96	20	130	20	187	11	218	24	113	22	159	42	218	33	293	800
05:00 PM	3	25	4	32	4	44	2	50	7	29	6	42	9	60	9	78	202
05:15 PM	3	31	5	39	1	40	0	41	7	32	10	49	5	56	9	70	199
05:30 PM	3	33	9	45	5	51	2	58	13	14	6	33	7	75	11	93	229
05:45 PM	6	35	9	50	5	30	1	36	13	24	6	43	4	46	11	61	190
Total	15	124	27	166	15	165	5	185	40	99	28	167	25	237	40	302	820
Grand Total	29	220	47	296	35	352	16	403	64	212	50	326	67	455	73	595	1620
Apprch %	9.8	74.3	15.9		8.7	87.3	4		19.6	65	15.3		11.3	76.5	12.3		
Total %	1.8	13.6	2.9	18.3	2.2	21.7	1	24.9	4	13.1	3.1	20.1	4.1	28.1	4.5	36.7	

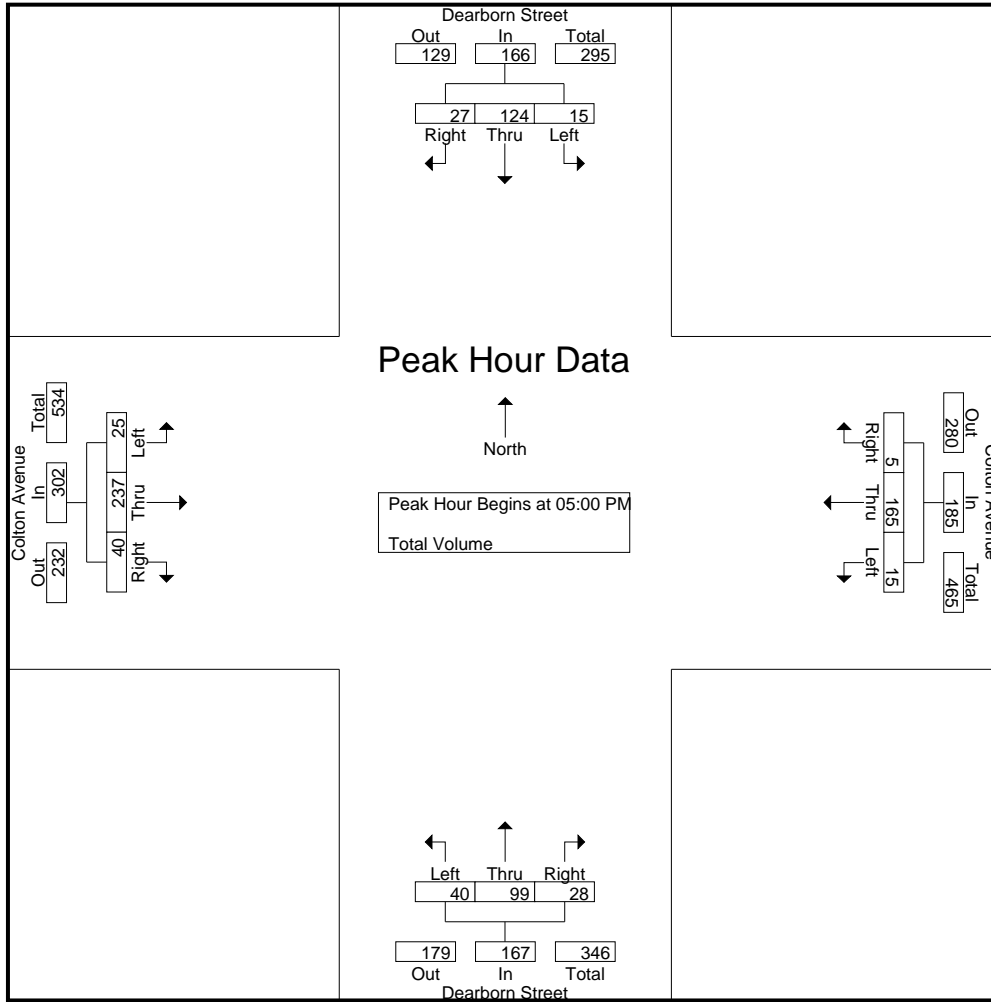
Start Time	Dearborn Street Southbound				Colton Avenue Westbound				Dearborn Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	3	25	4	32	4	44	2	50	7	29	6	42	9	60	9	78	202
05:15 PM	3	31	5	39	1	40	0	41	7	32	10	49	5	56	9	70	199
05:30 PM	3	33	9	45	5	51	2	58	13	14	6	33	7	75	11	93	229
05:45 PM	6	35	9	50	5	30	1	36	13	24	6	43	4	46	11	61	190
Total Volume	15	124	27	166	15	165	5	185	40	99	28	167	25	237	40	302	820
% App. Total	9	74.7	16.3		8.1	89.2	2.7		24	59.3	16.8		8.3	78.5	13.2		
PHF	.625	.886	.750	.830	.750	.809	.625	.797	.769	.773	.700	.852	.694	.790	.909	.812	.895

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Dearborn Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 083_RED_Dear_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	3	25	4	32	8	51	3	62	6	23	10	39	10	41	14	65
+15 mins.	3	31	5	39	2	42	1	45	6	29	5	40	9	60	9	78
+30 mins.	3	33	9	45	6	52	3	61	7	29	6	42	5	56	9	70
+45 mins.	6	35	9	50	4	42	4	50	7	32	10	49	7	75	11	93
Total Volume	15	124	27	166	20	187	11	218	26	113	31	170	31	232	43	306
% App. Total	9	74.7	16.3		9.2	85.8	5		15.3	66.5	18.2		10.1	75.8	14.1	
PHF	.625	.886	.750	.830	.625	.899	.688	.879	.929	.883	.775	.867	.775	.773	.768	.823

City of Redlands
 N/S: 6th Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 084_RED_6th_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	6th Street Southbound				Colton Avenue Westbound				6th Street Northbound				Colton 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	3	24	2	29	1	13	2	16	2	11	3	16	0	24	1	25	86
04:15 PM	4	18	1	23	3	15	3	21	1	8	4	13	2	21	1	24	81
04:30 PM	6	12	1	19	1	20	2	23	0	16	3	19	2	20	4	26	87
04:45 PM	2	11	1	14	1	20	2	23	1	6	2	9	1	29	1	31	77
Total	15	65	5	85	6	68	9	83	4	41	12	57	5	94	7	106	331
05:00 PM	9	12	3	24	1	21	1	23	0	15	1	16	0	34	0	34	97
05:15 PM	6	14	0	20	0	13	3	16	2	9	0	11	1	29	3	33	80
05:30 PM	1	3	2	6	2	10	0	12	1	11	0	12	0	10	1	11	41
05:45 PM	3	6	0	9	0	12	0	12	1	5	0	6	1	17	0	18	45
Total	19	35	5	59	3	56	4	63	4	40	1	45	2	90	4	96	263
Grand Total	34	100	10	144	9	124	13	146	8	81	13	102	7	184	11	202	594
Apprch %	23.6	69.4	6.9		6.2	84.9	8.9		7.8	79.4	12.7		3.5	91.1	5.4		
Total %	5.7	16.8	1.7	24.2	1.5	20.9	2.2	24.6	1.3	13.6	2.2	17.2	1.2	31	1.9	34	

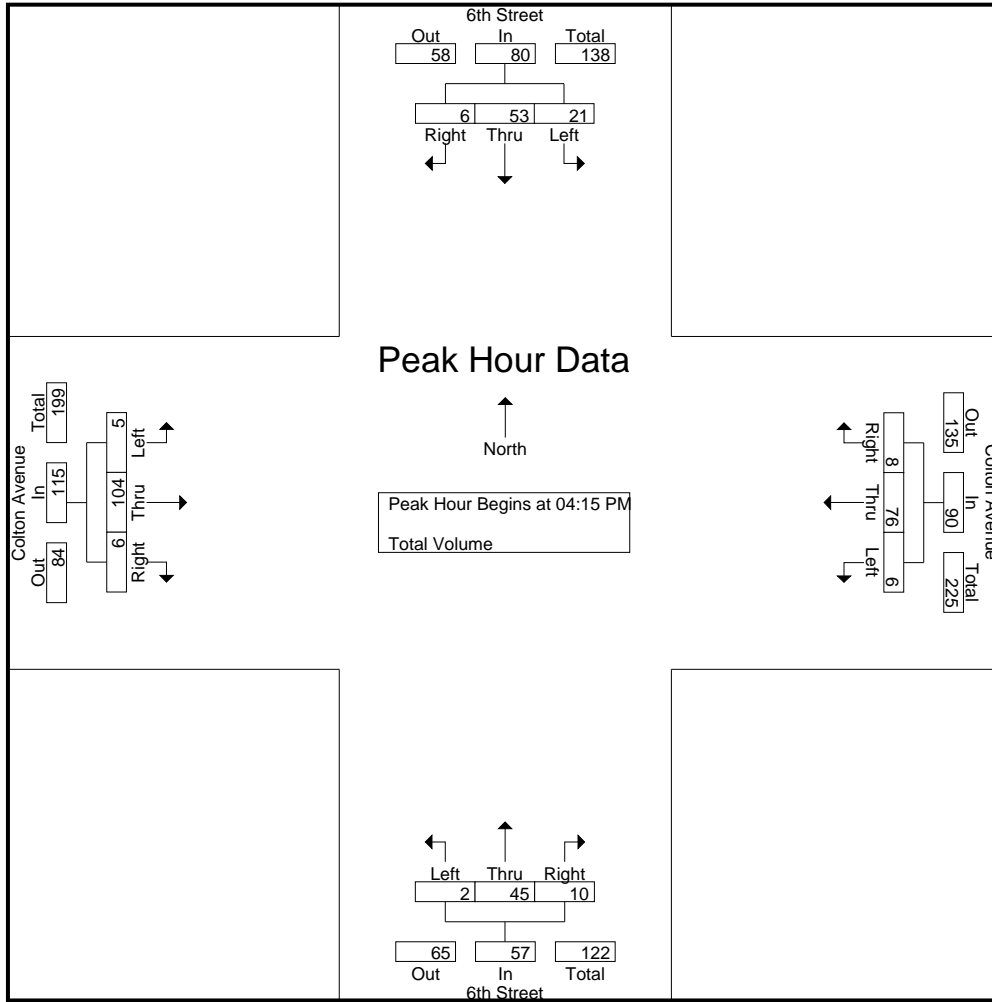
Start Time	6th Street Southbound				Colton Avenue Westbound				6th Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	4	18	1	23	3	15	3	21	1	8	4	13	2	21	1	24	81
04:30 PM	6	12	1	19	1	20	2	23	0	16	3	19	2	20	4	26	87
04:45 PM	2	11	1	14	1	20	2	23	1	6	2	9	1	29	1	31	77
05:00 PM	9	12	3	24	1	21	1	23	0	15	1	16	0	34	0	34	97
Total Volume	21	53	6	80	6	76	8	90	2	45	10	57	5	104	6	115	342
% App. Total	26.2	66.2	7.5		6.7	84.4	8.9		3.5	78.9	17.5		4.3	90.4	5.2		
PHF	.583	.736	.500	.833	.500	.905	.667	.978	.500	.703	.625	.750	.625	.765	.375	.846	.881

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: 6th Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 084_RED_6th_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:15 PM				04:30 PM				04:45 PM			
+0 mins.	3	24	2	29	3	15	3	21	2	11	3	16	2	20	4	26
+15 mins.	4	18	1	23	1	20	2	23	1	8	4	13	1	29	1	31
+30 mins.	6	12	1	19	1	20	2	23	0	16	3	19	0	34	0	34
+45 mins.	2	11	1	14	1	21	1	23	1	6	2	9	1	29	3	33
Total Volume	15	65	5	85	6	76	8	90	4	41	12	57	4	112	8	124
% App. Total	17.6	76.5	5.9		6.7	84.4	8.9		7	71.9	21.1		3.2	90.3	6.5	
PHF	.625	.677	.625	.733	.500	.905	.667	.978	.500	.641	.750	.750	.500	.824	.500	.912

City of Redlands
 N/S: University Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 085_RED_Uni_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

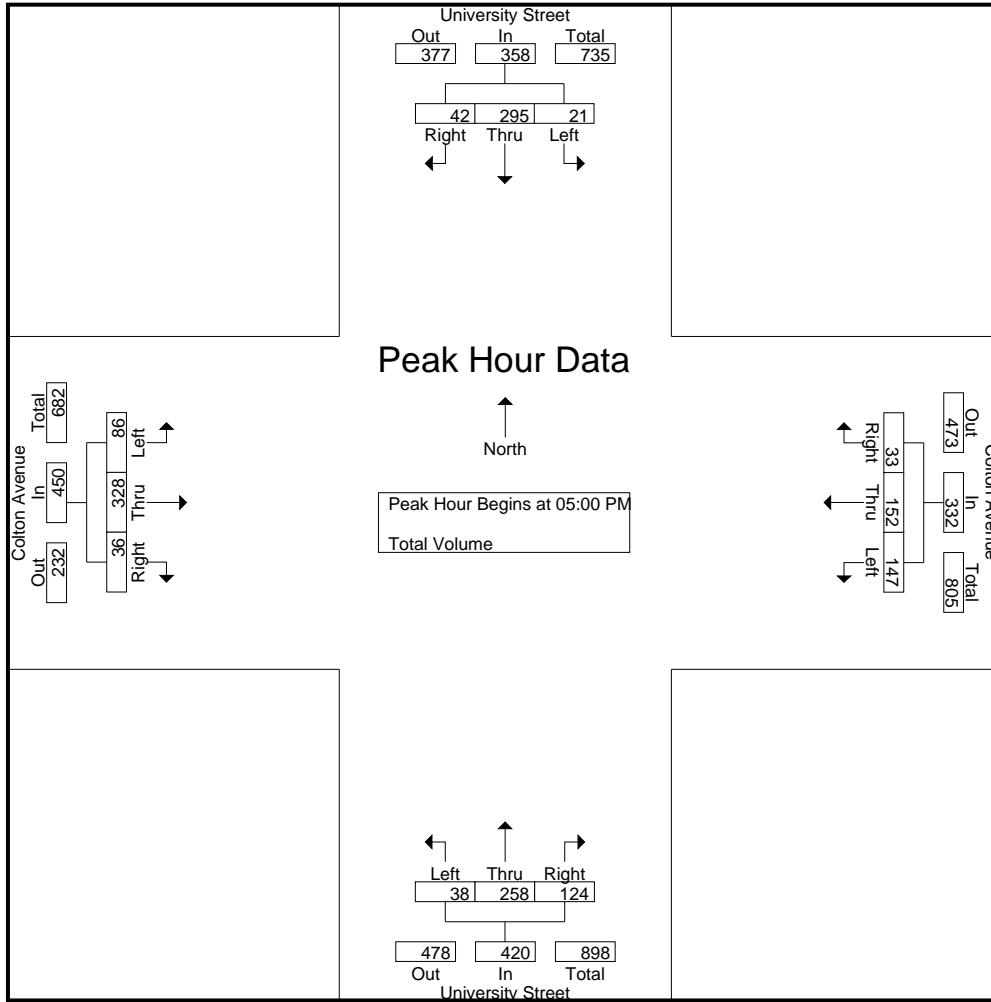
Start Time	University Street Southbound				Colton Avenue Westbound				University Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	6	68	4	78	31	43	13	87	9	102	55	166	17	73	19	109	440
04:15 PM	3	60	8	71	27	32	6	65	4	71	40	115	16	61	15	92	343
04:30 PM	2	52	5	59	31	24	3	58	7	56	28	91	13	73	8	94	302
04:45 PM	1	55	7	63	36	45	2	83	14	64	22	100	20	71	14	105	351
Total	12	235	24	271	125	144	24	293	34	293	145	472	66	278	56	400	1436
05:00 PM	2	65	9	76	38	32	5	75	12	65	30	107	20	85	9	114	372
05:15 PM	6	92	17	115	46	41	6	93	8	59	24	91	20	70	9	99	398
05:30 PM	8	90	11	109	40	39	14	93	8	55	32	95	25	77	7	109	406
05:45 PM	5	48	5	58	23	40	8	71	10	79	38	127	21	96	11	128	384
Total	21	295	42	358	147	152	33	332	38	258	124	420	86	328	36	450	1560
Grand Total	33	530	66	629	272	296	57	625	72	551	269	892	152	606	92	850	2996
Apprch %	5.2	84.3	10.5		43.5	47.4	9.1		8.1	61.8	30.2		17.9	71.3	10.8		
Total %	1.1	17.7	2.2	21	9.1	9.9	1.9	20.9	2.4	18.4	9	29.8	5.1	20.2	3.1	28.4	

Start Time	University Street Southbound				Colton Avenue Westbound				University Street Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	2	65	9	76	38	32	5	75	12	65	30	107	20	85	9	114	372
05:15 PM	6	92	17	115	46	41	6	93	8	59	24	91	20	70	9	99	398
05:30 PM	8	90	11	109	40	39	14	93	8	55	32	95	25	77	7	109	406
05:45 PM	5	48	5	58	23	40	8	71	10	79	38	127	21	96	11	128	384
Total Volume	21	295	42	358	147	152	33	332	38	258	124	420	86	328	36	450	1560
% App. Total	5.9	82.4	11.7		44.3	45.8	9.9		9	61.4	29.5		19.1	72.9	8		
PHF	.656	.802	.618	.778	.799	.927	.589	.892	.792	.816	.816	.827	.860	.854	.818	.879	.961

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

City of Redlands
 N/S: University Street
 E/W: Colton Avenue
 Weather: Clear

File Name : 085_RED_Uni_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:00 PM				05:00 PM							
+0 mins.	1	55	7	63	36	45	2	83	9	102	55	166	20	85	9	114
+15 mins.	2	65	9	76	38	32	5	75	4	71	40	115	20	70	9	99
+30 mins.	6	92	17	115	46	41	6	93	7	56	28	91	25	77	7	109
+45 mins.	8	90	11	109	40	39	14	93	14	64	22	100	21	96	11	128
Total Volume	17	302	44	363	160	157	27	344	34	293	145	472	86	328	36	450
% App. Total	4.7	83.2	12.1		46.5	45.6	7.8		7.2	62.1	30.7		19.1	72.9	8	
PHF	.531	.821	.647	.789	.870	.872	.482	.925	.607	.718	.659	.711	.860	.854	.818	.879

City of Redlands
 N/S: Center Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 086_RED_Cent_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Center Street Southbound				Cypress Avenue Westbound				Center Street Northbound				Cypress 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	7	61	3	71	9	38	11	58	5	25	18	48	8	48	13	69	246
04:15 PM	6	72	9	87	11	36	7	54	4	43	21	68	8	66	9	83	292
04:30 PM	16	64	6	86	10	32	8	50	1	46	16	63	7	58	12	77	276
04:45 PM	6	56	10	72	10	43	9	62	4	60	5	69	5	79	10	94	297
Total	35	253	28	316	40	149	35	224	14	174	60	248	28	251	44	323	1111
05:00 PM	12	74	5	91	8	36	3	47	1	55	8	64	7	68	8	83	285
05:15 PM	12	79	9	100	16	28	17	61	2	33	17	52	9	57	11	77	290
05:30 PM	9	61	4	74	15	34	6	55	4	40	10	54	6	71	8	85	268
05:45 PM	10	67	6	83	7	27	7	41	8	29	13	50	4	55	12	71	245
Total	43	281	24	348	46	125	33	204	15	157	48	220	26	251	39	316	1088
Grand Total	78	534	52	664	86	274	68	428	29	331	108	468	54	502	83	639	2199
Apprch %	11.7	80.4	7.8		20.1	64	15.9		6.2	70.7	23.1		8.5	78.6	13		
Total %	3.5	24.3	2.4	30.2	3.9	12.5	3.1	19.5	1.3	15.1	4.9	21.3	2.5	22.8	3.8	29.1	

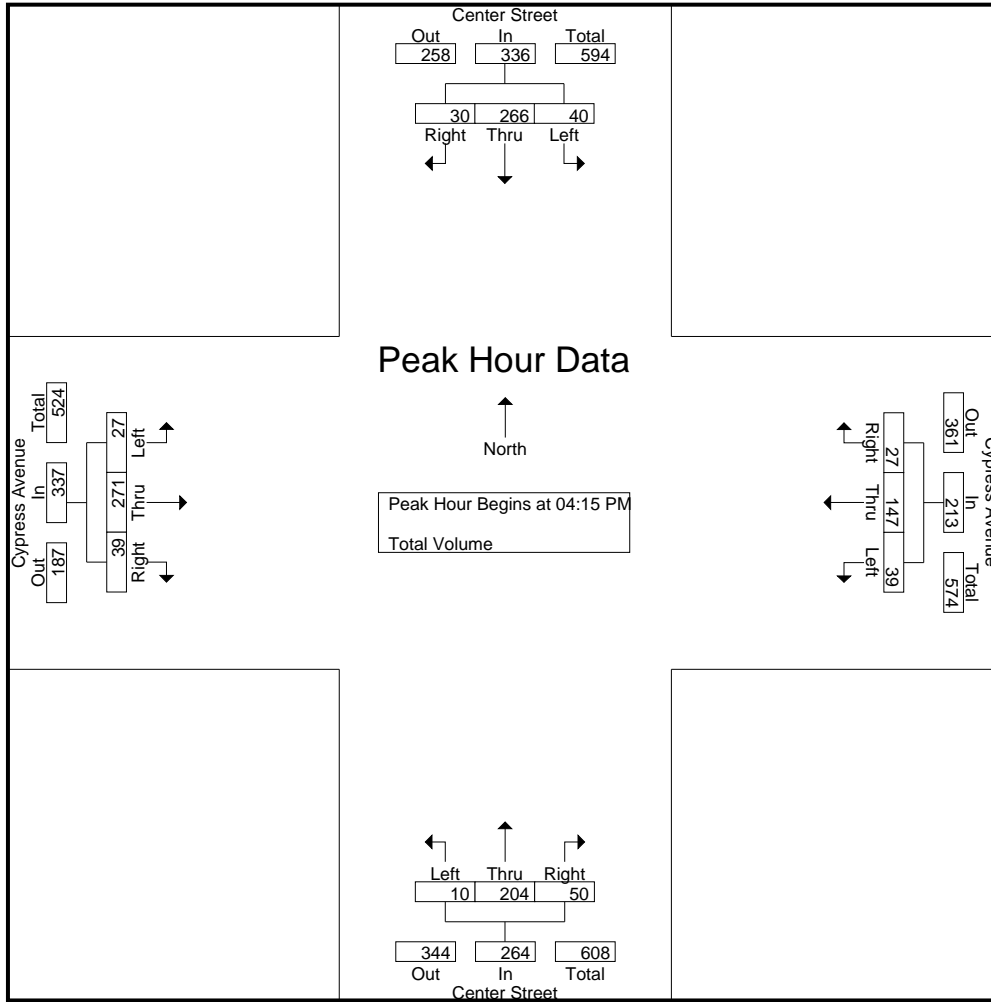
Start Time	Center Street Southbound				Cypress Avenue Westbound				Center Street Northbound				Cypress Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	6	72	9	87	11	36	7	54	4	43	21	68	8	66	9	83	292
04:30 PM	16	64	6	86	10	32	8	50	1	46	16	63	7	58	12	77	276
04:45 PM	6	56	10	72	10	43	9	62	4	60	5	69	5	79	10	94	297
05:00 PM	12	74	5	91	8	36	3	47	1	55	8	64	7	68	8	83	285
Total Volume	40	266	30	336	39	147	27	213	10	204	50	264	27	271	39	337	1150
% App. Total	11.9	79.2	8.9		18.3	69	12.7		3.8	77.3	18.9		8	80.4	11.6		
PHF	.625	.899	.750	.923	.886	.855	.750	.859	.625	.850	.595	.957	.844	.858	.813	.896	.968

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Center Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 086_RED_Cent_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:45 PM				04:15 PM				04:45 PM			
+0 mins.	16	64	6	86	10	43	9	62	4	43	21	68	5	79	10	94
+15 mins.	6	56	10	72	8	36	3	47	1	46	16	63	7	68	8	83
+30 mins.	12	74	5	91	16	28	17	61	4	60	5	69	9	57	11	77
+45 mins.	12	79	9	100	15	34	6	55	1	55	8	64	6	71	8	85
Total Volume	46	273	30	349	49	141	35	225	10	204	50	264	27	275	37	339
% App. Total	13.2	78.2	8.6		21.8	62.7	15.6		3.8	77.3	18.9		8	81.1	10.9	
PHF	.719	.864	.750	.873	.766	.820	.515	.907	.625	.850	.595	.957	.750	.870	.841	.902

City of Redlands
 N/S: Lakeside Avenue
 E/W: Cypress Avenue
 Weather: Clear

File Name : 087_RED_Lake_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Lakeside Avenue Southbound				Cypress Avenue Westbound				Lakeside Avenue Northbound				Cypress 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	6	18	2	26	3	21	4	28	1	7	1	9	1	56	7	64	127
04:15 PM	4	19	1	24	3	21	2	26	4	7	1	12	0	39	5	44	106
04:30 PM	7	25	0	32	2	22	1	25	4	8	5	17	0	55	11	66	140
04:45 PM	6	21	1	28	3	26	6	35	3	5	2	10	0	69	8	77	150
Total	23	83	4	110	11	90	13	114	12	27	9	48	1	219	31	251	523
05:00 PM	8	43	2	53	1	23	9	33	6	7	3	16	1	55	6	62	164
05:15 PM	11	24	0	35	2	26	8	36	3	9	1	13	1	62	6	69	153
05:30 PM	8	19	0	27	2	19	5	26	5	5	0	10	0	60	12	72	135
05:45 PM	4	24	1	29	4	24	5	33	3	10	1	14	0	35	4	39	115
Total	31	110	3	144	9	92	27	128	17	31	5	53	2	212	28	242	567
Grand Total	54	193	7	254	20	182	40	242	29	58	14	101	3	431	59	493	1090
Apprch %	21.3	76	2.8		8.3	75.2	16.5		28.7	57.4	13.9		0.6	87.4	12		
Total %	5	17.7	0.6	23.3	1.8	16.7	3.7	22.2	2.7	5.3	1.3	9.3	0.3	39.5	5.4	45.2	

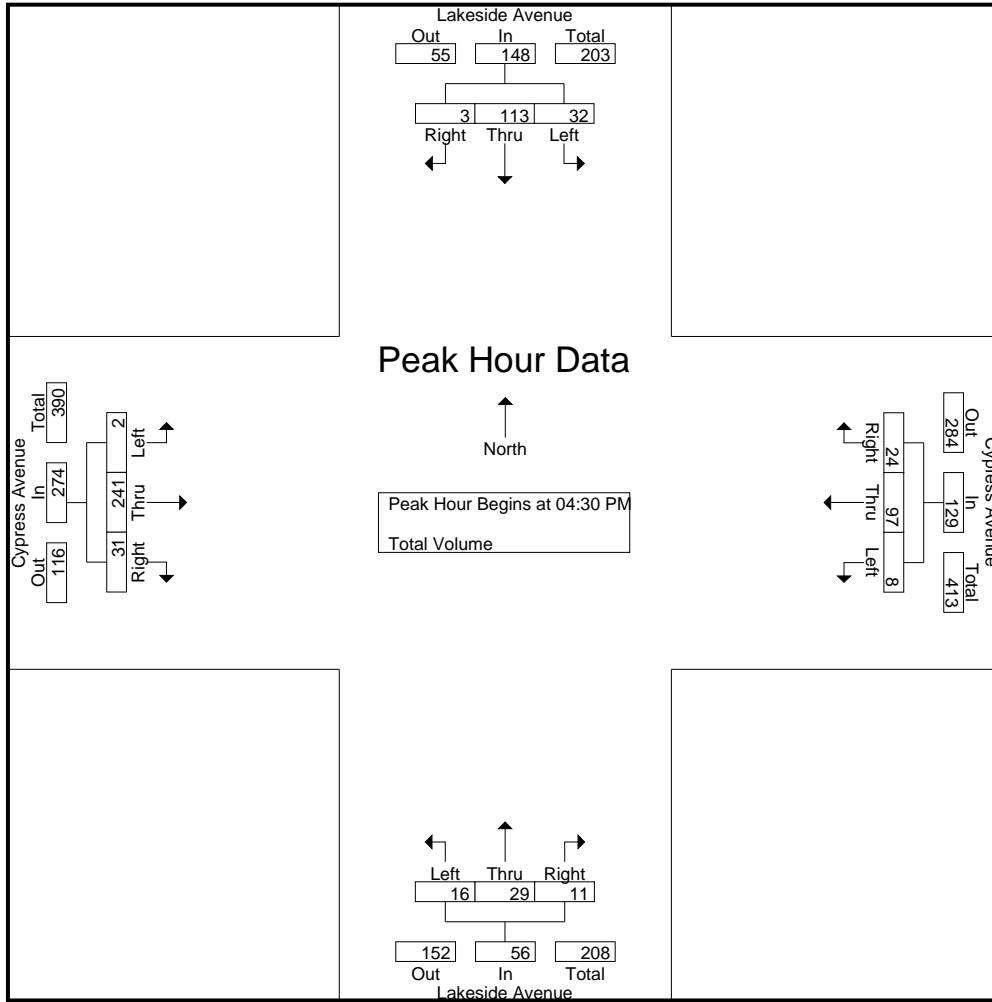
Start Time	Lakeside Avenue Southbound				Cypress Avenue Westbound				Lakeside Avenue Northbound				Cypress Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	7	25	0	32	2	22	1	25	4	8	5	17	0	55	11	66	140
04:45 PM	6	21	1	28	3	26	6	35	3	5	2	10	0	69	8	77	150
05:00 PM	8	43	2	53	1	23	9	33	6	7	3	16	1	55	6	62	164
05:15 PM	11	24	0	35	2	26	8	36	3	9	1	13	1	62	6	69	153
Total Volume	32	113	3	148	8	97	24	129	16	29	11	56	2	241	31	274	607
% App. Total	21.6	76.4	2		6.2	75.2	18.6		28.6	51.8	19.6		0.7	88	11.3		
PHF	.727	.657	.375	.698	.667	.933	.667	.896	.667	.806	.550	.824	.500	.873	.705	.890	.925

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 Redlands
 N/S: Lakeside Avenue
 E/W: Cypress Avenue
 Weather: Clear

File Name : 087_RED_Lake_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:45 PM				04:30 PM				04:45 PM			
+0 mins.	7	25	0	32	3	26	6	35	4	8	5	17	0	69	8	77
+15 mins.	6	21	1	28	1	23	9	33	3	5	2	10	1	55	6	62
+30 mins.	8	43	2	53	2	26	8	36	6	7	3	16	1	62	6	69
+45 mins.	11	24	0	35	2	19	5	26	3	9	1	13	0	60	12	72
Total Volume	32	113	3	148	8	94	28	130	16	29	11	56	2	246	32	280
% App. Total	21.6	76.4	2		6.2	72.3	21.5		28.6	51.8	19.6		0.7	87.9	11.4	
PHF	.727	.657	.375	.698	.667	.904	.778	.903	.667	.806	.550	.824	.500	.891	.667	.909

City of Redlands
 N/S: San Mateo Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 088_RED_San Mat_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	San Mateo Street Southbound				Cypress Avenue Westbound				San Mateo Street Northbound				Cypress 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	25	70	4	99	7	25	17	49	3	34	1	38	0	42	18	60	246
04:15 PM	33	51	4	88	1	22	20	43	3	35	2	40	2	35	10	47	218
04:30 PM	34	59	4	97	2	20	27	49	4	34	4	42	4	51	12	67	255
04:45 PM	37	86	1	124	2	27	18	47	7	32	1	40	4	53	16	73	284
Total	129	266	13	408	12	94	82	188	17	135	8	160	10	181	56	247	1003
05:00 PM	33	89	6	128	1	27	10	38	5	33	5	43	1	42	19	62	271
05:15 PM	30	91	4	125	2	23	10	35	8	39	1	48	4	45	22	71	279
05:30 PM	22	67	2	91	1	22	12	35	5	24	1	30	1	47	16	64	220
05:45 PM	29	61	3	93	4	27	10	41	5	24	2	31	2	32	5	39	204
Total	114	308	15	437	8	99	42	149	23	120	9	152	8	166	62	236	974
Grand Total	243	574	28	845	20	193	124	337	40	255	17	312	18	347	118	483	1977
Apprch %	28.8	67.9	3.3		5.9	57.3	36.8		12.8	81.7	5.4		3.7	71.8	24.4		
Total %	12.3	29	1.4	42.7	1	9.8	6.3	17	2	12.9	0.9	15.8	0.9	17.6	6	24.4	

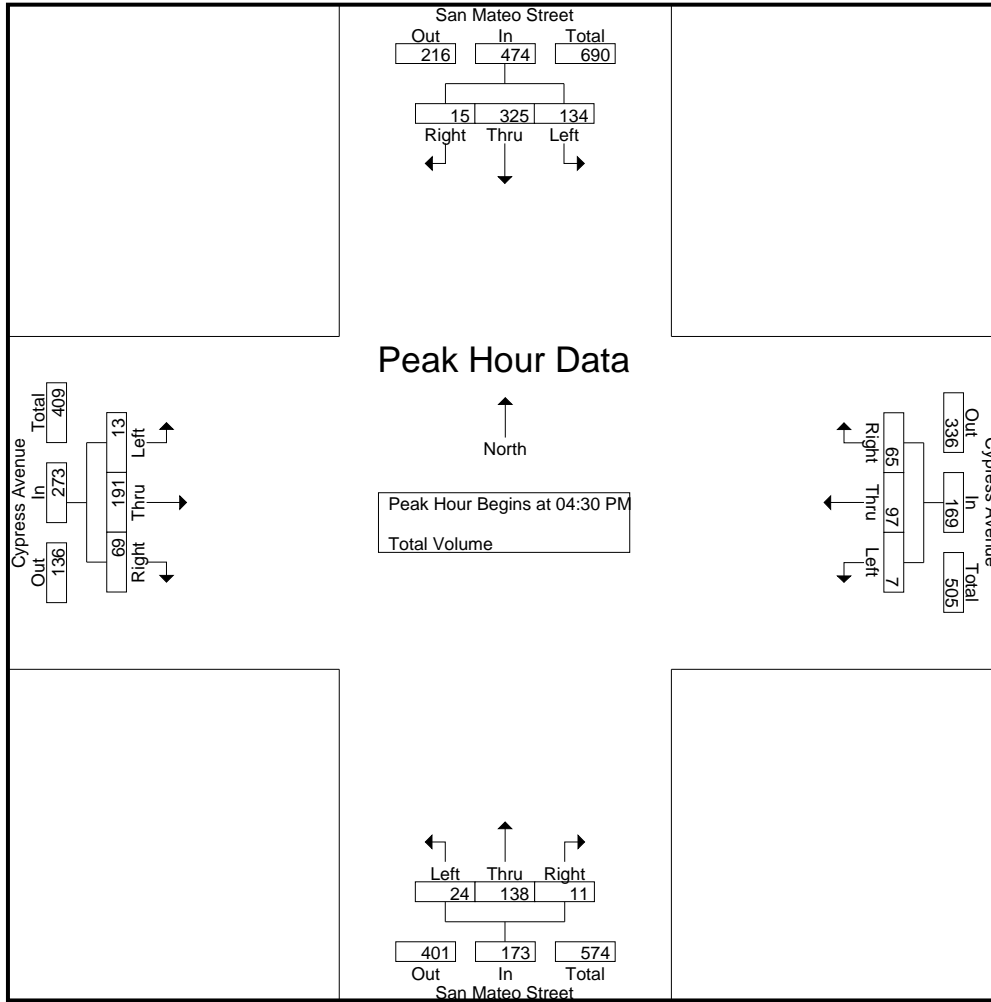
Start Time	San Mateo Street Southbound				Cypress Avenue Westbound				San Mateo Street Northbound				Cypress Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	34	59	4	97	2	20	27	49	4	34	4	42	4	51	12	67	255
04:45 PM	37	86	1	124	2	27	18	47	7	32	1	40	4	53	16	73	284
05:00 PM	33	89	6	128	1	27	10	38	5	33	5	43	1	42	19	62	271
05:15 PM	30	91	4	125	2	23	10	35	8	39	1	48	4	45	22	71	279
Total Volume	134	325	15	474	7	97	65	169	24	138	11	173	13	191	69	273	1089
% App. Total	28.3	68.6	3.2		4.1	57.4	38.5		13.9	79.8	6.4		4.8	70	25.3		
PHF	.905	.893	.625	.926	.875	.898	.602	.862	.750	.885	.550	.901	.813	.901	.784	.935	.959

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 Redlands
 N/S: San Mateo Street
 E/W: Cypress Avenue
 Weather: Clear

File Name : 088_RED_San Mat_Cyp PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:00 PM				04:30 PM				04:30 PM			
+0 mins.	34	59	4	97	7	25	17	49	4	34	4	42	4	51	12	67
+15 mins.	37	86	1	124	1	22	20	43	7	32	1	40	4	53	16	73
+30 mins.	33	89	6	128	2	20	27	49	5	33	5	43	1	42	19	62
+45 mins.	30	91	4	125	2	27	18	47	8	39	1	48	4	45	22	71
Total Volume	134	325	15	474	12	94	82	188	24	138	11	173	13	191	69	273
% App. Total	28.3	68.6	3.2		6.4	50	43.6		13.9	79.8	6.4		4.8	70	25.3	
PHF	.905	.893	.625	.926	.429	.870	.759	.959	.750	.885	.550	.901	.813	.901	.784	.935

City of Redlands
 N/S: Eureka Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 089_RED_Eur_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Eureka Street Southbound				Olive Avenue Westbound				Eureka Street Northbound				Olive 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	24	18	13	55	1	47	5	53	0	3	1	4	6	33	0	39	151
04:15 PM	23	14	8	45	0	40	2	42	0	2	2	4	5	45	0	50	141
04:30 PM	25	14	12	51	1	37	3	41	1	3	2	6	6	41	1	48	146
04:45 PM	18	11	12	41	0	37	4	41	0	1	0	1	7	46	1	54	137
Total	90	57	45	192	2	161	14	177	1	9	5	15	24	165	2	191	575
05:00 PM	16	8	14	38	1	36	7	44	2	2	0	4	5	43	1	49	135
05:15 PM	15	14	12	41	1	42	6	49	1	1	1	3	5	40	1	46	139
05:30 PM	22	12	8	42	0	36	4	40	2	1	0	3	3	35	0	38	123
05:45 PM	21	12	16	49	2	31	2	35	0	1	0	1	6	44	0	50	135
Total	74	46	50	170	4	145	19	168	5	5	1	11	19	162	2	183	532
Grand Total	164	103	95	362	6	306	33	345	6	14	6	26	43	327	4	374	1107
Apprch %	45.3	28.5	26.2		1.7	88.7	9.6		23.1	53.8	23.1		11.5	87.4	1.1		
Total %	14.8	9.3	8.6	32.7	0.5	27.6	3	31.2	0.5	1.3	0.5	2.3	3.9	29.5	0.4	33.8	

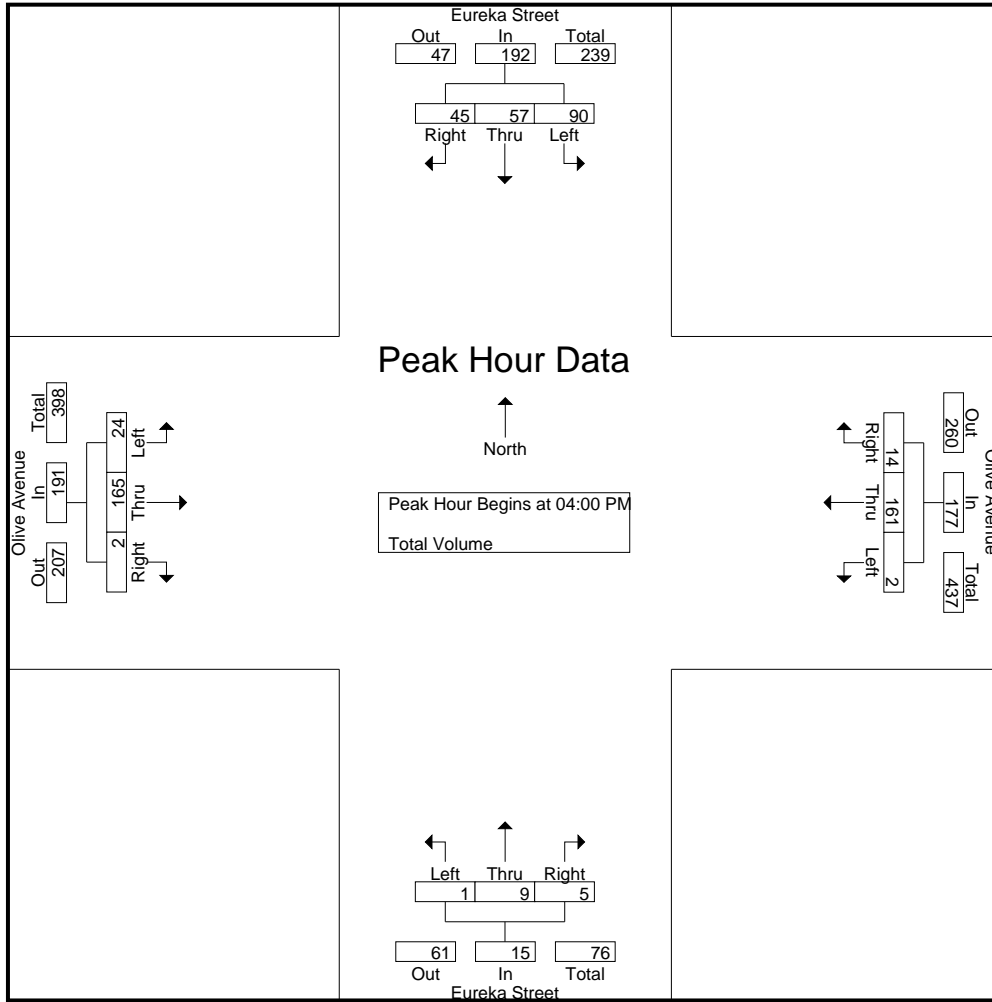
Start Time	Eureka Street Southbound				Olive Avenue Westbound				Eureka Street Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	24	18	13	55	1	47	5	53	0	3	1	4	6	33	0	39	151
04:15 PM	23	14	8	45	0	40	2	42	0	2	2	4	5	45	0	50	141
04:30 PM	25	14	12	51	1	37	3	41	1	3	2	6	6	41	1	48	146
04:45 PM	18	11	12	41	0	37	4	41	0	1	0	1	7	46	1	54	137
Total Volume	90	57	45	192	2	161	14	177	1	9	5	15	24	165	2	191	575
% App. Total	46.9	29.7	23.4		1.1	91	7.9		6.7	60	33.3		12.6	86.4	1		
PHF	.900	.792	.865	.873	.500	.856	.700	.835	.250	.750	.625	.625	.857	.897	.500	.884	.952

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

City of Redlands
 N/S: Eureka Street
 E/W: Olive Avenue
 Weather: Clear

File Name : 089_RED_Eur_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:00 PM				04:00 PM				04:15 PM			
+0 mins.	24	18	13	55	1	47	5	53	0	3	1	4	5	45	0	50
+15 mins.	23	14	8	45	0	40	2	42	0	2	2	4	6	41	1	48
+30 mins.	25	14	12	51	1	37	3	41	1	3	2	6	7	46	1	54
+45 mins.	18	11	12	41	0	37	4	41	0	1	0	1	5	43	1	49
Total Volume	90	57	45	192	2	161	14	177	1	9	5	15	23	175	3	201
% App. Total	46.9	29.7	23.4		1.1	91	7.9		6.7	60	33.3		11.4	87.1	1.5	
PHF	.900	.792	.865	.873	.500	.856	.700	.835	.250	.750	.625	.625	.821	.951	.750	.931

City of Redlands
 N/S: Lakeside Avenue
 E/W: Fern Avenue
 Weather: Clear

File Name : 090_RED_Lakes_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Lakeside Avenue Southbound				Fern Avenue Westbound				Lakeside Avenue Northbound				Fern 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	5	20	1	26	2	25	3	30	1	14	0	15	2	30	7	39	110
04:15 PM	7	30	3	40	3	21	4	28	2	6	3	11	1	35	6	42	121
04:30 PM	5	21	1	27	4	19	4	27	0	11	1	12	3	42	6	51	117
04:45 PM	4	26	0	30	1	19	4	24	1	10	3	14	3	47	7	57	125
Total	21	97	5	123	10	84	15	109	4	41	7	52	9	154	26	189	473
05:00 PM	6	44	1	51	1	18	6	25	1	14	2	17	2	33	9	44	137
05:15 PM	5	27	1	33	2	10	5	17	2	13	0	15	1	40	6	47	112
05:30 PM	6	21	1	28	0	11	3	14	1	11	4	16	2	19	6	27	85
05:45 PM	4	25	0	29	2	9	2	13	2	11	2	15	2	36	6	44	101
Total	21	117	3	141	5	48	16	69	6	49	8	63	7	128	27	162	435
Grand Total	42	214	8	264	15	132	31	178	10	90	15	115	16	282	53	351	908
Apprch %	15.9	81.1	3		8.4	74.2	17.4		8.7	78.3	13		4.6	80.3	15.1		
Total %	4.6	23.6	0.9	29.1	1.7	14.5	3.4	19.6	1.1	9.9	1.7	12.7	1.8	31.1	5.8	38.7	

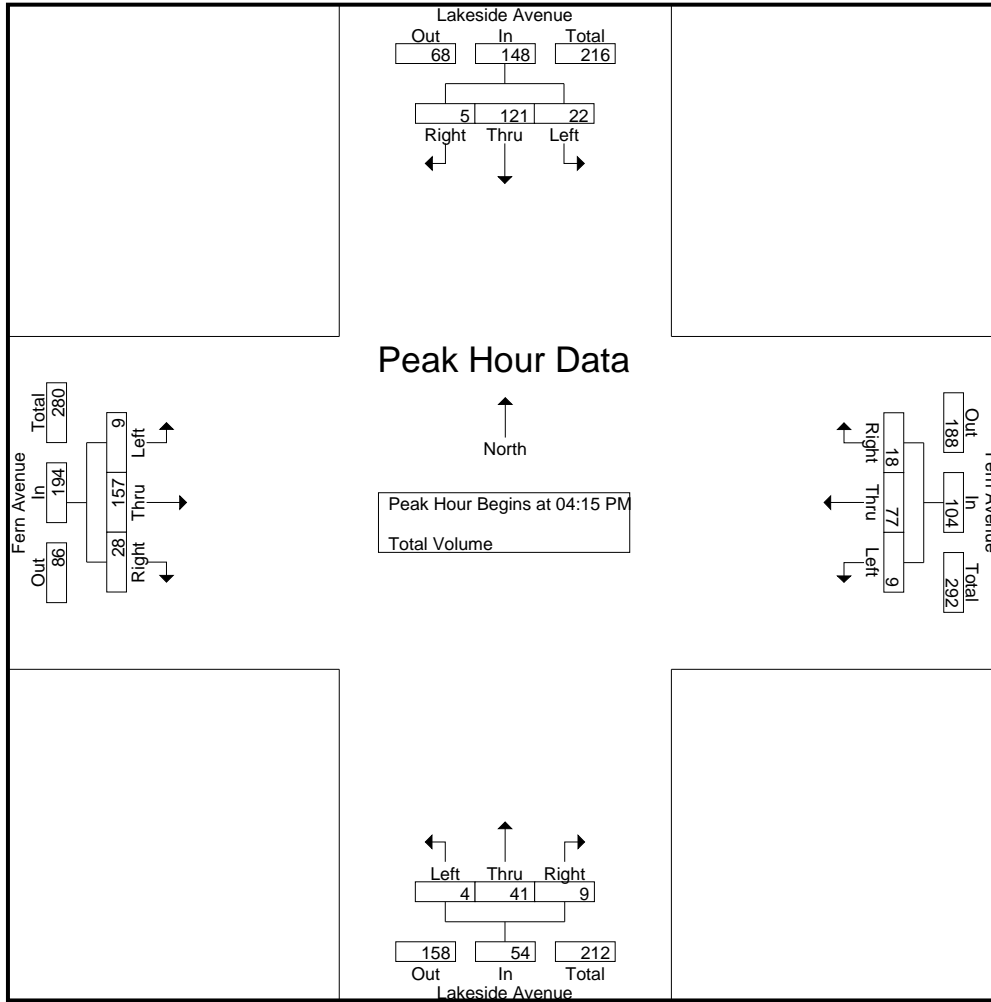
Start Time	Lakeside Avenue Southbound				Fern Avenue Westbound				Lakeside Avenue Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	7	30	3	40	3	21	4	28	2	6	3	11	1	35	6	42	121
04:30 PM	5	21	1	27	4	19	4	27	0	11	1	12	3	42	6	51	117
04:45 PM	4	26	0	30	1	19	4	24	1	10	3	14	3	47	7	57	125
05:00 PM	6	44	1	51	1	18	6	25	1	14	2	17	2	33	9	44	137
Total Volume	22	121	5	148	9	77	18	104	4	41	9	54	9	157	28	194	500
% App. Total	14.9	81.8	3.4		8.7	74	17.3		7.4	75.9	16.7		4.6	80.9	14.4		
PHF	.786	.688	.417	.725	.563	.917	.750	.929	.500	.732	.750	.794	.750	.835	.778	.851	.912

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Lakeside Avenue
 E/W: Fern Avenue
 Weather: Clear

File Name : 090_RED_Lakes_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:15 PM				04:00 PM				05:00 PM				04:30 PM			
+0 mins.	7	30	3	40	2	25	3	30	1	14	2	17	3	42	6	51
+15 mins.	5	21	1	27	3	21	4	28	2	13	0	15	3	47	7	57
+30 mins.	4	26	0	30	4	19	4	27	1	11	4	16	2	33	9	44
+45 mins.	6	44	1	51	1	19	4	24	2	11	2	15	1	40	6	47
Total Volume	22	121	5	148	10	84	15	109	6	49	8	63	9	162	28	199
% App. Total	14.9	81.8	3.4		9.2	77.1	13.8		9.5	77.8	12.7		4.5	81.4	14.1	
PHF	.786	.688	.417	.725	.625	.840	.938	.908	.750	.875	.500	.926	.750	.862	.778	.873

City of Redlands
 N/S: Dearborn Street
 E/W: 5th Avenue
 Weather: Clear

File Name : 091_RED_Dearb_5th PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

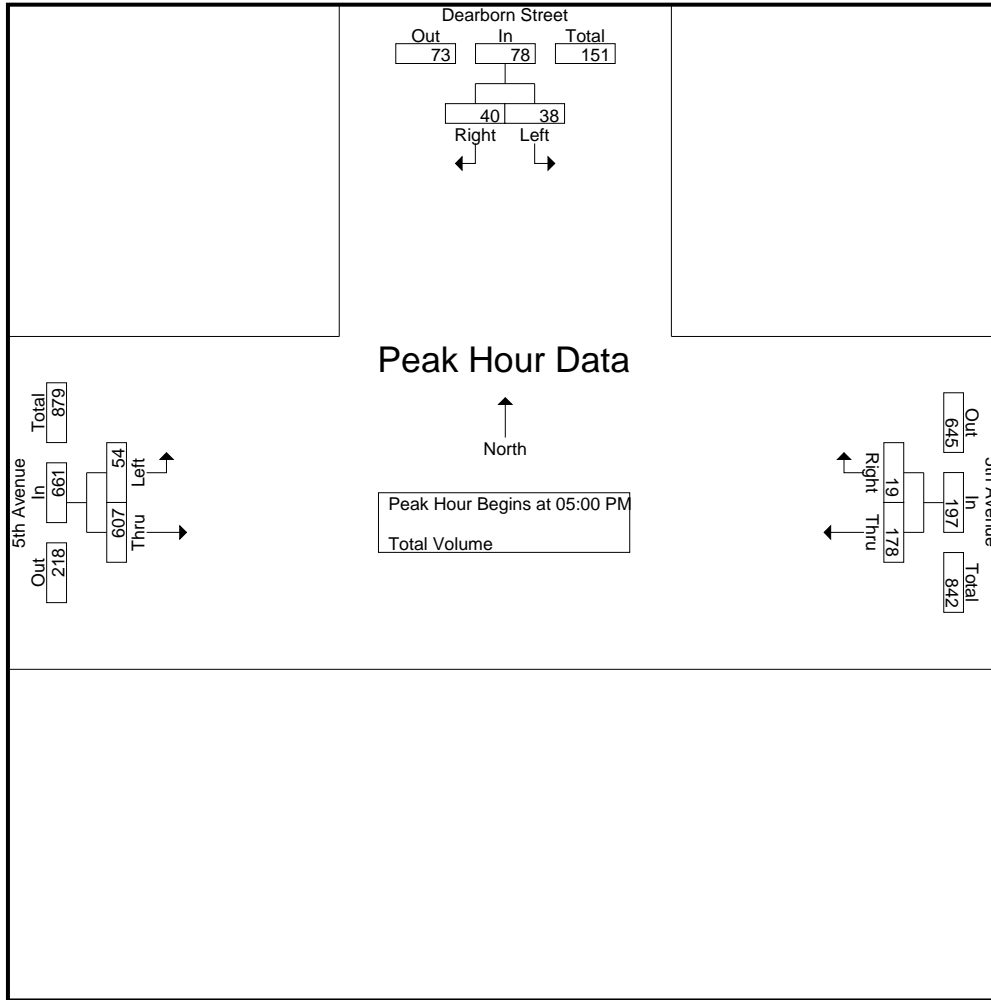
Start Time	Dearborn Street Southbound			5th Avenue Westbound			5th Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	9	11	20	71	8	79	12	80	92	191
04:15 PM	7	15	22	56	2	58	14	75	89	169
04:30 PM	8	10	18	55	1	56	13	84	97	171
04:45 PM	15	13	28	55	2	57	9	89	98	183
Total	39	49	88	237	13	250	48	328	376	714
05:00 PM	10	13	23	55	6	61	11	101	112	196
05:15 PM	11	12	23	45	3	48	13	161	174	245
05:30 PM	6	6	12	35	7	42	14	185	199	253
05:45 PM	11	9	20	43	3	46	16	160	176	242
Total	38	40	78	178	19	197	54	607	661	936
Grand Total	77	89	166	415	32	447	102	935	1037	1650
Apprch %	46.4	53.6		92.8	7.2		9.8	90.2		
Total %	4.7	5.4	10.1	25.2	1.9	27.1	6.2	56.7	62.8	

Start Time	Dearborn Street Southbound			5th Avenue Westbound			5th Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
05:00 PM	10	13	23	55	6	61	11	101	112	196
05:15 PM	11	12	23	45	3	48	13	161	174	245
05:30 PM	6	6	12	35	7	42	14	185	199	253
05:45 PM	11	9	20	43	3	46	16	160	176	242
Total Volume	38	40	78	178	19	197	54	607	661	936
% App. Total	48.7	51.3		90.4	9.6		8.2	91.8		
PHF	.864	.769	.848	.809	.679	.807	.844	.820	.830	.925

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

City of Redlands
 N/S: Dearborn Street
 E/W: 5th Avenue
 Weather: Clear

File Name : 091_RED_Dearb_5th PM
 Site Code : 221080
 Start Date : 12/13/2022
 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			04:00 PM			05:00 PM		
+0 mins.	8	10	18	71	8	79	11	101	112
+15 mins.	15	13	28	56	2	58	13	161	174
+30 mins.	10	13	23	55	1	56	14	185	199
+45 mins.	11	12	23	55	2	57	16	160	176
Total Volume	44	48	92	237	13	250	54	607	661
% App. Total	47.8	52.2		94.8	5.2		8.2	91.8	
PHF	.733	.923	.821	.835	.406	.791	.844	.820	.830

City of Redlands
 N/S: Iowa Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 092_RED_Iowa_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Iowa Street Southbound				Citrus Avenue Westbound				Iowa Street Northbound				Citrus 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	10	21	4	35	16	62	2	80	54	19	31	104	3	75	47	125	344
04:15 PM	3	25	4	32	14	61	3	78	49	22	26	97	3	75	41	119	326
04:30 PM	7	30	4	41	18	56	1	75	53	19	44	116	1	86	44	131	363
04:45 PM	2	33	5	40	26	81	2	109	59	16	36	111	7	79	41	127	387
Total	22	109	17	148	74	260	8	342	215	76	137	428	14	315	173	502	1420
05:00 PM	5	24	3	32	18	79	2	99	46	19	29	94	3	93	31	127	352
05:15 PM	5	17	5	27	21	44	0	65	50	22	34	106	7	77	37	121	319
05:30 PM	4	18	4	26	11	49	0	60	54	18	29	101	2	95	31	128	315
05:45 PM	5	12	6	23	16	50	1	67	55	9	36	100	3	100	28	131	321
Total	19	71	18	108	66	222	3	291	205	68	128	401	15	365	127	507	1307
Grand Total	41	180	35	256	140	482	11	633	420	144	265	829	29	680	300	1009	2727
Apprch %	16	70.3	13.7		22.1	76.1	1.7		50.7	17.4	32		2.9	67.4	29.7		
Total %	1.5	6.6	1.3	9.4	5.1	17.7	0.4	23.2	15.4	5.3	9.7	30.4	1.1	24.9	11	37	

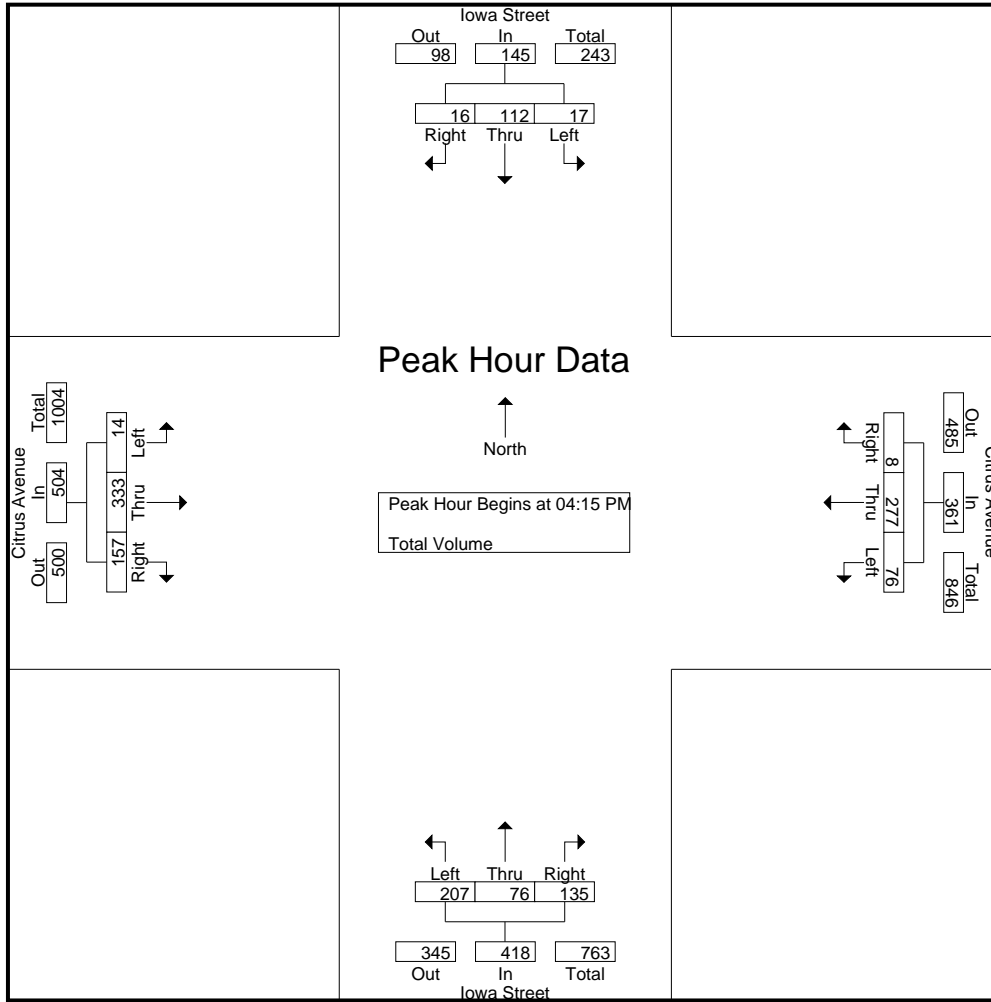
Start Time	Iowa Street Southbound				Citrus Avenue Westbound				Iowa Street Northbound				Citrus Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	3	25	4	32	14	61	3	78	49	22	26	97	3	75	41	119	326
04:30 PM	7	30	4	41	18	56	1	75	53	19	44	116	1	86	44	131	363
04:45 PM	2	33	5	40	26	81	2	109	59	16	36	111	7	79	41	127	387
05:00 PM	5	24	3	32	18	79	2	99	46	19	29	94	3	93	31	127	352
Total Volume	17	112	16	145	76	277	8	361	207	76	135	418	14	333	157	504	1428
% App. Total	11.7	77.2	11		21.1	76.7	2.2		49.5	18.2	32.3		2.8	66.1	31.2		
PHF	.607	.848	.800	.884	.731	.855	.667	.828	.877	.864	.767	.901	.500	.895	.892	.962	.922

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Iowa Street
 E/W: Citrus Avenue
 Weather: Clear

File Name : 092_RED_Iowa_Citrus PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:15 PM				04:00 PM				05:00 PM			
+0 mins.	10	21	4	35	14	61	3	78	54	19	31	104	3	93	31	127
+15 mins.	3	25	4	32	18	56	1	75	49	22	26	97	7	77	37	121
+30 mins.	7	30	4	41	26	81	2	109	53	19	44	116	2	95	31	128
+45 mins.	2	33	5	40	18	79	2	99	59	16	36	111	3	100	28	131
Total Volume	22	109	17	148	76	277	8	361	215	76	137	428	15	365	127	507
% App. Total	14.9	73.6	11.5		21.1	76.7	2.2		50.2	17.8	32		3	72	25	
PHF	.550	.826	.850	.902	.731	.855	.667	.828	.911	.864	.778	.922	.536	.913	.858	.968

City of Redlands
 N/S: Iowa Street
 E/W: Park Avenue
 Weather: Clear

File Name : 093_RED_Iowa_Park PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Iowa Street Southbound				Park Avenue Westbound				Iowa Street Northbound				Park 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	7	25	3	35	2	24	4	30	2	24	10	36	0	26	4	30	131
04:15 PM	2	19	4	25	4	20	3	27	3	9	2	14	3	35	2	40	106
04:30 PM	6	14	1	21	0	27	3	30	2	18	6	26	4	31	3	38	115
04:45 PM	6	11	1	18	0	20	3	23	2	11	3	16	2	30	0	32	89
Total	21	69	9	99	6	91	13	110	9	62	21	92	9	122	9	140	441
05:00 PM	7	13	3	23	0	23	3	26	3	22	4	29	5	44	4	53	131
05:15 PM	4	9	0	13	0	17	6	23	1	10	1	12	2	28	5	35	83
05:30 PM	5	5	2	12	3	13	2	18	1	12	2	15	2	23	0	25	70
05:45 PM	5	7	0	12	1	6	1	8	0	6	1	7	2	20	3	25	52
Total	21	34	5	60	4	59	12	75	5	50	8	63	11	115	12	138	336
Grand Total	42	103	14	159	10	150	25	185	14	112	29	155	20	237	21	278	777
Apprch %	26.4	64.8	8.8		5.4	81.1	13.5		9	72.3	18.7		7.2	85.3	7.6		
Total %	5.4	13.3	1.8	20.5	1.3	19.3	3.2	23.8	1.8	14.4	3.7	19.9	2.6	30.5	2.7	35.8	

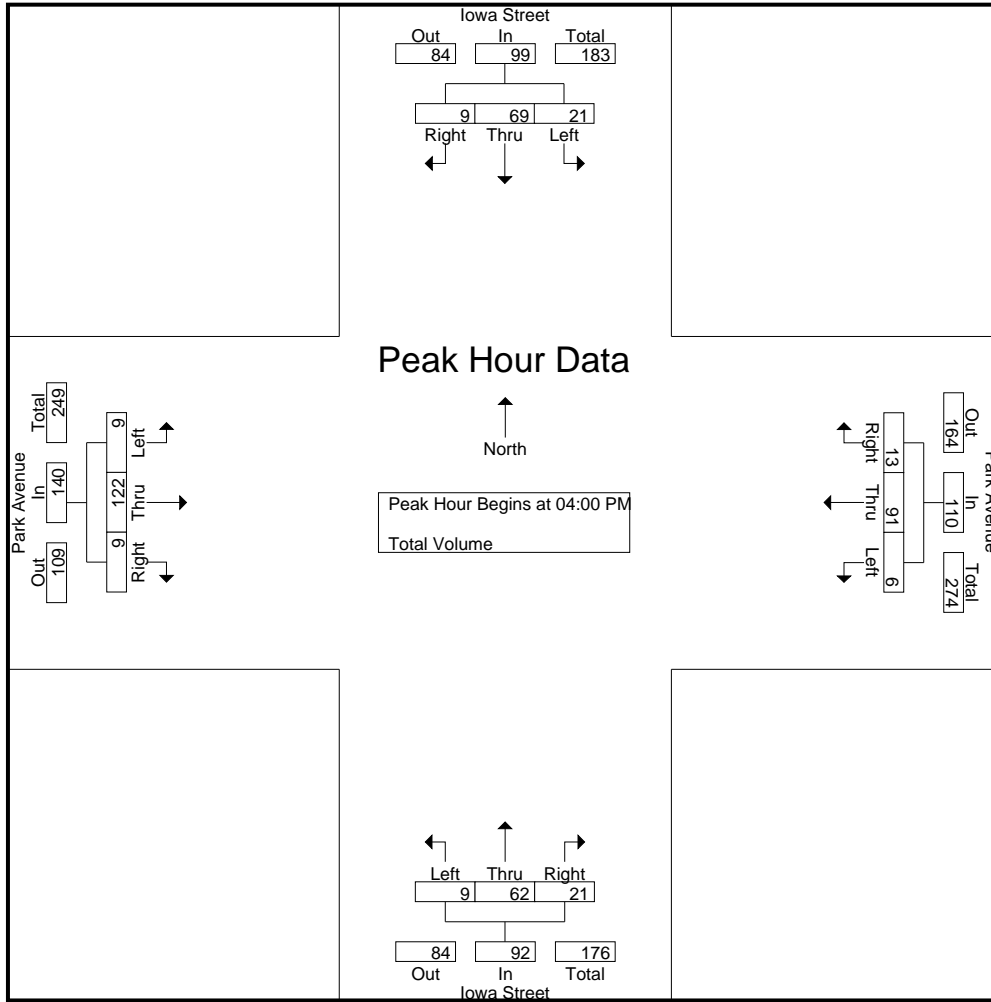
Start Time	Iowa Street Southbound				Park Avenue Westbound				Iowa Street Northbound				Park Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	25	3	35	2	24	4	30	2	24	10	36	0	26	4	30	131
04:15 PM	2	19	4	25	4	20	3	27	3	9	2	14	3	35	2	40	106
04:30 PM	6	14	1	21	0	27	3	30	2	18	6	26	4	31	3	38	115
04:45 PM	6	11	1	18	0	20	3	23	2	11	3	16	2	30	0	32	89
Total Volume	21	69	9	99	6	91	13	110	9	62	21	92	9	122	9	140	441
% App. Total	21.2	69.7	9.1		5.5	82.7	11.8		9.8	67.4	22.8		6.4	87.1	6.4		
PHF	.750	.690	.563	.707	.375	.843	.813	.917	.750	.646	.525	.639	.563	.871	.563	.875	.842

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

City of Redlands
 N/S: Iowa Street
 E/W: Park Avenue
 Weather: Clear

File Name : 093_RED_Iowa_Park PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:00 PM				04:00 PM				04:00 PM				04:15 PM			
+0 mins.	7	25	3	35	2	24	4	30	2	24	10	36	3	35	2	40
+15 mins.	2	19	4	25	4	20	3	27	3	9	2	14	4	31	3	38
+30 mins.	6	14	1	21	0	27	3	30	2	18	6	26	2	30	0	32
+45 mins.	6	11	1	18	0	20	3	23	2	11	3	16	5	44	4	53
Total Volume	21	69	9	99	6	91	13	110	9	62	21	92	14	140	9	163
% App. Total	21.2	69.7	9.1		5.5	82.7	11.8		9.8	67.4	22.8		8.6	85.9	5.5	
PHF	.750	.690	.563	.707	.375	.843	.813	.917	.750	.646	.525	.639	.700	.795	.563	.769

City of Redlands
 N/S: Judson Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 094_RED_Jud_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Judson Street Southbound				Brockton Avenue Westbound				Judson Street Northbound				Brockton 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	3	42	3	48	9	20	5	34	7	44	6	57	5	30	7	42	181
04:15 PM	3	49	7	59	2	21	2	25	7	52	2	61	4	29	5	38	183
04:30 PM	2	48	5	55	3	11	7	21	2	42	4	48	7	23	6	36	160
04:45 PM	3	39	0	42	7	23	8	38	3	62	7	72	3	16	7	26	178
Total	11	178	15	204	21	75	22	118	19	200	19	238	19	98	25	142	702
05:00 PM	4	49	3	56	5	18	4	27	2	57	9	68	12	31	16	59	210
05:15 PM	3	47	2	52	1	19	3	23	4	53	5	62	13	33	13	59	196
05:30 PM	6	48	8	62	2	28	2	32	3	49	3	55	23	29	27	79	228
05:45 PM	4	44	10	58	5	23	6	34	11	46	4	61	7	21	4	32	185
Total	17	188	23	228	13	88	15	116	20	205	21	246	55	114	60	229	819
Grand Total	28	366	38	432	34	163	37	234	39	405	40	484	74	212	85	371	1521
Apprch %	6.5	84.7	8.8		14.5	69.7	15.8		8.1	83.7	8.3		19.9	57.1	22.9		
Total %	1.8	24.1	2.5	28.4	2.2	10.7	2.4	15.4	2.6	26.6	2.6	31.8	4.9	13.9	5.6	24.4	

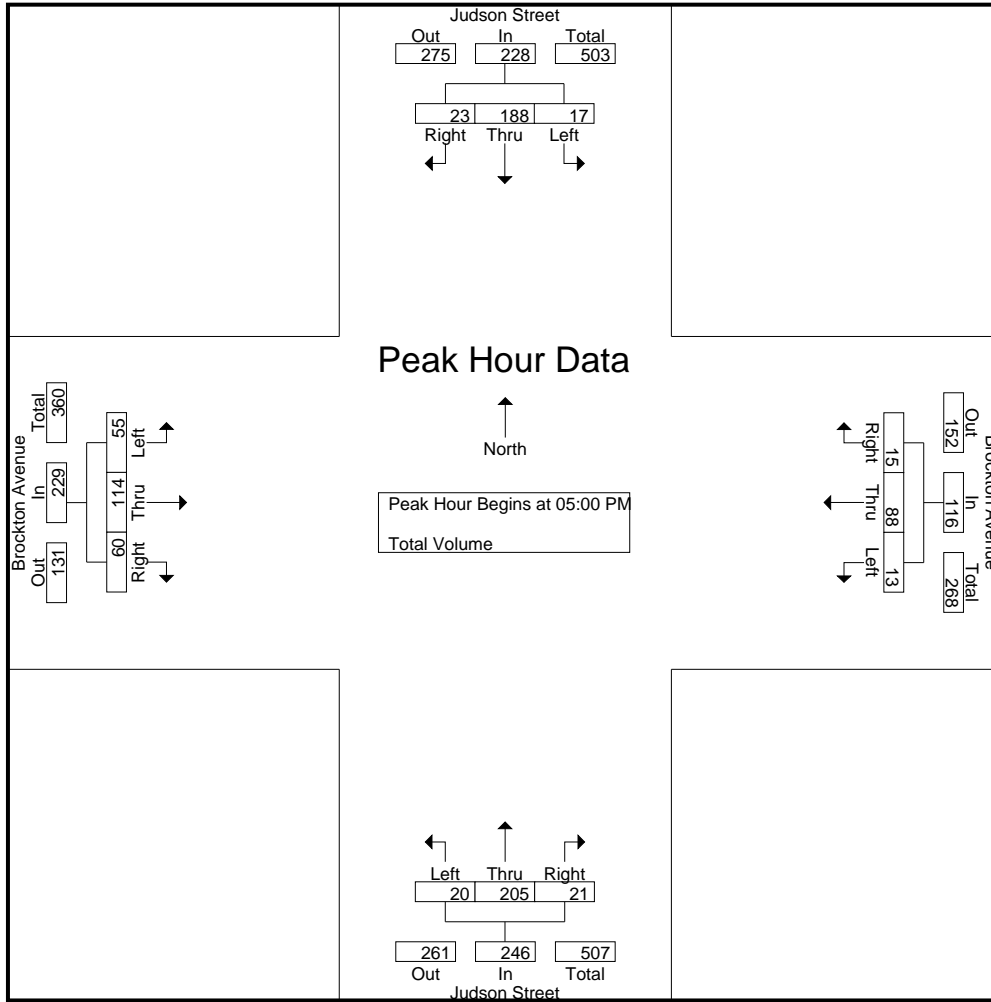
Start Time	Judson Street Southbound				Brockton Avenue Westbound				Judson Street Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	4	49	3	56	5	18	4	27	2	57	9	68	12	31	16	59	210
05:15 PM	3	47	2	52	1	19	3	23	4	53	5	62	13	33	13	59	196
05:30 PM	6	48	8	62	2	28	2	32	3	49	3	55	23	29	27	79	228
05:45 PM	4	44	10	58	5	23	6	34	11	46	4	61	7	21	4	32	185
Total Volume	17	188	23	228	13	88	15	116	20	205	21	246	55	114	60	229	819
% App. Total	7.5	82.5	10.1		11.2	75.9	12.9		8.1	83.3	8.5		24	49.8	26.2		
PHF	.708	.959	.575	.919	.650	.786	.625	.853	.455	.899	.583	.904	.598	.864	.556	.725	.898

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Judson Street
 E/W: Brockton Avenue
 Weather: Clear

File Name : 094_RED_Jud_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:45 PM				04:45 PM				05:00 PM			
+0 mins.	4	49	3	56	7	23	8	38	3	62	7	72	12	31	16	59
+15 mins.	3	47	2	52	5	18	4	27	2	57	9	68	13	33	13	59
+30 mins.	6	48	8	62	1	19	3	23	4	53	5	62	23	29	27	79
+45 mins.	4	44	10	58	2	28	2	32	3	49	3	55	7	21	4	32
Total Volume	17	188	23	228	15	88	17	120	12	221	24	257	55	114	60	229
% App. Total	7.5	82.5	10.1		12.5	73.3	14.2		4.7	86	9.3		24	49.8	26.2	
PHF	.708	.959	.575	.919	.536	.786	.531	.789	.750	.891	.667	.892	.598	.864	.556	.725

City of Redlands
 N/S: Lakeside Avenue
 E/W: Olive Avenue
 Weather: Clear

File Name : 095_RED_Lakes_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

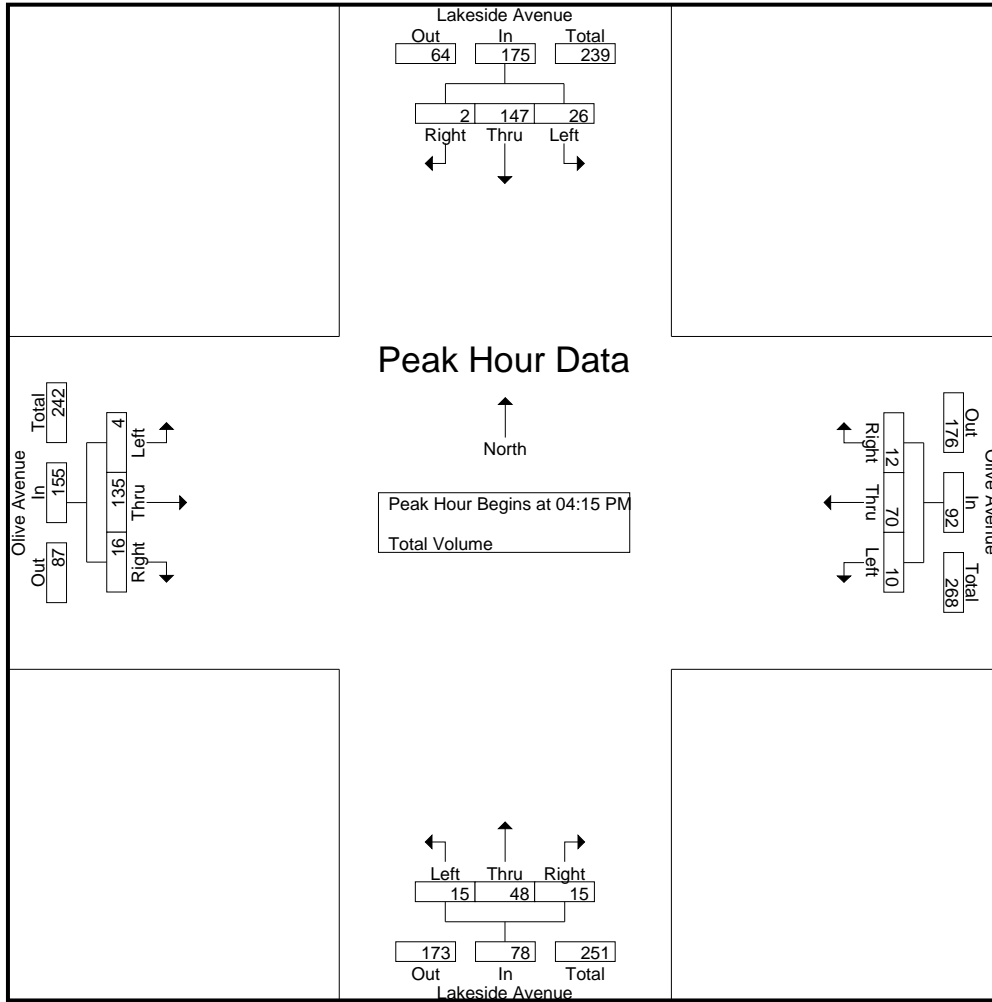
Start Time	Lakeside Avenue Southbound				Olive Avenue Westbound				Lakeside Avenue Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	24	2	33	4	13	0	17	3	13	3	19	0	22	3	25	94
04:15 PM	4	38	0	42	3	18	2	23	6	8	3	17	1	28	5	34	116
04:30 PM	6	26	0	32	2	22	5	29	1	14	2	17	1	40	4	45	123
04:45 PM	9	29	2	40	2	17	3	22	4	10	3	17	0	28	4	32	111
Total	26	117	4	147	11	70	10	91	14	45	11	70	2	118	16	136	444
05:00 PM	7	54	0	61	3	13	2	18	4	16	7	27	2	39	3	44	150
05:15 PM	8	32	1	41	4	12	3	19	0	16	2	18	1	21	1	23	101
05:30 PM	9	30	1	40	1	17	2	20	2	16	2	20	0	16	2	18	98
05:45 PM	4	34	0	38	2	13	6	21	2	15	1	18	1	23	1	25	102
Total	28	150	2	180	10	55	13	78	8	63	12	83	4	99	7	110	451
Grand Total	54	267	6	327	21	125	23	169	22	108	23	153	6	217	23	246	895
Apprch %	16.5	81.7	1.8		12.4	74	13.6		14.4	70.6	15		2.4	88.2	9.3		
Total %	6	29.8	0.7	36.5	2.3	14	2.6	18.9	2.5	12.1	2.6	17.1	0.7	24.2	2.6	27.5	

Start Time	Lakeside Avenue Southbound				Olive Avenue Westbound				Lakeside Avenue Northbound				Olive Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	4	38	0	42	3	18	2	23	6	8	3	17	1	28	5	34	116
04:30 PM	6	26	0	32	2	22	5	29	1	14	2	17	1	40	4	45	123
04:45 PM	9	29	2	40	2	17	3	22	4	10	3	17	0	28	4	32	111
05:00 PM	7	54	0	61	3	13	2	18	4	16	7	27	2	39	3	44	150
Total Volume	26	147	2	175	10	70	12	92	15	48	15	78	4	135	16	155	500
% App. Total	14.9	84	1.1		10.9	76.1	13		19.2	61.5	19.2		2.6	87.1	10.3		
PHF	.722	.681	.250	.717	.833	.795	.600	.793	.625	.750	.536	.722	.500	.844	.800	.861	.833

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Lakeside Avenue
 E/W: Olive Avenue
 Weather: Clear

File Name : 095_RED_Lakes_Olive PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	04:45 PM				04:15 PM				05:00 PM				04:15 PM			
+0 mins.	9	29	2	40	3	18	2	23	4	16	7	27	1	28	5	34
+15 mins.	7	54	0	61	2	22	5	29	0	16	2	18	1	40	4	45
+30 mins.	8	32	1	41	2	17	3	22	2	16	2	20	0	28	4	32
+45 mins.	9	30	1	40	3	13	2	18	2	15	1	18	2	39	3	44
Total Volume	33	145	4	182	10	70	12	92	8	63	12	83	4	135	16	155
% App. Total	18.1	79.7	2.2		10.9	76.1	13		9.6	75.9	14.5		2.6	87.1	10.3	
PHF	.917	.671	.500	.746	.833	.795	.600	.793	.500	.984	.429	.769	.500	.844	.800	.861

City of Redlands
 N/S: Nevada Street
 E/W: Orange Tree Lane
 Weather: Clear

File Name : 096_RED_Nev_OT PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Nevada Street Southbound				Orange Tree Lane Westbound				Nevada Street Northbound				Orange Tree Lane Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	91	3	101	23	24	13	60	23	100	21	144	13	17	25	55	360
04:15 PM	4	94	10	108	21	11	1	33	23	96	19	138	2	12	15	29	308
04:30 PM	4	92	7	103	36	26	15	77	20	79	13	112	14	19	20	53	345
04:45 PM	5	109	12	126	27	34	7	68	22	85	22	129	8	23	26	57	380
Total	20	386	32	438	107	95	36	238	88	360	75	523	37	71	86	194	1393
05:00 PM	4	97	10	111	43	33	14	90	17	84	28	129	13	21	27	61	391
05:15 PM	3	107	6	116	23	25	4	52	24	100	19	143	6	11	17	34	345
05:30 PM	7	82	6	95	15	21	7	43	26	92	8	126	8	10	10	28	292
05:45 PM	1	89	6	96	21	10	6	37	9	77	9	95	7	16	14	37	265
Total	15	375	28	418	102	89	31	222	76	353	64	493	34	58	68	160	1293
Grand Total	35	761	60	856	209	184	67	460	164	713	139	1016	71	129	154	354	2686
Apprch %	4.1	88.9	7		45.4	40	14.6		16.1	70.2	13.7		20.1	36.4	43.5		
Total %	1.3	28.3	2.2	31.9	7.8	6.9	2.5	17.1	6.1	26.5	5.2	37.8	2.6	4.8	5.7	13.2	

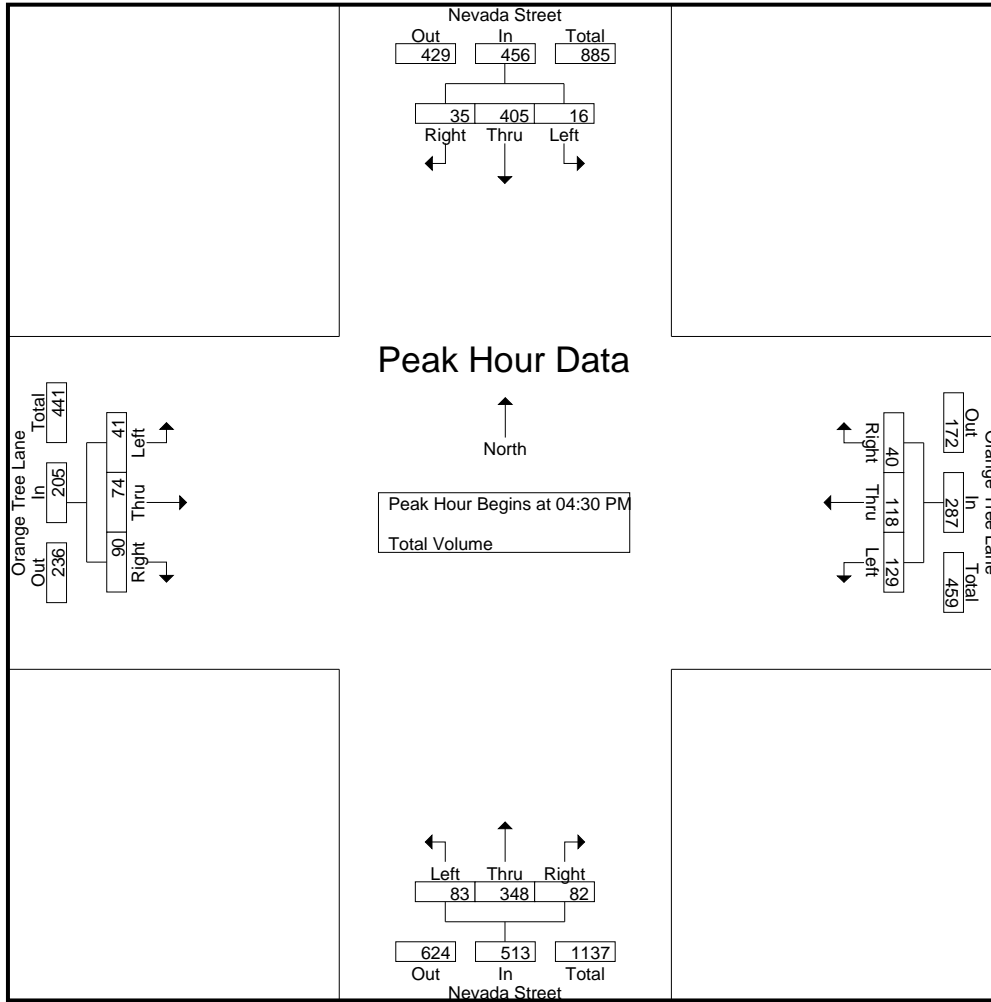
Start Time	Nevada Street Southbound				Orange Tree Lane Westbound				Nevada Street Northbound				Orange Tree Lane Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	4	92	7	103	36	26	15	77	20	79	13	112	14	19	20	53	345
04:45 PM	5	109	12	126	27	34	7	68	22	85	22	129	8	23	26	57	380
05:00 PM	4	97	10	111	43	33	14	90	17	84	28	129	13	21	27	61	391
05:15 PM	3	107	6	116	23	25	4	52	24	100	19	143	6	11	17	34	345
Total Volume	16	405	35	456	129	118	40	287	83	348	82	513	41	74	90	205	1461
% App. Total	3.5	88.8	7.7		44.9	41.1	13.9		16.2	67.8	16		20	36.1	43.9		
PHF	.800	.929	.729	.905	.750	.868	.667	.797	.865	.870	.732	.897	.732	.804	.833	.840	.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 Redlands
 N/S: Nevada Street
 E/W: Orange Tree Lane
 Weather: Clear

File Name : 096_RED_Nev_OT PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:45 PM				04:30 PM			
+0 mins.	4	92	7	103	36	26	15	77	22	85	22	129	14	19	20	53
+15 mins.	5	109	12	126	27	34	7	68	17	84	28	129	8	23	26	57
+30 mins.	4	97	10	111	43	33	14	90	24	100	19	143	13	21	27	61
+45 mins.	3	107	6	116	23	25	4	52	26	92	8	126	6	11	17	34
Total Volume	16	405	35	456	129	118	40	287	89	361	77	527	41	74	90	205
% App. Total	3.5	88.8	7.7		44.9	41.1	13.9		16.9	68.5	14.6		20	36.1	43.9	
PHF	.800	.929	.729	.905	.750	.868	.667	.797	.856	.903	.688	.921	.732	.804	.833	.840

City of Redlands
 N/S: Nordina Street
 E/W: Clark Street
 Weather: Clear

File Name : 097_RED_Nor_Clark PM
 Site Code : 221080
 Start Date : 12/15/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Nordina Street Southbound				Clark Street Westbound				Nordina Street Northbound				Clark Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	8	2	10	1	1	4	6	1	3	1	5	0	1	2	3	24
04:15 PM	1	5	0	6	1	1	0	2	0	5	2	7	2	2	0	4	19
04:30 PM	1	10	1	12	2	2	0	4	0	3	0	3	1	2	1	4	23
04:45 PM	0	9	1	10	0	3	0	3	0	3	0	3	1	4	1	6	22
Total	2	32	4	38	4	7	4	15	1	14	3	18	4	9	4	17	88
05:00 PM	1	9	0	10	0	2	1	3	1	3	0	4	1	1	3	5	22
05:15 PM	0	16	1	17	1	4	1	6	0	3	0	3	0	4	0	4	30
05:30 PM	0	6	0	6	0	5	1	6	0	2	1	3	1	3	3	7	22
05:45 PM	0	5	1	6	0	3	0	3	0	2	0	2	0	0	0	0	11
Total	1	36	2	39	1	14	3	18	1	10	1	12	2	8	6	16	85
Grand Total	3	68	6	77	5	21	7	33	2	24	4	30	6	17	10	33	173
Apprch %	3.9	88.3	7.8		15.2	63.6	21.2		6.7	80	13.3		18.2	51.5	30.3		
Total %	1.7	39.3	3.5	44.5	2.9	12.1	4	19.1	1.2	13.9	2.3	17.3	3.5	9.8	5.8	19.1	

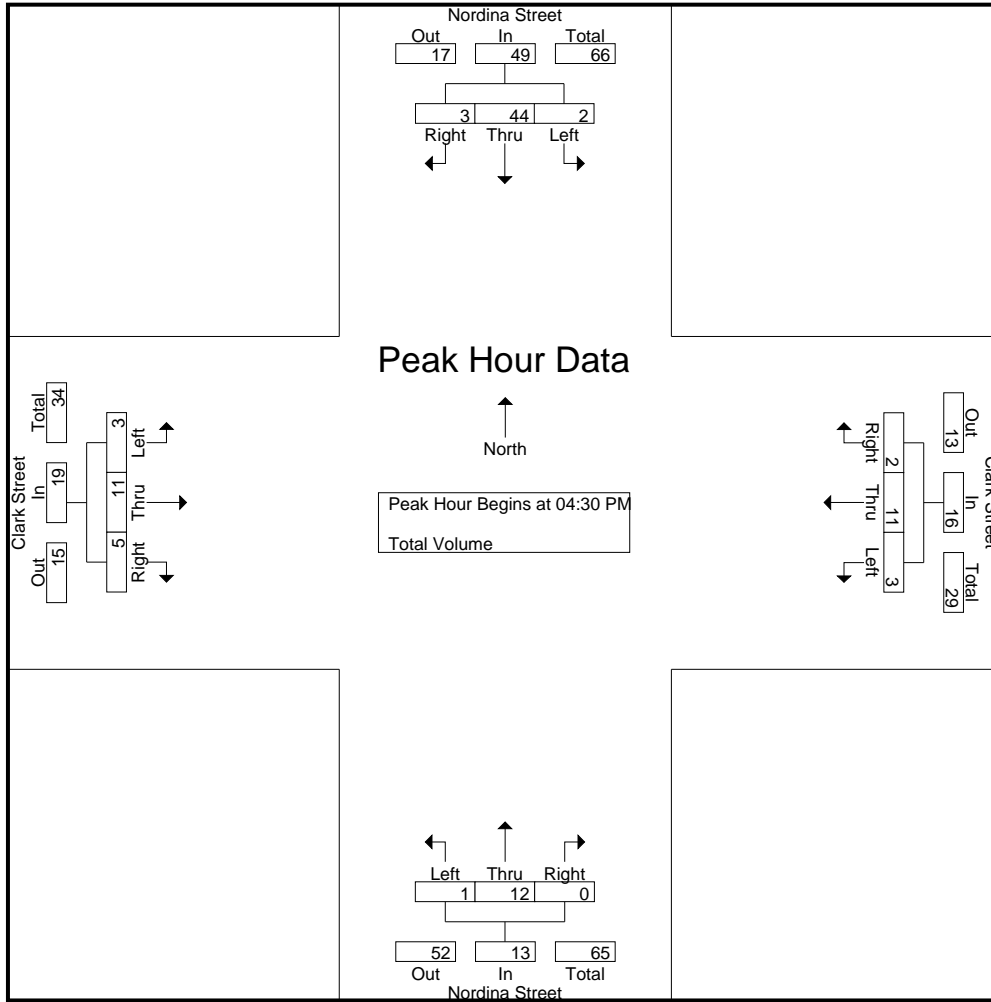
Start Time	Nordina Street Southbound				Clark Street Westbound				Nordina Street Northbound				Clark Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	1	10	1	12	2	2	0	4	0	3	0	3	1	2	1	4	23
04:45 PM	0	9	1	10	0	3	0	3	0	3	0	3	1	4	1	6	22
05:00 PM	1	9	0	10	0	2	1	3	1	3	0	4	1	1	3	5	22
05:15 PM	0	16	1	17	1	4	1	6	0	3	0	3	0	4	0	4	30
Total Volume	2	44	3	49	3	11	2	16	1	12	0	13	3	11	5	19	97
% App. Total	4.1	89.8	6.1		18.8	68.8	12.5		7.7	92.3	0		15.8	57.9	26.3		
PHF	.500	.688	.750	.721	.375	.688	.500	.667	.250	1.00	.000	.813	.750	.688	.417	.792	.808

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 Redlands
 N/S: Nordina Street
 E/W: Clark Street
 Weather: Clear

File Name : 097_RED_Nor_Clark PM
 Site Code : 221080
 Start Date : 12/15/2022
 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				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	1	10	1	12	0	3	0	3	1	3	1	5	1	4	1	6
+15 mins.	0	9	1	10	0	2	1	3	0	5	2	7	1	1	1	3
+30 mins.	1	9	0	10	1	4	1	6	0	3	0	3	0	4	0	4
+45 mins.	0	16	1	17	0	5	1	6	0	3	0	3	1	3	3	7
Total Volume	2	44	3	49	1	14	3	18	1	14	3	18	3	12	7	22
% App. Total	4.1	89.8	6.1		5.6	77.8	16.7		5.6	77.8	16.7		13.6	54.5	31.8	
PHF	.500	.688	.750	.721	.250	.700	.750	.750	.250	.700	.375	.643	.750	.750	.583	.786

City of Redlands
 N/S: Center Street
 E/W: Palm Avenue
 Weather: Clear

File Name : 098_RED_Cen_Palm PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Center Street Southbound				Palm Avenue Westbound				Center Street Northbound				Palm 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	8	66	2	76	10	11	6	27	1	50	4	55	2	32	3	37	195
04:15 PM	13	71	6	90	10	18	6	34	2	61	8	71	1	25	3	29	224
04:30 PM	9	73	2	84	3	15	6	24	1	52	7	60	2	19	4	25	193
04:45 PM	6	69	2	77	5	12	6	23	2	61	5	68	3	31	0	34	202
Total	36	279	12	327	28	56	24	108	6	224	24	254	8	107	10	125	814
05:00 PM	12	78	5	95	8	23	6	37	2	57	8	67	6	29	0	35	234
05:15 PM	7	87	11	105	6	21	3	30	2	46	8	56	1	23	6	30	221
05:30 PM	5	79	3	87	8	12	5	25	2	42	8	52	3	22	4	29	193
05:45 PM	9	79	2	90	6	13	13	32	2	51	6	59	1	17	4	22	203
Total	33	323	21	377	28	69	27	124	8	196	30	234	11	91	14	116	851
Grand Total	69	602	33	704	56	125	51	232	14	420	54	488	19	198	24	241	1665
Apprch %	9.8	85.5	4.7		24.1	53.9	22		2.9	86.1	11.1		7.9	82.2	10		
Total %	4.1	36.2	2	42.3	3.4	7.5	3.1	13.9	0.8	25.2	3.2	29.3	1.1	11.9	1.4	14.5	

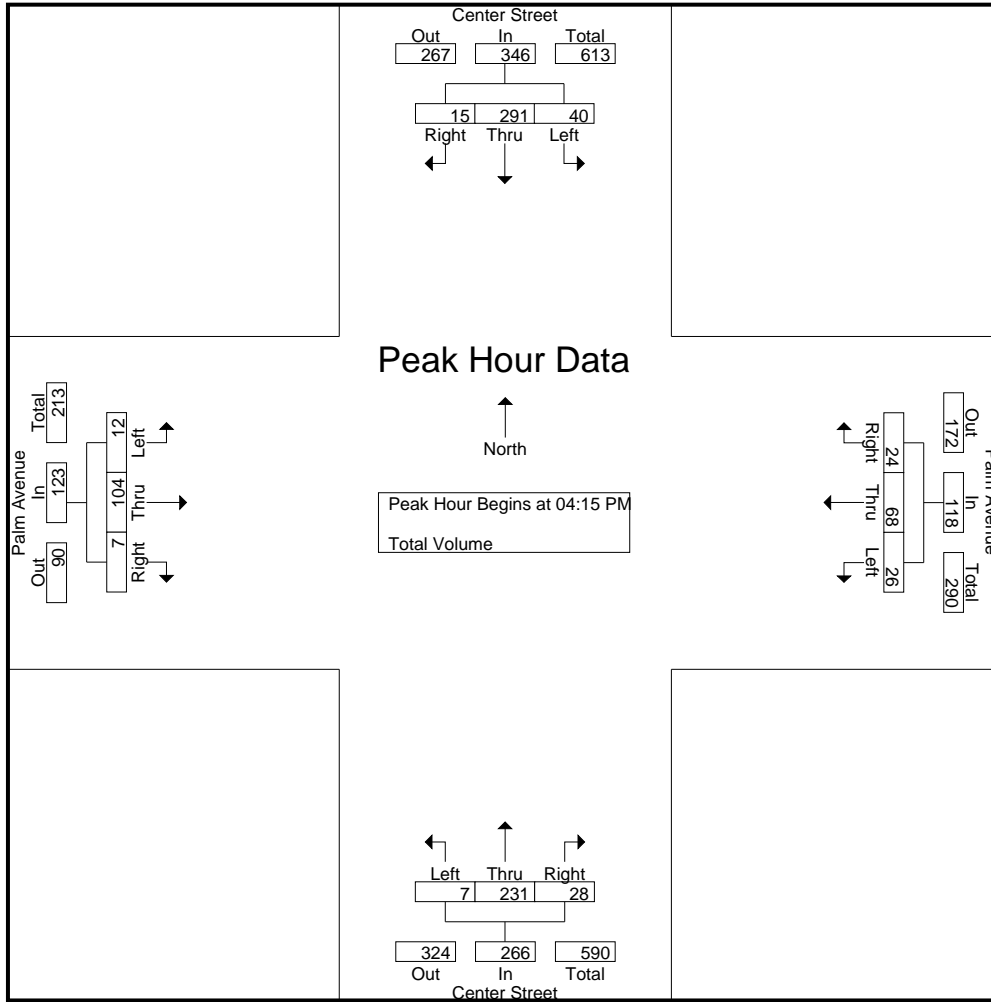
Start Time	Center Street Southbound				Palm Avenue Westbound				Center Street Northbound				Palm Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	13	71	6	90	10	18	6	34	2	61	8	71	1	25	3	29	224
04:30 PM	9	73	2	84	3	15	6	24	1	52	7	60	2	19	4	25	193
04:45 PM	6	69	2	77	5	12	6	23	2	61	5	68	3	31	0	34	202
05:00 PM	12	78	5	95	8	23	6	37	2	57	8	67	6	29	0	35	234
Total Volume	40	291	15	346	26	68	24	118	7	231	28	266	12	104	7	123	853
% App. Total	11.6	84.1	4.3		22	57.6	20.3		2.6	86.8	10.5		9.8	84.6	5.7		
PHF	.769	.933	.625	.911	.650	.739	1.00	.797	.875	.947	.875	.937	.500	.839	.438	.879	.911

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

Peak Hour for Entire Intersection Begins at 04:15 PM

City of Redlands
 N/S: Center Street
 E/W: Palm Avenue
 Weather: Clear

File Name : 098_RED_Cen_Palm PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				05:00 PM				04:15 PM				04:45 PM			
+0 mins.	12	78	5	95	8	23	6	37	2	61	8	71	3	31	0	34
+15 mins.	7	87	11	105	6	21	3	30	1	52	7	60	6	29	0	35
+30 mins.	5	79	3	87	8	12	5	25	2	61	5	68	1	23	6	30
+45 mins.	9	79	2	90	6	13	13	32	2	57	8	67	3	22	4	29
Total Volume	33	323	21	377	28	69	27	124	7	231	28	266	13	105	10	128
% App. Total	8.8	85.7	5.6		22.6	55.6	21.8		2.6	86.8	10.5		10.2	82	7.8	
PHF	.688	.928	.477	.898	.875	.750	.519	.838	.875	.947	.875	.937	.542	.847	.417	.914

City of Redlands
 N/S: Devonshire Drive
 E/W: Reservoir Road
 Weather: Clear

File Name : 099_RED_Dev_Res PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Devonshire Drive Southbound			Reservoir Road Westbound			Reservoir Road Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	2	2	4	18	1	19	5	18	23	46
04:15 PM	1	2	3	22	4	26	8	26	34	63
04:30 PM	2	4	6	21	1	22	5	22	27	55
04:45 PM	3	3	6	21	1	22	11	21	32	60
Total	8	11	19	82	7	89	29	87	116	224
05:00 PM	1	5	6	24	2	26	4	21	25	57
05:15 PM	0	5	5	15	4	19	8	64	72	96
05:30 PM	1	2	3	18	3	21	4	36	40	64
05:45 PM	3	1	4	22	2	24	5	50	55	83
Total	5	13	18	79	11	90	21	171	192	300
Grand Total	13	24	37	161	18	179	50	258	308	524
Apprch %	35.1	64.9		89.9	10.1		16.2	83.8		
Total %	2.5	4.6	7.1	30.7	3.4	34.2	9.5	49.2	58.8	

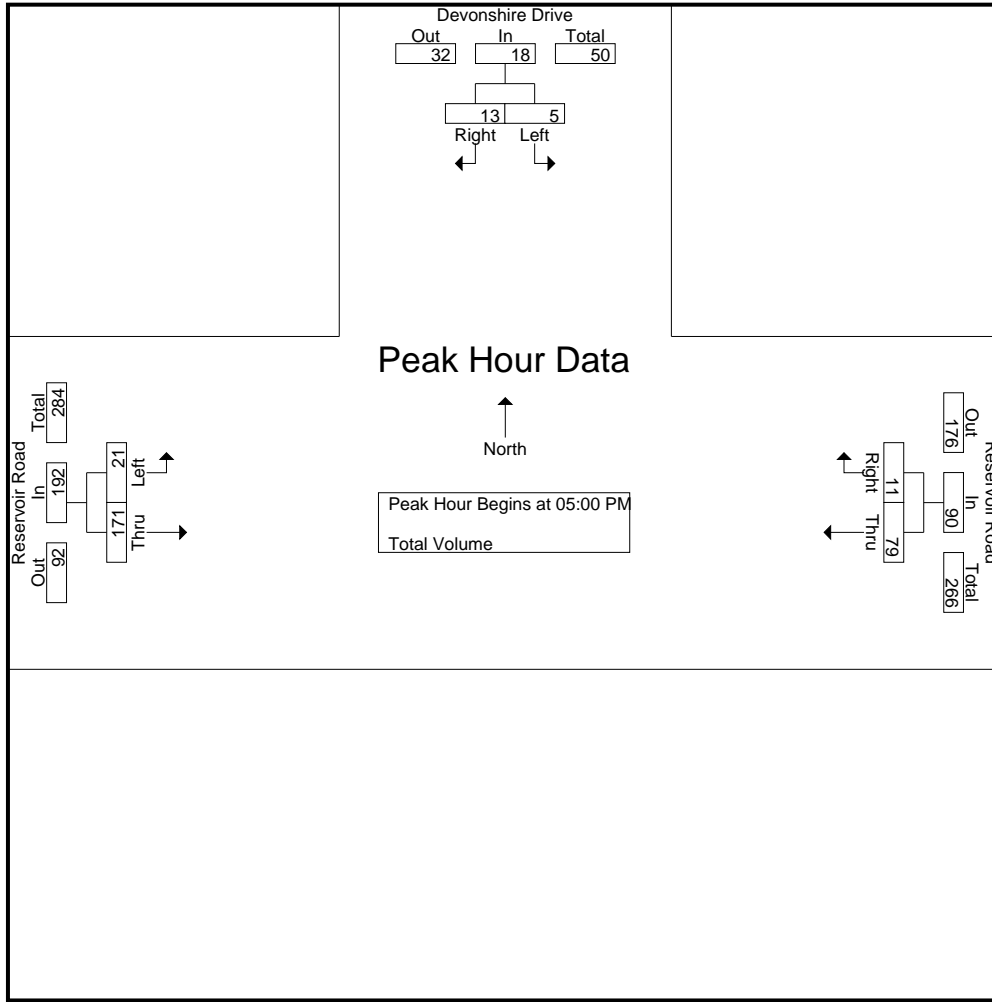
Start Time	Devonshire Drive Southbound			Reservoir Road Westbound			Reservoir Road Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
05:00 PM	1	5	6	24	2	26	4	21	25	57
05:15 PM	0	5	5	15	4	19	8	64	72	96
05:30 PM	1	2	3	18	3	21	4	36	40	64
05:45 PM	3	1	4	22	2	24	5	50	55	83
Total Volume	5	13	18	79	11	90	21	171	192	300
% App. Total	27.8	72.2		87.8	12.2		10.9	89.1		
PHF	.417	.650	.750	.823	.688	.865	.656	.668	.667	.781

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Devonshire Drive
 E/W: Reservoir Road
 Weather: Clear

File Name : 099_RED_Dev_Res PM
 Site Code : 221080
 Start Date : 12/13/2022
 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			04:15 PM			05:00 PM		
+0 mins.	2	4	6	22	4	26	4	21	25
+15 mins.	3	3	6	21	1	22	8	64	72
+30 mins.	1	5	6	21	1	22	4	36	40
+45 mins.	0	5	5	24	2	26	5	50	55
Total Volume	6	17	23	88	8	96	21	171	192
% App. Total	26.1	73.9		91.7	8.3		10.9	89.1	
PHF	.500	.850	.958	.917	.500	.923	.656	.668	.667

City of Redlands
 N/S: Church Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 100_RED_Chur_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Church Street Southbound				San Bernardino Avenue Westbound				Church Street Northbound				San Bernardino 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	8	20	9	37	5	44	10	59	18	33	6	57	10	92	13	115	268
04:15 PM	9	24	6	39	6	40	7	53	12	32	7	51	7	73	18	98	241
04:30 PM	7	22	9	38	2	56	8	66	8	38	8	54	5	94	19	118	276
04:45 PM	8	26	5	39	10	66	11	87	16	35	10	61	13	105	30	148	335
Total	32	92	29	153	23	206	36	265	54	138	31	223	35	364	80	479	1120
05:00 PM	11	30	12	53	6	72	10	88	18	30	8	56	8	99	25	132	329
05:15 PM	9	30	4	43	3	56	13	72	15	29	11	55	13	110	24	147	317
05:30 PM	14	21	6	41	7	52	3	62	26	44	9	79	10	112	36	158	340
05:45 PM	11	24	10	45	11	47	6	64	6	31	6	43	3	118	16	137	289
Total	45	105	32	182	27	227	32	286	65	134	34	233	34	439	101	574	1275
Grand Total	77	197	61	335	50	433	68	551	119	272	65	456	69	803	181	1053	2395
Apprch %	23	58.8	18.2		9.1	78.6	12.3		26.1	59.6	14.3		6.6	76.3	17.2		
Total %	3.2	8.2	2.5	14	2.1	18.1	2.8	23	5	11.4	2.7	19	2.9	33.5	7.6	44	

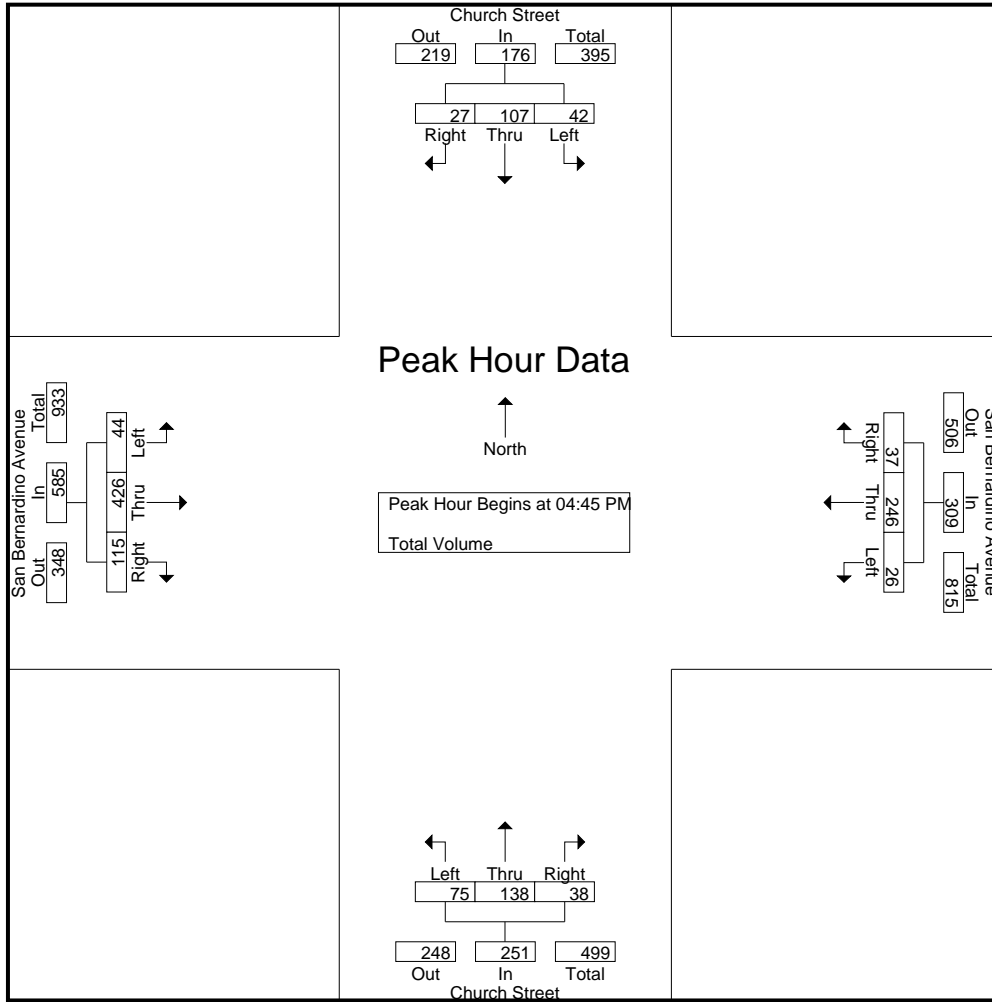
Start Time	Church Street Southbound				San Bernardino Avenue Westbound				Church Street Northbound				San Bernardino Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	8	26	5	39	10	66	11	87	16	35	10	61	13	105	30	148	335
05:00 PM	11	30	12	53	6	72	10	88	18	30	8	56	8	99	25	132	329
05:15 PM	9	30	4	43	3	56	13	72	15	29	11	55	13	110	24	147	317
05:30 PM	14	21	6	41	7	52	3	62	26	44	9	79	10	112	36	158	340
Total Volume	42	107	27	176	26	246	37	309	75	138	38	251	44	426	115	585	1321
% App. Total	23.9	60.8	15.3		8.4	79.6	12		29.9	55	15.1		7.5	72.8	19.7		
PHF	.750	.892	.563	.830	.650	.854	.712	.878	.721	.784	.864	.794	.846	.951	.799	.926	.971

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

Peak Hour for Entire Intersection Begins at 04:45 PM

City of Redlands
 N/S: Church Street
 E/W: San Bernardino Avenue
 Weather: Clear

File Name : 100_RED_Chur_San B PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:30 PM				04:45 PM				04:45 PM			
+0 mins.	11	30	12	53	2	56	8	66	16	35	10	61	13	105	30	148
+15 mins.	9	30	4	43	10	66	11	87	18	30	8	56	8	99	25	132
+30 mins.	14	21	6	41	6	72	10	88	15	29	11	55	13	110	24	147
+45 mins.	11	24	10	45	3	56	13	72	26	44	9	79	10	112	36	158
Total Volume	45	105	32	182	21	250	42	313	75	138	38	251	44	426	115	585
% App. Total	24.7	57.7	17.6		6.7	79.9	13.4		29.9	55	15.1		7.5	72.8	19.7	
PHF	.804	.875	.667	.858	.525	.868	.808	.889	.721	.784	.864	.794	.846	.951	.799	.926

City of Redlands
 N/S: San Mateo Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 101_RED_San M_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	San Mateo Street Southbound				Fern Avenue Westbound				San Mateo Street Northbound				Fern 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	5	81	6	92	1	19	12	32	6	54	4	64	13	30	13	56	244
04:15 PM	8	84	6	98	4	12	8	24	3	45	2	50	7	36	9	52	224
04:30 PM	10	94	4	108	1	20	8	29	3	41	0	44	5	35	9	49	230
04:45 PM	13	113	4	130	2	24	9	35	5	45	3	53	12	34	14	60	278
Total	36	372	20	428	8	75	37	120	17	185	9	211	37	135	45	217	976
05:00 PM	13	119	3	135	2	19	9	30	8	39	1	48	5	22	12	39	252
05:15 PM	10	106	2	118	2	16	6	24	6	47	1	54	7	34	12	53	249
05:30 PM	9	83	5	97	3	13	10	26	4	46	2	52	10	26	7	43	218
05:45 PM	12	87	1	100	0	10	9	19	8	45	2	55	10	25	12	47	221
Total	44	395	11	450	7	58	34	99	26	177	6	209	32	107	43	182	940
Grand Total	80	767	31	878	15	133	71	219	43	362	15	420	69	242	88	399	1916
Apprch %	9.1	87.4	3.5		6.8	60.7	32.4		10.2	86.2	3.6		17.3	60.7	22.1		
Total %	4.2	40	1.6	45.8	0.8	6.9	3.7	11.4	2.2	18.9	0.8	21.9	3.6	12.6	4.6	20.8	

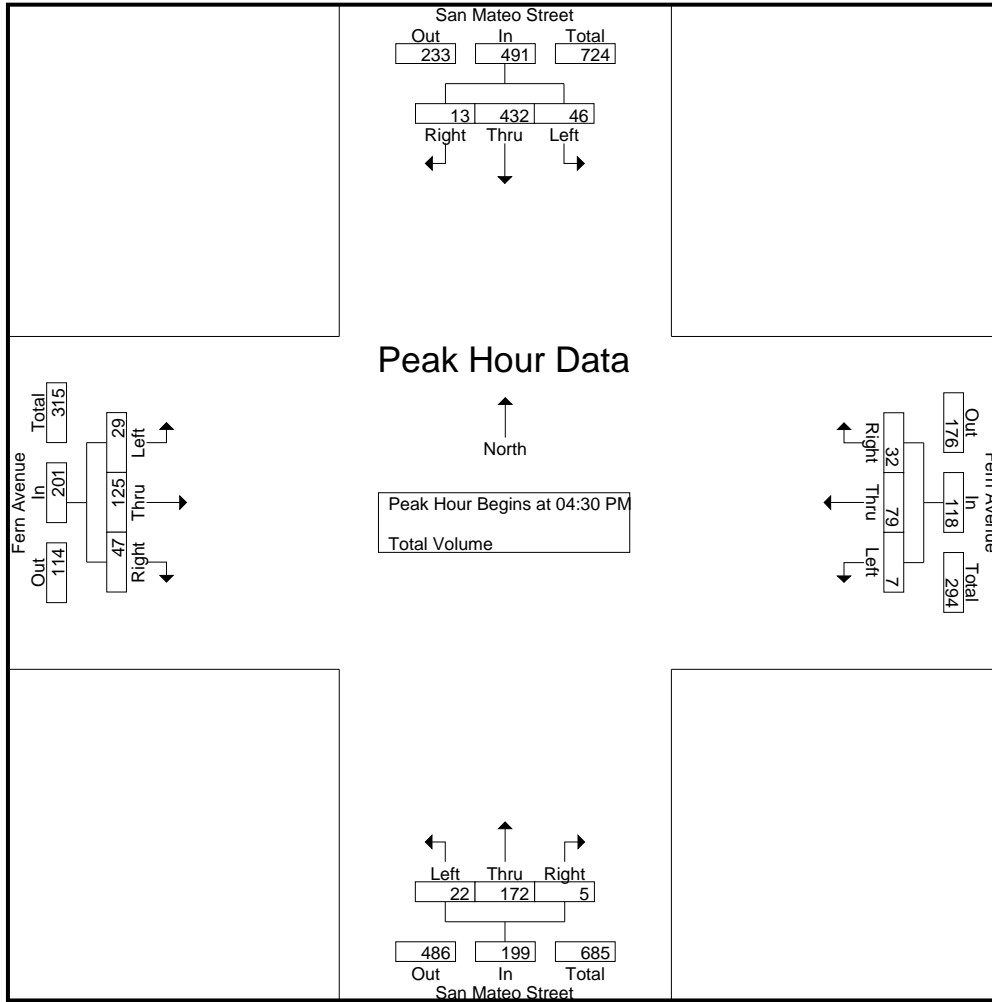
Start Time	San Mateo Street Southbound				Fern Avenue Westbound				San Mateo Street Northbound				Fern Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	10	94	4	108	1	20	8	29	3	41	0	44	5	35	9	49	230
04:45 PM	13	113	4	130	2	24	9	35	5	45	3	53	12	34	14	60	278
05:00 PM	13	119	3	135	2	19	9	30	8	39	1	48	5	22	12	39	252
05:15 PM	10	106	2	118	2	16	6	24	6	47	1	54	7	34	12	53	249
Total Volume	46	432	13	491	7	79	32	118	22	172	5	199	29	125	47	201	1009
% App. Total	9.4	88	2.6		5.9	66.9	27.1		11.1	86.4	2.5		14.4	62.2	23.4		
PHF	.885	.908	.813	.909	.875	.823	.889	.843	.688	.915	.417	.921	.604	.893	.839	.838	.907

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 Redlands
 N/S: San Mateo Street
 E/W: Fern Avenue
 Weather: Clear

File Name : 101_RED_San M_Fern PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	10	94	4	108	1	19	12	32	6	54	4	64	13	30	13	56
+15 mins.	13	113	4	130	4	12	8	24	3	45	2	50	7	36	9	52
+30 mins.	13	119	3	135	1	20	8	29	3	41	0	44	5	35	9	49
+45 mins.	10	106	2	118	2	24	9	35	5	45	3	53	12	34	14	60
Total Volume	46	432	13	491	8	75	37	120	17	185	9	211	37	135	45	217
% App. Total	9.4	88	2.6		6.7	62.5	30.8		8.1	87.7	4.3		17.1	62.2	20.7	
PHF	.885	.908	.813	.909	.500	.781	.771	.857	.708	.856	.563	.824	.712	.938	.804	.904

City of Redlands
 N/S: Wabash Avenue
 E/W: E Sunset Drive N
 Weather: Clear

File Name : 102_RED_Wab_Sunset N PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Wabash Avenue Southbound				E Sunset Drive N Westbound				Wabash Avenue Northbound				E Sunset Drive N 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	3	14	9	26	2	0	0	2	2	12	0	14	5	4	3	12	54
04:15 PM	4	14	10	28	1	1	2	4	6	19	0	25	5	3	5	13	70
04:30 PM	0	16	8	24	0	1	2	3	2	14	1	17	6	3	4	13	57
04:45 PM	6	11	6	23	0	1	2	3	1	11	0	12	4	11	3	18	56
Total	13	55	33	101	3	3	6	12	11	56	1	68	20	21	15	56	237
05:00 PM	2	14	5	21	0	2	4	6	2	15	0	17	5	5	2	12	56
05:15 PM	15	24	7	46	0	4	2	6	2	10	1	13	5	19	3	27	92
05:30 PM	24	19	3	46	0	4	4	8	6	9	1	16	11	28	4	43	113
05:45 PM	19	25	4	48	0	0	2	2	3	18	1	22	7	19	8	34	106
Total	60	82	19	161	0	10	12	22	13	52	3	68	28	71	17	116	367
Grand Total	73	137	52	262	3	13	18	34	24	108	4	136	48	92	32	172	604
Apprch %	27.9	52.3	19.8		8.8	38.2	52.9		17.6	79.4	2.9		27.9	53.5	18.6		
Total %	12.1	22.7	8.6	43.4	0.5	2.2	3	5.6	4	17.9	0.7	22.5	7.9	15.2	5.3	28.5	

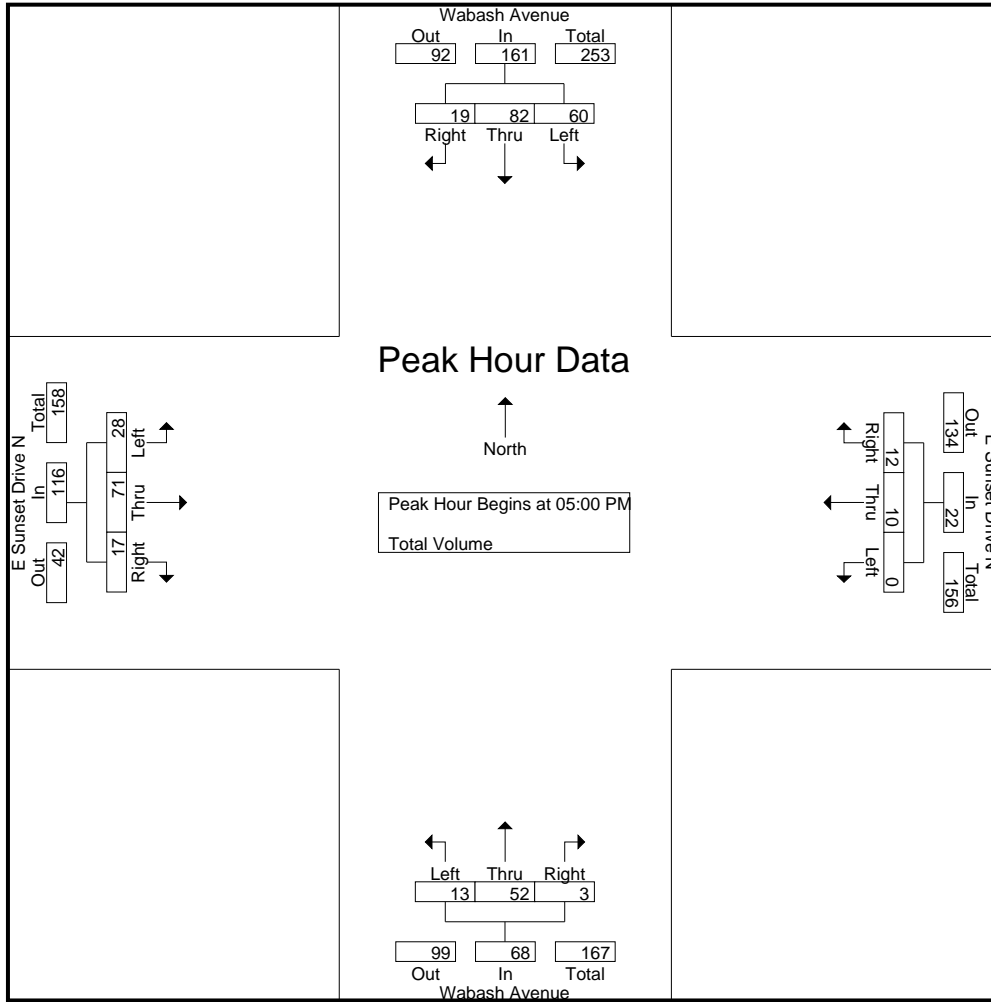
Start Time	Wabash Avenue Southbound				E Sunset Drive N Westbound				Wabash Avenue Northbound				E Sunset Drive N Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	2	14	5	21	0	2	4	6	2	15	0	17	5	5	2	12	56
05:15 PM	15	24	7	46	0	4	2	6	2	10	1	13	5	19	3	27	92
05:30 PM	24	19	3	46	0	4	4	8	6	9	1	16	11	28	4	43	113
05:45 PM	19	25	4	48	0	0	2	2	3	18	1	22	7	19	8	34	106
Total Volume	60	82	19	161	0	10	12	22	13	52	3	68	28	71	17	116	367
% App. Total	37.3	50.9	11.8		0	45.5	54.5		19.1	76.5	4.4		24.1	61.2	14.7		
PHF	.625	.820	.679	.839	.000	.625	.750	.688	.542	.722	.750	.773	.636	.634	.531	.674	.812

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Wabash Avenue
 E/W: E Sunset Drive N
 Weather: Clear

File Name : 102_RED_Wab_Sunset N PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:45 PM				04:15 PM				05:00 PM			
+0 mins.	2	14	5	21	0	1	2	3	6	19	0	25	5	5	2	12
+15 mins.	15	24	7	46	0	2	4	6	2	14	1	17	5	19	3	27
+30 mins.	24	19	3	46	0	4	2	6	1	11	0	12	11	28	4	43
+45 mins.	19	25	4	48	0	4	4	8	2	15	0	17	7	19	8	34
Total Volume	60	82	19	161	0	11	12	23	11	59	1	71	28	71	17	116
% App. Total	37.3	50.9	11.8		0	47.8	52.2		15.5	83.1	1.4		24.1	61.2	14.7	
PHF	.625	.820	.679	.839	.000	.688	.750	.719	.458	.776	.250	.710	.636	.634	.531	.674

City of Redlands
 N/S: Tennessee Street
 E/W: Orange Avenue/Pine Avenue
 Weather: Clear

File Name : 103_RED_Tenn_Oran PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

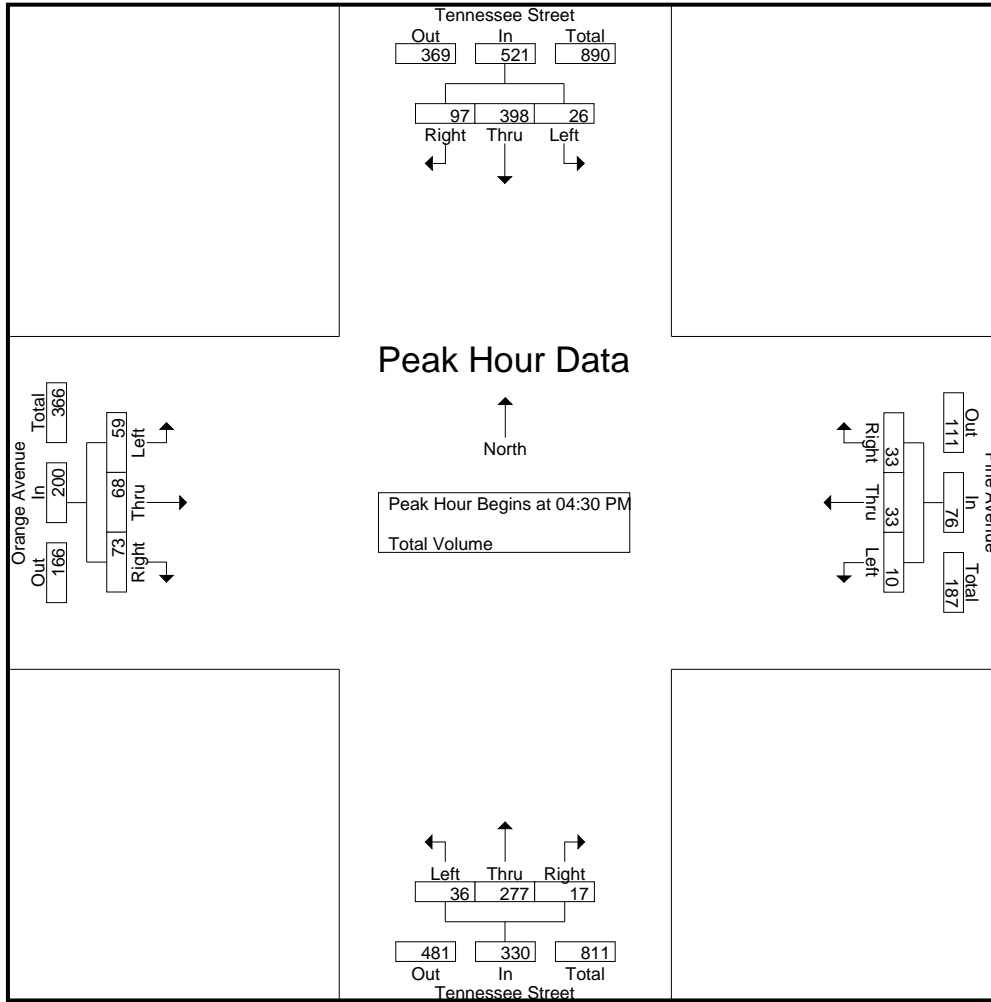
Start Time	Tennessee Street Southbound				Pine Avenue Westbound				Tennessee Street Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	92	24	123	2	10	6	18	4	73	0	77	12	15	12	39	257
04:15 PM	8	94	20	122	2	3	5	10	13	70	6	89	17	13	9	39	260
04:30 PM	7	84	13	104	4	10	11	25	9	69	4	82	19	12	17	48	259
04:45 PM	6	106	28	140	3	6	5	14	10	73	4	87	13	18	25	56	297
Total	28	376	85	489	11	29	27	67	36	285	14	335	61	58	63	182	1073
05:00 PM	5	104	33	142	1	5	10	16	11	68	2	81	15	17	20	52	291
05:15 PM	8	104	23	135	2	12	7	21	6	67	7	80	12	21	11	44	280
05:30 PM	5	76	16	97	6	3	12	21	3	59	6	68	13	17	11	41	227
05:45 PM	11	86	17	114	2	3	9	14	10	58	4	72	20	20	16	56	256
Total	29	370	89	488	11	23	38	72	30	252	19	301	60	75	58	193	1054
Grand Total	57	746	174	977	22	52	65	139	66	537	33	636	121	133	121	375	2127
Apprch %	5.8	76.4	17.8		15.8	37.4	46.8		10.4	84.4	5.2		32.3	35.5	32.3		
Total %	2.7	35.1	8.2	45.9	1	2.4	3.1	6.5	3.1	25.2	1.6	29.9	5.7	6.3	5.7	17.6	

Start Time	Tennessee Street Southbound				Pine Avenue Westbound				Tennessee Street Northbound				Orange 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	7	84	13	104	4	10	11	25	9	69	4	82	19	12	17	48	259
04:45 PM	6	106	28	140	3	6	5	14	10	73	4	87	13	18	25	56	297
05:00 PM	5	104	33	142	1	5	10	16	11	68	2	81	15	17	20	52	291
05:15 PM	8	104	23	135	2	12	7	21	6	67	7	80	12	21	11	44	280
Total Volume	26	398	97	521	10	33	33	76	36	277	17	330	59	68	73	200	1127
% App. Total	5	76.4	18.6		13.2	43.4	43.4		10.9	83.9	5.2		29.5	34	36.5		
PHF	.813	.939	.735	.917	.625	.688	.750	.760	.818	.949	.607	.948	.776	.810	.730	.893	.949

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 Redlands
 N/S: Tennessee Street
 E/W: Orange Avenue/Pine Avenue
 Weather: Clear

File Name : 103_RED_Tenn_Oran PM
 Site Code : 221080
 Start Date : 12/13/2022
 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				04:30 PM			
+0 mins.	7	84	13	104	4	10	11	25	13	70	6	89	19	12	17	48
+15 mins.	6	106	28	140	3	6	5	14	9	69	4	82	13	18	25	56
+30 mins.	5	104	33	142	1	5	10	16	10	73	4	87	15	17	20	52
+45 mins.	8	104	23	135	2	12	7	21	11	68	2	81	12	21	11	44
Total Volume	26	398	97	521	10	33	33	76	43	280	16	339	59	68	73	200
% App. Total	5	76.4	18.6		13.2	43.4	43.4		12.7	82.6	4.7		29.5	34	36.5	
PHF	.813	.939	.735	.917	.625	.688	.750	.760	.827	.959	.667	.952	.776	.810	.730	.893

City of Redlands
 N/S: Wabash Avenue
 E/W: Brockton Avenue/Nice Avenue
 Weather: Clear

File Name : 104_RED_Wab_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Wabash Avenue Southbound				Nice Avenue Westbound				Wabash Avenue Northbound				Brockton 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	9	52	13	74	6	12	13	31	2	68	4	74	11	8	3	22	201
04:15 PM	10	72	10	92	4	7	12	23	9	41	4	54	8	11	5	24	193
04:30 PM	13	67	15	95	4	11	17	32	2	71	5	78	12	8	5	25	230
04:45 PM	16	75	14	105	4	5	18	27	2	65	0	67	9	4	3	16	215
Total	48	266	52	366	18	35	60	113	15	245	13	273	40	31	16	87	839
05:00 PM	13	95	13	121	3	8	19	30	4	53	1	58	10	3	3	16	225
05:15 PM	20	91	12	123	3	8	9	20	5	65	3	73	15	9	3	27	243
05:30 PM	19	85	13	117	2	8	9	19	3	59	3	65	10	11	2	23	224
05:45 PM	11	90	15	116	5	8	14	27	2	41	2	45	4	10	5	19	207
Total	63	361	53	477	13	32	51	96	14	218	9	241	39	33	13	85	899
Grand Total	111	627	105	843	31	67	111	209	29	463	22	514	79	64	29	172	1738
Apprch %	13.2	74.4	12.5		14.8	32.1	53.1		5.6	90.1	4.3		45.9	37.2	16.9		
Total %	6.4	36.1	6	48.5	1.8	3.9	6.4	12	1.7	26.6	1.3	29.6	4.5	3.7	1.7	9.9	

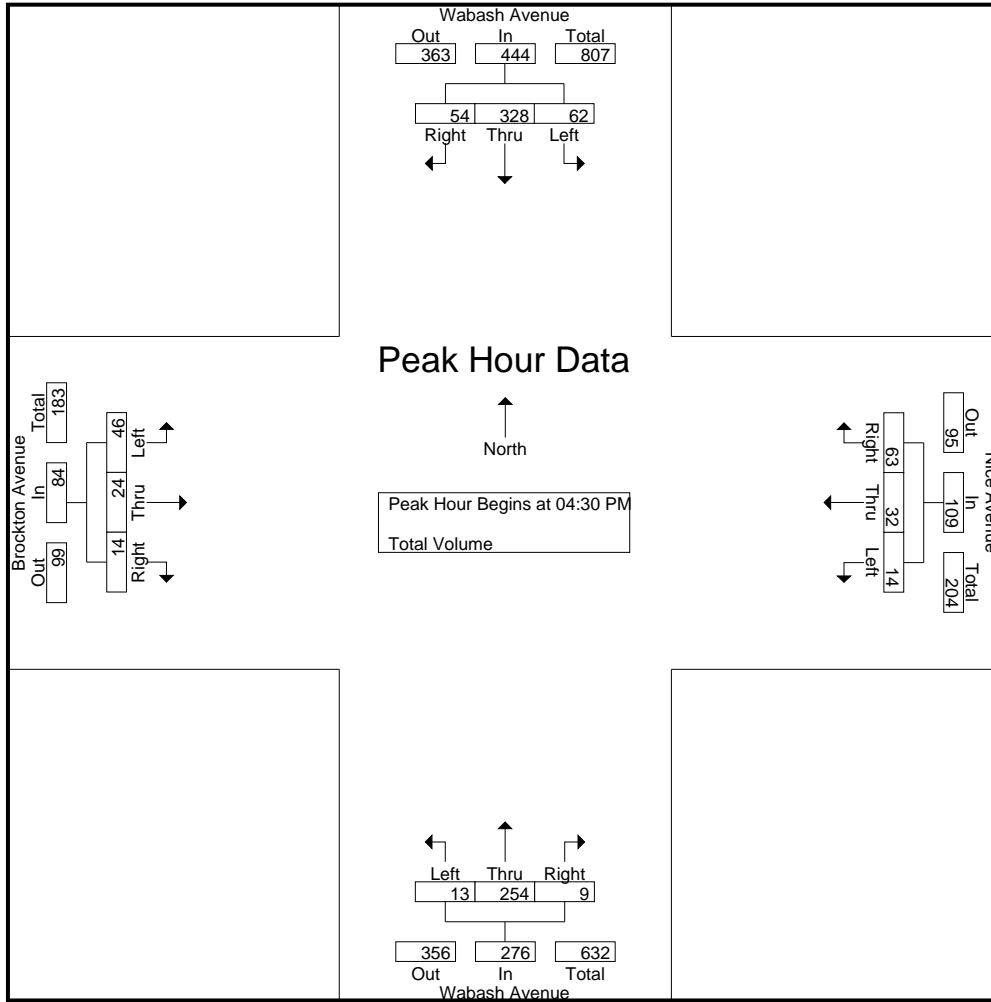
Start Time	Wabash Avenue Southbound				Nice Avenue Westbound				Wabash Avenue Northbound				Brockton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	13	67	15	95	4	11	17	32	2	71	5	78	12	8	5	25	230
04:45 PM	16	75	14	105	4	5	18	27	2	65	0	67	9	4	3	16	215
05:00 PM	13	95	13	121	3	8	19	30	4	53	1	58	10	3	3	16	225
05:15 PM	20	91	12	123	3	8	9	20	5	65	3	73	15	9	3	27	243
Total Volume	62	328	54	444	14	32	63	109	13	254	9	276	46	24	14	84	913
% App. Total	14	73.9	12.2		12.8	29.4	57.8		4.7	92	3.3		54.8	28.6	16.7		
PHF	.775	.863	.900	.902	.875	.727	.829	.852	.650	.894	.450	.885	.767	.667	.700	.778	.939

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 Redlands
 N/S: Wabash Avenue
 E/W: Brockton Avenue/Nice Avenue
 Weather: Clear

File Name : 104_RED_Wab_Brock PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

	05:00 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	13	95	13	121	6	12	13	31	2	71	5	78	11	8	3	22
+15 mins.	20	91	12	123	4	7	12	23	2	65	0	67	8	11	5	24
+30 mins.	19	85	13	117	4	11	17	32	4	53	1	58	12	8	5	25
+45 mins.	11	90	15	116	4	5	18	27	5	65	3	73	9	4	3	16
Total Volume	63	361	53	477	18	35	60	113	13	254	9	276	40	31	16	87
% App. Total	13.2	75.7	11.1		15.9	31	53.1		4.7	92	3.3		46	35.6	18.4	
PHF	.788	.950	.883	.970	.750	.729	.833	.883	.650	.894	.450	.885	.833	.705	.800	.870

City of Redlands
 N/S: Wabash Avenue
 E/W: Colton Avenue
 Weather: Clear

File Name : 105_RED_Wab_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 Page No : 1

Groups Printed- Total Volume

Start Time	Wabash Avenue Southbound				Colton Avenue Westbound				Wabash Avenue Northbound				Colton 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	7	49	18	74	4	39	7	50	3	42	10	55	17	43	7	67	246
04:15 PM	11	49	16	76	2	24	7	33	6	31	5	42	17	31	2	50	201
04:30 PM	7	55	17	79	2	39	8	49	4	54	3	61	14	42	6	62	251
04:45 PM	13	54	18	85	2	23	5	30	3	51	1	55	9	21	8	38	208
Total	38	207	69	314	10	125	27	162	16	178	19	213	57	137	23	217	906
05:00 PM	9	76	18	103	2	27	4	33	5	34	4	43	19	34	9	62	241
05:15 PM	6	79	21	106	3	18	11	32	3	44	4	51	21	29	10	60	249
05:30 PM	11	62	17	90	3	27	6	36	3	38	3	44	20	32	29	81	251
05:45 PM	17	73	11	101	6	16	8	30	4	30	2	36	11	22	13	46	213
Total	43	290	67	400	14	88	29	131	15	146	13	174	71	117	61	249	954
Grand Total	81	497	136	714	24	213	56	293	31	324	32	387	128	254	84	466	1860
Apprch %	11.3	69.6	19		8.2	72.7	19.1		8	83.7	8.3		27.5	54.5	18		
Total %	4.4	26.7	7.3	38.4	1.3	11.5	3	15.8	1.7	17.4	1.7	20.8	6.9	13.7	4.5	25.1	

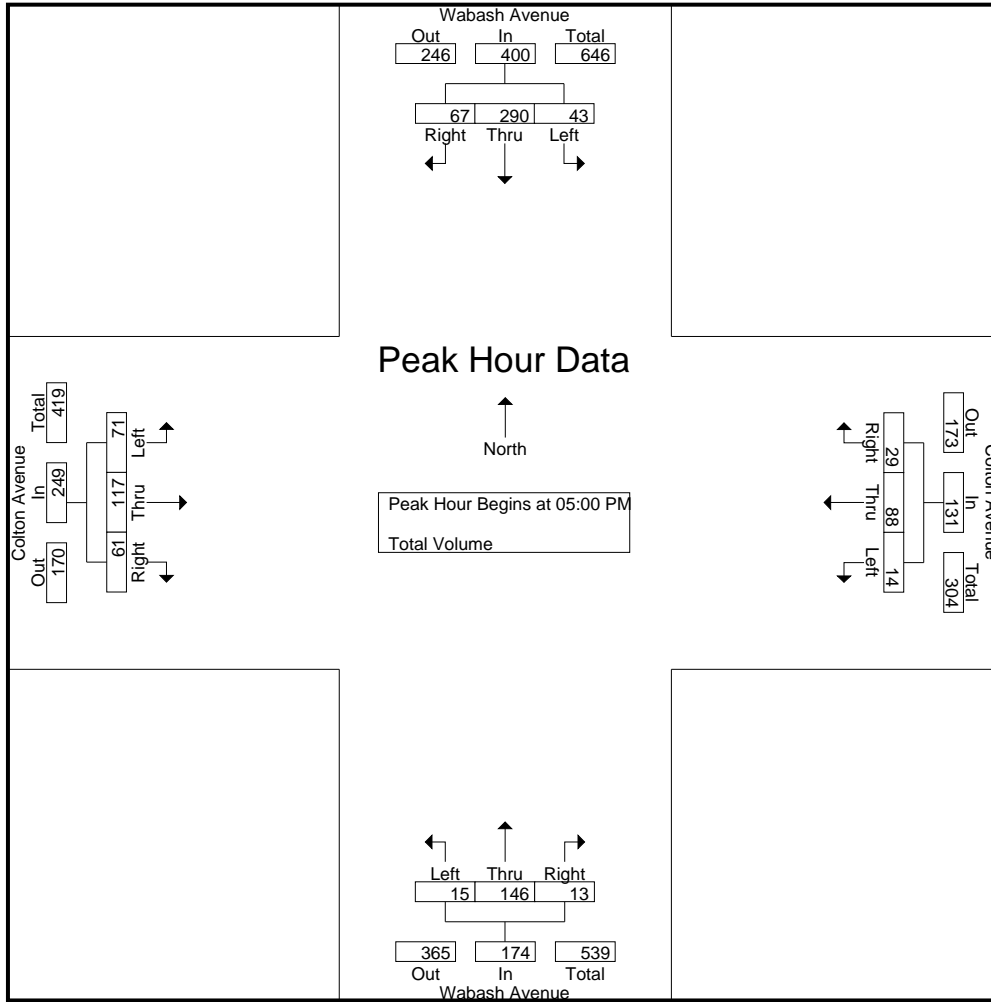
Start Time	Wabash Avenue Southbound				Colton Avenue Westbound				Wabash Avenue Northbound				Colton Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	9	76	18	103	2	27	4	33	5	34	4	43	19	34	9	62	241
05:15 PM	6	79	21	106	3	18	11	32	3	44	4	51	21	29	10	60	249
05:30 PM	11	62	17	90	3	27	6	36	3	38	3	44	20	32	29	81	251
05:45 PM	17	73	11	101	6	16	8	30	4	30	2	36	11	22	13	46	213
Total Volume	43	290	67	400	14	88	29	131	15	146	13	174	71	117	61	249	954
% App. Total	10.8	72.5	16.8		10.7	67.2	22.1		8.6	83.9	7.5		28.5	47	24.5		
PHF	.632	.918	.798	.943	.583	.815	.659	.910	.750	.830	.813	.853	.845	.860	.526	.769	.950

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

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Redlands
 N/S: Wabash Avenue
 E/W: Colton Avenue
 Weather: Clear

File Name : 105_RED_Wab_Colton PM
 Site Code : 221080
 Start Date : 12/13/2022
 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:

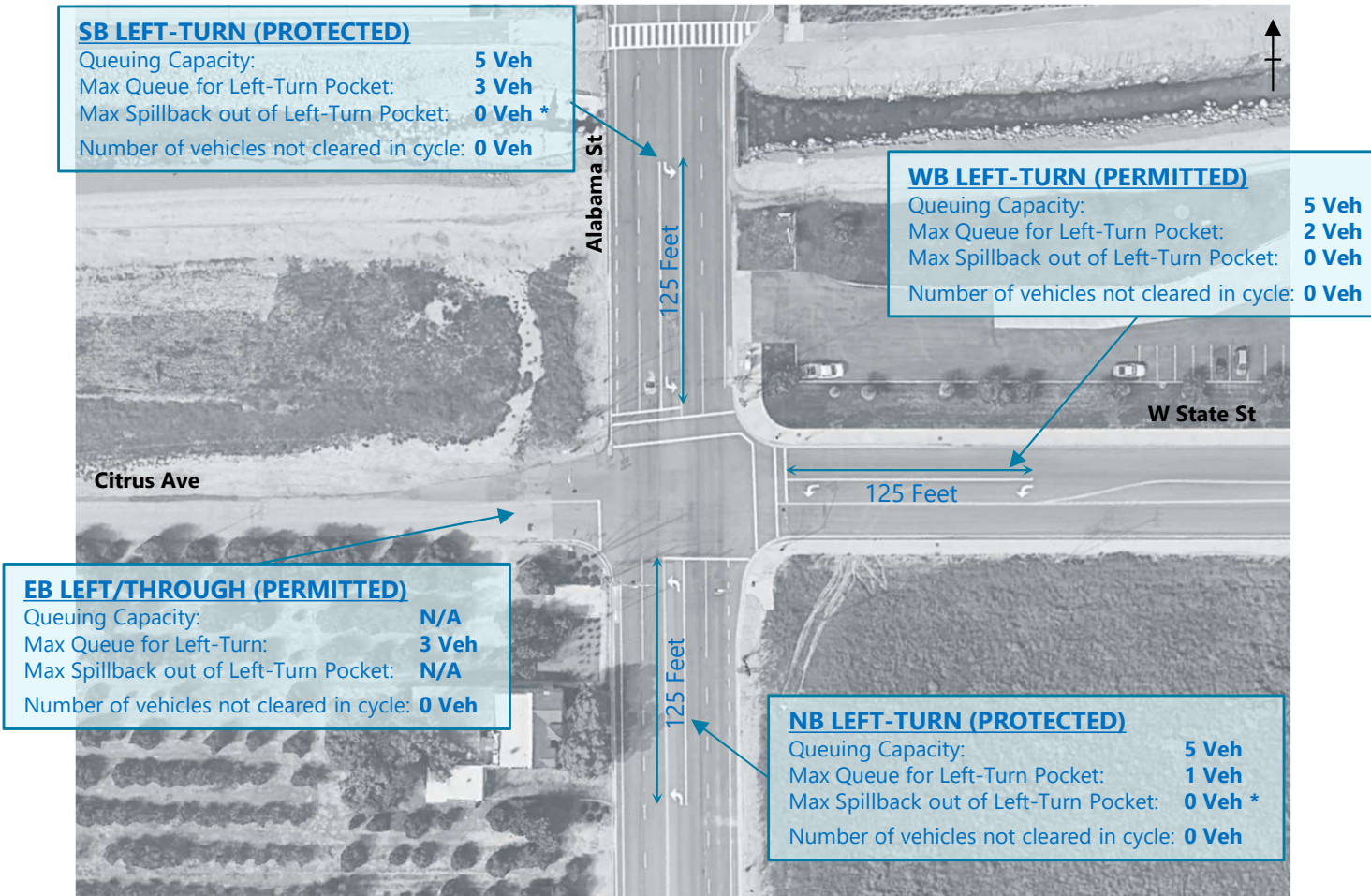
	05:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	9	76	18	103	4	39	7	50	3	42	10	55	19	34	9	62
+15 mins.	6	79	21	106	2	24	7	33	6	31	5	42	21	29	10	60
+30 mins.	11	62	17	90	2	39	8	49	4	54	3	61	20	32	29	81
+45 mins.	17	73	11	101	2	23	5	30	3	51	1	55	11	22	13	46
Total Volume	43	290	67	400	10	125	27	162	16	178	19	213	71	117	61	249
% App. Total	10.8	72.5	16.8		6.2	77.2	16.7		7.5	83.6	8.9		28.5	47	24.5	
PHF	.632	.918	.798	.943	.625	.801	.844	.810	.667	.824	.475	.873	.845	.860	.526	.769

APPENDIX B

EVALUATION OF STUDY INTERSECTIONS WITH NO LEFT-TURN ISSUES

INT #1: ALABAMA ST & CITRUS AVE / STATE ST

Existing

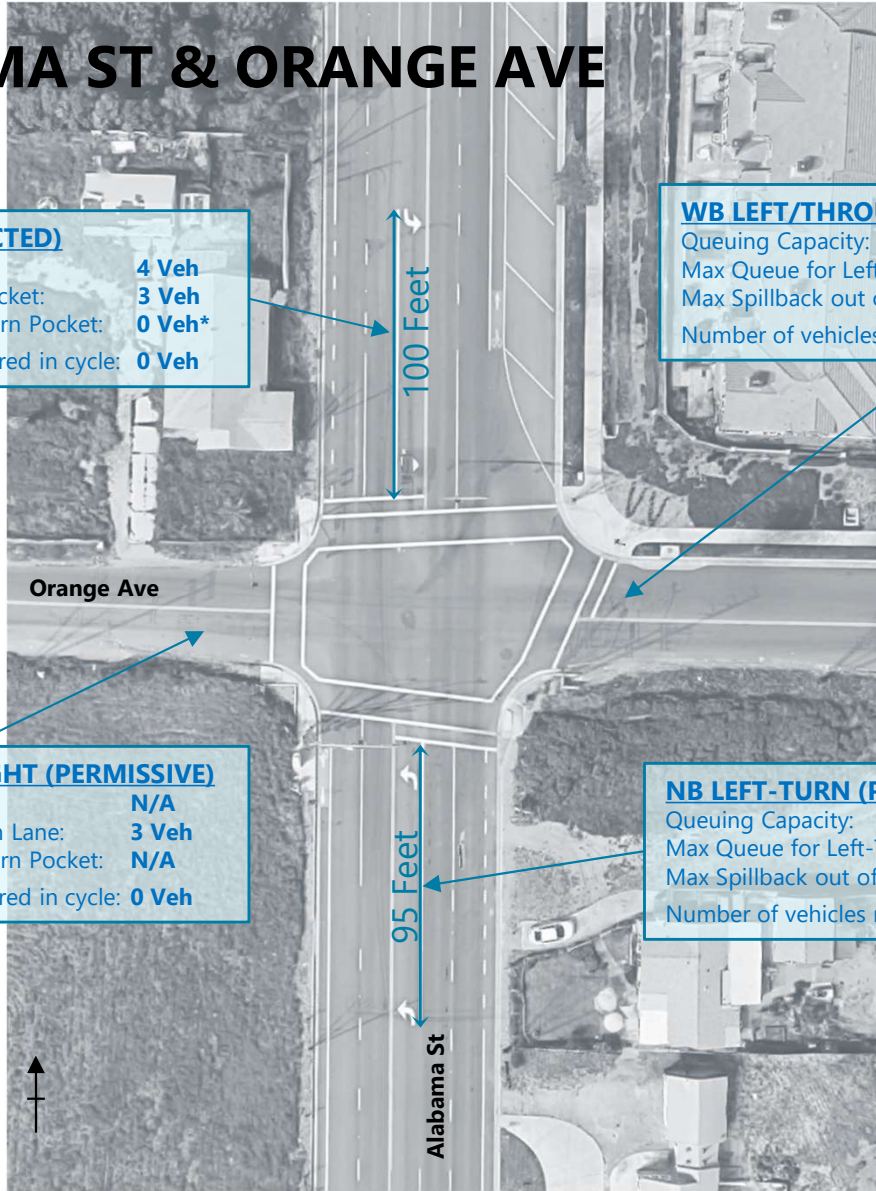


No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #3: ALABAMA ST & ORANGE AVE

Existing



SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/through Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH/RIGHT (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

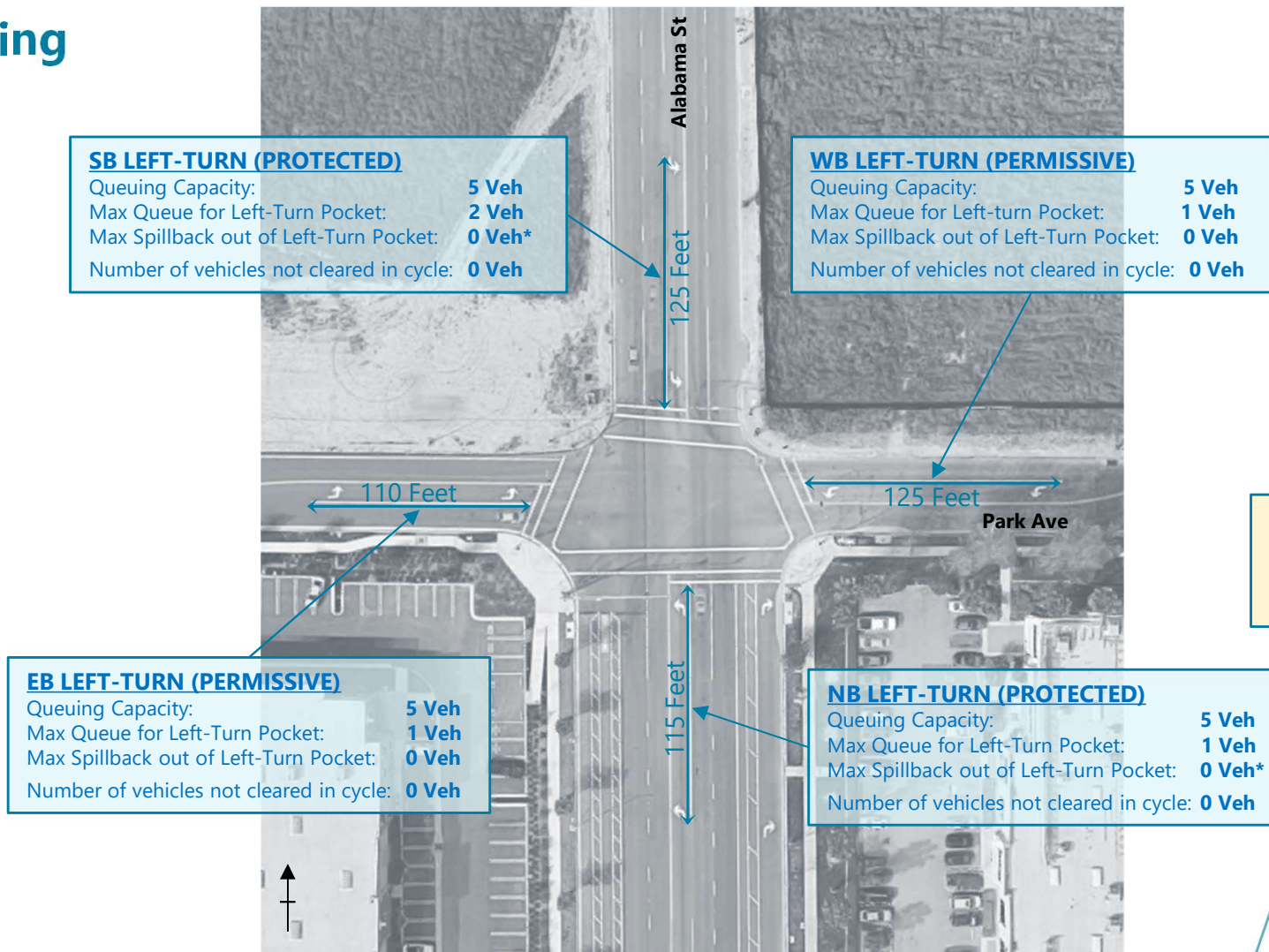
No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #4: ALABAMA ST & PARK AVE

Existing



No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



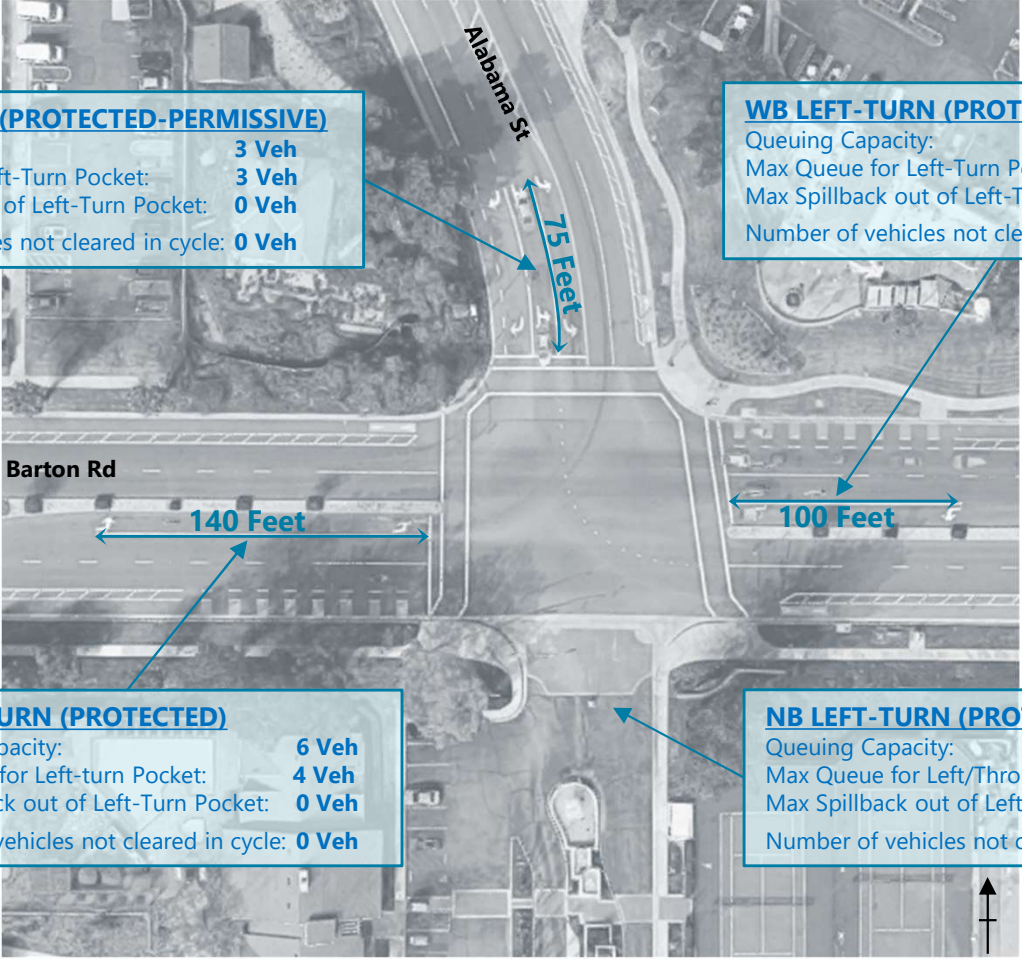
INT #5: BARTON RD & ALABAMA ST

Existing

No left-turn queuing issues were identified

SB LEFT-TURN (PROTECTED-PERMISSIVE)
Queuing Capacity: **3 Veh**
Max Queue for Left-Turn Pocket: **3 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



EB LEFT-TURN (PROTECTED)
Queuing Capacity: **6 Veh**
Max Queue for Left-turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED-PERMISSIVE)
Queuing Capacity: **3 Veh**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



INT #6: BARTON RD & BELLEVUE AVE

Existing

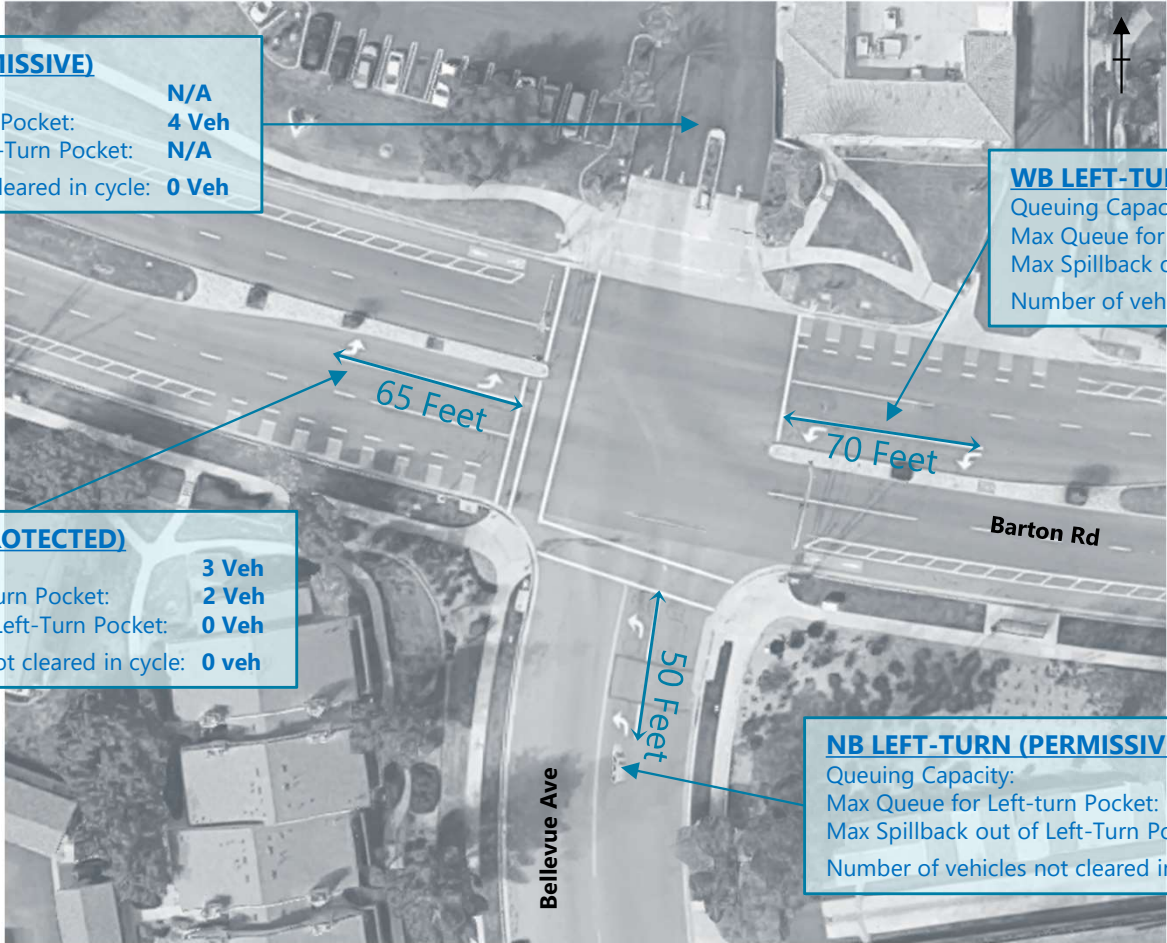
No left-turn queuing issues were identified

SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 veh**

NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #7: BARTON RD & SAN TIMOTEO CANYON RD

Existing

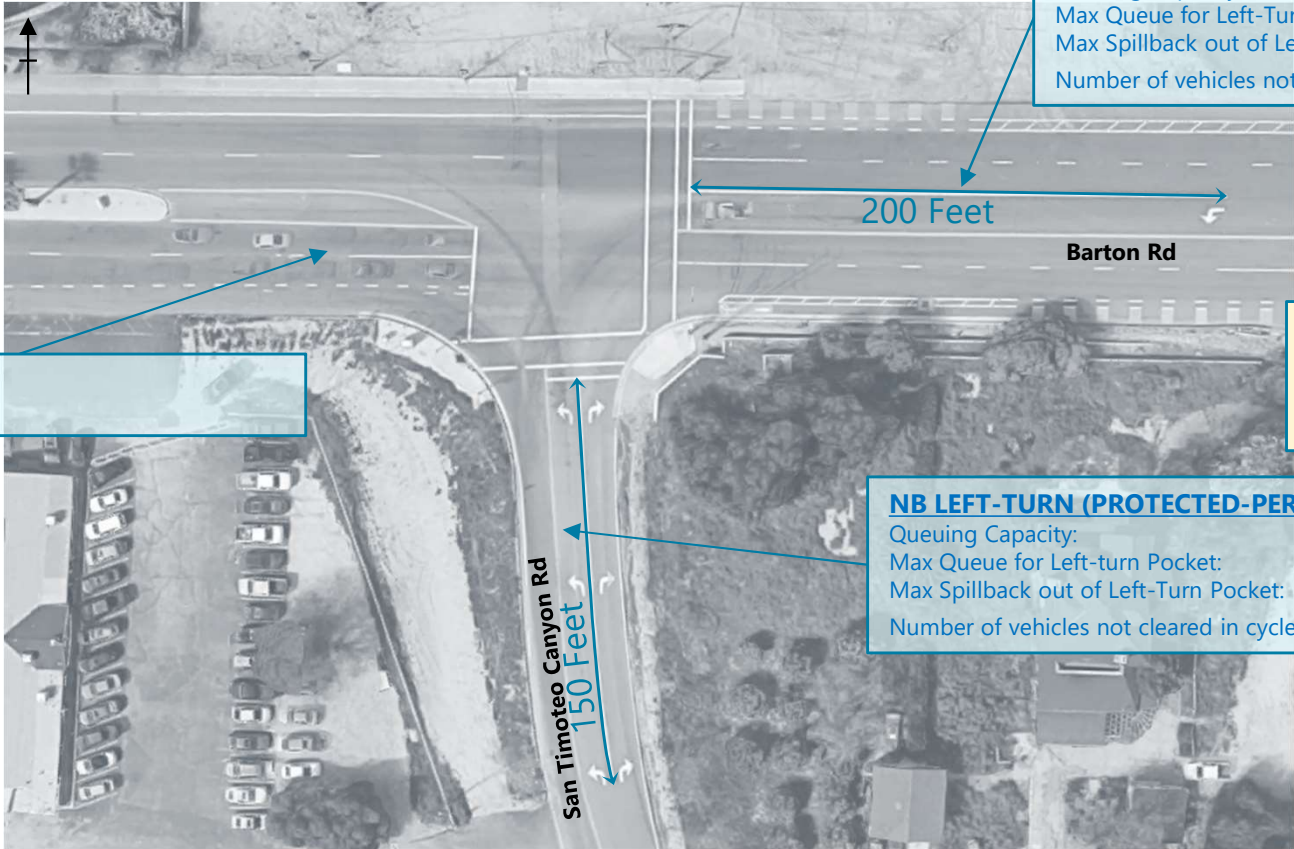
No left-turn queuing issues were identified

WB LEFT-TURN (PROTECTED)
 Queuing Capacity: **8 Veh**
 Max Queue for Left-Turn Pocket: **7 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

NB LEFT-TURN (PROTECTED-PERMISSIVE)
 Queuing Capacity: **6 Veh**
 Max Queue for Left-turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB
 No left turn movement



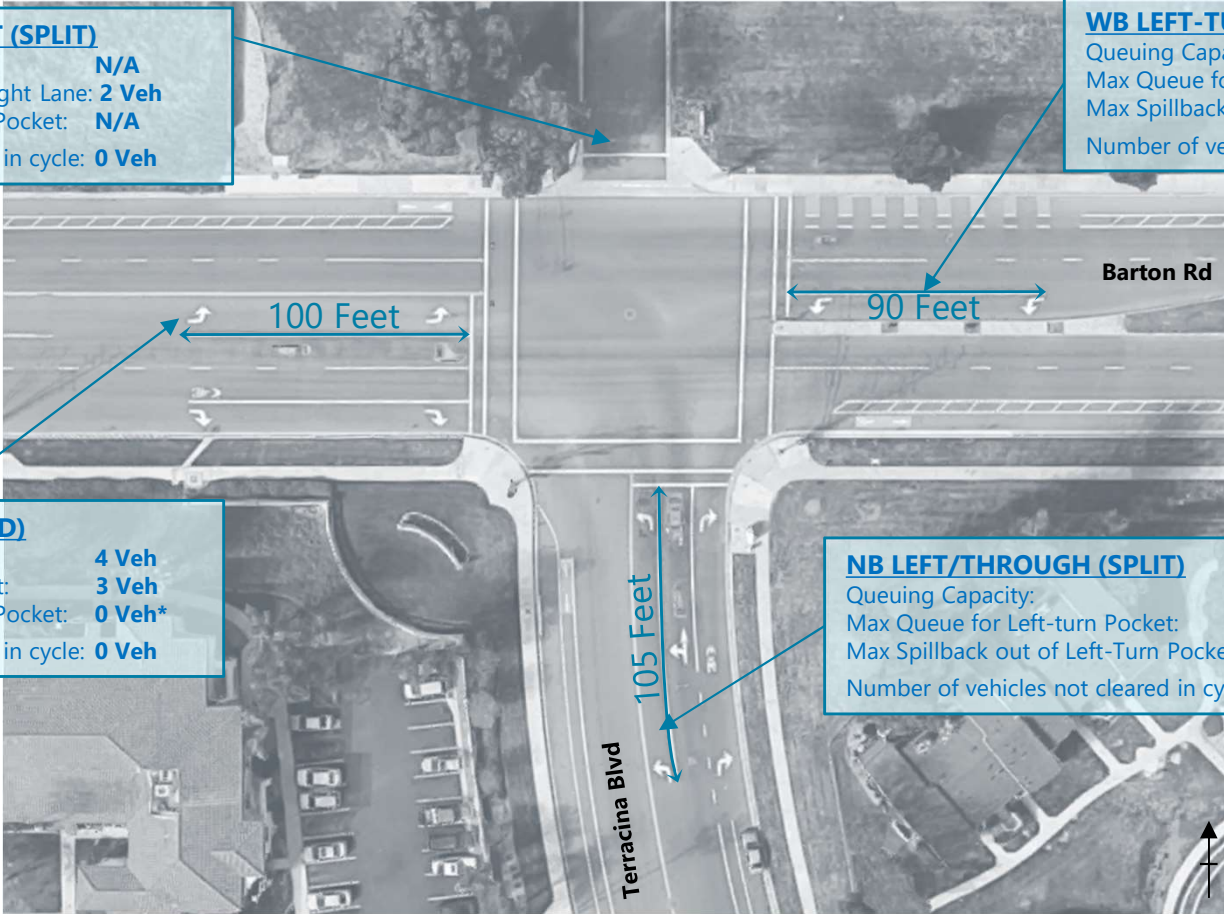
INT #8: BARTON RD & TERRACINA BLVD

Existing

No left-turn queuing issues were identified

SB LEFT/THROUGH/RIGHT (SPLIT)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



EB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH (SPLIT)
 Queuing Capacity: **8 Veh**
 Max Queue for Left-turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #9: BROOKSIDE AVE & CENTER ST

Existing

No left-turn queuing issues were identified

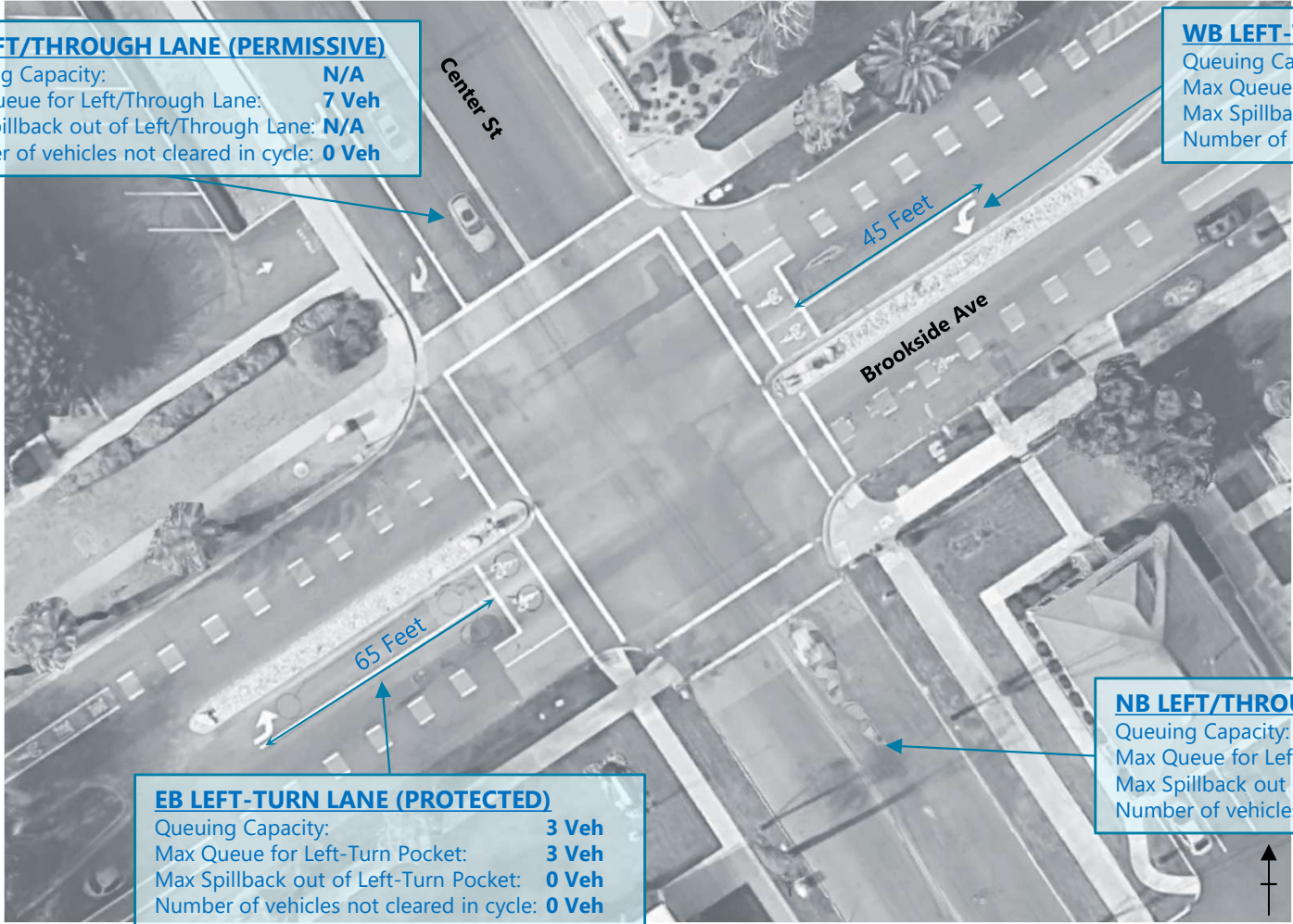
SB LEFT/THROUGH LANE (PERMISSIVE)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **7 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PROTECTED)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***
 Number of vehicles not cleared in cycle: **0 Veh**

* The left-turn lane including the taper has capacity to accommodate the maximum queue observed. Therefore, there was no vehicle spill back out of left-turn pocket.



EB LEFT-TURN LANE (PROTECTED)

Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (PERMISSIVE)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **7 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**



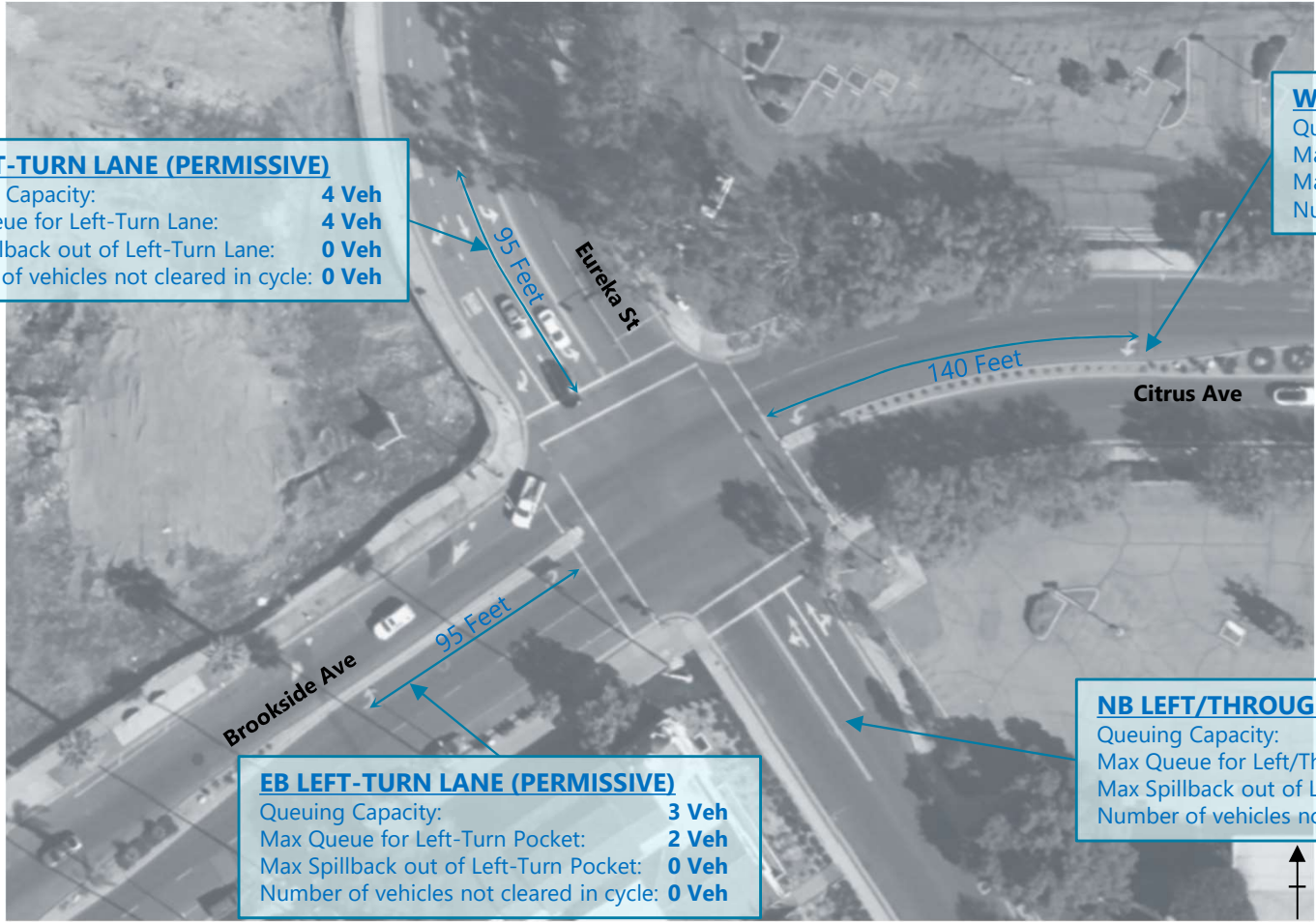
INT #10: BROOKSIDE AVE & CITRUS AVE / EUREKA ST

Existing

No left-turn queuing issues were identified

SB LEFT-TURN LANE (PERMISSIVE)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Lane: **4 Veh**
Max Spillback out of Left-Turn Lane: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
Queuing Capacity: **5 Veh**
Max Queue for Left-Turn Pocket: **3 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



EB LEFT-TURN LANE (PERMISSIVE)
Queuing Capacity: **3 Veh**
Max Queue for Left-Turn Pocket: **2 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

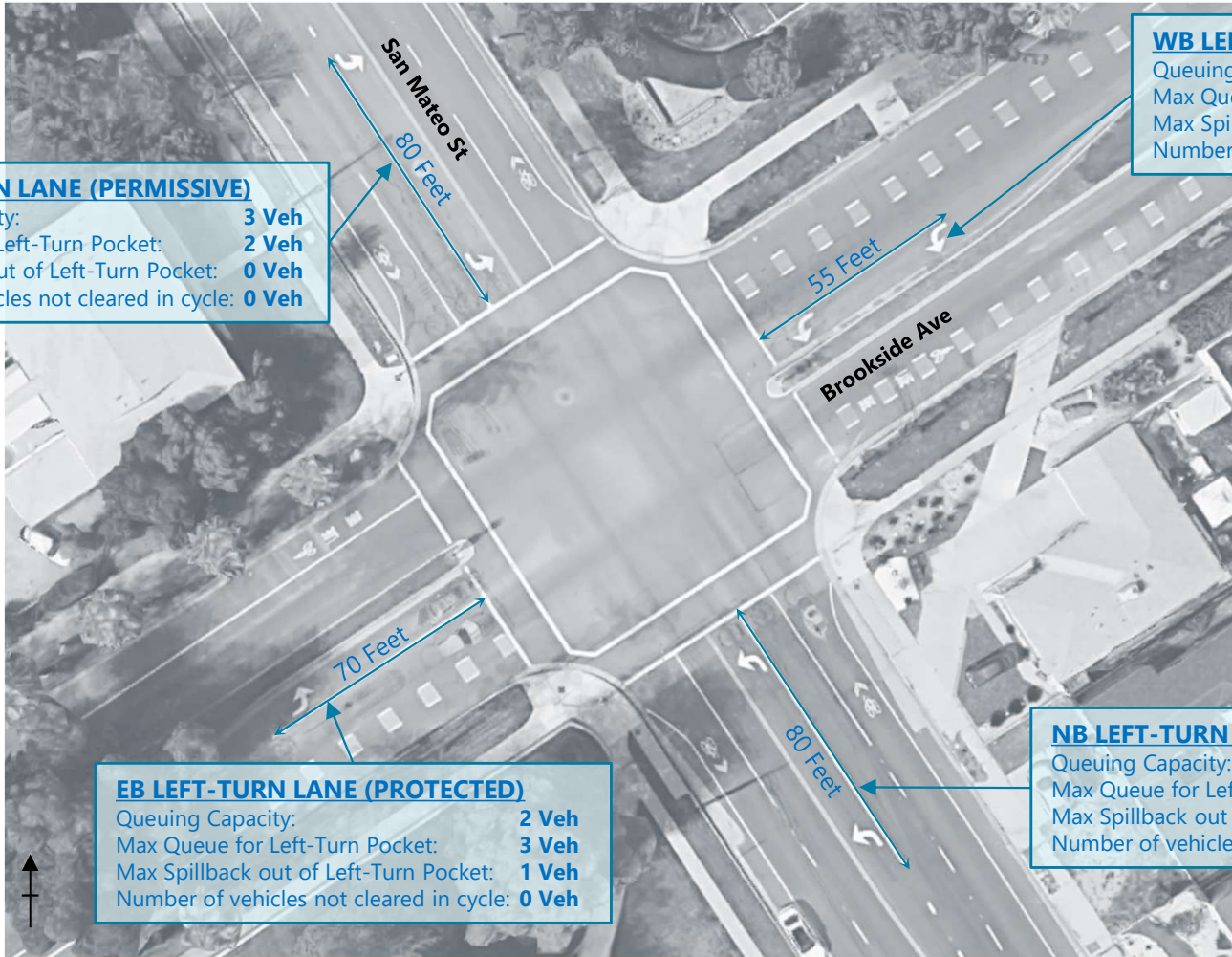
NB LEFT/THROUGH LANE (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**



INT #11: BROOKSIDE AVE & SAN MATEO ST

Existing

No left-turn queuing issues were identified



SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **1 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

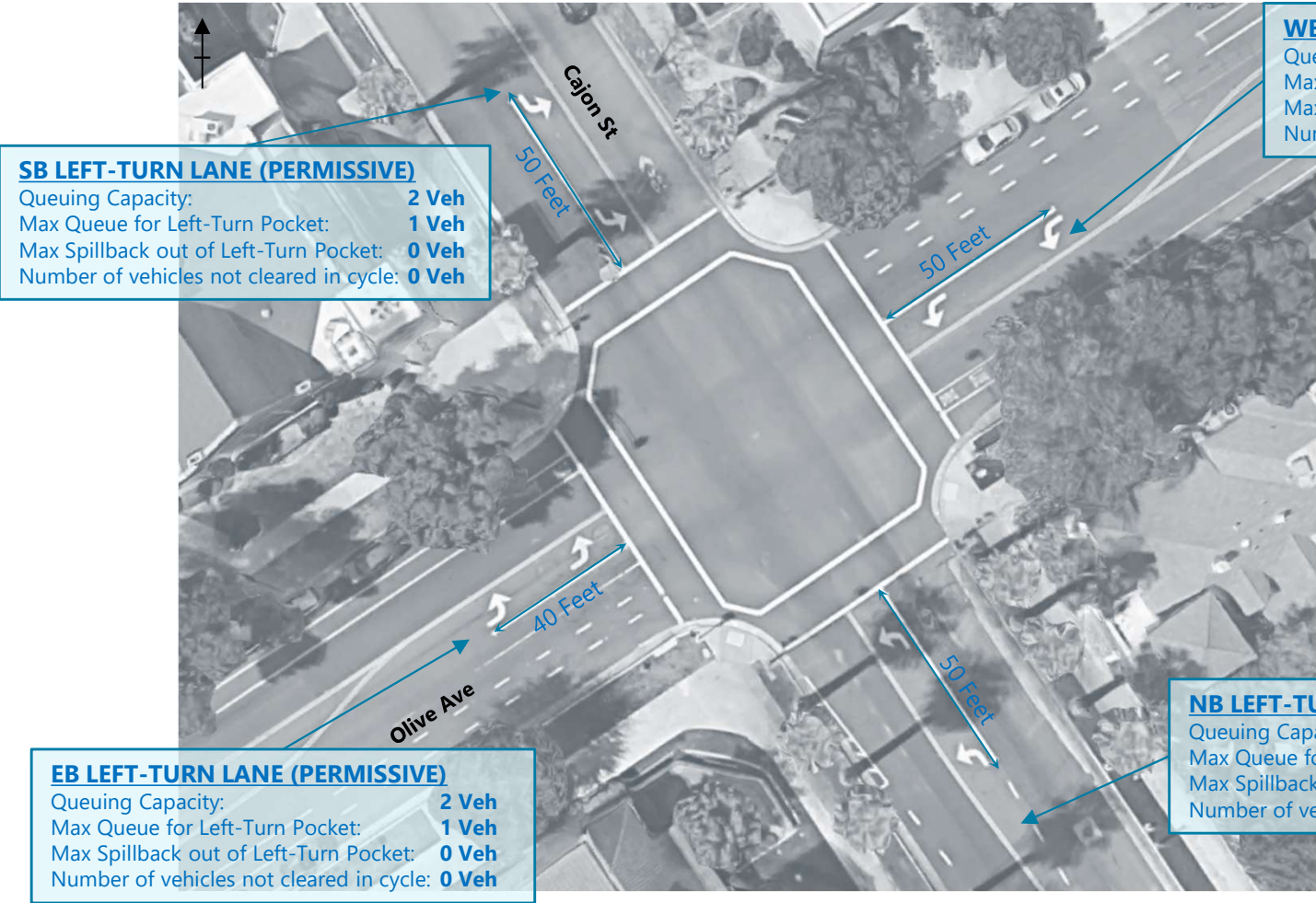
NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #13: CAJON ST & OLIVE AVE

Existing

No left-turn queuing issues were identified



INT #14: CALIFORNIA ST & ALMOND AVE

Existing

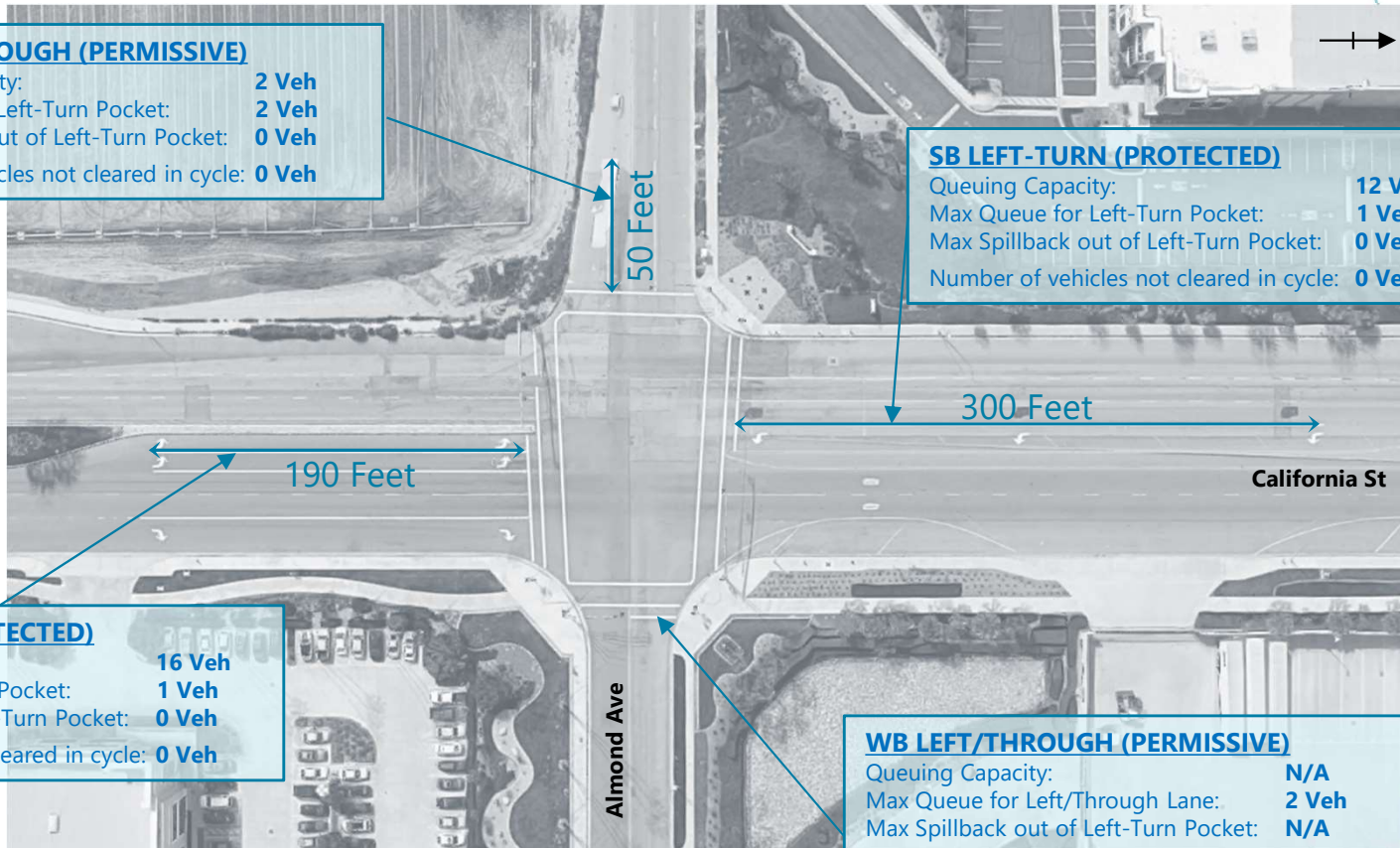
No left-turn queuing issues were identified

EB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **12 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **16 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

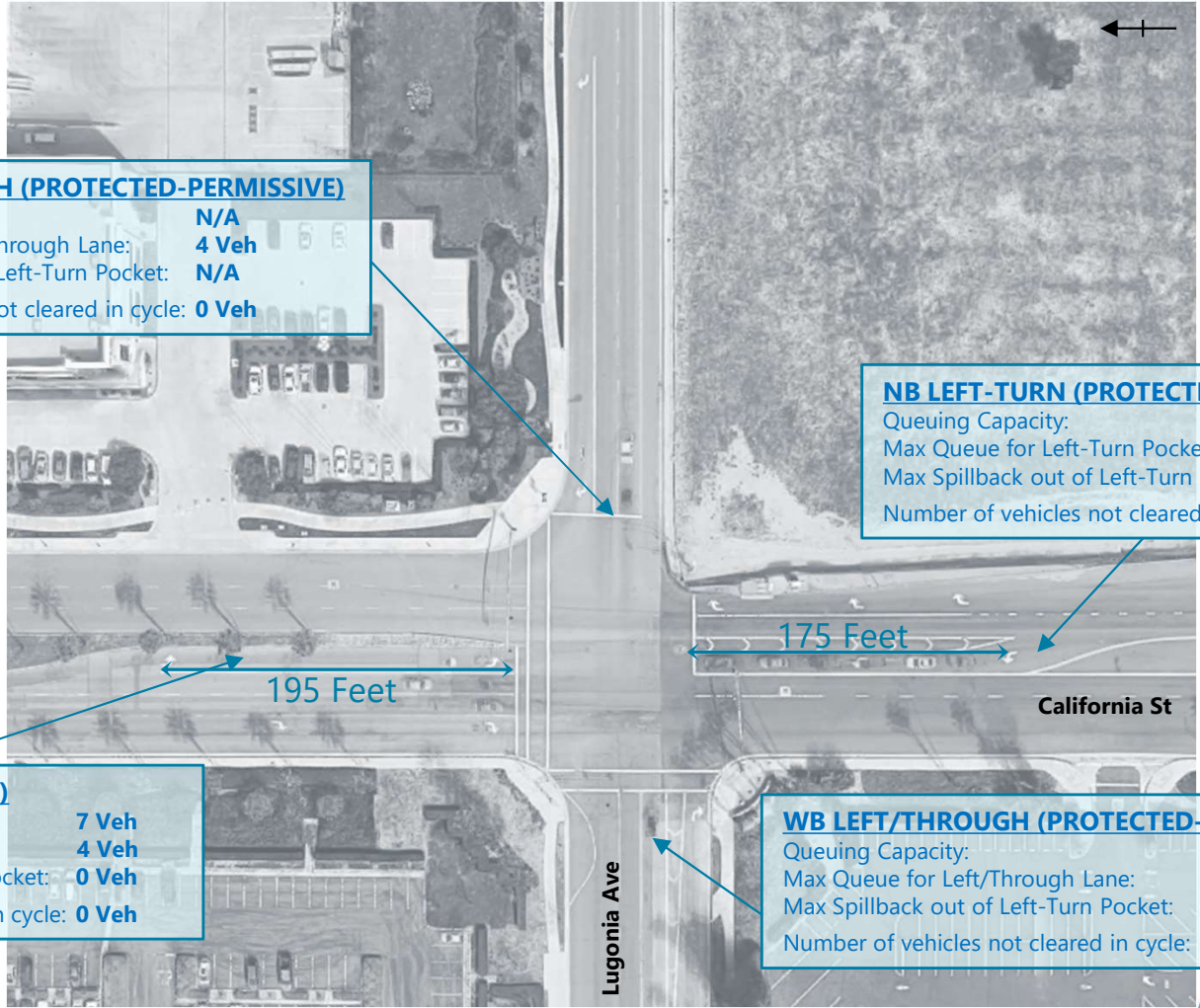
WB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #15: CALIFORNIA ST & LUGONIA AVE

Existing

No left-turn queuing issues were identified



EB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **7 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**



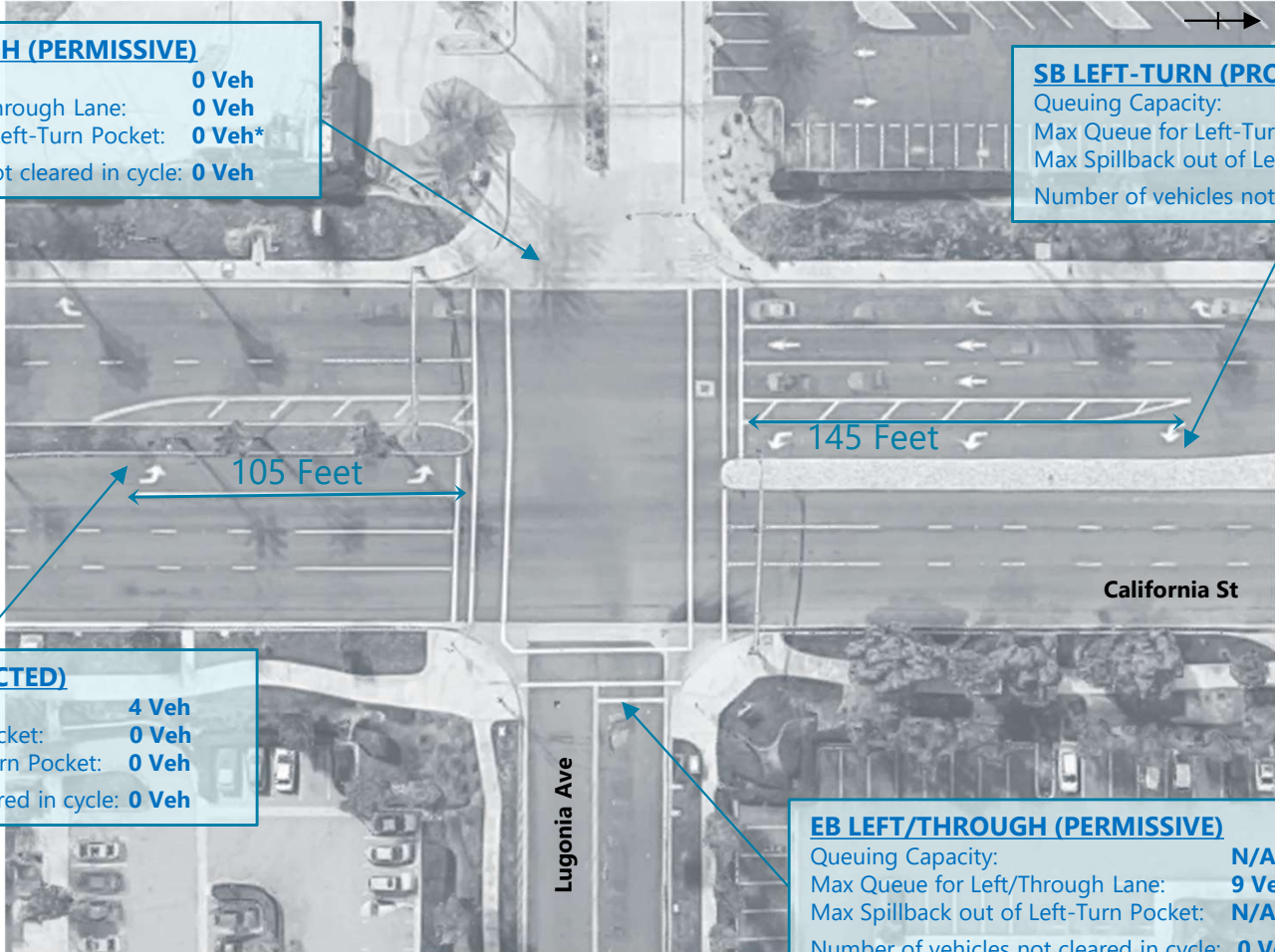
INT #16: CALIFORNIA ST & ORANGE TREE LN

Existing

No left-turn queuing issues were identified

WB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **0 Veh**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **6 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **9 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

INT #17: CITRUS AVE & CHURCH ST

Existing

No left-turn queuing issues were identified

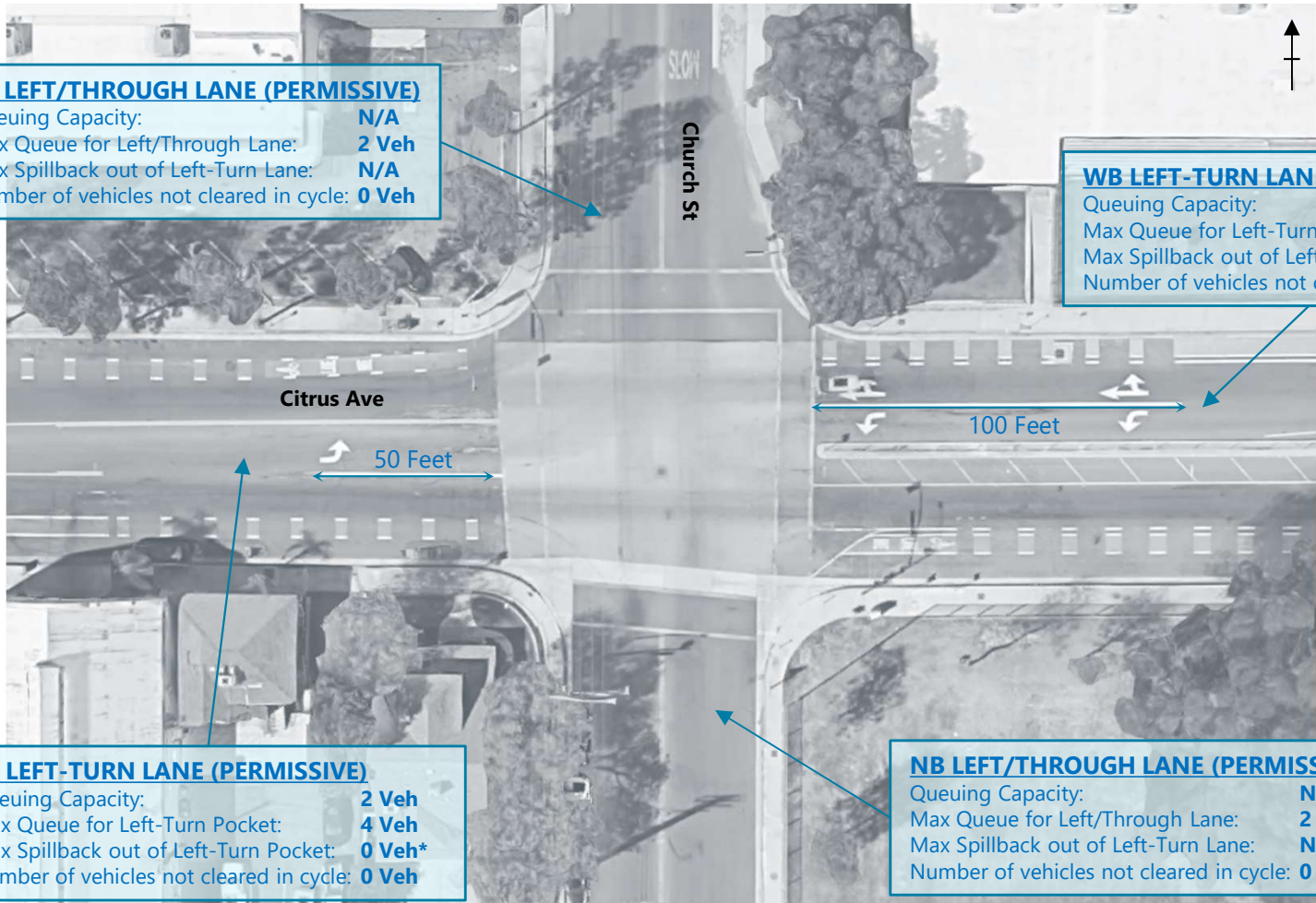
SB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



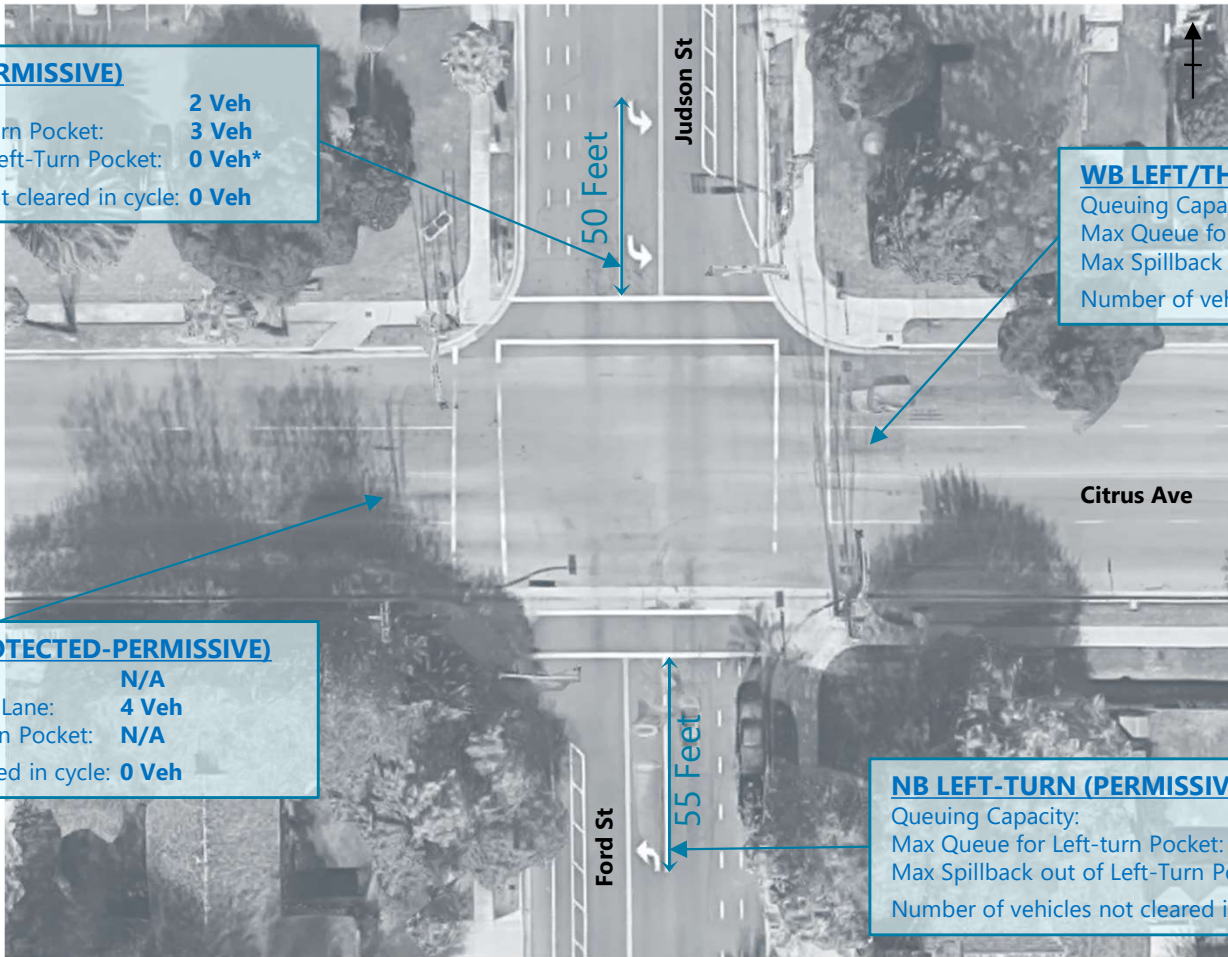
INT #18: CITRUS AVE & JUDSON ST / FORD ST

Existing

No left-turn queuing issues were identified

SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**



EB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #19: CITRUS AVE & ORANGE ST/CAJON ST

Existing

No left-turn queuing issues were identified

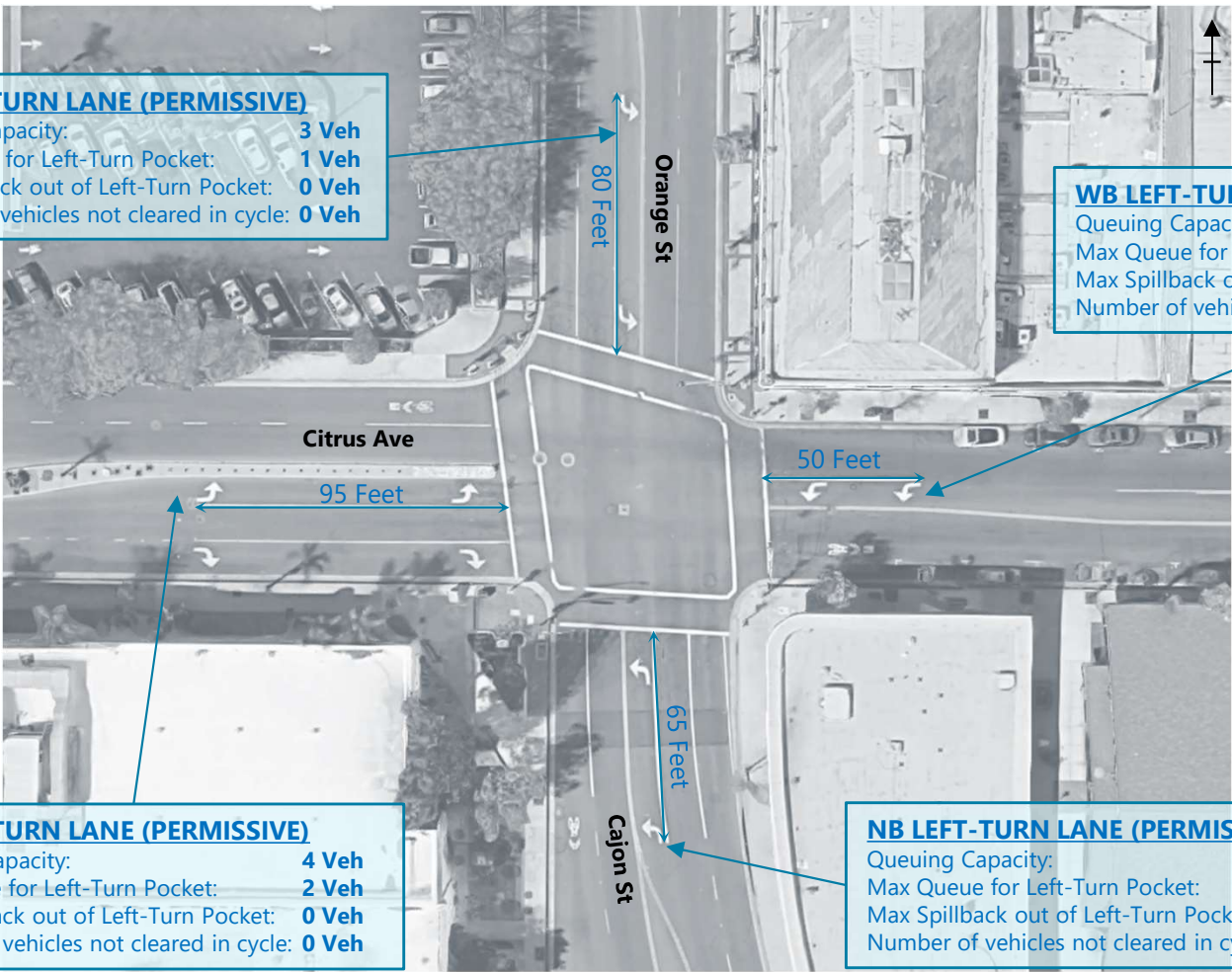
SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh** *
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #20: CITRUS AVE & UNIVERSITY ST

Existing

No left-turn queuing issues were identified

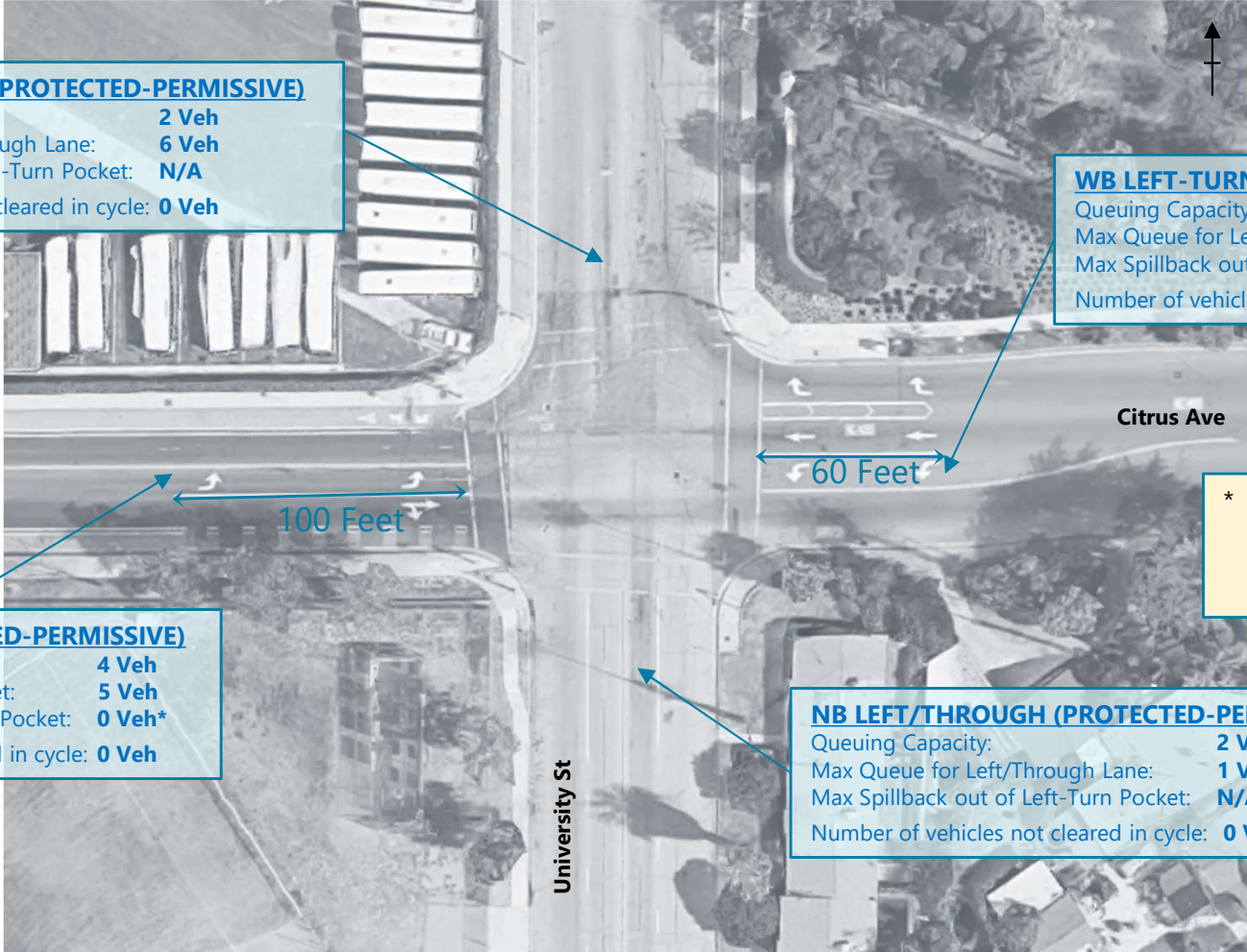
SB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left/Through Lane: **6 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED-PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED-PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH (PROTECTED-PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

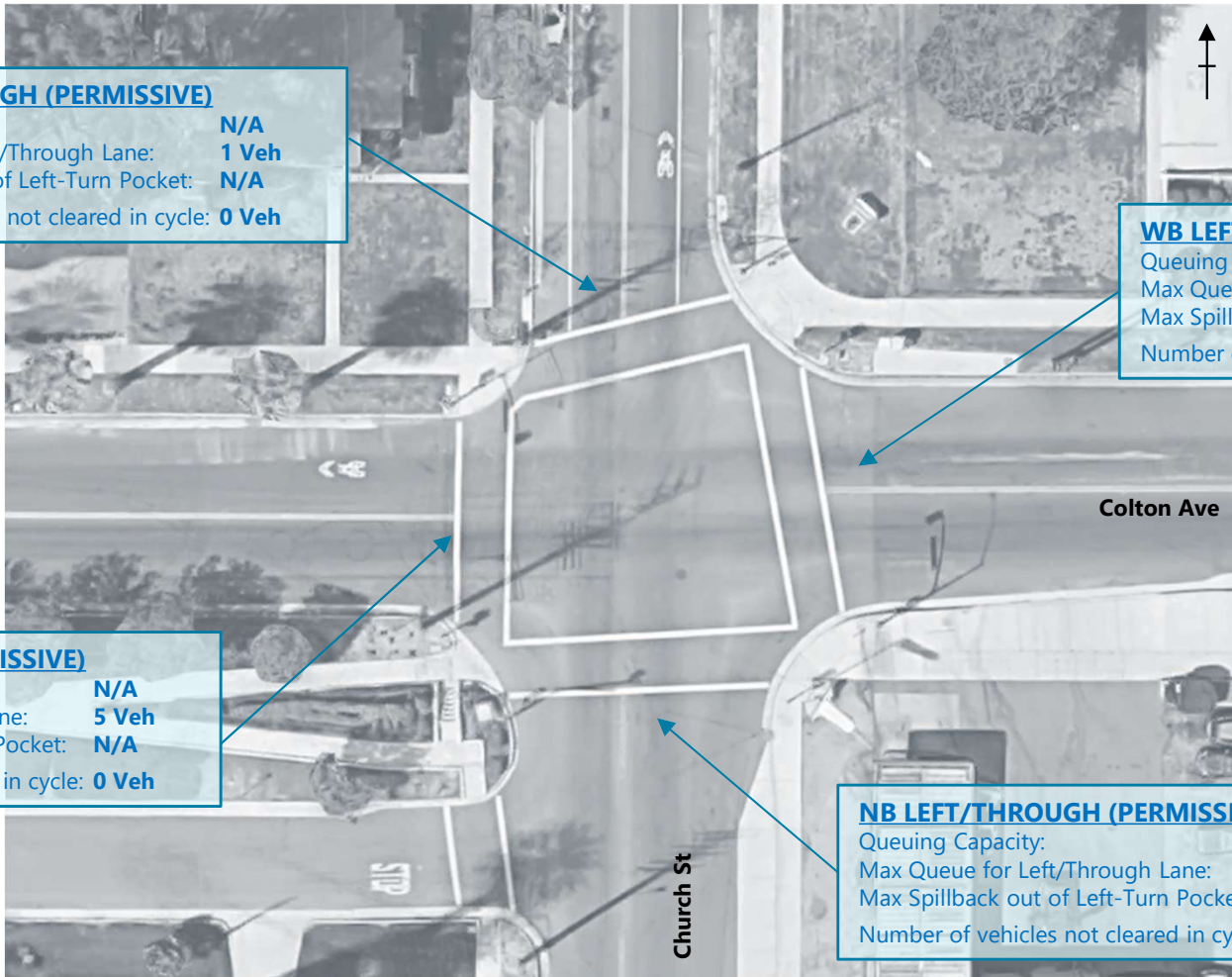
* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #21: COLTON AVE & CHURCH ST

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

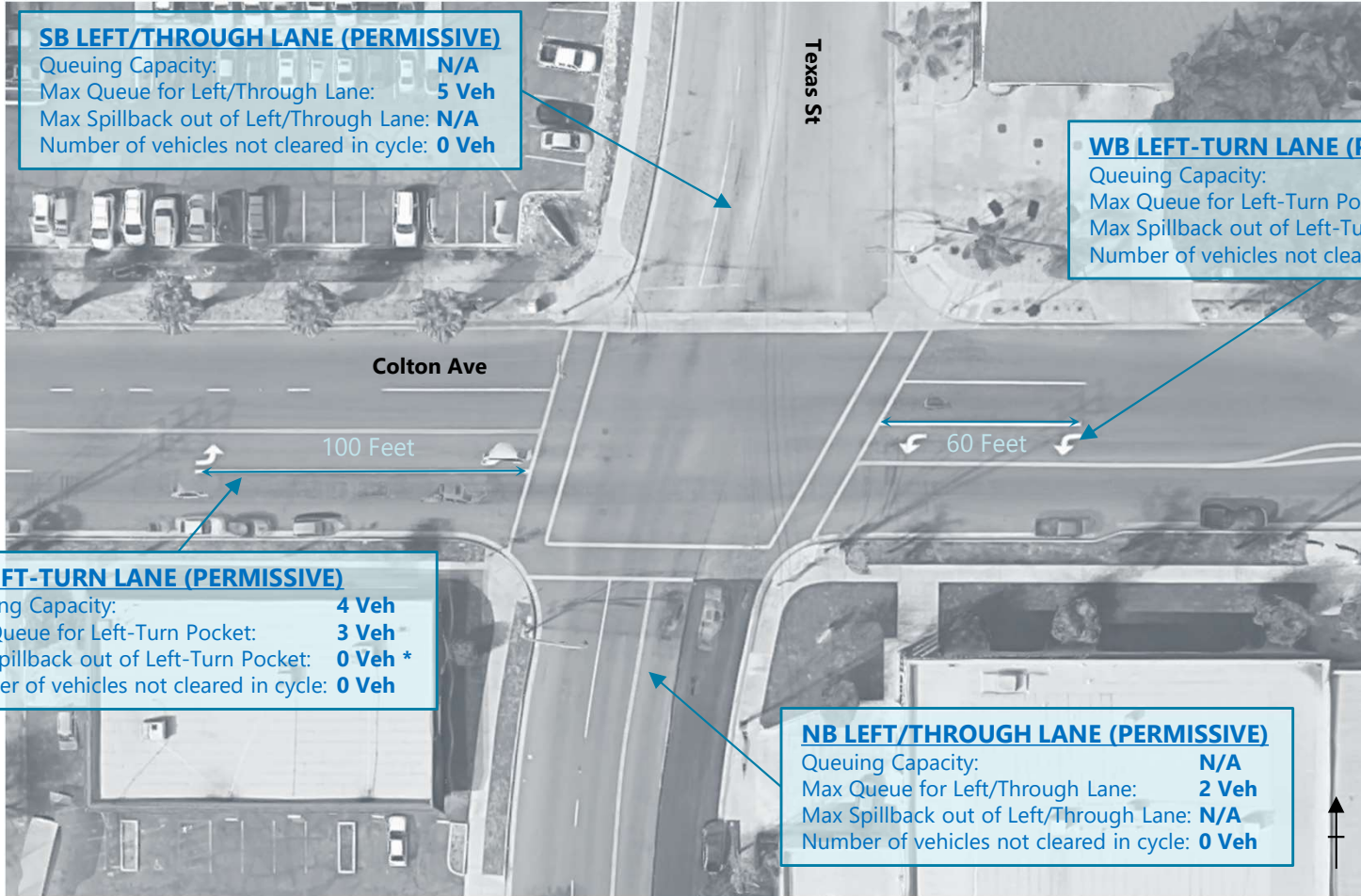
EB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **5 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **4 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

INT #27: COLTON AVE & TEXAS ST

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **5 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #28: EUREKA ST & PEARL AVE / I-10 EB Off-Ramp

Existing

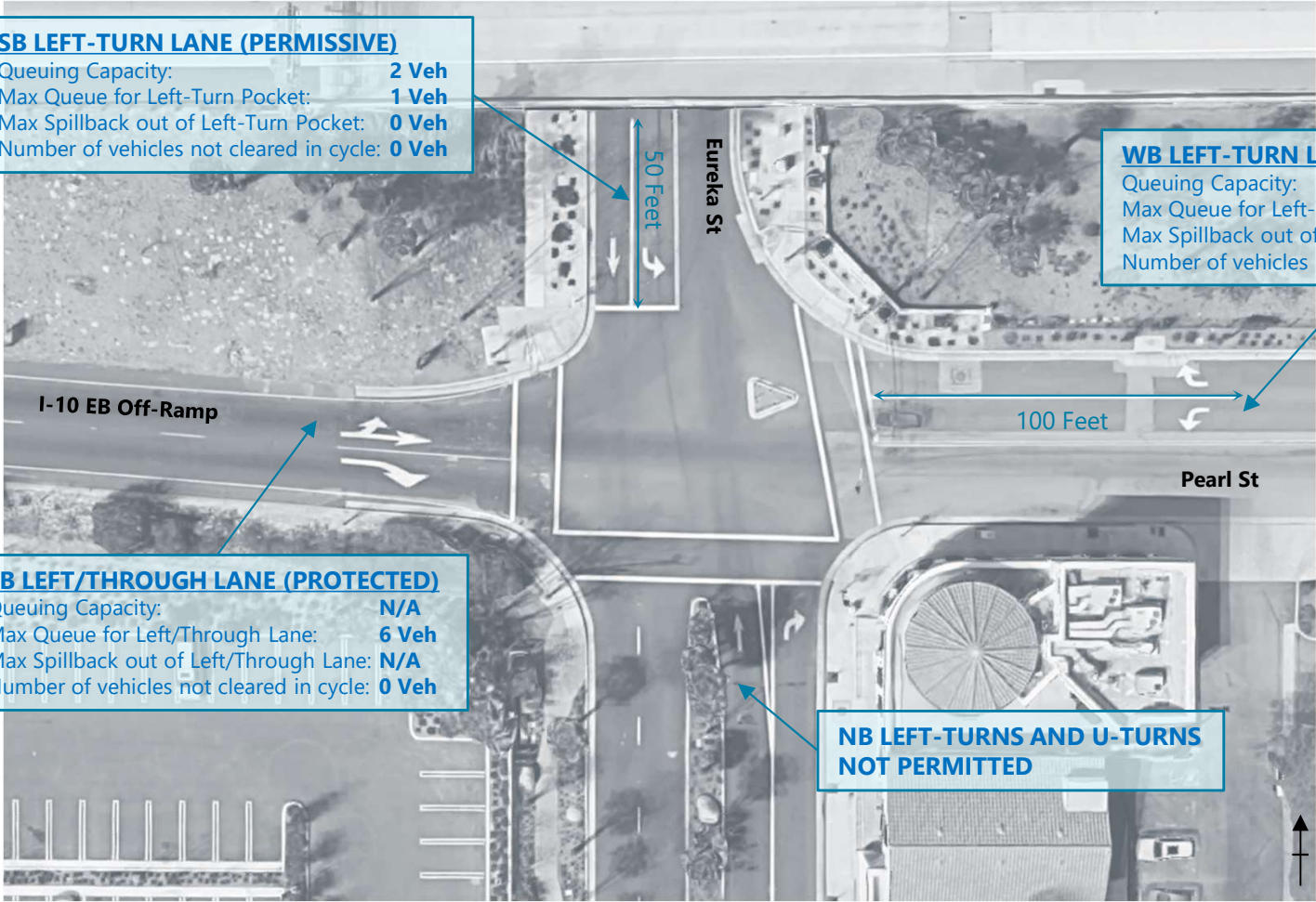
No left-turn queuing issues were identified

SB LEFT-TURN LANE (PERMISSIVE)
Queuing Capacity: **2 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH LANE (PROTECTED)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **6 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

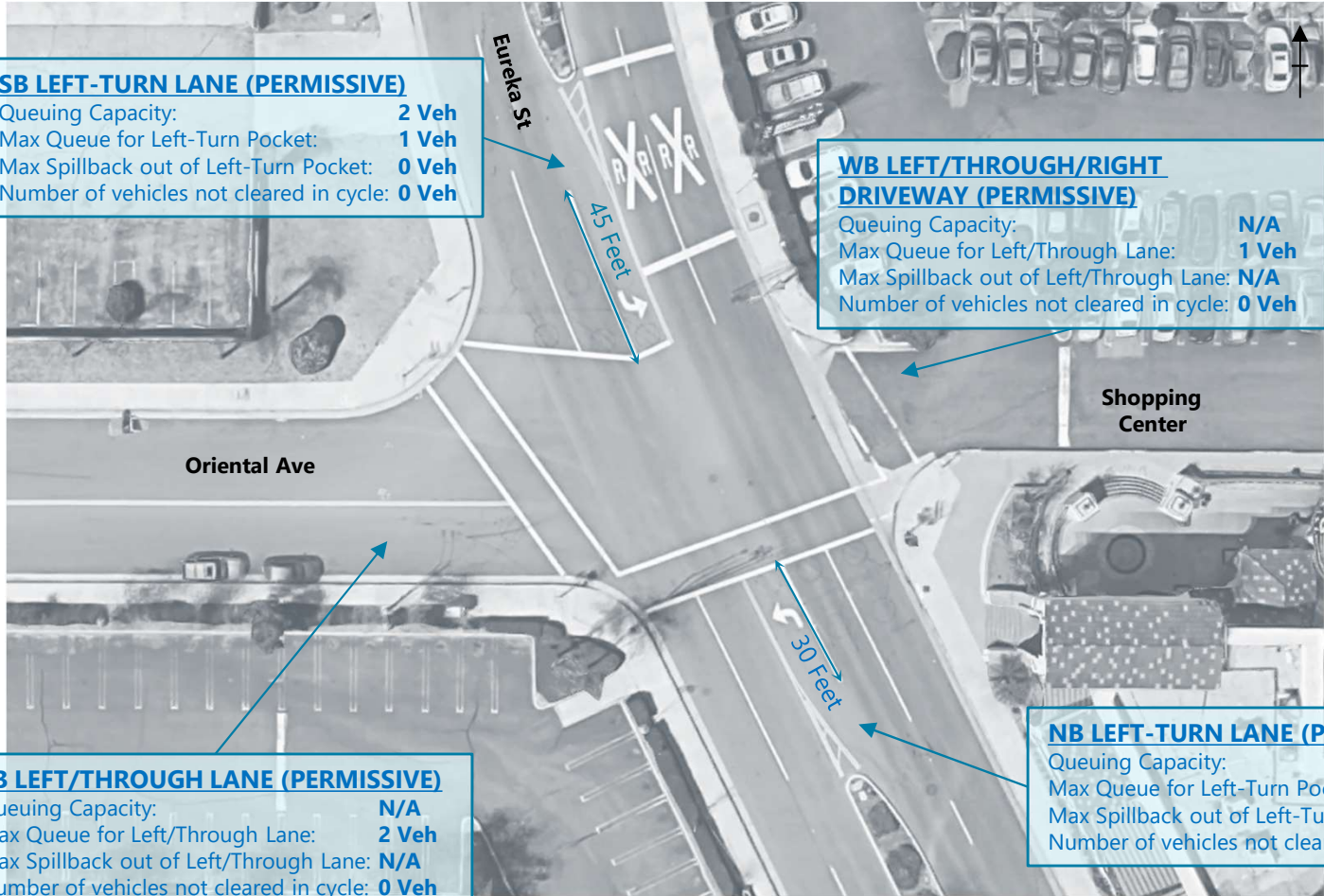
NB LEFT-TURNS AND U-TURNS NOT PERMITTED



INT #29: EUREKA ST & ORIENTAL AVE

Existing

No left-turn queuing issues were identified



INT #32: LUGONIA AVE & DEARBORN ST

Existing

No left-turn queuing issues were identified

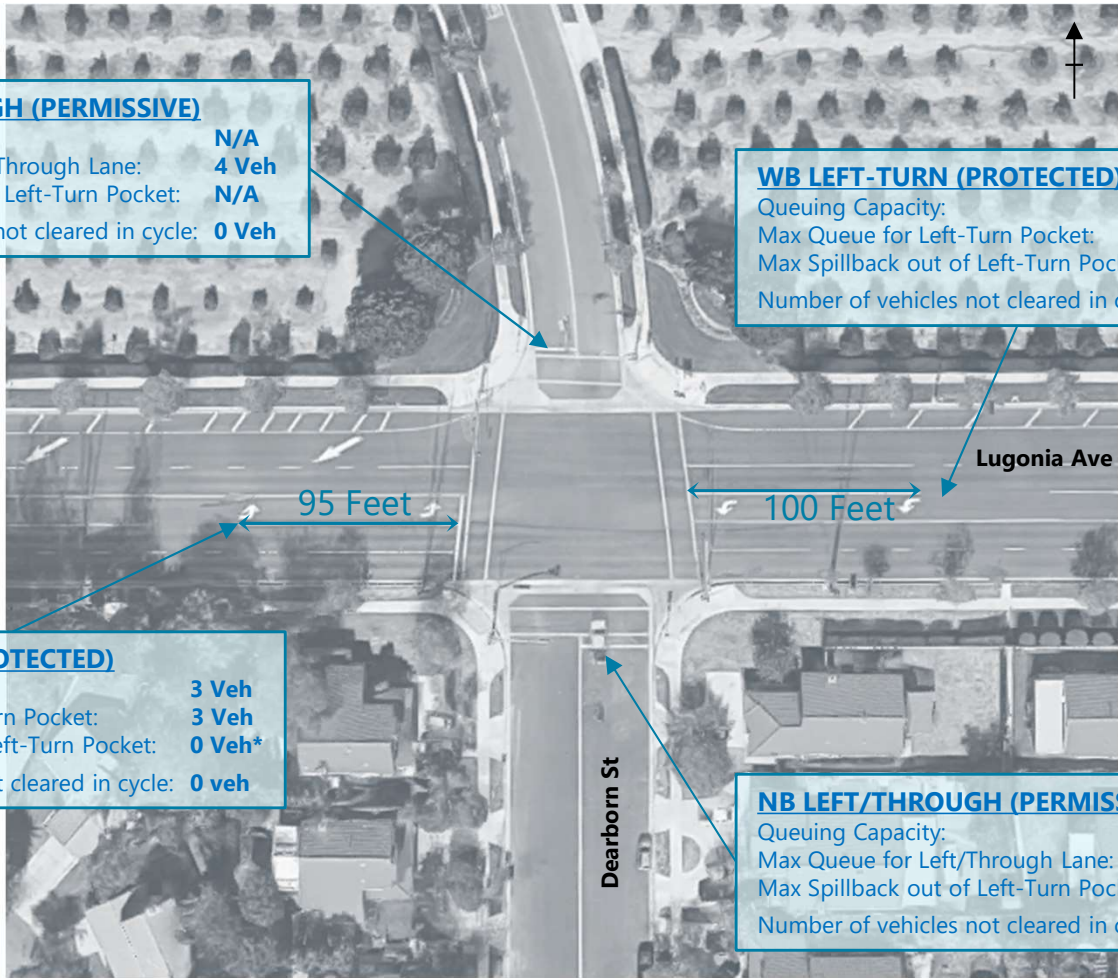
SB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 4 Veh
 Max Spillback out of Left-Turn Pocket: N/A
 Number of vehicles not cleared in cycle: 0 Veh

WB LEFT-TURN (PROTECTED)
 Queuing Capacity: 4 Veh
 Max Queue for Left-Turn Pocket: 2 Veh
 Max Spillback out of Left-Turn Pocket: 0 Veh*
 Number of vehicles not cleared in cycle: 0 Veh

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

EB LEFT-TURN (PROTECTED)
 Queuing Capacity: 3 Veh
 Max Queue for Left-Turn Pocket: 3 Veh
 Max Spillback out of Left-Turn Pocket: 0 Veh*
 Number of vehicles not cleared in cycle: 0 Veh

NB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 1 Veh
 Max Spillback out of Left-Turn Pocket: N/A
 Number of vehicles not cleared in cycle: 0 Veh



INT #33: LUGONIA AVE & JUDSON ST

Existing

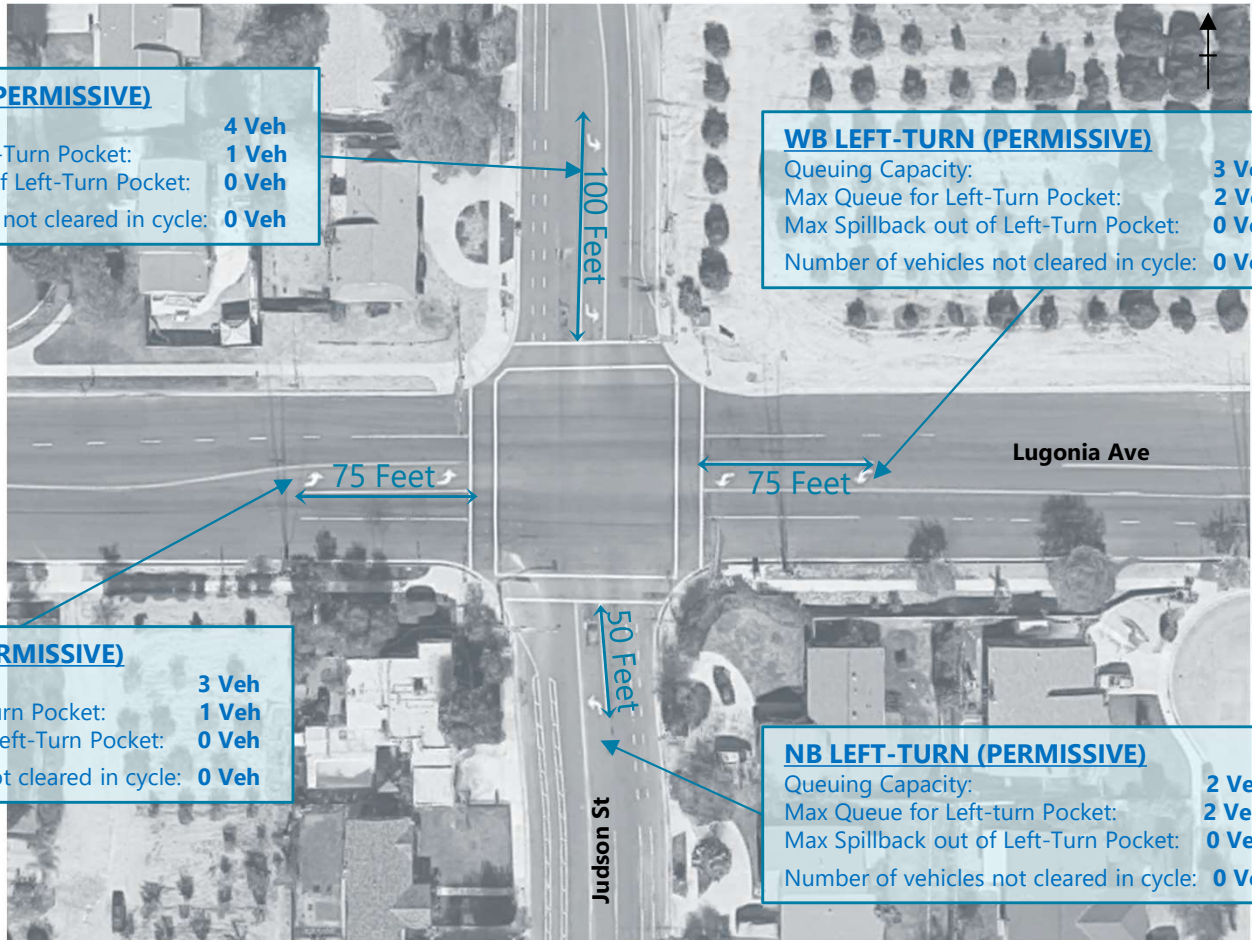
No left-turn queuing issues were identified

SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**



* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

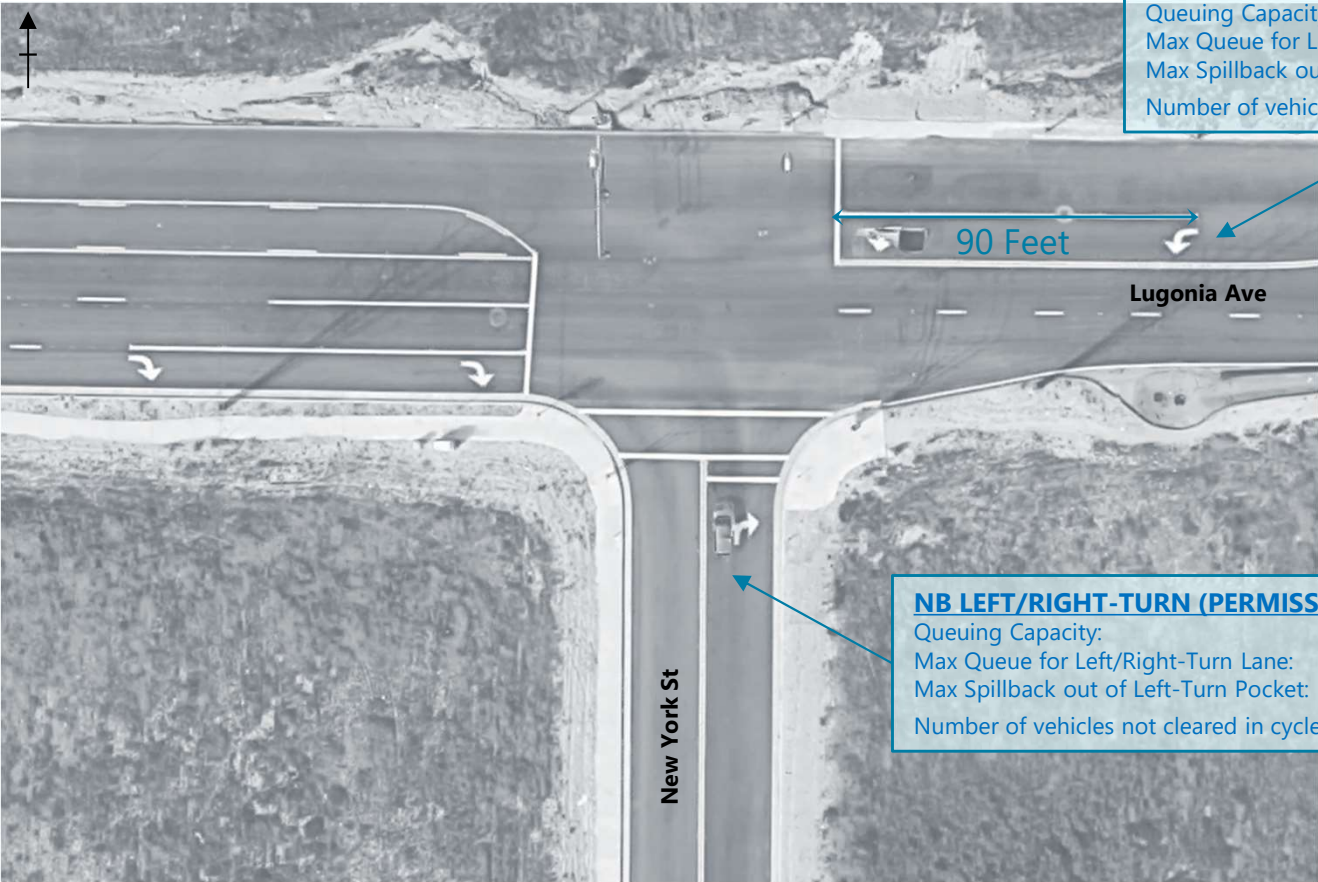


INT #34: LUGONIA AVE & NEW YORK ST

Existing

No left-turn queuing issues were identified

WB LEFT-TURN (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



NB LEFT/RIGHT-TURN (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Right-Turn Lane: **5 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**



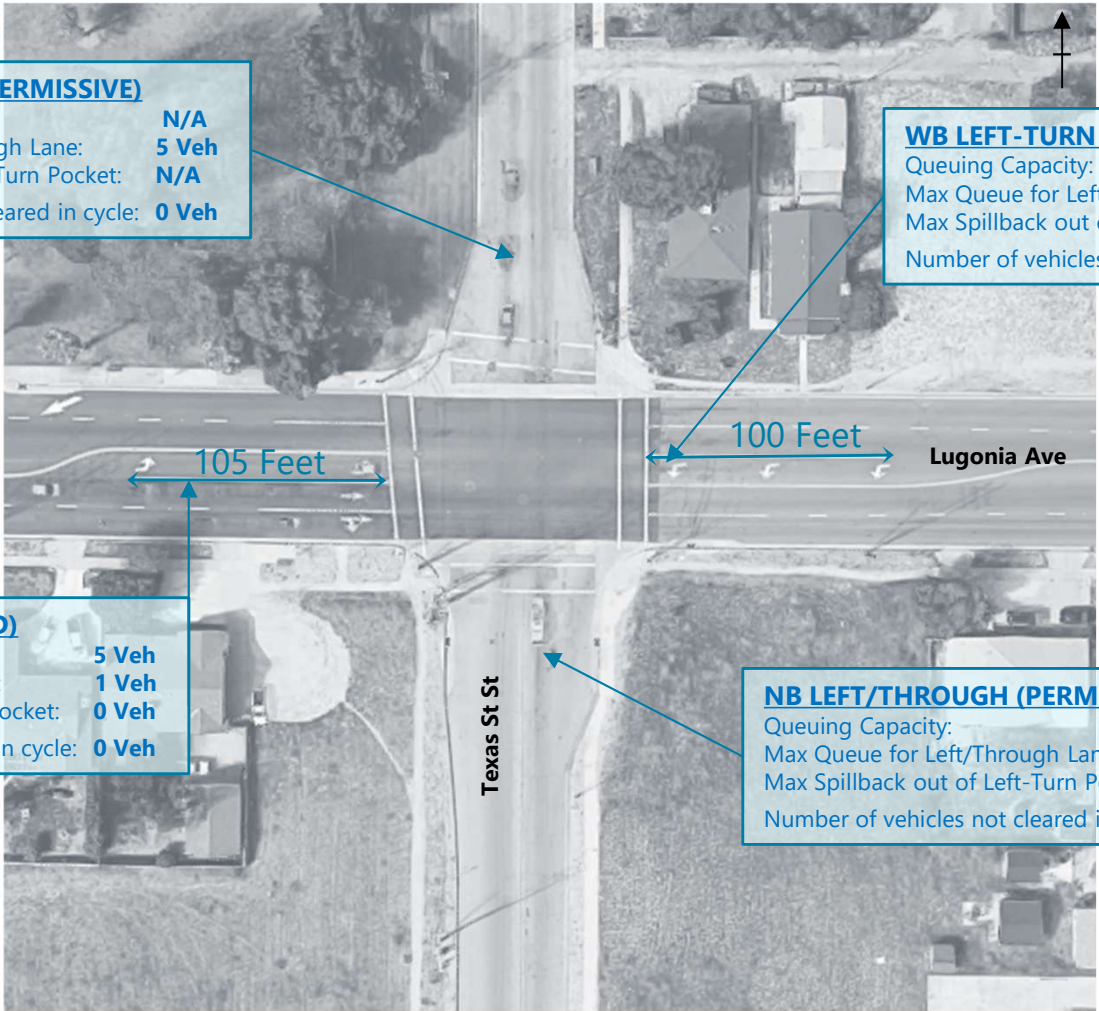
INT #37: LUGONIA AVE & TEXAS ST

Existing

No left-turn queuing issues were identified

SB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 5 Veh
Max Spillback out of Left-Turn Pocket: N/A
Number of vehicles not cleared in cycle: 0 Veh

WB LEFT-TURN (PROTECTED)
Queuing Capacity: 4 Veh
Max Queue for Left-Turn Pocket: 3 Veh
Max Spillback out of Left-Turn Pocket: 0 Veh
Number of vehicles not cleared in cycle: 0 Veh



EB LEFT-TURN (PROTECTED)
Queuing Capacity: 5 Veh
Max Queue for Left-Turn Pocket: 1 Veh
Max Spillback out of Left-Turn Pocket: 0 Veh
Number of vehicles not cleared in cycle: 0 Veh

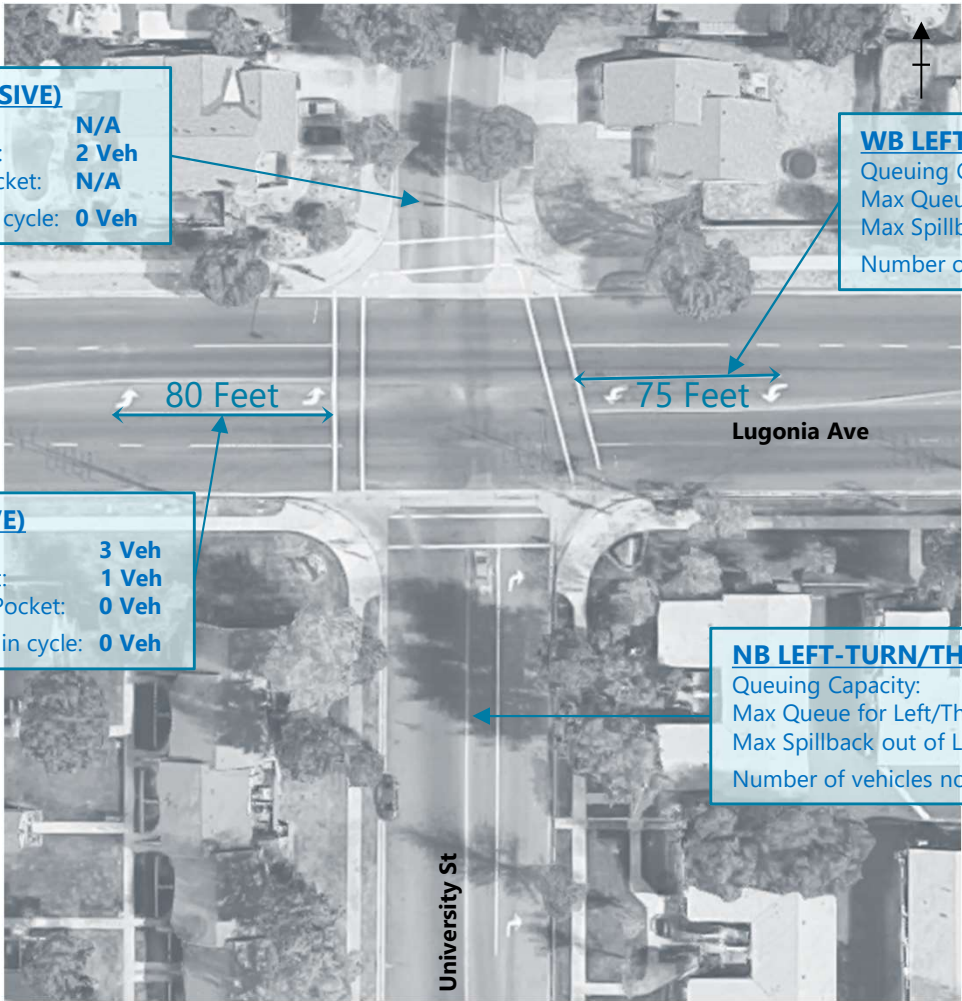
NB LEFT/THROUGH (PERMISSIVE)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 4 Veh
Max Spillback out of Left-Turn Pocket: N/A
Number of vehicles not cleared in cycle: 0 Veh



INT #38: LUGONIA AVE & UNIVERSITY ST

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **4 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

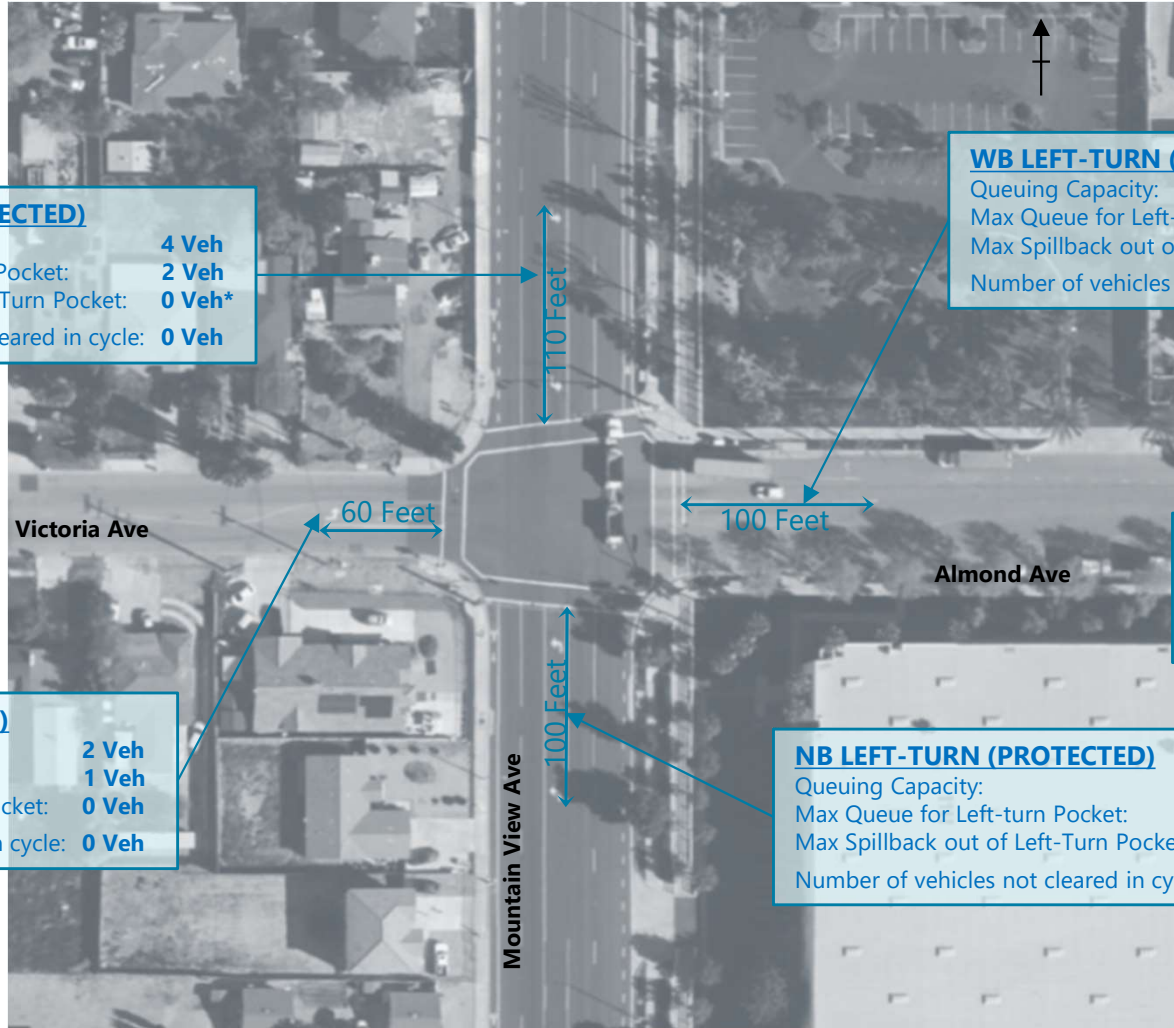
EB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* The left-turn lane including taper can accommodate about four vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.

INT #40: MOUNTAIN VIEW AVE & VICTORIA AVE/ALMOND AVE

Existing



No left-turn queuing issues were identified

SB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

EB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

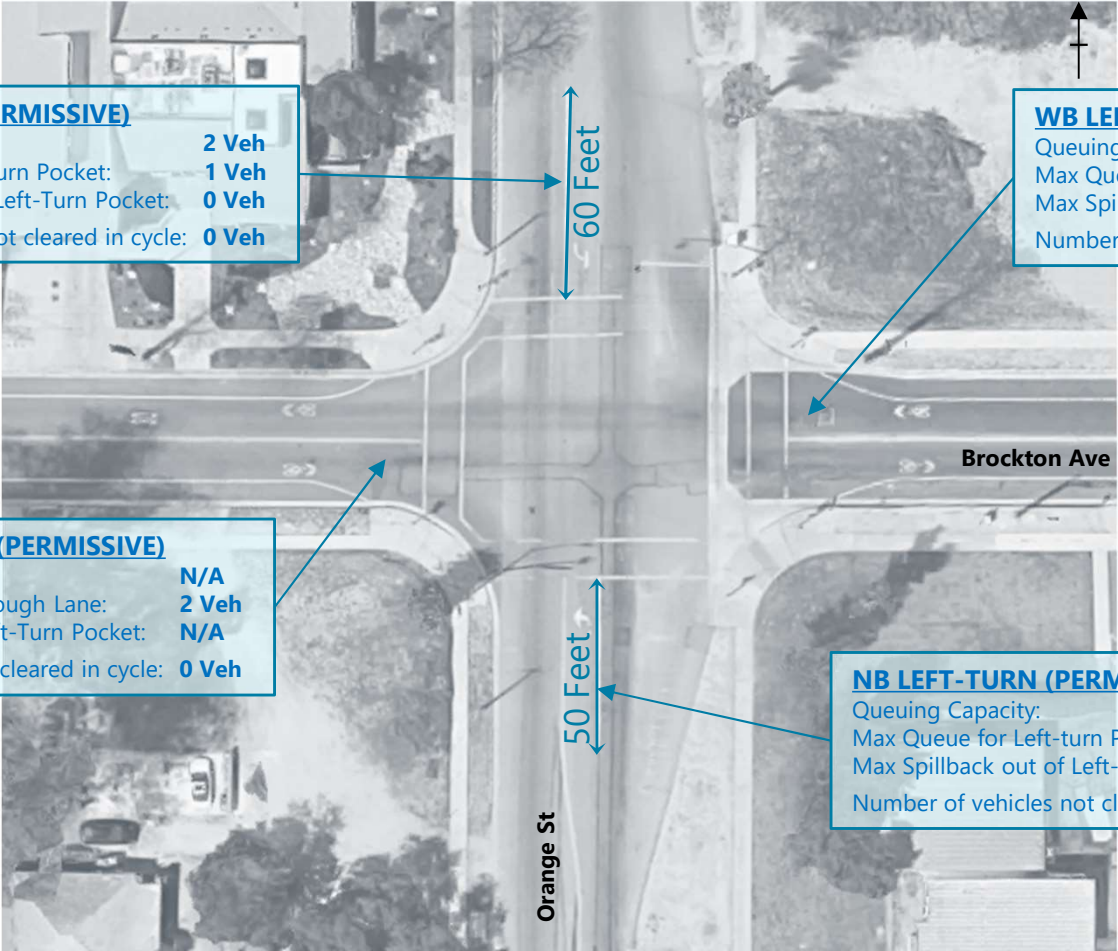
NB LEFT-TURN (PROTECTED)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**



INT #43: ORANGE ST & PENNSYLVANIA AVE

Existing

No left-turn queuing issues were identified



SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

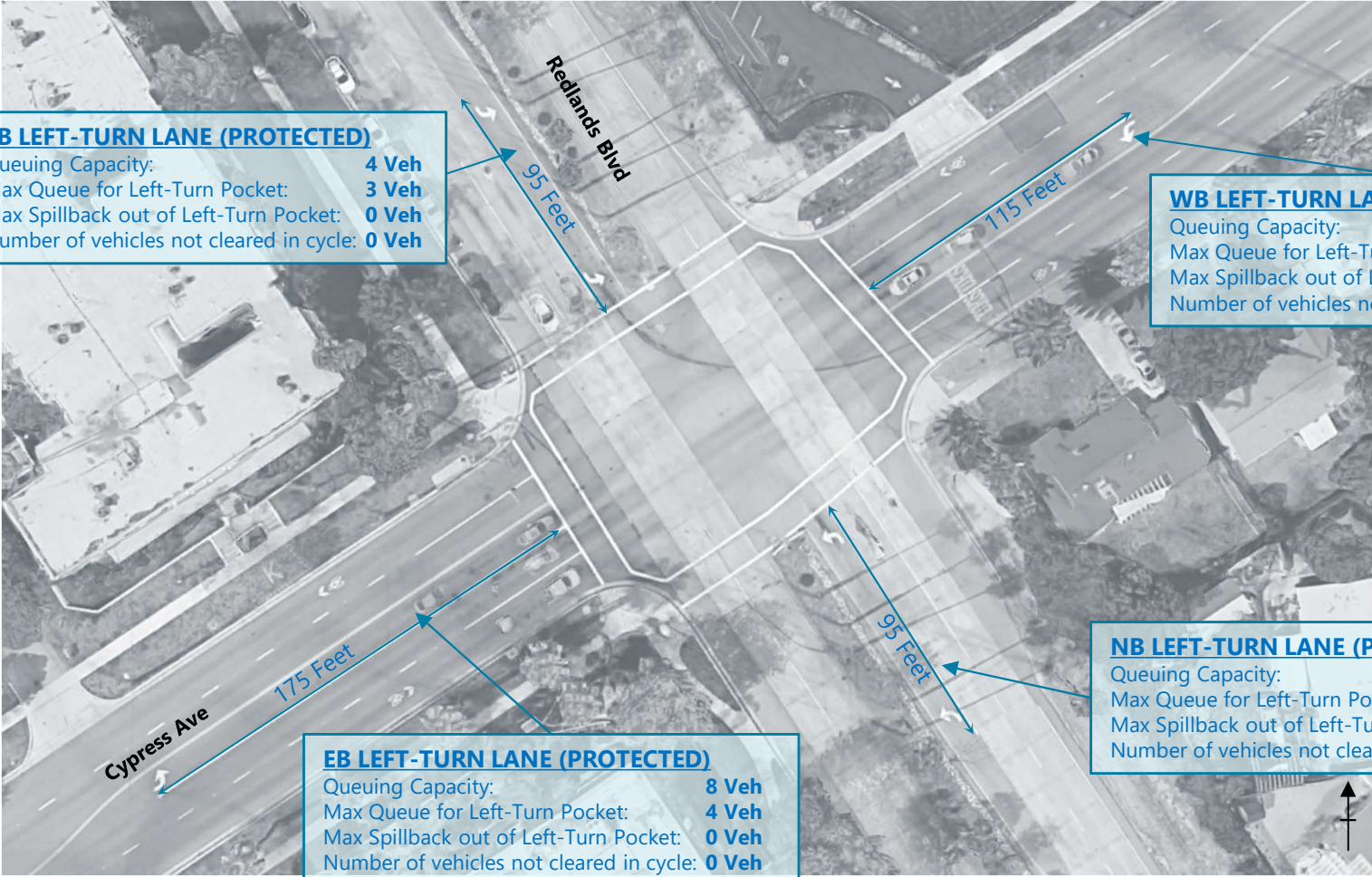
NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #50: REDLANDS BLVD & CYPRESS AVE

Existing

No left-turn queuing issues were identified



INT #54: REDLANDS BLVD & HIGHLAND AVE

Existing

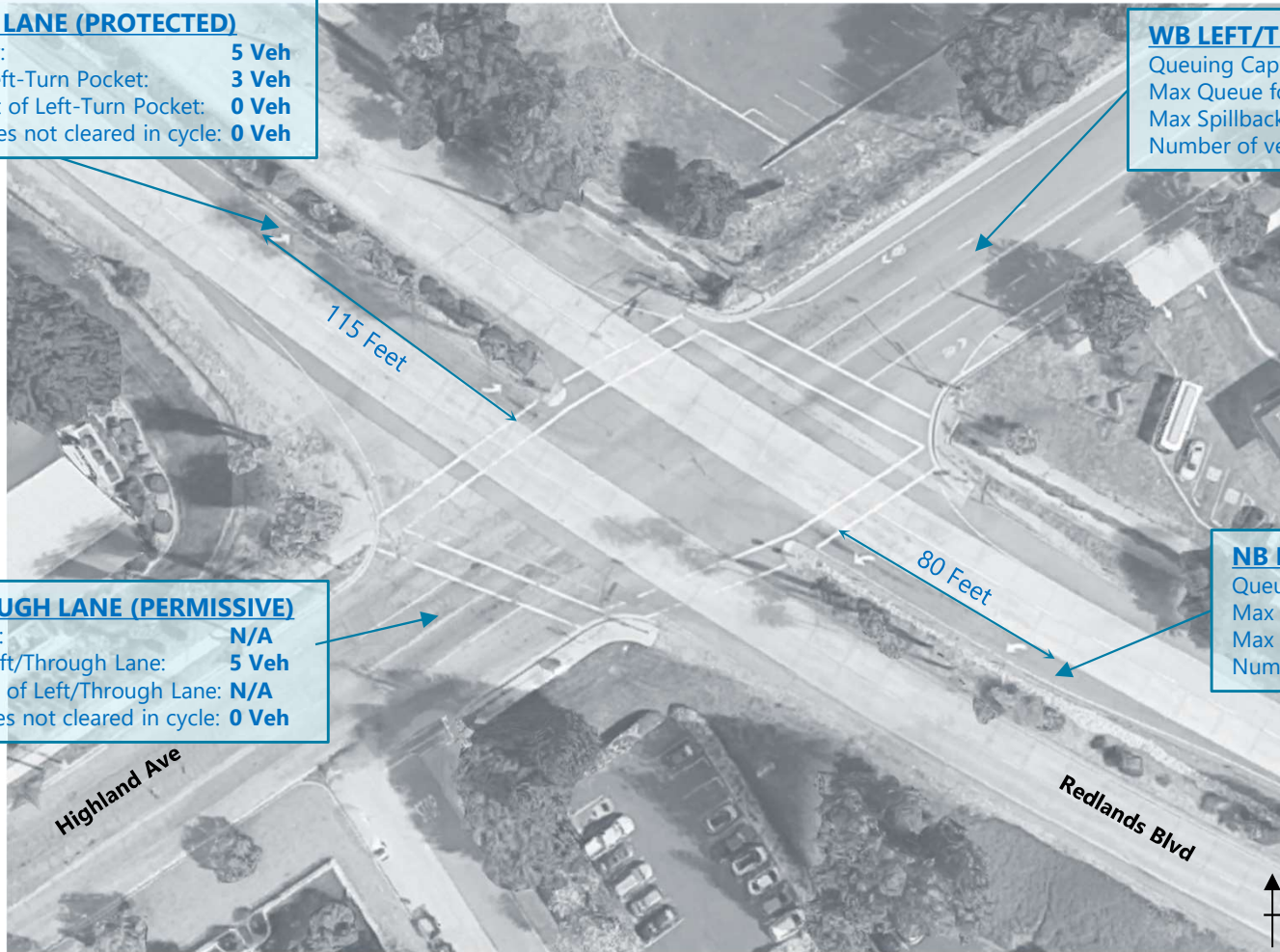
No left-turn queuing issues were identified

SB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

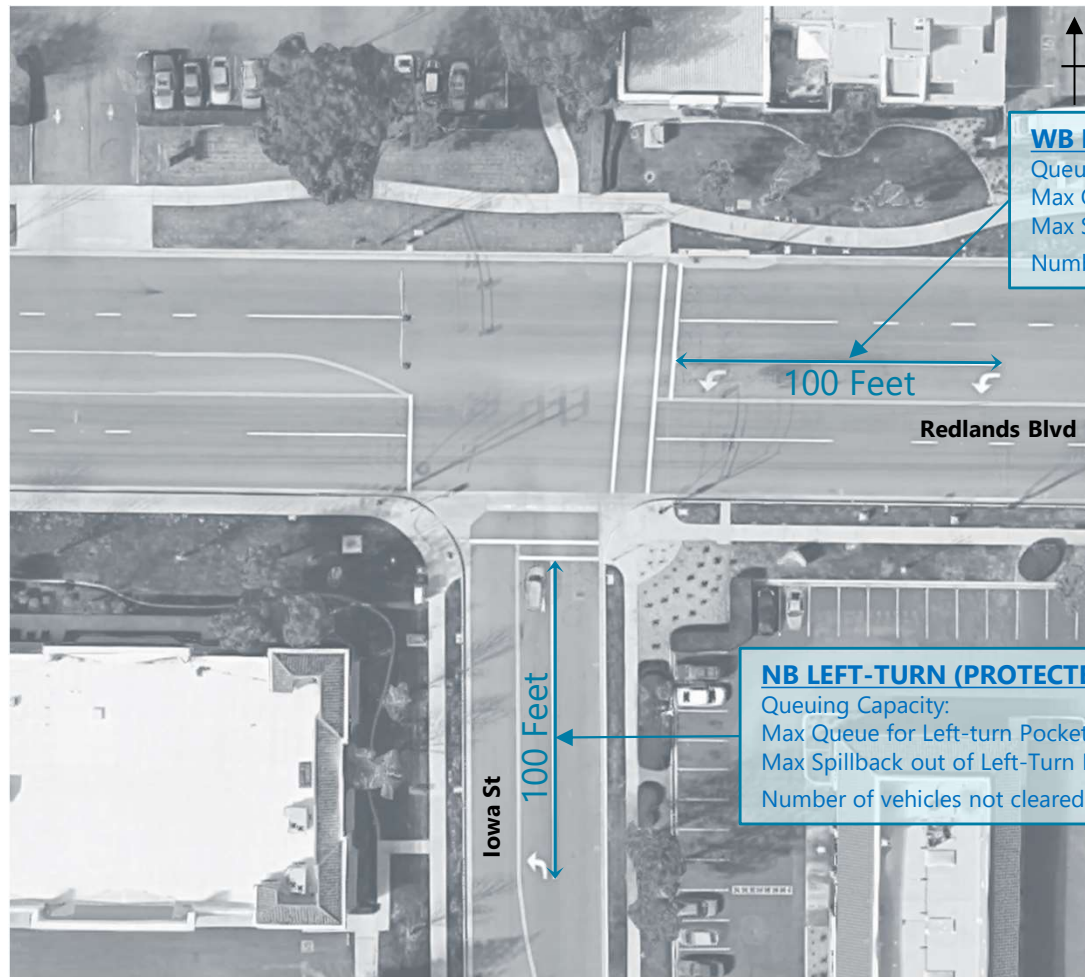
EB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **5 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #55: REDLANDS BLVD & IOWA ST

Existing



No left-turn queuing issues were identified

WB LEFT-TURN (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh***
Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

NB LEFT-TURN (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-turn Pocket: **2 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

INT #56: REDLANDS BLVD & NEVADA ST

Existing

No left-turn queuing issues were identified

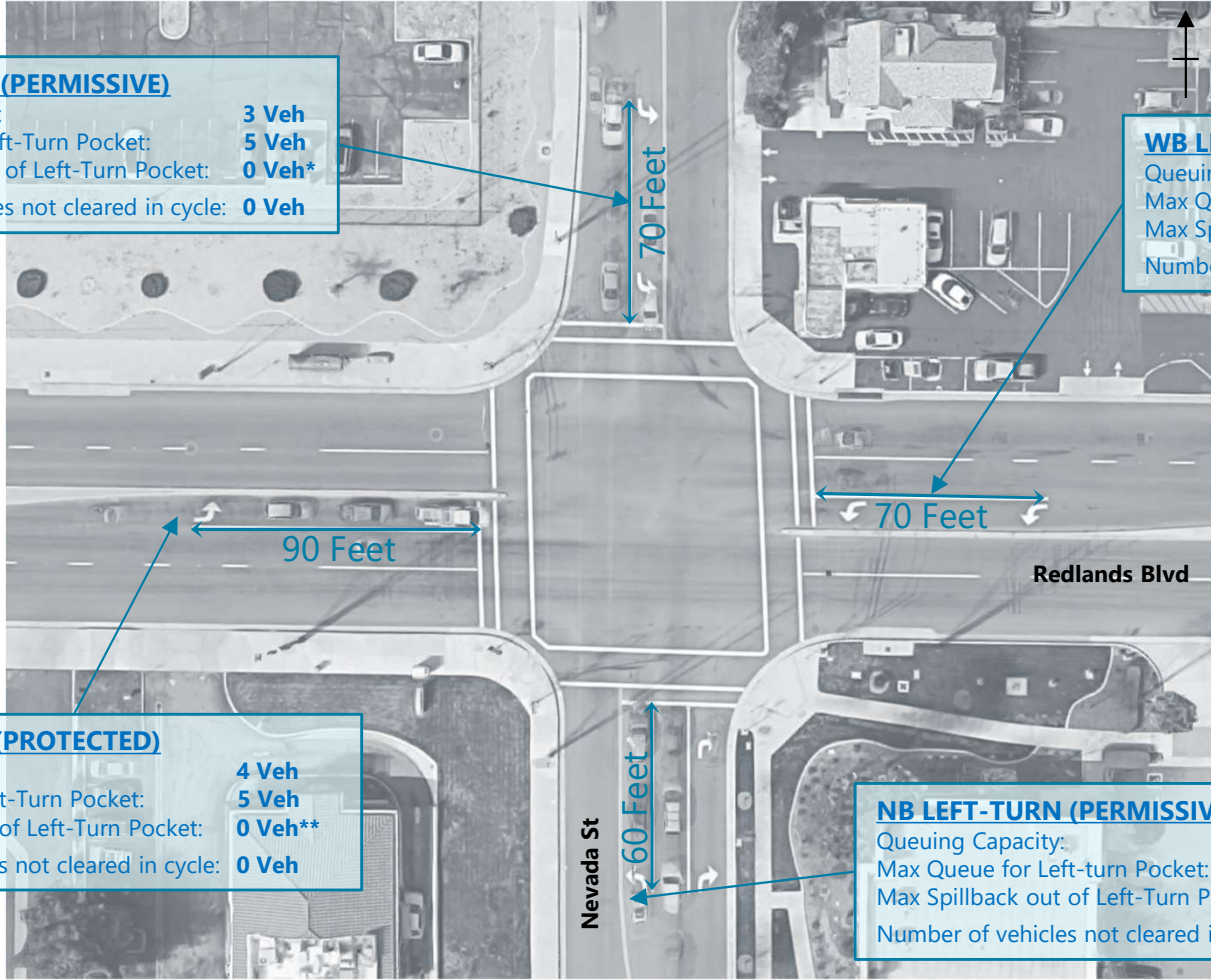
SB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.
 ** The left-turn lane including the taper has capacity for about 5 vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.

EB LEFT-TURN (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **5 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh****
 Number of vehicles not cleared in cycle: **0 Veh**

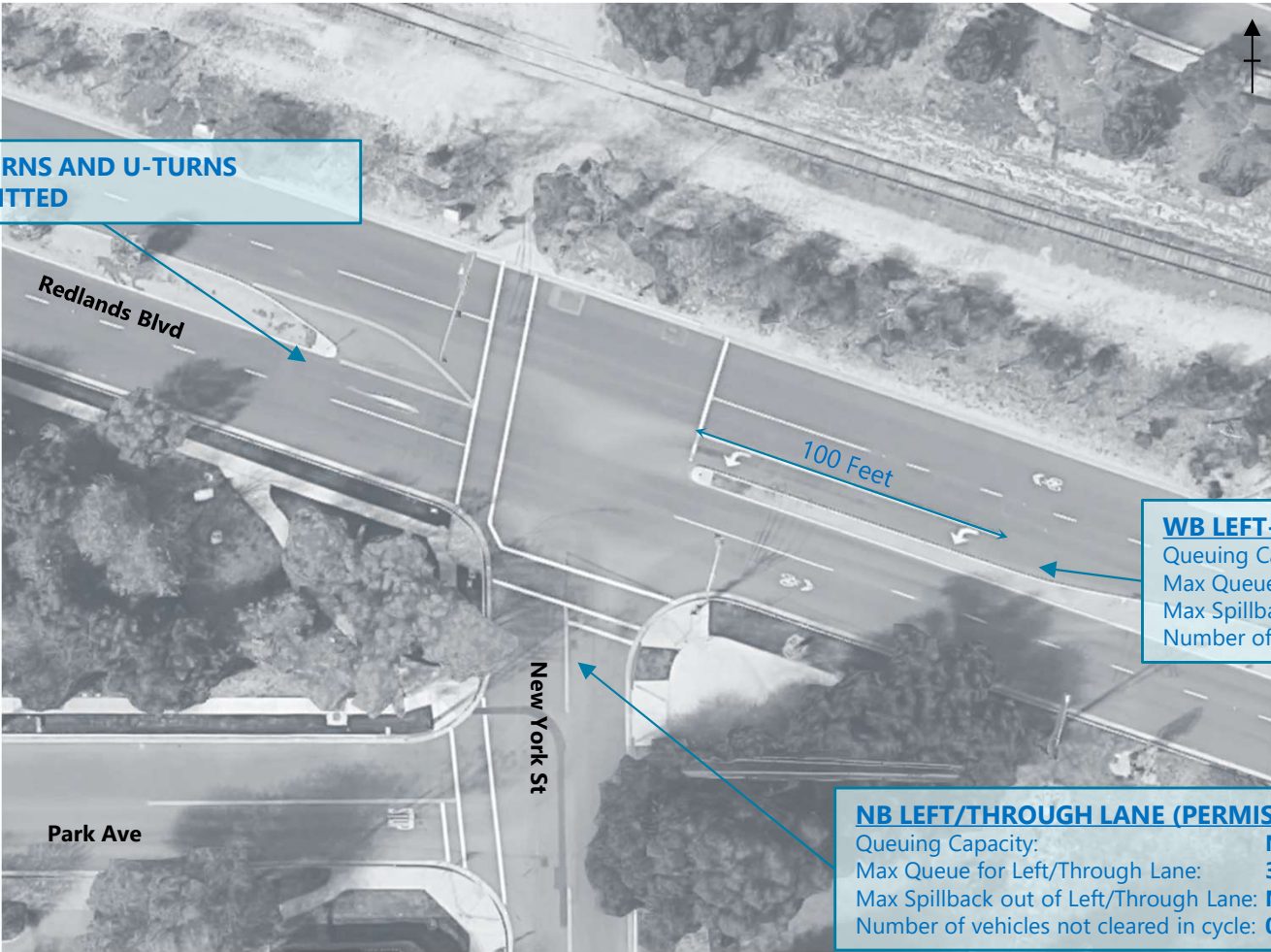
NB LEFT-TURN (PERMISSIVE)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #58: REDLANDS BLVD & NEW YORK ST

Existing

No left-turn queuing issues were identified



EB LEFT-TURNS AND U-TURNS NOT PERMITTED

WB LEFT-TURN LANE (PROTECTED)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT/THROUGH LANE (PERMISSIVE)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left/Through Lane: **N/A**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #60: REDLANDS BLVD & PALM AVE

Existing

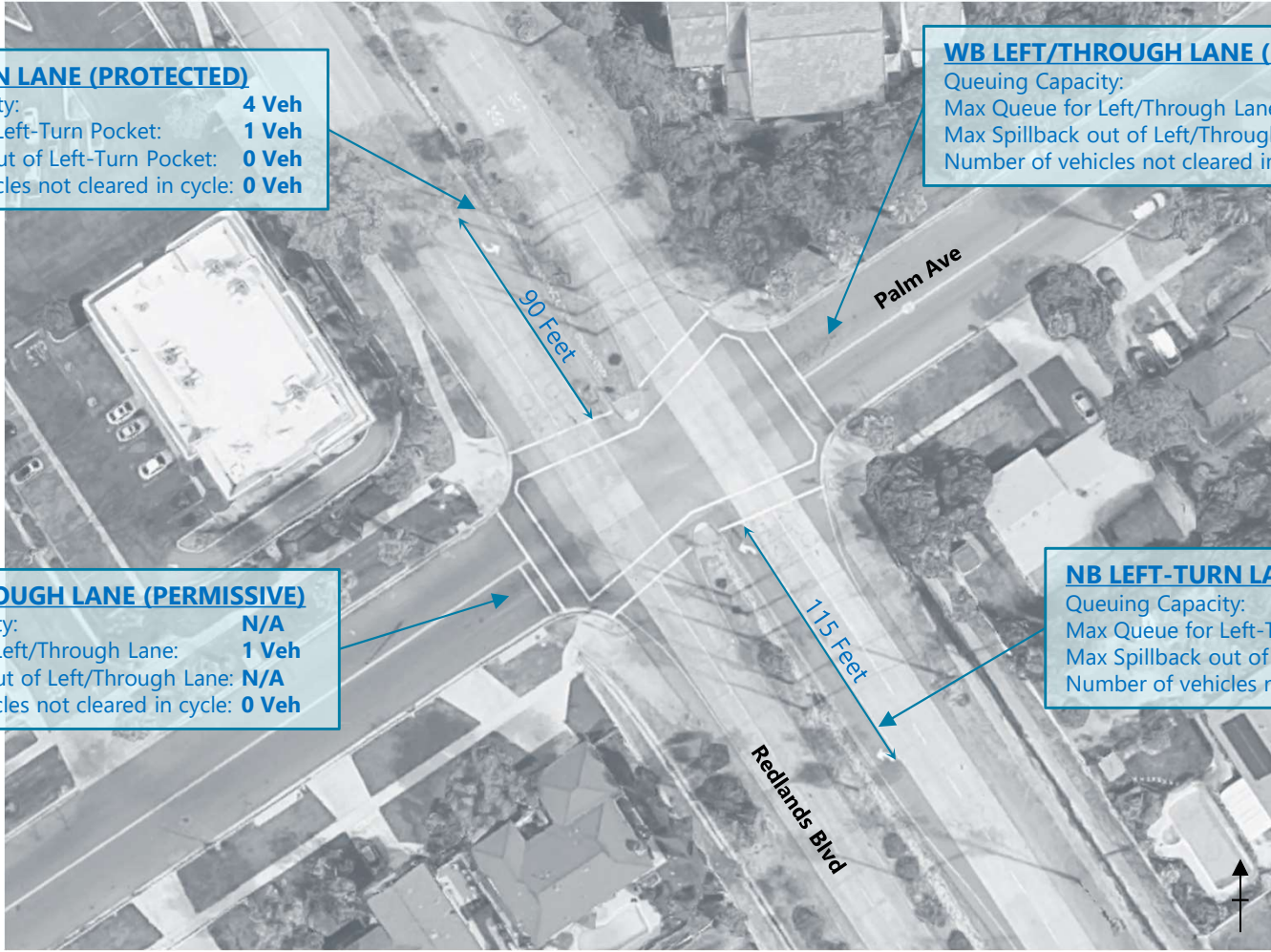
No left-turn queuing issues were identified

SB LEFT-TURN LANE (PROTECTED)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH LANE (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **4 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH LANE (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

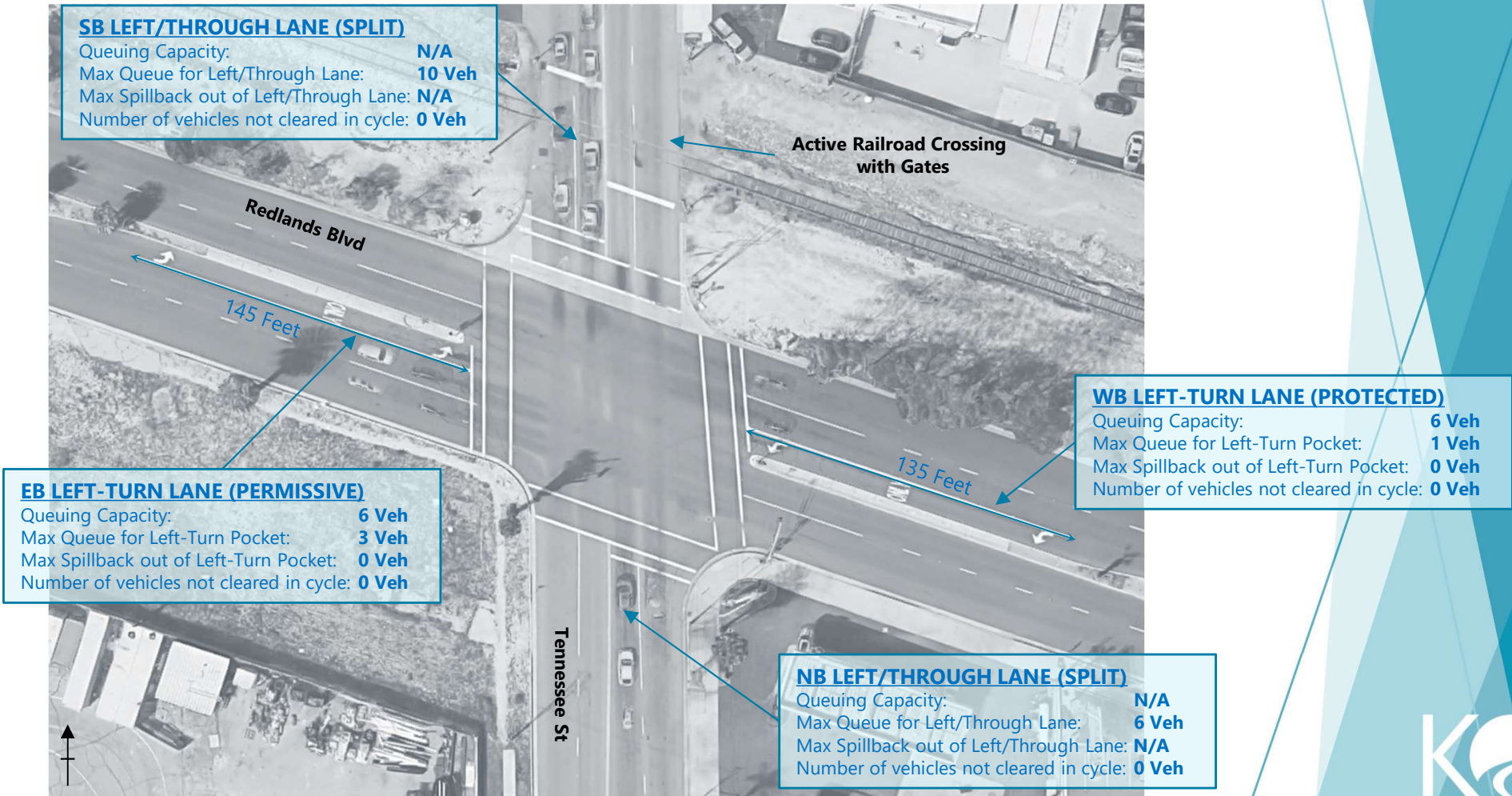
NB LEFT-TURN LANE (PROTECTED)
Queuing Capacity: **5 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



INT #61: REDLANDS BLVD & TENNESSEE ST

Existing

No left-turn queuing issues were identified



INT #63: SAN BERNARDINO AVE & CALIFORNIA ST

Existing

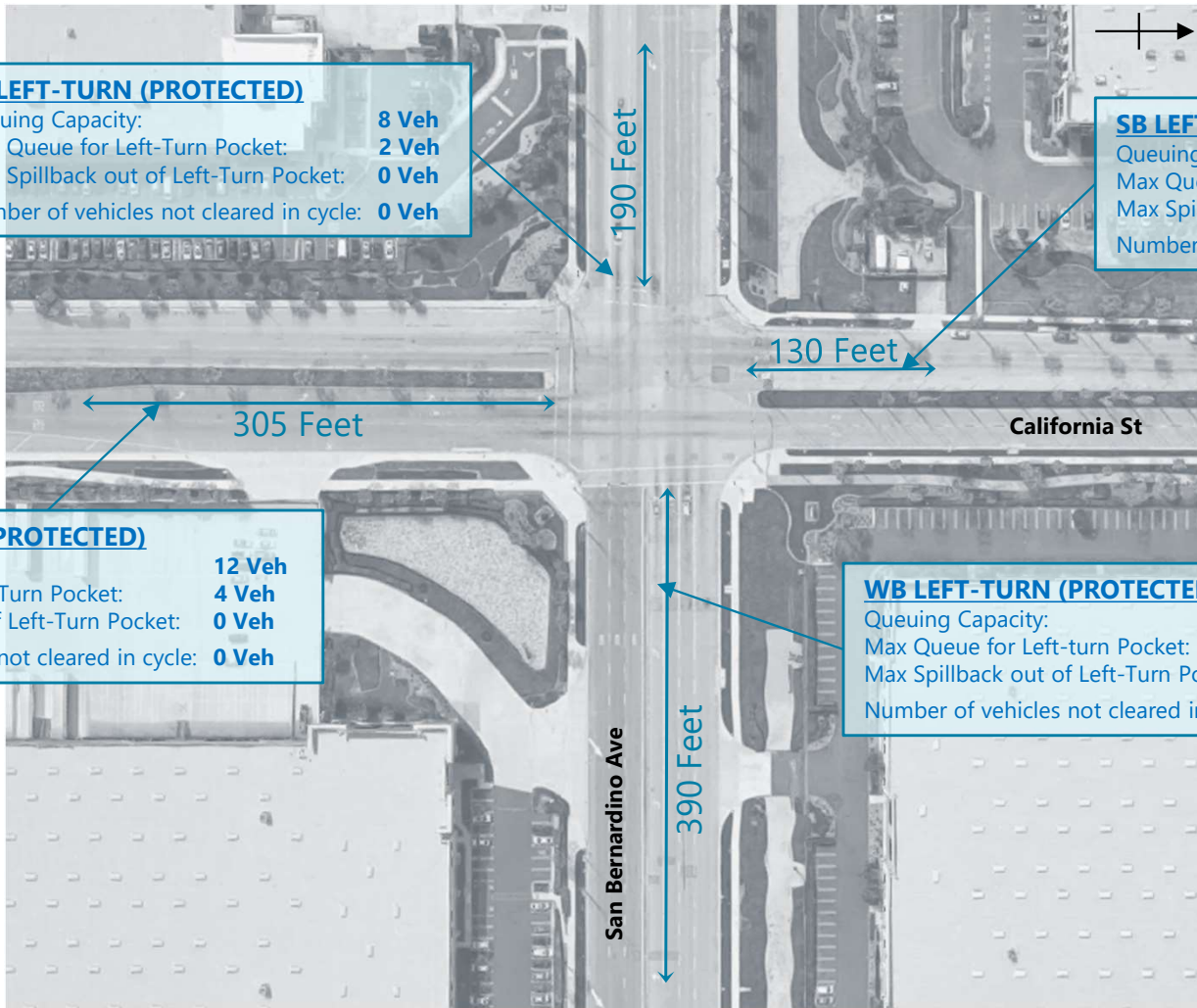
No left-turn queuing issues were identified

EB LEFT-TURN (PROTECTED)
Queuing Capacity: **8 Veh**
Max Queue for Left-Turn Pocket: **2 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

SB LEFT-TURN (PROTECTED)
Queuing Capacity: **6 Veh**
Max Queue for Left-Turn Pocket: **0 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
Queuing Capacity: **12 Veh**
Max Queue for Left-Turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)
Queuing Capacity: **16 Veh**
Max Queue for Left-turn Pocket: **4 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



INT #64: SAN BERNARDINO AVE & MOUNTAIN VIEW AVE

Existing

No left-turn queuing issues were identified

SB LEFT-TURN (PROTECTED)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh****
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN (PROTECTED)

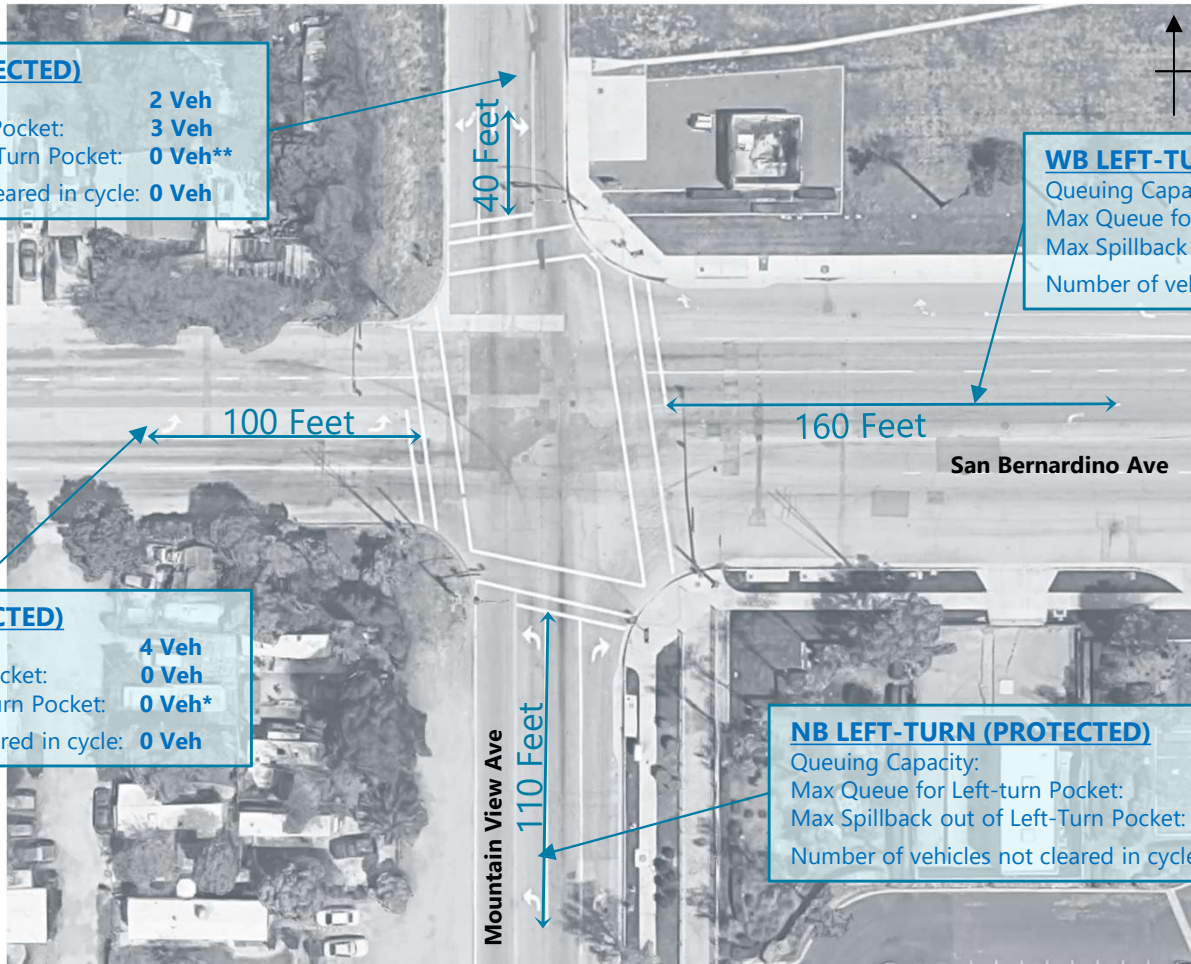
Queuing Capacity: **7 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN (PROTECTED)

Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)

Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



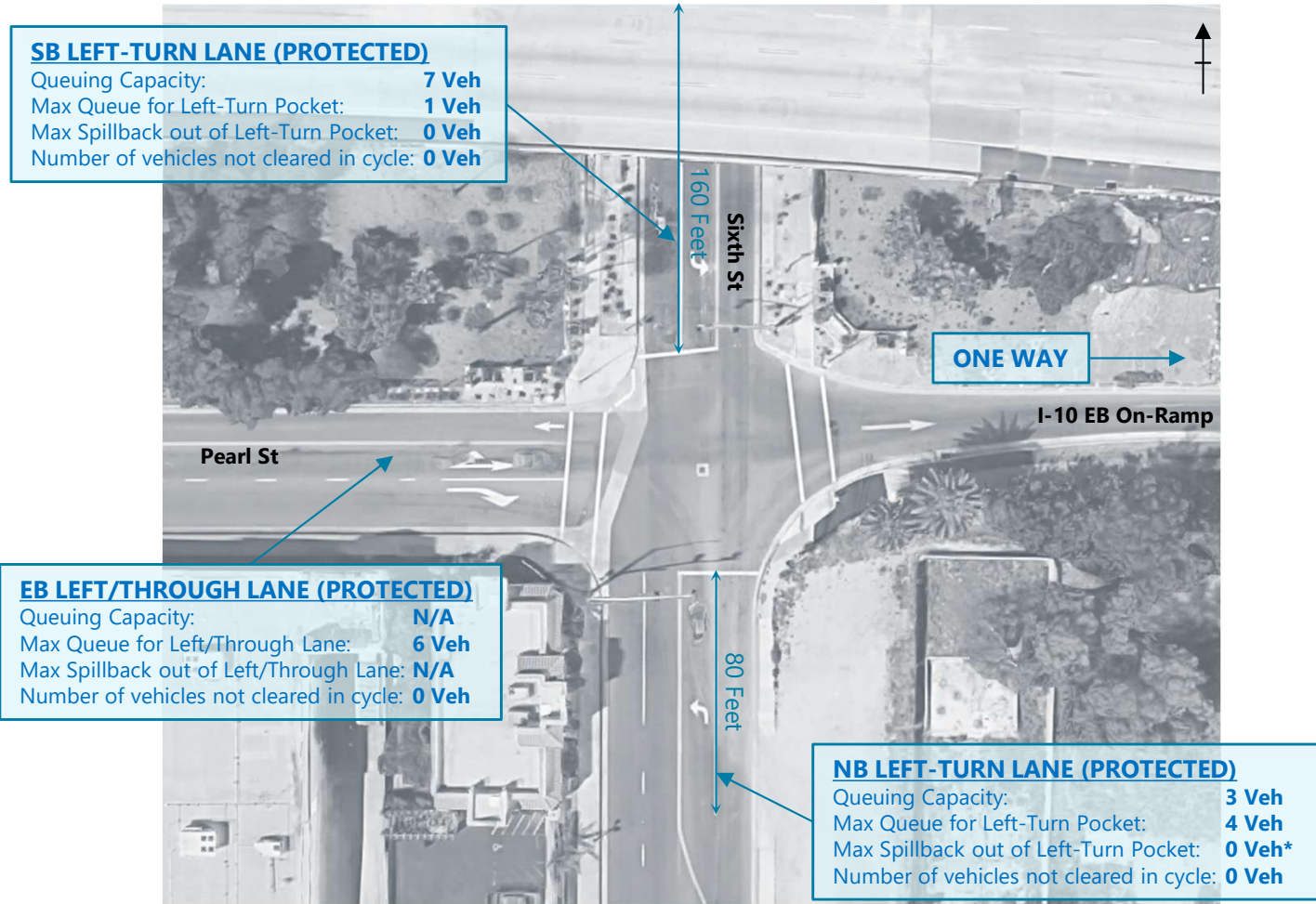
* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

** The left-turn lane including the taper has capacity for 3 vehicles. Therefore, no vehicle spill back out of left-turn pocket was observed.



INT #66: SIXTH ST & PEARL ST / I-10 EB On-Ramp

Existing



No left-turn queuing issues were identified

* The NB left-turn lane including the taper can accommodate four vehicles based on observations.



INT #68: TENNESSEE ST & STATE ST

Existing

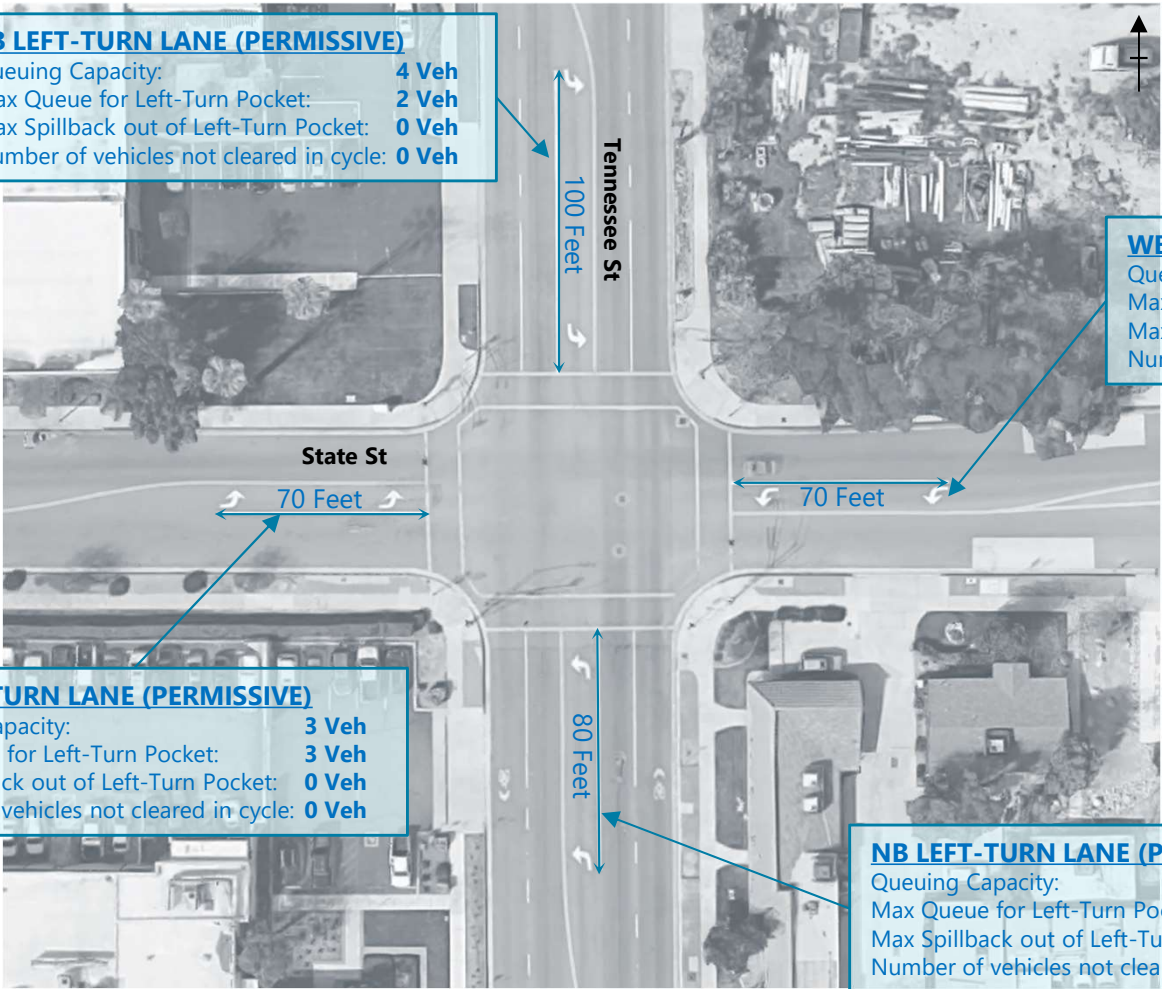
No left-turn queuing issues were identified

SB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **4 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN LANE (PERMISSIVE)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**
 Number of vehicles not cleared in cycle: **0 Veh**



INT #69: TEXAS ST & PIONEER AVE

Existing

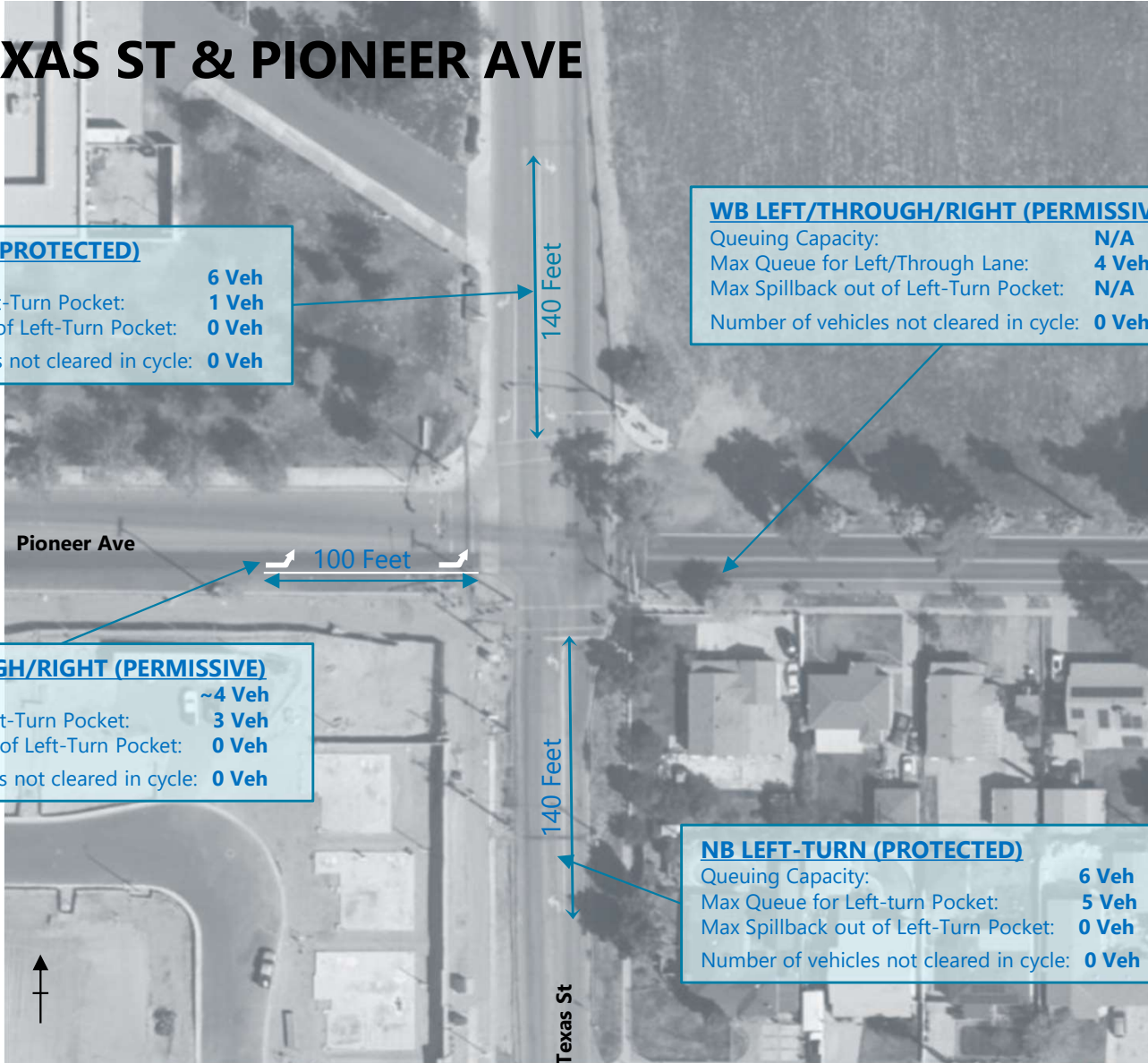
No left-turn queuing issues were identified

SB LEFT-TURN (PROTECTED)
Queuing Capacity: **6 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

WB LEFT/THROUGH/RIGHT (PERMISSIVE)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **4 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**
Number of vehicles not cleared in cycle: **0 Veh**

EB LEFT/THROUGH/RIGHT (PERMISSIVE)
Queuing Capacity: **~4 Veh**
Max Queue for Left-Turn Pocket: **3 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**

NB LEFT-TURN (PROTECTED)
Queuing Capacity: **6 Veh**
Max Queue for Left-turn Pocket: **5 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**
Number of vehicles not cleared in cycle: **0 Veh**



INT #70: ALESSANDRO RD & SUNSET DR

Existing

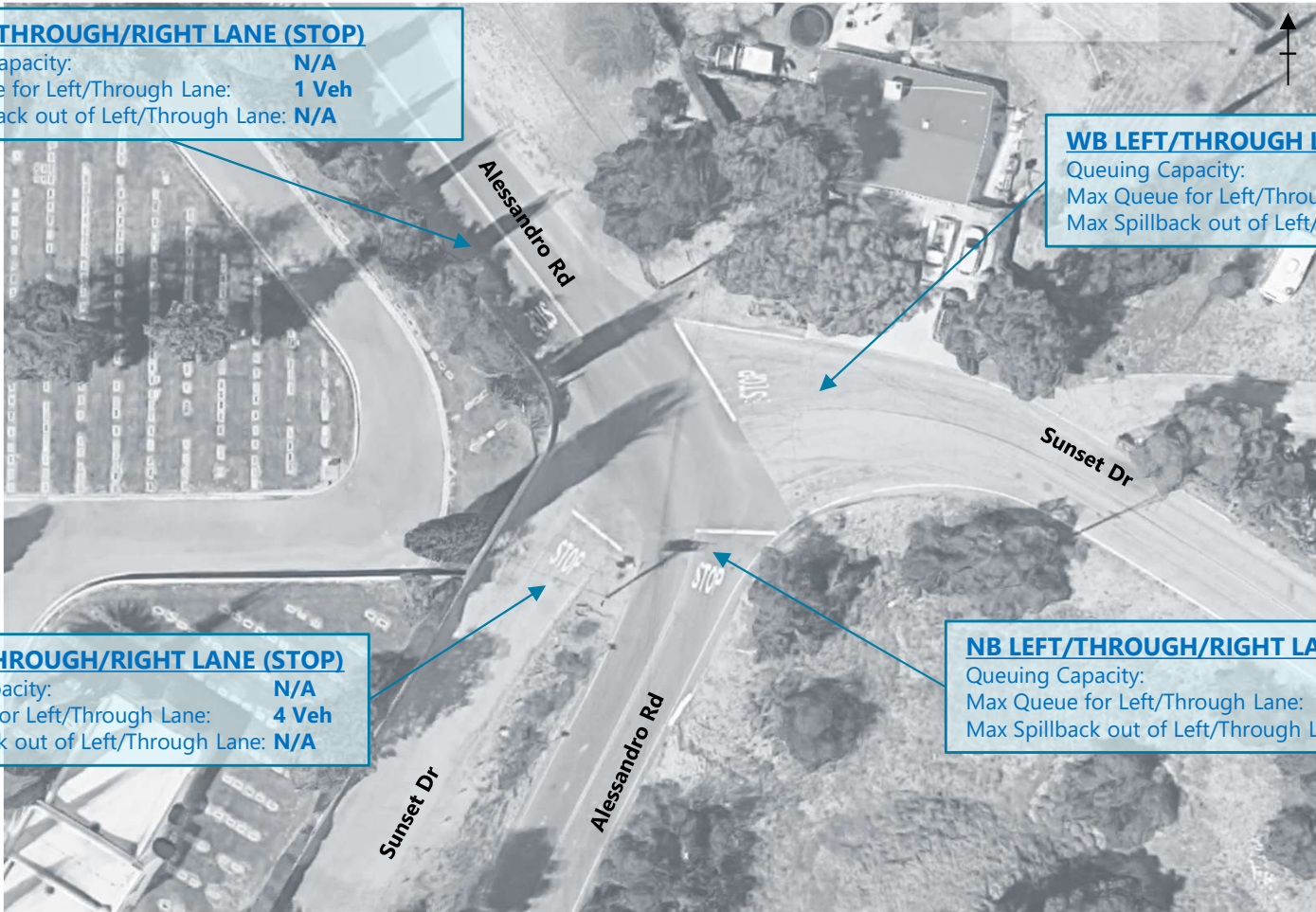
No left-turn queuing issues were identified

SB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 1 Veh
Max Spillback out of Left/Through Lane: N/A

WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 0 Veh
Max Spillback out of Left/Through Lane: N/A

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 4 Veh
Max Spillback out of Left/Through Lane: N/A

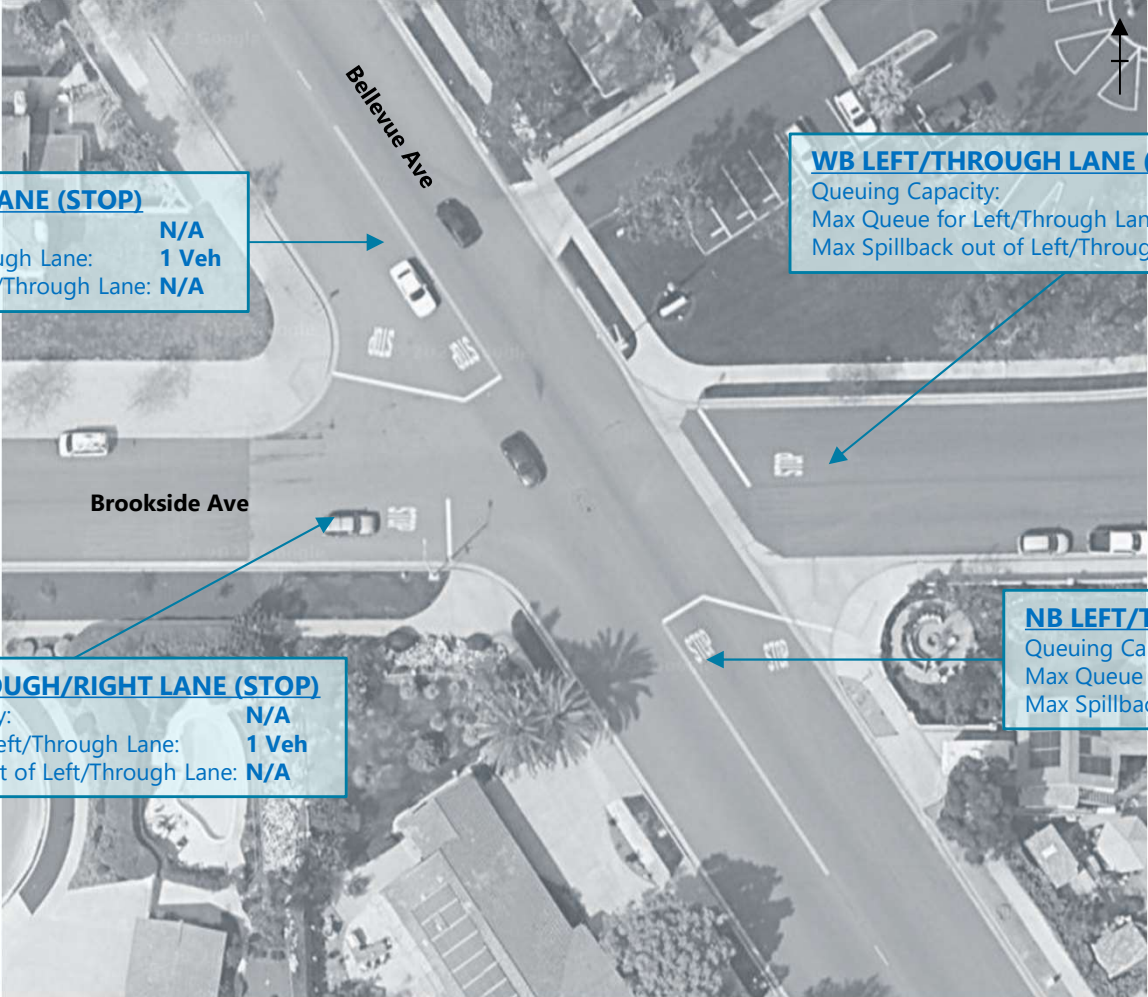
NB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: N/A
Max Queue for Left/Through Lane: 2 Veh
Max Spillback out of Left/Through Lane: N/A



INT #71: BELLEVUE AVE & BROOKSIDE AVE

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

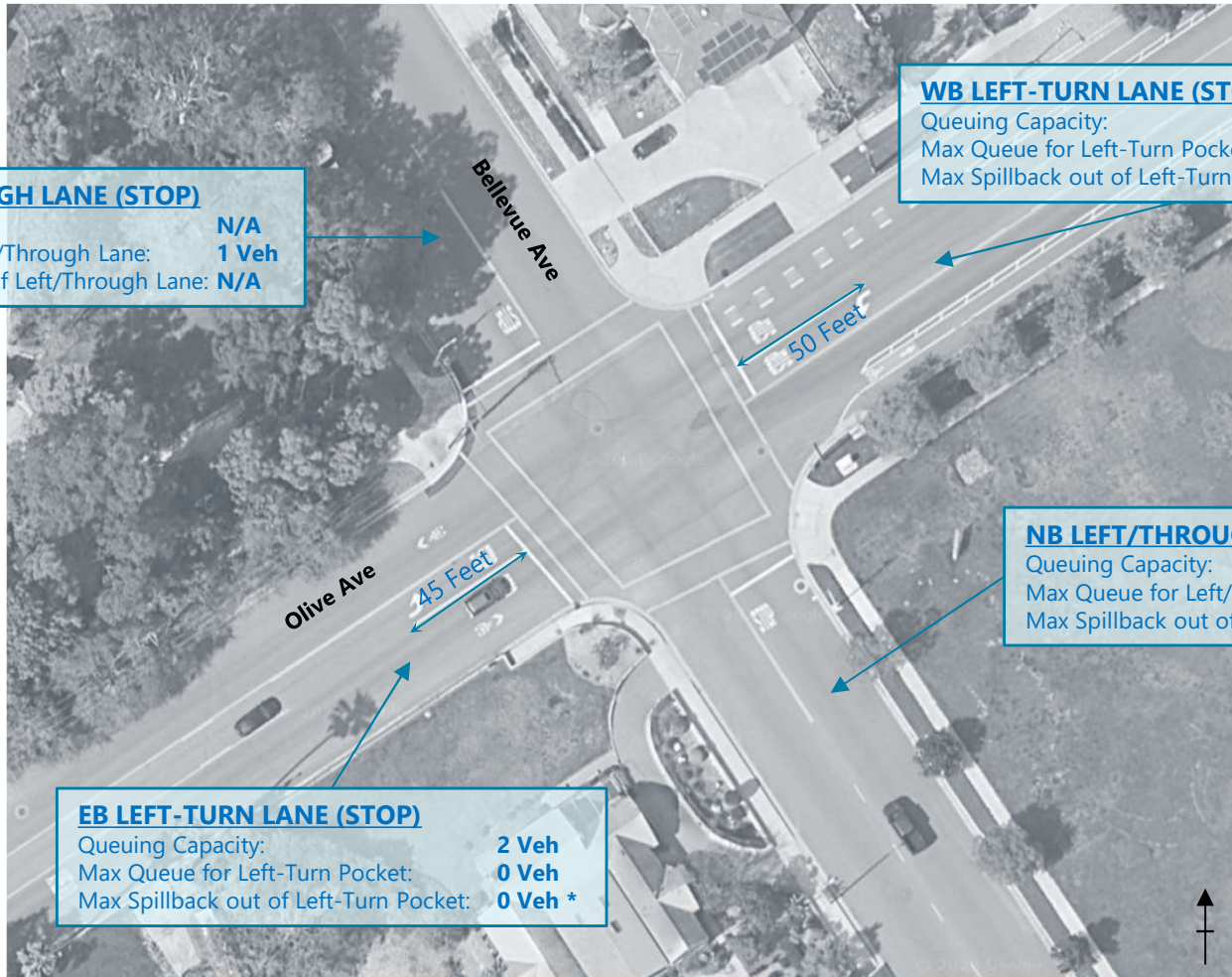
WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

INT #72: BELLEVUE AVE & OLIVE AVE

Existing



SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

WB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***

NB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

EB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***

No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #73: BROCKTON AVE & DEARBORN ST

Existing

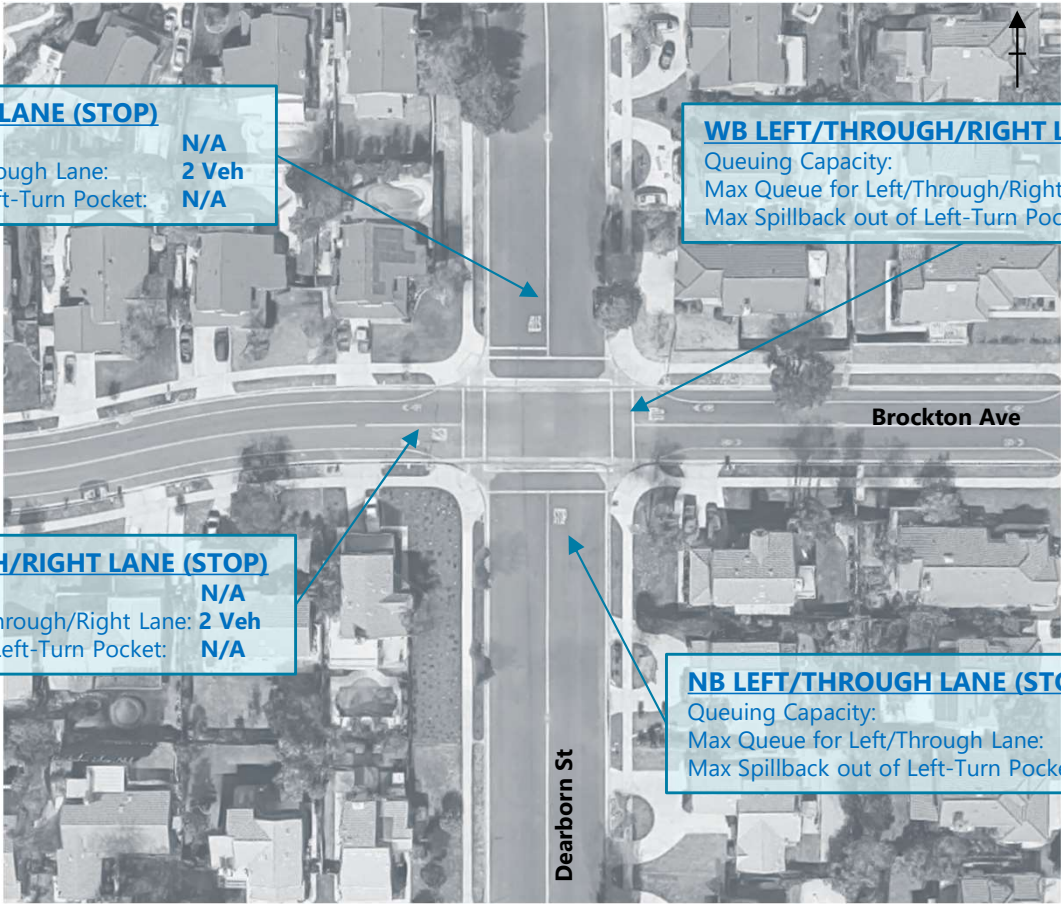
No left-turn queuing issues were identified

SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**



INT #74: BROCKTON AVE & SIXTH ST

Existing

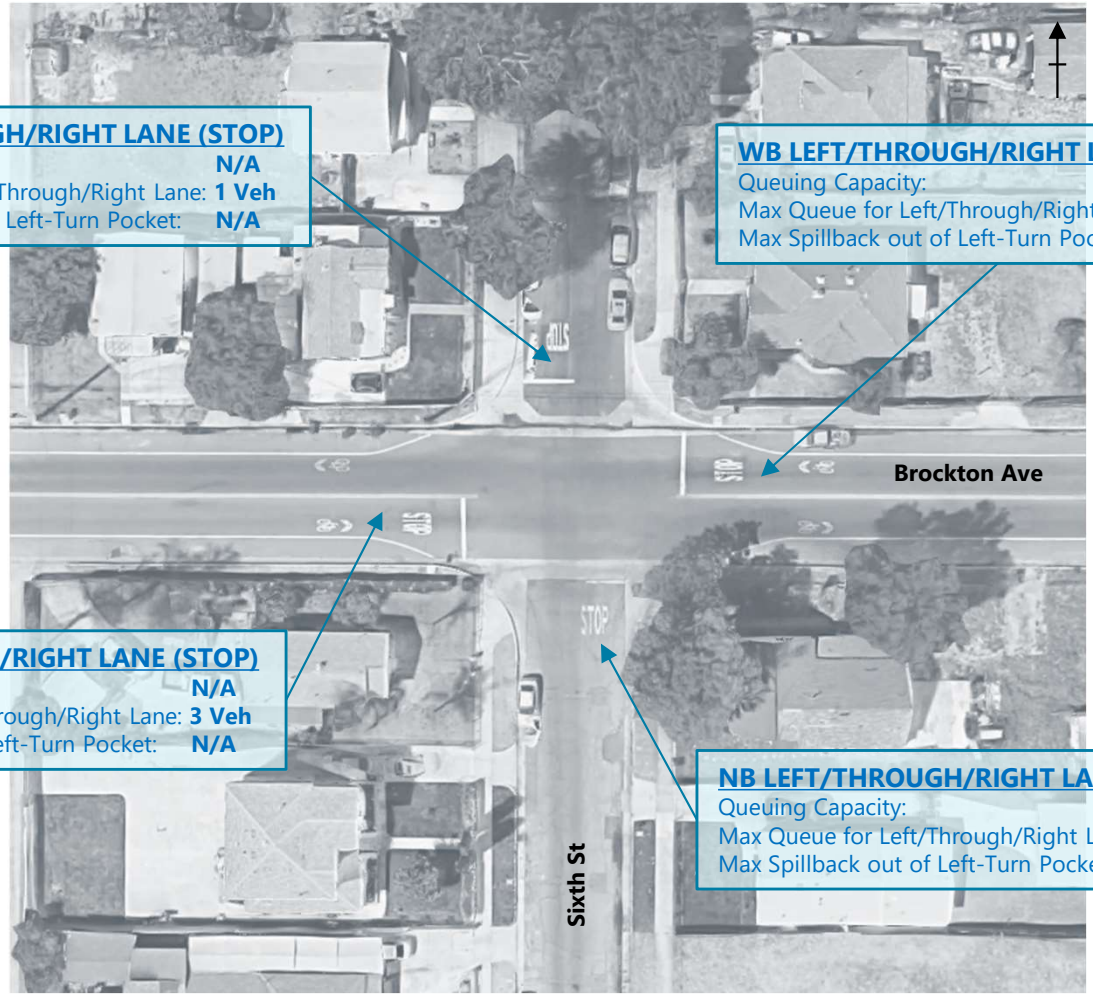
No left-turn queuing issues were identified

SB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **3 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

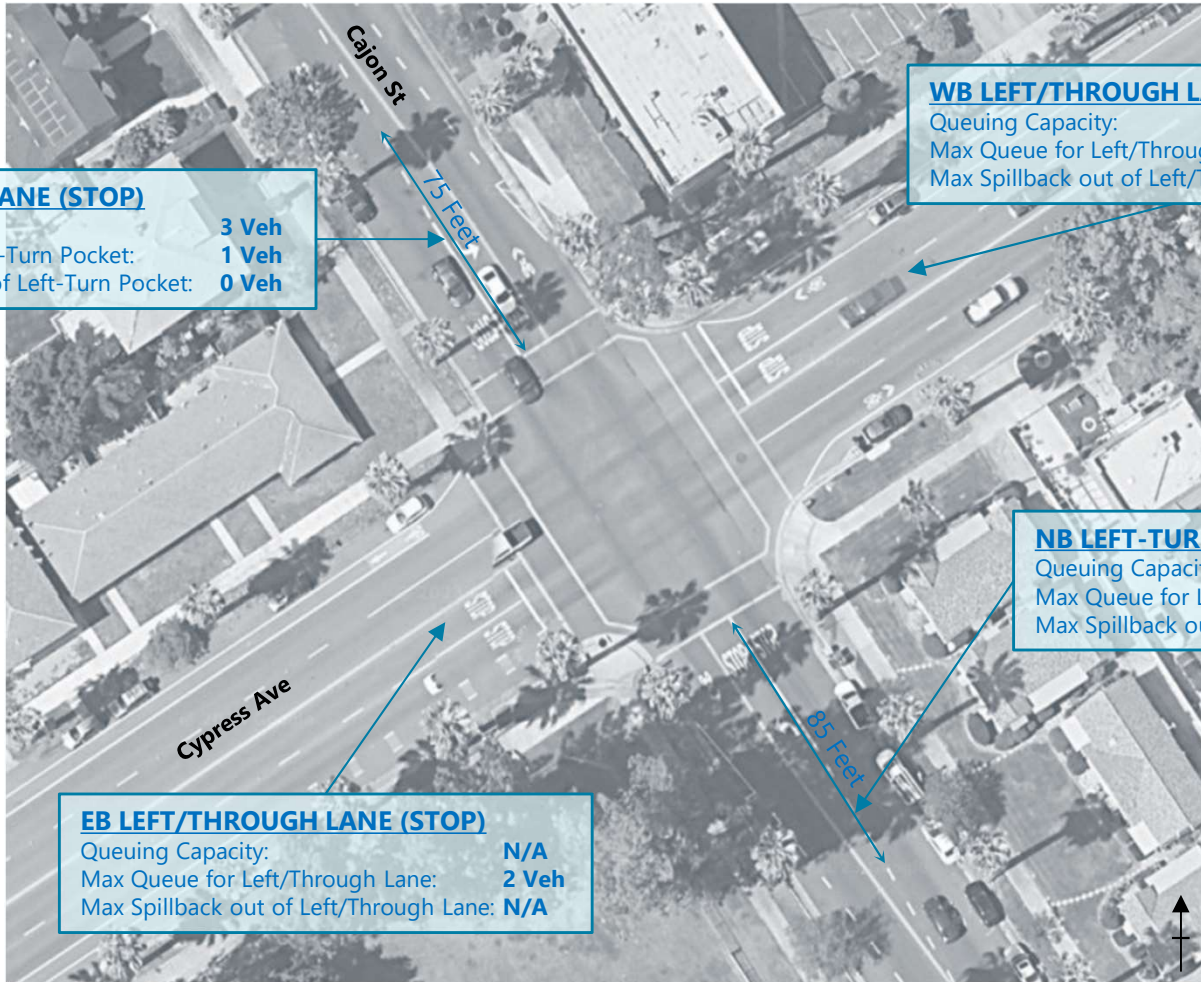
NB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**



INT #75: CAJON ST & CYPRESS AVE

Existing

No left-turn queuing issues were identified



SB LEFT-TURN LANE (STOP)
Queuing Capacity: **3 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**

WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

NB LEFT-TURN LANE (STOP)
Queuing Capacity: **4 Veh**
Max Queue for Left-Turn Pocket: **1 Veh**
Max Spillback out of Left-Turn Pocket: **0 Veh**

EB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left/Through Lane: **N/A**

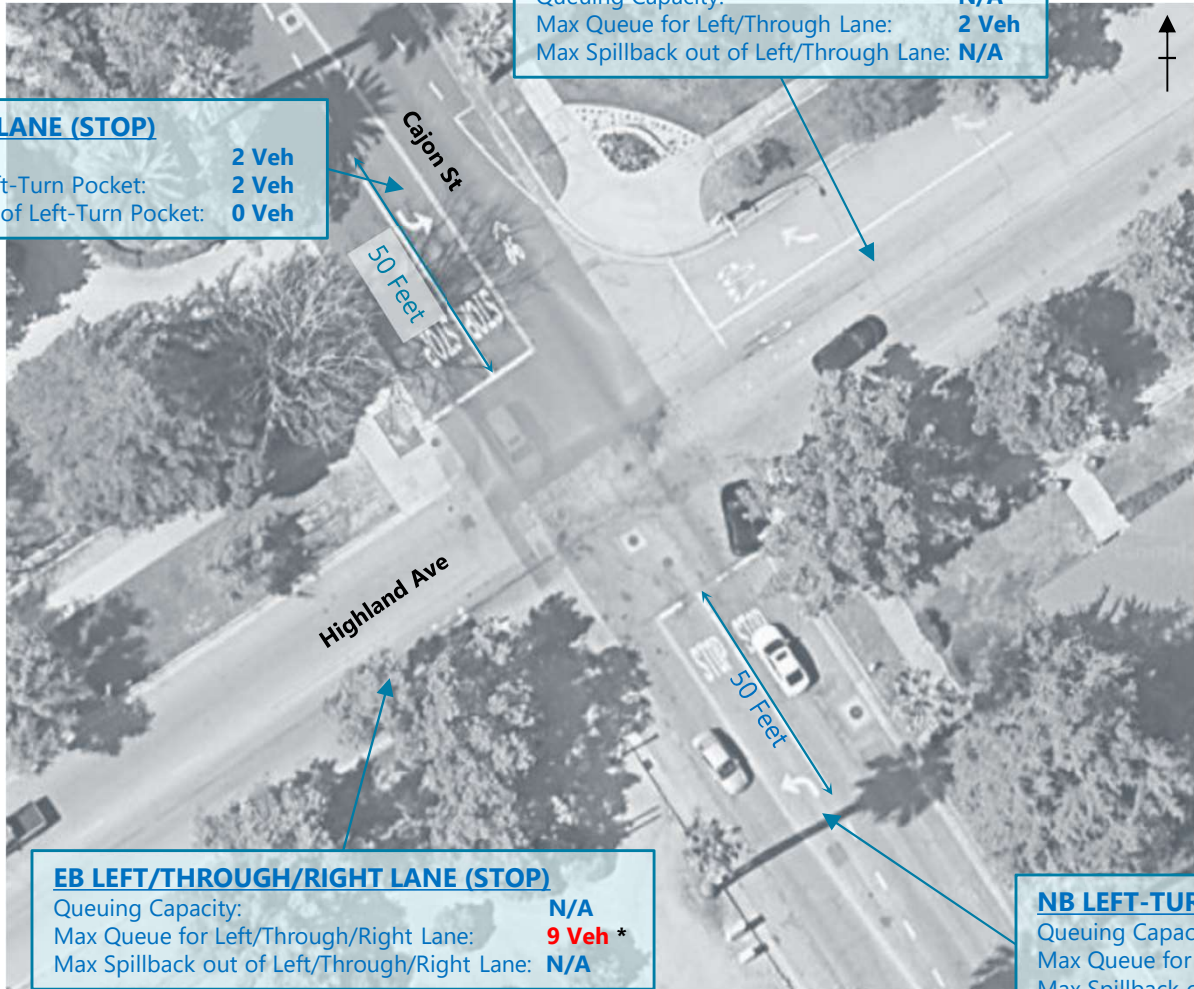
INT #76: CAJON ST & HIGHLAND AVE

Existing

No left-turn queuing issues were identified

SB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**

WB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left/Through Lane: **N/A**



EB LEFT/THROUGH/RIGHT LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **9 Veh ***
 Max Spillback out of Left/Through/Right Lane: **N/A**

NB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**

* There are 18 left-turn, 305 through, and 64 right-turn vehicles during the PM peak hour in the EB. The width of the eastbound lane is approximately 20 feet, which is adequate to provide two approach lanes. However, the left-turn demand is very low and therefore does not justify the provision of a left-turn pocket. Therefore, no improvements are recommended.

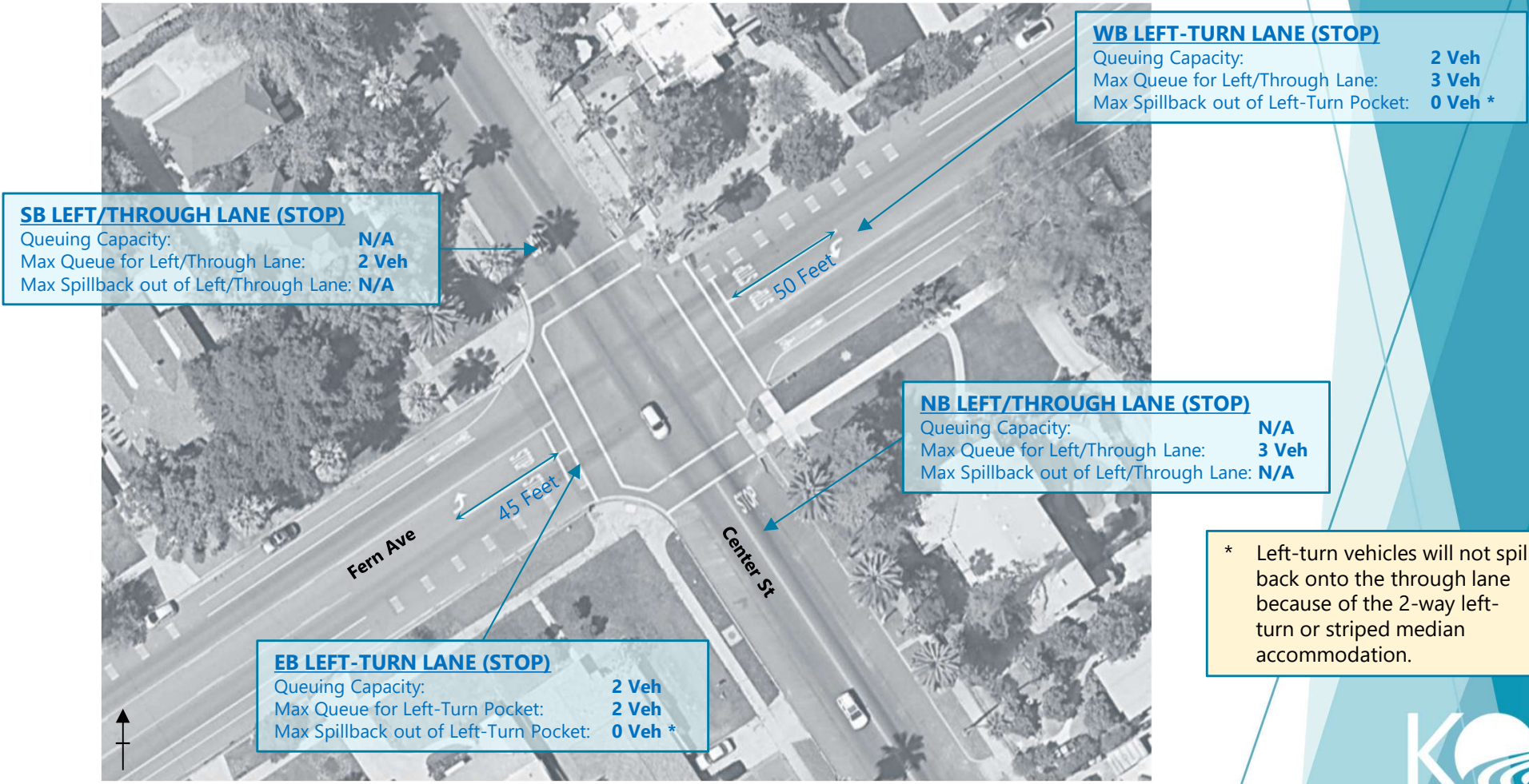
It should also be noted that the width of the EB approach is sufficient for one left/ through lane and one de-facto right-turn lane. Based on Synchro analysis, the EB left/through lane is operating at a good level of service (LOS C). Therefore, no improvements are recommended.



INT #77: CENTER ST & FERN AVE

Existing

No left-turn queuing issues were identified

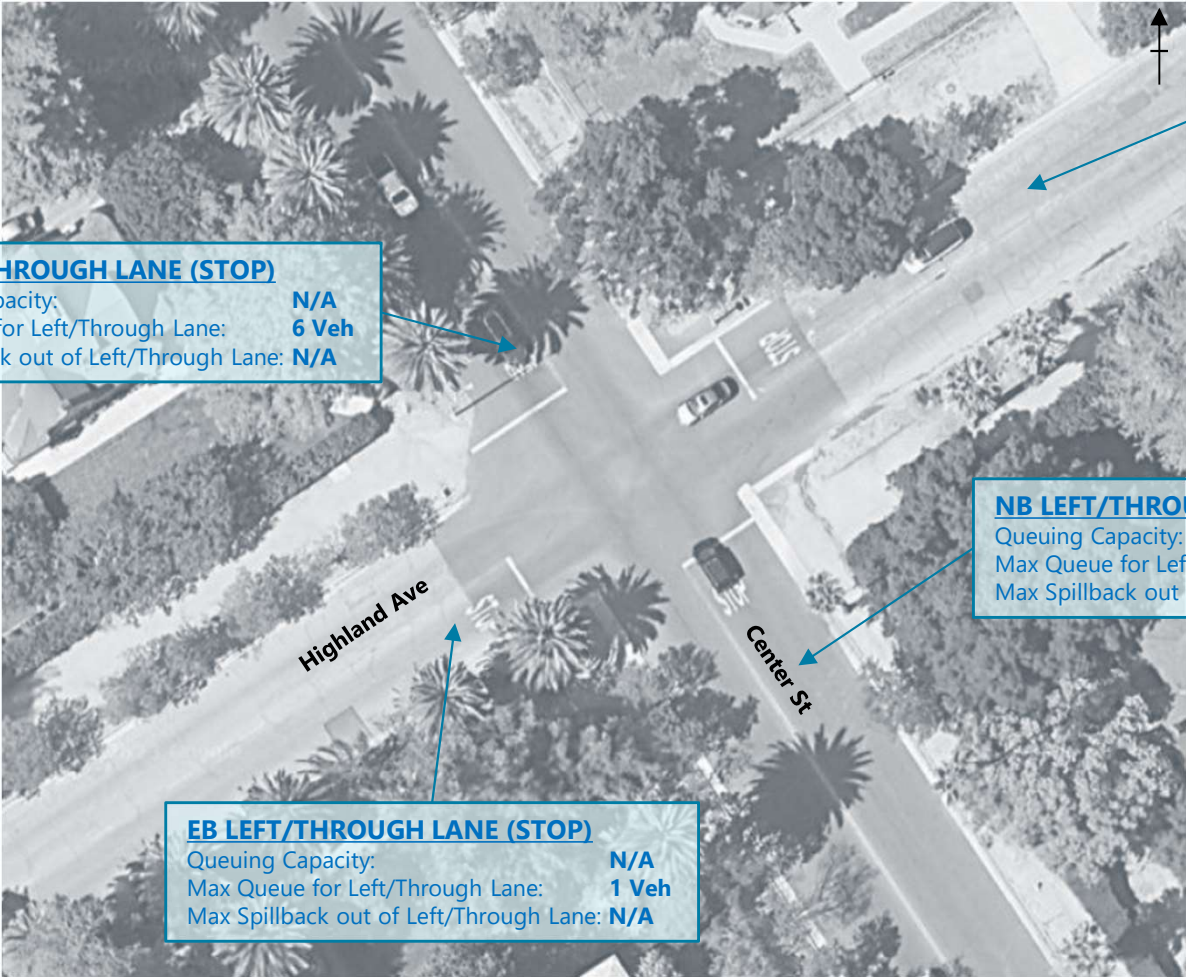


* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #78: HIGHLAND AVE & CENTER ST

Existing



SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 6 Veh
 Max Spillback out of Left/Through Lane: N/A

WB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 5 Veh
 Max Spillback out of Left/Through Lane: N/A

NB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 2 Veh
 Max Spillback out of Left/Through Lane: N/A

EB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: N/A
 Max Queue for Left/Through Lane: 1 Veh
 Max Spillback out of Left/Through Lane: N/A

No left-turn queuing issues were identified

INT #80: CHURCH ST & PENNSYLVANIA AVE

Existing

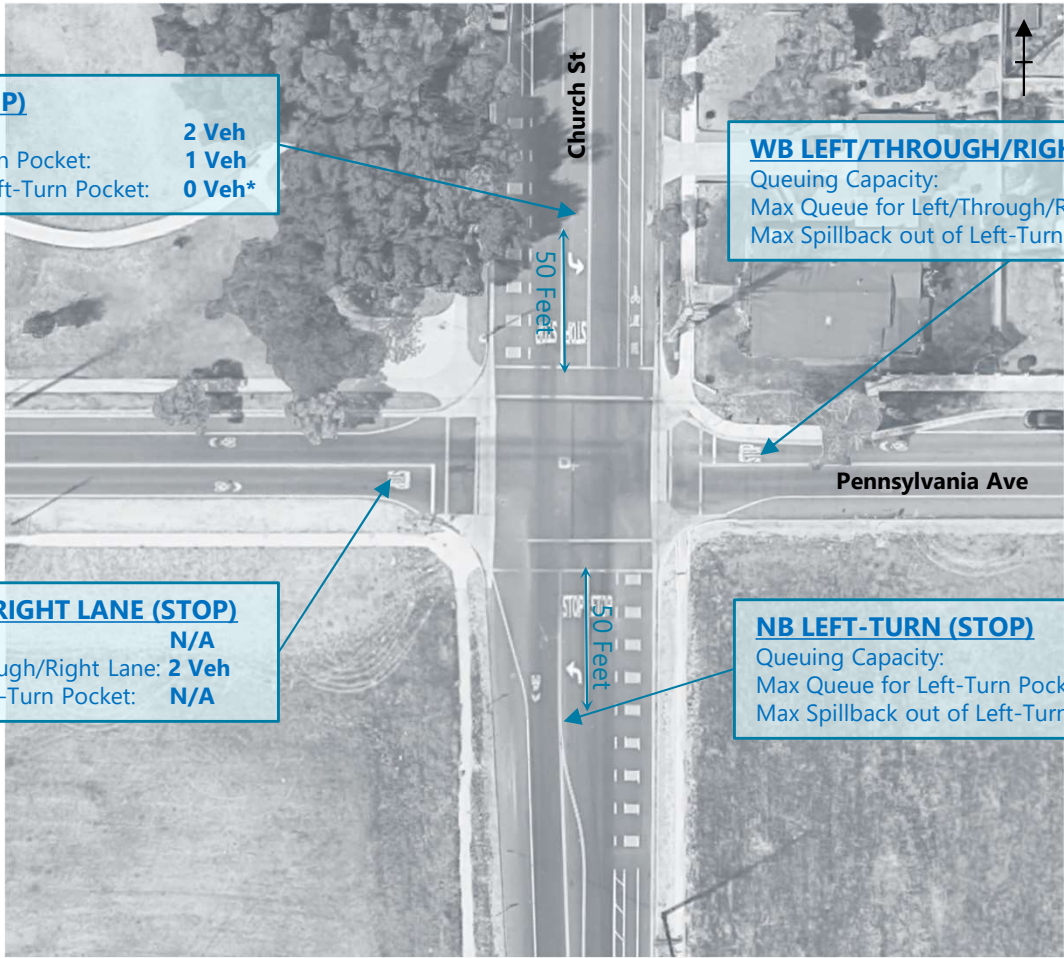
No left-turn queuing issues were identified

SB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***

WB LEFT/THROUGH/RIGHT LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

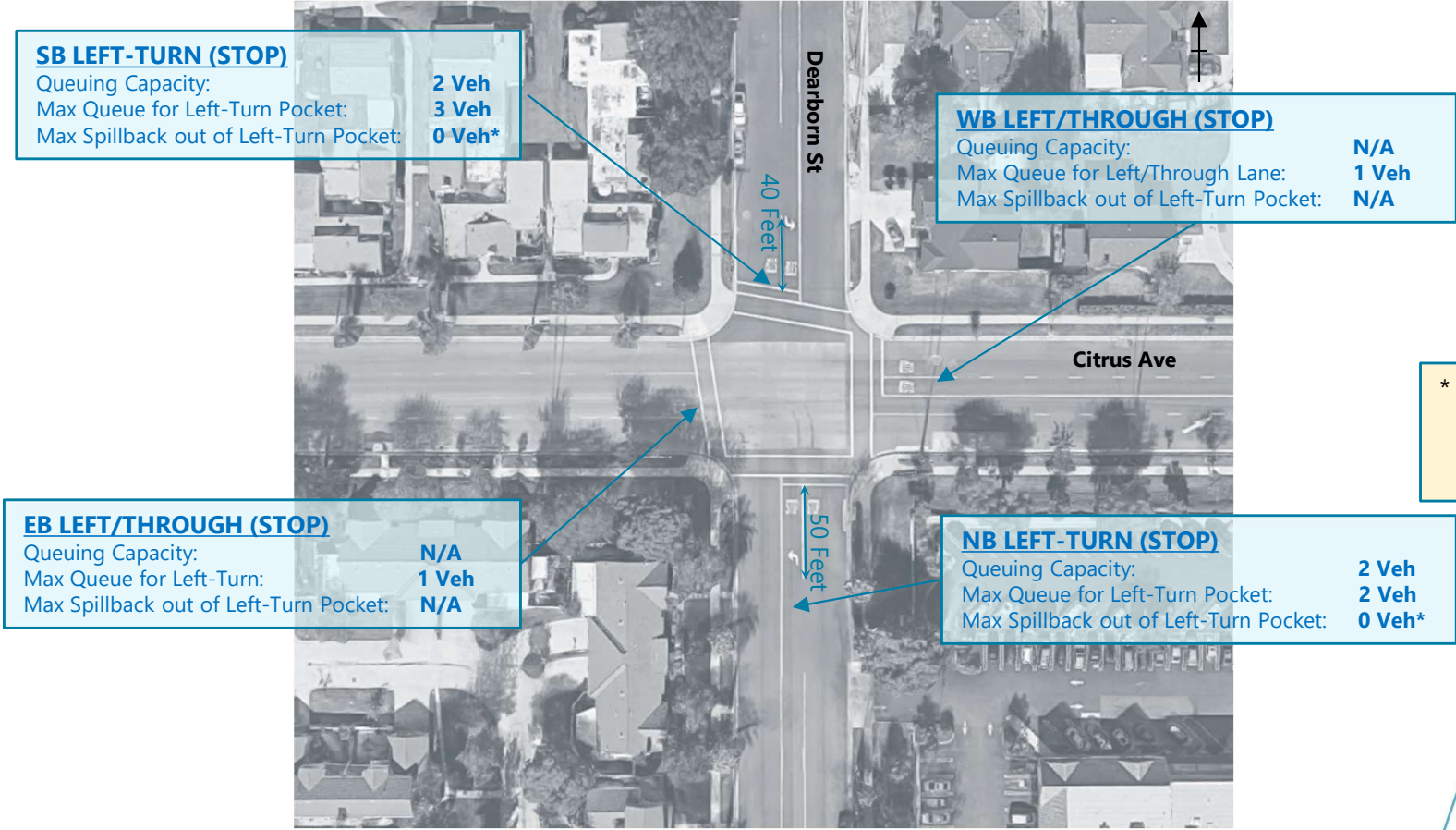


* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #81: CITRUS AVE & DEARBORN ST

Existing

No left-turn queuing issues were identified



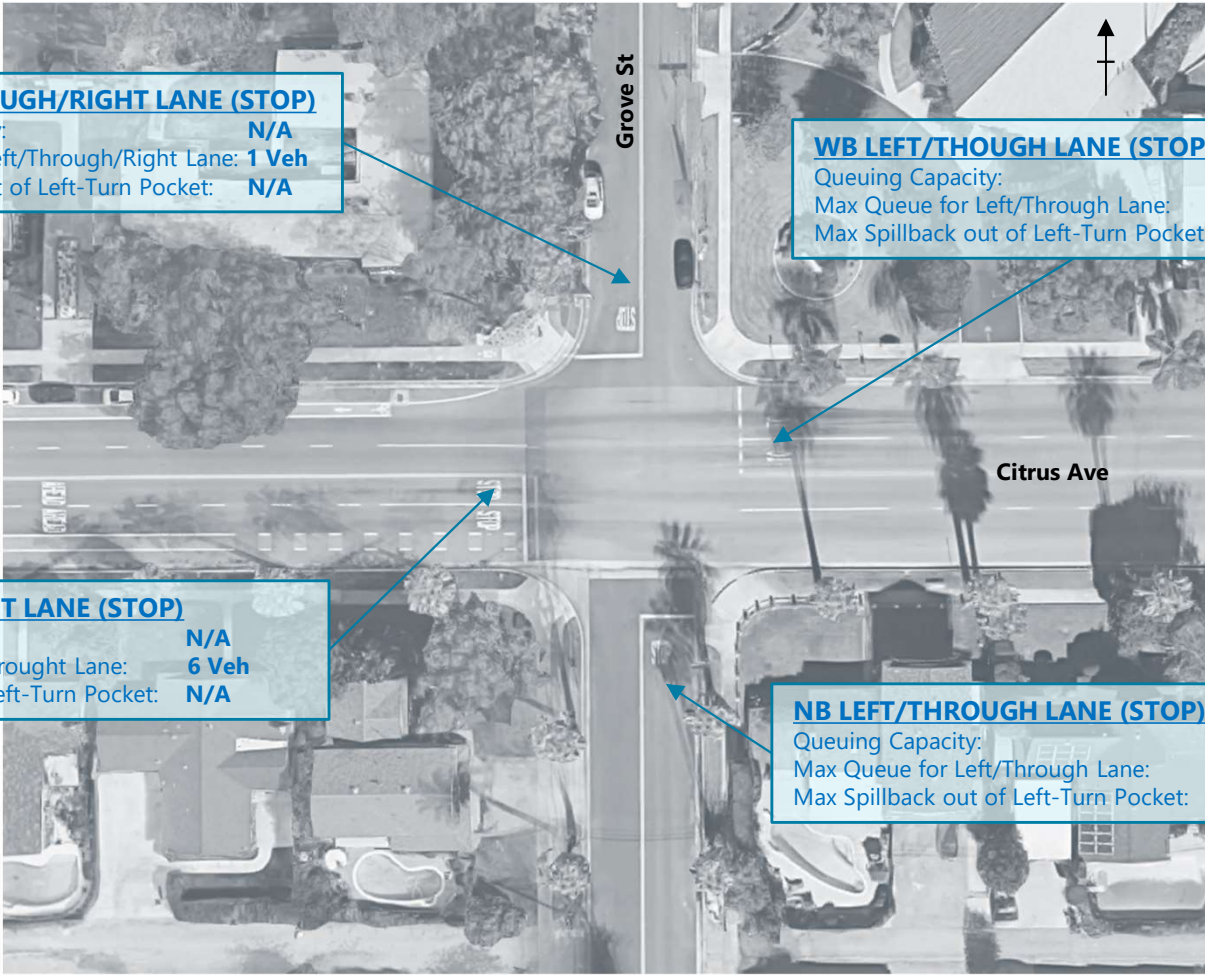
* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #82: CITRUS AVE & GROVE ST

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **3 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **6 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

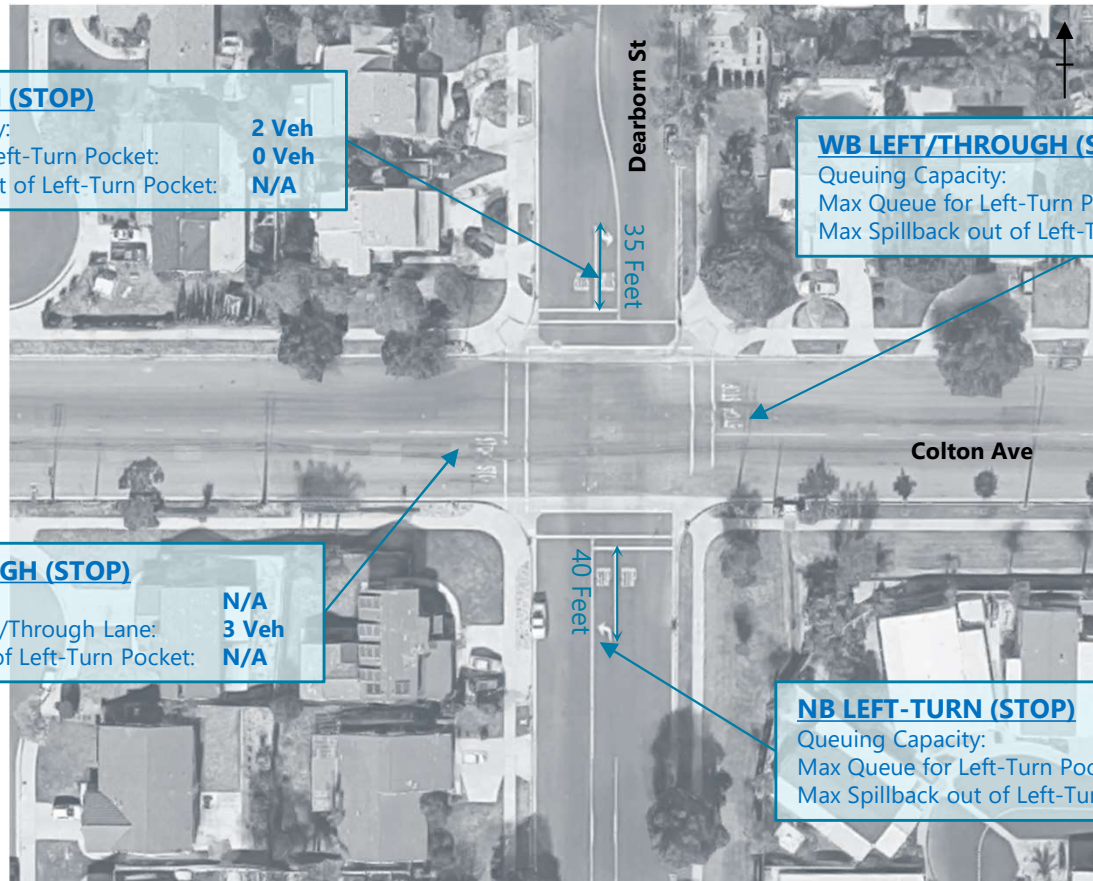
NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

Note:
The PM peak hour traffic volumes do not warrant the provision of a traffic signal.

The EB left-turn movement only has 78 trips. The addition of an EB left-turn pocket may impact the bike lanes on Citrus Avenue. Therefore, a left-turn pocket is not recommended.

INT #83: COLTON AVE & DEARBORN ST

Existing



SB LEFT-TURN (STOP)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **0 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH (STOP)

Queuing Capacity: **N/A**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH (STOP)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT-TURN (STOP)

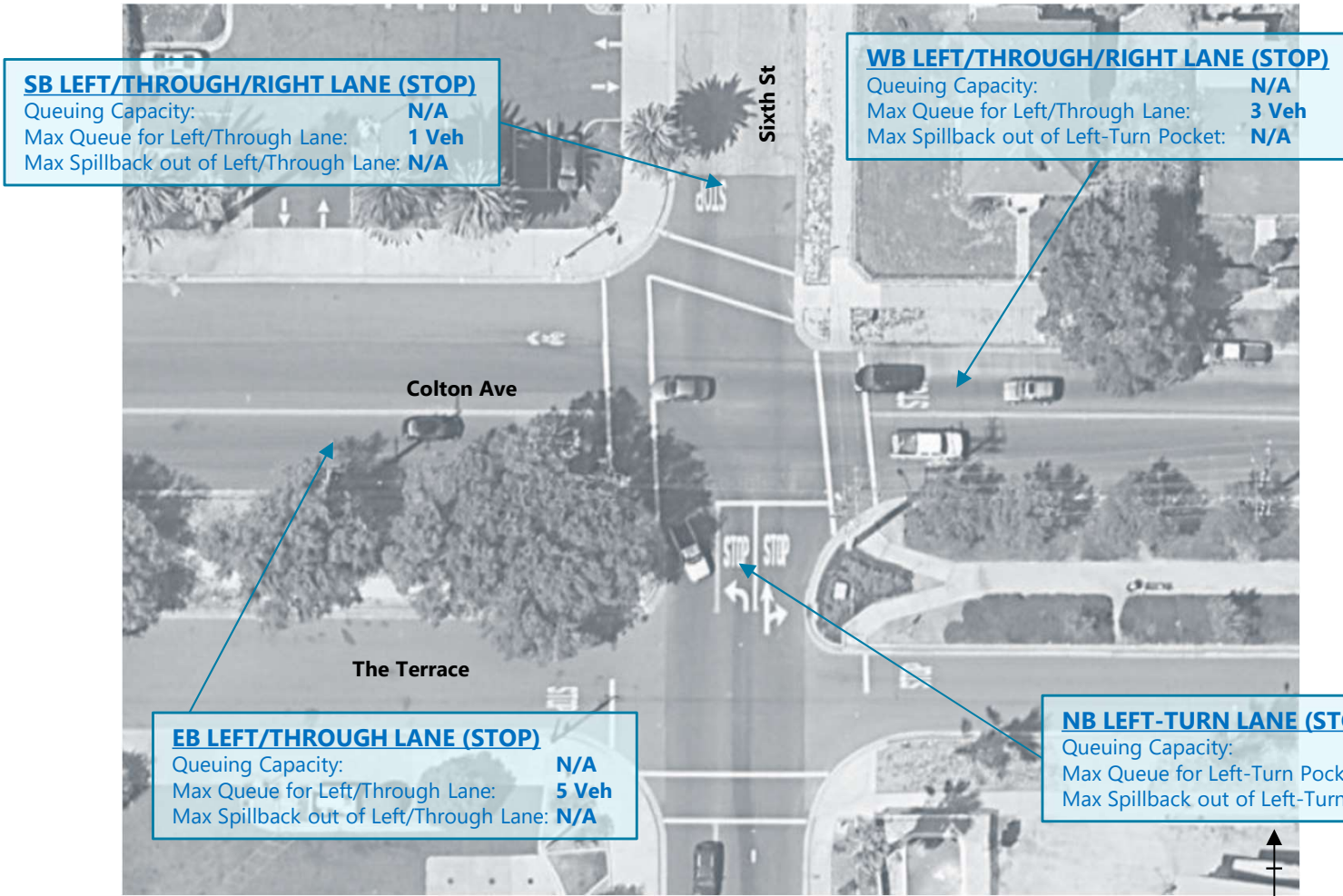
Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***

No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #84: COLTON AVE & SIXTH ST

Existing



No left-turn queuing issues were identified

* The NB approach has 2, 45, and 10 vehicles per hour in the left-turn, through, and right-turn lanes, respectively, which is only on average a total of about 1 vehicle per minute. In addition, the intersection is operating at LOS A based on Synchro analysis. Therefore, no improvements are recommended.

INT #85: COLTON AVE & UNIVERSITY ST

Existing

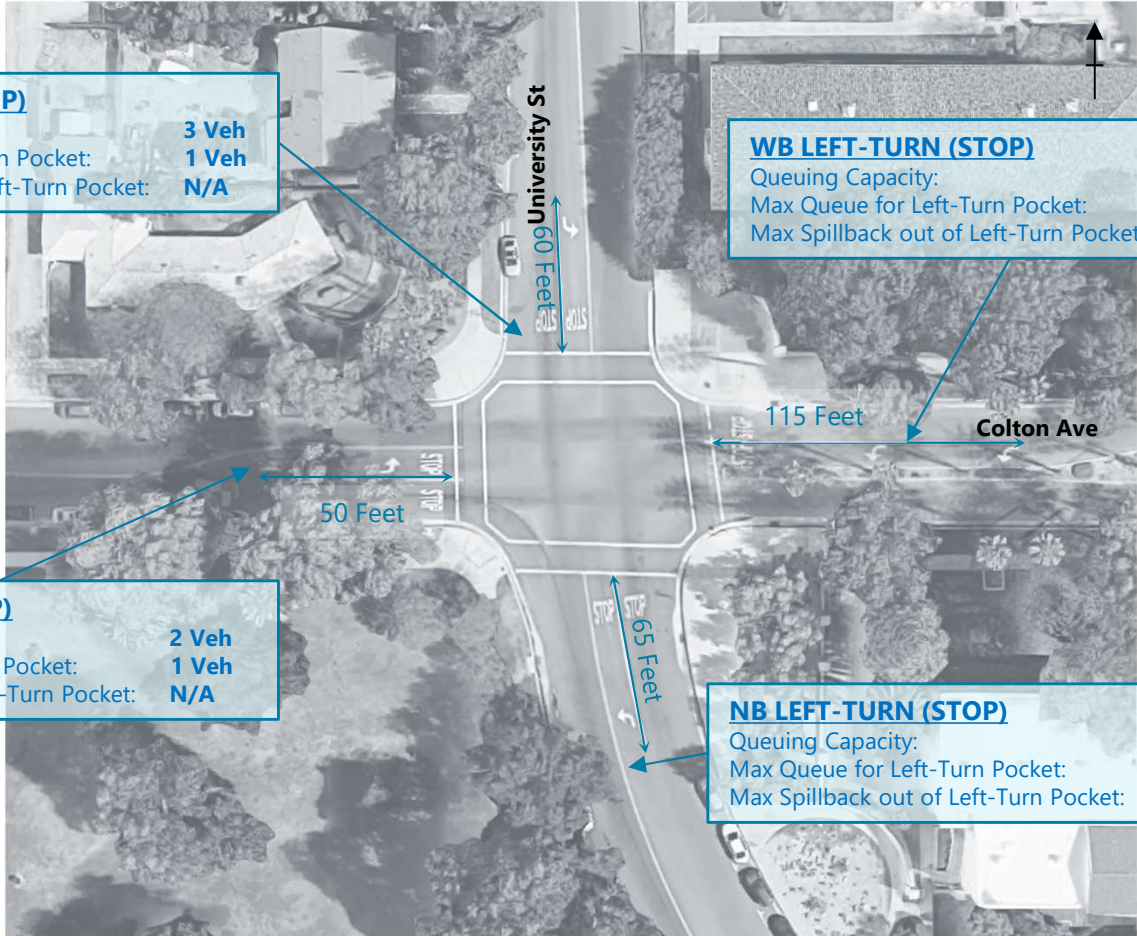
No left-turn queuing issues were identified

SB LEFT-TURN (STOP)
 Queuing Capacity: **3 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT-TURN (STOP)
 Queuing Capacity: **5 Veh**
 Max Queue for Left-Turn Pocket: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

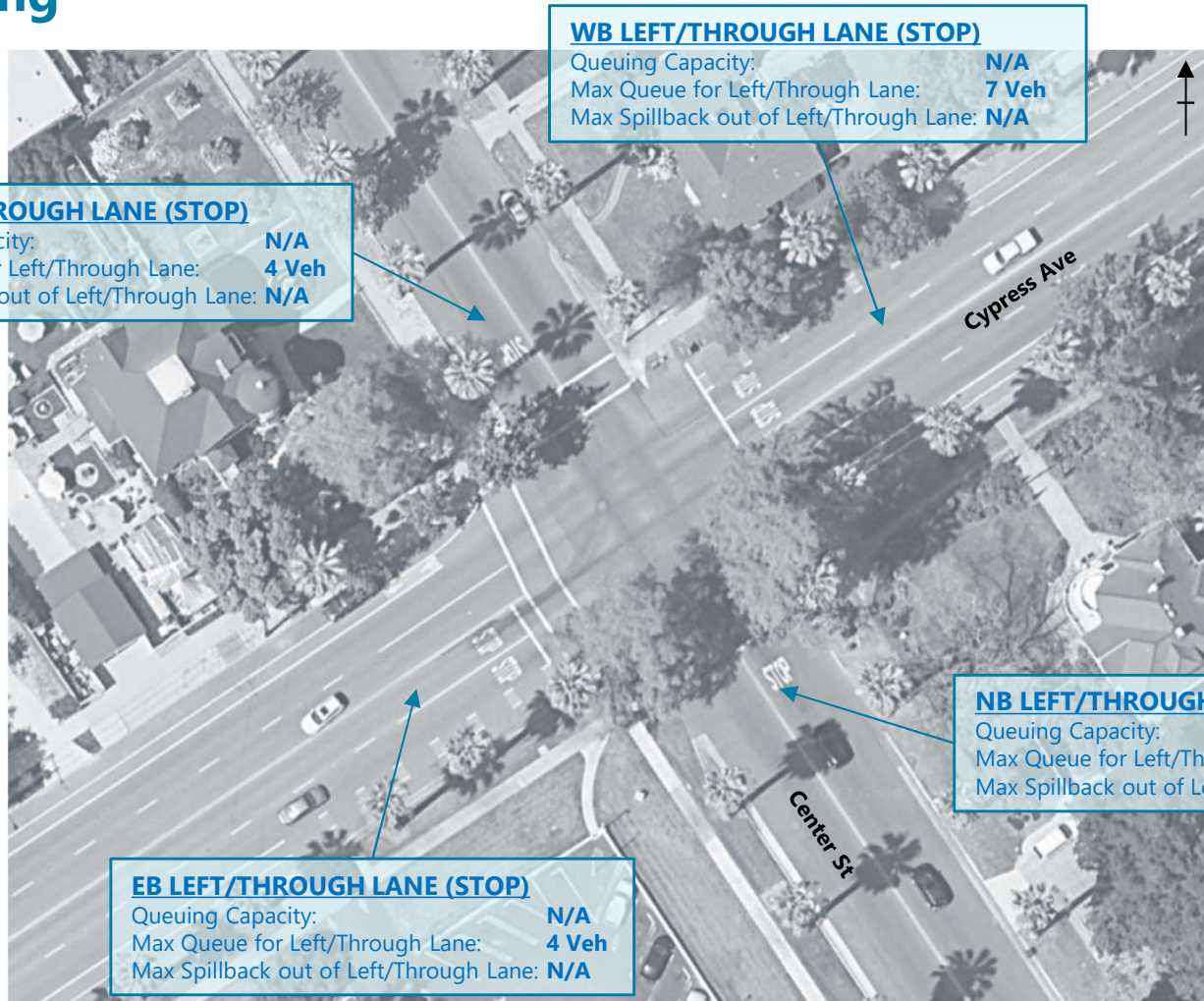
EB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT-TURN (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**



INT #86: CENTER ST & CYPRESS AVE

Existing

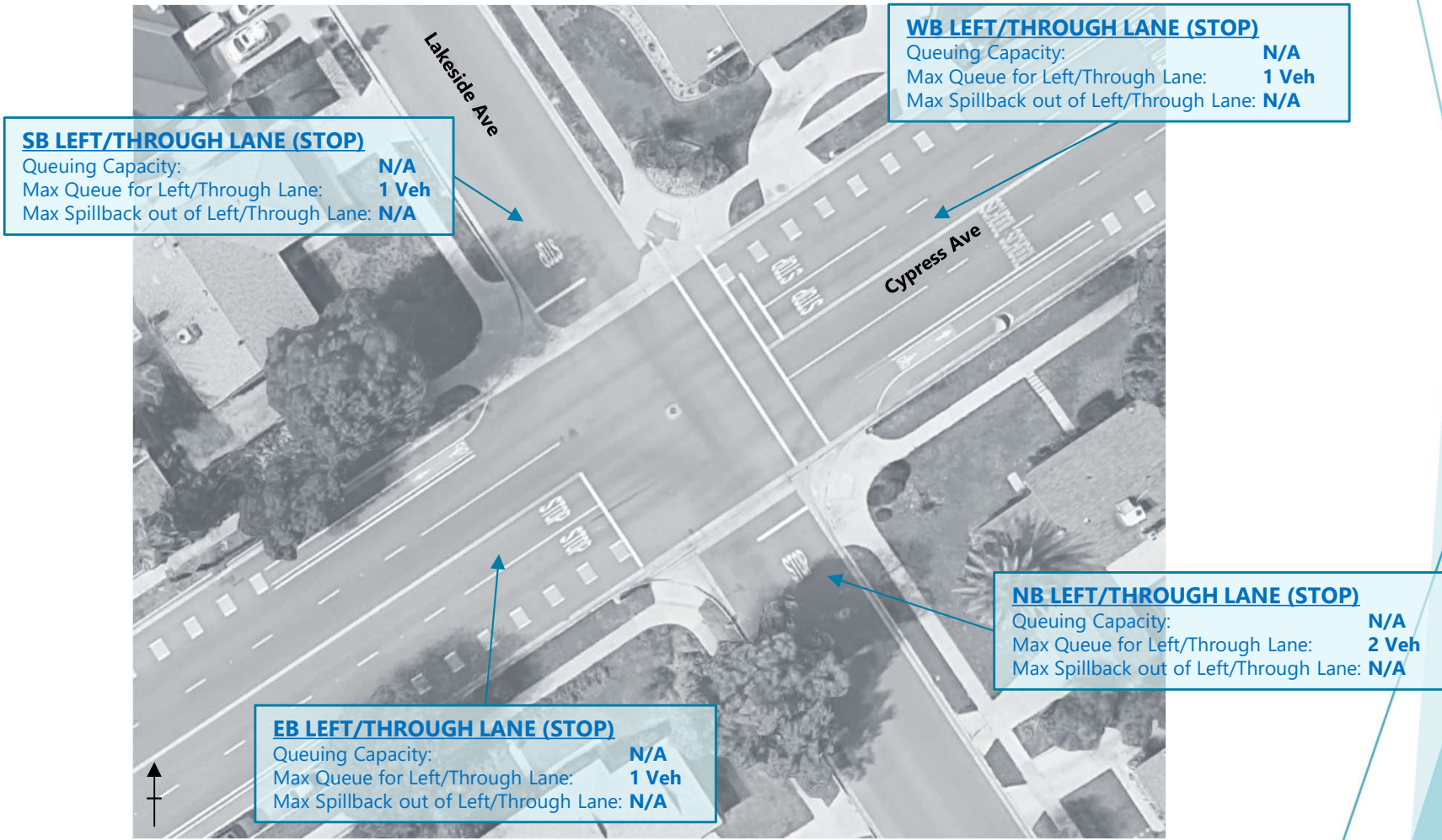


No left-turn queuing issues were identified

INT #87: CYPRESS AVE & LAKESIDE AVE

Existing

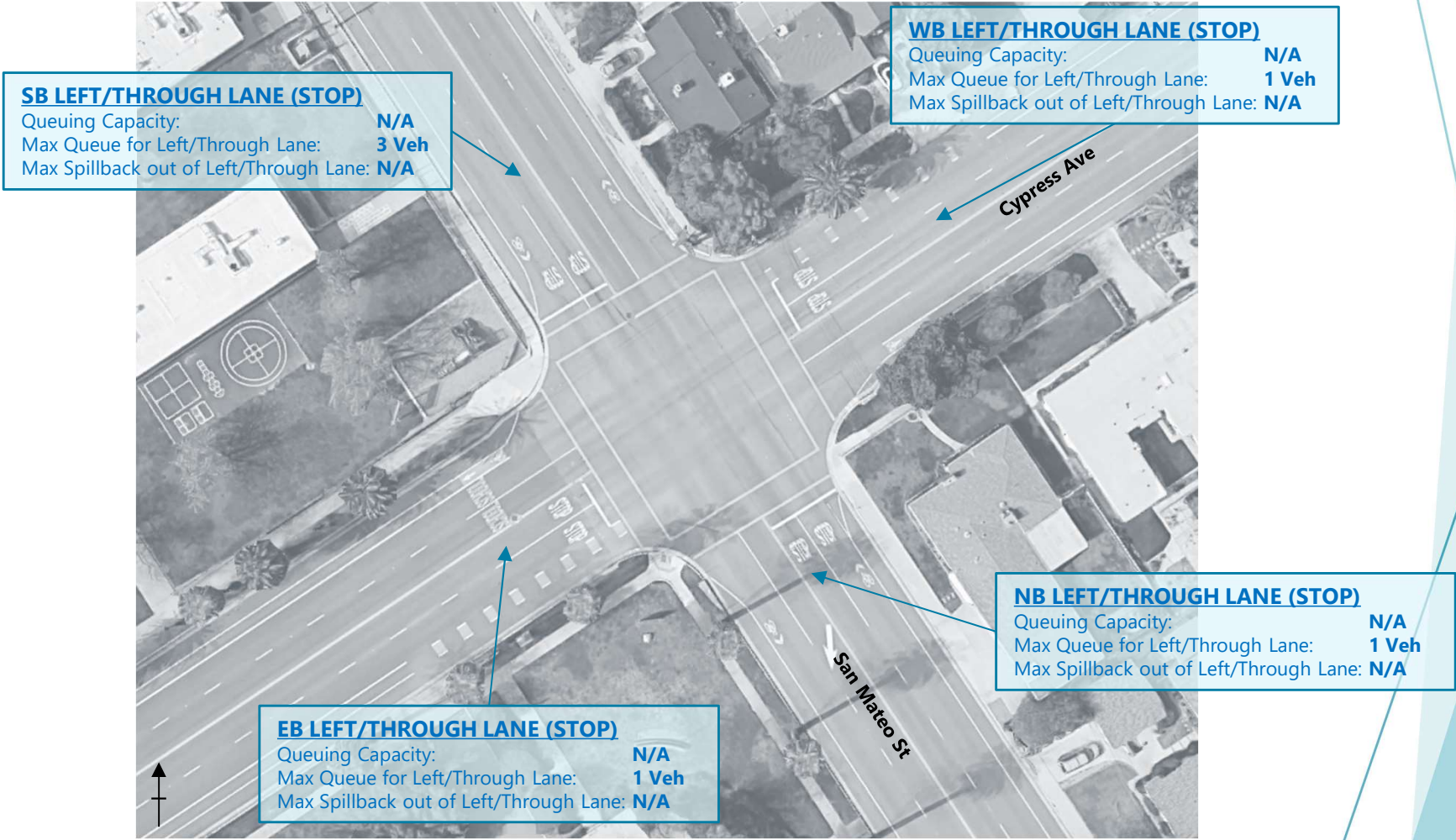
No left-turn queuing issues were identified



INT #88: CYPRESS AVE & SAN MATEO ST

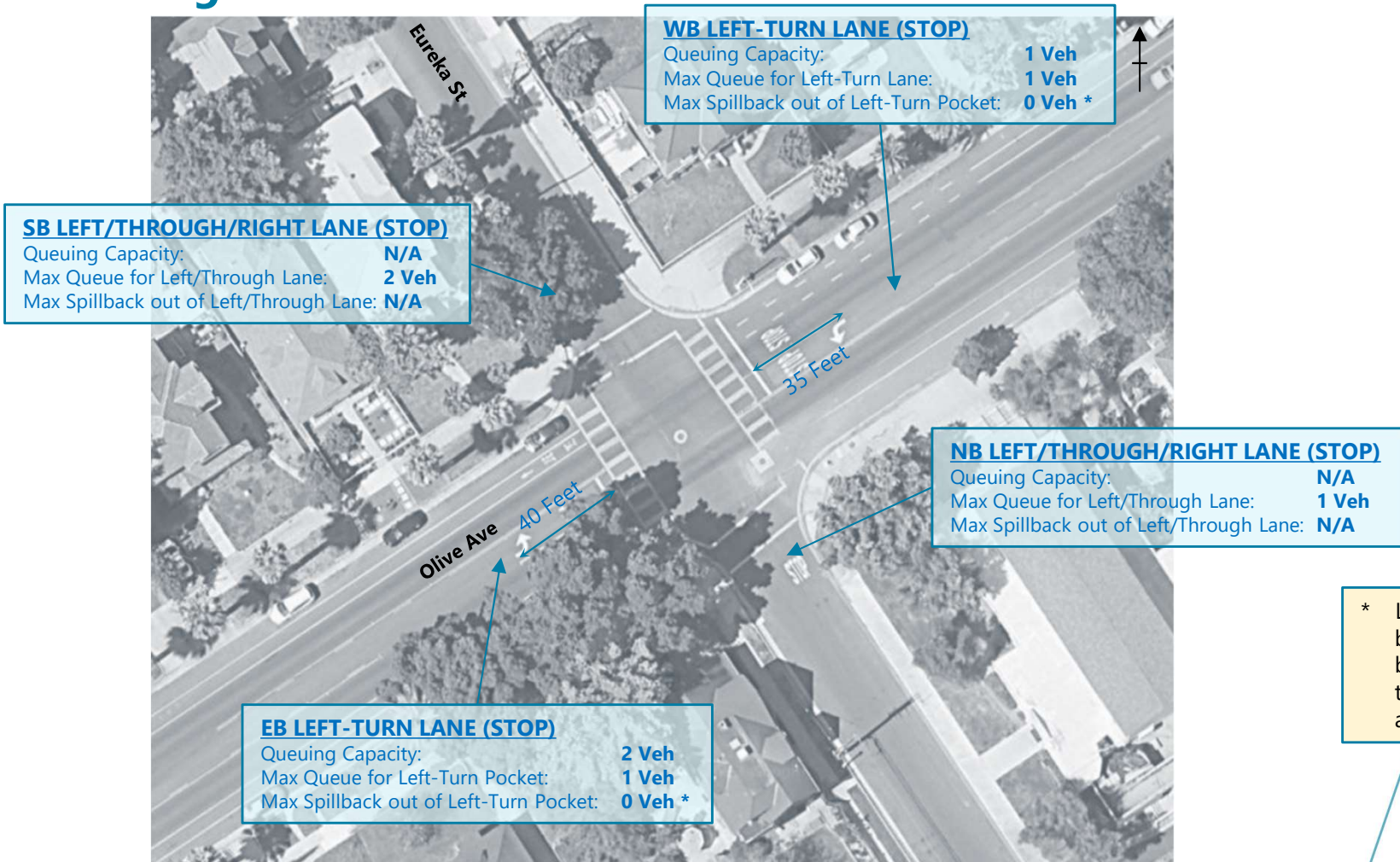
Existing

No left-turn queuing issues were identified



INT #89: EUREKA ST & OLIVE AVE

Existing



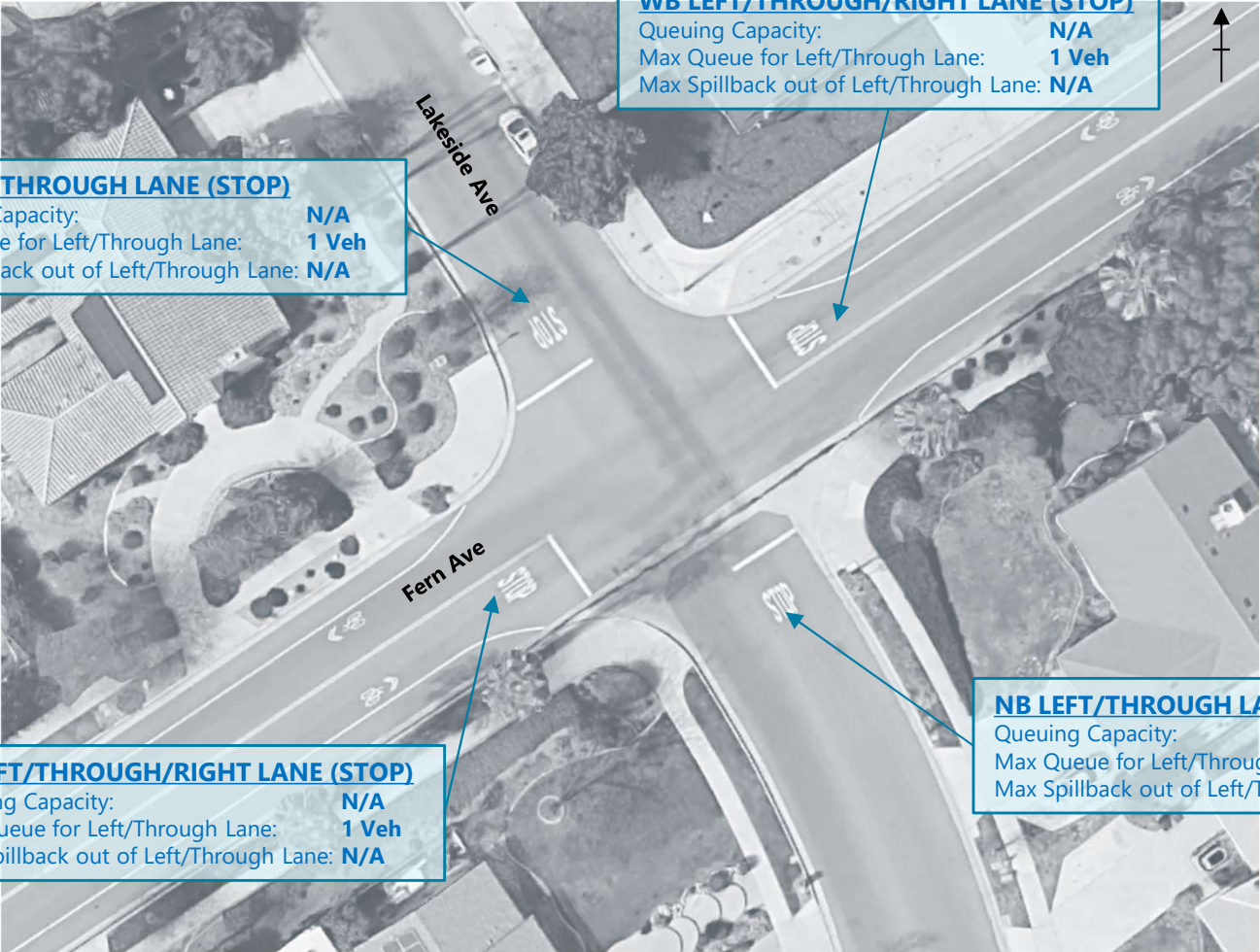
No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #90: LAKESIDE AVE AND FERN AVE

Existing



SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

WB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left/Through Lane: **N/A**

No left-turn queuing issues were identified

INT #91: FIFTH AVE & DEARBORN ST

Existing

SB LEFT/THROUGH LANE (STOP)

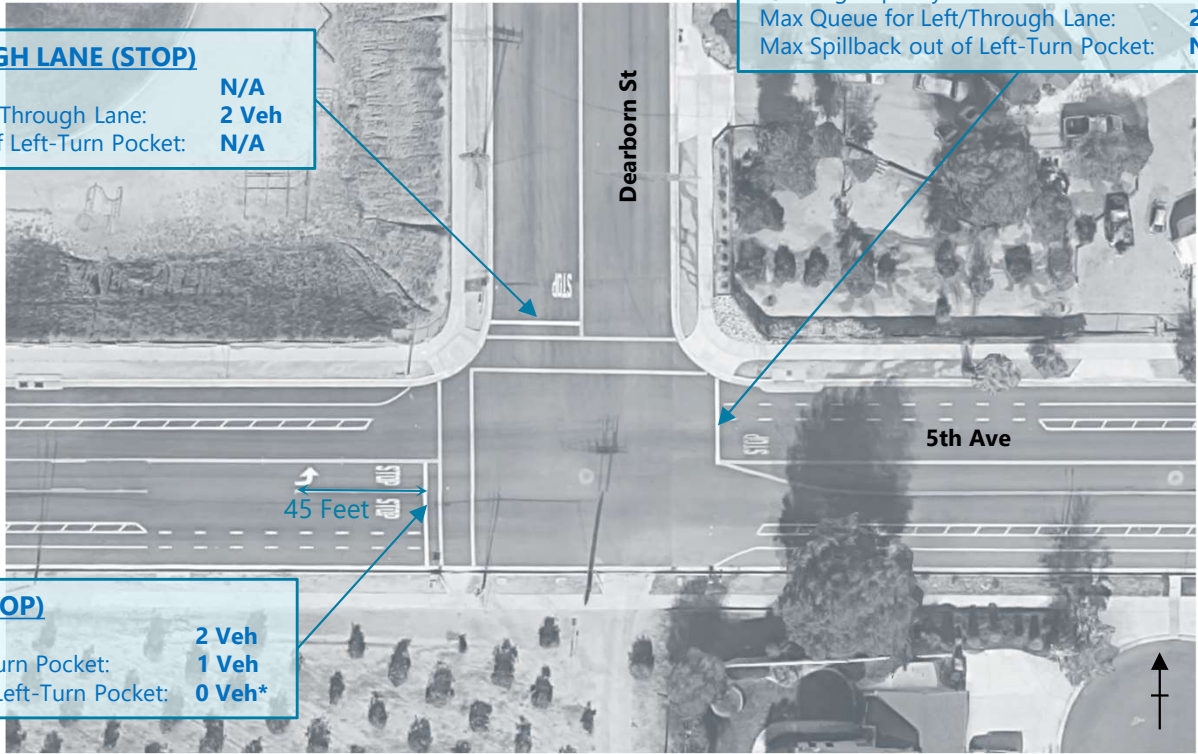
Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH LANE (STOP)

Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT-TURN (STOP)

Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***



No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



INT #92: IOWA ST & CITRUS AVE

Existing

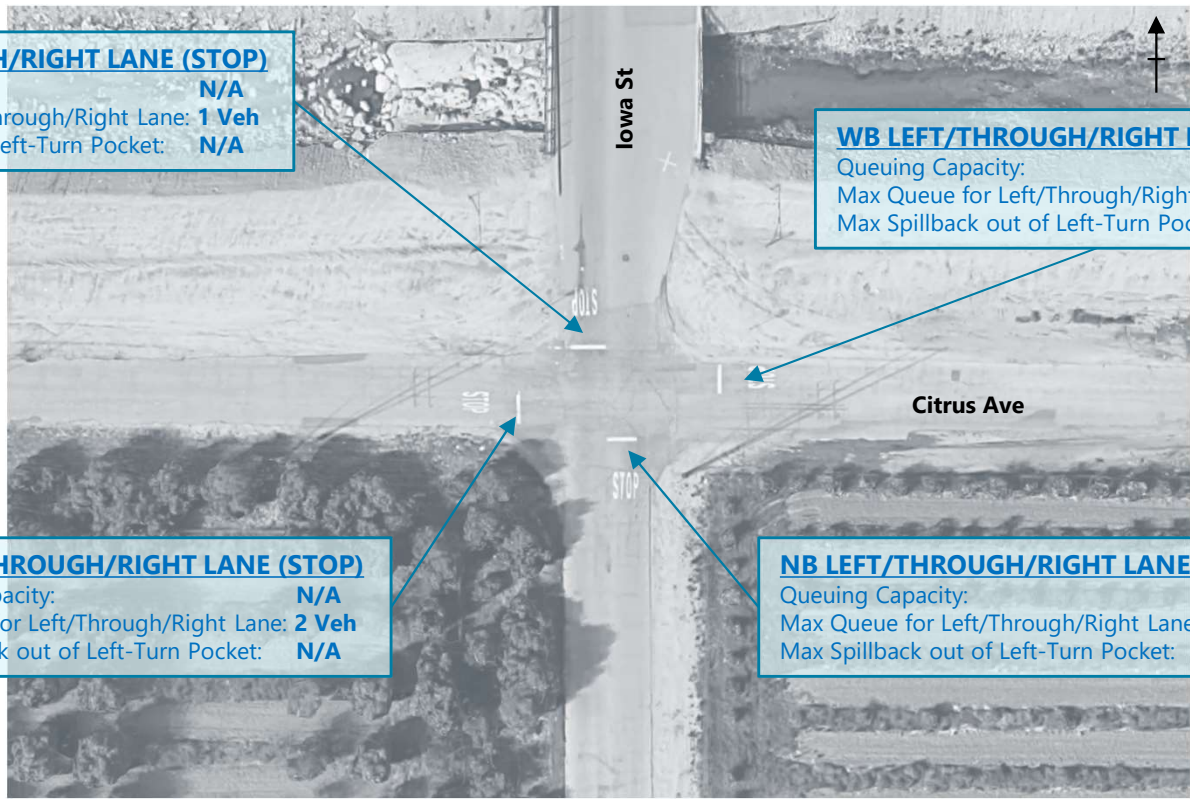
No left-turn queuing issues were identified

SB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

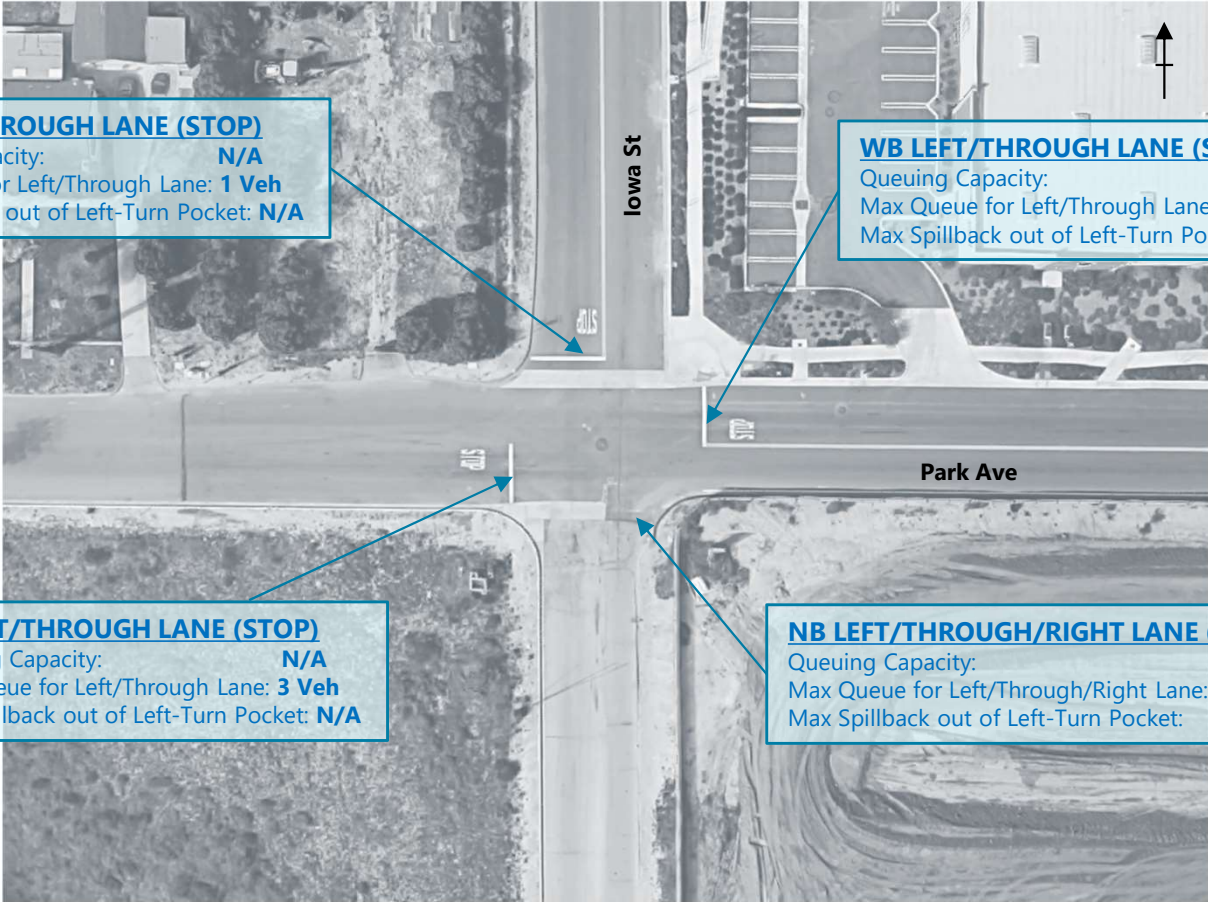
NB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**



INT #93: IOWA ST & PARK AVE

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **3 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

INT #94: JUDSON ST & BROCKTON AVE

Existing

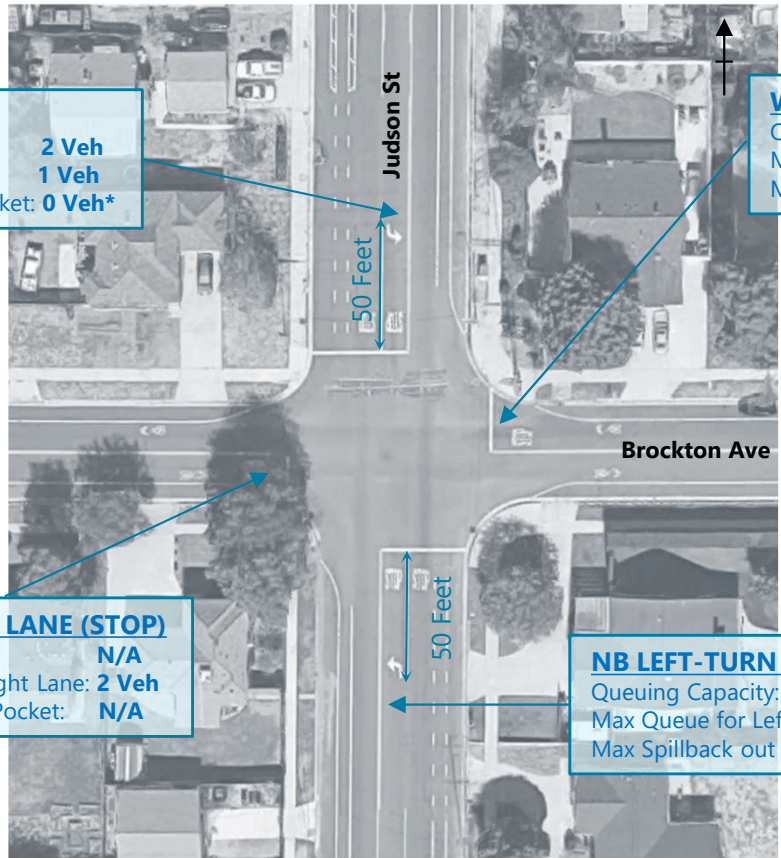
No left-turn queuing issues were identified

SB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***

WB LEFT/THROUGH/RIGHT LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through/Right Lane: **2 Veh**
 Max Spillback out of Left-Turn Pocket: **N/A**

NB LEFT-TURN (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh***



* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #95: LAKESIDE AVE & OLIVE AVE

Existing



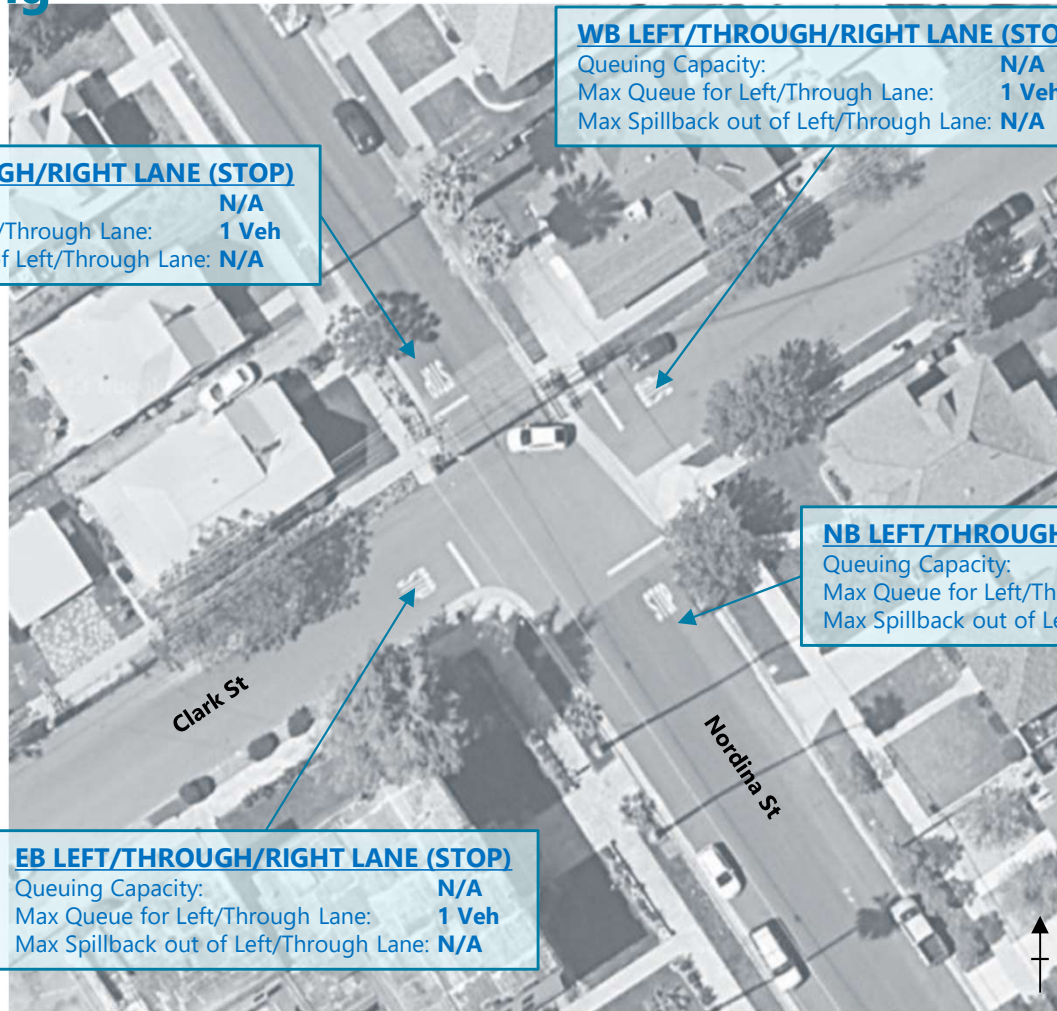
No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #97: NORDINA ST & CLARK ST

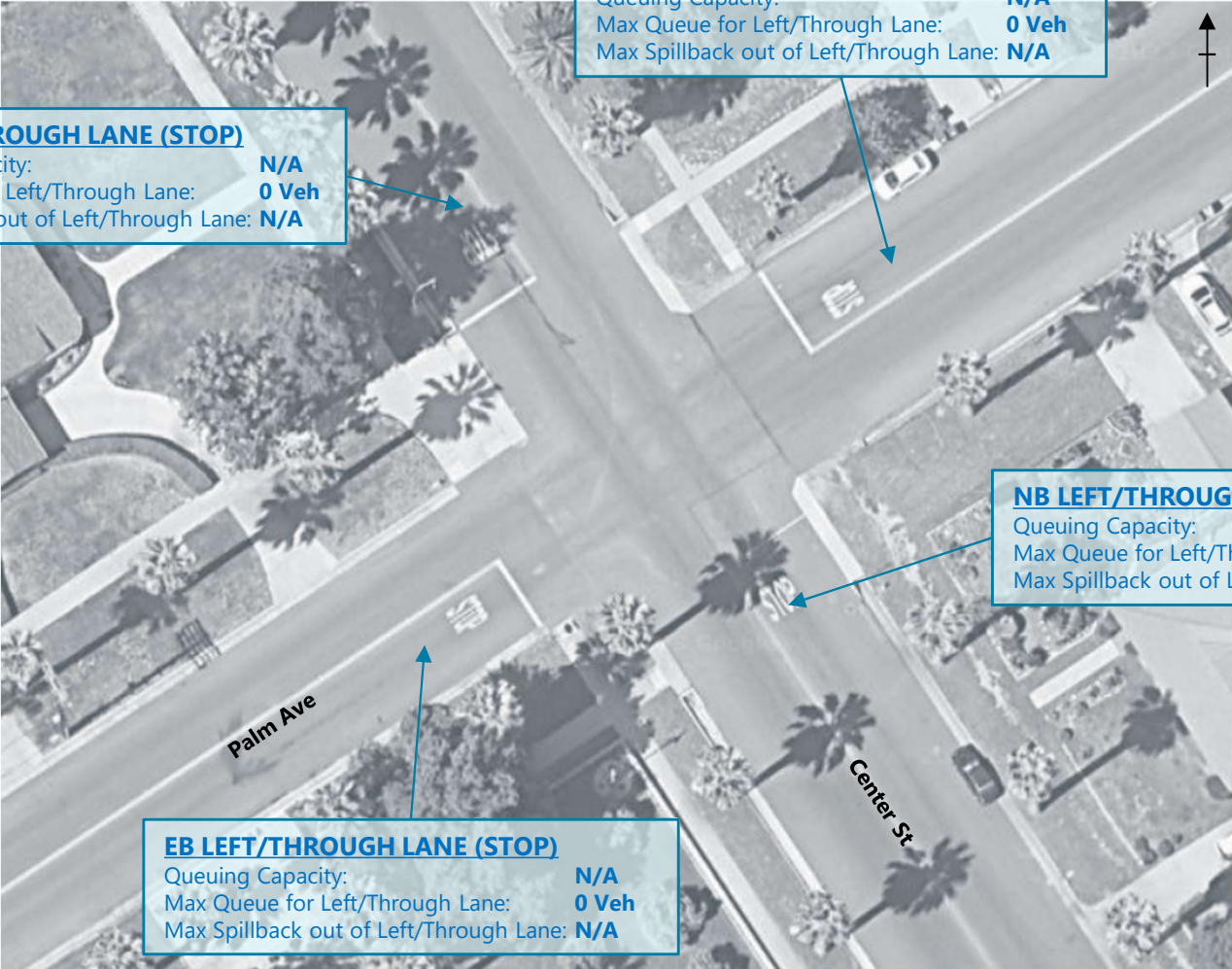
Existing



No left-turn queuing issues were identified

INT #98: PALM AVE & CENTER ST

Existing



SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

WB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

NB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **3 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

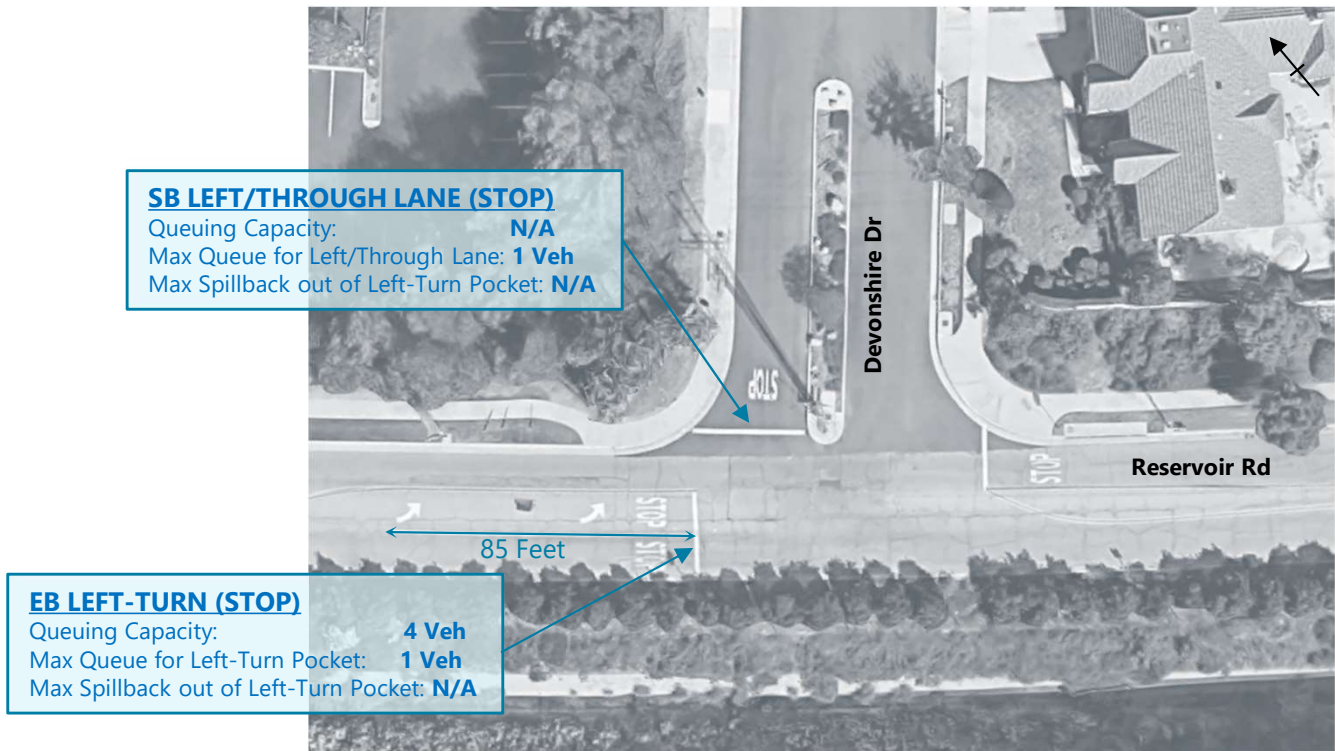
EB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **0 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

No left-turn queuing issues were identified

INT #99: RESERVOIR RD & DEVONSHIRE DR

Existing

No left-turn queuing issues were identified



INT #101: SAN MATEO ST & FERN AVE

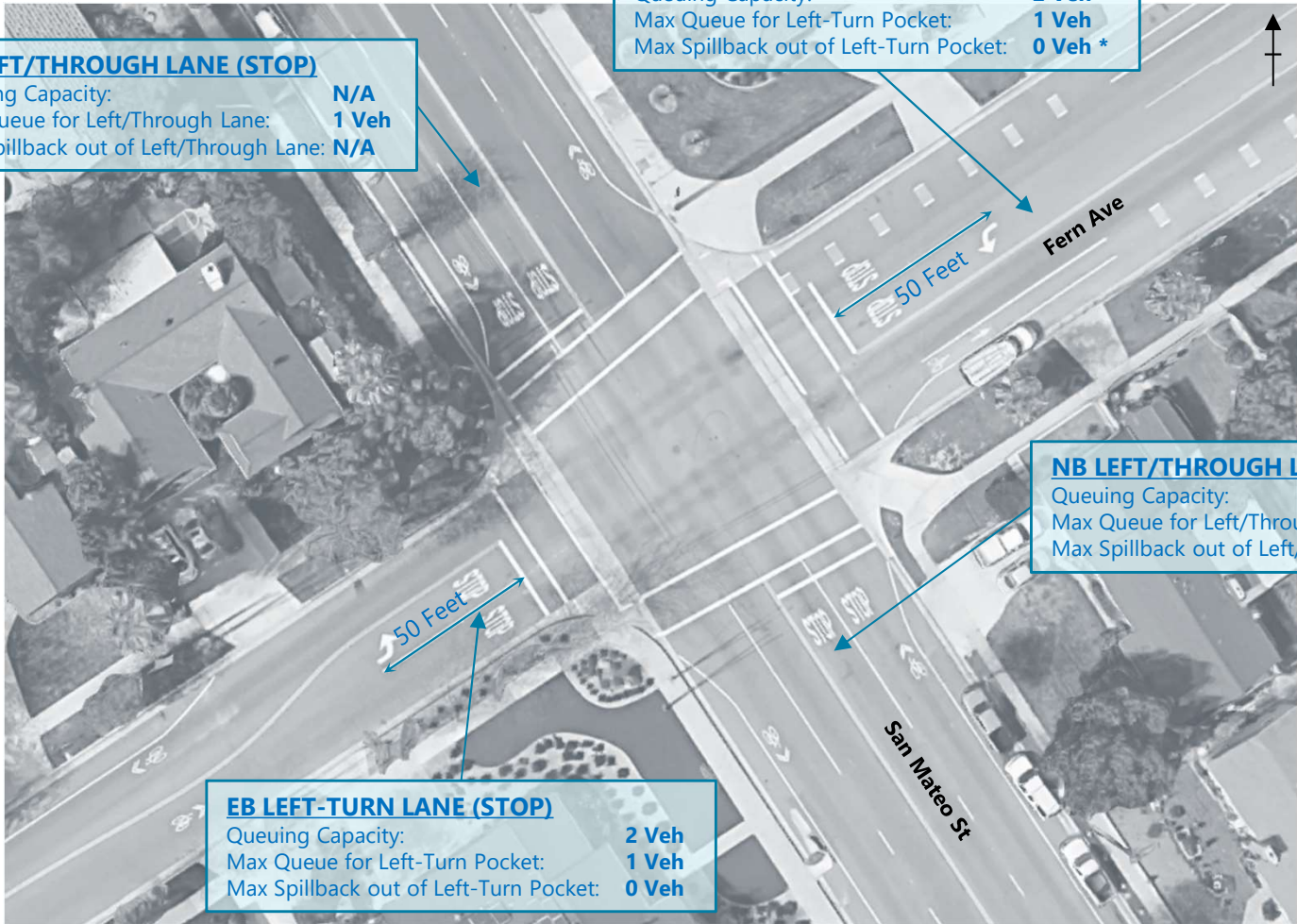
Existing

SB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

WB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh ***

NB LEFT/THROUGH LANE (STOP)
 Queuing Capacity: **N/A**
 Max Queue for Left/Through Lane: **1 Veh**
 Max Spillback out of Left/Through Lane: **N/A**

EB LEFT-TURN LANE (STOP)
 Queuing Capacity: **2 Veh**
 Max Queue for Left-Turn Pocket: **1 Veh**
 Max Spillback out of Left-Turn Pocket: **0 Veh**



No left-turn queuing issues were identified

* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn or striped median accommodation.



INT #102: SUNSET DR N & WABASH AVE

Existing

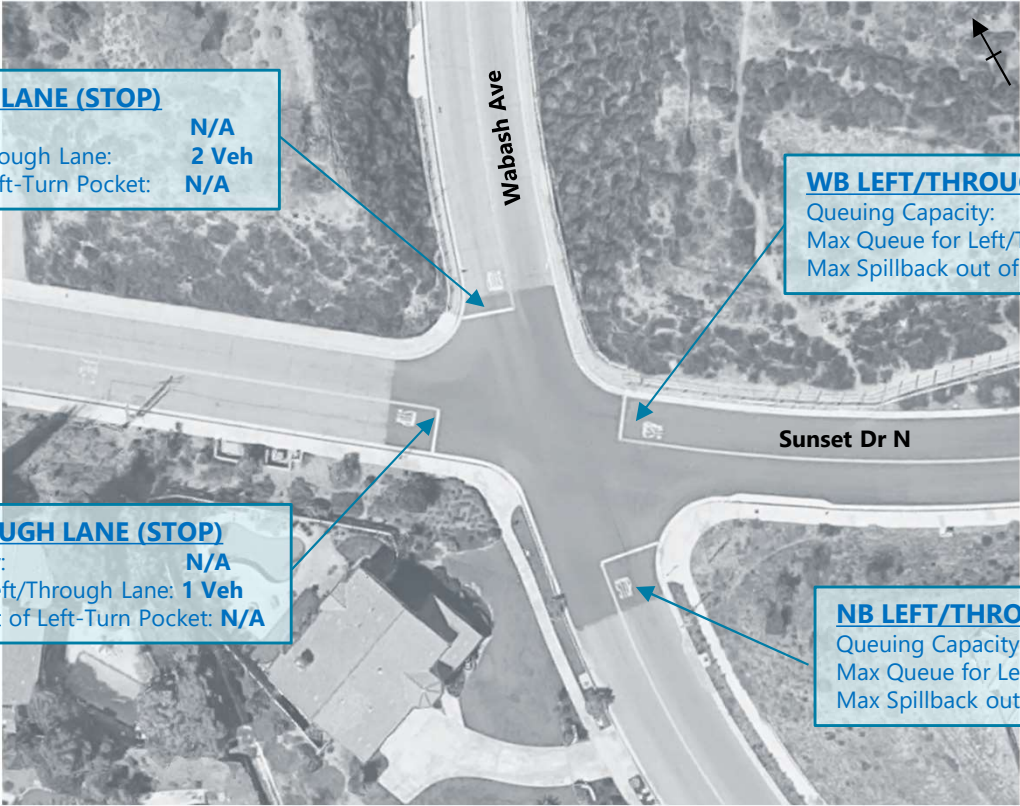
No left-turn queuing issues were identified

SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

WB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

EB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **1 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**

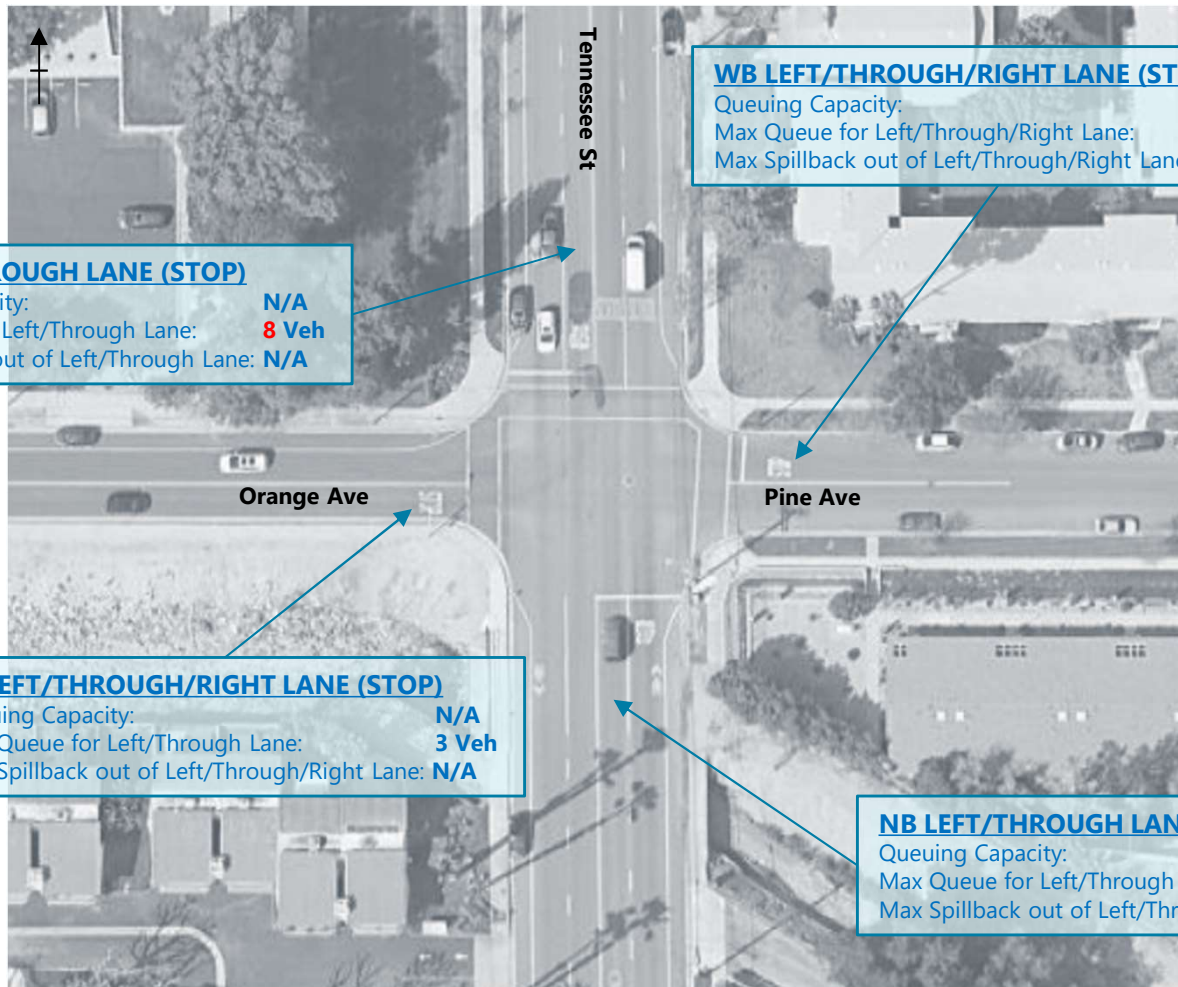
NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **3 Veh**
Max Spillback out of Left-Turn Pocket: **N/A**



INT #103: ORANGE AVE/PINE AVE & TENNESSEE ST

Existing

No left-turn queuing issues were identified



SB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **8 Veh**
Max Spillback out of Left/Through Lane: **N/A**

WB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through/Right Lane: **1 Veh**
Max Spillback out of Left/Through/Right Lane: **N/A**

EB LEFT/THROUGH/RIGHT LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **3 Veh**
Max Spillback out of Left/Through/Right Lane: **N/A**

NB LEFT/THROUGH LANE (STOP)
Queuing Capacity: **N/A**
Max Queue for Left/Through Lane: **2 Veh**
Max Spillback out of Left/Through Lane: **N/A**

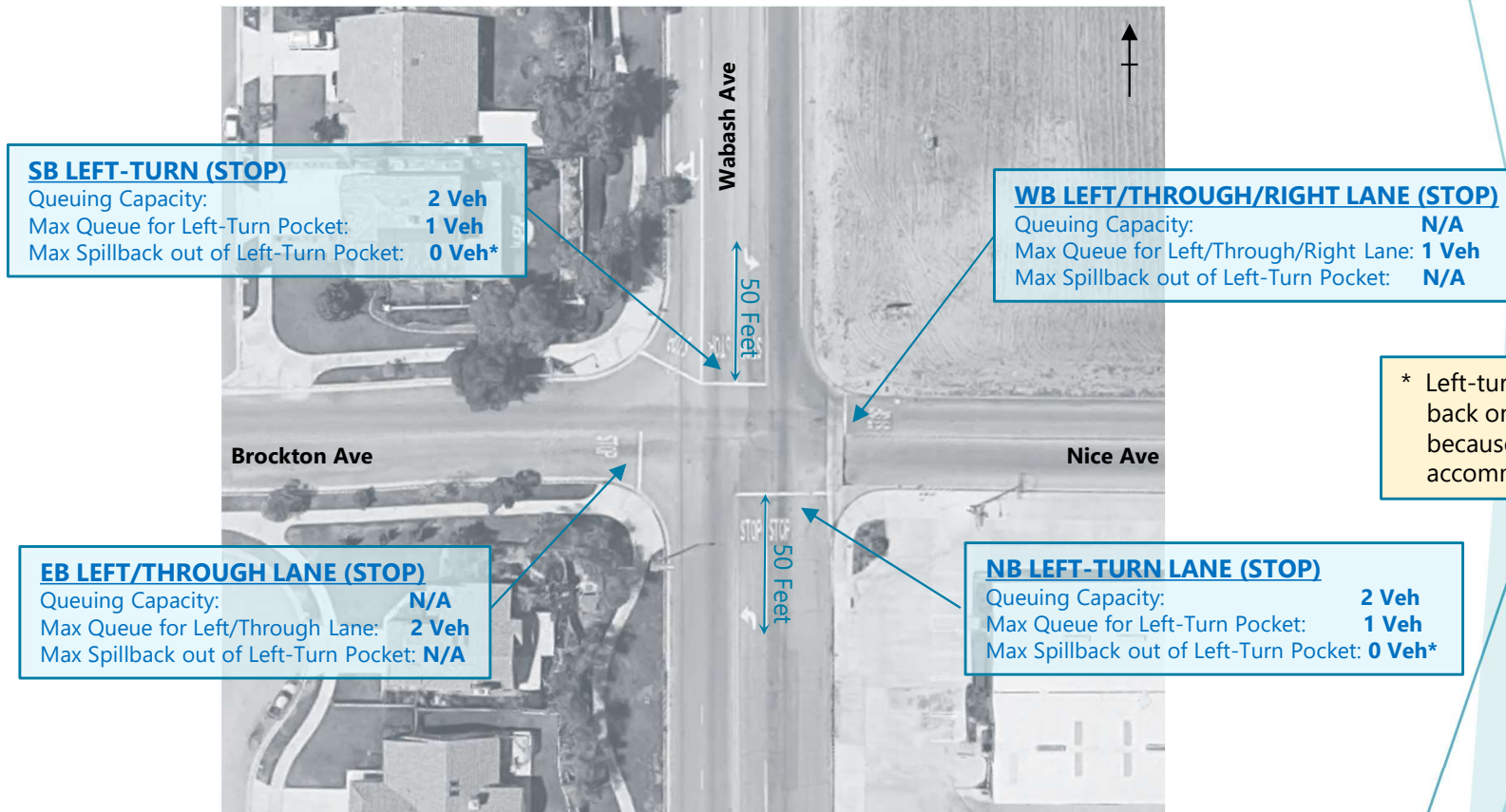
Comments:
The intersection is operating at LOS B, with all four approaches operating at LOS B. The left-turn volumes at all four approaches are low (with 59 or fewer left-turn vehicles per hour). Therefore, no improvements are recommended.



INT #104: WABASH AVE & BROCKTON AVE/NICE AVENUE

Existing

No left-turn queuing issues were identified

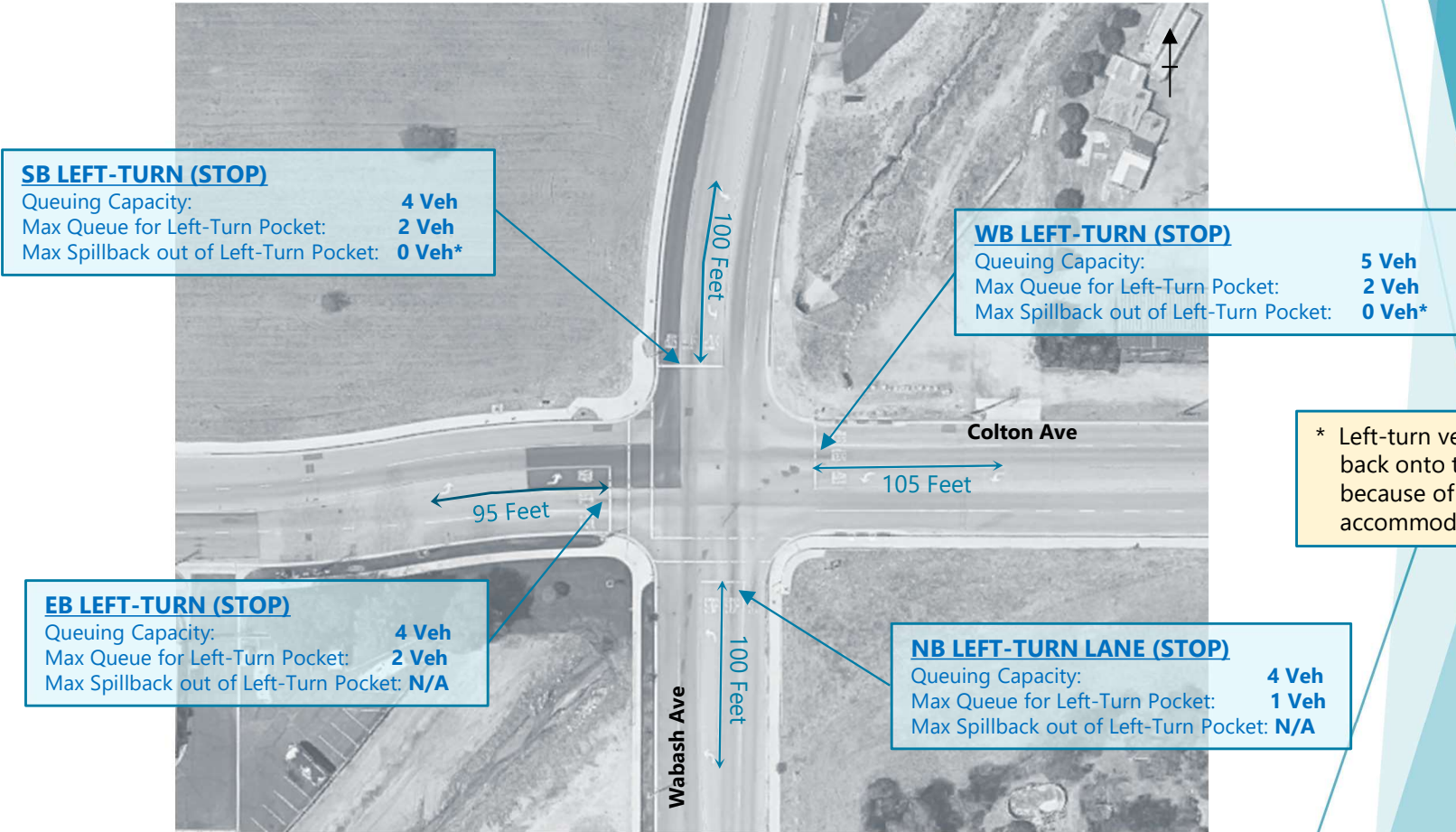


* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.

INT #105: WABASH AVE & COLTON AVE

Existing

No left-turn queuing issues were identified

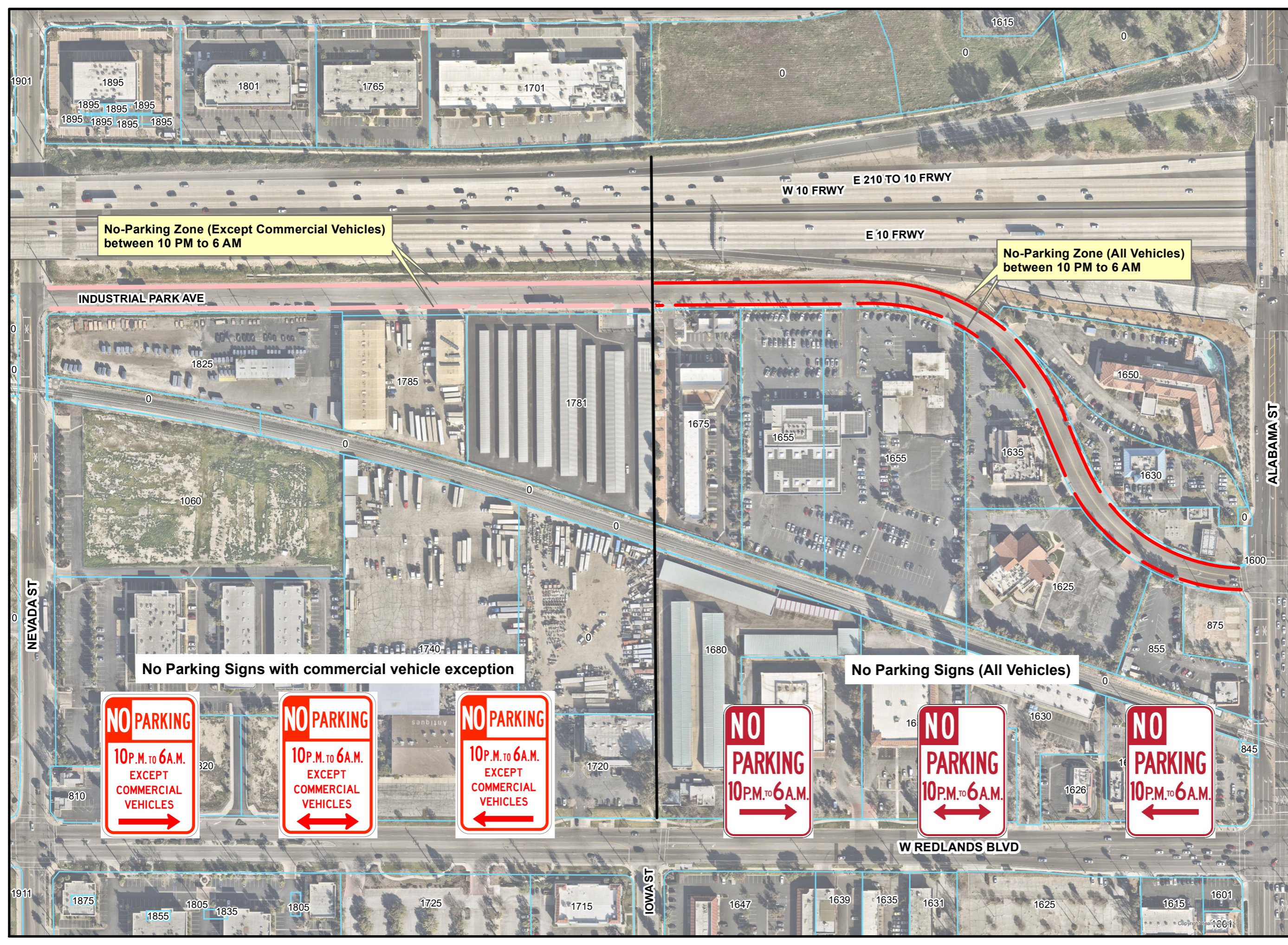


* Left-turn vehicles will not spill back onto the through lane because of the 2-way left-turn accommodation.



Location Map

INDUSTRIAL PARK AVE

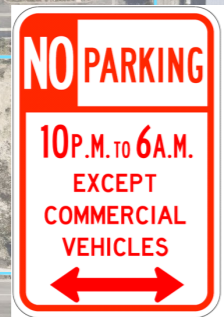


**No-Parking Zone (Except Commercial Vehicles)
between 10 PM to 6 AM**

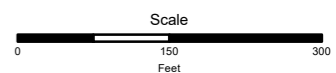
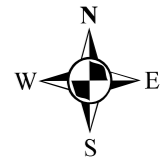
**No-Parking Zone (All Vehicles)
between 10 PM to 6 AM**

No Parking Signs with commercial vehicle exception

No Parking Signs (All Vehicles)



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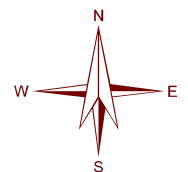


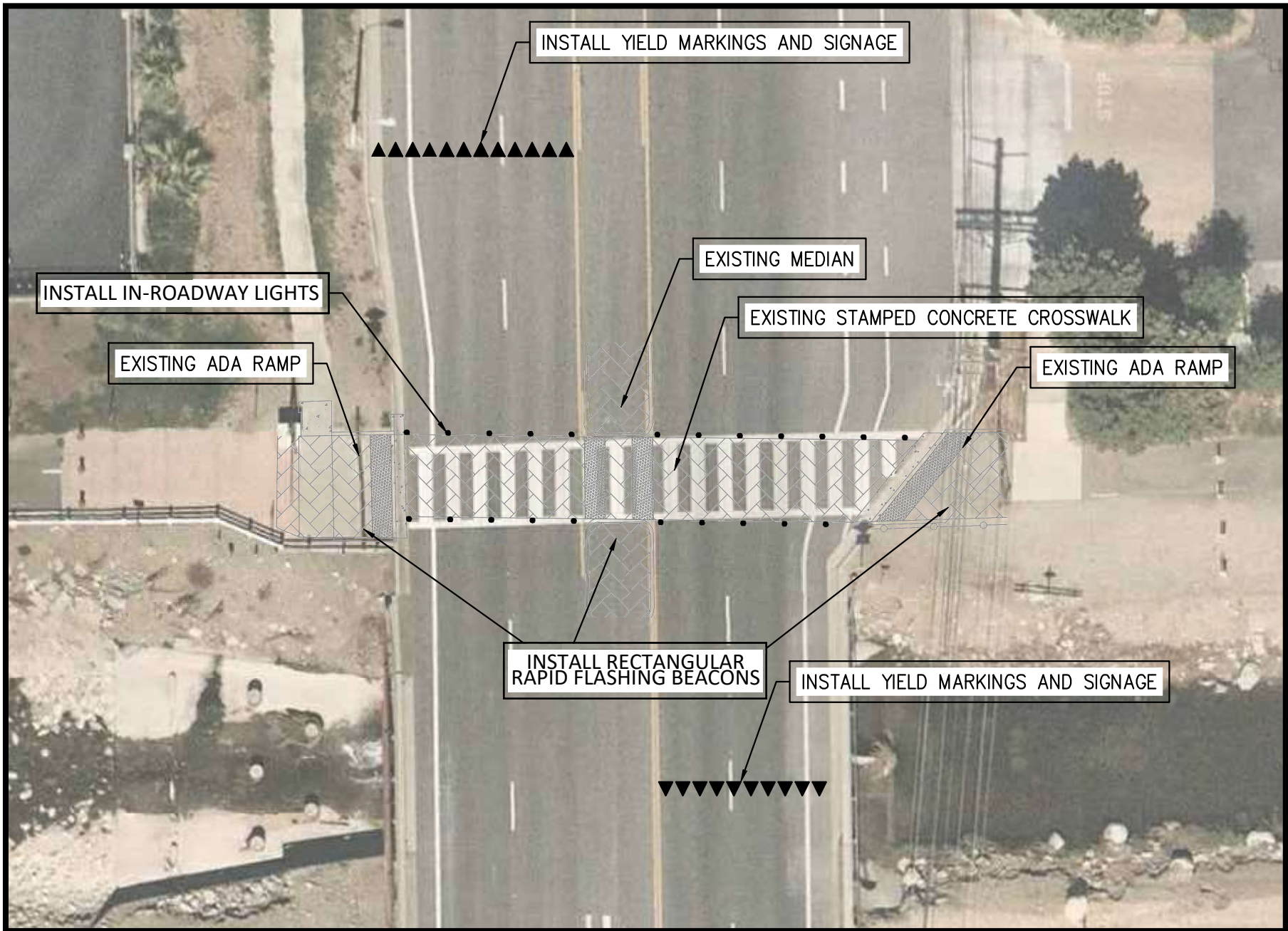
May 15, 2023

OneStop.mxd

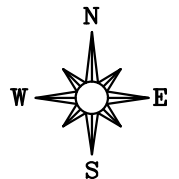


HSIP Cycle 9 Orange Blossom Trail Phase 3 Crossings
Location Map



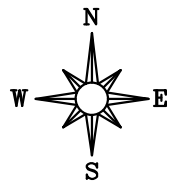


HSIP Cycle 9 Orange Blossom Trail Phase 3 Crossings
Alabama Street
Location Map





HSIP Cycle 9 Orange Blossom Trail Phase 3 Crossings
Tennessee Street
Location Map



REQUEST FOR COMMISSION ACTION

SUBJECT: REQUEST TO ESTABLISH A NO-PARKING ZONE BETWEEN 10 PM TO 6 AM ON THE STREETS ALONG THE PERIMETER OF SYLVAN PARK

MOTION:

I move to recommend to City Council approval of the request to establish a no-parking zone for between 10 PM to 6 AM on the following streets:

All street segments along the perimeter of Sylvan Park;
The south side of Park Avenue between Division Street and University Street; and
The west side of Division Street between Park Avenue and Sylvan Boulevard.

STAFF RECOMMENDATION:

Staff recommends approval of the request to establish a no-parking zone for between 10 PM to 6 AM on the following streets:

All street segments along the perimeter of Sylvan Park;
The south side of Park Avenue between Division Street and University Street; and
The west side of Division Street between Park Avenue and Sylvan Boulevard.

DISCUSSION:

Sylvan Park is located adjacent to the University of Redlands and residential neighborhoods. The roads around the perimeter of the park have been congested with vehicles parking overnight who often live in their vehicles. The loitering in the area has led to multiple complaints from residents and increased nefarious afterhours activity in the park. The Facilities and Community Services Department (FCS) contacted Municipal Utilities and Engineering Department (MUED) to establish no overnight parking as a response to ongoing concerns in the area. Having a no-parking zone between 10 PM to 6 AM will help prevent loitering, congestion on the roads, and provide the police department with tools for better management of the public space.

Staff is recommending approval of the request to establish a no-parking zone between 10 PM to 6 AM all street segments along the perimeter of Sylvan Park, the south side of Park Avenue between Division Street and University Street, and the west side of Division Street between Park Avenue and Sylvan Boulevard, per Section 10.40.090 of the Redlands Municipal Code. The proposed no-overnight parking will minimize impacts on the neighboring residential properties by decreasing the congestion on the roads and provide better management of the public space.

ALTERNATIVES:

The commission may deny the request.

FISCAL IMPACT:

There is no fiscal impact associated with this action related to the costs including equipment and materials. Work will be performed by City Staff as maintenance.

ATTACHMENTS:

- A. Location Map
- B. Requests Report

Prepared by:



VERONICA MEDINA
Associate Engineer

Reviewed by:



GOUTAM K. DOBEY
City Engineer

Reviewed by:

RACHEL TOLBER
Interim Police Chief

Reviewed by:



JOHN R. HARRIS
Municipal Utilities and Engineering Director

Reviewed by:

RICH SESSLER
Fire Chief

Reviewed by:



CHRIS BOATMAN
Assistant City Manager



Location Map

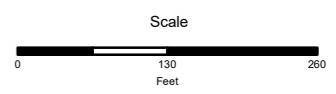
Proposed No-Parking Zone
between 10 PM to 6 AM



**PROPOSED NO-PARKING ZONE
BETWEEN 10 PM TO 6 PM**

**EXISTING NO-PARKING ZONE
PER RESOLUTION NO. 6418**

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May 9, 2023

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Report Summary of Requests
Received through Redlands 311 App

	Requested Date	Request Type	Address	Description
1	3/27/2023	Homeless Encampment	Redlands Lawn Bowling Club Dr, Redlands	Camping in their vehicles around the perimeter of the park
2	1/8/2023	Homeless Encampment	607 N University St, Redlands	Homeless in Sylvan Park
3	12/30/2022	Park Issue	Sylvan Park	Parking overnight
4	8/29/2022	Park Issue	Sylvan Park	Living in car
5	5/30/2022	Homeless Encampment	721 N University St, Redlands	Homeless have been camping in the park
6	2/13/2021	Police	Sylvan Park	Motor home parked on street
7	2/5/2021	Abandoned Vehicle – Public Property	610 N University St, Redlands	Abandoned car parked next to Sylvan Park