CITY OF CORONA

Local Roadway Safety Plan

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Expect More. Experience Better.

CORONA
"THE CIRCLE CITY"
Established
May 4, 1886
To Cherish Our Past - To Plan Our Future

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Executive Summary

The City of Corona Local Roadway Safety Plan (LRSP) identifies emphasis areas to inform and guide further safety evaluation of the City's transportation network. The emphasis areas include type of crash, certain locations, and notable relationships between current efforts and crash history. The LRSP analyzes crash data on an aggregate basis as well as at specific locations to identify high-crash locations, high-risk locations, as well as citywide trends and patterns. The analysis of crash history throughout the City's transportation network allows for opportunities to:

- Identify factors in the transportation network that inhibit safety for all roadway users,
- Improve safety at specific high-crash locations, reduce serious injury and fatal collisions, and
- Develop safety measures using the four E's of safety: Engineering, Enforcement, Education, and Emergency Response to encourage safer driver behavior and better severity outcomes.

With this LRSP, the City continues its safety efforts by identifying areas of emphasis and systemic recommendations to enhance safety.

The City's vision is to enhance the transportation network and reduce traffic fatalities and serious injury related crashes, and the goals for the City of Corona include the following:

Goal #1: Identify areas with a high risk for crashes.

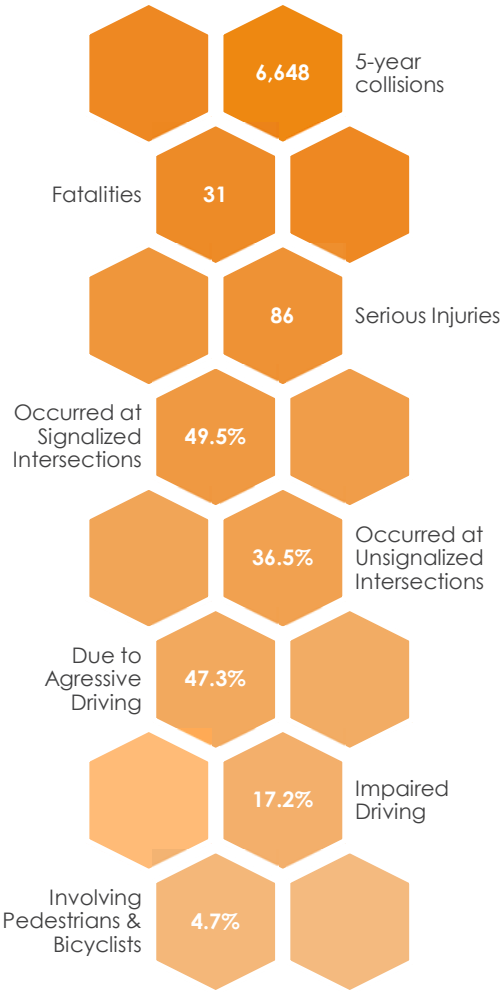
Goal #2: Illustrate the value of a comprehensive safety program and the systemic process.

Goal #3: Plan future safety improvements for near-, mid- and long-term.

Goal #4: Define safety projects for Highway Safety Improvement Plan (HSIP) and other program funding consideration.

This LRSP analyzes crash data (January 1, 2016 – December 31, 2020) and roadway improvements to assess historic trends, patterns, and areas of increasing concern.

Further, the collision history was analyzed to identify locations with elevated risk of collisions either through their collision histories or their similarities to other locations with more active collision patterns. Using a network screening process, locations were identified within the City that will most likely benefit from safety enhancements. Using historic



Source: Corona Collision Database (2016-2020)

collision data, collision risk factors for the entire network were derived. The outcomes informed the identification and prioritization of engineering and non-infrastructure safety measures to address certain roadway characteristics and related behaviors that contribute to motor vehicle collisions with active transportation users.

Emphasis areas were developed by revisiting the vision and goals developed at the onset of the planning process and comparing them with the trends and patterns identified in the crash analysis.

Emphasis Area #1: Aggressive Driving

Emphasis Area #2: Vulnerable Road Users (Motorcyclists, Pedestrians & Bicyclists)

Emphasis Area #3: Young Drivers

Emphasis Area #4: Lane Departure

The following 7 case study locations were chosen to be representative of the corridor and intersection configurations throughout the City.

1. Signalized Intersection: Lincoln Ave and 2nd St/ D St
2. Signalized Intersection: Magnolia Ave and Rimpau Ave
3. Signalized Intersection: California Ave and Ontario Ave
4. Unsignalized Intersection: Victoria Ave and 6th St
5. Unsignalized Intersection: Pleasant View Ave & Smith Ave
6. Segment: Main St from Parkridge Ave to River Road
7. Segment: Hidden Valley Pkwy from Parkridge Ave to Via Blairo

These locations were identified through the analysis process based on their crash histories, stakeholder engagement, the observed crash patterns, and their different characteristics to provide the most insight into potential systemic safety countermeasures that the City can employ to achieve the most cost-effective safety benefits. Countermeasures were subjected to a benefit/cost assessment and scored according to their potential return on investment. These case studies can be used to select the most appropriate countermeasure, and to potentially phase improvements over the longer-term. The potential benefit of these countermeasures at locations with similar design characteristics can then be extrapolated regardless of crash history, allowing for proactive safety enhancements that can prevent future safety challenges from developing. Additionally, this information can be used to help the City apply for grants and other funding opportunities to implement these safety improvements. These opportunities were assembled into the "countermeasure toolbox" shown below.

Citywide Countermeasure Toolbox

ID	Potential Countermeasures	Where to apply?	Crash Reduction Factor	Per Unit Cost	Unit
NS02	Convert to all-way STOP control (from 2-way stop)	Unsignalized intersection locations that have a crash history and have no controls on the major roadway approaches	50%	$46,000	per intersection
NS20PB	Install/upgrade pedestrian crossing at uncontrolled locations	Intersections with high pedestrian activity where speed limit is 35 mph or less and sufficient sight distance is available	25%	$34,000	per location
S02	Update signal heads to meet current standards	Signalized intersections where signals heads do not meet current standards	15%	$36,000	per intersection
S03	Improve signal timing (coordination, phasing, red, yellow, operation)	Signalized intersections where there is insufficient clearance time with current timing plans or where signals placed closely enough to impact free flowing operations of the street	15%	$14,400	per intersection
S21PB	Modify signal phasing to implement a Leading Pedestrian Interval (LPI) with new controller	Signalized Intersections – especially those with high pedestrian activity	60%	$45,600	per intersection
R01	Add Segment Lighting	Noted substantial patterns of nighttime crashes	35%	$168,000	per mile
R02	Remove or relocate fixed objects outside of Clear Recovery Zone	Segments prone to collisions with fixed objects such as utility poles, drainage structures, trees	35%	$12,000	per location

ID	Potential Countermeasures	Where to apply?	Crash Reduction Factor	Per Unit Cost	Unit
R08	Install raised median	Areas experiencing head-on collisions that may be affected by both the number of vehicles that cross the centerline and by the speed of oncoming vehicles	40%	$2,724,480	per mile of 12'W median
R13	Add 2-way-left-turn lane	Roadways having a high frequency of drivers being read-ended while attempting to make a left turn across oncoming traffic	30%	$724,848	per mile
R23	Install chevron signs on horizontal curves	Roadways that have an unacceptable level of crashes on relatively sharp curves during periods of light and darkness	40%	$2,400	per sign
R25	Install curve advance warning signs (flashing beacon)	Roadways that have an unacceptable level of crashed on relatively sharp curves	30%	$12,000	per beacon
R26	Install dynamic/ variable speed warning signs	Curvilinear roadways that have an unacceptable level of crashes due to excessive speeds on relatively sharp curves	30%	$22,800	per sign
R27	Install delineators, reflectors and/ or object markers	Roadways that have an unacceptable level of crashes on curves during periods of lights and darkness	15%	$40,800	per mile
R28	Install edge-lines and centerlines	Roadways with a history of run-off-road, head-on, opposite-direction-sideswipe crashes	25%	$100,800	per mile
R30	Install centerline rumble strips/ stripes	Any road, specifically those with a history of head-on crashes	20%	$76,800	per mile

ID	Potential Countermeasures	Where to apply?	Crash Reduction Factor	Per Unit Cost	Unit
R31	Install edge line rumble strips/ stripes	Roads with a history of roadway departure crashes	15%	$76,800	per mile
4124	Install high visibility crosswalk	Major signalized intersections with high pedestrian activity	19%	$30,000	per location
-*	Install speed limit signs	Roadways with high number of crashes caused by high speeds	5%	$1,000	per sign
-*	Install freeway shield pavement marking	Intersections adjacent to freeway on-ramps	5%	$40,000	per location
-*	Extension of median island	Major intersections with a high number of broadside collisions	5%	$1,013,760	per mile of 3'W median extension
-*	Install ADA ramps	Intersections with high pedestrian activity	5%	$50,000	per location
-*	Install curb extensions	Intersections with high pedestrian activity	5%	$36,000	per extension

**There were no approved countermeasures for these improvements in the Local Roadway Safety Manual, so a conservative Crash Reduction Factor (CRF) was assumed.*

Near-term action items were identified to accelerate the City's achievement of the goals and vision of this LRSP. The City will:

- Actively seek other funding opportunities to improve safety for all modal users,
- Collaborate with established safety partners & neighboring municipalities as improvements are made to create a cohesive transportation network, and
- Iteratively evaluate existing and proposed transportation safety programs and capital improvements to design a safer transportation network in Corona.

The City will regularly monitor and update the analysis performed in this plan. A full plan update will be due five years from the City Council's adoption of this plan which will maintain eligibility for HSIP funding.

1. Introduction

Located in Riverside County, the City of Corona is a vibrant, culturally diverse community with a population of over 170,000 that is also home to many local businesses and continues to grow its commerce areas building off its strong industrial base. Due to its circular layout, Corona is also known as the "Circle City". Based on University of California Berkeley's Transportation Injury Mapping System (TIMS) and California Department of Transportation (Caltrans) Vehicle Operation Cost Parameters, Corona's economic losses due to traffic injuries amounted to approximately $380 million from 2015 to 2019. This report identifies factors associated with vehicle crashes most particular to the City and proposes matching countermeasures to reduce or eliminate those crashes.

This Local Roadway Safety Plan (LRSP) identifies emphasis areas to inform and guide further safety evaluation of the City's transportation network. The emphasis areas include the type of crash, certain locations, and notable relationships between current efforts and crash history. The LRSP analyzes crash data on an aggregate basis as well as at specific locations to identify high-crash locations, high-risk locations, and citywide trends and patterns. The analysis of crash history throughout the City's transportation network allows for the following opportunities:

1. Identify factors in the transportation network that inhibit safety for all roadway users,
2. Improve safety at specific high-crash locations, and
3. Develop safety measures using the four E's of safety (Engineering, Enforcement, Education, and Emergency Response) to encourage safer driver behavior and better severity outcomes.

Corona has taken steps to enhance all modal safety throughout the City and with this LRSP, Corona is continuing to prioritize safety in its planning processes. The Office of Traffic Safety (OTS) most recently ranked Corona 56th of 59 peer cities for traffic injuries after normalizing for population and VMT in 2019. With number one (1) in the OTS crash rankings considered the highest, or "worst," this positions the City at well above average for roadway safety performance. The City aims to build upon existing effort to continue to improve safety within the city. This LRSP analyzes Crossroads crash data from January 1, 2016 – December 31, 2020 and roadway improvements to assess historic trends, patterns, and areas of increasing concern.

The intent of the LRSP is to:

- Create a greater awareness of road safety and risks
- Reduce the number of fatal and severe-injury crashes
- Develop lasting partnerships
- Support for grant/funding applications, and
- Prioritize investments in traffic safety.

2. Vision and Goals

The Corona LRSP evaluates the transportation network as well as non-infrastructure programs and policies within the City. Mitigation measures are evaluated using criteria to analyze the safety of road users (drivers, bicyclist, and pedestrians), the interaction of modes, the influences on the roadway network from adjacent municipalities, and the potential benefits of safety countermeasures. Through historical data and trends, proactive identification and safety opportunities can be identified and implemented without relying solely on a reaction and response to crashes as they occur.

As cities across the country have implemented LRSPs and systemically addressed the conditions leading to fatal and severe-injury crashes, the Federal Highway Administration (FHWA) has found that LRSPs effectively improve safety. LRSPs provide a locally developed and customized roadmap to directly address the most common safety challenges in the given jurisdiction. This project's vision, goals, and objectives have been established to reflect discussions with Corona staff, various stakeholders identified by City staff, and a review of existing plans/policies in the area.

VISION:	*To enhance the transportation network for all users to move towards zero traffic fatalities and serious injuries by the year 2050 (Vision Zero).*

The City is planning to adopt a Vision Zero goal to eliminate traffic deaths by 2050. The implementation of this goal will be led by key City departments. While the identified improvements in this report will be helpful in working toward achieving Vision Zero, improvements in driver education and a culture shift towards roadway safety will be necessary.

Goal #1: Identify areas with a high risk for crashes.

Objectives:

- Identify intersections and segments that would most benefit from mitigation.
- Identify areas of interest with respect to safety concerns for vulnerable users (pedestrians and bicyclists).

Goal #2: Illustrate the value of a comprehensive safety program and the systemic process.

Objectives:

- Demonstrate the systemic process' ability to identify locations with higher risk for crashes based on present characteristics closely associated with severe crashes.
- Demonstrate, through the systemic process, the gaps and data collection activities that can be improved upon.

Goal #3: Plan future safety improvements for near-, mid- and long-term.

Objectives:

- Identify safety countermeasures for specific locations (case studies).
- Identify safety countermeasures that can be applied citywide.

Goal #4: Define safety projects for future Highway Safety Improvement Plan (HSIP) and other program funding consideration.

Objectives:

- Create the outline for a prioritization process that can be used in this and forth-coming cycles to apply for funding.
- Use the systemic process to create Project Case Studies.
- Use Case Studies to apply for HSIP and other funding consideration.
- Demonstrate the correlation between the proposed safety countermeasures with the Vision Zero Initiative and the California State Highway Safety Plan.

3. Process

The primary goal for the City of Corona and their safety partners is to provide safe, sustainable, and efficient mobility choices for their residents and visitors. Through the development and implementation of this LRSP, the City will continue its collaboration with safety partners to identify and discuss safety issues within the community.

Guidance on the LRSP process is provided at both the national (FHWA) and state (Caltrans) level, and both agencies have developed a general framework of data and recommendations for a LRSP.

FHWA encourages the following:

- The establishment of a working group (stakeholders) to participate in developing an LRSP
- A review of crash, traffic, and roadway data to identify areas of concern
- The identification of goals, priorities, and countermeasures to recommend improvements at spot locations, systemically, and comprehensively

Caltrans guidance follows a similar outline with the following steps:

- Establish leadership
- Analyze the safety data
- Determine emphasis areas
- Identify strategies
- Prioritize and incorporate strategies
- Evaluate and update the LRSP

This LRSP documents the results of data and information obtained, including the preliminary vision and goals for the LRSP, existing safety efforts, initial crash analyses, and developed emphasis areas. The LRSP recommendations consider the four E's of traffic safety defined by the California Strategic Highway Safety Plan (SHSP): Engineering, Enforcement, Education, and Emergency Response.

3.1 Guiding Manuals

This section describes the analysis process undertaken to evaluate safety within Corona at a systemic level. This report identifies specific locations within the City that will benefit from safety enhancements and derives crash risk factors based on historic crash data using a network screening process. The outcome will inform the identification and prioritization of engineering and non-infrastructure safety measures by addressing certain roadway characteristics and related driving behaviors contributing to crashes. This process uses the latest national and state best practices for statistical roadway analysis described.

3.1.1 Local Roadway Safety Manual

The *Local Roadway Safety Manual: A Manual for California's Local Road Owners* (Version 1.5, April 2020) encourages local agencies to pursue a proactive approach when identifying and analyzing safety issues and preparing to compete for project funding opportunities. A proactive approach is based on a comprehensive safety analysis of an entire roadway network through either a one-time network wide analysis or a routine analysis of the roadway network.[1]

According to the *Local Roadway Safety Manual* (LRSM), "the California Department of Transportation (Caltrans) – Division of Local Assistance is responsible for administering California's federal safety funding intended for local safety improvements."

To provide the most beneficial and competitive funding approach, the analysis leading to countermeasure selection should focus on both intersections and roadway segments and maintain consideration of roadway characteristics and traffic volumes. The result should reflect a list of locations that are most likely to benefit from cost-effective countermeasures, preferably prioritized by benefit/cost ratio. The manual suggests using a mixture of quantitative and qualitative measures to identify and rank locations using both crash frequency and crash rates. These findings should then be screened for crash type and severity patterns to determine the cause of crashes and the potential effective countermeasures. Qualitative analysis should include field visits and a review of existing roadway characteristics and devices. The specific roadway context can then be used to assess conditions that may decrease safety at the site and at systematic levels.

Countermeasure selection should be supported using Crash Modification Factors (CMFs). These factors are a peer reviewed product of research quantifying the expected rate of crash reduction expected from a given countermeasure. If more than one countermeasure is under consideration, the LRSM provides guidance on appropriate application of CMFs.

3.1.2 Highway Safety Manual

The American Association of State Highway and Transportation Officials (AASHTO) *Highway Safety Manual* (HSM), published in 2010, presents a variety of methods for quantitatively estimating crash frequency or severity at a variety of locations.[2] This four-part manual is divided into the following parts: A) Introduction, Human Factors, and Fundamentals, B) Roadway Safety Management Process, C) Predictive Method, D) Crash Modification Factors.

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1 Local Roadway Safety Manual (Version 1.5) 2020. Page 5.

2 AASHTO, Highway Safety Manual, 2010, Washington D.C., http://www.highwaysafetymanual.org/Pages/About.aspx

In Chapter 4 of Part B in the HSM, the "Network Screening Process" is a tool for an agency to analyze the entire network and identify/rank locations that are most likely or least likely to realize a reduction in the frequency of crashes.

The HSM identifies five steps in this process:[3]

1. Establish Focus: Identify the purpose or intended outcome of the network screening analysis. This decision will influence data needs, the selection of performance measures and the screening method that can be applied.

2. Identify Network and Establish Reference Populations: Specify the types of sites or facilities being screened (i.e., segments, intersections, geometrics) and identify groupings of similar sites or facilities.

3. Select Performance Measures: There are a variety of performance measures available to evaluate the potential to reduce crash frequency at a site. In this step, the performance measure is selected as a function of the screening focus and the data and analytical tools available.

4. Select Screening Method: There are three principal screening methods described in this chapter (i.e., ranking, sliding window, peak searching). Each method has advantages and disadvantages; the most appropriate method for a given situation should be selected.

5. Screen and Evaluate Results: The final step in the process is to conduct the screening and analysis and evaluate the results.

The HSM provides several statistical methods for screening roadway networks and identifying high risk locations based on overall crash histories. After identifying the total number of crashes, this study uses a method referred to as "Critical Crash Rate" to analyze the data.

3.2 Analysis Techniques

3.2.1 Collision Analysis

The initial steps of a collision analysis involve establishing sub-populations of roadway segments and intersections that have similar characteristics. For this LRSP, intersections were grouped by their control type (signalized and unsignalized), and segments were grouped by their roadway category (primary arterial, secondary arterial, collector, local). Individual collision rates were then calculated for each sub-population. The population level collision rates were used to assess the number of collisions at a specific location. These sub-populations were also used to determine typical collision patterns to highlight locations where an unusual number of specific collision types occurred.

3 AASHTO. *Highway Safety Manual.* 2010. Washington, DC. Page 4-2.

3.2.2 Network Screening Analysis

The network screening process lists intersections and roadway segments by the number of collisions over the analysis period and identifies areas with a higher number of a given collision type than would be expected for the location.

The different collisions were organized by the following categories:

1. Collision injury (fatal, serious injury, other visible injury, complaint of pain, property damage only),
2. Collision type (broadside, rear-end, sideswipe, head-on, hit object, overturned, bicycle, pedestrian, other),
3. Environmental factors (lighting, wet roads), and
4. Driver behavior (impaired, aggressive, and distracted driving).

3.3 Statistical Performance Measures

3.3.1 Critical Crash Rate (CCR)

Reviewing the number of collisions at a location is a method used to understand the cost to society incurred at the local level; however, it does not give a complete indication of the level of risk for those who use that intersection or roadway segment daily. The Highway Safety Manual describes the Critical Crash Rate method which provides a statistical review of locations to determine where risk is higher than that experienced by other similar locations. It is also the first step in analyzing for patterns that may suggest systemic issues that can be addressed at that location, and proactively at others to prevent new safety challenges from emerging.

The Critical Crash Rate compares the observed crash rate to the expected crash rate at a location based on facility type and volume using a locally calculated average crash rate for the specific type of intersection or roadway segment being analyzed. Based on traffic volumes and a weighted citywide crash rate for each facility type, a critical crash rate threshold is established at the 95% confidence level to determine locations with higher crash rates that are unlikely to be random. The threshold is calculated for each location individually based on its traffic volume and the crash profile of similar facilities. The critical crash rate formula used in the analysis is calculated based on the following equation:

$$R_{c,i} = R_a + \left[P \times \sqrt{\frac{R_a}{MEV_i}}\right] + \left[\frac{1}{(2 \times (MEV_i))}\right]$$

Where,

$R_{c,i}$ = Critical crash rate for intersection *i*
R_a = Weighted average crash rate for reference population
P = P-value for corresponding confidence level
MEV_i = Million entering vehicles for intersection *i*

Source: Highway Safety Manual

DATA NEEDS

CCR can be calculated using:

- Daily entering volume for intersections, or VMT for roadway segments
- Intersection control types to separate them into like populations
- Roadway functional classification to separate them into like populations
- Collision records in Geographic Information System (GIS) or tabular form including coordinates or linear measures

Strengths

- Reduces low volume exaggeration
- Considers variance
  - Establishes comparison threshold

3.3.2 CCR Methodology

The Process of analyzing the CCR and comparing locations (separately by intersections and segments) is a multi-step process. The following is a high-level description of the process undertaken to develop the initial ranking of locations.

The first step in the process was to establish a city-wide crash rate for each facility population. These populations are broken into two categories with sub-categories:

- Intersection:
  - Signalized Intersection
  - Unsignalized Intersection
- Roadway Classification:
  - Principal Arterial
  - Minor Arterial
  - Collector
  - Local

The individual crash rate for each location was then calculated based on the associated traffic volume. This volume was either collected through data count resources or calculated based on the roadway classification. The next step was to establish a Significance Threshold. This Threshold was used to determine what level of exceedance (how much the crash rate exceeded the critical crash rate) a location must have based on traffic volume to provide a high level of confidence that the collision occurring at the location is not random. For this study, a confidence level of 95% was used. The local crash rates were then compared to Significance Threshold to see if each location exceeded the expected CCR and if so, by how much.

3.3.3 Equivalent Property Damage Only (EPDO)

The equivalent property damage only (EPDO) method is described in the Highway Safety Manual. This method assigns weighting factors to crashes based on injury level (severe, injury, property damage only) to develop a property damage only score. In this analysis, the injury crash costs were calculated for each location (based on the latest Caltrans injury costs) and then normalized by dividing by the value of a property damage only collision. Fatal and severe injury collisions are estimated at $2.19 million, Other Visible Injury collisions at $142,300, Complaint of Pain collision at $80,900, and Property Damage Only collisions at $13,300. This figure is then divided by the injury cost for a property damage only crash. The resulting number is the equivalent number of property damage only crashes at each site. This figure allows all locations to be compared based on injury crash costs. (Highway Safety Manual, Chapter 4).

3.3.4 Probability

The Highway Safety Manual describes the methodology for determining the probability that crash type is greater than an identified threshold proportion. This helps to identify locations where a crash type is more likely to occur.

Data Needs

The probability of a specific crash type can be determined using collisions records with location data, and classifications of the locations (intersections or segments) studied.

Strengths

- Can be used as a diagnostic tool
- Considers variance in data
- Not affected by selection bias

The HSM methodology first determines the frequency of a specific collision type at an individual location, then determines the observed proportion of that collision type relative to all collision types at that location. A threshold proportion is then determined for the specific collision type; HSM suggests utilizing the proportion of the collision type observed in the entire reference population (e.g. throughout the entire City of Corona).

These proportions are then utilized to determine the probability that the proportion of a specific crash type is greater than the long-term expected proportion of that crash type. The probability of specific crash types exceeding threshold proportion is calculated based on the following equation:

$$P(p_i > \overline{p_i^*} \mid N_{observed,i}, N_{observed,i(TOTAL)}) = 1 - betadist(\overline{p_i^*}, a + N_{observed,i}, \beta + N_{observed,i(TOTAL)} - N_{observed,i})$$

Where,
$\overline{p_i^*}$ = Threshold proportion
p_i = Observed proportion
$N_{observed,i}$ = Observed target crashes for a site i
$N_{observed,i(TOTAL)}$ = Total number of crashes for a site i

Source: Highway Safety Manual

3.4 Future Analysis

The City plans to conduct regular collision monitoring as described in Section 10.2 Next Steps. The City will then refresh the analysis and update the LRSP as needed to maintain eligibility for HSIP funding, as described in **Section 10.2.**

4. Safety Partners

Local stakeholders were included in the development of this report to ensure the local perspective was maintained at the forefront of planning efforts. A stakeholder group of City staff and external partners consisted of representatives from the Corona Police Department, Corona-Norco Unified School District, the Corona Fire Department, pedestrian advocates, as well as several representatives from City staff.

The local stakeholders were called together to offer insight on the safety issues present in the City's transportation network. After the initial network screening and safety analysis, the stakeholder group met to discuss potential countermeasures and challenge areas through virtual field visits. The summaries of the field visit meeting(s) are outlined below.

4.1 Field Visit Meeting

The field visit was conducted on Friday, May 13, 2022. Stakeholders in attendance visited each of the 16 site locations to review and identify issues that are contributing to the collision patterns. Potential countermeasures were identified and discussed.

4.2 Stakeholder Meeting

A stakeholder meeting was held on Thursday, June 23, 2022. At the meeting, stakeholders were introduced to the project and provided an overview of the data analysis, the required outputs, and the potential outcomes of the study.

In addition to the overview, stakeholders were asked to provide local insight and knowledge at the 16 site visit locations that were identified after the initial network screening and crash analysis process. Potential countermeasures were recommended, and emphasis/challenge areas were discussed, specifically speeding as a major factor in collisions throughout the City as well as a focus on pedestrians, bicyclists, and motorcyclists.

Stakeholder feedback was reviewed and incorporated into the study process for the development of the LRSP.

4.3 Leadership Team Meeting

The City's Leadership Team met on Tuesday, July 26, 2022 where the LRSP project team presented an overview of the project and the purpose of the project. The project team also presented a summary of general Citywide safety background data and trends as well as the emphasis areas and countermeasures discussed from the Stakeholder meeting.

4.4 City Council Meeting

The LRSP project team presented at the Corona City Council meeting on Wednesday, August 10, 2022. The presentation was similar to the Leadership Team meeting where an overview of the LRSP was provided, along with areas of focus, and countermeasures to implement as well as next steps for the City now that an LRSP is in place.

5. Existing Efforts

Existing plans, policies, and projects that were recently completed, planned, or on-going were compiled at the start of the LRSP process to gain perspective on the existing efforts for transportation-related improvements within the City. High-level key points regarding transportation improvements and safety-related topics were identified to inform decision making in this LRSP.

Table 1 outlines the relevant existing City plans and their improvements and funding sources. **Table 2** outlines the relevant existing City projects and their timelines.

Table 1 – Review of Existing City Plans

Project Name	Timeline	Transportation Policies/Improvements
Green River Road Widening: SR-91 to Palisades	July 2016	Includes widening Green River Road from 4 to 6 lanes from Palisades to State Route 91. Improvements will include a new storm drain, sewer and water lines, a new traffic signal at Palisades Drive and a traffic signal modification at Dominguez Ranch Road
Foothill Parkway Widening Tamarisk to Teddy Bear	March 2017	Widening Foothill Parkway between Tamarisk to Teddy Bear from 2 to 4 lanes. Improvements will include curb & gutter, sidewalk, storm drain, and median
Foothill Parkway Westerly Extension	April 2017	Construct a segment of roadway to connect Foothill Parkway from Lincoln Avenue to Green River Road.
Traffic Signal at Serfas Club and Rancho Corona	May 2017	Installation of traffic signal at the intersection of Serfas Club at Rancho Corona including curb ramp and sidewalk improvements
Railroad Street Sidewalk	August 2017	Construct sidewalk along north side of Railroad Street to connect existing sidewalk surrounding Monica Circle
CDBG Sidewalk Improvement	October 2017	The project will consist of rehabilitating existing sidewalk to comply with ADA requirements, constructing ADA curb ramps, and replacement of curb & gutter.
Street Pavement Maintenance & Rehabilitation	June 2017	This project consists of pavement rehabilitation.
Citywide Sidewalk Improvement Phase I	November 2017-March 2018	This project consists of replacement of more than 80,000 square feet of damaged sidewalks and 110 linear feet of curbs and gutter.
Railroad Street Sidewalk	June 2017-August 2017	Project involved the construction of new sidewalk, replacement of damaged curb and gutter,

Project Name	Timeline	Transportation Policies/Improvements
		driveway approaches, and installed new curb ramps to meet ADA.
McKinley Grade Separation	Under Construction	A suspension bridge to elevate McKinley Street over the BNSF railroad tracks and Arlington Channel.
15/91 Express Lanes Connector	Under construction	Project will link the 15 express lanes to the 91 express lanes.
Route 91 Corridor Operations Project	Under Construction	Project will add a new lane to westbound 91 for approximately two miles between the Green River Road on-ramp and the southbound Route 241 connector.

Table 2: Review of Existing City Projects

Project Name	Timeline	Transportation Policies/Improvements
Green River Road Widening: SR-91 to Palisades	July 2016	Includes widening Green River Road from 4 to 6 lanes from Palisades to State Route 91. Improvements will include a new storm drain, sewer and water lines, a new traffic signal at Palisades Drive and a traffic signal modification at Dominguez Ranch Road
Foothill Parkway Widening Tamarisk to Teddy Bear	March 2017	Widening Foothill Parkway between Tamarisk to Teddy Bear from 2 to 4 lanes. Improvements will include curb & gutter, sidewalk, storm drain, and median
Foothill Parkway Westerly Extension	April 2017	Construct a segment of roadway to connect Foothill Parkway from Lincoln Avenue to Green River Road.
Traffic Signal at Serfas Club and Rancho Corona	May 2017	Installation of traffic signal at the intersection of Serfas Club at Rancho Corona including curb ramp and sidewalk improvements
Railroad Street Sidewalk	August 2017	Construct sidewalk along north side of Railroad Street to connect existing sidewalk surrounding Monica Circle
CDBG Sidewalk Improvement	October 2017	The project will consist of rehabilitating existing sidewalk to comply with ADA requirements, constructing ADA curb ramps, and replacement of curb & gutter.
Street Pavement Maintenance & Rehabilitation	June 2017	This project consists of pavement rehabilitation.
Citywide Sidewalk Improvement Phase I	November 2017-March 2018	This project consists of replacement of more than 80,000 square feet of damaged sidewalks and 110 linear feet of curbs and gutter.
Railroad Street Sidewalk	June 2017-August 2017	Project involved the construction of new sidewalk, replacement of damaged curb and gutter, driveway approaches, and installed new curb ramps to meet ADA.
McKinley Grade Separation	Under Construction	A suspension bridge to elevate McKinley Street over the BNSF railroad tracks and Arlington Channel.
15/91 Express Lanes Connector	Under construction	Project will link the 15 express lanes to the 91 express lanes.
Route 91 Corridor Operations Project	Under Construction	Project will add a new lane to westbound 91 for approximately two miles between the Green River Road on-ramp and the southbound Route 241 connector.

6. Data Summary

This section describes the data sources used for the analysis process of this LRSP.

6.1 Roadway Network

The Caltrans California Road System (CRS) GIS database was used to build the base roadway network used for this analysis. Functional Classifications were then imported from the City's General Plan. Traffic volumes and signal locations were provided by the City and were included in the analysis network. Intersections and roadway segments were divided into control and classification categories so that each set could have its own crash rates and be evaluated against similar facilities. **Figure 1** illustrates Corona's roadway network and intersections as classified for this study.

6.2 Intersection

The collision analysis requires each intersection be classified by type: Signalized or Unsignalized. The safety analysis compares intersection safety performance to locations with similar control types. This information is also displayed in **Figure 1.**

6.3 Count Data

Vehicular count data is used as part of the analysis process to evaluate the impact of traffic and understand the natural hierarchy of the roadway network. Count data utilized for this project was pulled from the latest Engineering & Traffic Survey performed. For locations without volume or count data, reasonable assumptions were made based on classification types. The traffic volume information allowed the team to assess locations for risk to a given roadway user as well as reviewing locations with the highest number of collisions.

6.4 Collision Data

Collision data was collected from Crossroads software for the period from January 1, 2016 through December 31, 2020. Five years of data are utilized instead of the standard three years to provide more history to evaluate trends or patterns. Analysis of the raw collision data is the first step in understanding the specific and systemic challenges faced throughout the city. Analyzing the five years of data provided insight on the collision trends and patterns detailed in **Section 7.** All collisions analyzed in the study period are shown in **Figure 2**. The locations of fatal and severe injury collisions are displayed in **Figure 3**.

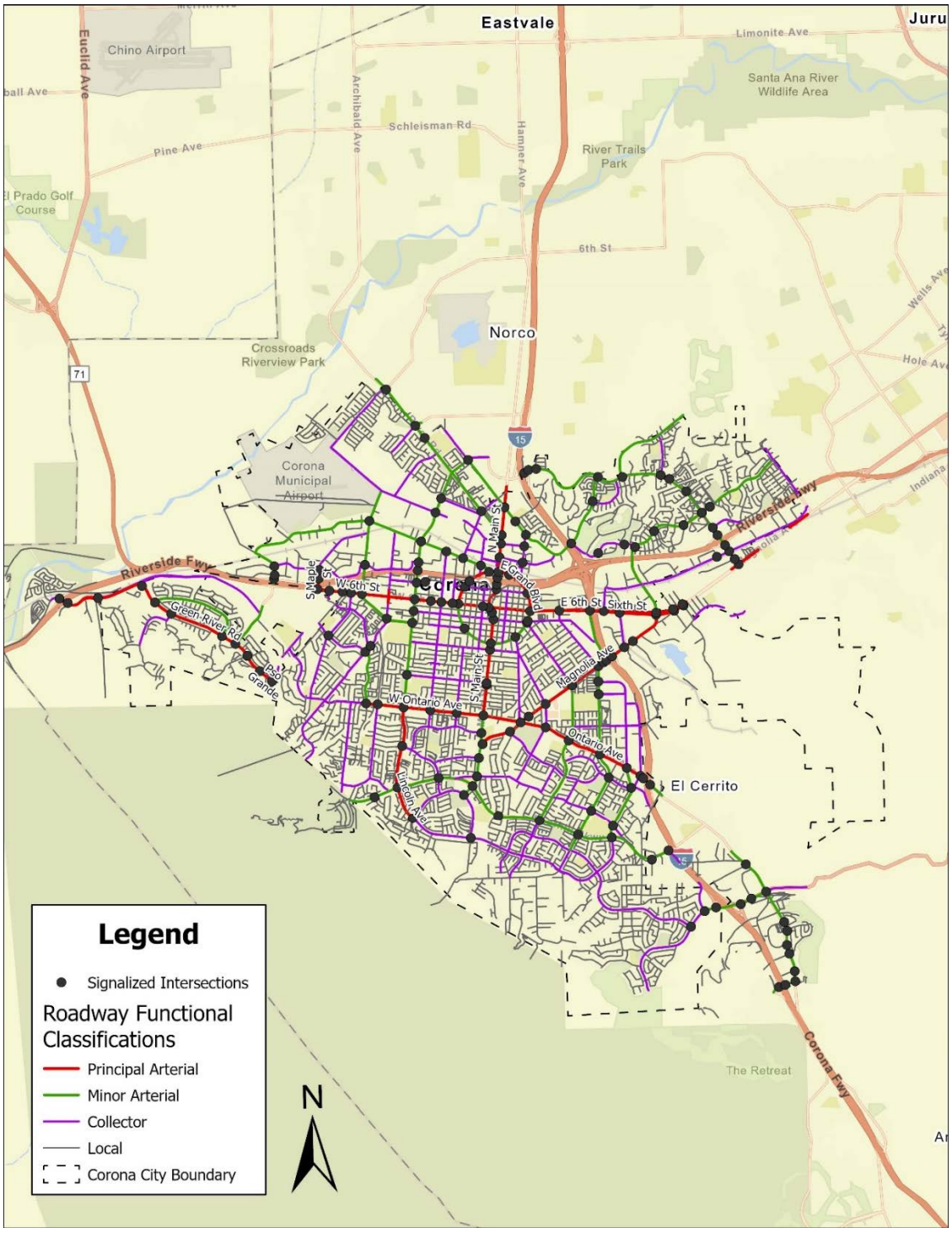


Figure 1- Roadway Functional Classification

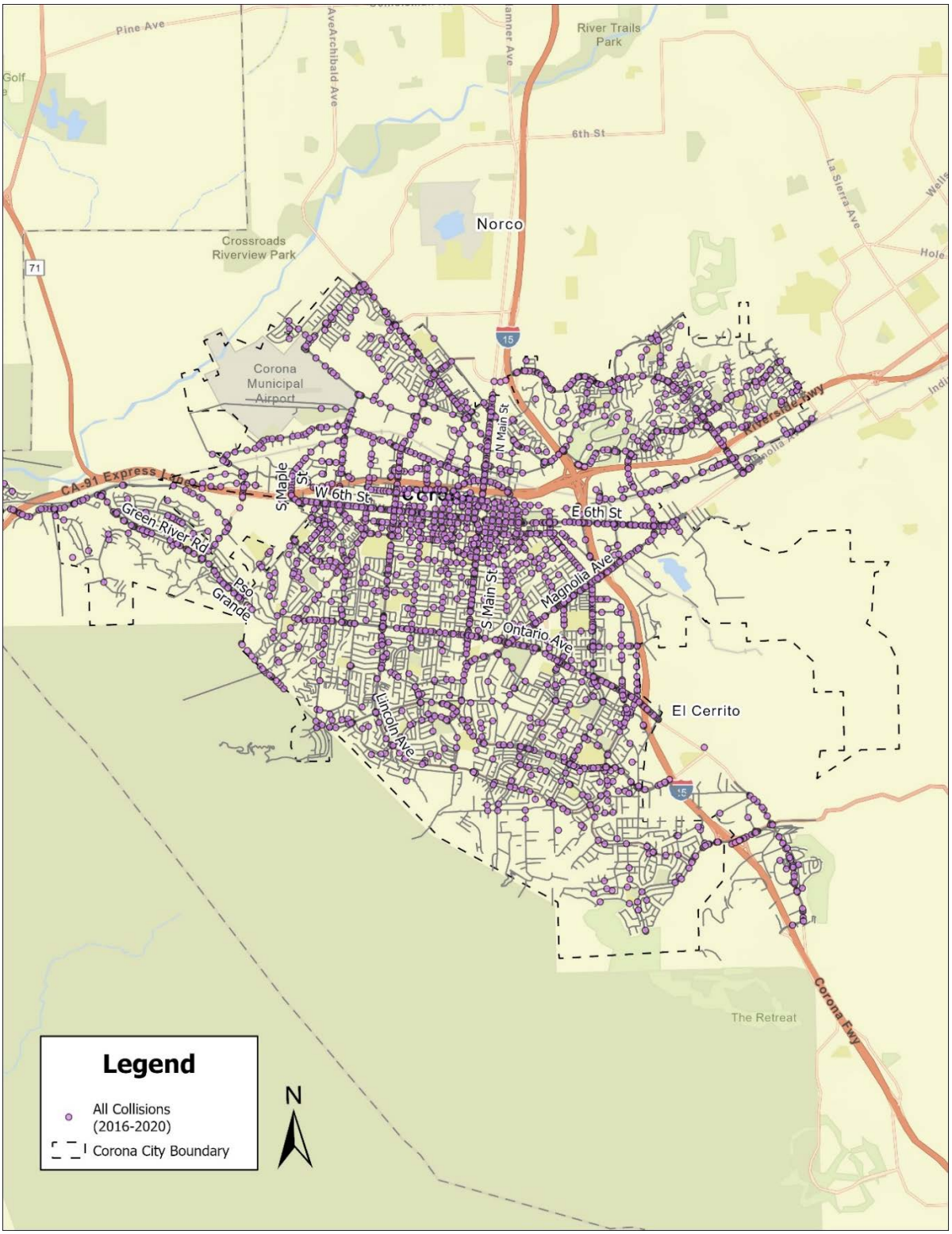


Figure 2 - All Collisions (2016-2020)

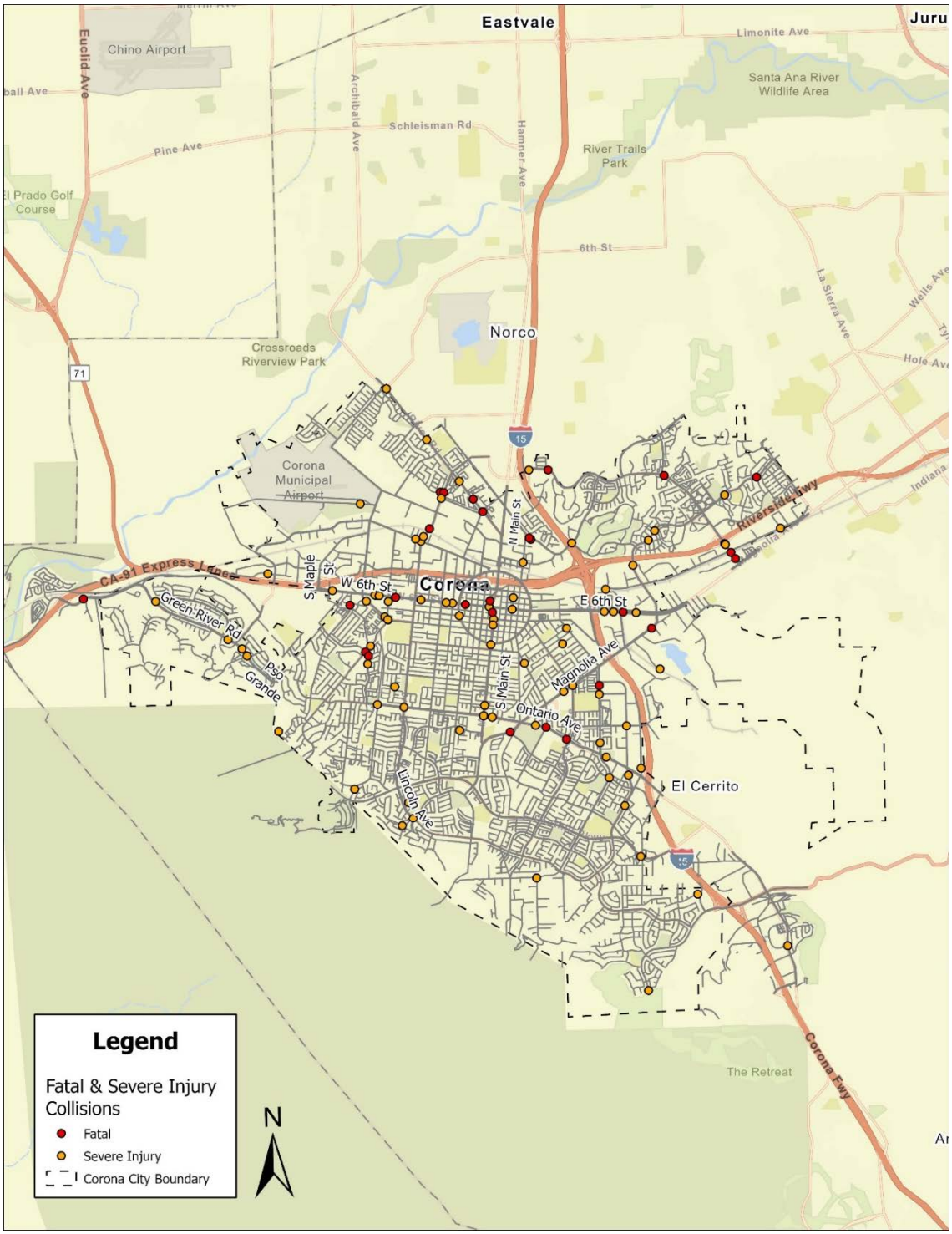


Figure 3 – Fatal and Severe Injury Collisions (2016-2020)

7. Crash Safety Trends

The analysis was conducted using a network screening process for the City-maintained roadway system based on collision records spanning from January 1, 2016, through December 31, 2020. This section contains the results of the analysis, which included the evaluation of Corona's fatal and serious injury (generally denoted as K+SI) collisions, statewide K+SI collisions, pedestrian collisions, bicycle collisions, collision severity levels, and collision causes.

7.1 All Collisions

This report utilized collision data for a five-year period to provide a better understanding of trends and to reflect the patterns in crashes that have occurred on city streets. Data used for this report was extracted from Crossroads Software on March 2, 2021 and was current as of that date. Collision data from January 1, 2016 through December 31, 2020 as reported to Crossroads from the local enforcement indicated that during this time there were 6,648 collisions recorded within Corona.

Figure 4 shows the most common occurring collision types: Broadsides (31%) and Rear-ends (26%).

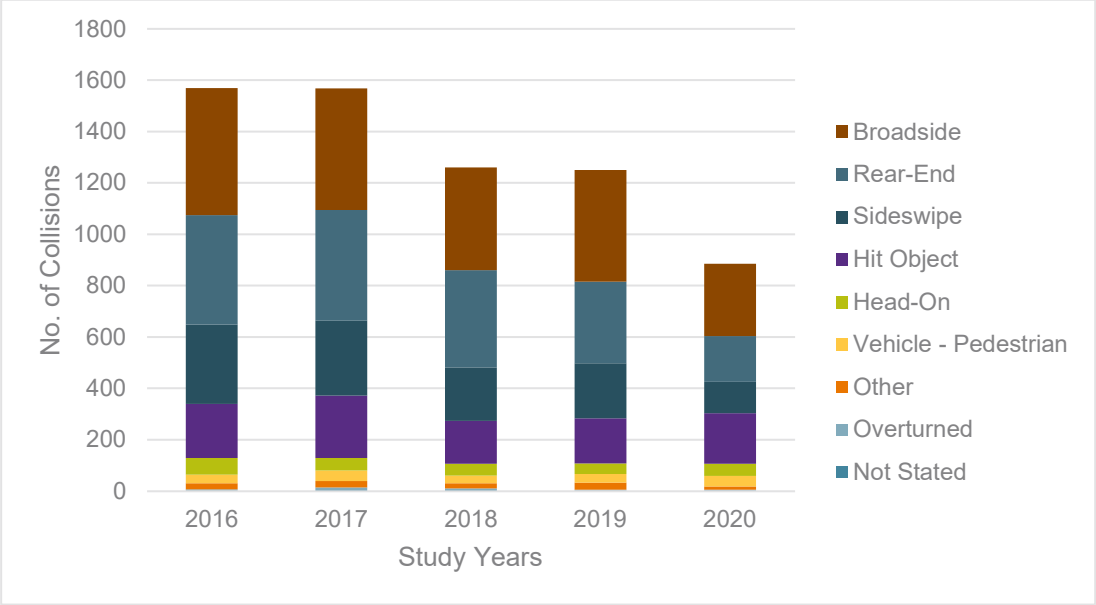


Figure 4 - Collision Type by Year (2016-2020)

Source: Corona Crossroads Database (2016-2020)

7.2 Fatalities

As shown in **Figure 3**, 31 fatal collisions occurred during the study period**.** There were 9 pedestrian fatalities, and 1 bicycle fatality. 6 fatal collisions occurred with other motor vehicles, while there were 15 collisions involved with fixed objects. **Table 3** outlines the fatal collisions categorized by modes involved.

Table 3 – Fatal Collisions Categorized by Modes Involved (2016-2020)

Involved With	# of Fatal Collisions	# of Fatal Collision Occurring at Night
Fixed Object	15	10
Pedestrian	9	8
Motor Vehicle	6	1
Bicycle	1	1

7.3 Injury Levels

Sixty-nine percent (69%) of the collisions reported during the time-period resulted in property damage only. Fatalities and severe injuries totaled approximately 2% of all collisions. **Figure 5** shows the percentage breakdown of collisions by injury levels.

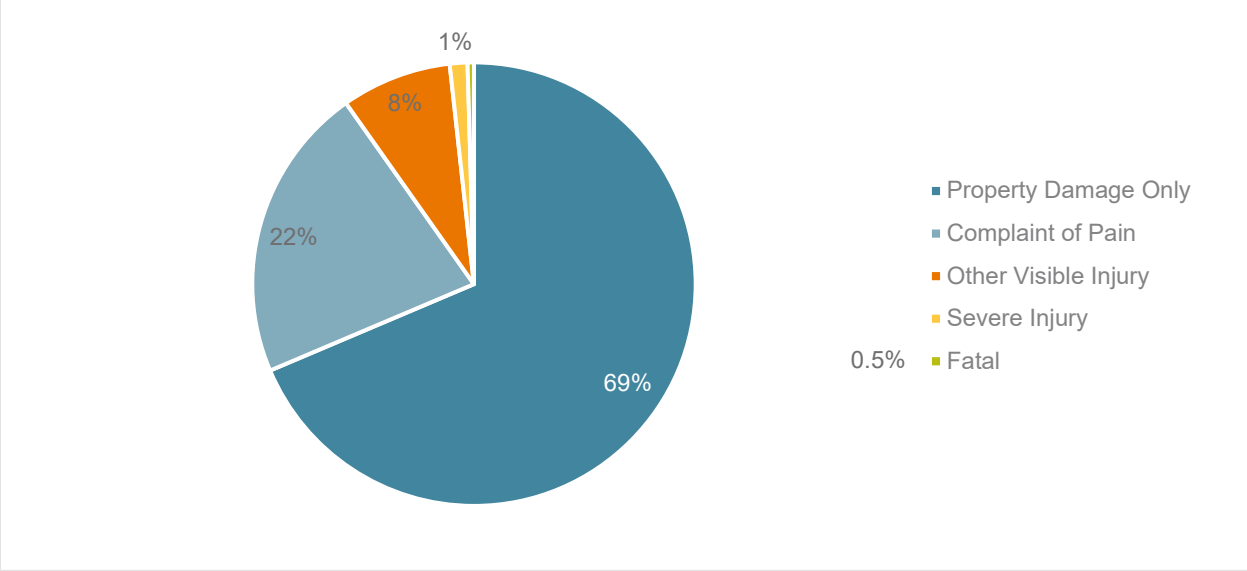


Figure 5 - Collisions by Injury Levels (2016-2020)
Source: Corona Crossroads Database (2016 – 2020)

7.4 Cause of Collision

The highest recorded cause of collisions in Corona during this time period is Unsafe Speed at 22%, followed by Auto R/W Violation at 15% and Auto Unsafe Lane Change at 14%. Issues with Drivers Ignoring Traffic Signals and Signs also had a substantial impact on the City, comprising 12% of the collisions. **Figure 6** shows the percentage breakdown of the cause of collisions. **Figure 7** shows the number of 'Ignoring Traffic Signals and Signs' collisions by year.

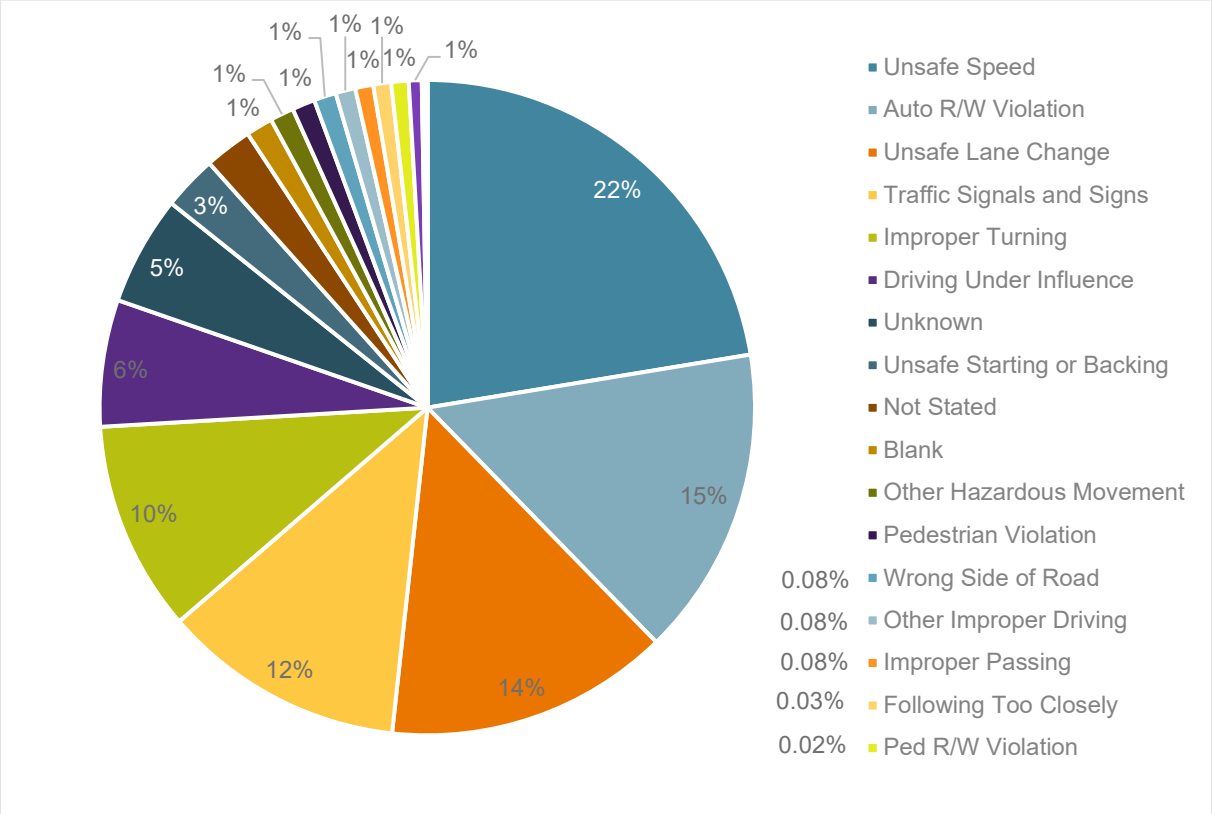


Figure 6 – Cause of Collisions (2016-2020)

Source: Corona Crossroads Database (2016 – 2020)

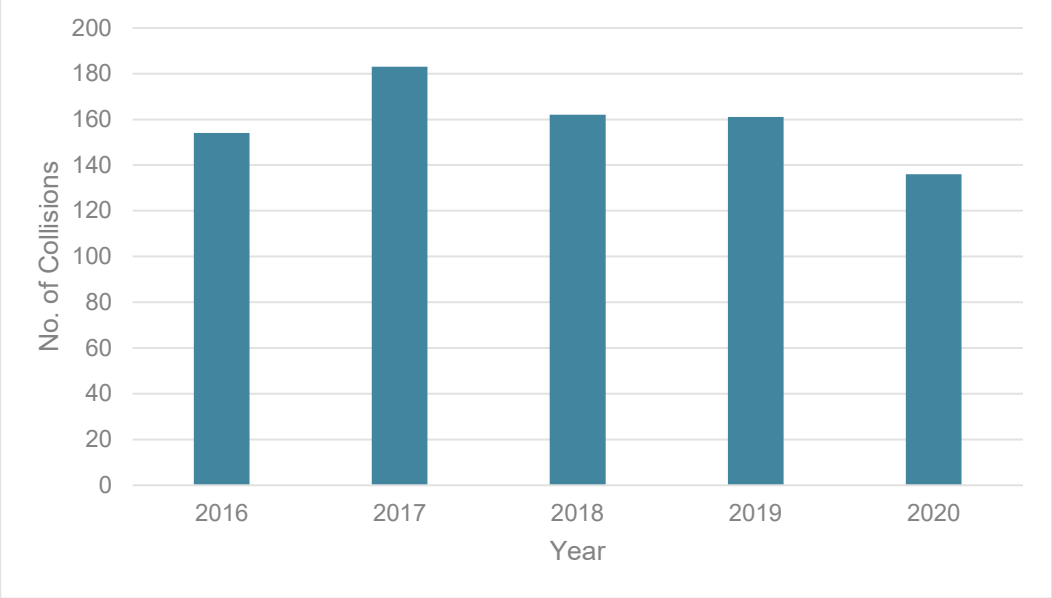


Figure 7 – 'Ignoring Traffic Signals and Signs' Collisions by Year (2016-2020)

Source: Corona Crossroads Database (2016 – 2020)

7.5 Vulnerable Users

7.5.1 Pedestrian Collisions

One hundred sixty-five (165) pedestrian involved collisions occurred during the study period, resulting in nine (9) fatal collisions, twenty-five (25) severe injuries, and one hundred and seven (107) collisions with some form of reported injury or pain. **Figure 8** shows the locations of pedestrian collisions during the study period.

7.5.2 Bicycle Collisions

During the study period, one hundred forty-seven (147) collisions involving bicycles were reported. Of these, one (1) was fatal, six (6) resulted in severe injuries and one hundred and eight (108) resulted in some other form of reported pain or injury. **Figure 8** shows the location of bicycle collisions during the study period.

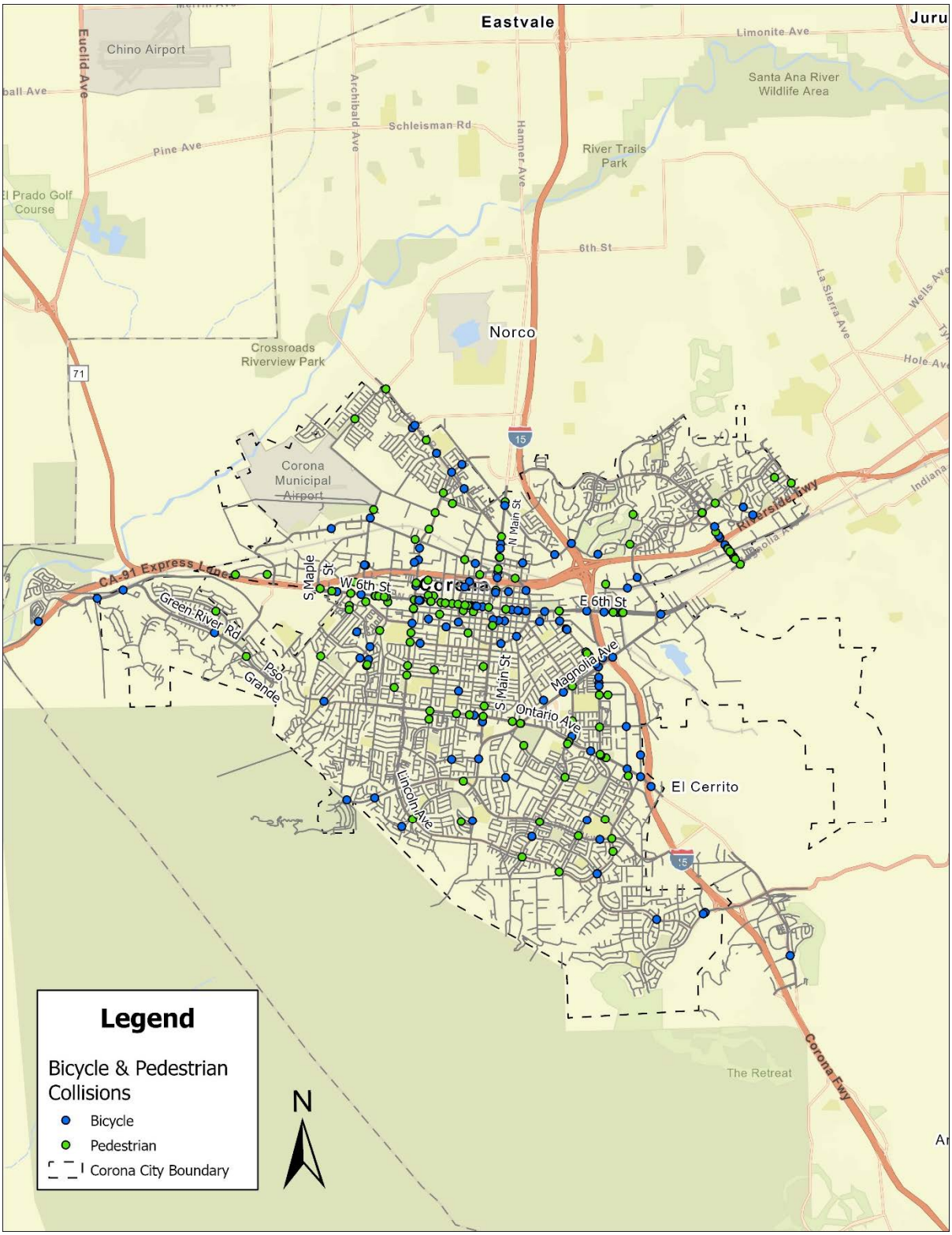


Figure 8 – Pedestrian and Bicycle Collisions (2016-2020)

7.6 Other Significant Trends

In addition, the following trends were observed:

- Drivers aged between 16 and 20 years old were found to be at fault in 8% of collisions.
- Drivers aged 65 or older were found to be at fault in 5% of collisions. Drivers aged 55 and older were found to be at fault in 12% of collisions.
- Approximately 6% of the collisions (416) involved impaired driving. 2.16% of these collisions resulted in a fatal injury, 1.92% resulted in a severe injury, and 13% of these resulted in some other form of injury.
- 32% of collisions (2,095) occurred either at night or during the dusk/dawn hours. Approximately 55% of the pedestrian collisions (81) and 29% of the bicycle collisions (42) occurred at night. **Figure 9** shows the distribution of night or dusk/dawn collisions by year.

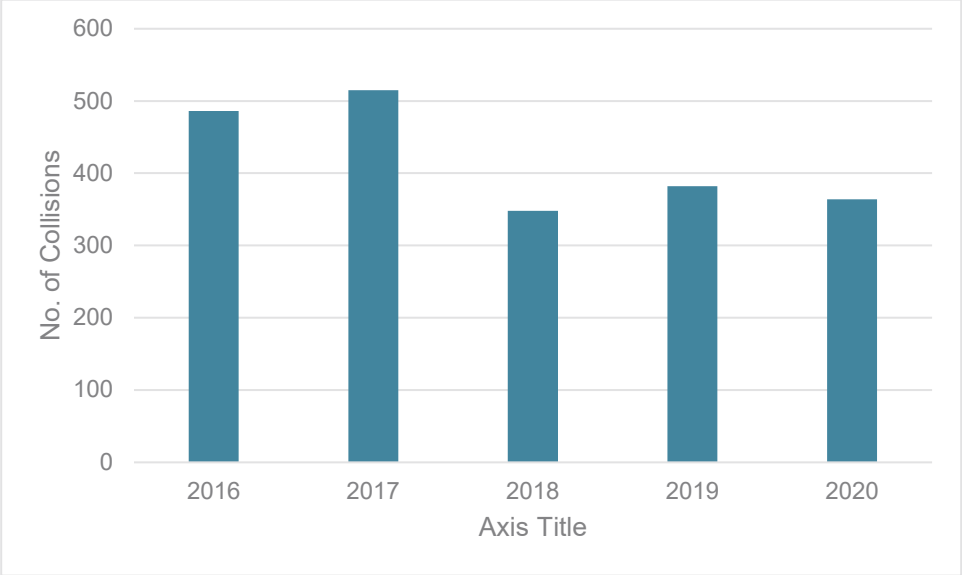


Figure 9 - Night or Dusk/Dawn Collisions by Year

The City completed an LED lighting project in 2017. Night or Dusk/Dawn collisions decreased significantly after 2017.

7.7 Collision Network Screening Analysis Results

Figure 10 shows the results of the collision network screening analysis, with the number of collisions at both intersections and mid-block roadway segments.

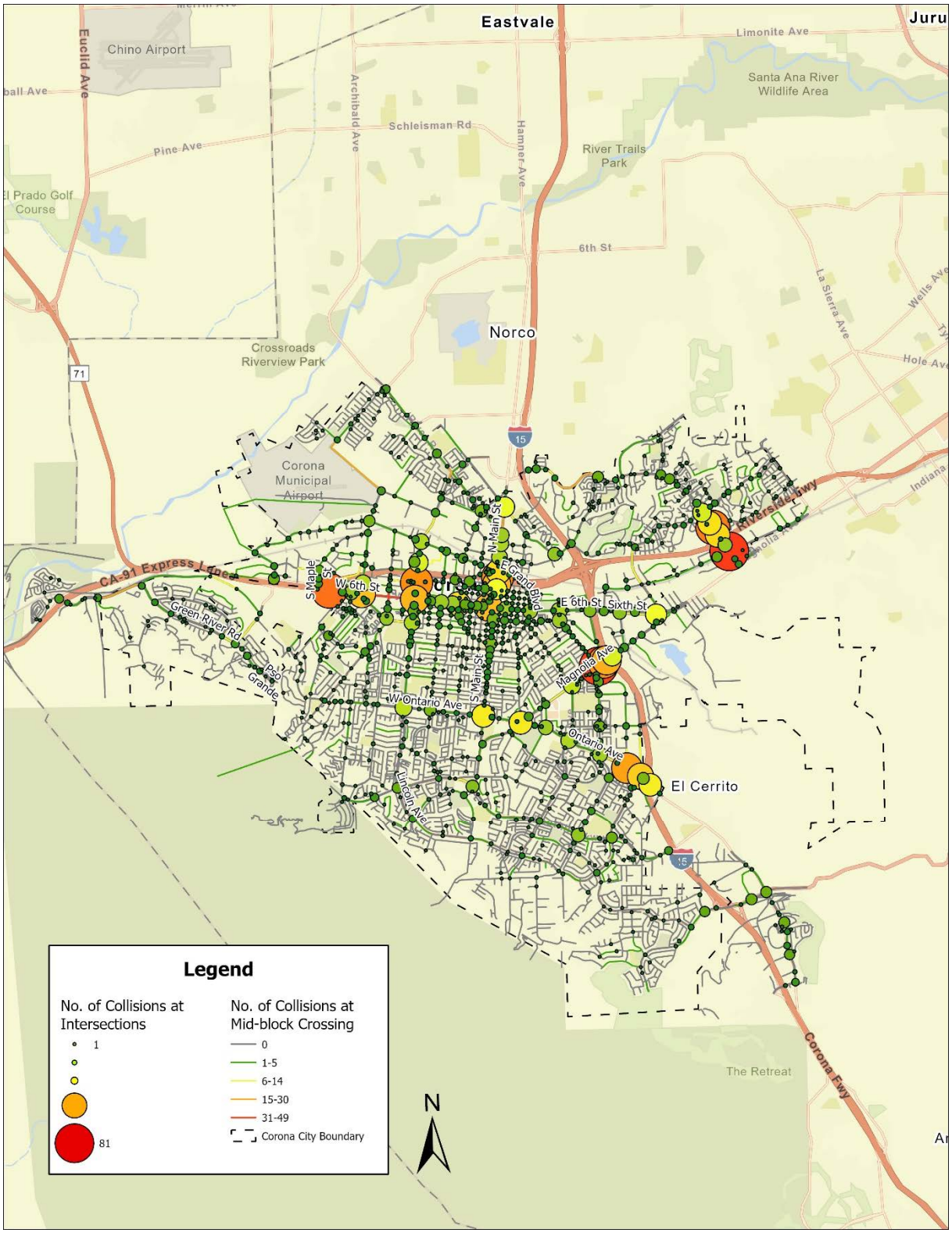


Figure 10 – Collision Network Screening Analysis Results: Intersections (2016-2020)

Table 4 and **Table 5** show the number of crashes occurring at the top ten locations in Corona by crash type for the locations that will be studied further in the Report, and highlights locations in which the probability of those crash types exceeding the threshold proportion is greater than 33%. **Appendix A** provides a full list of analysis rankings for all intersection and segment locations.

The tables are ordered by the number of collisions that occurred at that segment or intersection. To be statistically significant, only locations where more than two collisions occurred are represented. At locations with two or less collisions, random chance can account for crash history as much or more than specific roadway characteristics.

The tables are separated into sub-sections visible by the blue gradient. The first two columns, Collisions and Critical Crash Rate (CCR), represent the level of crash activity in absolute terms, and as relative to other similar locations, respectively.

Per guidance from the Local Roadway Safety Manual (LRSM) each sub-population of locations was ultimately ranked according to the number of collisions. The second column shows the CCR, which highlights whether or not the collision activity was higher or lower than the average for the sub-population based on the individual segment or intersection volume. This volume was either collected through data count resources or calculated based on the roadway classification. All averages used in the CCR calculation were established based on City of Corona crash data to determine what locations might be best to prioritize at the local level. The remaining columns total collisions by type (broadside, sideswipe, pedestrian, etc.), to evaluate each location type and understand what proportion of crashes in the City are of a particular type. The citywide proportion was compared with the local intersection or segment specific proportion to determine which locations have more of a given crash type than would be expected when considering the City average. A confidence level of 95% was used for the CCR Calculations. For this study, two categories of ranges were highlighted:

- **Light Gray:** >50% probability that this crash type is over-represented on this segment/intersection as compared to other characteristically similar locations within the City of Corona. Although these locations have a slightly higher probability of this crash type than their counterparts, they are not necessarily highly significant.
- **Dark Gray:** >75% probability that this crash type is over-represented on this segment/intersection as compared to other characteristically similar locations within the City of Corona. These locations are highly significant in regard to the number of collisions occurring here and should be further investigated.

After this analysis was completed, the locations were ranked against other similar locations within the City by their categories according to the expected proportion of that crash type within Corona. Locations with higher-than-expected crashes of that type were identified by the probability that random chance would not account for exceedances.

Additionally, it should be noted that the columns for Collision Severity, Type, Involved With, and Behavior are additional characteristics of the collisions and should not be counted as a separate collision.

The following provides an example of how to read **Tables 4 and 5.**

Table Definitions:

- **Total Collisions:** Number of collisions observed at the intersection or segment from January of 2016 through December of 2020.
- **Local Critical Crash Rate (CCR) Differential:** The CCR specific to the intersection or segment. This is the difference between local (actual) crash rate and the critical crash rate, which is how many collisions per million vehicle miles are expected for a location of this type and volume. This tells us how many more collisions are occurring more than is expected. Locations with positive values have more collisions than expected, while locations with negative values have less collisions than expected. **Tables 4 and 5** below show the Local CCR Differential, while the tables in **Appendix A** also show the local crash rate, the average crash rate for each location type, and the critical crash rate for each location.
- **Equivalent Property Damage Only (EPDO):** This method assigns weighting factors to crashes based on injury level (severe, injury, property damage only) to develop a property damage only score. In this analysis, the injury crash costs were calculated for each location (based on the latest Caltrans injury costs) and then normalized by dividing by the value of a property damage only collision. Fatal and severe injury collisions are estimated at $2.19 million, Other Visible Injury (OVI) collisions at $142,300, Complaint of Pain (COP) collisions at $80,900, and Property Damage Only (PDO) collisions at $13,300.
- **Severity:** The number of severe injury and fatal collisions that occurred at this location in the study period.
- **Fatality:** The number of fatal collisions that occurred at this location in the study period.
- **Broadside, Sideswipe, Rear-End, Head-On, Hit Object, Overturned, Pedestrian, Bicycle:** The number of these types of collisions that occurred at this location in the study period.
- **Other:** The number of miscellaneous collision types (mostly single vehicle) that occurred at this location in the study period.
- **Aggressive, Dark, Wet:** The number of the collisions with this factor identified as the cause of collision.

The locations in **Tables 4 and 5** are sorted by location type and number of collisions, but CCR, EPDO and the types of collisions occurring at each location were all used to choose locations for further study and case study development in **Section 9.1.2 Safety Project Case Studies**.

Table 4 – Analysis Rankings: Intersections (Top 10 Per Type)

				Injury Level					Collision Type							Bike /Ped		Behavioral			Environ -mental	
Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Signalized Intersections																						
McKinley St & Sampson Ave	81	0.48	548	2	0	5	18	56	26	26	19	1	1	0	3	6	1	30	1	1	20	1
Magnolia Ave & Rimpau Ave	80	0.32	219	0	0	4	20	55	21	18	33	2	2	1	1	0	3	28	0	2	18	4
6th St & Paseo Grande	73	0.70	332	0	1	1	17	53	37	15	13	1	3	0	1	1	0	25	1	2	21	3
McKinley St & Griffin Wy	71	0.30	155	0	0	2	13	55	28	19	19	1	0	0	1	0	1	26	0	1	19	2
Lincoln Ave & 2nd St/D St	67	0.67	163	0	0	2	15	50	21	9	26	1	5	0	1	1	1	34	2	4	24	7
Magnolia Ave & El Sobrante Rd	66	0.25	181	0	0	1	21	43	22	11	28	1	2	0	0	0	0	40	4	3	14	3
S Main St & SR-91 WB Ramps	66	0.50	167	0	0	2	16	48	35	18	9	1	0	0	1	0	1	32	1	3	18	3
California Ave & Ontario Ave	63	0.31	162	0	0	3	14	45	17	14	26	0	3	0	1	0	1	26	3	1	9	4
Magnolia Ave & I-15 SB Ramps	60	0.25	131	0	0	1	12	47	21	22	16	1	0	0	0	0	0	24	1	2	11	5
Lincoln Ave & 6th St	58	0.16	143	0	0	4	9	45	13	11	25	1	1	0	1	2	1	27	3	2	13	1
Unsignalized Intersections																						
McKinley Ave & Shopping Ctr Entrance N of Griffin Ave	48	0.56	138	0	0	3	12	33	20	9	12	4	3	0	0	0	0	25	0	1	10	4
Pleasant View Ave & Smith Ave	31	0.97	120	0	0	6	6	19	14	4	7	0	2	0	0	2	0	6	1	1	6	0
Victoria Ave & E 6th St	28	0.41	113	0	0	4	9	15	13	4	7	1	0	0	0	3	0	6	0	1	5	3
Rimpau Ave & Circle City Dr	27	0.68	95	0	0	6	2	19	10	6	2	1	2	0	1	3	3	4	0	2	7	1
Harrison Circle & Parkridge Ave	25	0.80	98	0	0	6	3	16	12	3	2	0	7	0	0	0	1	4	0	4	4	7
Rimpau Ave & Old Temescal Rd	20	0.36	70	0	0	2	6	12	10	2	4	1	2	0	0	1	0	8	0	1	8	3
Crawford St & W 6th St	18	0.22	539	2	1	1	4	10	3	2	6	0	2	0	1	4	1	5	0	0	5	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Injury Level					Collision Type							Bike /Ped		Behavioral			Environ -mental	
				Fatal	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Dupont St & Sampson Ave	17	0.44	52	0	0	2	3	12	8	2	3	1	2	0	0	0	0	3	0	1	3	1
Sheridan St & W 6th St	16	0.17	46	0	0	1	4	11	7	5	3	0	1	0	0	0	2	3	0	3	6	0
Vicente Ave & W 2nd St	16	2.05	41	0	0	1	3	12	4	5	5	0	2	0	0	0	0	6	0	2	9	1

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

= Local CCR Differential > 1.0

= 90-100% probability that crash type if over-represented

= Local CCR Differential 0.33-1.0

= 80-90% probability that crash type is over-represented

= Local CCR Differential < 0.33

= 70-80% probability that crash type is over-represented

[1]Local Critical Crash Rate Differential

[2]Equivalent Property Damage Only Crashes

Table 5 – Analysis Rankings: Segments (Top 10 Per Type)

					Injury Level					Collision Type							Bike/ Ped		Behavioral			Environ -mental	
Facility	**Limits**	**Crashes**	**Local CCR Differential[1]**	**EPDO[2]**	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Principal Arterial																							
W 6th St	Smith Ave - Sherman Ave	**49**	2.52	576	0	3	4	5	9	5	0	9	1	1	0	0	5	0	8	0	4	5	1
W 6th St	Sherman Ave - Lincoln Ave	**44**	2.02	262	1	0	5	3	26	8	4	17	1	5	0	0	0	0	16	1	3	10	2
N Main St	Parkridge Ave - River Rd	**23**	1.05	78	0	0	2	7	14	10	3	2	2	6	0	0	0	0	2	0	2	8	5
Ontario Ave	California Ave - I-15 Ramps	**19**	1.03	34	0	0	0	3	16	2	6	8	0	2	0	1	0	0	6	0	1	3	1
Green River Rd	Dominguez Ranch Rd - Palisades Dr	**17**	0.18	42	0	0	0	5	12	6	3	4	0	3	0	0	0	1	4	0	0	8	4
Ontario Ave	Lester Ave - Rimpau Ave	**14**	0.50	202	0	1	2	1	10	4	3	1	0	5	0	0	1	0	1	0	1	6	0
W 6th St	Sierra Vista St - Lincoln Ave	**10**	0.72	204	0	1	1	4	4	1	1	4	0	0	0	3	1	3	3	1	1	2	0
N Main St	Harrison St - Rincon St	**10**	0.44	40	0	0	2	2	6	4	1	3	0	1	0	1	0	1	4	0	0	1	1
Magnolia Ave	Kellogg Ave - Fullerton Ave	**7**	-0.15	181	0	1	0	2	4	2	0	4	0	0	0	1	0	1	4	0	1	1	1
Sixth St	Compton Ave - Magnolia Ave	**7**	-0.11	7	0	0	0	0	7	0	1	2	0	4	0	0	0	0	2	0	1	2	0
Minor Arterial																							
Ontario Ave	I-15 NB Ramp - State St	**30**	3.63	110	0	0	3	10	17	25	2	2	1	0	0	0	0	0	2	0	0	1	5
Hidden Valley Pkwy	Parkridge Ave - Via Blairo	**16**	0.22	51	0	0	2	3	11	1	2	1	0	12	0	0	0	2	6	0	1	5	8
W Foothill Pkwy	Olivewood St - Foothill Parkway	**12**	0.92	47	0	0	1	5	6	4	0	2	0	4	0	1	1	0	2	0	1	2	0
Promenade Ave	Sampson Ave - Cresta Rd	**11**	0.42	200	0	1	1	3	6	2	2	2	1	3	0	1	0	0	3	0	1	7	1
California Ave	Taber Rd - Ontario Ave	**10**	1.36	194	0	1	1	2	6	5	1	1	2	0	0	0	1	1	0	0	1	0	1
McKinley St	Promenade Ave - Corona Hills Plaza	**8**	0.25	17	0	0	0	2	5	0	2	4	0	2	0	0	0	0	3	0	0	3	0
10th St	Lincoln Ave - Border Ave	**7**	0.19	31	0	0	2	1	4	3	1	1	0	2	0	0	0	0	2	1	0	5	0
N Lincoln Ave	Railroad Ave - Rincon Rd	**7**	-0.02	344	1	1	0	2	3	0	1	1	2	2	0	0	1	0	1	0	0	4	1
Serfas Club Dr	Redrock Dr - Serfas Club Dr	**6**	0.20	16	0	0	0	2	4	0	1	0	0	5	0	0	0	0	1	0	0	3	0

					Injury Level					Collision Type							Bike/ Ped		Behavioral			Environ -mental	
Facility	**Limits**	**Crashes**	**Local CCR Differential[1]**	**EPDO[2]**	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Collector																							
W Rincon St	Smith Ave - Stagecoach Dr	**16**	0.33	31	0	0	0	3	13	3	1	4	1	6	0	1	0	0	6	0	3	4	0
California Ave	Carbide Dr - Ontario Ave	**8**	0.88	33	0	0	1	3	4	5	2	0	1	0	0	0	0	0	0	0	0	0	0
Compton Ave	Graphite Dr - Carbide Dr	**8**	0.90	196	0	1	2	1	4	4	1	0	0	2	0	0	0	1	1	0	0	0	0
Via del Rio	Border Ave - Hampton Ct	**8**	3.84	23	0	0	1	1	6	0	0	1	1	6	0	0	0	0	1	0	6	6	0
Pomona Rd	S Maple St - Bonnie Cir	**7**	1.99	7	0	0	0	0	7	1	0	2	0	4	0	0	0	0	2	0	0	0	3
Pomona Rd	Smith Ave - Bus Center	**7**	0.99	27	0	0	1	2	4	3	1	1	1	1	0	0	0	0	1	1	0	0	0
Griffin Way	Mondale St - McKinley St	**7**	1.15	27	0	0	0	4	3	5	0	0	1	1	0	0	0	0	0	0	1	1	1
Rimpau Ave	Birch St - Magnolia Ave	**6**	0.66	21	0	0	0	3	3	3	1	0	1	0	1	0	0	0	0	0	0	0	0
Palisades Dr	Palisades Ave - Bayberry St	**6**	1.14	16	0	0	0	2	4	0	1	0	1	4	0	0	0	0	3	0	0	2	3
D St	Grant Ave - Sherman St	**6**	1.71	21	0	0	1	1	4	2	2	1	1	0	0	0	0	0	1	0	0	2	2
Local																							
Frontage Rd	Via Santiago - Paseo Grande	**8**	15.46	33	0	0	0	5	3	4	2	0	0	2	0	0	0	0	0	0	0	2	0
Pomona Rd	Lincoln Ave - Buena Vista Rd	**8**	8.22	13	0	0	0	1	7	1	3	0	0	4	0	0	0	0	2	0	1	4	0
Kilworth Dr	Main St - Belvedere Rd	**4**	8.03	4	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	4	0
Macbeth Ave	Winthrop Rd - End	**3**	7.86	8	0	0	0	1	2	1	1	0	0	1	0	0	0	0	0	0	0	1	0
Camelot Dr	Border Ave - Chalgrove St	**3**	3.32	18	0	0	1	1	1	0	0	1	0	1	1	0	0	0	0	0	0	1	0
Jadestone Ln	Beryl Ln - Jadestone Ln	**3**	2.16	3	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0	2	1	0

					Injury Level					Collision Type							Bike/ Ped		Behavioral			Environ -mental	
Facility	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
W 5th St	Lincoln Ave - Sierra Vista St	**3**	9.79	13	0	0	1	0	2	0	0	0	0	2	0	0	1	0	1	0	0	1	0
Wardlow Rd	Serfas Club Dr - Colonial Dr	**3**	1.78	167	0	1	0	0	2	0	0	1	0	1	0	0	1	0	1	0	0	1	0

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

= Local CCR Differential > 1.0

= Local CCR Differential 0.33-1.0

= Local CCR Differential < 0.33

= 90-100% probability that crash type if over-represented

= 80-90% probability that crash type is over-represented

= 70-80% probability that crash type is over-represented

[1]Local Critical Crash Rate Differential

[2]Equivalent Property Damage Only Crashes

8. Best Practices Evaluation and Emphasis Areas

8.1 Best Practices Evaluation

Table 6 identifies existing plans and policies that were recently completed, or are planned, or on-going within the City of Corona. The intent of this review is to provide an idea of the types of strategies in place or encouraged by the City that may impact the safety analysis process. It will also identify opportunity areas where the City could adopt non-infrastructure countermeasures. This table also ties each topic and enhancement to the emphasis areas that are laid out in **Section 8.2 Emphasis Areas.**

Table 6 – Summary of Opportunities for Best Practices

Topic	Initiatives/ Current Status	Opportunities for Implementation or Enhancement
COMMITTEES / ROLES		
Does the City have an Active Transportation Coordinator?	Not currently	Consider formalizing duties for a City Engineer to be an Active Transportation Coordinator
Does the City have a Safety or Active Advisory Committee?	Not currently	Implement a Safety or Active Advisory Committee
Does the City have an Active Transportation Safety Education Program?	Not currently	Implement an Active Transportation Safety Education program
POLICY / PLANS		
Does the City have a Complete Streets Plan?	Not currently	Implement a Complete Streets Plan to formalize complete streets policies. Develop guidelines for implementation going forward.
Does the City assess Traffic Impact Fees?	Yes	Continue to implement Traffic Impact Fees for new developments
Does the City have a Safe Routes to School program?	Not currently	Implement a Safe Routes to School program
Does the City implement Traffic Calming Policies?	Yes	Continue implementing Traffic Calming Policies
Does the City regularly conduct Speed Surveys?	Yes, on a 5 year rotation	Continue to conduct speed surveys

Does the City utilize Warrants for Stop Signs and Signals?	Yes	Continue to utilize warrants for stop signs and signals
Is the City planning for Density and Walkable Areas?	Yes – plans to revitalize Downtown areas	Continue to plan for walkable areas
Does the City have Transportation Demand Management (TDM) or Vehicle Miles Travelled (VMT) Reduction policies?	Not currently	Implement Transportation Demand Management (TDM) or Vehicle Miles Travelled (VMT) Reduction policies
Does the City perform Traffic Crash Monitoring?	Crossroads Database	Continue to regularly monitor crash data to identify any trends or hotspots
Does the City have an Active Transportation Master Plan?	Trails Master Plan is in progress	Consider the feasibility of implementing a city-wide Active Transportation plan
Does the City have MUTCD-compliant Pedestrian Signal Timing?	Yes	Continue to implement MUTCD compliant pedestrian signal timing where appropriate
Does the City implement Crosswalks at high pedestrian locations?	Yes	Continue to implement crosswalks at high pedestrian volume locations as trends change
What type of traffic enforcement does the City conduct?	Police Enforcement	Continue to enforce traffic laws in collision and aggressive driving hotspots
What is the City's Bicycle Policy?	Bicycle master plan	Continue to implement bicycle master plan
What types of transit does the City have?	Two Metrolink/Amtrak Stations (Autocenter and Main St), RTA, Corona Cruiser, and Dial-a-Ride	Continue to evaluate the need for additional transit throughout the city
What types of wayfinding does the City have?	None	Implement wayfinding signage throughout the city

DATA COLLECTION / INVENTORY		
Does the City have an Inventory of Pedestrian Signs and Signals?	Signals and crosswalks	Create GIS database of pedestrian signals and signs
Does the City have an Inventory/Mapping of Active Transportation Routes?	Yes	Continue to regularly update inventory; assemble in GIS if appropriate
Does the City utilize Crossroads Database for collisions?	Yes	Continue to utilize Crossroads database and regularly update
Does the City have Active Transportation Volume Counting?	Not currently	Implement Active Transportation Volume counting at key locations to gauge active transportation usage
COORDINATION / FEEDBACK		
What ways can citizens give feedback about roadway safety?	Submitting a request through “SeeClickFix”, email to Traffic.Eng@Coronaca.gov, social media and over the phone	Continue to solicit citizen feedback on traffic safety and transportation planning efforts
What types of Coordination with other City organization does your department perform?	Regular communication with Corona PD (traffic division)	Continue coordinating with development department and other City departments
What types of School Engagement does the City perform?	Coordination with CNUSD for safety concerns and improvements	Continue to identify areas of coordination with CNUSD
What types of Law Enforcement/Emergency Service Engagement does the City perform?	Regular communication with Corona PD (traffic division)	Continue to identify areas of coordination with police and fire department

8.2 Emphasis Areas

Emphasis areas represent crash factors that are common in the City and provide the opportunity to reduce the largest number of traffic injuries with strategic investment. Emphasis areas were developed by revisiting the vision and goals of this planning process and comparing them with the trends and patterns identified in the crash analysis.

8.2.1 Emphasis Area #1: Aggressive Driving

Description: Aggressive driving, as defined by Caltrans' SHSP, includes several behaviors including speeding, tailgating, and ignoring traffic signals and signs. Aggressive driving behaviors (unsafe speed or following too closely) accounted for 1,547 crashes or 23 percent of collisions within the City of Corona.

Goals for Emphasis Area #1:

- Reduce the number of crashes due to aggressive driving in the City
- Identify hot spots and priority corridors for aggressive driving
- Apply for funding and implement countermeasures to address aggressive driving

Strategies for Emphasis Area #1:

- Continue to update speed limits with additional flexibility given by Assembly Bill 43. In cases where speed continues to be a challenge, preventing the enforcement of desirable speed limits, consider roadway design characteristics that might support lower speeds.
- Implement traffic calming improvements and establish a monitoring program to determine which measures are most effective; this is applicable in local and residential streets
- Install additional regulatory signage
- Upgrade pavement markings to make intersections more visible
- Enhance roadway and intersection striping
- Reduce intersection size or number of lanes
- Target speed enforcement and increased enforcement at high aggressive driving collision locations

These strategies will be implemented by the City, law enforcement, and community organizations. Funding sources for these strategies may include HSIP, OTS, Senate Bill 1 (SB 1), or Safe Streets for All (SS4A) grant programs.

8.2.2 Emphasis Area #2: Vulnerable Road Users (Motorcyclists, Pedestrians & Bicyclists)

Description: Pedestrians and bicyclists are classified by Caltrans as vulnerable users, meaning they possess the highest potential for severe harm during a crash. These groups need appropriate infrastructure to travel to key destinations such as schools, workplaces, and core commercial areas. The City's Circulation Element lays out plans and standards for non-motorized transportation. Of the 312 crashes involving vulnerable road users, 10 resulted in a fatal injury to the pedestrian or bicyclist and 31 resulted in a severe injury to the pedestrian or bicyclist. The City should aim to implement countermeasures to further protect these users from injury.

Goals for Emphasis Area #2:

- Improve active transportation infrastructure by adding pedestrian facilities, bike lanes, and other amenities to make it safer for employees and community members to get to key destinations such as school, commercial centers, transit centers, and recreation areas
- Encourage healthier lifestyles through active transportation infrastructure
- Apply for HSIP and other funding to implement countermeasures to address vulnerable road user crashes

Strategies for Emphasis Area #2:

- Provide outreach, education, and enforcement to encourage more separation between vehicular and pedestrian traffic
- Install high-visibility crosswalk markings at the intersection of key destinations
- Ensure all signalized intersections have crosswalks on all legs where feasible
- Provide dedicated pedestrian and bicycle infrastructure to and from bus stops
- Install adequate street lighting
- Widen street shoulders
- Provide signage (e.g., pedestrian crossing ahead) to help drivers expect to slow down for pedestrians and bikes
- Install bicycle lanes along key corridors
- Install bicycle storage facilities in public areas, such as parks and schools, to encourage bicycle use
- Install curb extensions
- Install ADA ramps
- Modify signal phasing to implement a Leading Pedestrian Interval (LPI) with new controller
- Install/upgrade pedestrian crossing at uncontrolled locations
- Establish rotating enforcement targets for high visibility campaigns

These strategies will be implemented by the City, while partnering with Caltrans, Southern California Association of Governments (SCAG), California Highway Patrol (CHP), and other community partners. Funding sources for these strategies may include HSIP, Active Transportation Program (ATP), OTS, SB 1, and SS4A grant programs.

8.2.3 Emphasis Area #3: Young Drivers

Description: Young drivers, as defined by the Caltrans SHSP, are drivers between 15 and 20 years of age. Young drivers were involved in 557 crashes, about 8% of total crashes. Three resulted in fatal collisions and 6 resulted in severe injury. Identifying locations where young drivers are known to have caused collisions can help to address some of the collisions the City has seen recently.

Goals for Emphasis Area #3:

- Reduce the number severity and of young driver collisions
- Identify hot spots and priority corridors for young driver collisions
- Apply for funding and implement countermeasures to address young drivers

Strategies for Emphasis Area #3:

Strategies to address young driver behaviors will mainly focus on education, encouragement, and enforcement. Strategies that have had success nationally include driver's education courses, implementing technology in young drivers' vehicles, and education campaigns to target aging drivers with messages regarding road safety, common mistakes, and challenges that young drivers face. Strategies may also include increased enforcement near hotspots of young driver collisions and increased coordination with community organizations.

These strategies will be implemented by the City, law enforcement, and local community organizations. Funding sources for these strategies may include NHTSA, OTS, and SB1 grant programs. These strategies will be implemented by the City, while partnering with Caltrans, Southern California Association of Governments (SCAG), California Highway Patrol (CHP), and other community partners. Funding sources for these strategies may include HSIP, Active Transportation Program (ATP), OTS, SB 1, and SS4A grant programs.

8.2.4 Emphasis Area #4: Lane Departure

Description: Lane departure collisions, as defined by the SHSP, includes head-on, hit object, and overturned collisions. It includes instances where a vehicle runs off the road and crosses into the opposing lane prior to the collision. These collisions account for 19% of the total collisions in the City. 16 of these collisions resulted in fatalities and 23 of these collisions resulted in severe injuries. 13% of these collisions resulted in Property Damage Only.

Goal for Emphasis Area #4:

- Reduce the number of lane departure collisions
- Identify hot spots for lane departure collisions
- Apply for funding and implement countermeasures on City roads

Strategies for Emphasis Area #4:

- Address lane departure collisions by implementing proven countermeasures
- Identify priority corridors for lane departure collisions and implement countermeasures on these corridors

These strategies will be implemented by the City, law enforcement, and local community organizations. Funding sources for these strategies may include, HSIP, OTS, and SB1 grant programs.

9. Countermeasure Toolbox

This section provides information on general identified issues, crash reduction factors, improvements, and countermeasures identified for the City of Corona, as well as for specific project locations identified as part of this analysis. Countermeasures for each of the Safety Project Case Studies are based on data analysis, stakeholder input, and site visits.

9.1 Infrastructure Improvements

9.1.1 Countermeasure Selection Process

Part D of the HSM provides information on crash modification factors (CMF) for roadway segments, intersections, interchanges, special facilities, and road networks. CMFs are used to estimate the safety effects of highway improvements, specifically to compare and select highway safety improvements. A CMF less than 1.0 indicates that a treatment has the potential to reduce crashes. A CMF greater than 1.0 indicates that a treatment has the potential to increase crashes. A Crash Reduction Factor (CRF) is directly connected to the CMF and is "mathematically defined as (1 – CMF) (the higher the CRF, the greater the expected reduction in crashes) [4]." CMFs can help decision makers weigh potential alternative projects but are only one measure of a project's value and should be considered part of a larger decision-making process. Furthermore, it is important to note that not all CMFs are as reliable as others. The FHWA maintains a federal depository of CMFs and includes a star rating system to help users determine which CMFs are bolstered by the best and most thorough research. Key factors to consider when applying CMFs include:

1. Selection of an appropriate CMF;
2. Estimation of crashes without treatment;
3. Application of CMFs by type and severity; and,
4. Estimation of the combined effect for multiple treatments.

Examples of Safety Countermeasures can be found through several sources. This Report utilizes the countermeasures found in the California LRSM and the CMF Clearinghouse (CMF CH) website. Countermeasures for each of the Safety Project Case Studies are based on the data analysis and site visits. Additional countermeasures were identified for the high-level issues on a citywide level and are discussed in **Section 9.2 Citywide Countermeasure Toolbox**.

4 Local Roadway Safety Manual (Version 1.5) 2020. Page 27.

9.1.2 Safety Project Case Studies

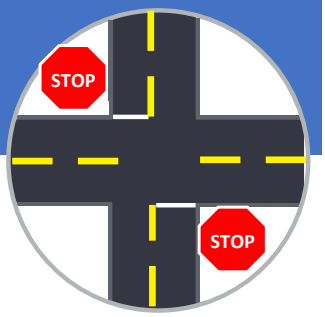
From the citywide analysis, seven (7) project case study locations were selected for further evaluation and countermeasure development. For each of these locations, Safety Project Case Studies were developed to provide a balanced understanding of common safety patterns at a variety of location types that can be used to associate countermeasures with specific roadway configurations and conditions. These locations were identified through the analysis process based on their crash histories, stakeholder engagement, the observed crash patterns, and their different characteristics to provide the most insight into potential systemic safety countermeasures that the City can employ to achieve the most cost-effective safety benefits.

A Safety Project Case Study was developed for each of the following locations:

1. Signalized Intersection: Lincoln Ave and 2nd St/ D St
2. Signalized Intersection: Magnolia Ave and Rimpau Ave
3. Signalized Intersection: California Ave and Ontario Ave
4. Unsignalized Intersection: Victoria Ave and 6th St
5. Unsignalized Intersection: Pleasant View Ave & Smith Ave
6. Segment: Main St from Parkridge Ave to River Road
7. Segment: Hidden Valley Pkwy from Parkridge Ave to Via Blairo

The following pages summarize conditions at each location, and potentially beneficial countermeasures. Countermeasures were subjected to a benefit/cost assessment and scored according to their potential return on investment. These case studies can be used to select the most appropriate countermeasure, and to potentially phase improvements over the longer-term. The potential benefit of these countermeasures at locations with similar design characteristics can then be extrapolated regardless of crash history, allowing for proactive safety enhancements that can prevent future safety challenges from developing. These case study sheets can also be used to position the City for future grant funding opportunities. The volumes shown in the ADT & TEV sections of the case study sheets below were taken from the 2020 SSAR and other sources from 2019. The monetary benefits are calculated from the latest Caltrans injury level cost data. Fatal and severe injury collisions are estimated at $2.19 million, Other Visible Injury collisions at $142,300, Complaint of Pain collision at $80,900, and Property Damage Only collisions at $13,300.

Case Study Sheet: Location #1



TWO-WAY-STOP INTERSECTION

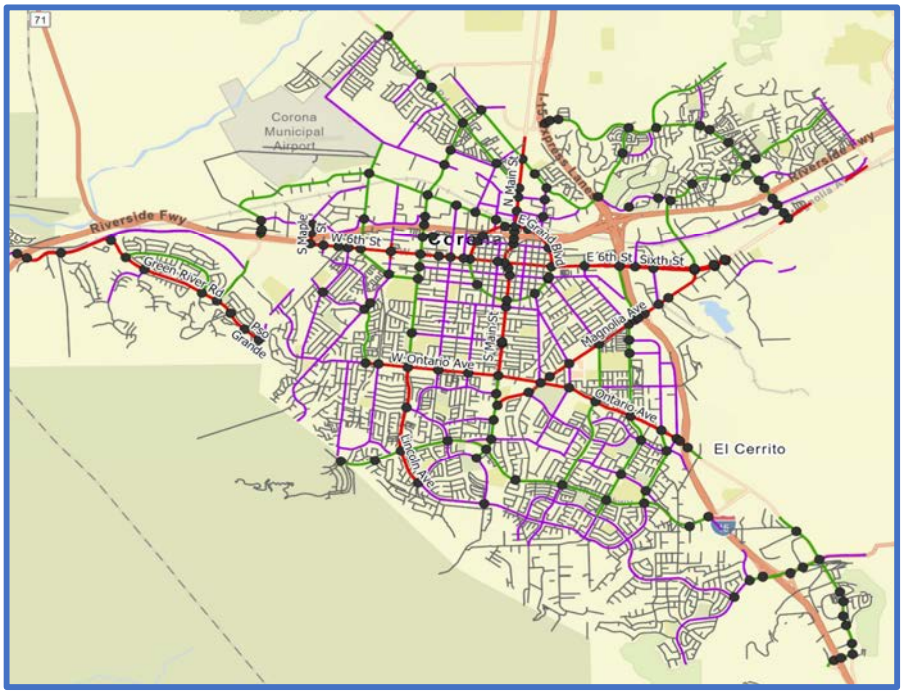
Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

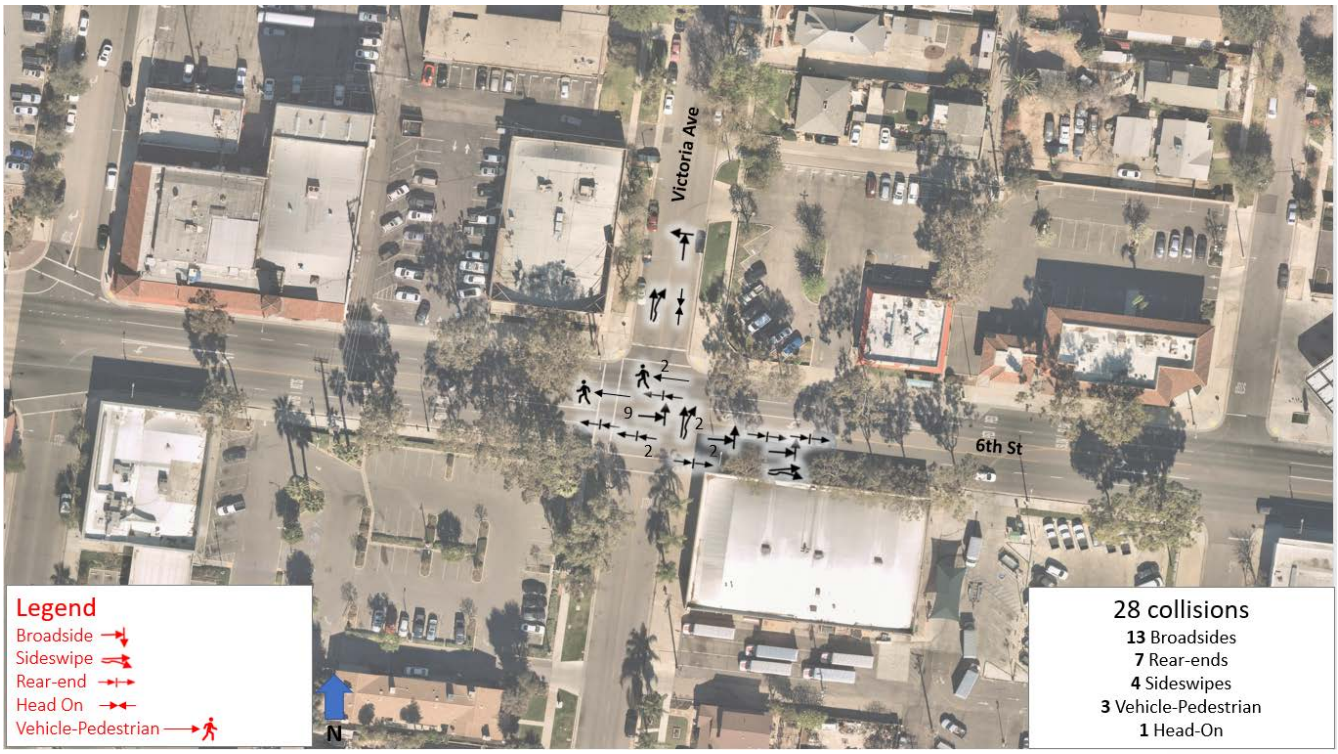
Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

Project Location, Description & Maps

Intersection: Victoria Ave and 6th St

Example of Similar Intersections: 6th St and Merrill St, 6th St and Joy St





Kimley»Horn

Case Study Sheet: Location #1

Project Location, Description & Maps

Collision Data	
Total Collisions	28
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Broadside (46%) Rear-end (25%) Sideswipe (14%)
Dark Collisions	5
Impaired Collisions	1

Collision Data	
Number of Approaches	4
Total Entering Vehicles	24,164
Crosswalk Condition	Crosswalks at the north, south and west approaches
Control Type	Two-way stop
Lighting	Yes
Highest Posted Speed Limit	35 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
25	3	0

Field Visit Notes

- High number of broadside and rear-end collisions
- East leg pedestrian crosswalk with pedestrian push buttons and in ground flashers
- Sight distance issues

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Convert to all-way STOP control (from 2-way stop)	50%	$748,400	$92,000	8.13
Install/upgrade pedestrian crossing at uncontrolled locations at the west approach	25%	$374,200	$68,000	5.50
Install Curb Extensions	5%	$74,840	$144,000	0.52

Case Study Sheet: Location #2

Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

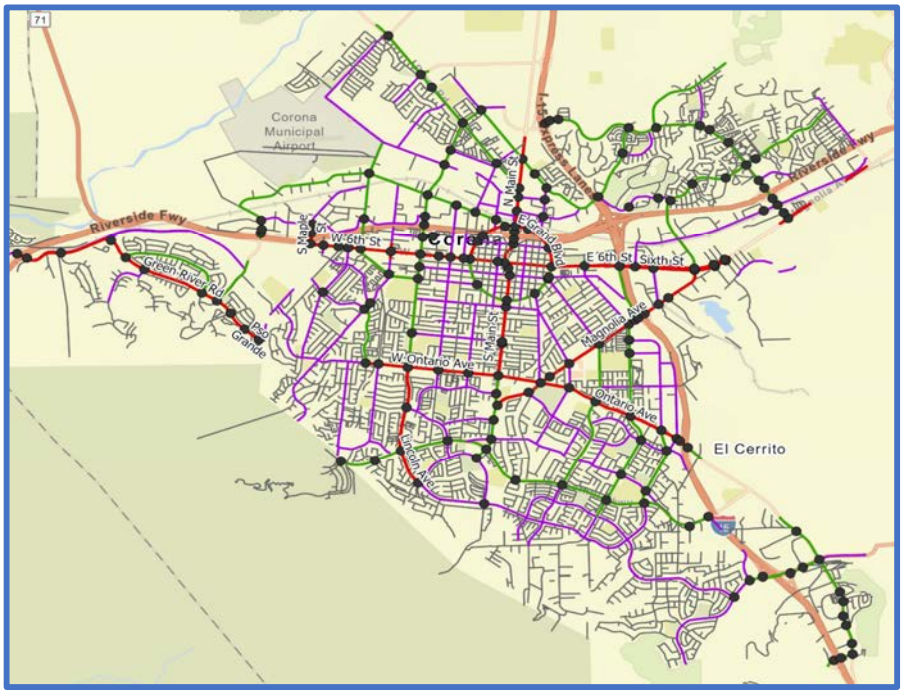
Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Lincoln Ave and 2nd St/ D St

Example of Similar Intersections: Lincoln Ave and 6th St



Kimley»Horn

Case Study Sheet: Location #2

Project Location, Description & Maps

Collision Data	
Total Collisions	67
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Rear-end (37%) Broadside (30%) Sideswipe (15%)
Dark Collisions	6
Impaired Collisions	4

Collision Data		
Number of Approaches	4	
Total Entering Vehicles	30,500	
Crosswalk Condition	Crosswalk on all approaches	
Control Type	Signalized Intersection	
Lighting	Yes	
Highest Posted Speed Limit	35	
Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
60	1	1

Field Visit Notes

- High number of rear-end and broadside collisions
- Heavy pedestrian traffic
- High amount of northbound traffic

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ration
Update signal heads to meet current standards: - Addition of signal heads to correspond with lanes - Installation of retro-reflective backplates	15%	$314,325	$72,000	4.37
Install freeway shield pavement markings	5%	$104,775	$40,000	2.62
Install high visibility crosswalk	19%	$398,145	$60,000	6.64

Countermeasure Evaluation (continued)

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Modify signal phasing to implement a Leading Pedestrian Interval (LPI) with new controller	60%	$1,257,300	$91,200	13.79
Improve signal timing (coordination, phasing, red, yellow, operation) – Right turn overlap	15%	$314,325	$28,800	10.91

Case Study Sheet: Location #3

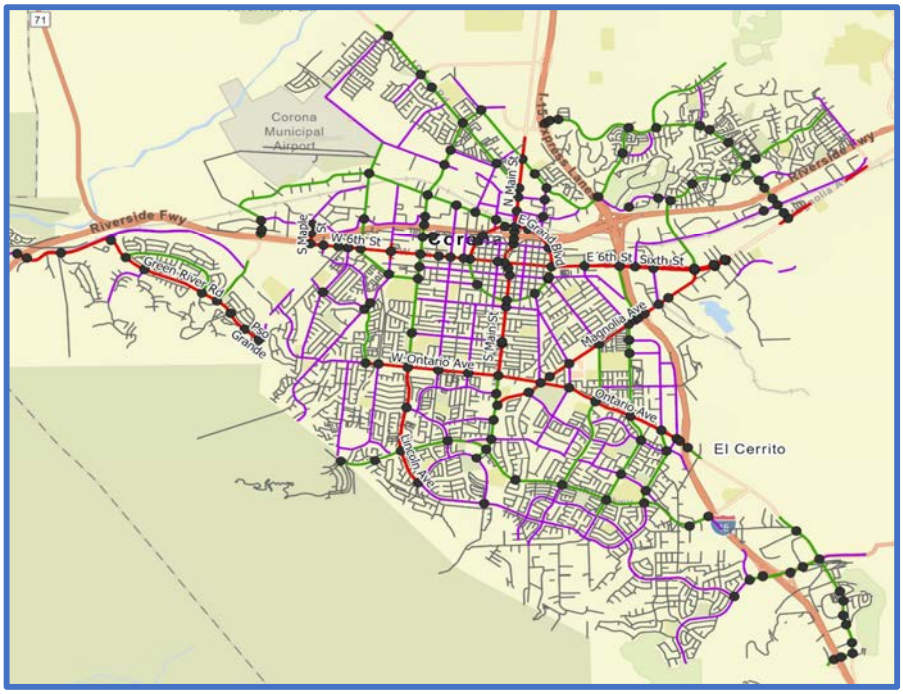
Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

TWO-WAY-STOP INTERSECTION

Project Location, Description & Maps

Segment: Pleasant View Ave and Smith Ave
Example of Similar Intersections: Grand Blvd and Sheridan St, Grand Blvd and Belle Ave



Case Study Sheet: Location #3

Project Location, Description & Maps

Collision Data	
Total Collisions	31
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Broadside (45%) Rear-end (23%) Sideswipe (13%)
Dark Collisions	6
Impaired Collisions	1

Collision Data	
Number of Approaches	4
Total Entering Vehicles	13,800
Crosswalk Condition	None present
Control Type	Two-way stop
Lighting	Yes
Highest Posted Speed Limit	40 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
27	2	0

Field Visit Notes

- High amount of broadside collisions
- Narrow roadway with a jog in the street
- Low visibility due to uphill at the north approach
- Northeast leg sidewalk ends abruptly
- Sight distance issues
- Signs of drag racing

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Add two-way left-turn lane	30%	$477,570	$82,369	5.80
Install ADA ramps	5%	$79,595	$50,000	1.59

Case Study Sheet: Location #4

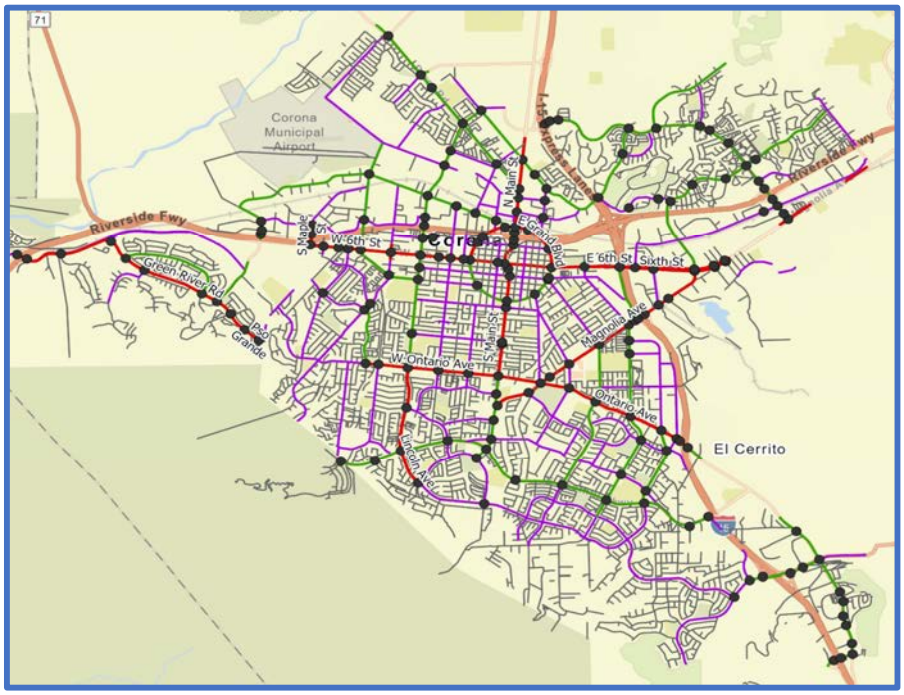
ROADWAY SEGMENT

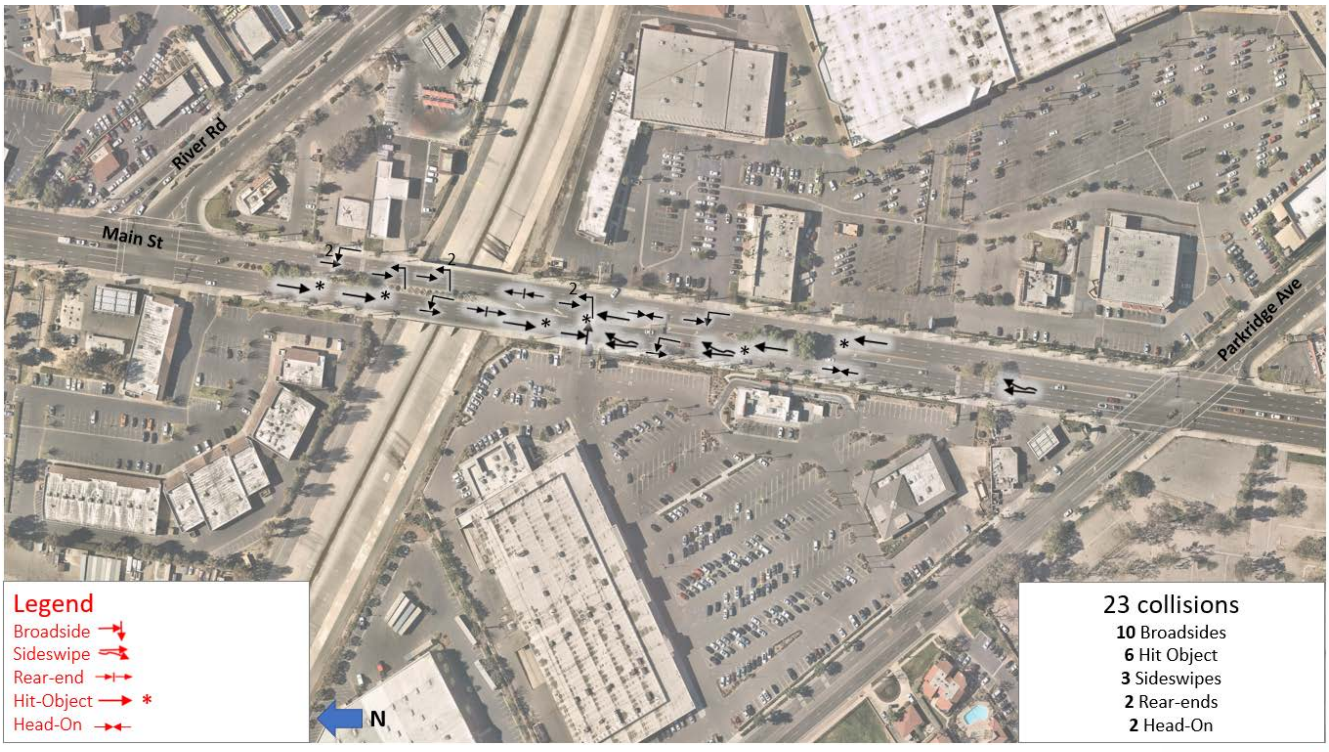
Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

Project Location, Description & Maps

Segment: Main St from Parkridge Ave to River Rd
Example of Similar Segment: Lincoln Ave from Railroad St to Pomona Rd





Kimley»Horn

Case Study Sheet: Location #4

Project Location, Description & Maps

Collision Data	
Total Collisions	23
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Broadside (43%) Hit object (26%) Sideswipe (13%)
Dark Collisions	7
Impaired Collisions	2

Collision Data	
Average Daily Traffic (ADT)	22,200
Lighting	Yes
Median	Partial raised median
Highest Posted Speed Limit	40

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
17	0	0

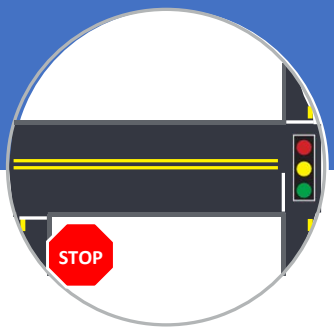
Field Visit Notes

- High number of broadside collisions
- Restrictions on left turns
- High truck traffic
- Tire marks at driveway entrance
- Counterflow bikers

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Improve signal timing (coordination, phasing, red, yellow, operation): Retime signals to create platoon	15%	$155,565	$57,600	2.70

Case Study Sheet: Location #5



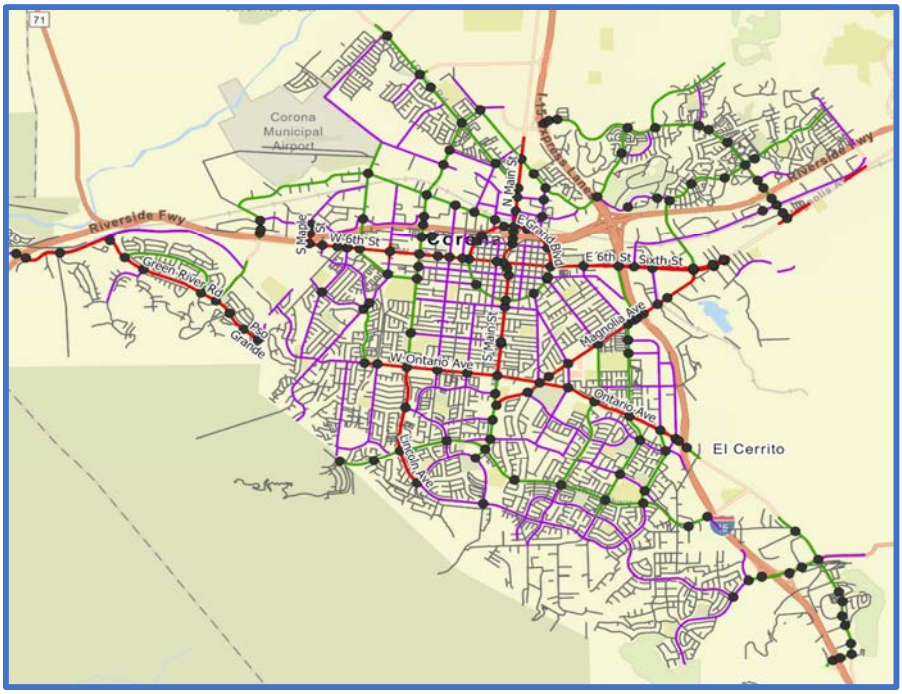
ROADWAY SEGMENT

Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

Project Location, Description & Maps

Segment: Hidden Valley Pkwy from Parkridge Ave to Via Blairo
Example of Similar Segment: McKinley St and Ranch Vista Rd to Saddleback Dr



Kimley»Horn

Case Study Sheet: Location #5

Project Location, Description & Maps

Collision Data	
Total Collisions	16
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Hit object (75%) Sideswipe (13%) Broadside (6%)
Dark Collisions	5
Impaired Collisions	1

Collision Data	
Average Daily Traffic (ADT)	20,300
Lighting	Yes
Median	Partial raised median
Highest Posted Speed Limit	45

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
4	0	0

Field Visit Notes

- High number collisions with objects
- High downhill speeds
- Sight distance issues

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Add Segment Lighting	35%	$235,760	$168,000	1.40
Remove or relocate fixed objects outside of Clear Recovery Zone	35%	$235,760	$12,000	19.65
Install raised median	40%	$269,440	$2,490,048	0.11
Install chevron signs on horizontal curves	40%	$269,440	$24,000	11.23
Install dynamic/ variable speed warning signs	30%	$202,080	$45,600	4.43
Install delineators, reflectors and/ or object markers for bike protection	15%	$101,040	$114,240	0.88

Case Study Sheet: Location #6

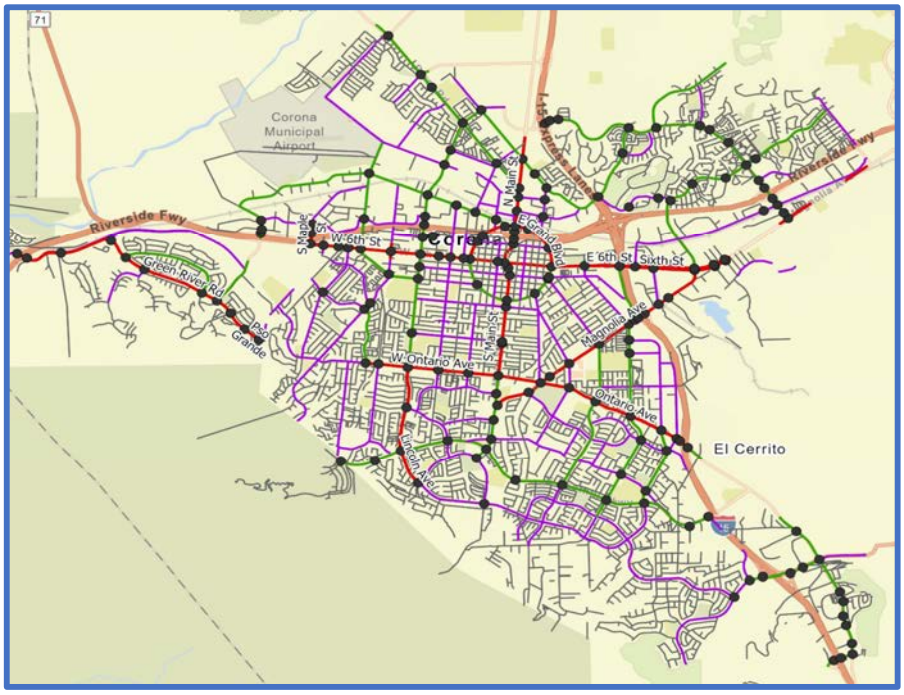
Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Magnolia Ave and Rimpau Ave
Example of Similar Intersections: Magnolia Ave and Fullerton Ave, Ontario Ave and California Ave



Kimley»Horn

Case Study Sheet: Location #6

Project Location, Description & Maps

Collision Data	
Total Collisions	80
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Rear-end (41%) Broadside (26%) Sideswipe (23%)
Dark Collisions	18
Impaired Collisions	2

Collision Data		
Number of Approaches	4	
Total Entering Vehicles	53,450	
Crosswalk Condition	Crosswalk on all approaches	
Control Type	Signalized Intersection	
Lighting	Yes	
Highest Posted Speed Limit	40	
Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
74	0	3

Field Visit Notes

- High number of rear-end, broadside and sideswipe collisions
- North leg Class II bike lane
- South leg Class III bike lane

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ration
Update signal heads to meet current standards: - Installation of PV signal heads - Installation of retro-reflective backplates	15%	$437,805	$72,000	6.08
Install high visibility crosswalk	19%	$554,553	$30,000	18.49
Install ADA curb ramps	5%	$145,935	$50,000	2.92

Case Study Sheet: Location #7

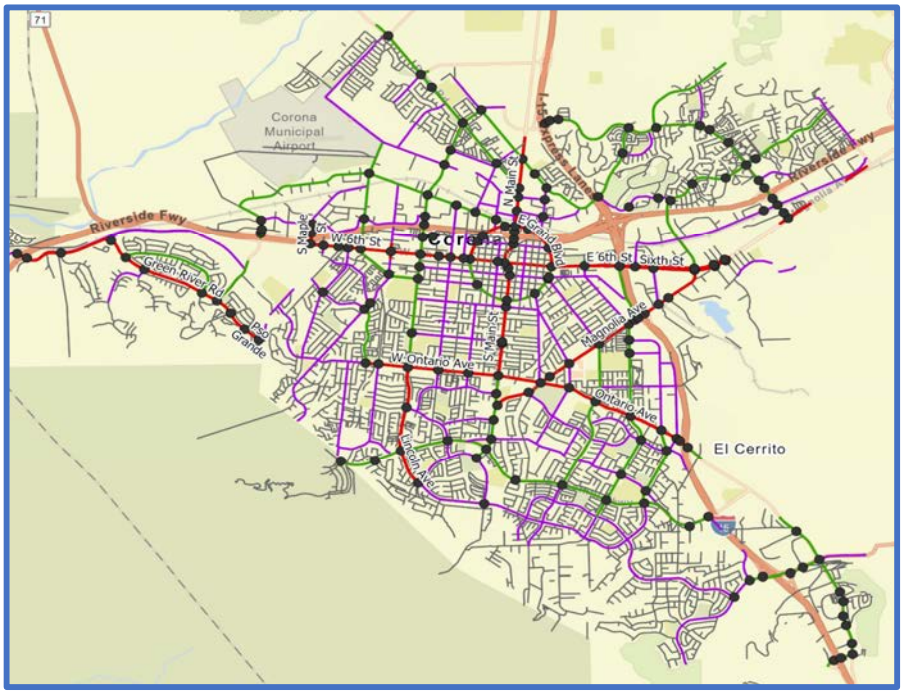
Project Name: Corona LRSP
Agency Name: City of Corona
Contact Name: Rosalva Ureno
Email: rosalva.ureno@coronaca.gov

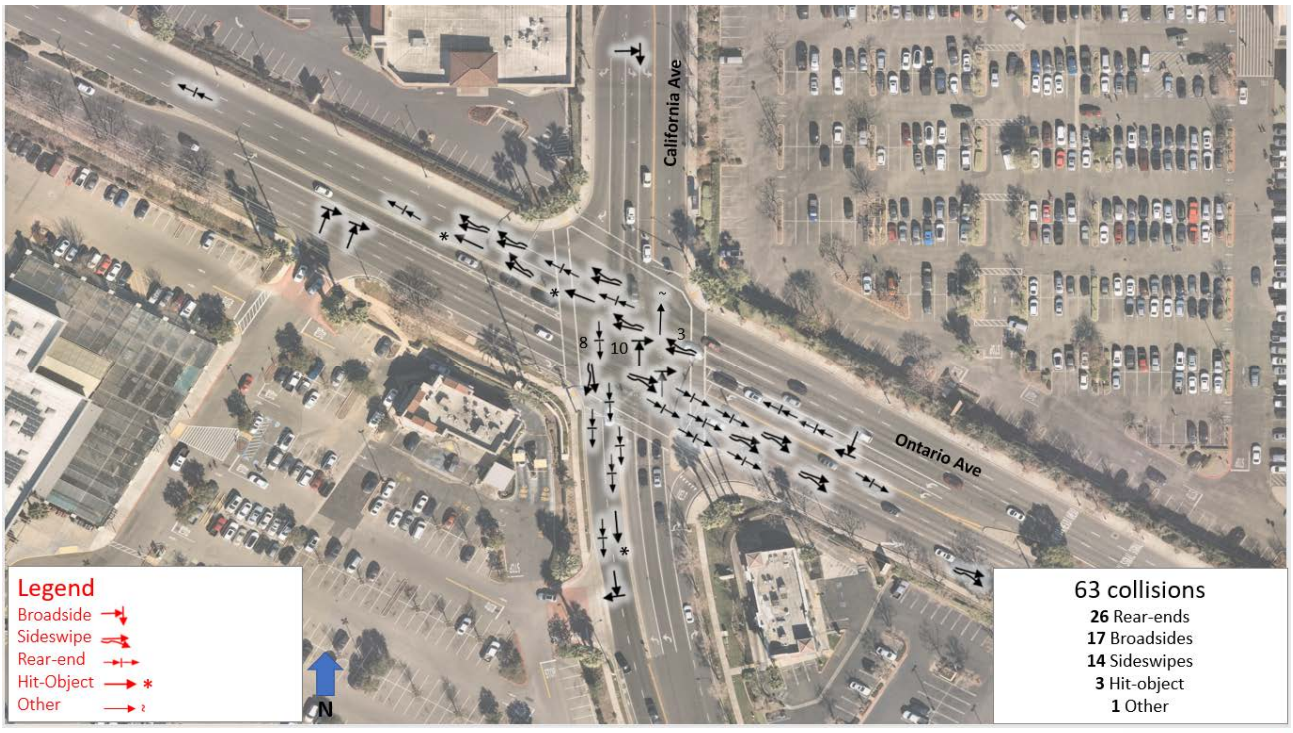
Prepared by: Kimley-Horn
Checked by: Jason Melchor
Date: September 2022

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: California Ave and Ontario Ave
Example of Similar Intersections: Ontario Ave and Rimpau Ave, Magnolia Ave and Rimpau Ave





Kimley»Horn

Case Study Sheet: Location #7

Project Location, Description & Maps

Collision Data	
Total Collisions	63
Fatal and Severe Injury Collisions	0
Top 3 Collision Types (%)	Rear-end (41%) Broadside (27%) Sideswipe (22%)
Dark Collisions	9
Impaired Collisions	1

Collision Data		
Number of Approaches	4	
Total Entering Vehicles	42150	
Crosswalk Condition	Crosswalk on all approaches	
Control Type	Signalized Intersection	
Lighting	Yes	
Highest Posted Speed Limit	40	
Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
59	0	1

Field Visit Notes

- High number of rear-end and broadside collisions

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ration
Update signal heads to meet current standards: Installation of retro-reflective backplates	15%	$323,700	$72,000	4.50
Extension of median island	5%	$107,900	$211,560	0.51

9.2 Citywide Countermeasure Toolbox

This evaluation considered citywide trends to identify countermeasures that would likely provide the most benefit with widespread implementation. **Table 7** outlines the citywide safety project opportunities, which is also referred to as the "Countermeasure Toolbox". Within the toolbox, the description of the countermeasure along with its Local Roadway Safety Manual (LRSM) ID number is listed. The next column, Crash Reduction Factor (CRF), are "multiplicative factors used to estimate the expected reduction in number of crashes after implementing a given countermeasure at a specific site (the higher the CRF, the greater the expected reduction in crashes)." For each of these countermeasures, a planning level benefit/cost analysis was completed.

Applying the benefit/cost at the citywide level was estimated assuming some randomness in crash distribution. The location characteristics, such as whether there is a traffic signal, and the type of crashes, were used at the citywide level to calculate an average cost of crashes that the countermeasure might reduce. The benefit per location was then factored out to a 20-year lifecycle savings, with an Opinion of Project Probable Cost (OPCC) for the initial installation costs and a per-year maintenance cost estimate. A timeline for each countermeasure is also shown in the table. Near-term projects can be implemented within the next two years, mid-term projects within the next five years, and long-term projects within the next ten years. The cost shown in **Table 7** should be considered initial planning costs using 2022 dollars and not assumed final.

Table 7 – Citywide Safety Countermeasure Toolbox

ID	Potential Countermeasures	Where to apply?	CRF	Per Unit Cost	Unit	Timeline
NS02	Convert to all-way STOP control (from 2-way stop)	Unsignalized intersection locations that have a crash history and have no controls on the major roadway approaches	50%	$46,000	per intersection	Long-term
NS20PB	Install/upgrade pedestrian crossing at uncontrolled locations	Intersections with high pedestrian activity where speed limit is 35 mph or less and sufficient sight distance is available	25%	$34,000	per location	Mid-term
S02	Update signal heads to meet current standards	Signalized intersections where signals heads do not meet current standards	15%	$36,000	per intersection	Mid-term
S03	Improve signal timing (coordination, phasing, red, yellow, operation)	Signalized intersections where there is insufficient clearance time with current timing plans or where signals placed closely enough to impact free flowing operations of the street	15%	$14,400	per intersection	Near-term
S21PB	Modify signal phasing to implement a Leading Pedestrian Interval (LPI) with new controller	Signalized Intersections – especially those with high pedestrian activity	60%	$45,600	per intersection	Near-term
R01	Add Segment Lighting	Noted substantial patterns of nighttime crashes	35%	$168,000	per mile	Mid-term
R02	Remove or relocate fixed objects outside of Clear Recovery Zone	Segments prone to collisions with fixed objects such as utility poles, drainage structures, trees	35%	$12,000	per location	Mid-term
R08	Install raised median	Areas experiencing head-on collisions that may be affected by both the number of vehicles that cross the centerline and by the speed of oncoming vehicles	40%	$2,724,480	per mile of 12'W median	Mid-term
R13	Add 2-way-left-turn lane	Roadways having a high frequency of drivers being	30%	$724,848	per mile	Mid-term

ID	Potential Countermeasures	Where to apply?	CRF	Per Unit Cost	Unit	Timeline
		read-ended while attempting to make a left turn across oncoming traffic				
R23	Install chevron signs on horizontal curves	Roadways that have an unacceptable level of crashes on relatively sharp curves during periods of light and darkness	40%	$2,400	per sign	Near-tern
R25	Install curve advance warning signs (flashing beacon)	Roadways that have an unacceptable level of crashed on relatively sharp curves	30%	$12,000	per beacon	Near-term
R26	Install dynamic/ variable speed warning signs	Curvilinear roadways that have an unacceptable level of crashes due to excessive speeds on relatively sharp curves	30%	$22,800	per sign	Near-term
R27	Install delineators, reflectors and/ or object markers	Roadways that have an unacceptable level of crashes on curves during periods of lights and darkness	15%	$40,800	per mile	Near-term
R28	Install edge-lines and centerlines	Roadways with a history of run-off-road, head-on, opposite-direction-sideswipe crashes	25%	$100,800	per mile	Near-term
R30	Install centerline rumble strips/ stripes	Any road, specifically those with a history of head-on crashes	20%	$76,800	per mile	Near-term
R31	Install edge line rumble strips/ stripes	Roads with a history of roadway departure crashes	15%	$76,800	per mile	Near-term
4124	Install high visibility crosswalk	Major signalized intersections with high pedestrian activity	19%	$30,000	per location	Near-term
-*	Install speed limit signs	Roadways with high number of crashes caused by high speeds	5%	$1,000	per sign	Near-term
-*	Install freeway shield pavement marking	Intersections adjacent to freeway on-ramps	5%	$40,000	per location	Near-term
-*	Extension of median island	Major intersections with a high number of broadside collisions	5%	$1,013,760	per mile of 3'W median extension	Mid-term

ID	Potential Countermeasures	Where to apply?	CRF	Per Unit Cost	Unit	Timeline
-*	Install ADA ramps	Intersections with high pedestrian activity	5%	$50,000	per location	Near-term
-*	Install curb extensions	Intersections with high pedestrian activity	5%	$36,000	per extension	Mid-term

**These locations did not have an approved Crash Reduction Factor, so a conservative 5% CRF was assumed to calculate benefit*

10. Funding Sources, Implementation Plan, and Next Steps

10.1 Funding

Competitive funding resources are available to assist in the development and implementation of safety projects in Corona. The City should continue to seek available funding and grant opportunities from local, state, and federal resources to accelerate their ability to implement safety improvements throughout Corona. This section provides a high-level introduction to some of the main funding programs and grants for which the City can apply.

10.1.1 Highway Safety Improvement Program

The Highway Safety Improvement Program (HSIP) is a Federal program that apportions funding as a lump sum for each state, which is then divided among apportioned programs. These flexible funds can be used for projects to preserve or improve safety conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, and other project types. Safety improvement projects eligible for this funding include:

- New or upgraded traffic signals
- Upgraded guard rails
- Pedestrian warning flashing beacons
- Marked crosswalks
- Other projects listed in the Caltrans Local Road Safety Manual

California's local HSIP focuses on infrastructure projects with national recognized crash reduction factors. Normally HSIP call-for-projects is made at an interval of one to two years. The applicant must be a city, a county, or a tribal government federally recognized within the State of California.

Additional information regarding this program at the Federal level can be found online at: https://safety.fhwa.dot.gov/hsip/. California specific HSIP information – including dates for upcoming call for projects - can be found at: http://www.dot.ca.gov/hq/LocalPrograms/hsip.html.

The City can apply for HSIP Cycle 11 funding in September 2022, while using the LRSP to develop projects most appropriate for the funding criteria. The next cycle of funding will be in fall 2024.

10.1.2 Caltrans Active Transportation Program

Caltrans Active Transportation Program (ATP) is a statewide funding program, created in 2013, consolidating several federal and state programs. The ATP funds projects that encourage increased mode share for walking and bicycling, improve mobility and safety for non-motorized users, enhance public health, and decrease greenhouse gas emissions. Projects eligible for this funding include:

- Bicycle and pedestrian infrastructure projects
- Bicycle and pedestrian planning projects (e.g., safe routes to school)
- Non-infrastructure programs (education and enforcement)

This program funding is provided annually and call for projects typically comes out in the spring. Information on this program and cycles can be found online at: http://www.dot.ca.gov/hq/LocalPrograms/atp/.

The most recent ATP Cycle 6 applications were due in July 2022. The next ATP funding cycle will be announced in the coming years. The City can apply for funding in the next cycle, utilizing the LRSP to develop projects most appropriate for the funding criteria.

10.1.3 California SB 1

The California SB 1 is a landmark transportation investment to rebuild California by fixing neighborhood streets, freeways, and bridges in communities across California and targeting funds toward transit and congested trade and commute corridor improvements.

California's state-maintained transportation infrastructure will receive roughly half of SB 1 revenue: $26 billion. The other half will go to local roads, transit agencies and an expansion of the state's growing network of pedestrian and cycle routes. Each year, this new funding will be used to tackle deferred maintenance needs both on the state highway system and the local road system, including:

- Local Street and Road Maintenance and Rehabilitation: $1.5 billion
    - This funding is dedicated to improve local road maintenance, rehabilitation, and/or safety through projects such as restriping and repaving.
- Bike and Pedestrian Projects: $100 million
    - This will go to cities, counties, and regional transportation agencies to build or convert more bike paths, crosswalks, and sidewalks. It is a significant increase in funding for these projects through the ATP.
- Local Planning Grants: $25 million

10.1.4 California Office of Traffic Safety Grants

This program has funding for projects related to traffic safety, including transportation safety education and encouragement activities. Grants applications must be supported by local crash data (such as the data analyzed in this report) and must relate to the following priority program areas:

- Alcohol Impaired Driving
- Distracted Driving
- Drug-Impaired Emergency Medical Services
- Motorcycle Safety
- Occupant Protection
- Pedestrian and Bicycle Safety
- Police Traffic Services
- Public Relations, Advertising, and Marketing Program
- Roadway Safety and Traffic Records

The most recent cycle of funding for OTS grants was completed on January 31st, 2022. Within the coming months, another round of funding is expected to be announced. The City can apply for funding in the next cycle, utilizing the LRSP to develop projects most appropriate for the funding criteria.

10.1.5 SCAG Sustainable Communities Program

This program is an innovative vehicle for promoting local jurisdictional efforts to test local planning tools. The Sustainable Communities Program (SCP) provides direct technical assistance to SCAG member jurisdictions to complete planning and policy efforts to implement the regional Sustainable Communities Strategies (SCS). Grants are available in the following three categories:

- Integrated Land Use
    - Sustainable Land Use Planning
    - Transit Oriented Development (TOD)
    - Land Use & Transportation Integration
- Active Transportation
    - Bicycle Planning
    - Pedestrian Planning
    - Safe Routes to School Plans
- Green Region
    - Natural Resource Plans
    - Climate Action Plans (CAPs)
    - Green House Gas (GHG) Reduction programs

The most recent round of SCAG Sustainable Communities Program grant funding closed in April 2021. The next round of funding, with a focus on Civic Engagement, Equity & Environmental Justice, is anticipated to be released in Fall 2022. The City can apply for funding in the next cycle, utilizing the LRSP to develop projects most appropriate for the funding criteria.

10.1.6 Safe Streets and Roads for All (SS4A) Grant Program

This program has allocated $1 billion annually for the next four years for local cities, counties, MPOs, and other roadway owners (except state DOTs) for safety improvement grants for safety planning, education, enforcement, and roadway improvements. This program is not benefit / cost based. Evaluation criteria are oriented to the project's alignment with the Safe Systems approach. There is a 20% local match requirement (can be in-kind contribution via staff billable hours). Planning grants are open to any eligible agency and Implementation grants are open to agencies with a completed safety plan such as a Local Roadway Safety Plan. Planning grants are expected to range from $100,000 to $1 million and Implementation grants are expected to range from $1 million to $20 million. Grant applications are due in September 2022. Implementing a Local Road Safety Plan and the City's adoption of a Vision Zero resolution makes the City eligible to apply for SS4A implementation grants.

Safe Streets and Roads for All (SS4A) grant funding applications are due September 15, 2022. The City can apply for this grant program while using the LRSP to develop projects most appropriate for the funding criteria. Funding cycles are expected to be announced regularly for this program over the next 5 years.

10.1.7 Infrastructure Investment and Jobs Act

In November 2021, the President signed into law the $1.2 trillion Infrastructure Investment and Jobs Act. In addition to the SS4A grant program described above, this law provides billions of dollars in additional funding for improvements and investment in the transportation sector nationwide. The law provides $30 billion in funding over five years for competitive RAISE grants for transportation projects, as well as additional funding for repair and environmental mitigation projects. As these grant programs continue to be developed, City can position itself by identifying potential projects and programs in this document to pursue.

10.2 Implementation Plan

Once the Local Roadway Safety Plan has been completed, the City can plan to regularly review and monitor collision data for trends and changes. The City can also plan to prioritize and implement certain improvements that were identified in this plan.

10.2.1 Monitoring

The City can plan to regularly monitor the success of the LRSP and its related implementations by performing the following steps. This before and after analysis can be performed every second year. The City can also meet with the Sheriff department quarterly to discuss roadway safety issues and compare to the latest collision analysis.

- Pull yearly collision data from Crossroads database to determine year-over-year trend
- Utilize Crossroads or GIS software to review the number of collisions occurring at specific locations. Locations where improvements have been made should receive priority for monitoring.
- Based upon changes in collision activity, determine efficacy of improvements and adjust strategies going forward

10.2.2 Analysis Update

The City can plan to update the analysis every two years as part of a monitoring program, as described in **Section 10.2.1**. Every 4 years the City will perform a major update to the analysis and the Local Roadway Safety Plan by performing the following steps. This update will maintain eligibility for the HSIP grant funding for the City. This analysis should continue to focus on both systemic and location-specific safety needs.

1. Obtain updated Statewide Integrated Traffic Records System (SWITRS) collision data from the Crossroads database
2. Use Excel software to update the collision trend analysis completed in Section 7, continue to compare new collision to historic trends
3. Update the roadway shapefile with any new or upgraded roadways
4. Update the intersection shapefile with any new or upgraded intersections
5. Re-run the GIS collision tool to determine the number of collisions at intersections and roadways within the updated study period. The City can plan to run the collision tool for all collisions, as well as the collision types identified in Section 3.2.2 Network Screening Analysis.
6. Update the collision analysis performed in this report, including the collision analysis tables shown in Section 7.7 Collision Network Screening Analysis Report
7. Review the Collision Toolbox to determine if any additional countermeasures should be considered for implementation in the City

10.2.3 Implementation Strategies

The opportunities identified in this report provide systemic and location-specific countermeasures that can be implemented within the City. Implementation will be dictated by funding and available resources, this guidance is preliminary and subject to change. Over the near-term and mid-term, the City can concentrate its efforts on the following emphasis areas.

- Aggressive Driving
- Vulnerable Road Users (Pedestrians,
- Young Drivers
- Lane Departure

Analysis conducted at the citywide level indicated that these factors were some of the most frequent influences contributing to collisions within the City. The countermeasure opportunities previously discussed in this report for both systemic and project-specific improvements can be used as a basis for developing projects at locations where addressing these focus areas would be of the most benefit. Projects that address these focused areas citywide can be developed with a high benefit-to-cost ratio (by applying City-wide collision rates), allowing competitive projects to be developed even at sites with little to no direct collision history, but with conditions that might contribute to future collisions. For location-specific improvements, the City can utilize benefit-cost

ratio calculations to help prioritize projects as funding and resources become available. The countermeasure toolbox in **Table 7** also identified a potential prioritization timeline for each improvement, based on cost, effectiveness and feasibility.

This project prioritization process will help the City be ready for the funding opportunities identified in **Section 10.1**. Project prioritization will also help to guide the projects as they are taking into the design and construction project. Coordination with City departments will be key in the completion of these implementations.

The City can also implement identified projects in previously completed plans and studies. This LRSP incorporates by reference the project and strategy lists identified in the following modal or focused plans, as well as the equity considerations and evidence-based analysis and the stakeholder and public engagement that were used to develop the lists, such as:

- Safe Routes to School Master Plan (2016, as amended 2022)
- Master Plan of Trails and Bikeways
- Safe Streets Action Plan
- Master Plan of Complete Streets

The City can also plan to implement the non-engineering improvements identified throughout this report, including actions related to Enforcement, Education, and Emergency Services. These actions will require coordination with internal and external stakeholders, such as City departments, law enforcement, local government organizations, and local community organizations. Early buy-in and engagement from these stakeholders will be key to the success of these actions.

To aid in these actions, the City can assemble a 'Task Force' of representatives from different City departments, such as Public Works, Development Services, and Public Safety. This task force will be instrumental in the monitoring, analysis update, project development and project implementation outlined in this plan.

10.3 Next Steps

The City has completed this LRSP to guide the process of future transportation safety improvements for years to come. In addition to the actions identified in the Implementation Plan, the City can perform the following to guide the success of this LRSP and the safety efforts overall.

- Develop investment program to help achieve the City's Vision Zero goals
- Work with state and partner agencies on implementation of large-scale programs and policies
- Incorporate safety analysis findings in future updates of See and Be Seen Program
- Monitor statewide safety priorities, guidance, and funding opportunities

Appendix A – Analysis Rankings

Table – Analysis Results: Intersections

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Signalized Intersections																							
McKinley St & Sampson Ave	2195	81	0.48	548	2	0	5	18	56	26	26	19	1	1	0	3	6	1	30	1	1	20	1
Magnolia Ave & Rimpau Ave	1330	80	0.32	219	0	0	4	20	55	21	18	33	2	2	1	1	0	3	28	0	2	18	4
6th St & Paseo Grande	2015	73	0.70	332	0	1	1	17	53	37	15	13	1	3	0	1	1	0	25	1	2	21	3
McKinley St & Griffin Way	2285	71	0.30	155	0	0	2	13	55	28	19	19	1	0	0	1	0	1	26	0	1	19	2
Lincoln Ave & 2nd St/D St	2029	67	0.67	163	0	0	2	15	50	21	9	26	1	5	0	1	1	1	34	2	4	24	7
Magnolia Ave & El Sobrante Rd	1333	66	0.25	181	0	0	1	21	43	22	11	28	1	2	0	0	0	0	40	4	3	14	3
S Main St & SR-91 WB Ramps	2088	66	0.50	167	0	0	2	16	48	35	18	9	1	0	0	1	0	1	32	1	3	18	3
California Ave & Ontario Ave	718	63	0.31	162	0	0	3	14	45	17	14	26	0	3	0	1	0	1	26	3	1	9	4
Magnolia Ave & I-15 SB Ramps	1353	60	0.25	131	0	0	1	12	47	21	22	16	1	0	0	0	0	0	24	1	2	11	5
Lincoln Ave & 6th St	1967	58	0.16	143	0	0	4	9	45	13	11	25	1	1	0	1	2	1	27	3	2	13	1
S Main St & SH-91	2064	58	0.61	218	0	0	5	22	31	40	7	6	1	1	0	0	0	0	44	1	2	21	4
S Maint St & W 6th St	1890	57	0.06	200	0	0	6	17	32	16	6	22	1	7	0	2	2	0	35	2	8	18	6
S Smith Ave & W 6th St	2006	56	0.34	121	0	0	2	9	45	21	8	23	0	3	0	1	0	1	26	3	5	12	2
Compton Ave & Ontario Ave	684	53	0.27	136	0	0	5	7	40	13	11	23	2	3	0	0	0	1	22	3	0	9	2
McKinley &	2270	50	0.04	125	0	0	2	11	37	6	19	22	0	0	0	1	1	2	20	2	0	12	3
W Grand Blvd & W 6th St	1921	49	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N Main St & W Grand Blvd	2114	49	-0.02	83	0	0	1	5	42	16	15	16	1	0	0	1	0	1	21	2	1	11	0
Garreston Ave & Ontario Ave	1022	46	0.12	130	0	0	2	13	30	13	8	20	1	1	0	0	3	0	24	1	3	13	2

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Main St and Ontario Ave	1093	46	0.14	423	1	1	0	10	33	14	10	14	0	6	1	0	1	0	20	3	1	9	2
Corona Fwy & E Ontario Ave	641	45	0.25	109	0	0	3	7	34	8	12	18	1	4	1	0	0	1	19	0	2	12	2
Magnolia Ave & E 6th St	1805	42	0.13	151	0	0	6	10	26	22	4	13	0	3	0	0	0	0	33	0	2	13	0
S Main St & W 2nd St	2028	41	-0.09	66	0	0	1	3	37	4	20	8	2	3	0	0	1	1	12	0	0	12	3
N Main St & Cota St	2338	40	0.06	81	0	0	0	8	32	7	6	18	1	4	0	1	0	1	16	0	1	8	1
6th St & Sherman Ave	2815	38		98			3	6	29	15	3	14	3	1	0	0	2	0	15	0	4	8	0
Corona Fwy & Magnolia Ave	1354	37	-0.04	116	0	0	5	6	26	15	8	8	0	1	0	3	0	1	18	1	0	11	0
Lincoln Ave & Pomona Rd	2133	37	0.20	92	0	0	1	9	27	19	5	11	1	1	0	0	0	1	23	2	0	11	0
McKinley St & South Promenade Ave	2329	36	-0.10	106	0	0	2	10	24	7	7	13	1	3	0	2	1	2	11	1	4	13	2
Fullerton Ave & Magnolia Ave	1272	33	-0.02	281	0	1	4	9	19	5	5	15	2	3	0	0	3	0	16	4	0	5	1
S Lincoln Ave & W Ontario Ave	1115	32	0.01	260	0	1	4	5	22	10	7	11	0	2	0	0	0	0	17	1	2	9	1
Lincoln Ave & River Rd	2814	32		93	0	0	1	10	21	10	7	12	2	1	0	0	0	2	21	1	1	2	4
Fullerton Ave & Ontario Ave	880	30	0.00	432	2	0	3	9	16	7	2	13	0	4	0	1	2	0	18	0	3	8	0
S Lincoln Ave & 10th St	1760	30	-0.05	80	0	0	2	6	22	9	5	7	1	1	0	0	3	1	10	1	1	6	1
Rimpau Ave & E 6thSt	1808	30	0.03	80	0	0	2	6	22	10	0	12	1	3	0	2	1	2	16	0	0	8	3
N Main St & E Harrison St	2180	30	-0.10	74	0	0	1	7	21	5	7	12	1	1	0	1	3	3	13	1	0	7	1
N Lincoln Ave & Railroad St	2255	30	-0.01	249	0	1	1	9	19	9	7	12	1	1	0	0	0	0	17	0	3	7	3
N Main St & E Rincon St	2200	29	-0.04	84	0	0	3	5	21	17	7	3	0	1	0	1	0	1	18	2	1	5	0
Lester Ave & Ontario Ave	792	28	-0.11	122	0	0	5	9	14	6	5	10	0	2	0	1	3	1	9	0	2	13	2
Kellogg Ave & Ontario Ave	980	27	0.00	236	1	0	1	7	18	5	4	10	1	5	0	0	0	0	11	0	0	8	2
E Grand Blvd & E 6th St	1847	27	-0.15	88	0	0	0	12	15	10	4	7	2	3	1	0	0	0	7	0	1	8	1

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Vicentia Ave & W 6th St	1936	27	0.02	256	0	1	2	9	15	11	2	8	0	0	0	1	4	1	18	1	1	4	0
S Buena Vista Ave & W 6th St	1944	27	-0.04	77	0	0	2	6	19	8	6	6	2	2	1	0	1	1	12	1	3	3	2
N Main St & W Rincon St	2251	27	-0.06	57	0	0	1	4	22	7	8	11	0	0	0	0	1	0	9	0	1	3	1
Avenida Del Vista & W 6th St	2021	26	-0.05	51	0	0	0	5	21	8	3	9	4	1	0	0	1	0	11	2	1	7	1
McKinley & Sampson Ave	2196	26	-0.18	358	0	2	0	1	23	10	8	6	0	1	0	1	0	1	10	0	1	11	0
Rimpau Ave & E Foothill Pkwy	384	25	-0.06	110	0	0	4	9	12	9	1	11	0	2	0	0	1	0	20	2	2	6	1
Border Ave & S Smith Ave	1632	25	0.02	556	0	3	1	6	15	2	4	13	0	6	0	0	0	0	13	1	1	9	1
El Camino Ave & Sixth St	1721	24	0.32	238	1	0	1	8	14	6	9	5	2	1	0	0	1	2	9	2	0	8	0
E Foothill Pkwy & W Foothill Pkwy	638	23	-0.14	52	0	0	1	4	17	10	3	7	0	2	0	0	0	0	15	1	1	12	5
S Main St & E 8th St	1777	22	-0.10	265	0	1	5	6	10	10	0	0	0	10	0	1	0	1	2	0	2	11	0
El Sobrante Rd & E 6th St	1901	22	-0.30	67	0	0	1	7	14	11	1	8	0	2	0	0	0	1	11	0	0	9	2
River Rd & N Cota St	2386	22	0.39	263	1	0	6	4	10	5	4	5	4	4	0	0	0	0	6	2	1	9	3
Compton Ave & Ontario Ave	685	21	-0.25	61	0	0	1	6	14	4	5	10	0	2	0	0	0	0	9	0	1	3	1
Buena Vista Ave & W Ontario Ave	1113	21	-0.08	40	0	0	1	2	17	3	5	8	0	4	0	0	1	0	9	1	1	8	2
S Main St & E Grand Blvd	1589	21	-0.18	220	0	1	1	5	14	8	2	6	2	2	0	1	0	0	12	2	0	6	2
N Smith Ave & Railroad St	2295	20	-0.17	60	0	0	1	6	13	5	6	5	2	1	0	0	0	1	7	2	2	3	0
Temescal Canyon Rd & Blue Springs Dr	117	19	-0.11	117	0	0	7	6	6	9	3	4	1	2	0	0	0	0	11	1	2	7	0
Grand Oaks & Cajalco Rd	150	19	-0.12	65	0	0	0	9	10	0	2	15	1	0	0	0	0	0	16	0	0	5	2
Temescal Canyon Rd & Cajalco Rd	221	19	-0.26	34	0	0	0	3	16	3	3	12	0	0	0	0	0	0	12	0	2	9	0
California Ave & Foothill Pkwy	372	19	-0.19	48	0	0	2	2	14	5	3	6	1	3	0	0	1	1	10	1	0	5	1

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Lincoln Ave & W 8th St	1851	19	-0.14	59	0	0	1	6	12	9	2	6	1	0	0	1	0	1	10	0	0	4	0
Serfas Club Dr &	1883	19	0.31	29	0	0	0	2	17	8	6	4	1	0	0	0	0	0	3	0	0	2	0
SH-91 & Pomona Rd	2125	19	1.10	49	0	0	0	6	13	9	1	7	1	0	0	0	0	1	10	0	1	4	2
E Parkridge Ave & Hidden Valley Pkwy	2584	19	-0.13	54	0	0	2	3	14	6	2	7	0	4	0	0	0	0	13	0	0	6	3
Lincoln Ave & W Foothill Pkwy	613	18	-0.14	78	0	0	3	6	9	9	3	4	0	1	0	0	0	0	16	1	0	4	2
W Grand Blvd & W 2nd St	2071	18	0.50	53	0	0	2	3	13	9	1	2	5	1	0	0	0	1	6	0	1	3	1
Temescal Canyon Rd & Cabot Dr	18	17	-0.09	67	0	0	2	6	9	5	5	1	2	2	1	0	0	1	7	0	6	6	1
Eagle Glen Pkwy & Bedford Canyon Rd	107	17	-0.03	52	0	0	1	5	11	5	2	5	0	4	0	1	0	2	6	0	1	4	0
Ranch Vista Rd & Hidden Valley Pkwy	2596	17	-0.19	37	0	0	0	4	13	3	2	7	2	3	0	0	0	0	9	1	1	5	2
Rimpau Ave & California Ave	1253	16	-0.29	46	0	0	0	6	10	4	3	6	0	0	0	1	1	1	8	0	0	3	1
Avenida Del Vista & Via Del Rio	1653	16	0.12	36	0	0	0	4	12	12	1	0	2	1	0	0	0	0	7	0	1	5	1
S Belle Ave & W 6th St	1892	16	-0.17	46	0	0	1	4	11	9	2	5	0	0	0	0	0	1	8	0	0	1	0
Harris St & W 6th St	1955	16	-0.18	41	0	0	1	3	12	2	3	10	0	0	0	0	1	1	10	0	1	2	3
S Maple St & Pomona Rd	2111	16	0.02	77	0	0	1	10	5	6	0	4	4	1	0	0	0	0	7	0	0	2	1
N Cota St & Railroad St	2188	16	0.02	36	0	0	0	4	12	7	1	4	0	3	0	0	0	0	5	1	1	3	0
Parkview Dr & Hidden Valley Pkwy	2609	16	-0.21	71	0	0	3	5	8	6	1	4	1	2	0	0	0	0	9	0	1	3	1
Lester Ave & Tabor St	679	15	-0.09	208	0	1	2	2	10	10	1	0	2	2	0	0	0	0	4	1	1	5	0
Radio Rd & E 6th St	1797	15	-0.30	204	0	1	1	3	10	6	0	4	2	2	0	1	0	1	9	0	0	4	0
Oriole Ln & Magnolia Ave	1050	14	-0.16	44	0	0	1	4	9	5	0	4	2	2	0	0	0	0	8	0	0	7	3
Green River Rd & Riverside Fwy	1949	14	-0.14	34	0	0	1	2	11	1	5	5	2	1	0	0	0	0	5	0	1	6	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Elysia St & W Foothil Pkwy	592	13	-0.19	38	0	0	1	3	9	3	0	3	0	6	0	1	0	1	4	0	1	7	0
Kellogg Ave & Magnolia Ave	1062	13	-0.27	43	0	0	0	6	7	4	0	6	1	1	1	0	0	0	6	0	2	0	0
Porphory Rd & Magnolia Ave	1355	13	-0.33	33	0	0	1	2	10	1	4	4	1	1	0	2	0	0	5	0	0	1	0
Border Ave & Via del Rio	1546	13	-0.18	197	1	0	0	4	8	7	2	3	0	0	0	0	0	0	4	0	2	7	0
S Main St & E Olive St	1549	13	-0.26	23	0	0	0	2	11	8	4	1	0	0	0	0	0	0	8	0	0	0	0
N Buena Vista Ave & Railroad St	2187	13	-0.11	33	0	0	0	4	9	5	2	0	1	4	1	0	0	0	3	0	1	4	0
N Lincoln Ave & W Rincon St	2222	13	-0.28	33	0	0	1	2	10	2	3	4	0	4	0	0	1	0	6	1	1	6	2
River Rd & Corydon St	2764	13	-0.30	191	0	1	1	1	10	3	3	5	1	0	0	0	1	0	3	0	3	4	1
Bedford Canyon Rd & Foothill Pkwy	300	12	-0.19	42	0	0	2	2	8	6	3	1	0	1	0	0	0	0	7	0	0	4	1
Serfas Club Dr & Green River Rd	1612	12	-0.31	48	0	0	0	7	5	5	3	2	0	2	0	0	0	0	5	0	1	5	0
Via Bernardo & W 6th St	2025	12	-0.29	27	0	0	1	1	10	2	0	6	1	1	0	1	0	0	8	1	0	5	1
Railroad St & W Grand Blvd	2127	12	-0.16	27	0	0	0	3	9	10	1	1	0	0	0	0	0	0	11	0	0	1	0
N Parkridge Ave & E Cresta Rd	2218	12	-0.25	210	0	1	2	3	6	3	0	6	0	1	0	1	1	1	9	0	0	5	0
Garland Way & Hidden Valley Pkwy	2643	12	-0.26	22	0	0	1	0	11	0	1	5	0	3	0	2	0	0	3	0	0	2	2
Temescal Canyon Rd & Weirick Rd	10	11	-0.30	26	0	0	1	1	9	1	1	2	0	7	0	0	0	0	5	0	3	8	1
Viewtop Ln & Summitpointe Ctr	453	11	-0.30	195	0	1	0	4	6	6	0	2	1	0	0	0	1	0	5	0	0	6	0
Lester Ave & E Chase Dr	520	11	-0.18	21	0	0	0	2	9	4	0	3	2	2	0	0	0	0	8	1	0	2	2
S Main St & Magnolia Ave	912	11	-0.28	46	0	0	2	3	6	1	1	5	1	3	0	0	0	0	6	1	1	1	1
Green River Rd & Montana Ranch Rd	1450	11	-0.30	224	0	1	3	4	3	3	0	5	1	0	1	0	1	0	6	0	0	4	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Dominguez Ranch Rd & Green River Rd	1947	11	-0.38	31	0	0	1	2	8	2	2	5	0	2	0	0	0	1	4	0	0	3	0
Fullerton Ave & E Foothill	445	10	-0.33	34	0	0	2	1	7	4	0	2	0	2	0	0	1	0	6	0	0	2	2
S Main St & Mountain Gate Dr	581	10	-0.14	34	0	0	2	1	7	0	2	0	0	8	0	0	0	0	1	1	1	7	1
N McKinley St & Magnolia Dr	839	10	-0.39	25	0	0	0	3	7	5	1	1	1	1	0	0	1	0	5	0	2	6	0
Rimpau Ave & Olympic Dr	1146	10	-0.30	194	0	1	0	4	5	2	1	3	1	1	0	0	2	0	5	1	1	3	2
Green River Rd & Palisades Dr	2048	10	-0.34	20	0	0	0	2	8	1	3	4	1	1	0	0	0	0	3	0	2	2	2
S Maple St & SH-91	2091	10	-0.17	19	0	0	1	0	8	2	3	5	0	0	0	0	0	0	4	0	1	2	0
Auto Center Dr & Research Dr	2119	10	-0.24	20	0	0	0	2	8	2	2	5	0	0	0	0	0	0	2	0	0	1	0
Promenade Ave & Cresta Rd	2235	10	-0.29	35	0	0	1	3	6	3	2	2	0	3	0	0	0	0	6	0	0	1	1
Temescal Canyon Rd & Lakeshore Dr	49	9	-0.31	187	0	1	1	1	6	5	1	2	0	0	0	0	0	0	6	1	2	3	1
Via Santiago & Border Ave	1601	9	-0.18	182	0	1	1	0	7	3	1	3	1	0	0	1	0	1	3	0	1	3	1
E Grand Blvd & E 8th St	1747	9	-0.35	14	0	0	0	1	8	4	3	1	0	0	0	0	0	0	2	0	0	3	0
Green River Rd & Ridgeline Dr	1977	9	-0.35	187	0	1	1	1	6	2	1	3	0	3	0	0	0	0	4	0	1	2	1
N Lincoln Ave & Harrington St	2436	9	-0.33	193	0	1	1	2	5	4	2	1	2	0	0	0	0	0	1	0	1	3	0
River Rd & 2nd St	2746	9	-0.38	29	0	0	0	4	5	4	1	2	0	1	0	1	0	2	7	0	0	2	2
Temescal Canyon Rd & Pronio Ci	81	8	-0.35	28	0	0	1	2	5	0	1	4	0	3	0	0	0	0	3	0	2	2	0
California Ave & Taber Rd	630	8	-0.34	38	0	0	2	2	4	4	0	0	2	2	0	0	0	0	2	0	0	2	0
Highgrove St & W Foothill Pkwy	681	8	-0.36	33	0	0	1	3	4	2	1	2	1	2	0	0	0	0	5	0	0	3	0
Sherborn St & Magnolia Ave	1326	8	-0.38	18	0	0	0	2	6	1	2	4	0	1	0	0	0	0	4	1	0	2	1
Tanglewood Dr & Green River Rd	1415	8	-0.37	13	0	0	0	1	7	3	2	2	0	0	0	0	0	0	3	0	1	2	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
E Grand Blvd & Circle City Dr	1800	8	-0.36	17	0	0	1	0	6	2	4	1	1	0	0	0	0	0	3	0	0	1	0
Serfas Club Dr & Wardlow Rd	2109	8	-0.35	8	0	0	0	0	8	2	4	2	0	0	0	0	0	0	0	0	0	0	2
N Sheridan St & Railroad St	2135	8	-0.24	13	0	0	0	1	7	7	1	0	0	0	0	0	0	0	5	0	1	3	0
Joy St & E Harrison St	2149	8	-0.30	201	0	1	3	0	4	4	1	2	0	1	0	0	0	1	4	0	1	1	0
N McKinley St & Estelle St	2170	8	-0.37	187	1	0	0	3	4	2	0	4	0	0	0	1	1	1	5	0	0	1	1
N Joy St & Joy St	2282	8	-0.27	32	0	0	2	1	5	4	2	0	0	2	0	0	0	0	4	0	0	1	0
Mount Humphries St & McKinley St	2493	8	-0.38	38	0	0	2	2	4	3	0	3	0	2	0	0	0	0	5	0	0	1	0
Hidden Valley Pkwy & Lonesome Dove Ct	2603	8	-0.38	335	0	2	0	0	6	4	1	3	0	0	0	0	0	0	6	0	0	2	0
Eagle Glen Pkwy & Masters Dr	70	7	-0.31	17	0	0	1	0	6	4	0	0	0	3	0	0	0	0	4	0	0	1	3
S Lincoln Ave & Citron St	1224	7	-0.40	27	0	0	1	2	4	0	1	3	0	2	0	0	1	0	4	0	1	3	0
Canyon Crest Dr & Green River Rd	1822	7	-0.39	11	0	0	0	1	5	0	0	4	0	2	0	0	0	0	4	1	1	2	0
Green River Rd & SH-91	1950	7	-0.40	12	0	0	0	1	6	0	4	3	0	0	0	0	0	0	2	0	0	1	0
N Smith Ave & Pomona Rd	2146	7	-0.36	27	0	0	1	2	4	1	1	0	0	1	0	3	1	3	1	0	0	3	0
Collett Ave & S Promenade Ave	2201	7	-0.38	22	0	0	1	1	5	1	1	1	0	4	0	0	0	0	2	0	0	3	1
S Main St & E Upper Dr	380	6	-0.35	6	0	0	0	0	6	1	0	2	0	1	0	0	0	0	4	0	0	2	0
S Main St & Citrus Way	721	6	-0.40	46	0	0	2	4	0	4	0	0	0	0	0	1	1	1	4	0	0	0	0
S Lincoln Ave & Highgrove St	884	6	-0.34	16	0	0	0	2	4	2	2	1	0	0	1	0	0	0	4	0	0	3	0
Taylor Ave & W Ontario Ave	1081	6	-0.41	11	0	0	0	1	5	2	1	0	0	2	0	0	1	0	3	0	0	4	0
Ridgeline Dr & Green River Rd	1618	6	-0.42	11	0	0	0	1	5	0	2	3	0	1	0	0	0	0	2	0	1	2	0
Garretson Ave & E Grand Blvd	1658	6	-0.41	16	0	0	1	0	5	1	0	3	0	1	0	0	0	1	2	0	0	3	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Main St & Stan Reynolds	1831	6	-0.42	333	1	1	0	0	4	1	2	1	0	2	0	0	0	0	3	0	0	4	1
W Grand Blvd & W 3rd St	2041	6	-0.34	36	0	0	1	4	1	5	0	0	0	0	0	1	0	1	3	0	0	0	0
N Victoria Ave & E Grand Blvd	2112	6	-0.42	6	0	0	0	0	6	5	0	1	0	0	0	0	0	0	1	0	0	0	0
Tradewind Pl & S Promenade Ave	2330	6	-0.40	26	0	0	1	2	3	3	1	0	0	1	0	0	0	0	1	0	0	1	1
River Rd & Springbrook St	2709	6	-0.40	174	0	1	0	1	3	0	0	4	0	0	0	0	1	0	0	0	1	3	0
Barbury Dr & E Foothill Pkwy	504	5	-0.44	20	0	0	1	1	3	0	0	2	1	2	0	0	0	0	3	0	0	1	1
Santana Way & Magnolia Ave	966	5	-0.42	174	1	0	0	1	3	1	2	1	0	1	0	0	0	0	2	0	0	0	1
Oak Ave & W Ontario Ave	1114	5	-0.43	188	0	1	2	0	2	2	1	2	0	0	0	0	0	0	4	1	0	0	0
Via Pacifica & W Ontario Ave	1126	5	-0.43	20	0	0	1	1	3	1	0	1	0	3	0	0	0	0	4	0	0	2	2
S Temescal Canyon Rd & Magnolia Ave	1794	5	-0.44	10	0	0	0	1	4	2	1	2	0	0	0	0	0	0	0	0	0	1	1
Temescal Canyon Rd & Fashion Dr	15	4	-0.46	19	0	0	1	1	2	2	0	2	0	0	0	0	0	0	4	0	0	0	0
Eagle Glen Pkwy & Corona Fwy	172	4	-0.46	29	0	0	1	3	0	1	0	0	0	3	0	0	0	0	1	2	0	2	0
S Main St & W Chase Dr	699	4	-0.46	9	0	0	0	1	3	0	1	1	0	1	0	0	0	0	2	1	0	1	0
W Grand Blvd & W 10th St	1711	4	-0.42	4	0	0	0	0	4	1	2	0	1	0	0	0	0	0	1	0	2	2	0
Lincoln Ave & SH-91	2126	4	-0.45	4	0	0	0	0	4	0	1	3	0	0	0	0	0	0	1	0	0	0	0
Rippchak Rd & Cresta Rd	2213	4	-0.44	9	0	0	0	1	3	1	1	1	1	0	0	0	0	1	0	0	0	1	1
Dos Lagos Dr & Corona Fwy	7	3	-0.49	3	0	0	0	0	3	2	1	0	0	0	0	0	0	0	1	0	0	1	0
Tom Barnes St & Temescal Canyon Rd	269	3	-0.49	8	0	0	0	1	2	1	0	1	0	1	0	0	0	0	3	1	0	1	0
California Ave & E Chase Dr	401	3	-0.49	13	0	0	1	0	2	1	0	1	0	1	0	0	0	0	0	0	1	1	0
S Main St & Citron St	1280	3	-0.49	13	0	0	1	0	2	0	0	2	0	1	0	0	0	0	1	0	1	0	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Passo Grande & Green River Rd	1291	3	-0.50	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	1	1	1
E Grand Blvd & E 3rd St	2007	3	-0.49	18	0	0	1	1	1	2	0	0	0	0	0	0	0	1	0	0	0	1	0
6th St & W 6th St	2055	3	-0.49	13	0	0	1	0	2	1	0	1	0	0	0	0	1	0	2	0	0	1	0
S Lincoln Ave & Sh-91	2097	3	-0.24	18	0	0	1	1	1	0	0	1	0	1	0	0	1	0	1	0	0	2	0
Collett Ave & S Promenade Ave	2267	3	-0.49	167	0	1	0	0	2	1	0	0	1	1	0	0	0	0	2	0	1	2	1
E Parkridge Ave & Corona Ave	2312	3	-0.50	13	0	0	1	0	2	1	0	1	0	1	0	0	0	0	1	1	0	0	0
Norco Hills Rd & Hidden Valley Pkwy	2570	3	-0.49	13	0	0	0	2	1	1	0	1	0	1	0	0	0	0	2	0	1	0	0
Parkridge Ave & N Lincoln Ave	2640	3	-0.49	3	0	0	0	0	3	0	1	2	0	0	0	0	0	0	2	0	0	1	1
Unsignalized Intersections																							
McKinley Ave & Shopping Ctr Entrance N of Griffin Ave	2314	48	0.56	138	0	0	3	12	33	20	9	12	4	3	0	0	0	0	25	0	1	10	4
Pleasant View Ave & Smith Ave	2035	31	0.97	120	0	0	6	6	19	14	4	7	0	2	0	0	2	0	6	1	1	6	0
Victoria Ave & E 6th St	1870	28	0.41	113	0	0	4	9	15	13	4	7	1	0	0	0	3	0	6	0	1	5	3
Rimpau Ave & Circle City Dr	1787	27	0.68	95	0	0	6	2	19	10	6	2	1	2	0	1	3	3	4	0	2	7	1
Harrison Circle & Parkridge Ave	2183	25	0.80	98	0	0	6	3	16	12	3	2	0	7	0	0	0	1	4	0	4	4	7
Rimpau Ave & Old Temescal Rd	997	20	0.36	70	0	0	2	6	12	10	2	4	1	2	0	0	1	0	8	0	1	8	3
Crawford St & W 6th St	1909	18	0.22	539	2	1	1	4	10	3	2	6	0	2	0	1	4	1	5	0	0	5	0
Dupont St & Sampson Ave	2175	17	0.44	52	0	0	2	3	12	8	2	3	1	2	0	0	0	0	3	0	1	3	1
Sheridan St & W 6th St	1896	16	0.17	46	0	0	1	4	11	7	5	3	0	1	0	0	0	2	3	0	3	6	0
S Vicente Ave & W 2nd St	2083	16	2.05	41	0	0	1	3	12	4	5	5	0	2	0	0	0	0	6	0	2	9	1
E Bently Dr & E 6th St	1750	15	0.21	219	0	1	1	6	7	6	4	4	0	1	0	0	0	0	2	1	0	0	2

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Belle Ave & W 3rd St	2030	15	0.97	30	0	0	1	1	13	13	1	1	0	0	0	0	0	0	5	0	1	4	0
W Grand Blvd & W 8th St	1834	14	0.41	203	0	1	0	5	8	7	4	1	1	0	0	0	0	0	2	0	0	3	1
River Rd & Auburndale St	2677	14	0.16	44	0	0	2	2	10	2	4	7	0	0	0	0	0	3	4	1	1	2	1
S Victoria Ave & E 8th St	1772	13	0.42	33	0	0	0	4	9	11	0	0	1	1	0	0	0	1	1	0	0	2	1
Rimpau Ave & Ford St	1720	12	0.26	196	0	1	0	4	7	2	4	5	0	0	0	0	1	2	2	0	2	5	1
S Lincoln Ave & W 7th St	1897	12	0.06	52	0	0	2	4	6	7	1	1	1	1	0	0	1	0	6	1	0	5	0
S Maple St & W 6th St	2062	12	0.06	22	0	0	1	0	11	3	6	1	0	2	0	0	0	0	4	0	1	5	0
Treehouse Ln & Shoreview Dr	2382	12	2.13	42	0	0	2	2	8	7	1	3	0	0	1	0	0	0	3	1	1	3	1
N Smith Ave & W Rincon St	2442	12	0.12	27	0	0	1	1	10	3	1	2	1	5	0	0	0	0	3	0	2	7	0
S Main St & W Kendall St	1503	11	0.06	41	0	0	1	4	6	1	2	6	0	2	0	0	0	0	2	1	1	7	1
S Lincoln Ave & W Olive St	1623	11	0.01	36	0	0	1	3	7	5	1	2	0	1	0	0	1	0	1	0	1	5	1
S Sherman Ave & W 8th St	1861	11	0.48	11	0	0	0	0	11	5	2	1	2	1	0	0	0	0	1	0	0	3	0
Ott St & Railroad St	2220	11	0.14	175	0	1	0	0	10	4	3	1	0	2	0	0	1	0	3	0	0	1	0
Rimpau Ave & Baywood Dr	1120	10	0.12	34	0	0	2	1	7	2	1	3	0	3	0	0	0	0	3	0	0	4	0
Sherborn St & Magnolia Ave	1650	10	0.00	35	0	0	1	3	6	3	1	2	0	4	0	0	0	0	7	0	0	2	0
S Main St & E 9th St	1730	10	0.02	357	0	2	1	2	5	3	3	0	0	1	0	0	3	0	0	0	0	3	0
Pine St & Park Ln	1752	10	0.34	30	0	0	0	4	6	7	0	1	1	0	0	1	0	1	0	1	0	3	1
S Joy St & E 8th St	1758	10	0.56	33	0	0	2	1	6	8	2	0	0	0	0	0	0	0	3	0	0	2	0
W Grand Blvd & W 9th St	1768	10	0.45	30	0	0	1	2	7	2	1	5	0	1	0	1	0	1	3	1	0	4	0
S Buena Vista Ave & W 8th St	1833	10	0.20	20	0	0	0	2	8	8	1	0	0	0	0	0	1	0	2	0	0	0	1
S Ramona Ave & E 6th St	1873	10	0.04	25	0	0	0	3	7	3	1	2	0	4	0	0	0	0	3	0	0	2	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Main St & W 5th St	1954	10	-0.02	183	1	0	0	2	6	3	3	3	0	1	0	0	0	0	3	0	0	1	1
N Smith Ave & N Maple St	2225	10	0.09	25	0	0	0	3	7	5	1	4	0	0	0	0	0	0	4	0	0	2	0
W Rincon St & N Cota St	2276	10	0.23	25	0	0	0	3	7	6	2	0	0	2	0	0	0	0	0	1	0	4	1
N Lincoln Ave & Placid Dr	2654	10	0.09	50	0	0	2	4	4	5	0	4	0	0	0	1	0	1	4	0	0	0	0
Masters Dr & California Ave	241	9	0.13	34	0	0	1	3	5	5	0	1	0	0	0	0	2	1	2	0	0	0	0
Rimpau Ave & Birmingham Dr	894	9	0.12	188	0	1	0	3	5	5	0	3	0	1	0	0	0	0	3	0	0	1	1
California Ave & Old Temescal Rd	952	9	0.09	188	0	1	0	3	5	9	0	0	0	0	0	0	0	1	6	0	0	5	2
Mount Baldy Ct & Sugarloaf Park	1331	9	2.63	34	0	0	0	5	4	8	1	0	0	0	0	0	0	0	0	0	0	0	0
Mount Baldy Ct & Pleasants Park	1334	9	2.63	39	0	0	1	4	4	9	0	0	0	0	0	0	0	2	2	0	0	0	0
S Main St & E Crestview St	1368	9	0.01	24	0	0	0	3	6	0	2	4	1	2	0	0	0	0	2	1	1	5	1
S Buena Vista Ave & 10th St	1690	9	0.19	19	0	0	0	2	7	7	1	1	0	0	0	0	0	0	3	1	0	0	0
S Lincoln Ave & W 9th St	1803	9	-0.01	14	0	0	0	1	8	2	1	3	0	3	0	0	0	0	2	0	2	5	0
Via de Luna & S Smith Ave	1895	9	0.12	198	0	1	0	5	3	3	1	2	0	2	0	0	1	0	1	0	1	6	1
S Merrill St & W 6th St	1903	9	0.00	19	0	0	0	2	7	2	1	3	0	2	0	1	0	1	4	0	0	3	0
S Main St & E 4th St	2000	9	-0.04	39	0	0	2	2	5	3	1	0	0	4	0	0	0	1	3	0	1	2	2
S Lincoln Ave & W 5th St	2005	9	-0.04	29	0	0	1	2	6	4	2	2	1	0	0	0	0	0	2	0	0	1	1
Richey St & Promenade Ave	2414	9	0.03	14	0	0	0	1	8	5	1	1	0	1	0	0	1	0	0	0	1	4	0
Rimpau Ave & Ridgewood Dr	1076	8	0.05	28	0	0	1	2	5	3	2	2	0	1	0	0	0	0	1	0	0	3	0
S Main St & E Francis St	1456	8	-0.02	38	0	0	1	4	3	1	0	4	0	3	0	0	0	0	4	2	1	2	0
S Lincoln Ave & Blue Crest St	1677	8	-0.05	23	0	0	0	3	5	0	2	3	0	1	0	0	2	0	2	0	0	0	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Main St & W 10th St	1678	8	-0.03	38	0	0	2	2	4	5	1	2	0	0	0	0	0	0	2	1	0	1	0
Via del Rio & Kirkwood Dr	1689	8	0.19	13	0	0	0	1	7	4	4	0	0	0	0	0	0	0	0	0	0	0	1
Magnolia Ave & Leeson Ln	1722	8	-0.04	28	0	0	1	2	5	3	1	0	0	4	0	0	0	0	1	0	1	4	1
W Grand Blvd & W 7th St	1862	8	0.30	33	0	0	1	3	4	3	1	3	1	0	0	0	0	0	1	0	1	2	1
S Joy St & E 6th St	1863	8	-0.01	31	0	0	2	1	4	1	1	4	0	0	0	1	0	2	4	0	0	3	0
Sierra Vista St & W 6th St	1966	8	-0.03	13	0	0	0	1	7	4	1	3	0	0	0	0	0	0	3	0	1	1	1
S Sherman Ave & W 6th St	1981	8	0.07	13	0	0	0	1	7	2	5	1	0	0	0	0	0	0	1	0	1	2	1
Radio Rd & Sampson Ave	2047	8	0.27	181	0	1	1	0	6	1	2	0	0	3	0	1	1	0	2	0	0	3	0
Railroad St & Auto Center Dr	2162	8	0.07	13	0	0	0	1	7	1	1	2	0	4	0	0	0	0	5	0	1	1	5
N Lincoln Ave & Bradford Cir	2177	8	-0.03	13	0	0	0	1	7	3	2	1	0	2	0	0	0	0	1	0	0	2	0
River Rd & Kalus Ave	2416	8	0.06	192	1	0	1	2	4	4	2	2	0	0	0	0	0	0	1	0	0	2	1
Via Blairo & Hidden Valley Pkwy	2488	8	-0.02	18	0	0	1	0	7	3	2	0	0	3	0	0	0	0	4	0	0	5	5
Village Loop Dr & Hidden Valley Pkwy	2552	8	-0.03	22	0	0	1	1	5	6	2	0	0	0	0	0	0	0	2	0	1	1	0
Corydon St & Stagecoach Dr	2719	8	0.11	43	0	0	1	5	2	6	0	0	0	2	0	0	0	0	2	0	0	4	0
Fullerton Ave & E Upper Dr	289	7	0.24	27	0	0	0	4	3	4	0	1	0	0	0	0	1	0	3	1	0	1	0
Lester Ave & New England Dr	446	7	0.05	22	0	0	1	1	5	5	1	0	0	0	0	1	0	1	0	0	0	0	1
Fullerton Ave & Santana Way	673	7	0.10	37	0	0	2	2	3	6	0	0	0	0	0	0	1	1	2	0	0	1	1
Oriole Ln & Ontario Ave	1019	7	-0.05	171	0	1	0	0	6	1	1	4	0	1	0	0	0	0	4	0	0	2	0
Summerset St & Ontario Ave	1079	7	-0.08	191	0	1	1	2	3	2	0	2	0	3	0	0	0	0	1	0	2	3	0
S Main St & E Rancho Rd	1308	7	-0.08	27	0	0	1	2	4	1	0	6	0	0	0	0	0	0	6	1	0	1	0
W Burr St & W Burr St	1490	7	-0.07	7	0	0	0	0	7	1	3	1	0	2	0	0	0	0	1	0	0	2	1

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Lincoln Ave & Topaz St	1513	7	-0.07	32	0	0	1	3	3	4	0	3	0	0	0	0	0	0	1	0	0	1	1
S Main St & W 11th St	1636	7	-0.06	12	0	0	0	1	6	2	2	3	0	0	0	0	0	0	0	0	0	1	1
Gianni Dr & E 6th St	1798	7	-0.06	17	0	0	0	2	5	0	0	6	0	0	1	0	0	0	5	1	0	1	0
S Howard St & E 6th St	1866	7	-0.04	195	0	1	2	1	3	4	0	2	0	0	0	1	0	1	1	0	0	0	0
S Vicentia Ave & W 7th St	1867	7	1.36	17	0	0	0	2	5	5	1	1	0	0	0	0	0	0	1	0	2	3	0
S Buena Vista Ave & W 7th St	1876	7	0.19	36	0	0	3	0	4	5	1	0	1	0	0	0	0	0	0	0	2	2	0
S Sheridan St & W 3rd St	2038	7	0.29	12	0	0	0	1	6	5	2	0	0	0	0	0	0	0	2	1	3	2	0
Meyer Cir & E Parkridge Ave	2190	7	0.11	17	0	0	0	2	5	1	0	2	1	3	0	0	0	0	3	1	1	1	1
Penrose Dr & N Cota St	2400	7	0.17	17	0	0	0	2	5	3	0	2	1	1	0	0	0	0	2	0	1	0	0
Terra Cir & Promenade Ave	2452	7	-0.02	17	0	0	0	2	5	2	1	2	0	2	0	0	0	0	3	0	1	3	0
Vista Real St & McKinley St	2513	7	-0.07	21	0	0	1	1	4	2	2	1	0	2	0	0	0	0	1	0	1	2	1
River Rd & Foxtail Dr	2545	7	0.02	359	0	2	1	3	1	4	1	1	1	0	0	0	0	0	1	0	0	2	0
Granite St & Sampson Ave	840	6	0.05	184	0	1	1	1	3	1	2	1	0	2	0	0	0	0	1	0	1	1	0
S Belle Ave & W Ontario Ave	1033	6	-0.06	25	0	0	2	0	4	2	1	1	0	1	0	0	1	0	0	0	1	3	0
Border Ave & W Ontario Ave	1178	6	0.09	21	0	0	1	1	4	3	0	1	1	1	0	0	0	1	3	0	0	3	0
Montecito Dr & Magnolia Ave	1226	6	-0.12	11	0	0	0	1	5	2	1	1	0	2	0	0	0	0	1	0	1	4	1
Rimpau Ave & Beverly Rd	1649	6	0.00	30	0	0	2	1	3	1	1	4	0	0	0	0	0	0	4	0	0	4	0
Avenida del Vista & Via Santiago	1910	6	0.04	11	0	0	0	1	5	3	1	1	0	0	0	0	1	0	1	1	0	1	0
S Howard St & E 4th St	1978	6	1.08	170	0	1	0	0	5	3	2	0	0	1	0	0	0	0	2	0	0	2	1
W 6th St & S Smith Ave	1992	6	-0.01	31	0	0	1	3	2	3	0	0	1	1	1	0	0	0	3	0	0	1	0
S Main St & S Main St	1999	6	-0.10	21	0	0	1	1	4	0	1	1	0	4	0	0	0	0	4	0	0	3	3

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Rich Ct & Sampson Ave	2018	6	0.09	26	0	0	0	4	2	3	0	2	0	1	0	0	0	2	1	0	0	1	0
N Buena Vista Ave & Railroad St	2228	6	0.01	21	0	0	1	1	4	3	0	2	0	1	0	0	0	0	2	1	0	1	0
Roosevelt Cir & Promenade Ave	2258	6	-0.04	170	0	1	0	0	5	0	1	0	1	4	0	0	0	0	1	0	1	2	0
Airport Cir & Railroad St	2269	6	-0.03	35	0	0	2	2	1	1	0	2	0	2	0	1	0	1	3	0	0	0	0
W Parkridge Ave & Cota St	2406	6	0.00	6	0	0	0	0	6	3	1	0	0	1	0	0	0	0	1	0	0	1	0
State St & Ontario Ave	304	5	-0.11	20	0	0	1	1	3	3	0	0	0	0	1	0	0	0	0	0	0	0	0
Trudy Way & W Foothill Pkwy	575	5	1.17	10	0	0	0	1	4	0	0	4	0	0	0	0	0	0	4	0	0	0	0
Compton Ave & Taber Rd	629	5	-0.11	5	0	0	0	0	5	3	0	0	0	2	0	0	0	0	3	0	0	1	0
Rimpau Ave & Ontario Ave	780	5	-0.12	20	0	0	0	3	2	0	2	1	0	1	0	1	0	0	2	1	0	2	0
S Vicentia Ave & W Ontario Ave	1102	5	-0.10	15	0	0	1	0	4	2	0	0	1	2	0	0	0	0	1	0	1	3	0
Wren Ave & Magnolia Ave	1111	5	-0.09	5	0	0	0	0	5	1	4	0	0	0	0	0	0	0	0	0	2	4	0
Patriot Way & W Ontario Ave	1136	5	0.08	10	0	0	0	1	4	0	0	3	1	0	0	0	0	0	1	1	1	1	0
S Lincoln Ave & Rickson Way	1151	5	-0.09	10	0	0	0	1	4	1	0	3	0	1	0	0	0	0	3	0	0	2	1
Mesquite Ln & W Ontario Ave	1179	5	0.08	25	0	0	1	2	2	1	0	2	1	1	0	0	0	0	1	0	0	2	1
S Main St & W Old Mill Rd	1229	5	-0.09	15	0	0	0	2	3	0	0	4	0	1	0	0	0	0	4	0	1	1	0
Via Pacifica & Mayfair Dr	1493	5	-0.02	20	0	0	0	3	2	0	1	0	0	2	0	1	0	1	1	0	1	3	0
Sunkist Cir & Via del Rio	1571	5	0.08	5	0	0	0	0	5	1	1	3	0	0	0	0	0	0	1	0	2	3	1
Rimpau Ave & Redwood St	1578	5	-0.05	24	0	0	2	0	3	1	0	0	0	4	0	0	0	0	1	0	1	2	1
S Lincoln Ave & Alta Loma Dr	1647	5	-0.11	25	0	0	1	2	2	2	0	3	0	0	0	0	0	0	2	1	0	0	0
S Vicentia Ave & 10th St	1718	5	0.28	20	0	0	1	1	3	0	4	1	0	0	0	0	0	1	0	0	1	2	0
S Merrill St & W 9th St	1749	5	0.81	5	0	0	0	0	5	2	3	0	0	0	0	0	0	0	0	0	0	1	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Rimpau Ave & Spruce St	1755	5	-0.05	5	0	0	0	0	5	1	1	3	0	0	0	0	0	0	3	0	1	1	0
S Victoria Ave & E 7th St	1819	5	0.11	24	0	0	2	0	3	5	0	0	0	0	0	0	0	0	3	0	0	3	0
Serfas Club Dr & Pallisades Dr	1832	5	-0.09	10	0	0	0	1	4	1	0	2	1	1	0	0	0	0	1	1	0	0	0
S Merrill St & W 7th St	1848	5	0.81	15	0	0	0	2	3	2	3	0	0	0	0	0	0	0	1	1	0	2	0
Fuller St & E 6th St	1856	5	-0.10	24	0	0	2	0	3	3	0	1	0	0	0	1	0	1	1	0	0	0	0
S Grant Ave & W 8th St	1891	5	1.17	5	0	0	0	0	5	2	3	0	0	0	0	0	0	0	0	0	0	2	0
Yorba St & W 6th St	2026	5	-0.11	15	0	0	1	0	4	1	1	1	1	1	0	0	0	0	0	0	2	1	0
S Sherman Ave & E St	2043	5	0.04	10	0	0	0	1	4	1	1	0	1	1	0	0	0	0	1	0	0	1	0
Joy St & E Grand Blvd	2077	5	-0.11	5	0	0	0	0	5	1	3	1	0	0	0	0	0	0	0	0	0	0	0
S Garfield Ave & D St	2086	5	0.11	15	0	0	1	0	4	1	2	2	0	0	0	0	0	0	0	0	1	4	1
Industrial Way & Pomona Rd	2113	5	0.19	20	0	0	1	1	3	0	0	2	1	2	0	0	0	0	1	0	0	2	1
N Buena Vista Ave & Sh-91	2116	5	0.08	10	0	0	0	1	4	2	1	1	0	1	0	0	0	0	0	0	1	3	1
Washburn Circle & W Grand Blvd	2136	5	-0.07	15	0	0	1	0	4	1	1	2	1	0	0	0	0	0	2	0	0	0	0
Citation Cir & Railroad St	2161	5	-0.07	25	0	0	1	2	2	2	0	0	0	3	0	0	0	0	2	0	0	1	3
Merrill St & Railroad St	2165	5	-0.01	15	0	0	1	0	4	0	2	1	0	1	0	1	0	1	1	0	0	0	0
Cota St & Railroad St	2178	5	-0.01	30	0	0	1	3	1	3	0	1	0	0	0	0	1	0	1	0	1	3	0
Wellesley Dr & Promenade Ave	2292	5	-0.08	15	0	0	0	2	3	2	0	0	1	2	0	0	0	0	2	0	0	1	1
S Promenade Ave & Avondale Dr	2297	5	-0.07	35	0	0	2	2	1	2	0	0	0	3	0	0	0	0	1	1	0	2	0
N Smith Ave & Davril Cir	2300	5	-0.09	25	0	0	0	4	1	1	1	1	0	0	0	0	2	0	0	0	1	3	0
Via Firenze Way & Chris Wren Cir	280	4	0.81	4	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
State St & Foothill Pkwy	284	4	-0.13	168	0	1	0	0	3	0	1	0	1	2	0	0	0	0	0	0	1	2	0
Lester Ave & Valencia Rd	314	4	-0.05	19	0	0	1	1	2	2	1	0	0	1	0	0	0	0	2	0	0	2	1
Lester Ave & Ashdale Dr	377	4	-0.02	9	0	0	0	1	3	4	0	0	0	0	0	0	0	0	1	0	0	0	0
Fullerton Ave & Valencia Rd	390	4	0.01	14	0	0	0	2	2	1	0	0	1	0	0	0	1	1	0	0	1	2	0
W Mountain Gate Dr & St James Dr	476	4	0.10	28	0	0	2	1	1	2	0	0	0	1	0	0	1	0	0	0	0	0	0
E Foothill Pkwy & E Foothil Pkwy	492	4	-0.12	14	0	0	0	2	2	1	1	2	0	0	0	0	0	0	2	1	0	1	0
S Lincoln Ave & Silvercrest Rd	722	4	-0.05	9	0	0	0	1	3	2	0	0	1	1	0	0	0	0	0	0	0	1	0
Highgrove St & Citrus Way	750	4	-0.02	14	0	0	1	0	3	4	0	0	0	0	0	0	0	0	0	0	0	2	0
Sampson Ave & Sampson Ave	841	4	-0.06	19	0	0	1	1	2	0	1	1	0	1	1	0	0	0	2	1	0	2	1
Switchback Ln & Highgrove St	847	4	0.03	4	0	0	0	0	4	0	1	0	0	3	0	0	0	0	0	0	0	1	0
S Main St & Greengate St	1192	4	-0.12	14	0	0	0	2	2	0	0	3	0	1	0	0	0	0	3	1	0	0	3
Pso Grande & Pso Grande	1290	4	0.04	8	0	0	0	1	2	1	0	3	0	0	0	0	0	0	3	1	0	1	1
S Main St & W Burr St	1412	4	-0.12	14	0	0	1	0	3	0	0	2	1	1	0	0	0	0	1	0	0	0	0
Avenida del Vista & Dawn Ridge Dr	1509	4	0.11	23	0	0	2	0	2	2	0	0	1	0	0	0	1	0	3	0	0	1	1
Green River Rd & Chicory Ln	1548	4	-0.13	173	0	1	0	1	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0
El Sobrante Rd & Circle City Dr	1556	4	-0.05	9	0	0	0	1	3	1	0	0	0	3	0	0	0	0	1	0	1	3	0
S Victoria Ave & E Grand Blvd	1582	4	-0.12	19	0	0	1	1	2	3	0	0	0	0	0	0	0	1	0	0	0	1	0
S Buena Vista Ave & W Olive St	1584	4	-0.05	14	0	0	0	2	2	3	0	1	0	0	0	0	0	0	3	0	0	2	0
S Sheridan St & W Grand Blvd	1652	4	-0.01	14	0	0	1	0	3	2	1	1	0	0	0	0	0	0	0	0	1	1	0
Rimpau Ave & E Francis St	1680	4	-0.09	4	0	0	0	0	4	1	2	0	0	1	0	0	0	0	0	0	0	2	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Merrill St & W Grand Blvd	1681	4	-0.01	9	0	0	0	1	3	2	0	1	0	0	0	0	1	0	2	1	0	0	1
Trademark Cir & Magnolia Ave	1691	4	-0.13	182	1	0	1	1	1	1	2	0	0	1	0	0	0	0	1	0	1	0	0
Park Ln & Park Ln	1694	4	-0.06	9	0	0	0	1	3	0	2	0	0	0	0	0	0	0	0	1	1	3	0
S Victoria Ave & E 9th St	1719	4	0.02	4	0	0	0	0	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0
Wyval Ave & Wakefield Ave	1759	4	0.21	9	0	0	0	1	3	0	0	2	1	1	0	0	0	0	2	0	0	0	0
E Grand Blvd & E 7th St	1815	4	-0.12	4	0	0	0	0	4	1	2	0	0	1	0	0	0	0	0	0	0	2	0
Harris St & W 7th St	1885	4	0.53	19	0	0	1	1	2	2	2	0	0	0	0	0	0	0	0	0	0	1	0
S Sherman Ave & W 6th St	1935	4	-0.11	173	0	1	0	1	2	1	0	0	1	1	0	0	1	0	0	0	0	2	1
S Victoria Ave & E 5th St	1940	4	0.02	9	0	0	0	1	3	4	0	0	0	0	0	0	0	0	1	0	0	0	0
W Grand Blvd & W 4th St	2014	4	-0.04	14	0	0	0	2	2	0	1	0	2	1	0	0	0	0	2	0	0	0	0
Rich Ct & Melissa Ct	2070	4	0.81	19	0	0	1	1	2	0	0	1	0	3	0	0	0	0	1	0	0	2	0
S Sherman Ave & D St	2084	4	-0.01	4	0	0	0	0	4	0	1	3	0	0	0	0	0	0	1	0	1	2	0
Bonnie Ln & Wardlow Rd	2092	4	0.81	9	0	0	0	1	3	2	0	0	1	1	0	0	0	0	0	0	0	1	0
N Sheridan St & W Grand Blvd	2095	4	-0.04	9	0	0	0	1	3	0	1	1	1	0	0	0	1	0	1	0	0	1	0
Gibson Ave & Sampson Ave	2155	4	-0.10	4	0	0	0	0	4	3	0	0	0	1	0	0	0	0	0	0	0	0	0
N Maple St & Capital St	2169	4	-0.02	14	0	0	1	0	3	0	1	1	0	2	0	0	0	0	1	0	1	2	0
N Vicentia Ave & Railroad St	2189	4	-0.08	14	0	0	0	2	2	0	1	2	0	1	0	0	0	0	3	0	0	1	0
Glider Cir & Railroad St	2214	4	-0.10	9	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Harding Rd & Cresta Rd	2240	4	-0.06	19	0	0	0	3	1	3	0	0	0	0	0	0	1	0	2	0	0	0	0
E Parkridge Ave & E Parkridge Ave	2243	4	-0.06	182	1	0	1	1	1	0	1	1	0	2	0	0	0	0	0	0	2	2	1
McKinley St & Sh-91	2261	4	-0.14	19	0	0	1	1	2	1	1	2	0	0	0	0	0	1	2	0	0	0	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Treeline Dr & Promenade Ave	2332	4	-0.12	24	0	0	1	2	1	4	0	0	0	0	0	0	0	0	0	0	0	1	1
Buchanan St & Madera Way	2351	4	-0.01	14	0	0	0	2	2	0	0	1	0	2	0	0	1	0	1	0	1	2	0
Kennedy Dr & Promenade Ave	2439	4	-0.12	168	0	1	0	0	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Fairbanks St & Promenade Ave	2555	4	-0.11	14	0	0	0	2	2	1	1	2	0	0	0	0	0	0	2	0	0	0	0
N Lincoln Ave & Bayfield Dr	2567	4	-0.12	28	0	0	2	1	1	1	2	1	0	0	0	0	0	0	1	0	0	0	0
Yasment St & Hidden Valley Pkwy	2613	4	-0.13	178	1	0	0	2	1	2	1	0	1	0	0	0	0	0	0	0	1	1	0
Brittany Dr & Promenade Ave	2616	4	-0.11	9	0	0	0	1	3	1	0	0	0	3	0	0	0	0	0	0	2	3	1
Casandra Ln & Hidden Valley Pkwy	2631	4	-0.13	24	0	0	1	2	1	3	1	0	0	0	0	0	0	0	1	0	0	2	0
Corydon St & Amherst St	2762	4	-0.08	4	0	0	0	0	4	0	0	0	1	3	0	0	0	0	0	0	1	2	0
River Rd & Kips Korner Rd	2765	4	-0.13	14	0	0	0	2	2	0	1	2	0	1	0	0	0	0	2	1	0	0	0
Fairview Dr & Corydon St	2809	4	-0.10	4	0	0	0	0	4	0	0	0	0	4	0	0	0	0	1	0	0	2	1
Temescal Canyon Rd & Breezy Meadow Ln	152	3	-0.15	13	0	0	1	0	2	0	2	0	0	1	0	0	0	0	0	0	0	3	0
Temescal Canyon Rd & Center St	159	3	-0.15	3	0	0	0	0	3	0	0	2	0	1	0	0	0	0	3	0	0	0	0
Bedford Canyon Rd & Georgetown Dr	183	3	-0.11	172	0	1	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0
Seven Oaks Dr & E Upper Dr	194	3	0.44	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	1	0	1	2	0
Lester Ave & Lemongrove Ln	248	3	0.44	22	0	0	2	0	1	0	0	0	0	3	0	0	0	0	2	0	1	1	0
Tamarisk Ln & Foothill Pkwy	342	3	-0.15	8	0	0	0	1	2	0	1	0	0	2	0	0	0	0	1	0	0	1	0
Trinity Circle & E Upper Dr	365	3	-0.12	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	2	0	0	2	1
Countryside Ln & E Foothil Pkwy	386	3	-0.15	8	0	0	0	1	2	0	0	0	0	1	0	2	0	2	1	0	0	1	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Lester Ave & Boston Dr	400	3	-0.13	13	0	0	1	0	2	0	0	1	0	2	0	0	0	0	0	0	0	0	1
Ridgecrest Cir & Pointe Vista Ct	485	3	0.26	3	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	0	0
Summit Dr & E Foothil Pkwy	495	3	-0.15	3	0	0	0	0	3	0	1	0	0	2	0	0	0	0	0	0	1	1	0
California Ave & Whispering Wind Ln	558	3	-0.15	13	0	0	1	0	2	0	0	0	0	3	0	0	0	0	0	0	0	2	0
W Mountain Gate Dr & Rowena Dr	580	3	-0.04	13	0	0	0	2	1	1	0	0	0	1	0	0	0	0	1	1	1	2	0
Compton Ave & Graphite Dr	643	3	-0.05	32	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1
Garretson Ave & E Chase Dr	694	3	0.12	13	0	0	1	0	2	2	0	0	0	0	0	1	0	1	3	0	0	1	0
Kellogg Ave & Mountain Shadows Dr	772	3	0.32	3	0	0	0	0	3	0	0	0	2	1	0	0	0	0	0	0	0	0	0
Conestoga St & Fargo Cir	774	3	0.44	13	0	0	1	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Fullerton Ave & Taber St	784	3	-0.10	18	0	0	1	1	1	2	0	0	0	1	0	0	0	0	0	0	1	1	0
Conestoga St & Pecos St	790	3	0.44	3	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
S Lincoln Ave & Padre Way	804	3	-0.10	3	0	0	0	0	3	0	1	0	0	2	0	0	0	0	0	0	1	2	1
Winston Way & Winston Cir	877	3	0.44	8	0	0	0	1	2	0	0	1	0	2	0	0	0	0	1	0	1	2	0
Oak Ave & Stillwater Rd	886	3	0.03	3	0	0	0	0	3	0	1	0	0	2	0	0	0	0	0	0	2	3	0
California Ave & Graphite Dr	903	3	-0.13	8	0	0	0	1	2	0	0	2	0	0	0	0	0	0	2	0	0	1	0
Fullerton Ave & Old Temescal Rd	964	3	-0.14	8	0	0	0	1	2	2	0	1	0	0	0	0	0	0	2	0	0	0	1
Vesper Cir & Ontario Ave	982	3	-0.15	22	0	0	2	0	1	1	0	1	0	1	0	0	0	0	1	0	1	1	0
Macbeth Ave & Othello Ln	1001	3	0.44	13	0	0	1	0	2	1	0	0	0	2	0	0	0	0	0	0	0	1	0
Wren Ave & Ontario Ave	1015	3	-0.15	3	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	1	0	0
Garretson Ave & Ontario Ave	1049	3	-0.15	8	0	0	0	1	2	1	0	1	0	1	0	0	0	0	1	0	0	0	1

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Mangular Ave & W Ontario Ave	1125	3	-0.11	8	0	0	0	1	2	1	0	2	0	0	0	0	0	0	3	0	0	1	0
Silver Oak Dr & W Ontario Ave	1139	3	-0.15	3	0	0	0	0	3	2	0	1	0	0	0	0	0	0	0	0	0	1	0
Kellogg Ave & Quince St	1150	3	-0.06	13	0	0	1	0	2	2	1	0	0	0	0	0	0	2	0	0	0	1	0
Via Pacifica & Fairmont Dr	1161	3	-0.13	18	0	0	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	1	0
California Ave & Olympic Dr	1169	3	-0.12	3	0	0	0	0	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Border Ave & Brentwood Cir	1283	3	-0.05	3	0	0	0	0	3	0	0	2	0	1	0	0	0	0	2	0	0	1	0
Silktree Pl & Magnolia Ave	1338	3	-0.15	18	0	0	1	1	1	2	0	1	0	0	0	0	0	0	1	0	0	1	0
Garretson Ave & Gay St	1342	3	0.04	8	0	0	0	1	2	1	0	2	0	0	0	0	0	0	1	1	0	1	0
Mount Wilson & Sugarloaf Park	1369	3	0.44	8	0	0	0	1	2	0	1	1	0	1	0	0	0	0	1	0	1	2	0
W Ontario Ave & Avacado Ave	1414	3	-0.01	8	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	1	3	0
Green River Rd & Del Mar Way	1421	3	-0.15	13	0	0	1	0	2	0	1	0	0	2	0	0	0	0	0	0	0	2	0
Avenida del Vista & Brentwood Cir	1471	3	0.01	8	0	0	0	1	2	0	0	3	0	0	0	0	0	0	1	0	0	0	0
Rimpau Ave & Birch St	1494	3	-0.13	8	0	0	0	1	2	0	1	1	0	0	0	0	1	0	0	0	1	2	0
Via Pacifica & Willowspring Ln	1500	3	-0.12	340	2	0	1	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	1
Garretson Ave & E Olive St	1529	3	-0.10	3	0	0	0	0	3	2	1	0	0	0	0	0	0	0	1	0	0	2	0
W Ontario Ave & Manitoba Cir	1532	3	-0.08	2	0	0	0	0	2	2	1	0	0	0	0	0	0	0	1	0	0	1	0
Rimpau Ave & Aspen St	1541	3	-0.13	18	0	0	1	1	1	0	0	1	0	0	0	0	2	0	0	0	0	1	0
S Washburn Ave & W Grand Blvd	1591	3	-0.08	3	0	0	0	0	3	1	1	0	0	1	0	0	0	0	0	0	1	0	1
Fullerton Ave & Barth St	1646	3	-0.11	3	0	0	0	0	3	0	2	1	0	0	0	0	0	0	0	1	2	2	1
S Victoria Ave & E 10th St	1665	3	-0.07	3	0	0	0	0	3	1	2	0	0	0	0	0	0	0	0	0	2	2	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Rimpau Ave & Holiday Ct	1679	3	0.05	3	0	0	0	0	3	1	0	1	0	1	0	0	0	0	1	0	0	0	0
Avenida del Vista & Beryl Ln	1686	3	-0.06	13	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	1	0	2	0
Compton Ave & Corona Point Ct	1688	3	-0.09	8	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0
Suncrest Dr & Green River Rd	1709	3	-0.15	18	0	0	1	1	1	0	1	1	0	1	0	0	0	1	2	0	0	2	0
Live Oak Pl & Sumac Pl	1733	3	0.44	8	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0
S Howard St & E 8th St	1766	3	-0.07	3	0	0	0	0	3	1	1	0	1	0	0	0	0	0	0	0	0	1	0
S Vicentia Ave & W 8th St	1769	3	-0.07	3	0	0	0	0	3	0	1	1	0	1	0	0	0	0	0	0	0	2	0
Harris St & W 9th St	1786	3	0.26	3	0	0	0	0	3	1	2	0	0	0	0	0	0	1	0	0	0	1	0
Boulder Dr & Green River Rd	1792	3	-0.15	8	0	0	0	1	2	1	1	1	0	0	0	0	0	0	1	0	0	0	0
S Merrill St & W 8th St	1801	3	-0.07	3	0	0	0	0	3	1	2	0	0	0	0	0	0	0	1	0	0	1	0
Shadowglen Way & Woodbrook Way	1802	3	0.44	3	0	0	0	0	3	1	0	2	0	0	0	0	0	0	2	0	0	2	0
S Joy St & E 7th St	1813	3	0.26	3	0	0	0	0	3	1	1	1	0	0	0	0	0	0	1	0	0	0	0
Wakefield Ave & W 8th St	1842	3	-0.06	3	0	0	0	0	3	0	2	0	0	1	0	0	0	0	1	0	0	1	0
Silkwood Dr & Ridgeline Dr	1853	3	0.08	13	0	0	1	0	2	1	0	0	0	1	0	0	1	0	0	0	0	1	0
Sapphire Ln & Jadestone Ln	1864	3	0.44	13	0	0	0	2	1	1	2	0	0	0	0	0	0	0	1	2	1	0	0
E Grand Blvd & Kress Ct	1898	3	-0.15	3	0	0	0	0	3	0	0	0	1	1	0	1	0	0	1	1	0	1	0
Encino Pl & Via Santiago	1911	3	0.00	3	0	0	0	0	3	0	1	1	0	0	0	0	0	0	0	0	1	1	0
S Howard St & E 5th St	1937	3	0.26	13	0	0	0	2	1	3	0	0	0	0	0	0	0	0	2	0	0	0	0
E Grand Blvd & E 5th St	1945	3	-0.15	8	0	0	0	1	2	1	1	1	0	0	0	0	0	0	1	0	0	1	0
E Grand Blvd & Quarry St	1965	3	-0.15	13	0	0	1	0	2	1	0	1	0	1	0	0	0	0	1	0	0	1	0

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Corporate Terrace St & Sampson Ave	1974	3	-0.11	3	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
S Ramona Ave & E 4th St	1986	3	0.26	2	0	0	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	1
S Main St & S Main St	1996	3	-0.15	3	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	1	2	1
S Belle Ave & W 4th St	1998	3	0.17	3	0	0	0	0	3	1	0	0	0	2	0	0	0	0	2	0	1	1	0
S Victoria Ave & E 3rd St	2019	3	-0.10	13	0	0	1	0	2	2	0	0	0	0	0	0	0	1	0	0	0	0	0
S Merrill St & W 3rd St	2039	3	-0.07	3	0	0	0	0	3	0	2	0	1	0	0	0	0	0	0	0	0	3	0
S Cota St & W 2nd St	2076	3	0.44	3	0	0	0	0	3	1	1	0	0	1	0	0	0	0	0	0	0	2	1
S Buena Vista Ave & W 2nd St	2082	3	-0.09	3	0	0	0	0	3	1	1	1	0	0	0	0	0	0	1	0	0	0	0
Garfield Ave & D St	2085	3	-0.06	3	0	0	0	0	3	0	2	0	1	0	0	0	0	0	0	0	0	1	0
N Sherman Ave & Pomona Rd	2120	3	-0.07	27	0	0	2	1	0	2	0	0	0	1	0	0	0	0	0	0	1	1	0
Ramona Ave & E Grand Blvd	2123	3	-0.15	13	0	0	1	0	2	2	0	0	0	1	0	0	0	0	0	0	0	2	0
N Main St & E Blaine Ave	2134	3	-0.16	13	0	0	1	0	2	0	0	2	0	0	0	0	1	0	2	0	0	2	0
N Smith Ave & Commerce St	2148	3	-0.13	8	0	0	0	1	2	0	2	1	0	0	0	0	0	0	1	0	0	0	1
Termino St & Cresta Rd	2152	3	-0.12	3	0	0	0	0	3	0	0	1	0	2	0	0	0	0	1	0	0	2	1
N Sheridan St & W Blaine St	2167	3	0.04	3	0	0	0	0	3	0	1	0	0	2	0	0	0	0	0	1	1	2	1
S Ramona Ave & E Harrison St	2176	3	-0.10	8	0	0	0	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0
Business Center Dr & Commerce St	2186	3	0.44	13	0	0	1	0	2	0	0	2	0	1	0	0	0	0	1	0	0	0	0
N Maple St & Commerce St	2210	3	-0.09	8	0	0	0	1	2	1	1	0	0	1	0	0	0	0	0	0	1	1	1
Adams Cir & Railroad St	2232	3	-0.13	18	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0
Ventura Ave & Cresta Rd	2244	3	-0.12	8	0	0	0	1	2	1	1	0	0	1	0	0	0	0	0	0	0	0	1

Intersection	FID_2	Crashes	Local CCR Differential[1]	EPDO[2]	*Fatal*	*Serious Injury*	*Other Visible Injury*	*Complaint of Pain*	*PDO*	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Sherman Ave & Railroad St	2268	3	-0.13	13	0	0	1	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0
Mondale St & Griffin Way	2271	3	-0.03	3	0	0	0	0	3	0	0	1	0	2	0	0	0	0	0	0	0	2	0
Elizabeth Ln & Railroad St	2279	3	-0.14	13	0	0	0	2	1	0	0	0	0	1	2	0	0	0	1	2	0	2	1
Berkley Cir & Griffin Way	2307	3	0.44	13	0	0	1	0	2	0	1	0	1	1	0	0	0	0	0	0	0	2	0
Shopping Ctr & N McKinley St	2313	3	0.16	8	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Shenandoa Rd & Promenade Ave	2315	3	-0.14	13	0	0	1	0	2	1	0	0	0	1	0	0	0	0	1	0	0	2	0
Richey St & Griffin Way	2319	3	-0.12	23	0	0	1	2	0	1	0	2	0	0	0	0	0	0	1	1	0	0	0
N Cota St & Harrington St	2340	3	-0.11	3	0	0	0	0	3	1	2	0	0	0	0	0	0	0	1	0	0	0	0
N Smith Ave & Butterfield Dr	2390	3	-0.15	27	0	0	2	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0
N Main St & Cota St	2391	3	-0.15	3	0	0	0	0	3	0	1	1	0	1	0	0	0	0	1	0	0	1	0
Penrose Dr & Kalus Ave	2430	3	0.44	3	0	0	0	0	3	0	1	0	2	0	0	0	0	0	0	0	0	1	0
River Rd & Samar Ct	2454	3	-0.15	3	0	0	0	0	3	1	1	0	0	0	0	0	0	0	1	0	0	2	1
Vista Real St & Cabana Ct	2568	3	0.44	13	0	0	0	2	1	0	1	0	0	2	0	0	0	0	0	0	2	3	0
Parkview Dr & Aztec Ln	2727	3	-0.07	13	0	0	1	0	2	1	1	0	0	1	0	0	0	0	0	0	1	1	0

1. Local Critical Crash Rate Differential
2. Equivalent Property Damage Only Crashes

Table – Analysis Results: Roadway Segments

Facility	FID_2	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	*Complaint of Pain*	*PDO*	Broadside	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Principal Arterial																				
W 6th St	3768	Smith Ave - Sherman Ave	**49**	2.52	576	5	9	5	9	1	1	0	0	5	0	8	0	4	5	1
W 6th St	3638	Sherman Ave - Lincoln Ave	**44**	2.02	262	3	26	8	17	1	5	0	0	0	0	16	1	3	10	2
N Main St	4182	Parkridge Ave - River Rd	**23**	1.05	78	7	14	10	2	2	6	0	0	0	0	2	0	2	8	5
Ontario Ave	1214	California Ave - I-15 Ramps	**19**	1.03	34	3	16	2	8	0	2	0	1	0	0	6	0	1	3	1
Green River Rd	3663	Dominguez Ranch Rd - Palisades Dr	**17**	0.18	42	5	12	6	4	0	3	0	0	0	1	4	0	0	8	4
Ontario Ave	1573	Lester Ave - Rimpau Ave	**14**	0.50	202	1	10	4	1	0	5	0	0	1	0	1	0	1	6	0
W 6th St	3626	Sierra Vista St - Lincoln Ave	**10**	0.72	204	4	4	1	4	0	0	0	3	1	3	3	1	1	2	0
N Main St	4021	Harrison St - Rincon St	**10**	0.44	40	2	6	4	3	0	1	0	1	0	1	4	0	0	1	1
Magnolia Ave	2071	Kellogg Ave - Fullerton Ave	**7**	-0.15	181	2	4	2	4	0	0	0	1	0	1	4	0	1	1	1
Sixth St	3421	Compton Ave - Magnolia Ave	**7**	-0.11	7	0	7	0	2	0	4	0	0	0	0	2	0	1	2	0
W Ontario Ave	1992	S Main St - S Belle Ave	6	0.26	36	4	1	6	0	0	0	0	0	0	0	0	0	0	0	0
Green River Rd	3033	Ridgeline Dr - Serfas Club Dr	6	0.00	184	1	3	4	2	0	0	0	0	0	0	4	1	1	2	0
Lincoln Ave	3730	6th St - 5th St	6	0.09	21	1	4	1	1	0	2	0	1	0	0	1	0	1	1	0
Magnolia Ave	1660	S Main St - Rosser Dr	5	0.02	5	0	5	1	1	1	1	0	1	0	0	1	0	0	2	0
Ontario Ave	1695	Fullerton Ave - Rimpau Ave	5	-0.25	25	2	2	0	2	0	3	0	0	0	0	3	0	2	2	1
Mary Clarke St	1955	Leah Naomi Way - Shanna Carle Dr	5	-0.19	20	1	3	0	3	1	0	0	0	1	1	3	0	0	2	0
Magnolia Ave	3380	Magnolia Ave - S Temescal St	5	-0.19	15	2	3	2	0	0	1	1	0	0	0	0	0	0	3	1
W 6th St	3596	S Vicentia Ave - S Buena Vista Ave	5	0.08	184	3	1	0	3	0	0	0	0	2	2	4	0	0	0	0
E 6th St	3452	E Grand Blvd - Gianni Dr	4	-0.29	28	1	1	0	2	1	0	0	0	0	0	2	0	0	2	0
Magnolia Ave	2452	Mount Wilson - Rimpau Ave	3	-0.36	18	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0
Magnolia Ave	3612	Moody St - Neece St	3	-0.35	8	1	2	0	0	1	2	0	0	0	0	0	1	0	2	0
W 6th St	3752	Pso Grande - 6th St	3	-0.18	3	0	3	1	1	0	0	0	0	0	0	1	0	0	1	0
N Main St	4074	E Rincon St - W Rincon St	3	-0.26	8	1	2	0	0	0	1	0	0	0	0	0	2	0	0	0
N Main St	4245	Cota St - Cota St	3	-0.36	8	1	2	0	0	0	1	0	0	1	1	1	0	0	2	1

Facility	FID_2	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	*Complaint of Pain*	*PDO*	Broadside	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Minor Arterial																				
Ontario Ave	1239	I-15 NB Ramp - State St	**30**	3.63	110	10	17	25	2	1	0	0	0	0	0	2	0	0	1	5
Hidden Valley Pkwy	4854	Parkridge Ave - Via Blairo	**16**	0.22	51	3	11	1	1	0	12	0	0	0	2	6	0	1	5	8
W Foothill Pkwy	1269	Olivewood st - Foothill Parkway	**12**	0.92	47	5	6	4	2	0	4	0	1	1	0	2	0	1	2	0
Promenade Ave	3689	Sampson Ave - Cresta Rd	**11**	0.42	200	3	6	2	2	1	3	0	1	0	0	3	0	1	7	1
California Ave	1208	Taber Rd - Ontario Ave	**10**	1.36	194	2	6	5	1	2	0	0	0	1	1	0	0	1	0	1
McKinley St	4298	Promenade Ave - Corona Hills Plaza	**8**	0.25	17	2	5	0	4	0	2	0	0	0	0	3	0	0	3	0
10th St	3219	Lincoln Ave - Border Ave	**7**	0.19	31	1	4	3	1	0	2	0	0	0	0	2	1	0	5	0
N Lincoln Ave	4096	Railroad Ave - Rincon Rd	**7**	-0.02	344	2	3	0	1	2	2	0	0	1	0	1	0	0	4	1
Serfas Club Dr	3311	Redrock Dr - Serfas Club Dr	**6**	0.20	16	2	4	0	0	0	5	0	0	0	0	1	0	0	3	0
E Parkridge Ave	4244	Cota St - Corona Ave	**6**	0.44	11	1	5	4	2	0	0	0	0	0	0	2	0	0	1	0
Hidden Valley Pkwy	4900	Via Blairo - Yasment St	**6**	0.34	16	2	4	0	3	0	3	0	0	0	0	4	0	0	3	3
Lynwood Cir	1990	Ridgewood Dr	**5**	0.32	25	2	2	4	1	0	0	0	0	0	0	1	0	1	1	1
Temescal Canyon Rd	488	Temescal Canyon Rd - Cajalco Rd	**4**	-0.18	23	0	2	1	0	0	2	0	0	0	0	0	0	0	1	0
Fullerton Ave	2248	Boon Pl - Ridgewood Dr	**4**	0.12	14	2	2	3	0	0	1	0	0	0	0	0	0	0	1	0
Via Pacifica	2740	Mayfair Dr - Mahogany St	**4**	0.41	188	2	0	2	0	0	0	0	1	1	1	0	0	0	1	1
Railroad St	4133	N Sherman Ave - N Smith Ave	**4**	-0.07	9	1	3	1	0	1	2	0	0	0	0	1	0	0	1	0
E Parkridge Ave	4232	E Parkridge Ave - Mesa Dr	**4**	0.15	168	0	3	0	1	0	3	0	0	0	0	0	0	1	3	2
N Smith Ave	4262	Railroad St - Davril Cir	**4**	0.17	14	0	3	1	2	0	0	0	0	0	0	2	0	0	2	0
River Rd	5002	Auburndal St - Springbrook St	**4**	-0.10	4	0	4	1	1	0	0	0	0	0	0	0	0	0	1	1
E Foothill Pkwy	762	Lester Ave - Countryside Ln	**3**	-0.26	3	0	3	0	0	0	3	0	0	0	0	1	0	0	2	0
Fullerton Ave	2510	Magnolia Ave - Cottonwood St	**3**	-0.20	3	0	3	2	1	0	0	0	0	0	0	0	0	0	1	0
S Lincoln Ave	2937	Topaz St - W Burr St	**3**	-0.21	8	1	2	0	3	0	0	0	0	0	0	0	1	1	1	0
Promenade Ave	3422	E 6th St - E Bentley*	**3**	-0.13	3	0	3	1	1	0	1	0	0	0	0	2	0	0	0	0
S Sheridan St	3905	2nd St - 3rd St	**3**	0.11	3	0	3	1	1	0	0	0	0	0	0	1	0	0	1	0
N Smith Ave	4083	Wall Cir - N Maple St	**3**	-0.09	2	0	2	1	1	1	0	0	0	0	0	1	0	0	0	0
Joy St	4171	Rincon St - Parkridge Ave	**3**	-0.08	8	1	2	0	1	0	2	0	0	0	0	0	1	1	1	0

Facility	FID_2	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	*Complaint of Pain*	*PDO*	Broadside	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
River Rd	4183	W Rincon St - Headwater Rd	**3**	-0.16	13	0	2	1	1	0	0	0	0	0	0	1	0	0	1	0
Railroad St	4219	N Grant Ave - N Sherman Ave	**3**	0.02	2	0	2	1	0	0	0	0	0	0	0	1	0	0	2	0
N Lincoln Ave	4683	Foxtail Dr - N Lincoln Ave	**3**	-0.21	13	0	2	0	2	1	0	0	0	0	0	2	0	0	1	0
Collector																				
W Rincon St	4496	Smith Ave - Stagecoach Dr	**16**	0.33	31	3	13	3	4	1	6	0	1	0	0	6	0	3	4	0
California Ave	1634	Carbide Dr - Ontario Ave	**8**	0.88	33	3	4	5	0	1	0	0	0	0	0	0	0	0	0	0
Compton Ave	1771	Graphite Dr - Carbide Dr	**8**	0.90	196	1	4	4	0	0	2	0	0	0	1	1	0	0	0	0
Via del Rio	2847	Border Ave - Hampton Ct	**8**	3.84	23	1	6	0	1	1	6	0	0	0	0	1	0	6	6	0
Pomona Rd	3910	S Maple St - Bonnie Cir	**7**	1.99	7	0	7	1	2	0	4	0	0	0	0	2	0	0	0	3
Pomona Rd	4031	Smith Ave - Bus Center	**7**	0.99	27	2	4	3	1	1	1	0	0	0	0	1	1	0	0	0
Griffin Way	4351	Mondale St - McKinley St	**7**	1.15	27	4	3	5	0	1	1	0	0	0	0	0	0	1	1	1
Rimpau Ave	2763	Birch St - Magnolia Ave	**6**	0.66	21	3	3	3	0	1	0	1	0	0	0	0	0	0	0	0
Palisades Dr	3413	Palisades Ave - Bayberry St	**6**	1.14	16	2	4	0	0	1	4	0	0	0	0	3	0	0	2	3
D St	3876	Grant Ave - Sherman St	**6**	1.71	21	1	4	2	1	1	0	0	0	0	0	1	0	0	2	2
Border Ave	2218	Carowood Dr - Tilson Cir	**5**	0.06	5	0	5	0	2	0	0	0	0	0	0	2	0	0	1	0
Atwood Dr	4389	Palomar Dr	**5**	2.26	24	0	3	0	0	0	5	0	0	0	0	3	0	2	4	0
Eagle Glen Pkwy	175	Masters Dr - Cajalco Rd	**3**	-0.20	3	0	3	0	0	0	1	0	0	0	0	1	0	0	0	0
Valencia Rd	735	Grovedale St - Broadleaf Dr	**3**	0.64	18	1	1	0	0	1	2	0	0	0	0	1	0	0	1	0
Lafayette Cir	1613	Lancaster Ln	**3**	5.36	13	2	1	0	2	0	1	0	0	0	0	2	0	1	1	0
Old Temescal Rd	1870	California Ave - Compton Ave	**3**	1.04	3	0	3	0	0	0	2	0	0	0	0	0	0	0	2	0
Border Ave	3108	Thornwood Way - S Smith Ave	**3**	-0.11	13	0	2	1	0	0	2	0	0	0	0	0	0	0	1	0
Circle City Dr	3206	Rimpau Ave - el Sobrante Rd	**3**	0.34	8	1	2	1	0	0	0	0	0	0	0	0	0	0	1	0
Garfield Ave	3911	D St - Garfield Ave	**3**	0.40	8	1	2	1	1	0	1	0	0	0	0	2	0	0	0	0

Facility	FID_2	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	*Complaint of Pain*	*PDO*	Broadside	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Mariah City Cir	4042	Melissa Ct	**3**	-0.10	8	1	2	1	1	0	0	0	1	0	0	1	0	0	0	0
Cresta Rd	4102	Shadow Oa* - Ripchak Rd	**3**	-0.18	3	0	3	0	1	0	0	0	0	0	0	0	1	0	0	1
Local																				
Frontage Rd	3741	Via Santiago - Paseo Grande	**8**	15.46	33	5	3	4	0	0	2	0	0	0	0	0	0	0	2	0
Pomona Rd	3984	Lincoln Ave - Buena Vista Rd	**8**	8.22	13	1	7	1	0	0	4	0	0	0	0	2	0	1	4	0
Kilworth Dr	826	Main St - Belvedere Rd	**4**	8.03	4	0	4	0	0	0	0	0	0	4	0	0	0	0	4	0
Macbeth Ave	1833	Winthrop Rd - End	**3**	7.86	8	1	2	1	0	0	1	0	0	0	0	0	0	0	1	0
Camelot Dr	2796	Border Ave - Chalgrove St	**3**	3.32	18	1	1	0	1	0	1	1	0	0	0	0	0	0	1	0
Jadestone Ln	2979	Beryl Ln - Jadestone Ln	**3**	2.16	3	0	3	1	1	0	0	0	0	0	0	0	0	2	1	0
W 5th St	3690	Lincoln Ave - Sierra Vista St	**3**	9.79	13	0	2	0	0	0	2	0	0	1	0	1	0	0	1	0
Wardlow Rd	3908	Serfas Club Dr - Colonial Dr	**3**	1.78	167	0	2	0	1	0	1	0	0	1	0	1	0	0	1	0

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes