ATTACHMENT 2

Local Road Safety Plan (LRSP)

City of Arroyo Grande

Final Draft Report

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Acknowledgements

A special thanks to all the Safety Partners that contributed to this plan.

City of Arroyo Grande

Mayor and Council Members

Community Development Department

Police Department

Public Works Department

Five Cities Fire Authority

San Luis Obispo County

City of Grover Beach

City of Pismo Beach

Caltrans, District 5

Lucia Mar Unified School District

Safe Routes to School Coordinator

San Luis Obispo Bike Club

Bike SLO County

Executive Summary

The Local Road Safety Plan (LRSP) is a traffic safety planning document for local agencies to address unique roadway safety needs in their jurisdictions. This comprehensive document will both help to guide the City's implementation of safety countermeasures and allow eligibility for funding in future HSIP grant applications.

Preparing an LRSP facilitates local agency partnerships and collaboration, resulting in a prioritized list of improvements and actions that contribute to California's Strategic Highway Safety Plan (SHSP) overall vision and goals. This SHSP focuses on reducing fatal and severe injury collisions with focused challenge/emphasis areas. The LRSP is a collaborative process that will build on the collision analysis from the Systemic Safety Analysis Report (SSAR) with a local leadership stakeholder group that represents the 5 E's (shown below) and guides the formation of the plan.

The LRSP helps to address the 5Es of traffic safety: Engineering, Enforcement, Education, Emergency Services, and Emerging Technologies.

In 2016, Arroyo Grande was awarded funding from Caltrans for the Systemic Safety Analysis Report Program (SSARP) for analysis of the City's entire roadway system. Per the upcoming HSIP Cycle 11 requirements, the City of Arroyo Grande added a Local Road Safety Plan to the process to be eligible for future funding.

This holistic approach of engaging stakeholders and the community in the development, allows certain areas of concern not showing a crash pattern to be analyzed. Also, it fosters local, state, and agency partnerships to advance local road safety.

In following the overall LRSP process, a Stakeholder Working Group (Working Group) was formed with the City as the lead with participation from local organizations from the 5 E's and anyone with an interest in improving the City's roadway safety. This group gathered for meetings to discuss the overall collision analysis, goals, priorities, safety recommendations, and overall development of the safety plan. In addition, after completion of the plan, support letters were provided by Caltrans and Lucia Del Mar Unified School District (see Appendix A).

Based on the Working Group Meetings, this LRSP will address multiple SHSP Challenge Areas including but not limited to:

1. Bicyclists
2. Intersections

3. Pedestrians
4. Distracted Driving
5. Aggressive Driving/Speeding

In addition, the vision, mission statement, and goals were established in guiding the development of the LRSP. It was also decided that the LRSP for the City of Arroyo Grande would be a living document with official updates every five (5) years.

Based on the input from the Working Group, this LRSP recommends the following strategies for the focused study locations and Citywide systemic applications for the 5 E's of Traffic Safety.

1. Engineering: Apply low-cost safety countermeasures at current locations experiencing collisions and systemically at locations with similar risks (comprehensive approach).
2. Enforcement: Enforce actions that reduce high-risk behaviors to include speeding, distracted roadway usage, and Driving Under the Influence (DUI).
3. Education: Educate all road users on safe behaviors.
4. Emergency Response: Improve emergency response times and actions.
5. Emerging Technologies: Utilize emerging technologies in conveying and collecting information from the roadway users in an effort to improve safety and operations.

In addition, it is important to understand the upcoming funding opportunities in the successful implementation of these safety projects.

Funding opportunities include but not limited to:

1. Highway Safety Improvement Program (HSIP) – Call typically every 2 years. Last call (cycle 10) started in April 2020 and ended November 2, 2020 (extended due to COVID-19)
    a. Next call HSIP Cycle 11 is schedule to start in April 2022
2. Active Transportation Program (ATP)
    a. Next call for funding projects is scheduled to start in March 2022
3. Safe Routes to School grants
4. Congestion Mitigation and Air Quality (CMAQ) program
5. Sustainable Transportation Planning Grant (Sustainable Communities)
6. Other funding sources are Senate Bill 1 (SB 1) and Federal Highway Administration

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List of Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
APS	Accessible Pedestrian Signal
ATP	Active Transportation Program or Plan
AWSC	All Way Stop Control
BCR	Benefit to Cost Ratio
BUI	Biking Under the Influence
CA MUTCD	California Manual on Uniform Traffic Control Devices
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
DUI	Driving Under the Influence
EPDO	Equivalent Property Damage Only
FHWA	Federal Highway Administration
FSI	Fatal or Severe Injury
HSIP	Highway Safety Improvement Program
HSM	Highway Safety Manual
LRSM	Local Roadway Safety Manual
LRSP	Local Road Safety Plan
RRFB	Rectangular Rapid Flashing Beacon
SHSP	Strategic Highway Safety Plan
SSAR	Systemic Safety Analysis Report
SWITRS	Statewide Integrated Traffic Records System
TIMS	Transportation Injury Mapping System
TWLTL	Two-Way Left Turn Lane
TWSC	Two Way Stop Control

1. Introduction

In 2016, the City of Arroyo Grande was successful in receiving a Systemic Safety Analysis Report Program (SSARP) grant from Caltrans' Local Assistance. Per the City's leadership direction and upcoming requirements for HSIP grant funding, a Local Road Safety Plan was appended to this effort. The LRSP builds off the safety analysis and engineering performed in the Systemic Safety Analysis Report (SSAR) to create a comprehensive and holistic Citywide safety plan.

The LRSP is a data-driven process similar to the process for the SSAR except a LRSP has a local leadership group that represents the 5 E's (Engineering, Enforcement, Education, Emergency Response, and Emerging Technologies) to guide the development of the plan.

The LRSP included a Citywide analysis of the roadway system in Arroyo Grande comprising the current collisions patterns and high-risk roadway characteristics (systemic analysis), and recommended safety improvements for the other E's. Furthermore, the City of Arroyo Grande's goal is to identify safety countermeasures to help mitigate the City's primary crash trends, reduce the overall collision severity, and identify locations with higher safety risks that do not currently experience a collision issue but could benefit from safety improvements.

The Federal Highway Administration's LRSP development process is shown in **Figure 1**. At the kick-off meeting the leadership team was established to guide the development of the Local Road Safety Plan.

Figure 1 The LRSP Development Process

Robin Dickerson, City Engineer, was identified as the Safety Champion/Lead for this project, working with a stakeholder working group that represented the other E's (enforcement, education, emergency response, and emerging technologies) and other important safety partners. This stakeholder working group was paramount in creating a comprehensive safety plan that is tailored to address local needs and issues.

2. Background

2.1 Purpose and Need

The City of Arroyo Grande has a current population of approximately 18,000 and is part of the 5 Cities region in San Luis Obispo County. The 5 Cities region is made up of Arroyo Grande, Pismo Beach, Grover Beach, Oceano, and Shell Beach with a total population of approximately 48,000. Arroyo Grande has a mix of local, commuter, and recreational traffic with a variety of different road users including passenger cars, heavy vehicles (buses, large trucks, and farming equipment related to the agricultural industry), bicyclists, pedestrians, and transit. In addition, this LRSP document will compliment the recently adopted Circulation Element's core value "to provide safe and easy travel within and through the City for pedestrians, bicyclists, and motor vehicles correlated with the Land Use Element."

Focusing on the roadway safety needs, the stakeholder group evaluated five (5) years of collision data from the SSAR (2014-2018) and an additional two (2) years (2019-2020) of data. From 2014 to 2020, there were 5 fatal and 18 severe injury collisions on City streets.

Collision severity for fatal and severe injury (FSI) collisions in years 2014-2020 is shown in **Table 1**. During the study period, year 2019 had the most FSI collision (2 fatal and 6 severe injuries, 8 total FSI). Followed by, 2017 with the second highest FSI collisions (1 fatal and 5 severe injuries, 6 total FSI). All other years during the study period had three (3) or less FSI collisions.

Table 1 Fatal and Severe Injury Collisions on City Roads (2014 – 2020)

Year	Severity	Location	Type	Violation Category	Other Information
2015	Sev. Inj	N Oak Park Blvd and El Camino Real	Broadside	Traffic Signals and Signs	-
2015	Sev. Inj	E Branch St, 11 ft east of Garden St	Broadside	Other Hazardous Violation	Bike collision
2016	Sev. Inj	James Way and N Oak Park Blvd	Broadside	Traffic Signals and Signs	-
2017	Sev. Inj	E Grand Ave and Courtland St	Broadside	Traffic Signals and Signs	-
2017	Sev. Inj	100 E Branch St	Vehicle-Pedestrian	Pedestrian Violation	Pedestrian was crossing not in a crosswalk
2017	Sev. Inj	E Branch St and Le Point Terrace	Head On	Wrong Side of Road	-
2017	Sev. Inj	S Halcyon Rd and The Pike	Broadside	Automobile Right of Way	-
2017	***Fatal***	***E Branch St and Short St***	***Vehicle-Pedestrian***	***Pedestrian Right of Way***	***Pedestrian was crossing in a crosswalk at the intersection***
2017	Sev. Inj	1105 El Camino Real	Head On	Improper Turning	-
2018	Sev. Inj	E Branch St, 298 ft east of Garden St	Head On	Unsafe Lane Change	-
2018	***Fatal***	***El Camino Real, 770 ft east of Oak Park Blvd***	***Hit Object***	***Improper Turning***	***Single Vehicle - Driver was intoxicated***
2018	***Fatal***	***E Grand Ave and Bell St***	***Vehicle-Pedestrian***	***Pedestrian Violation***	***Pedestrian was crossing not in a crosswalk***
2019	Sev. Inj	E Grand Ave and N Courtland Rd	Vehicle-Pedestrian	Unknown	Pedesrian was in the road, including the shoulder
2019	***Fatal***	***El Camino Real, 319 ft south of Bennett Ave***	***Hit Object***	***DUI***	***Motorcycle collision***
2019	Sev. Inj	300 E Grand Ave	Broadside	Automobile Right of Way	-
2019	Sev. Inj	E Grand Ave and Elm St	Vehicle-Pedestrian	Pedestrian Right of Way	Pedestrian was crossing in a crosswalk at the intersection
2019	Sev. Inj	Valley Rd, 530 ft south of Fair Oaks Ave	Sideswipe	Unknown	Motorcycle collision
2019	Sev. Inj	S Traffic Way, 21 ft south of Poole St	Other	Unknown	Bike collision
2019	***Fatal***	***495 Valley Rd***	***Hit Object***	***DUI***	***Single Vehicle***
2019	Sev. Inj	Corbett Canyon Rd, 52 ft south of Corral Pl	Rear End	Unsafe Speed	Motorcycle collision
2020	Sev. Inj	Ash St and Courtland St	Hit Object	DUI	-
2020	Sev. Inj	E Grand Ave and El Camino Real	Vehicle-Pedestrian	Unknown	Pedestrian was crossing not in a crosswalk
2020	Sev. Inj	Huasna Rd and Stagecoach Rd	Sideswipe	Improper Passing	Motorcycle collision

The collision type and violation category are presented in **Table 1** above. The primary collision types for FSI collisions are broadside and vehicle-pedestrian collisions. The primary violation categories for FSI collisions are DUI/BUI, Traffic Signal/Signs violations, and Unknown.

2.2 Guiding Documents

In developing the City of Arroyo Grande LRSP, the following standards and guidelines were followed:

- "Local Roadway Safety, A Manual for California's Local Road Owners", Caltrans, Version 1.5, April 2020.
- 2020-2024 California's Strategic Highway Safety Plan (SHSP), "California Safe Roads: 2020-2024 Strategic Highway Safety Plan", Caltrans.
- "Developing Safety Plans, A Manual for Local Rural Road Owners", Federal Highway Administration, March 2012.
- "Highway Safety Manual", American Association of State Highway Officials (AASHTO), 1st Edition, 2014 supplement.
- "California Manual of Uniform Traffic Control Devices (CA MUTCD)", Revision 5, 2014.

2.3 Methodology

The LRSP methodology followed the FHWA's LRSP development process as shown in **Figure 2**.

Below is a roadmap created by the Federal Highway Administration to show the primary steps used to create the Local Road Safety Plan:

1. **Identify Stakeholders**
    a. *Working Group was formed, incorporating members representing the 5 E's and other interested representatives.*
2. **Use Safety Data**
    a. *Past 7 years (2014-2020) of collisions were analyzed with discussion of other high-risk locations.*
3. **Choose Proven Solutions**
    a. *FHWA Proven Countermeasures and Caltrans safety countermeasures were used in mitigation collision trends and risk characteristics.*
4. **Implement Solutions**
    a. *Projects were identified for specific locations and systemically.*

Figure 2 FHWA's LRSP Development Map

Source: Federal Highway Administration

3. Safety Partners and Stakeholders

At the project kick off meeting, the different safety partners to engage in the LRSP Stakeholder Working Group were discussed. These stakeholders included City representatives from various departments (Community Development, Public Works, and Police), fire, school district, bicycle and pedestrian groups, and roadway jurisdictional partners. Based on the City's connections and current working relationship with the identified stakeholders, the working group formation was led by the City.

The LRSP Stakeholder Working Group included the following representatives:

- City of Arroyo Grande
- Caltrans, District 5
- County of San Luis Obispo
- City of Pismo Beach
- City of Grover Beach
- Arroyo Grande Police Department
- Five Cities Fire Authority
- Lucia Mar Unified School District
- San Luis Obispo Bike Club
- Bike SLO County

GHD worked with the City staff and the LRSP working group to come up with a vision, mission statement, and goals that support California's State Highway Strategic Plan (SHSP). The goals developed through this process aim for results consistent with the City's vision for safety and are realistic, achievable, and measurable. Identified future projects will aim to meet these goals. In addition, Caltrans and Lucia Mar Unified School District provided support letters for the LRSP. These letters are in **Appendix A: Stakeholder and Public Input**.

3.1 LRSP Stakeholder Working Group Meetings

Four meetings were held with the stakeholder working group. Two meetings were held in person pre-COVID and two meetings were held virtually, post-COVID. The meeting dates and summaries were as follows:

1. December 13, 2019 – In person meeting
    a. Discussed the overall LRSP process, working group member's safety priorities, past 5 years of collisions (City and Caltrans roadways), vision, goals, and priorities.
2. January 30, 2020 – In person meeting
    a. Reviewed summary of first meeting, discussed further collision analysis with priority locations, recent developments, safety countermeasures and projects, refined LRSP's guiding principles, and coordinated next steps.
3. February 9, 2021 – Virtual Meeting

a. Summarized first two meetings and process status, safety countermeasures and priority locations, finalized Mission Statement, Vision, and Goals, and discussed public outreach.

4. April 9, 2021 – Virtual Meeting

    a. Discussed next steps with the Draft LRSP plan, public outreach comments, and 2019-2020 fatal and severe injury collisions, current and planned safety projects, and overall recommendations for safety countermeasures.

3.2 SHSP Challenge Areas

The LRSP will complement California's SHSP 2020-2024. The California SHSP identifies 16 challenge areas as shown in **Figure 3** below. These challenge areas are recommended emphasis areas in the development of the plan.

Figure 3 SHSP Challenge Areas

Based on the LRSP Stakeholder Working Group Meetings, this LRSP will address multiple Strategic Highway Safety Plan (SHSP) Challenge Areas including:

1. Bicyclists
2. Intersections
3. Pedestrians
4. Distracted Driving
5. Aggressive Driving/Speeding
6. Emerging Technologies
7. Emergency Response

3.3 Guiding Principles

The members of the stakeholder working group established the vision, mission statement, and goals that guided the development of the document. Ideally, this document will help the City move toward Vision Zero. Vison Zero is a strategy which strives to eliminate all traffic fatalities and severe

injuries, while increasing safe, healthy, and equitable mobility for all. Traditionally traffic fatalities and severe injuries have been considered inevitable side effects of modern life. The reality is that these tragedies can be addressed over time by taking a proactive, preventative approach that prioritizes traffic safety as a public health issue. To do so, bicycle and pedestrian safety will be prioritized by focusing on uncontrolled crossing improvements and public education.

3.3.1 Vision

The vision statement describes what the Local Road Safety Plan is trying to achieve.

Arroyo Grande will strive toward the elimination of all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all.

3.3.2 Mission Statement

The mission statement defines the purpose of the plan, what it does, and what it is about. The mission statement was developed in collaboration with the stakeholder working group.

To reduce the number of fatalities and serious injuries occurring on Arroyo Grande's roadway system for all modes of travel in facilitating a safe, sustainable, and efficient movement of people and goods while promoting walking, encouraging bicycling, and supporting transit.

3.3.3 Goals

Safety goals were development for the Local Road Safety Plan. It is important to capture realistic goals that can evolve over time. The LRSP's goals were created based on the City's needs.

Plan Goals

- Reduce the potential for fatal and severe injury collisions Citywide
- Reduce the potential for rear end collisions Citywide
- Reduce the potential for bicycle and pedestrian collisions Citywide
- Improve the health and vitality of our community with a safety plan that encourages safety for pedestrians and bicyclists targeted to Arroyo Grande's local roadway needs
- Improve safety around schools with a connected multimodal system and improved crossings
- Increase walking, biking, rolling (stroller, walker, wheelchair, skateboard, scooter, etc.) to the downtown district, to work, and to school

- Improve safety at uncontrolled crossings
- Increase driver and pedestrian education
- Reduce distracted driving
- Improve bike safety with additional bikeways and green bike lanes for vehicle to bicycle conflict areas
- Increase traffic enforcement
- Receive grant funding for LRSP identified projects

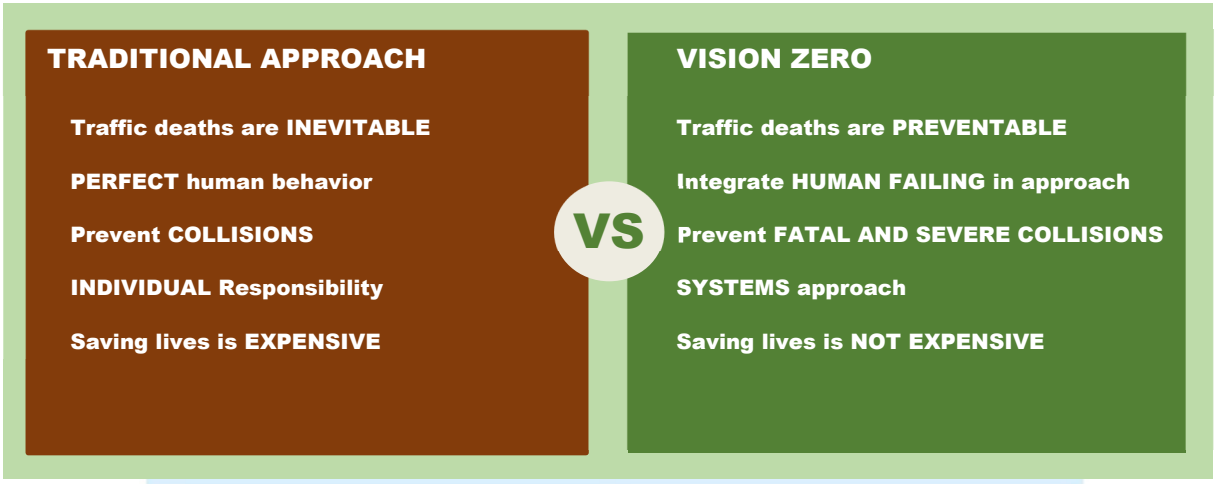
3.3.4 Vision Zero

Vision Zero is a significant departure from the status quo in two major ways:

- Vision Zero recognizes that people will sometimes make mistakes, so the road system and related policies should be designed to minimize those inevitable mistakes and reduce their likeliness to result in severe injuries or fatalities. This means that system designers and policymakers are expected to improve the roadway environment, policies (such as speed management), and other related systems to lessen the severity of crashes. Roadway users are however still responsible for their mistakes and should follow all applicable laws and use reasonable judgement when conducting themselves within the public right of way.
- Vision Zero is a multidisciplinary approach, bringing together diverse and necessary stakeholders to address this complex problem. In the past, meaningful, cross-disciplinary collaboration among local traffic planners and engineers, policymakers, and public health professionals has not occurred consistently. Vision Zero acknowledges that many factors contribute to safe mobility -- roadway design, speeds, behaviors, technology, and policies -- and sets clear goals to achieve the shared goal of zero fatalities and severe injuries.

Figure 4 provides a comparison of the traditional approach versus the Vision Zero approach.

Figure 4 Traditional Approach vs. Vision Zero



3.3.5 Safe Systems Approach

In providing a comprehensive approach to safety, the Safe System approach is to design our vehicles and infrastructure in a manner that anticipates human error and accommodates human tolerances with a goal of reducing fatal and serious injuries. The following framework is intended to assist the vehicle and infrastructure communities in making decisions in alignment with Safe System principles. Implementing and selecting safe system practices and design will incrementally improve safety over time.

The Institute of Transportation Engineers (ITE) defines the safe systems approach and framework as the following:

"The Safe System approach differs from conventional safety practice by being human-centered, i.e. seeking safety through a more aggressive use of vehicle or roadway design and operational changes rather than relying primarily on behavioral changes – and by fully integrating the needs of all users (pedestrians, bicyclists, older, younger, disabled, etc.) of the transportation system. Safe Systems provide a safety-net for the user by:

1. Anticipating Human Error – A Safe System is designed to anticipate and accommodate errors by drivers and other road users.

2. Accommodating Human Injury Tolerance – A Safe System is designed to reduce or eliminate opportunities for crashes resulting in forces beyond human endurance."

Adopting a Safe System approach does not absolve users of their responsibility. Other safety practices such as speed management strategies, driver education, enforcement, and effective emergency response will remain essential to improving road safety. With the passing of Assembly Bill (AB) 43, there will be flexibility in setting speed limits.

3.3.5.1 Assembly Bill (AB) 43

AB 43 was signed into law by Governor Newsom on October 8, 2021. The City is reviewing AB 43 and how it will be applied locally to address traffic safety. This bill will change several aspects of speed setting and enforcement in California with a goal to make roadways safer for all road users. The new law is set to go into effect by June 30, 2024 with certain parts coming into law as soon as January 2022. AB 43 allows agencies more flexibility with keeping the previous speed limit, allows business and residential districts to have 15 and 20 mph speed limits, and allows the agency to round down the proposed speed limit based on an engineering study that finds the roadway is similar (no additional lanes added) or if there is a high presence of bicycles or pedestrians.

4. Analyze Safety Data

4.1 Recent/Planned Safety Projects

During the development of the plan, various safety projects were already implemented or planned in the City of Arroyo Grande. **Table 2** displays the safety projects and status. A letter of support from Caltrans for the Halcyon Road Complete Streets Plan is also included in **Appendix A: Stakeholder and Public Input**. In addition, the City is looking at opportunities to move this project forward.

In addition, the City is currently evaluating improvements on Tally Ho Road from James Way to SR 227. This roadway segment of Tally Ho Road was identified as the top 10 segment for crash rates (traffic volumes in comparison to crashes) per the SSAR analysis.

Table 2 Recent Safety Projects

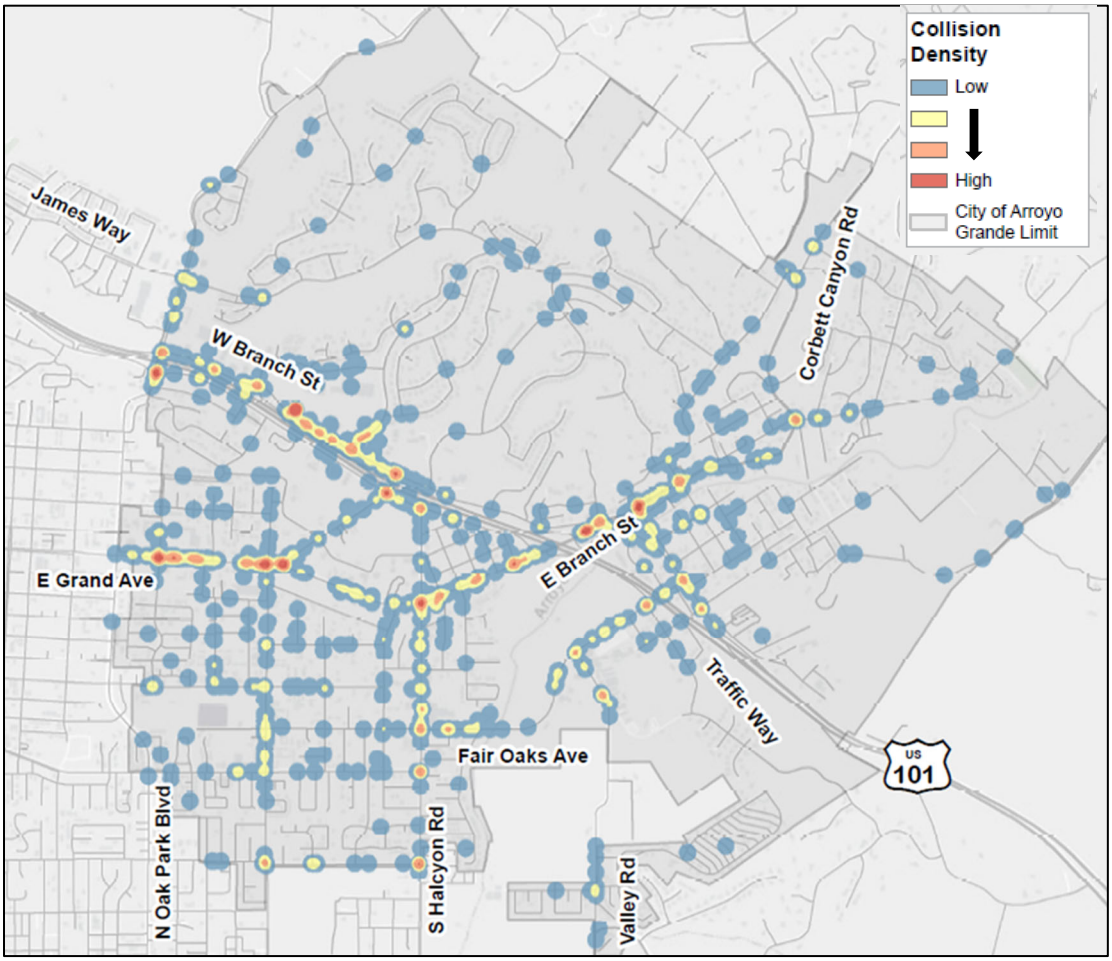
Project Location	Project Status	Improvement	Comment
E Branch St at Short St	Complete	Pedestrian crossing improvements to include pedestrian activated LED lights around the Pedestrian Warning signs in 2019. Additional red brick crosswalks was also previously added	Rank 1 Intersection Relative Severity
The Pike at S Halcyon Road	Complete	Converted to all way stop controlled in 2019. There were no collisions recorded at the intersection in 2020	Rank 5 Intersection Relative Severity
E Grand Ave at Courtland St	Planned	Striping and pavement marking improvements with CIP	Rank 3 Intersection Relative Severity
El Camino Real - Oak Park Blvd to Brisco Rd	Planned	Operational Improvements with Brisco Road Improvements	Rank 1 Segment Relative Severity
E. Grand Avenue – Courtland to Elm	Planned	Improve striping along Grand Ave by replacing bott dots with thermoplastic road markings	Rank 1 Segment Relative Severity
Halcyon Rd - Fair Oaks to Grand Ave	Planned	Halcyon Street Complete Street Plan	Rank 3 Segment Relative Severity
Fair Oaks – Halcyon to Valley Road	Planned	Halcyon Street Complete Street Plan has intersection improvements to include a roundabout at Halcyon and Fair Oaks	Rank 4 Segment Relative Severity
W. Branch – Brisco to Camino Mercado / US 101 ramps	Planned	Brisco Road Interchange Project	Rank 5 Segment Relative Severity
Camino Mercado – W. Branch Street to Rancho Parkway	Complete	Centerline striping added	Rank 2 Segment Crash Rate
Traffic Way at Allen Street	Complete	Improvements made at Traffic Way and Fair Oaks Ave in July 2019 – Traffic Signal installed and improved signage / pavement markings near Allen Street. The signal has helps to create gaps in traffic for Traffic Way and Allen Street	Rank 1 Intersection Crash Rate
Allen Street – Traffic Way to Pacific Coast Railway Place	Planned	Installation of Red Curb (limiting parking) along Allen Street. Improvements to sidewalk with recent private developments. City staff to begin working with residents to identify possible solutions	Rank 3 Segment Crash Rate
Valley Road at Arroyo Grande High School / Castillo Del Mar	Under Construction	Realignment of Castillo Del Mar and intersection at Valley Road	Rank 2 Intersection Crash Rate
W Branch Street at Brisco Road	Planned	Operation Improvements. Eventually will be improved through the Brisco Road Interchange Project	Rank 3 Intersection Crash Rate
E Branch Street at Bridge Street	Complete	Updated pedestrian crossing in 2019 with flashing LED lights on signs. Bridge Street was improved through Bridge Street Bridge Project completed in March 2021 (Funded through the Federal Highway Bridge Program (HBP))	Rank 4 Intersection Crash Rate
E Grand Ave at Alder St	Funded through HSIP Cycle 10	Install Rectangular Rapid Flashing Beacons (RRFBs) at the west leg for crossing Grand Ave, install curb extensions, ADA curb ramps, yield lines, and striping and pavement markings	Pedestrian Crossing
Farroll Ave at S. Halcyon Rd	Funded through HSIP Cycle 10	Refresh high visibility school crosswalk on west leg to cross Farroll Ave, Install curb extensions and ADA curb ramps	School Crossing
S Halcyon Rd at Sandalwood Ave	Funded through HSIP Cycle 10	Install/ replace Rectangular Rapid Flashing Beacons (RRFBs) at the west and south leg, install curb extensions, ADA curb ramps, yield lines, and striping and pavement markings	School Crossing
Oak Park Blvd - W Grand Ave to Mentone (City of Grover Beach project)	Under Construction	Reduce number of travel lane to single lane in each direction with buffered/wide bike lanes	City of Grover Beach Project
Oak Park Blvd -Mentone Ave to The Pike - Pavement Rehab project (City of Grover Beach project)	Planned	Reduce number of travel lane to single lane in each direction with buffered/wide bike lanes. Construction est. 2025/2026	City of Grover Beach Project

4.2 Collision Data

GHD collected and reviewed five years of complete collision data (2014-2018) from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), Transportation Injury Mapping System (TIMS), and the City of Arroyo Grande collision data. After rectifying the data, a comprehensive data set was used for the safety analysis. Due to the City also having to deliver a Systemic Safety Analysis Report (SSAR), the collision analysis will reference that report. In addition, the LRSP will capture other safety concerns from the LRSP working group and citizens including places where there are near-miss collisions as well as fatal and severe injury collisions that occurred in 2019 and 2020.

Collision analysis was performed for all roadways in the City of Arroyo Grande excluding the US 101 mainline collisions. The collisions for the US 101 interchanges in Arroyo Grande were evaluated separately. As presented in **Figure 5**, Citywide collisions for the past 5 years (2014-2018) excluding the US 101 interchange collisions were mapped, identifying the high-risk segments and intersections. Per the collision density map, the roadway segments and intersections with higher collision frequency fall along E. Grand Avenue, E Branch Street, W Branch Street, Fair Oaks Avenue, Halcyon Road, and El Camino Real. Additional collision analysis and maps are located in **Appendix B: SSAR Crash Analysis**.

Figure 5 Collision Density Heat Map (2014-2018)



In evaluating the past five (5) years in the SSAR with the recent 2019 and 2020 collision data, the severity for fatal and injury collisions was assessed. It is noted that in 2020 there were COVID shelter-in-place orders, and the traffic patterns were not representative of a typical year. However, it is important to still assess 2020 for context in understanding the collision patterns and safety issues. As shown in **Table 3**, there were fatal collisions in 2017, 2018, and 2019, with 2014, 2017, and 2019 having the highest total fatal and injury collisions per year.

Table 3 Collision Severity for Fatal and Injury Collisions per Year

	Severity (Fatal and Injury Collisions)				
Year	Fatal	Injury (Severe)	Injury (Other Visible)	Injury (Complaint of Pain)	Total (Fatal and Injury)
2014	0	0	20	37	57
2015	0	2	15	19	36
2016	0	1	13	17	31
2017	1	5	18	23	47
2018	2	1	11	17	31
2019	2	6	7	26	41
2020	0	3	10	20	33
Total	**5**	**18**	**94**	**159**	**276**

As presented in **Table 4,** collision type is shown for the fatal and injury collisions each year. Broadside collisions were the most common and they typically occur at intersections due to vehicles not yielding the right of way or violating the traffic signal/stop sign. The second most common collision type was rear-ends. Rear-end collisions typically occur due to speed differential, congestion, and vehicles following too closing or inattention. There were also 32 vehicle/pedestrian collisions in the past 7 years.

Table 4 Collision Type for Fatal and Injury Collisions per Year

	Type (Fatal and Injury Collisions)								
Year	Head On	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Vehicle/ Pedestrian	Other/ Unknown	Total (Fatal and Injury)
2014	3	5	13	20	5	5	5	1	57
2015	1	2	15	11	2	0	4	1	36
2016	1	0	11	12	1	0	5	1	31
2017	3	5	9	14	9	0	7	0	47
2018	4	0	9	7	7	0	2	2	31
2019	2	2	13	12	4	0	7	1	41
2020	4	2	6	8	5	2	2	4	33
Total	**18**	**16**	**76**	**84**	**33**	**7**	**32**	**10**	**276**

Table 5 shows the primary collision factor (PCF) violation category for the fatal and injury collisions. The top violation category was unsafe speed followed by automobile right of way (Auto R/W).

Table 5 PCF Violation Category for Fatal and Injury Collisions per Year

	Type (Fatal and Injury Collisions)																		
Year	DUI/BUI	Impending Traffic	Unsafe Speed	Following Too Closely	Wrong Way	Improper Passing	Unsafe Lane Change	Improper Turning	Auto R/W	Pedestrian R/W	Pedestrian Violation	Signals/Signs	Brake Failure	Other Hazard	Other than Driver	Unsafe Starting/Backing	Other Improper Driving	Unknown	Total (Fatal and Injury)
2014	4	0	13	0	2	0	1	7	11	4	0	4	1	4	2	1	0	3	57
2015	5	0	12	0	2	0	0	1	5	3	1	3	0	2	1	0	0	1	36
2016	1	0	9	0	1	0	0	4	7	3	1	2	0	0	0	0	2	1	31
2017	6	0	5	0	4	0	1	6	9	6	1	2	0	3	0	2	0	2	47
2018	2	0	5	0	1	0	2	7	6	2	1	1	0	0	1	0	0	3	31
2019	6	1	9	1	0	0	0	2	9	4	1	2	0	1	0	1	0	4	41
2020	4	0	6	0	0	1	1	8	4	1	0	1	0	1	2	0	1	3	33
Total	**28**	**1**	**59**	**1**	**10**	**1**	**5**	**35**	**51**	**23**	**5**	**15**	**1**	**11**	**6**	**4**	**3**	**17**	**276**

4.3 Top Collision Locations

A figure summarizing the locations that ranked in the highest ten for relative severity (Equivalent Property Damage Only (EPDO) methodology) and crash rates for the five-year collision analysis is included in the SSAR. For further information, please reference **Appendix C: SSAR Priority Projects** priority locations.

Since the completion of the SSAR, multiple safety projects have been implemented at many of the top collision locations, and additional improvements are being evaluated. These improvements are listed below as sub-bullets.

4.3.1 Top Collision Locations – Based on Collision Severity

As determined in the SSAR, the top intersection collision locations were identified based on relative severity (highest collision severity ranks highest). Per the SSAR recommendations, many locations have been improved. **Tables 6 and 7** below show the completed, planned, and identified projects for these locations. Identified projects are based on the recommendations from the SSAR and LRSP. These projects priority and subsequent implementation will be driven by the City and available grant funding.

Table 6 Top Intersection Locations by Collision Severity

Intersection	Completed Projects	Planned Projects	Identified Projects
E Branch Street and Short Street	Crossing improvements made in 2019 to include pedestrian-activated flashing LED lights on the pedestrian warning signs and refreshed crosswalk markings.	-	-
E Grand Avenue and Bell Street	Evaluated for mid-block crossing with a pedestrian hybrid beacon (HAWK) in last HSIP cycle 10. An additional engineering study needs to be performed to see if this location will meet CA MUTCD warrants for installation of a pedestrian hybrid beacon.	-	In the interim, a two-stage pedestrian crossing (median island in the center two-way left turn lane) is recommended on the east leg with a high visibility crosswalk, yield lines, and a pedestrian-activated Rectangular Rapid Flashing Beacon (RRFB).
E Grand Avenue and Courtland Street	-	Striping and pavement marking improvements are identified in the Capital Improvement Program (CIP).	Additional safety improvements can include adding an additional signal head per lane, retroreflective back plates, and ADA improvements with accessible pedestrian signal (APS) push buttons and countdown timers. With the completion of the commercial center on the southwest corner expected in 2022, City staff recommends that the traffic movements and signal phasing (might need to add a left turn phase for the northbound approach) and timing be reviewed for this intersection.
El Camino Real and N Oak Park Boulevard	-	-	Evaluate future traffic signal improvements to include a signal head per lane, flashing yellow left turn arrow for permissive/protected phasing, and update pedestrian push buttons to APS and provide countdown timers.
The Pike and S Halcyon Road (City/County controlled intersection)	This location was converted to an all-way stop control (AWSC) in 2019.	Evaluate future crossing improvements to include ADA ramps and crosswalks on the north and south legs.	-

Table 7 Top Segment Locations by Collision Severity

Segment	Completed Projects	Planned Projects	Identified Projects
El Camino Real – Oak Park Boulevard to Brisco Road	-	Operational improvements are included with the Brisco Road/ US 101 interchange project.	Evaluate as needed for additional safety improvements.
E. Grand Avenue – Courtland Street to Elm Street	-	Striping and pavement marking improvements with CIP project. - It is recommended to remove botts dots and install thermoplastic striping and pavement markings. - Provide continuous bike lanes as feasible.	-
Halcyon Road – Fair Oaks Avenue to Grand Avenue	-	Per the Halcyon Complete Streets Plan - A road diet is recommended in providing a center two-way left turn lane for left turns and buffered bike lanes adjacent to parking. - A roundabout is recommended at Halcyon Road and Fair Oaks Avenue	Pursue grant funding and evaluate project phasing to prioritize this area.
Fair Oaks Avenue – Halcyon Road to Valley Road	-	-	Provide continuous bike lanes (bike lanes end around the hospital) and green conflict marking in vehicle and bicycle conflict zones. Provide horizontal curve warning signs and/or chevrons. Provide high friction surface treatment for the downhill grade on the southbound approach to the Brisco Road intersection.
W. Branch Street – Brisco Road to Camino Mercado/US 101 Ramps	-	-	Provide green bike conflict marking for vehicle/bicycle mixing zones. Improve visibility of signalized intersections with retroreflective back plates and an additional signal head per lane. Provide a signal warning sign with flashing beacon at the top of the grade to the southbound approach to Brisco Road intersection. In the interim evaluate adding a blank out sign “NO RIGHT TURN ON RED” for the southbound right turn conflicts with the NB left protected left turn phase.

4.3.2 Top Additional Collision Locations – Based on Crash Rates

In addition to the top five intersections and top five segments based on relative severity, five additional intersections and segments were identified in the SSAR based on their crash rates. **Tables 8 and 9** show the completed, planned and identified projects for these additional locations.

Table 8 Top Intersection Locations by Crash Rates

Intersection	Completed Projects	Planned Projects	Identified Projects
Traffic Way and Allen Street	Recent improvements along Allen Street with the new Chevrolet Dealership. Recent installation of traffic signal at Traffic Way and Fair Oaks Boulevards.	-	-
Valley Road and Castillo Del Mar/AGHS parking lot	Construction is underway for the realignment of Castillo Del Mar at Valley Road into a traditional perpendicular intersection.	-	-
W. Branch Street and Brisco Road	-	Brisco Road and US 101 interchange improvements will redesign this intersection.	-
E. Branch Street and Bridge Street	-	-	Evaluate pedestrian improvements (possibly move crosswalk on E. Branch Street to the west leg) so there are less conflicts with the turning vehicles (removes right turns from Nevada Street and Bridge Street and left turns from westbound E Branch).
E. Grand Avenue and S. Elm Street	-	-	Evaluate future traffic signal improvements to include a signal head per lane and update pedestrian push buttons to APS and provide countdown timers.

Table 9 Top Segment Locations by Crash Rates

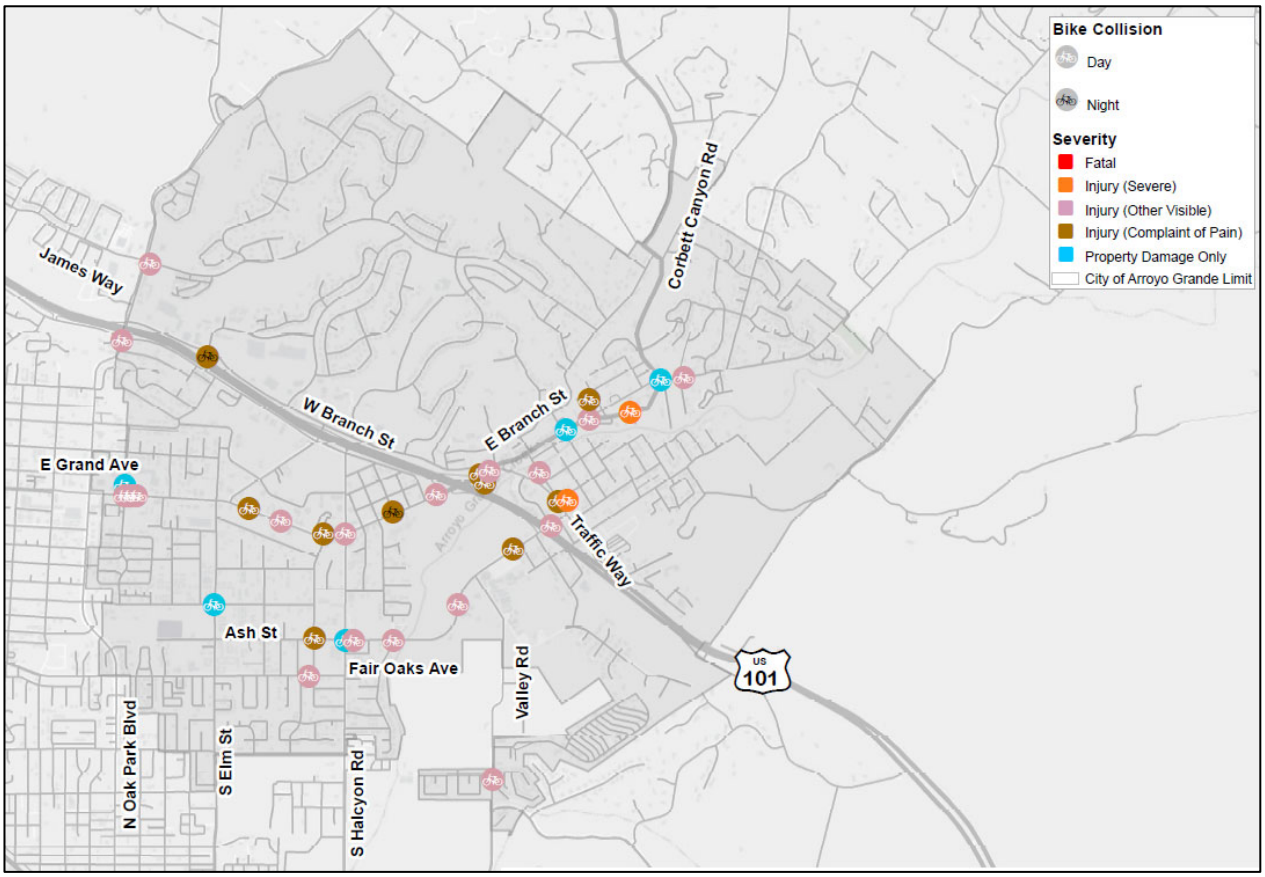
Segment	Completed Projects	Planned Projects	Identified Projects
Bridge Street – Traffic Way to E. Branch Street	-	Evaluate removal of the post office mailboxes and conversion of the segment from Bridge Street to Nelson Street to one-way. Also recommended in Circulation Element.	-
Camino Mercado – W. Branch Street to Rancho Parkway	Recent striping improvements added a center yellow line.	-	Evaluate adding bike lanes.
Allen Street – Traffic Way to Pacific Coast Railway Place	-	-	Add a white edgeline to define parallel parking. Add high visibility crosswalks and ADA ramps to the all-way stop control intersection of Allen Street at Mason Street. City Staff to begin working with residents to identify additional solutions.
W. Branch Street – Brisco Road to E. Branch Street	-	Brisco Road at Branch and Rodeo Drive will be redesigned with the Brisco Road and US 101 Interchange Project.	-
Rancho Parkway – W. Branch Street to Via Vaquero	-	-	Provide pedestrian mid-block crossing improvements south the Via Vaquero.

4.4 Bicycle Collisions

In evaluating the bicycle to vehicle collisions in the City, seven years of data (2014-2020) was mapped by severity. There were no fatal bicycle collisions and all collisions occurred in the day except for two complaint of pain bicycle injury collisions. As shown in **Figure 6**, the bicycle collisions were focused on the E Grand Avenue, E Branch Street, and Fair Oaks Avenue corridors. In addition, a level of traffic stress (LTS) was performed on arterial and collector roadway in the 2021 Circulation Element. For reference, the LTS map is included in **Appendix D: Circulation Element Figures**. Many roadway segments have LTS 4 (highest stress network) due to the lack of bicycle facilities, high vehicle speeds, and roadway configuration. These high stress roadways include Oak

Park Boulevard, James Way, Rancho Parkway, Tally Ho Road, E Branch Street, Branch Mill Road, W Branch Street, El Camino Real, Brisco Road, Grand Avenue, Elm Street, Halcyon Road, Fair Oak Avenue, Valley Road, and The Pike.

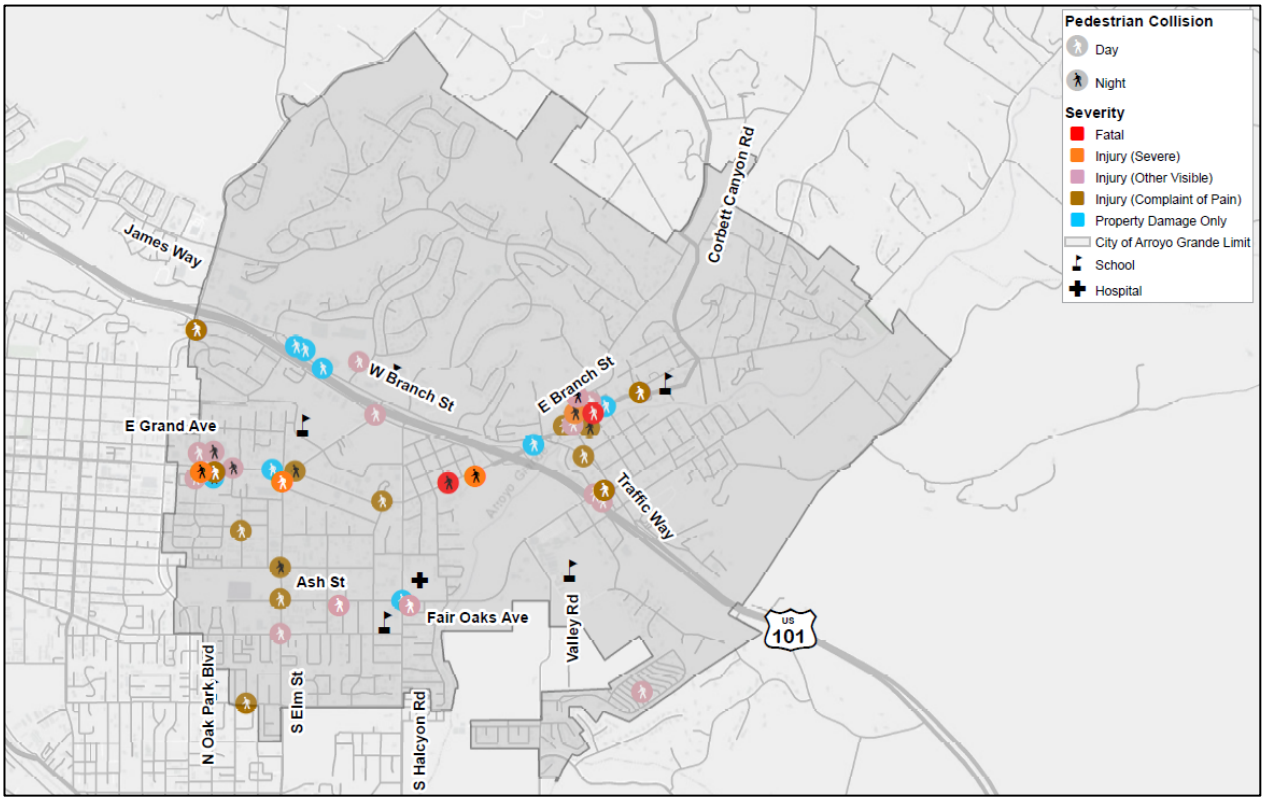
Figure 6 Bicycle Collisions (2014-2020)



4.5 Pedestrian Collisions

As shown in **Figure 7**, the pedestrian to vehicle collisions in the City were mapped for the past seven years (2014-2020) by collisions severity. There were two (2) fatal pedestrian collisions with one occurring at night (pedestrian was crossing Grand Avenue at Bell Street) and one occurred during the day (pedestrian was crossing E Branch Street at Short Street). There were also five (5) severe injury pedestrian collisions with three (3) at night and two (2) during the day. The sidewalk gaps were quantified in the Circulation Element, Background Report, and for reference the figure is included in **Appendix D: Circulation Element Figures**.

Figure 7 Pedestrian Collisions (2014-2020)

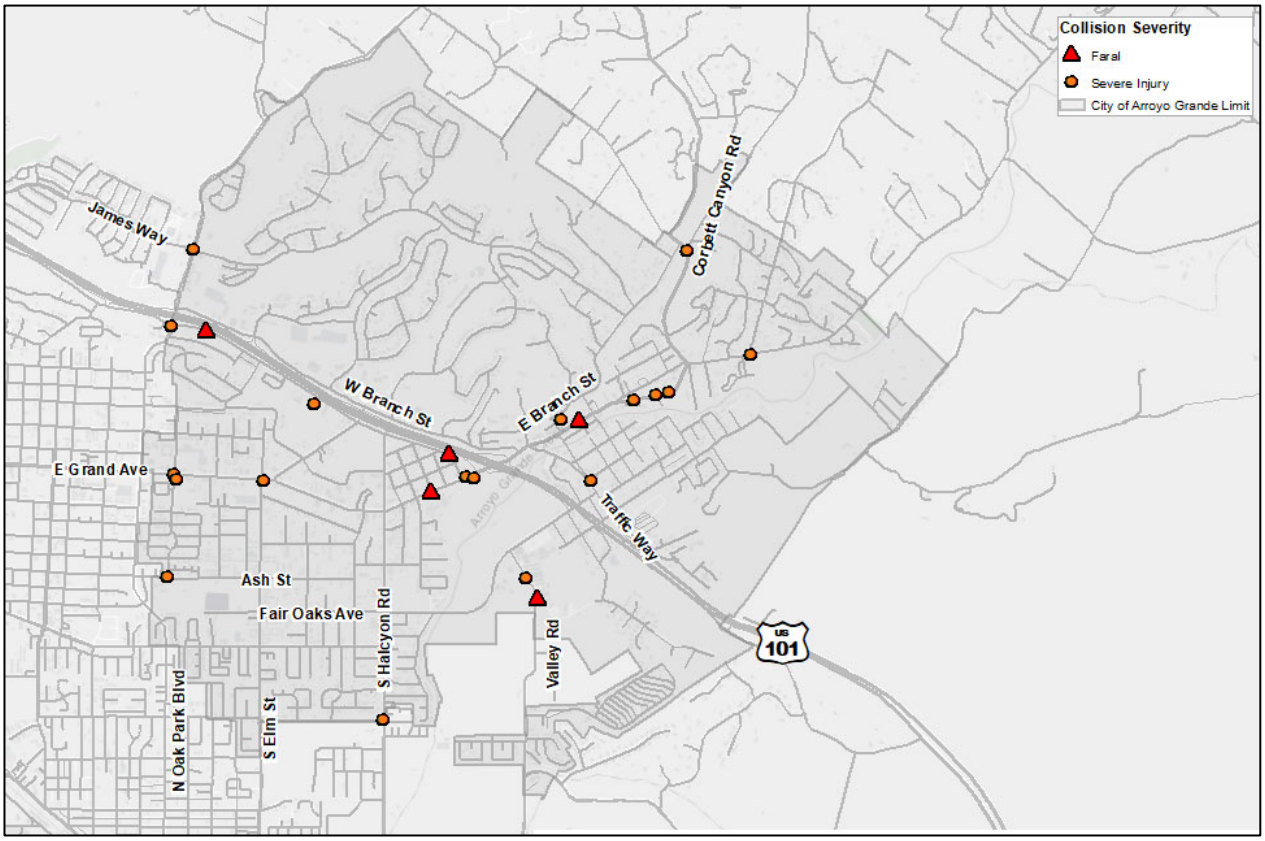


4.6 Fatal and Severe Injury Collisions

From 2014 to 2020, there were 5 fatal and 18 severe injury collisions recorded. As shown in **Figure 8**, the five fatal collisions are as follows:

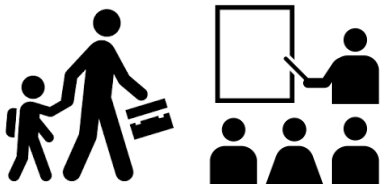
- 2017 – Pedestrian to vehicle collision at E. Branch Street and Short Street
- 2018 – Pedestrian to vehicle collision at Grand Avenue at Bell Street (crossing mid-block)
- 2018 – A single vehicle collision, hit object collision due to improper turning on El Camino Real, 770 ft east of Oak Park Blvd.
- 2019 – A single vehicle, hit object collision due to DUI on El Camino Real 319 ft South of Bennett Ave
- 2019 – A single vehicle, hit object collision due to DUI on Valley Road at Castillo Del Mar (Arroyo Grande High School Back Driveway)

Figure 8 Fatal and Severe Injury Collisions (2014-2020)



5. Emphasis Areas

The emphasis areas determined by the working group are as follows:



- Bicycles
- Intersections
- Pedestrians
- Distracted Driving
- Aggressive Driving/Speeding
- Emerging Technologies
- Emergency Response

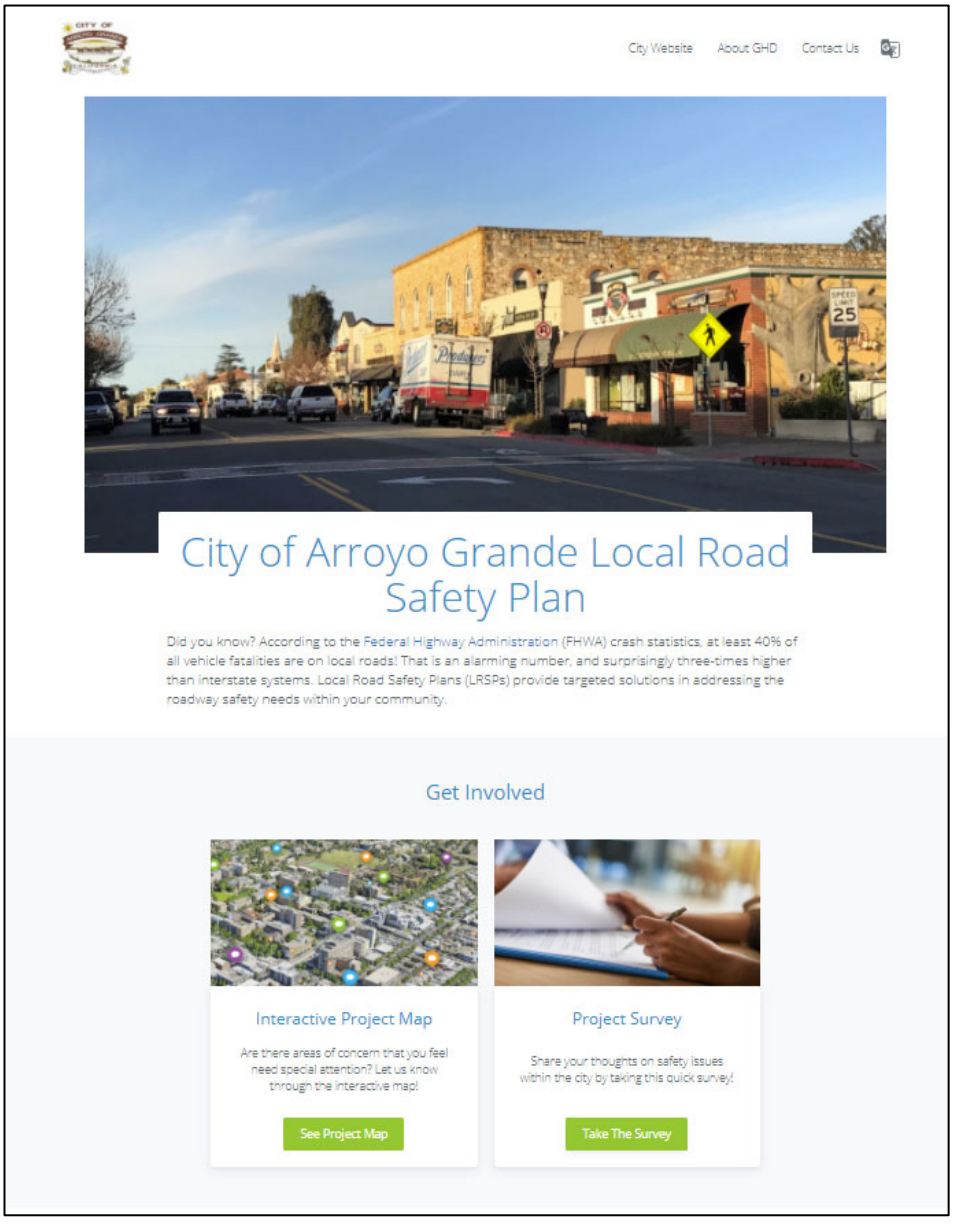
These emphasis areas were used in prioritizing safety projects in the SSAR and LRSP. Reference Appendix C for the SSAR prioritized list of projects.

6. Public Outreach

6.1 Project Website

A project website was created on the Social Pinpoint platform to inform the public about the LRSP and provide a platform for input. **Figure 9** displays the homepage for the website found at lrsp.mysocialpinpoint.com/arroyogrande. Visitors to the page were invited to provide comments on an interactive project map and share their thoughts through a project survey. Comments from the interactive map and detailed results from the survey are included in **Appendix A: Stakeholder and Public Input.** The interactive map had comments for both the Circulation Element and Local Road Safety Plan as they were active for public comments at the same time.

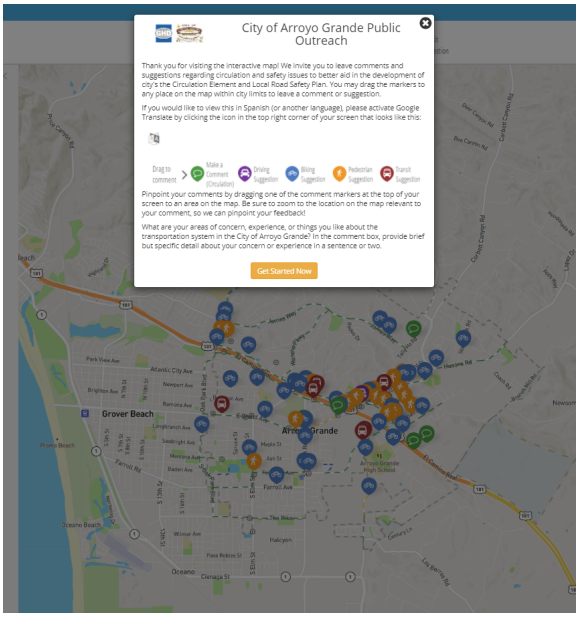
Figure 9 Social Pinpoint Website Homepage



6.1.1 Interactive Map

The interactive map feature on the website allowed the public to drag icons to a location within the City and leave a comment regarding driving, pedestrian, or bicycle suggestions at that location. **Figure 10** shows the interactive map feature from the website. Some of the public concerns collected from the interactive map are as follows:

Figure 10 Public Website Interactive Map



Speeding

- Tally Ho – Want traffic calming measures similar to Rodeo Drive (especially for WB)
- Grace Lane – Recent speeds in excess of 60 mph
- Sunset Drive – Cut through route
- E Branch St between Nevada St and Short St – Public comment about vehicles speeding through segment and need for traffic calming
- E Grand Avenue, west of Courtland St – Public comment about reducing speed to increase pedestrian and bicyclist safety
- S Mason St and Allen St – Public comments about reducing speed (implementing traffic calming) to increase pedestrian and bicycle safety

Pedestrian

- Wayfinding for pedestrian bridge between Best Western Hotel and Oak Park Plaza
- Preferences for increased accessibility on S Mason Street
- Improve pavement markings for crosswalk at West Branch Street and Traffic Way

Biking

- Valley Road – Complete the bike lanes by Arroyo Grande High School to Fair Oaks
- Grand Avenue – Discontinuous bike lanes (East of Brisco, El Camino Real, around Halcyon)
- Fair Oaks Avenue – No bike lanes at intersection with Halcyon (westbound), consider bike box for left turn at Traffic Way
- Halcyon Road – Discontinuous bike lanes and changing typical section with travel lanes
- El Camino Real between Brisco Road and N Halcyon Road – Suggestion for a separated pedestrian/bicycle path
- Brisco Road Interchange – Public concern about US 101 crossing
- E Branch Street – Concern about safety east of Garden Street and lack of infrastructure at Crown Hill Street
- E Branch St between Crown Hill St and Huasna Rd - Public comments about providing protected bicycle infrastructure and removing parking to provide safer bicycle routes for students in both directions

7. Identify Strategies

Through coordination and feedback from the City of Arroyo Grande, LRSP working group, and public outreach, the Local Road Safety Plan identifies safety projects and strategies.

The LRSP will discuss engineering strategies and projects as well as the other E's to include Enforcement, Education, Emergency Response, and Emerging Technologies. Engineering strategies will include both a reactive approach (based on the past collision history) and a proactive approach (systemic application to locations with similar risk factors for future collisions but not currently experiencing a collision issue).

7.1 Engineering Strategies

Engineering strategies and projects are presented in **Table 10** based on feedback from the City, Stakeholder Working Group, public outreach, and engineering analysis. Some countermeasures identified in the SSAR were already implemented or are part of upcoming planned projects. The countermeasures listed below represents projects that were not yet implemented, and other projects identified since the SSAR process.

Table 10 Engineering Countermeasures

Countermeasure	Location	LRSM ID	Description
Pedestrian improvements at signalized intersections	Intersections of: E Grand Ave at Courtland St E Grand Ave at S Elm St E Grand Ave at S Halcyon Rd El Camino Real at Brisco Rd and/or Systemically at other City signalized intersections	S17PB	Install pedestrian countdown signal heads
		S18PB	Install pedestrian crossing
		S21PB	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)
Non-pedestrian improvements at signalized intersections	Intersections of: E Grand Ave at Courtland St E Grand Ave at S Elm St E Grand Ave at S Halcyon Rd El Camino Real at Brisco Rd and/or Systemically at other City signalized intersections	S02	Improve signal hardware: lenses, back-plates with retroreflective border, mounting, size and number
		S03	Improve signal timing (coordination, phases, red, yellow, or operation)
		S07	Provide left turn phase (left turn lane already exists)
Pedestrian improvements at uncontrolled locations	Intersections of: E Grand Ave at Bell St - East leg crossing E Grand Ave Nelson St at Traffic Way Rancho Pkwy at Via Vaquero The Pike at Garfield Pl and/or Systemically at other City uncontrolled locations	NS19PB	Install raised medians/refuge islands
		NS20PB	Install pedestrian crossing at uncontrolled locations (signs and markings only)
		NS21PB	Install pedestrian crossing at uncontrolled location with enhanced safety feature (RRFB, Curb Extensions) (where applicable)
Bike lane improvements along segments	El Camino Real from N Oak Park Blvd to Grand Ave W Branch St from N Oak Park Blvd to Camino Mercado Valley Road -Approx. 600 ft S of Fair Oaks Ave Fair Oaks Ave - 650 ft E of Halcyon Rd Grand Avenue -Provide continuous bike lanes	R32PB	Install bike lanes
		-	Install green marking for bicycle lane conflict zones / install bike boxes where appropriate
Road diet	Halcyon Rd from Fair Oaks Ave to E Grand Ave Oak Park Boulevard from E Grand Ave to Atlantic City Ave	R14	Evaluate Road Diet (Reduce travel lanes from 4 to 3 and add two way left-turn and buffered bike lanes)
Signage improvements	Locations determined through a citywide sign audit	R22	Install/Upgrade signs with new fluorescent sheeting (regulatory and waring signs)
Curve related Improvements	N Oak Park Blvd from Atlantic City Ave to Chilton St Fair Oaks Ave from Halcyon Rd to Valley Rd	R23	Install chevron signs on horizontal curves (where applicable)
		R24	Install curve advance warning signs
Striping and pavement marking improvements	E Grand Avenue from El Camino Real to Courtland St	R28	Install thermoplastic edgelines and centerlines and pavement markings
		-	Remove botts dots and provide guide marks for offset lanes through intersection (e.g. Halcyon Road, Elm St)
Speed management	Traffic Way at US 101 NB Off-Ramp Grace Lane North or Rodeo Drive Tally Ho from SR 227 to James Way Sunset Drive from Elm St to Alder St	R24	Install Dynamic/variable speed warning signs
		-	Additional Enforcement
		-	Evaluate Traffic calming measures to include speed cushions, travel width narrowing, parking delination and/or separate bikeway, etc. (traffic calming needs to adhere to City policy)

7.1.1 Other Recommended City Projects

Pedestrian crossing improvements are recommended at the existing mid-block crossing at Nelson Street and Traffic Way, at the proposed mid-block crossing at Grand Avenue at Bell Street (closest crossing is at Halcyon Road and Traffic Way on Grand Avenue), and at a proposed midblock

crossing at Rancho Parkway at Via Vaquero based on the high risk characteristics associated with uncontrolled pedestrian crossings. With these improvements, it is recommended to provide or evaluate the lighting for the pedestrians crossing at night.

Grand Avenue at Bell Street

- Propose midblock crossing with ped refuge island and RRFB

Rancho Parkway at Via Vaquero

- Propose midblock crossing with pedestrian refuge island and RRFB

Nelson Street and Traffic Way

- Proposed Pedestrian Crossing Enhancement and RRFB

7.2 Non-Engineering Strategies

7.2.1 Education

Education strategies are listed below.

- Pedestrian education campaigns – street crossing “dos and don’ts”, wear bright clothing and have a light at night
- Driver and bicyclist education and resources
- Safe route to school maps and outreach at schools
- Social media blasts with quick education tool for all users
- Pop up campaigns
    - April is distracted driving month, City should aim to have an outreach campaign (can be funded by Office of Traffic Safety grants)
- School safety campaigns

7.2.2 Emerging Technologies

Possible emerging technologies strategies are listed below.

- Bicycle detection at traffic signals

- Bicycle detection is obtainable at traffic signal with video detection technology. Currently, the City of Arroyo Grande only has one signal with this technology (Traffic Way and Fair Oaks Avenue)

- Changeable message signs
  - Police Department currently has two portable changeable message signs. The second sign was recently purchased through a grant
- City recently purchased a data collector for speed and volumes
- Update older technology (traffic signals, speed feedback signs, etc.)

7.2.3 Enforcement

Enforcement strategies are listed below.

- During the development of the LRSP the City added a full-time motor office, supplemented by a part time motor office.
- Targeted speed enforcement
- DUI saturation patrols

7.2.4 Emergency Response

Emergency response strategies are suggested below.

- Provide Administrative Staff
- Continue Save a Life – PulsePoint Responder (smartphone app designed to empower everyday citizens to save a life)
- Continue Emergency Preparedness Information

8. Implementation Process

In evaluating how to implement safety projects, a prioritized list of projects with additional systemic projects is included in **Appendix C: SSAR Priority Projects**. The City of Arroyo Grande will look for opportunities to incorporate safety enhancements with the Capital Improvement Program. However, funding is very limited and typically used for roadway paving and maintenance. Additional funding opportunities can come through grant funding to include HSIP, ATP, and CMAQ.

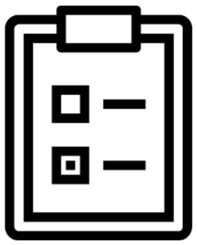
8.1 Implemented/Planned Projects

Since the completion of the SSAR, multiple safety projects have been implemented throughout the City. Some improvements are as follows:

- At the intersection of E. Branch Street and Short Street crossing improvements were made to provide pedestrian activated flashing warning signs on E. Branch Street.
- The intersection of The Pike and S. Halcyon Road was converted from a two-way stop to an all-way stop in 2019 and is no longer a high priority intersection.
- Due to the improvements made at the intersection of Fair Oaks Avenue and Traffic Way, the intersection of Traffic Way and Allen Street has seen operational improvements. A signal was installed in July 2019 that improved signage and pavement markings near Allen Street and has helped create gaps in traffic for those turning from Allen Street.
- Coordination is underway for the relocation of the bus loading zone on Valley Road adjacent to Arroyo Grande High School. The bus loading zone is planned to be relocated to the back parking lot which will allow continuous bike lanes on Valley Road adjacent to the high school through a roadway restriping project.

9. Evaluation Process

To evaluate the success of this plan, yearly collision analysis, along with requests for public feedback, can take place and be compared to the established goals and measure of success.



For the LRSP goals the measure of success should be **SMART**:

Specific – clear action item description

Measurable – identified performance measures

Achievable – committed resources by responsible organization

Relevant – statewide significance and data-driven issue and countermeasure

Time Constrained – achievable within the LRSP time frame

In following this methodology the LRSP goals and measure of success are defined below:

① **Goal:** Reduce the potential for fatal and severe injury collisions Citywide

- **Measure of Success:** A downward trend with fatal or severe injury (FSI) collisions over the next five (5) years.

② **Goal:** Reduce the potential for rear-end collisions Citywide

- **Measure of Success:** A decrease in "rear-end" type collisions by 5% over 5 years.

③ **Goal:** Reduce the potential for bicycle and pedestrian collisions Citywide.

- **Measure of Success:** A decrease in pedestrian and bicycle involved collisions in the next five (5) years. This could be attributed to an increase in multimodal facilities and connected systems.

④ **Goal:** Improve the health and vitality of our community with a safety plan that encourages safety for pedestrians and bicyclists that is targeted to Arroyo Grande's local roadway needs

- **Measure of Success:** If this goal is successful, residents will express an increased feeling of safety while using Arroyo Grande's transportation systems. Additionally, the number and severity of collisions each year will trend downward in the next five (5) years.

⑤ **Goal:** Improve safety around schools with a connected multimodal system and improved crossings

- **Measure of Success:** An evaluation of improvements to the multimodal transportation infrastructure around schools will capture the effectiveness of this goal.
- A downward trend in the number of collisions within five hundred feet of schools over the next five (5) years.

⑥ • **Goal:** Increase walking, biking, rolling (wheelchair, skateboard, scooter, etc.) to the downtown district, to work, and to school.

- **Measure of Success:** Increase in multimodal infrastructure and improvements and subsequent pedestrian and bicycle counts.

⑦ • **Goal:** Improve safety at uncontrolled crossings

- **Measure of Success:** Increase safety improvements at uncontrolled crossing locations (2 per year) with a reduction of collisions occurring at these locations will determine if this goal is met.

⑧ • **Goal:** Increase driver and pedestrian education

- **Measure of Success:** An increase to the number of public education and information campaigns initiated by the City in the next five (5) years will determine if this goal has been met.

⑨ • **Goal:** Reduce distracted driving

- **Measure of Success:** A decrease in "Distracted Driving" violations after implementing engineering, enforcement, education, and emerging technologies will determine if this goal is met.

- **Goal:** Improve bike safety with additional bikeways and green bike lanes for vehicle to bicycle conflict areas
    - **Measure of Success:** An increase to the amount of bikeways and green bike lanes at conflict areas in next five (5) years will determine if this goal is met.

- **Goal:** Increase traffic enforcement
    - **Measure of Success:** A reduction in community reports and complaints and an additional motorcycle police officer.

- **Goal:** Receive grant funding for LRSP identified projects
    - **Measure of Success:** Successful grant applications for federal and state funding for the Local Road Safety Plan identified projects and other applicable safety projects/plans (grant application for an Active Transportation Plan was recently submitted in 2021) in the next five (5) years.

10. Next Steps

The City of Arroyo Grande's Local Road Safety Plan is scheduled to go to City Council in January 2022. This safety plan will be a living document and will guide the City's roadway safety needs for the next five years. It will be updated as needed and the goals will be evaluated every two (2) years.

11. References

Traffic Data

- Statewide Integrated Traffic Records System, 2014-2018.
- Transportation Injury Mapping System, 2014-2018.
- Collision Data, City of Arroyo Grande, 2014-2020.

Manuals

- "Developing Safety Plans, A Manual for Local Rural Road Owners", Federal Highway Administration, March 2012, http://safety.fhwa.dot.gov/local_rural/training/fhwasa12017/.
- 2020-2024 California's Strategic Highway Safety Plan (SHSP), "California Safe Roads: 2020-2024 Strategic Highway Safety Plan", Caltrans.
- "Local Roadway Safety, A Manual for California's Local Road Owners", Caltrans, Version 1.5, April 2020
- "Highway Safety Manual", American Association of State Highway Officials (AASHTO), 1st Edition, 2014 supplement.
- "California Manual of Uniform Traffic Control Devices (CA MUTCD)", Revision 5, 2014.

Websites

- California Department of Transportation, "Strategic Highway Safety Plan (SHSP)", https://dot.ca.gov/programs/safety-programs/shsp.
- California Department of Transportation, "Local Roadway Safety Plan (LRSP) and Systemic Safety Analysis Report Program (SSARP)", https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/local-roadway-safety-plans.
- California Department of Transportation, "HSIP Cycle 10", https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/apply-now.
- City of Arroyo Grande Local Road Safety Plan, https://lrsp.mysocialpinpoint.com/arroyogrande.
- Institute of Transportation Engineers, https://www.ite.org/technical-resources/topics/safe-systems/.

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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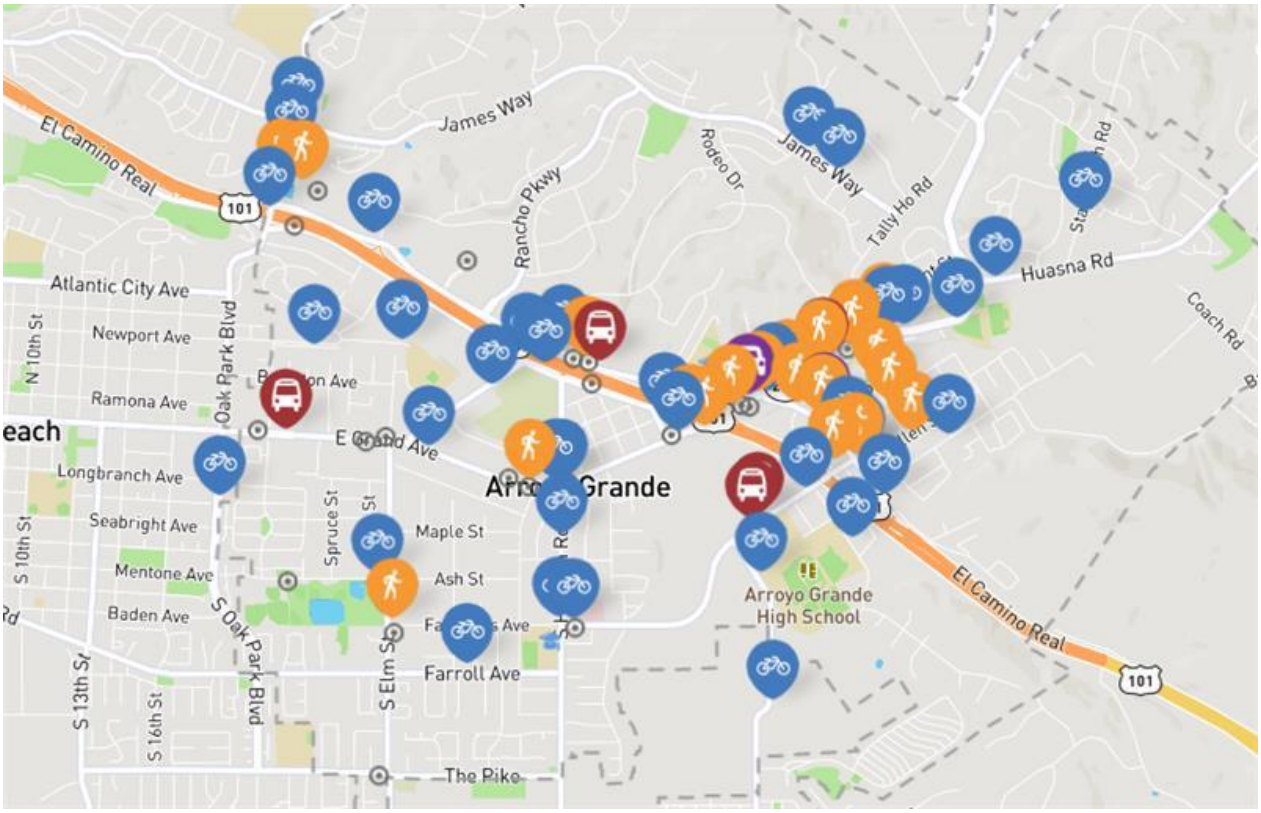
Appendix A – Stakeholder and Public Input

Public Comments collected via Interactive Map – December 15, 2020 to February 25, 2021



Driving Comments

ID	Comment	Marker Location	Latitude	Longitude
D-1	Often drivers will wait to the last minute and then go straight. Many already turned right back at the USPS drop. Just make this a bike / bus only segment that allows right turns if needed, instead of a Right Turn only lane that people misuse. Make the right turn at the USPS boxes "Right Turn Only" instead.	Traffic Way and Nelson St	35.121364	-120.578048
D-2	Cars turning left here must navigate traffic coming from 2 different lights, 2 different driveways, and pedestrians in the crosswalk. It's dangerous for everyone involved.	E Grand Ave and W Branch St	35.122131	-120.581979

Biking Comments

ID	Comment	Marker Location	Latitude	Longitude
B-1	Possibly an isolated pedestrian path on the north side of el camino that would funnel cyclist and pedestrian onto a shared path under the 101 towards Branch street. It would allow cyclist to cross Brisco, west bound, easier as well. I constantly ride on this short stretch of el camino west bound past Brisco and have to fight for space in traffic as cars race to turn right on Brisco towards 101 north bound. The light is a no turn on red, so cars urgently try to make the turn.	El Camino Real btwn Brisco Rd and N Halcyon Rd	35.123708	-120.592804
B-2	This area is a major concern for cyclist to pass to branch street. choosing between the sidewalk and the busy road. Updating the sidewalk to allow cyclist easily flow into a safe space to cross the 101.	Brisco Rd north of El Camino Real	35.123906	-120.593387

ID	Comment	Marker Location	Latitude	Longitude
B-3	adding the class 2 bike lane would be a big plus, but reducing speed limit would make bikers feel more comfortable.	S Halcyon Rd btwn Park Way and Dodson Way	35.116255	-120.591598
B-4	At around 44' across, this could also fit an uphill bike lane. 2x7.5' parking, 2x 11' travel lanes, and a 7' bike lane uphill with sharrows downhill.	Stagecoach Rd south of Platino Ln	35.129907	-120.564587
B-5	This is a designated "bike boulevard" in the city's bike master plan. Cars don't know that, so merging into 1 lane here for the sake of on-street parking becomes pretty dangerous. There are 10 on street parking spaces on each side of this block. Usually at least half unused. Not sure that justifies the use of road space.	W Branch St east of Traffic Way	35.122661	-120.58067
B-6	Might be Pismo, but a bike lane to the right of a right turn only lane only works if you slow down traffic and make the right of way more obvious.	Intx of Oak Park Blvd and James Way	35.133879	-120.605292
B-7	Just get rid of the overly long merging lane and use the space for better bike lanes on both sides. The buses will be able to handle it.	Huasna Rd east of SR 227	35.12715	-120.56918
B-8	Bike lane ends as road expands to three lanes. "Good luck cyclists!"	Valley Rd south of Fair Oaks Way	35.114617	-120.581296
B-9	Some sections here are wide enough for a full-fat bike lane, instead of a bike boulevard, as long as you simply count how much parking is needed for the church days. Would also reduce speeding in addition to the speed bumps.	Newport Ave btwn Courtland St and Montego St	35.124265	-120.604391
B-10	People can (and should) use bike lanes to turn right, so just make a wide bike lane eastbound instead of a disappearing bike lane into a right turn only lane.	E Grand Ave and Halcyon Rd	35.11854	-120.591953
B-11	Northbound bike lane starts far from the intersection. Conflict point at the McDonald's entrance.	El Camino Real and Cornwall Ave	35.121393	-120.586282
B-12	You could fit bike lanes and discouraging speeding by adding them, for just the cost of paint. Further up Orchard there is no parking and you should definitely reduce the width there also.	Orchard Ave btwn Pilgram Way and W Cherry Ave	35.116124	-120.576563
B-13	As with a number of bike lanes in the city, the bike lane here is half gutter. The gutter is not part of the road and can lead to some dangerous conditions for cyclists.	James Way btwn Mesquite Ln and Village Glen Dr	35.132638	-120.578771
B-14	Ash St should absolutely have a safe bike lane. No reason every trip to the sports complex needs to be by car.	Ash St west of S Elm St	35.114538	-120.601172
B-15	No bike lane westbound, just sharrows for a long time.	El Camino Real btwn Brisco Rd and N Halcyon Rd	35.123506	-120.592486
B-16	Protect this bike lane with XLP channelizers to reduce offramp speeding.	Traffic Way btwn E Cherry Ave and S Traffic Way	35.11792	-120.57491
B-17	A Bike Boulevard may be insufficient to get elementary school kids to bike. You'll need to make it very high quality, and the Ocean View drop off areas would need to be monitored.	Montego St and Linda Dr	35.124466	-120.599843
B-18	Farroll is the same width here as it is to the west, so there's no reason for the bike lane to just disappear.	Farroll Ave btwn Walnut St and Pecan St	35.110795	-120.59646

ID	Comment	Marker Location	Latitude	Longitude
B-19	There's also a magically appearing bike lane on this side of the intersection (Westbound). The parking should be removed directly next to the intersection and the bike lane made continuous.	S Halcyon Rd and Fair Oaks Ave	35.112757	-120.591785
B-20	The bike lanes are so faded that Chevy customers think they can park here instead of just around the corner.	Traffic Way and Poole St	35.120375	-120.576871
B-21	You could probably fit an uphill bike lane and a downhill sharrow on Brisco without removing parking.	Brisco Rd btwn Linda Dr and El Camino Real	35.122543	-120.595191
B-22	The outer travel lanes are 15+ ft while the bike lane is substandard. Do not let CalTrans get in the way of fixing that.	Oak Park Blvd bridge south of W Branch St	35.130087	-120.606707
B-23	No bike lane uphill is brutal. I use the sidewalk.	Oak Park Blvd south of James Way	35.132762	-120.605618
B-24	Bike lane frequently gets sandy here. Provide regular sweeping.	W Branch St west of Rodeo Dr	35.124238	-120.591494
B-25	The parking demand here is low on the north side. Consider removing north side parking for a bike buffer, especially for fast moving cyclists downhill where a dooring could be fatal.	James Way btwn Colina St and Village Glen Dr	35.131717	-120.577268
B-26	There is parking allowed here, and therefore this isn't even a bike lane on the south side. One parked car and you have to merge with fast traffic uphill.	Branch St and Sterling Dr	35.125078	-120.5739
B-27	Turning left onto Fair Oaks is tricky. Consider a bike box or two stage turn configuration to facilitate.	Fair Oaks Ave and Traffic Way	35.119686	-120.576221
B-28	Make this an actual bike lane and maintain it like one. Calling it a shoulder implies you don't have to maintain it like a bike lane, when we know kids are using the shoulder to bike to school.	Valley Rd btwn Fair Oaks Ave and Los Berros Rd	35.109234	-120.58072
B-29	These bike lanes are better than the previous 35mph no-bike-lane condition, but the addition of parked cars on one side detracts from it. The bike lane is a door zone near the parked cars and should be wider. The city standard details should have all-ages-and-abilities bikeways as standard following NACTO.	E Cherry Ave btwn Pacific Coast Railway Pl and Leedham Pl	35.120452	-120.571616
B-30	While this has improved since my time at Paulding, it's still nowhere near acceptable. The door zone bike lanes going uphill are dangerous, and the substandard width bike lane going downhill combined with high pedestrians at release time are also dangerous.	E Branch St east of Garden St	35.125351	-120.571196
B-31	Lack of protected infrastructure here makes this an unsafe route to school, should kids want to bike to school. Students should have a safe route to school.	E Branch St and Crown Hill St	35.125038	-120.574737
B-32	The bike lane approaching and at the intersection here is faded, basically gone, at this point. It's also hard to navigate a left turn from the bike lane here when cars in the rightmost lane can turn left or go straight. These conditions make this intersection unsafe and unusable for most on bike.	Traffic Way south of W Branch St	35.122278	-120.581002
B-33	The bike lane here is not marked.	W Branch St east of Camino Mercado	35.128968	-120.601333
B-34	Ending the bike lane here and dropping cyclists into fast moving traffic makes this route unsafe and unusable.	S Oak Park Blvd and Manhattan Ave	35.117855	-120.609283
B-35	Traffic on Fair Oaks moves at 40mph. The unprotected lane here is not safe. A protected lane should be provided in order to make this a feasible and safe route to school.	Fair Oaks Ave btwn California St and Orchard Ave	35.118192	-120.578985

ID	Comment	Marker Location	Latitude	Longitude
B-36	There is no dedicated space for bikes approaching this intersection when going west on Fair Oaks. The bike lane has been removed for a right turn lane. This makes drivers impatient and creates unsafe conditions for cyclists. As this is a route to school, safety for cyclists here should be a priority.	Fair Oaks ave and S Halycon Rd	35.11268	-120.591023
B-37	The bike lane heading west from Halcyon on Grand isn't marked, which makes this route unsafe and unusable.	E Grand Ave and Halcyon Rd	35.118561	-120.591602
B-38	Lack of a bike lane here makes this route unsafe and unusable. The proposed improvements mark this as a proposed sharrow. That is not safe given that cars are moving at 35mph here. A bike lane (preferably protected) is needed here.	E Grand Ave east of El Camino Real	35.120597	-120.585573
B-39	The break in the bike lane here makes this route unsafe and unusable.	E Grand Ave east of Brisco Rd	35.119978	-120.598469

Pedestrian Comments

ID	Comment	Marker Location	Latitude	Longitude
P-1	Pedestrians cross here, and will continue to cross here whether or not there is a marked crosswalk. There should be a marked crosswalk to make it safer.	W Branch St btwn Traffic Way and Bridge St	35.122769	-120.579967
P-2	No reason for a beg button here. Are we surprised by pedestrian traffic at this intersection? Leading interval is also necessary. Lots of eager drivers aggressively trying to make the turn in front of pedestrians.	E Branch St and S Mason St	35.124281	-120.576582
P-3	No reason for a beg button here. There is plenty of pedestrian traffic at this intersection. Making pedestrians wait a full light cycle because they pushed the button 2 seconds late is really disrespectful.	Fair Oaks Ave and Traffic Way	35.119708	-120.5764
P-4	There is no marked crosswalk on the north side of this intersection and the curb cutout is misaligned with where the marked crosswalk should be, creating unsafe conditions for pedestrians and cyclists traveling to and from the park.	S Elm St and Fair Oaks Ave	35.112662	-120.600357
P-5	This bus stop serving the library has no bench, no shade, and no sidewalk.	W Branch St and Library driveway	35.12377	-120.590272
P-6	Extremely dangerous, and we make it worse by not having a north side crosswalk at Fair Oaks. Add an RRFB, remove adjacent parking, push the bike lane towards the curb and provide refuge islands between the bike lanes and travel lanes.	Traffic Way and Nelson St	35.121296	-120.578148
P-7	This bridge is nice and should be better marked so people use it.	Ped Bridge btwn Best Western and Oak Park Plaza	35.131213	-120.604949
P-8	The cars get yield teeth merging onto traffic way. The crosswalk should also get Yield Teeth.	W Branch St and Traffic Way	35.122293	-120.581404
P-9	Hope you're not ADA because this sidewalk has been taken over by Ford. And there's no sidewalk on the other side of the street either.	Station Way north of Fair Oaks Ave	35.119398	-120.577543
P-10	Could use a "Yield HERE to Peds" sign to make the stop bar more useful. Also RRFB, bulbouts, etc.	E Grand Ave and Alder St	35.118602	-120.593195

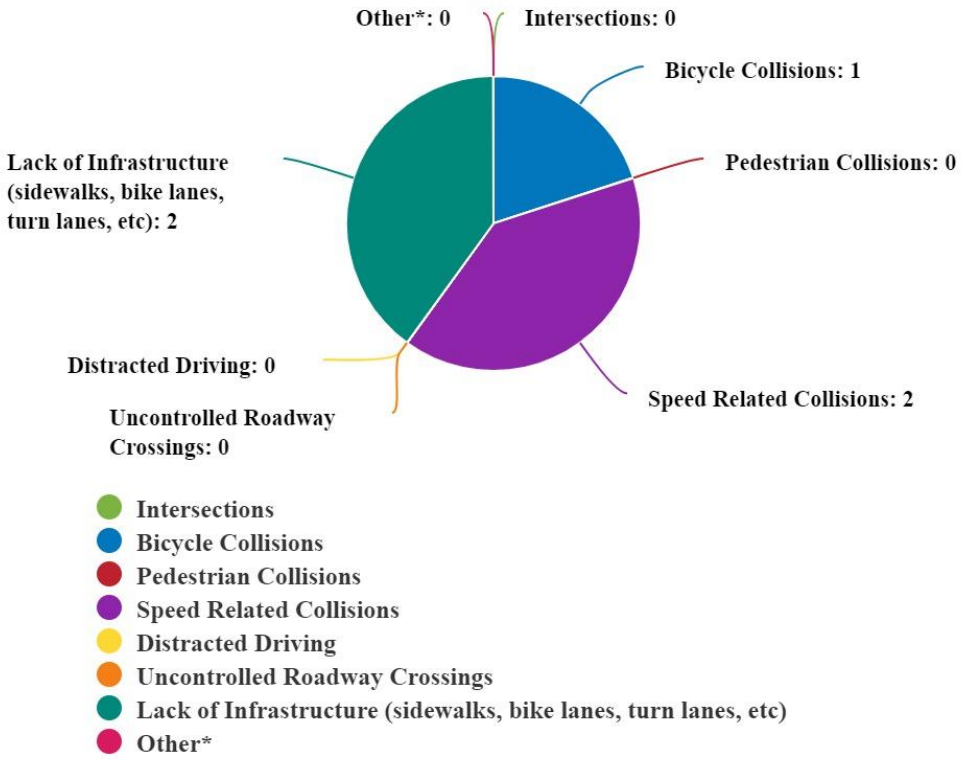
ID	Comment	Marker Location	Latitude	Longitude
P-11	The dual lane capture point for the onramp just serves to widen the pedestrian crossing, and serves little purpose. Plus, longer light cycles due to long pedestrian crossing times.	E Grand Ave and US 101 SB On Ramp	35.120837	-120.584244
P-12	Where even IS the pedestrian crosswalk supposed to be? 20 feet behind the stop lines? It's silly.	Traffic Way and Station Way	35.121827	-120.579449
P-13	There's no reason to have a 50 foot corner radius if semis can just use the outer lane during a turn.	E Grand Ave and US 101 SB Off Ramp	35.120884	-120.585004
P-14	No marked crosswalk to actually get to this sidewalk up to the houses and shopping center.	N Oak Park Blvd and Branch St	35.131316	-120.606024
P-15	This crosswalk was improved, but it should be made even better with concrete to reduce the street width.	Crown Hill St at E Branch St	35.12514	-120.574973
P-16	Create bulb outs (and set the stop bars back so trucks can still turn)	E Branch St and S Mason St	35.124499	-120.576464
P-17	Stop bar at intersection is literally in the direct walking path between curb ramps.	Nelson St and S Mason St	35.122867	-120.575316
P-18	Narrow sidewalk is often blocked by cars, posing an accessibility blocker for wheelchair users who then have to use the street.	S Mason St and Poole St	35.121887	-120.574615
P-19	Leading pedestrian interval for safer crossing.	Fair Oaks Ave and Traffic Way	35.119646	-120.576314
P-20	Consider enabling all pedestrian crossings without the need for the beg button. Wide curb cutouts to facilitate and encourage fast moving traffic, like at this intersection, make it unsafe to cross if I approach this crossing during a green light, with time to cross, but after having the opportunity to use the beg button. This creates a delay for pedestrians since they then need to wait another full light cycle.	E Grand Ave and US 101 NB On Ramp	35.121734	-120.582848
P-21	Mason and Allen are commonly used as routes for traffic to cut through from E Branch to Branch Mill. Most traffic through here is speeding above 25mph, which creates unsafe conditions for pedestrians and cyclists (many children) in the neighborhood. Consider traffic calming measures here.	S Mason St and Allen St	35.120633	-120.573492

Transit Suggestion

ID	Comment	Marker Location	Latitude	Longitude
T-1	the speed limit needs to be reduced here. It would cause pedestrians to feel safer when crossing. And slowing transit would cause more recognition of store fronts and businesses.	E Branch St btwn Nevada St and Short St	35.123688	-120.578125
T-2	Reduce speed limit on Grand to provide more recognition of store fronts and allow pedestrians and cyclist to feel safer and more inclined to take this route.	E Grand Ave west of Courtland St	35.120646	-120.605893
T-3	It's a little unfortunate that the library can only be reached by a bus that runs one direction. A traffic light at Branch and Grand would probably allow the buses to continue down Branch instead of getting onto the freeway.	W Branch St at Library driveway	35.123567	-120.589606
T-4	Specifically we could do level boarding for both east and westbound stops. Would be more equitable for ADA school kids as well.	Fair Oaks Ave east of Valley Rd	35.117185	-120.581508
T-5	We can engineer a westbound bus stop that makes sense.	Fair Oaks Ave east of Valley Rd	35.11692	-120.581805
T-6	Instead of exposed bike racks, use bike lockers that can be locked with a personal lock like a U-lock on the door.	El Camino Real btwn N Halcyon Rd and Feah Ave	35.122767	-120.590205

City of Arroyo Grande LRSP Public Survey Results

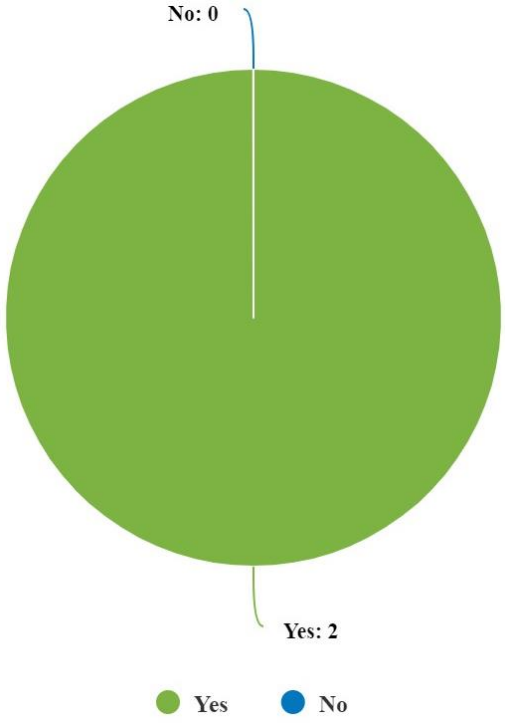
Q1. What are the main roadway safety issues in Arroyo Grande? Check all that apply.



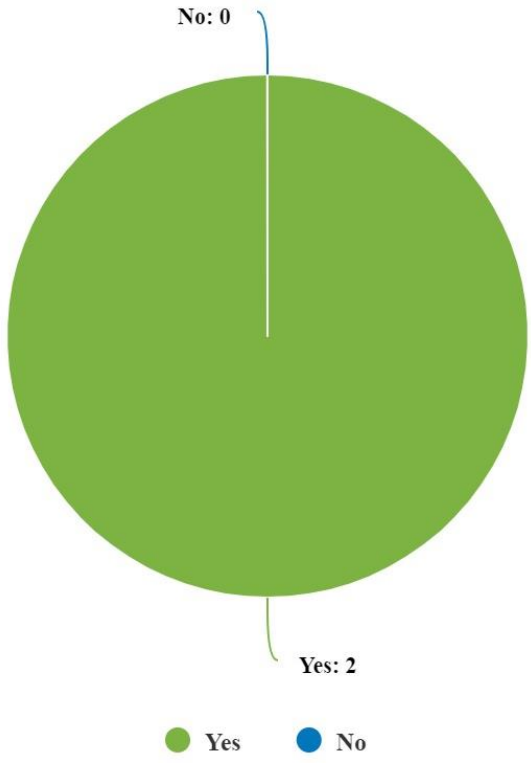
Q2. If other, Please list

- No response –

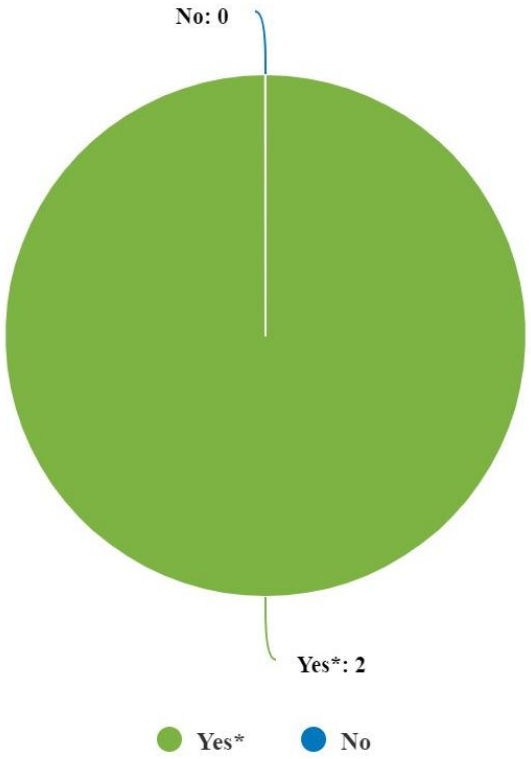
Q3. Are you familiar with how Pedestrian Hybrid Beacons (PHB) work?



Q4. Would you be interested in an educational component for PHBs (e.g. a video or infographic)?



Q5. Do you have any concerns about speeding on local roads?



Q6. *Please list specific locations and any recommendations you may have.

1. The village!!!! Make the speed limit 15 mph, put a bike lane, and have cars park on one side of the street or behind businesses so that people and families have space to comfortably ride their bikes and walk around without cars speeding by.
2. The village. Speed is 25 mph but people rush through anyways. It is difficult to leisurely ride a bike through that area due to this , and biking on the side walk is not a good option due to the busy store fronts. Also in the Halcyon/grande area the speed limit is 40 mph in some places with no area for bikes. These suggestions have also been added to the interactive map. *

Q7. What roadway improvements would you like to see in and around school zones?

- No Responses -

Q8. What other improvements would you like to see?

1. Isolated pedestrian/bike paths. The proposed plans for the lanes and path are wonderful and I hope all of them can be completed soon! These paths are a great opportunities that prompt people to be outside. I hope the Grand 101 overpass can be improved for bike crossing. Biking and even walking that section feels very exposed to the cars getting on the 101. I am a professional cyclist and avoid this area of grand because of this and the lack of a bike lane.
2. More bike lanes!!!!!!!

Q9. Additional Comments

- No Responses -

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

May 29, 2018

Matthew Downing, Planning Manager
City of Arroyo Grande
Community Development
300 East Branch Street
Arroyo Grande, CA 93420

Dear Mr. Downing:

Thank you for the opportunity to review your agency's draft 2018 *Halcyon Road Complete Streets Plan*. Caltrans supports the plan's main objective to provide safe mobility and accessibility throughout the corridor while connecting people, schools, the hospital and local businesses with multimodal travel options for all users. We also appreciate how it advances the state's high sustainability goals of tripling bicycling, and doubling walking and riding transit by 2020.

Caltrans commends the city's efforts to implement the plan's conceptual improvements into a capital project in the Active Transportation Program (Cycle 4). We also thank your agency for addressing our comments submitted in correspondence to the city on November 28, 2017. Please include a copy of that letter (see attached) and this one in the plan's appendices for future reference.

Please note the draft plan is a planning-level-only document. The feasibility and design standards will need to be studied further as this plan moves forward. Caltrans' comments regarding this document are not considered approval for any proposed concepts. Overall, the draft plan features understanding of the issues, deficiencies and collaboration needed to address them as well as potential solutions.

Proposed Improvements
We support the concept for two roundabouts at Highway 1/Halcyon Road (north and south). The plan should specify, as these projects move toward implementation, more traffic and network analysis would be necessary as required in the *Highway Capacity Manual (HCM) Sixth Edition: A Guide for Multimodal Mobility Analysis*. It should also note, if a proposed highway improvement requires a deviation of design standards, Caltrans must approve the deviation prior to commitments on the specific geometrics.

We appreciate the plan's acknowledgment that state highway intersection improvements are subject to Caltrans' review and approval via the Intersection Control Evaluation (ICE) process. Please consider further discussing and listing the plan's proposed improvements in separate categories, including the most feasible for funding, construction and

implementation; long and short-term priorities; long-term maintenance costs and responsibilities; and those likely to be built in phases.

Cross Sections
Please note several of the plan's existing and proposed cross sections show the gutter pan as part of the travel lane width. Although this is typical for bicycle lanes, it does not apply to vehicular travel lanes.

Bicycle and Pedestrian Travel
We recommend referencing the Caltrans 2017 *State Bicycle and Pedestrian Plan, Toward an Active California.* This plan guides the planning and development of non-motorized transportation facilities and maximizing the use of future investments on the state highway system and other state facilities. The document is available online at: http://goactiveca.org/

Senate Bill 743 (2013)
For better consistency with SB 743, we recommend future traffic studies address projects reducing Vehicle Miles Traveled (VMT) generation and improving pedestrian, bicycle and transit service, and infrastructure—in addition to level of service analysis for transportation impacts regarding proposed local development.
More information at: http://www.dot.ca.gov/hq/tpp/documents/RevisedInterimGuidance11092016.pdf

Community Visioning
We compliment the city on its excellent community visioning and extensive outreach to develop the draft plan, which appears to maintain consistency with other relevant state and local plans and/or proposed improvements.

Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS)
Once the city adopts the 2018 *Halcyon Complete Streets Plan*, we recommend including the proposed improvements—supported by Caltrans as conceptually feasible only—into the San Luis Obispo Council of Governments' current RTP/SCS for funding potential. The proposed projects should be listed along with lead agencies identified.

In conclusion, it is our desire to work closely with the City of Arroyo Grande in developing the most efficient, safe and sustainable transportation system for all users. If you have any questions, please contact me at 805-549-3648 or email cindy.utter@dot.ca.gov.

Sincerely,

CINDY UTTER
Associate Transportation Planner

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
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Making Conservation a California Way of Life.

August 11, 2021

Robin Dickerson
City Engineer
300 East Branch Street
Arroyo Grande, CA 93420

Dear Ms. Dickerson:

Thank you for the opportunity to review your agency's final 2021 *Local Road Safety Plan* (LRSP). Caltrans supports how the plan builds on the collision analysis from the Systemic Safety Analysis Report (SSAR) and addresses in partnership the five Es of traffic safety: engineering, enforcement, education, emergency services, and emerging technologies.

We also appreciate the city's goal to identify safety countermeasures to help mitigate primary crash trends, reduce overall collision severity, and identify specific locations with higher safety risks—all important elements supporting the state's goals of improving safety for all users and travel modes. With this plan, the city is well prepared to apply for funding through the State Highway Safety Improvement Program (Cycle 11).

Conceptual Plan
Please note the LRSPis a planning-level document. The feasibility and design standards will need to be studied further on some improvements as this plan moves forward. Caltrans' comments regarding this document should not be considered approval for any proposed improvements. Overall, the plan features an understanding of the issues, deficiencies and collaboration needed to address them as well as potential solutions.

Proposed Improvements
The plan should specify, as these projects move toward implementation, more traffic and network analysis may be necessary for optimal transportation safety, mobility, operations, efficiency and connectivity.

Senate Bill 743 (2013)
As of July 2020, traffic studies are required to analyze projects using Vehicle Miles Traveled (VMT) as the primary metric for identifying transportation impacts and should consider improving pedestrian, bicycle infrastructure and transit service. Other important aspects include quality of life, healthier lifestyles and an improved economy. Senate Bill 743 changes the metric for considering automobile delay as a significant environmental impact within CEQA transportation analysis. This

means studies will address how new development projects may influence the overall use of the automobile rather than focusing on intersection and roadway traffic. More information: https://env.onramp.dot.ca.gov/emo/senate-bill-sb-743-implementation-website-link

Bicycle, Pedestrian & Transit Travel

Caltrans District 5 recently developed a districtwide *Active Transportation Plan* and gathered extensive public input on bicycle and pedestrian needs at specific locations, especially in disadvantaged communities. The plan emphasizes social equity and providing safe walking, bicycling and riding transit. Scheduled for an online release soon, it will be a useful tool for local jurisdictional multimodal planning efforts. Statewide, Caltrans is creating plans for context-appropriate solutions on, near and adjacent to state highways.

Community Visioning

We compliment the city on its excellent community visioning and extensive outreach to develop the LRSP, which appears to maintain consistency with other relevant state and local plans and/or proposed improvements. Please include a copy of this letter in the plan's appendices along with our previous letter regarding the city's 2018 *Halcyon Complete Streets Plan*.

In conclusion, it is our desire to work closely with the City of Arroyo Grande in developing the most efficient, safe and sustainable transportation system for all users. If you have any questions, please contact me at 805-835-6432 or jenna.schudson@dot.ca.gov.

Sincerely,

JENNA SCHUDSON
Associate Transportation Planner
Caltrans, District 5

LUCIA MAR UNIFIED SCHOOL DISTRICT

Engage. Challenge. Inspire

BUSINESS SERVICES DEPARTMENT
Jim Empey
Assistant Superintendent, Business Services
602 Orchard Street, Arroyo Grande, CA 93420
Tel 805.474.3000 x1070 | Fax 805.473.1593

August 16, 2021

Arroyo Grande City Council
300 E Branch Street
Arroyo Grande, CA 93420

Subject: Local Road Safety Plan

Dear Arroyo Grande City Council:

Over the last year and a half Lucia Mar Unified School District has collaborated with City of Arroyo Grande officials and other organizations to finalize the Local Road Safety Plan (LRSP). During this time, Lucia Mar has had a district representative working closely with the committee to identify safety issues that we feel affect our students and families. Lucia Mar USD is serious about ensuring the safety of its students. Safety starts with students walking, biking, or driving to-and-from school, and we believe that all forms of transportation are of equal importance. As every family has its own unique situation, a variety of forms of transportation are required.

We attended in-person and virtual meetings, and we met with Robin Dickerson onsite to review potential changes to Valley Road. This positive collaboration is reflected in the final version of the LRSP. During our meetings, several safety issues were identified and studied: (1) Fair Oaks Road encompasses two of our biggest campuses: Arroyo Grande High School (AGHS) and Harloe Elementary School. The LRSP addresses the needs of both schools through the Halcyon Complete Streets Project and the redesign of Valley Road. (2) Identifying a potential problem on Nelson Street and Traffic Way was also important because we have many students traveling to-and-from AGHS using that intersection.

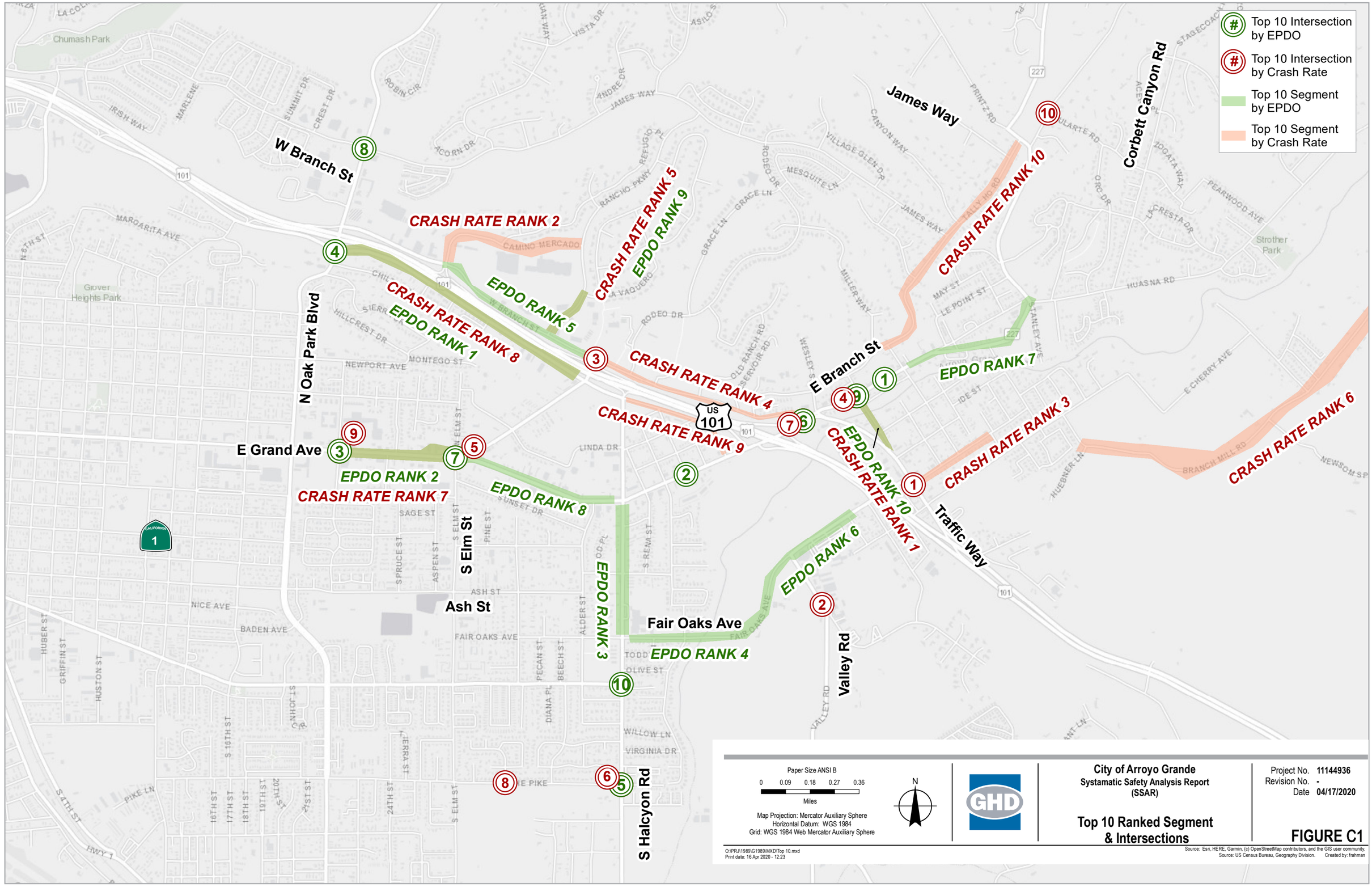
Lucia Mar Unified School District strongly supports the final version of LRSP. We hope that it will be adopted and implemented. It is very important that the City of Arroyo Grande continues to collaborate with the "School District" to ensure that our streets are safe for all of our road users. Thank you for giving us the opportunity to help make the City of Arroyo Grande a better place to live and work.

Sincerely,

Jim Empey
Assistant Superintendent, Business Services

C: CM
ASM
COORD
City Eng

Appendix B – SSAR Crash Analysis


Top 10 Intersection by EPDO
Top 10 Intersection by Crash Rate
Top 10 Segment by EPDO
Top 10 Segment by Crash Rate
W Branch St
CRASH RATE RANK 2
CRASH RATE RANK 5
EPDO RANK 9
EPDO RANK 5
CRASH RATE RANK 8
EPDO RANK 1
CRASH RATE RANK 4
CRASH RATE RANK 9
N Oak Park Blvd
E Grand Ave
EPDO RANK 2
CRASH RATE RANK 7
EPDO RANK 8
S Elm St
Ash St
EPDO RANK 3
Fair Oaks Ave
EPDO RANK 4
S Halcyon Rd
James Way
CRASH RATE RANK 10
E Branch St
EPDO RANK 7
CRASH RATE RANK 3
CRASH RATE RANK 6
EPDO RANK 10
CRASH RATE RANK 1
Traffic Way
EPDO RANK 6
Valley Rd
Corbett Canyon Rd
US 101
CAMINO MERCADO
RANCHO PKWY
GRACE LN
RODEO DR
MESQUITE LN
VILLAGE GLEN DR
CANYON WAY
TALLY HO RD
ORO DR
LA CRESTA DR
PEARWOOD AVE
Strother Park
HUASNA RD
MAY ST
LE POINT ST
STANLEY AVE
E CHERRY AVE
BRANCH MILL RD
NEWSOM SP
HUEBNER LN
MARGARITA AVE
HILLCREST DR
NEWPORT AVE
MONTEGO ST
LINDA DR
SUNSET DR
SAGE ST
FAIR OAKS AVE
OLIVE ST
WILLOW LN
VIRGINIA DR
PIKE LN
HWY 1
NICE AVE
BADEN AVE
ASH ST
TODD LN
Grover Heights Park
Chumash Park
Paper Size ANSI B
0 0.09 0.18 0.27 0.36
Miles
Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere
N
City of Arroyo Grande
Systematic Safety Analysis Report (SSAR)
Top 10 Ranked Segment & Intersections
Project No. 11144936
Revision No. -
Date 04/17/2020
FIGURE C1
O:\PRJ\1989\G1989\MXD\Top 10.mxd
Print date: 16 Apr 2020 - 12:23
Source: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community.
Source: US Census Bureau, Geography Division. Created by: frahman

Intersection ID	Ranked Intersection by EPDO	EPDO
9	E BRANCH ST & SHORT ST	581
46	E GRAND AVE & BELL ST	557
1	E GRAND AVE & COURTLAND ST	133
13	EL CAMINO REAL & N OAK PARK BLVD	91
20	THE PIKE & S HALCYON RD	82
6	E GRAND AVE & W BRANCH ST	70
2	E GRAND AVE & S ELM ST	54
12	JAMES WAY & OAK PARK BLVD	52
8	W BRNACH ST & BRIDGE ST	51
19	FARROLL AVE & S HALCYON RD	48
16	EL CAMINO REAL & BRISCO RD	47
4	E GRAND AVE & S HALCYON RD	45
14	W BRANCH ST & RANCHO PKWY	43
5	E GRAND AVE & EL CAMINO REAL	39
17	EL CAMINO REAL & N HALCYON RD	39
27	E GRAND AVE & US 101 SB RAMP	38
29	W BRANCH ST / US 101 NB RAMP & N OAK PARK BLVD	36
58	FAIR OAKS AVE & STATION WAY	36
40	E GRAND AVE & JUNIPER ST	32
15	W BRANCH ST & BRISCO RD	30
63	FAIR OAKS AVE & AGHS EAST ENTRANCE	30
28	W BRANCH ST & CAMINO MERCADO / US 101 NB RAMPS	29
31	N OAK PARK BLVD & E GRAND AVE	29
3	E GRAND AVE & BRISCO RD	28
11	E BRANCH ST & HUSANA RD	27
64	VALLEY RD & AGHS STAFF PARKING / BACK ROAD	27
7	W BRANCH ST & TRAFFIC WAY	26
42	THE PIKE & S ELM ST	26
69	E GRAND AVE & ALDER ST	26
37	FARROLL AVE & S ELM ST	25
65	FAIR OAKS AVE & TODD LN	25
74	W BRANCH ST & TOWN CENTER DR	24
18	FAIR OAKS AVE & S HALCYON RD	23
22	FAIR OAKS AVE & TRAFFIC WAY	22
45	E GRAND AVE N ALPINE ST	22
10	E BRANCH ST & S MASON ST	19
49	TRAFFIC WAY & NELSON ST	18
62	FAIR OAKS AVE & AGHS MIDDLE ENTRANCE	18
44	E GRAND AVE & RENA ST	17
66	S ELM ST & MAPLE ST	17
23	FAIR OAKS AVE & US 101 SB OFF RAMP & ORCHARD ST	16
35	ASH ST & COURTLAND ST	16
36	FAIR OAKSAVE & S ELM ST	15
59	CHERRY AVE & TRAFFIC WAY	15
54	HUSANA RD & CLARENCE AVE	14
55	HUSANA RD & ORO DR	13
56	HUSANA RD & STAGECOACH RD	12
24	FAIR OAKS AVE & VALLEY RD	11
41	E GRAND AVE & FAIR VIEW DR	11
52	NELSON ST & S MASON ST	10
21	LEANNA DR & VALLEY RD	9
61	FAIR OAKS AVE & AGHS WEST ENTRANCE	8
43	THE PIKE & GARFIELD PL	7
50	TRAFFIC WAY & POOLE ST	7
53	CORBETT CANYON RD & SR 227 / PRINTZ RD	5
67	CORBETT CANYON RD & GULARTE RD	5
38	DODSON WAY & HALCYON RD	4
51	TRAFFIC WAY & ALLEN ST	4
70	JAMES WAY & MEADOW WAY	4
25	TRAFFIC WAY & US 101 NB RAMP	3
26	E GRAND AVE & US 101 NB RAMP	3
57	PRINTZ RD & TALLY HO RD	3
68	MASON & LE POINT ST	3
71	OAK PARK BLVD & MEADOWLARK DR	3
72	BRISCO & LINDA DR	3
30	BRISCO RD & US 101 NB RAMPS	2
32	W BRANCH ST & RODEO DR	2
39	ASH ST & WALNUT ST	2
47	EL CAMINO REAL & BELL ST	2
60	CHERRY AVE & CALIFORNIA ST	2
33	JAMES WAY & RODEO DR	1
34	JAMES WAY & TALLY HO RD	1
48	W BRANCH ST & VERNON ST	1
73	FAIR OAKS AVE & CALIFORNIA ST	1

Intersection ID	Ranked Intersection by Overall Crash Rates	Overall Crash Rates
51	TRAFFIC WAY & ALLEN ST	1.48
64	VALLEY RD & AGHS STAFF PARKING / BACK ROAD	1.22
15	W BRANCH ST & BRISCO RD	0.94
8	W BRNACH ST & BRIDGE ST	0.93
2	E GRAND AVE & S ELM ST	0.91
20	THE PIKE & S HALCYON RD	0.83
6	E GRAND AVE & W BRANCH ST	0.79
43	THE PIKE & GARFIELD PL	0.78
1	E GRAND AVE & COURTLAND ST	0.76
67	CORBETT CANYON RD & GULARTE RD	0.76
16	EL CAMINO REAL & BRISCO RD	0.67
28	W BRANCH ST & CAMINO MERCADO / US 101 NB RAMPS	0.66
14	W BRANCH ST & RANCHO PKWY	0.65
17	EL CAMINO REAL & N HALCYON RD	0.65
65	FAIR OAKS AVE & TODD LN	0.63
13	EL CAMINO REAL & N OAK PARK BLVD	0.56
27	E GRAND AVE & US 101 SB RAMP	0.56
23	FAIR OAKS AVE & US 101 SB OFF RAMP & ORCHARD ST	0.56
52	NELSON ST & S MASON ST	0.55
11	E BRANCH ST & HUSANA RD	0.54
7	W BRANCH ST & TRAFFIC WAY	0.54
19	FARROLL AVE & S HALCYON RD	0.54
4	E GRAND AVE & S HALCYON RD	0.54
35	ASH ST & COURTLAND ST	0.53
3	E GRAND AVE & BRISCO RD	0.53
5	E GRAND AVE & EL CAMINO REAL	0.52
59	CHERRY AVE & TRAFFIC WAY	0.51
47	EL CAMINO REAL & BELL ST	0.47
74	W BRANCH ST & TOWN CENTER DR	0.44
10	E BRANCH ST & S MASON ST	0.43
49	TRAFFIC WAY & NELSON ST	0.41
42	THE PIKE & S ELM ST	0.39
62	FAIR OAKS AVE & AGHS MIDDLE ENTRANCE	0.39
22	FAIR OAKS AVE & TRAFFIC WAY	0.39
46	E GRAND AVE & BELL ST	0.39
24	FAIR OAKS AVE & VALLEY RD	0.39
18	FAIR OAKS AVE & S HALCYON RD	0.37
66	S ELM ST & MAPLE ST	0.37
53	CORBETT CANYON RD & SR 227 / PRINTZ RD	0.37
36	FAIR OAKSAVE & S ELM ST	0.36
29	W BRANCH ST / US 101 NB RAMP & N OAK PARK BLVD	0.36
70	JAMES WAY & MEADOW WAY	0.36
9	E BRANCH ST & SHORT ST	0.35
40	E GRAND AVE & JUNIPER ST	0.34
44	E GRAND AVE & RENA ST	0.33
21	LEANNA DR & VALLEY RD	0.29
58	FAIR OAKS AVE & STATION WAY	0.29
54	HUSANA RD & CLARENCE AVE	0.27
71	OAK PARK BLVD & MEADOWLARK DR	0.26
68	MASON & LE POINT ST	0.26
57	PRINTZ RD & TALLY HO RD	0.25
63	FAIR OAKS AVE & AGHS EAST ENTRANCE	0.23
12	JAMES WAY & OAK PARK BLVD	0.22
72	BRISCO & LINDA DR	0.21
69	E GRAND AVE & ALDER ST	0.21
37	FARROLL AVE & S ELM ST	0.20
55	HUSANA RD & ORO DR	0.20
45	E GRAND AVE N ALPINE ST	0.19
25	TRAFFIC WAY & US 101 NB RAMP	0.19
39	ASH ST & WALNUT ST	0.18
32	W BRANCH ST & RODEO DR	0.18
48	W BRANCH ST & VERNON ST	0.17
41	E GRAND AVE & FAIR VIEW DR	0.17
61	FAIR OAKS AVE & AGHS WEST ENTRANCE	0.14
38	DODSON WAY & HALCYON RD	0.14
56	HUSANA RD & STAGECOACH RD	0.13
33	JAMES WAY & RODEO DR	0.12
34	JAMES WAY & TALLY HO RD	0.11
50	TRAFFIC WAY & POOLE ST	0.10
30	BRISCO RD & US 101 NB RAMPS	0.07
26	E GRAND AVE & US 101 NB RAMP	0.07
31	N OAK PARK BLVD & E GRAND AVE	0.07
73	FAIR OAKS AVE & CALIFORNIA ST	0.04
60	CHERRY AVE & CALIFORNIA ST	-

Intersection ID	Ranked intersection by Total Crashes	Toal Crashes
2	E GRAND AVE & S ELM ST	44
1	E GRAND AVE & COURTLAND ST	34
13	EL CAMINO REAL & N OAK PARK BLVD	32
6	E GRAND AVE & W BRANCH ST	30
4	E GRAND AVE & S HALCYON RD	30
8	W BRNACH ST & BRIDGE ST	26
15	W BRANCH ST & BRISCO RD	25
27	E GRAND AVE & US 101 SB RAMP	23
3	E GRAND AVE & BRISCO RD	23
16	EL CAMINO REAL & BRISCO RD	22
7	W BRANCH ST & TRAFFIC WAY	21
29	W BRANCH ST / US 101 NB RAMP & N OAK PARK BLVD	21
28	W BRANCH ST & CAMINO MERCADO / US 101 NB RAMPS	19
17	EL CAMINO REAL & N HALCYON RD	19
5	E GRAND AVE & EL CAMINO REAL	19
20	THE PIKE & S HALCYON RD	18
14	W BRANCH ST & RANCHO PKWY	18
64	VALLEY RD & AGHS STAFF PARKING / BACK ROAD	17
23	FAIR OAKS AVE & US 101 SB OFF RAMP & ORCHARD ST	16
10	E BRANCH ST & S MASON ST	14
46	E GRAND AVE & BELL ST	14
19	FARROLL AVE & S HALCYON RD	13
18	FAIR OAKS AVE & S HALCYON RD	13
11	E BRANCH ST & HUSANA RD	12
22	FAIR OAKS AVE & TRAFFIC WAY	12
40	E GRAND AVE & JUNIPER ST	12
44	E GRAND AVE & RENA ST	12
42	THE PIKE & S ELM ST	11
24	FAIR OAKS AVE & VALLEY RD	11
65	FAIR OAKS AVE & TODD LN	10
59	CHERRY AVE & TRAFFIC WAY	10
36	FAIR OAKSAVE & S ELM ST	10
74	W BRANCH ST & TOWN CENTER DR	9
49	TRAFFIC WAY & NELSON ST	8
62	FAIR OAKS AVE & AGHS MIDDLE ENTRANCE	8
9	E BRANCH ST & SHORT ST	8
12	JAMES WAY & OAK PARK BLVD	8
43	THE PIKE & GARFIELD PL	7
66	S ELM ST & MAPLE ST	7
45	E GRAND AVE N ALPINE ST	7
35	ASH ST & COURTLAND ST	6
58	FAIR OAKS AVE & STATION WAY	6
69	E GRAND AVE & ALDER ST	6
41	E GRAND AVE & FAIR VIEW DR	6
67	CORBETT CANYON RD & GULARTE RD	5
52	NELSON ST & S MASON ST	5
53	CORBETT CANYON RD & SR 227 / PRINTZ RD	5
63	FAIR OAKS AVE & AGHS EAST ENTRANCE	5
37	FARROLL AVE & S ELM ST	5
51	TRAFFIC WAY & ALLEN ST	4
70	JAMES WAY & MEADOW WAY	4
21	LEANNA DR & VALLEY RD	4
54	HUSANA RD & CLARENCE AVE	4
38	DODSON WAY & HALCYON RD	4
31	N OAK PARK BLVD & E GRAND AVE	4
71	OAK PARK BLVD & MEADOWLARK DR	3
68	MASON & LE POINT ST	3
57	PRINTZ RD & TALLY HO RD	3
72	BRISCO & LINDA DR	3
55	HUSANA RD & ORO DR	3
25	TRAFFIC WAY & US 101 NB RAMP	3
61	FAIR OAKS AVE & AGHS WEST ENTRANCE	3
26	E GRAND AVE & US 101 NB RAMP	3
60	CHERRY AVE & CALIFORNIA ST	2
47	EL CAMINO REAL & BELL ST	2
39	ASH ST & WALNUT ST	2
32	W BRANCH ST & RODEO DR	2
56	HUSANA RD & STAGECOACH RD	2
50	TRAFFIC WAY & POOLE ST	2
30	BRISCO RD & US 101 NB RAMPS	2
48	W BRANCH ST & VERNON ST	1
33	JAMES WAY & RODEO DR	1
34	JAMES WAY & TALLY HO RD	1
73	FAIR OAKS AVE & CALIFORNIA ST	1

Collisions at Selected Intersection

Intersection #	Name	Severity					Type										Year												Total
		Fatal	Injury (Severe)	Injury (Other Visible)	Injury (Complaint of Pain)	Property Damage Only	Head-on	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Vehicle/ Pedestrian	Other/Not Listed	Pedestrian	Bicycle*	2014	2015	2016	2017	2018	EPDO	24-HOUR ENTERING VOLUME	Fatal + Injury	Overall Crash Rate	Fatal Crash Rate	Fatal + Injury Crash rate	
1	E GRAND AVE & COURTLAND ST		1	5	4	24		6	10	12	2		2	2	2	2	11	5	9	5	4	133	24,387	10	0.764	-	0.225	34
2	E GRAND AVE & S ELM ST				2	42	4	9	20	6	3			2			7	12	8	8	9	54	26,394	2	0.913	-	0.042	44
3	E GRAND AVE & BRISCO RD				1	22	1	3	5	7	3		1	3	1		8	3	4	5	3	28	23,960	1	0.526	-	0.023	23
4	E GRAND AVE & S HALCYON RD			1	1	28	1	7	8	4	2			8		1	9	7	5	6	3	45	30,603	2	0.537	-	0.036	30
5	E GRAND AVE & EL CAMINO REAL			1	2	16		2	5	8	2			2			7	3	6	2	1	39	19,883	3	0.524	-	0.083	19
6	E GRAND AVE & W BRANCH ST			3	2	25	2	4	2	20				2	1	2	10	7	3	6	4	70	20,709	5	0.794	-	0.132	30
7	W BRANCH ST & TRAFFIC WAY				1	20	2	2	8	5	1			3			3		5	6	7	26	21,343	1	0.539	-	0.026	21
8	W BRNACH ST & BRIDGE ST			1	3	22		9	6		2		2	7	3		1	8	5	4	8	51	15,249	4	0.934	-	0.144	26
9	E BRANCH ST & SHORT ST	1		3		4	1		1		1		2	3	2		1	1	3	1	2	581	12,602	4	0.348	0.043	0.174	8
10	E BRANCH ST & S MASON ST				1	13	2	1	6	1	1		1	2	1		3	2	3	2	4	19	17,799	1	0.431	-	0.031	14
11	E BRANCH ST & HUSANA RD			1	1	10		1	3		7			1			2	2	1	1	6	27	12,172	2	0.540	-	0.090	12
12	JAMES WAY & OAK PARK BLVD		1	1	1	5			3	3	1			1			2		4	2		52	20,040	3	0.219	-	0.082	8
13	EL CAMINO REAL & N OAK PARK BLVD		1	2	2	27	2	7	7	8	1	2		5		1	8	3	9	6	6	91	31,197	5	0.562	-	0.088	32
14	W BRANCH ST & RANCHO PKWY			2	1	15	1	1	5	2	3			6			5	3	4	2	4	43	15,096	3	0.653	-	0.109	18
15	W BRANCH ST & BRISCO RD				1	24	1	6	13	1				4			7	6	3	6	3	30	14,590	1	0.939	-	0.038	25
16	EL CAMINO REAL & BRISCO RD			1	3	18	4	6	7	3			1	1	1		3	2	3	7	7	47	17,901	4	0.673	-	0.122	22
17	EL CAMINO REAL & N HALCYON RD			1	2	16	1	11	3	1	3			0			2	4	4	1	8	39	16,038	3	0.649	-	0.102	19
18	FAIR OAKS AVE & S HALCYON RD				2	11		1	6	2	2		1	1	1	1	5	4	1	1	2	23	19,018	2	0.375	-	0.058	13
19	FARROLL AVE & S HALCYON RD			3	1	9		1	2	8	1			1			2	3	5	1	2	48	13,213	4	0.539	-	0.166	13
20	THE PIKE & S HALCYON RD		1	2	3	12	1	1	5	9				2			4	2	2	6	4	82	11,952	6	0.825	-	0.275	18
21	LEANNA DR & VALLEY RD				1	3	1		2					1			1		2		1	9	7,619	1	0.288	-	-	4
22	FAIR OAKS AVE & TRAFFIC WAY				2	10	2	2	3	4				1			5		2	2	3	22	16,827	2	0.391	-	0.065	12
23	FAIR OAKS AVE & US 101 SB OFF RAMP & ORCHARD ST					16	2	2	1	6	3			2			3	5	4	2	2	16	15,787	0	0.555	-	-	16
24	FAIR OAKS AVE & VALLEY RD					11		4	3	2	1			1				3	2	1	5	11	15,563	0	0.387	-	-	11
25	TRAFFIC WAY & US 101 NB RAMP					3			1		1			1			1	1			1	3	8,675	0	0.189	-	-	3
26	E GRAND AVE & US 101 NB RAMP					3		1	1		1			0			1	2				3	24,252	0	0.068	-	-	3
27	E GRAND AVE & US 101 SB RAMP			1	1	21		5	7	5	2		1	3	1	1	2	9	3	3	6	38	22,479	2	0.561	-	0.049	23
28	W BRANCH ST & CAMINO MERCADO / US 101 NB RAMPS				2	17	1	3	6	1	8			0			6	2	3	4	4	29	15,761	2	0.661	-	0.070	19
29	W BRANCH ST / US 101 NB RAMP & N OAK PARK BLVD			1	1	19	1	3	3	9	1			4			7	5	3	1	5	36	31,872	2	0.361	-	0.034	21
30	BRISCO RD & US 101 NB RAMPS					2			1		1			0				1			1	2	15,055	0	0.073	-	-	2
31	N OAK PARK BLVD & E GRAND AVE			2	1	1		1	1	2				0				2	1		1	29	32,613	3	0.067	-	-	4
32	W BRANCH ST & RODEO DR					2								2			1			1		2	6,173	0	0.178	-	-	2
33	JAMES WAY & RODEO DR					1		1						0						1		1	4,667	0	0.117	-	-	1
34	JAMES WAY & TALLY HO RD					1			1					0				1				1	4,821	0	0.114	-	-	1
35	ASH ST & COURTLAND ST				2	4	1	1		4				0			2		2	2		16	6,202	2	0.530	-	0.177	6
36	FAIR OAKSAVE & S ELM ST				1	9		2	3	2	2		1	0	1		1	2	5	2		15	15,120	1	0.362	-	0.036	10
37	FARROLL AVE & S ELM ST			2		3		1		2			1	1	1		1	1		1	2	25	13,534	2	0.202	-	0.081	5
38	DODSON WAY & HALCYON RD					4	1		1	1				1			1			2	1	4	15,352	0	0.143	-	-	4
39	ASH ST & WALNUT ST					2		2						0			1				1	2	6,017	0	0.182	-	-	2
40	E GRAND AVE & JUNIPER ST			2		10		3	3	1	4		1	0	1		2	2	2	5	1	32	19,216	2	0.342	-	0.057	12
41	E GRAND AVE & FAIR VIEW DR				1	5		1		4				1			1		3	2		11	19,216	1	0.171	-	0.029	6
42	THE PIKE & S ELM ST			1	1	9		2	1	1	5			2			3	2	4	1	1	26	15,348	2	0.393	-	0.071	11
43	THE PIKE & GARFIELD PL					7		1	1	3				2			2			3	2	7	4,901	0	0.783	-	-	7
44	E GRAND AVE & RENA ST				1	11		4	4	1	1			2			2	1	2	5	2	17	19,714	1	0.334	-	0.028	12
45	E GRAND AVE N ALPINE ST			1	1	5		3	2	1	1			0			2	1	3		1	22	19,714	2	0.195	-	0.056	7
46	E GRAND AVE & BELL ST	1				13	1	1	5	2	3		1	1	1		1	3	3	4	3	557	19,714	1	0.389	0.028	0.028	14
47	EL CAMINO REAL & BELL ST					2				1	1			0					1		1	2	2,312	0	0.474	-	0.000	2
48	W BRANCH ST & VERNON ST					1		1						0							1	1	3,175	0	0.173	-	0.000	1
49	TRAFFIC WAY & NELSON ST				2	6	1	1	1	1	1		1	2	1		2	1	3		2	18	10,681	2	0.410	-	0.103	8
50	TRAFFIC WAY & POOLE ST				1	1				2				0		1		1		1		7	10,681	1	0.103	-	0.051	2
51	TRAFFIC WAY & ALLEN ST					4		1	1	1				1			1	1		1	1	4	1,483	0	1.478	-	-	4
52	NELSON ST & S MASON ST				1	4		1	2	2				0			2	1			2	10	4,970	1	0.551	-	0.110	5
53	CORBETT CANYON RD & SR 227 / PRINTZ RD					5		3				1		1			3			2		5	7,462	0	0.367	-	-	5
54	HUSANA RD & CLARENCE AVE			1		3		1	2		1			0		1	1			1	2	14	8,187	1	0.268	-	0.067	4
55	HUSANA RD & ORO DR				2	1		1		1	1			0			1			1	1	13	8,187	2	0.201	-	0.134	3
56	HUSANA RD & STAGECOACH RD			1		1				1	1			0				1		1		12	8,187	1	0.134	-	0.067	2
57	PRINTZ RD & TALLY HO RD					3					2			1					2		1	3	6,703	0	0.245	-	-	3
58	FAIR OAKS AVE & STATION WAY			3		3	1	1		3			1	0	2	1		2	2	2		36	11,447	3	0.287	-	0.144	6
59	CHERRY AVE & TRAFFIC WAY				1	9	1		2	3	2			2			5	1	1	2	1	15	10,780	1	0.508	-	0.051	10
60	CHERRY AVE & CALIFORNIA ST					2		2						0				1		1		2	No Volume Data	0	-	-	-	2
61	FAIR OAKS AVE & AGHS WEST ENTRANCE				1	2		1		2				0				2	1			8	11,354	1	0.145	-	0.048	3
62	FAIR OAKS AVE & AGHS MIDDLE ENTRANCE			1		7		4	1	1				2			2	1	4	1		18	11,187	1	0.392	-	-	8
63	FAIR OAKS AVE & AGHS EAST ENTRANCE			1	3	1	1			4				0		1		1	2	2		30	11,822	4	0.232	-	0.185	5
64	VALLEY RD & AGHS STAFF PARKING / BACK ROAD			1		16		3	6		3	1		4			1	5	5	4	2	27	7,619	1	1.223	-	0.072	17
65	FAIR OAKS AVE & TODD LN			1	1	8		3	5	2				0			3	2	2	1	2	25	8,724	2	0.628	-	0.126	10
66	S ELM ST & MAPLE ST				2	5		2	4	1				0			1	1	2	3		17	10,252	2	0.374	-	0.107	7
67	CORBETT CANYON RD & GULARTE RD					5					4			1			1		1	2	1	5	3,605	0	0.760	-	-	5
68	MASON & LE POINT ST					3				1	1			1				1	1	1		3	6,363	0	0.258	-	-	3
69	E GRAND AVE & ALDER ST			1	2	3	1	1	1				2	1	1	1	2			2	2	26	15,707	3	0.209	-	0.105	6
70	JAMES WAY & MEADOW WAY					4			1		3			0			1			2	1	4	6,114	0	0.358	-	-	4
71	OAK PARK BLVD & MEADOWLARK DR					3				1	2			0			1		1	1		3	6,277	0	0.262	-	-	3
72	BRISCO & LINDA DR					3	1		1	1				0			2	1				3	7,674	0	0.214	-	-	3
73	FAIR OAKS AVE & CALIFORNIA ST					1				1									1			1	12,644	0	0.043	-	-	1
74	W BRANCH ST & TOWN CENTER DR				3	6	1	1	5	1	1						2	1	1	2	3	24	11,264	3	0.438	-	-	9
Total		2	4	47	68	667	40	148	207	181	92	4	19	97	21	13	177	144	161	153	153	-	-	-	-	-	-	788

* Data provide by the City of Arroyo Grande do not identify bicycle related collisions

Segment ID	Ranked Segment by EPDO	From	To	EPDO
15A	EL CAMINO REAL EAST OF OAK PARK TO WEST OF BRISCO	EAST OF OAK PARK	WEST OF BRISCO	596
1B	GRAND COURTLAND TO ELM	EAST OF COURTLAND	EAST OF S ELM	110
6B	HALCYON NORTH OF FAIR OAKS TO SOUTH OF GRAND	NORTH OF FAIR OAKS	SOUTH OF GRAND	65
4B	FAIR OAKS EAST OF HALCYON TO WEST OF VALLEY	EAST OF HALCYON	WEST OF VALLEY	60
5B	BRANCH WEST OF CAMINO MERCADO TO WEST OF BRISCO	WEST OF CAMINO MERCADO	WEST OF BRISCO	57
4C	FAIR OAKS WEST OF VALLEY TO EAST OF CALIFORNIA	WEST OF VALLEY	EAST OF CALIFORNIA	56
3C	W BRANCH EAST OF MASON TO EAST OF HUSANA/227	EAST OF MASON ST	EAST OF HUSANA/227	45
1C	GRAND EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	39
10A	RANCHO PKWY NORTH OF BRANCH TO NO. OF VIA VAQUERO	NORTH OF BRANCH	NORHT OF VIA VAQUERO	35
26A	BRIDGE ST NORTH OF TRAFFIC TO SOUTH OF W BRANCH	NORTH OF TRAFFIC WAY	SOUTH OF W BRANCH	32
5A	BRANCH EAST OF OAK PARK TO WEST OF CAMINO MERCADO	EAST OF OAK PARK	WEST OF CAMINO MERCADO	27
14A	BRISCO NORTH OF GRAND TO SOUTH OF ECR	NORTH OF GRAND	SOUTH OF EL CAMINO REAL	25
2A	GRAND WEST OF HALCYON TO EAST OF EL CAMINO REAL	WEST OF HALCYON	EAST OF EL CAMINO REAL	22
3D	HUSANA EAST OF 227 TO CITY LIMIT	EAST OF 227	CITY LIMITS	22
32A	BRANCH MILL RD SO. OF HUEBNER LN TO CITY LIMIT	SOUTH OF HUEBNER LN	CITY LIMIT	20
2B	GRAND/BRANCH EAST OF ECR TO EAST OF W BRANCH	EAST OF EL CAMINO REAL	EAST OF W BRANCH	18
23A	TALLY HO RD EAST OF MASON TO WEST OF 227	EAST OF MASON	WEST OF 227	18
7B	OAK PARK SOUTH OF BRANCH TO CITY LIMIT	NORTH OF BRANCH	CITY LIMIT	15
9A	CAMINO MERCADO NO. OF BRANCH TO SO. OF RANCHO PKWY	NORTH OF BRANCH	SOUTH OF RANCHO PKWY	13
12A	SPRUCE ASH TO POPLAR	ASH	SOUTH OF POPLAR	13
24A	LE POINTE RD FROM CROWN TER TO 227	CROWN TER	SOUTH OF 227	13
3A	W BRANCH EAST OF W BRANCH TO WEST OF BRIDGE	EAST OF W BRANCH ST	WEST OF BRIDGE ST	12
5C	BRANCH WEST OF BRISCO TO NORTH OF W BRANCH	WEST OF BRISCO	NORTH OF W BRANCH	12
15C	EL CAMINO REAL EAST OF HALCYON TO SOUTH OF GRAND	EAST OF HALCYON	SOUTH OF GRAND	11
11B	ELM SOUTH OF FARROLL TO NORTH OF ASH	SOUTH OF FARROLL	NORTH OF ASH	10
15B	EL CAMINO REAL EAST OF BRISCO TO WEST OF HALCYON	EAST OF BRISCO	WEST OF HALCYON	10
18A	ASH WEST OF COURTLAND TO WEST OF ELM	WEST OF COURTLAND	WEST OF ELM	10
6C	HALCYON NORTH OF GRAND NORTH OF ECR TO	NORTH OF GRAND	NORTH OF ECR	9
8A	JAMES WAY EAST OF OAK PARK WEST OF TALLY HO	EAST OF OAK PARK	WEST OF TALLY HO	9
3B	W BRANCH WEST OF BRIDGE TO EAST OF MASON	WEST OF BRIDGE ST	EAST OF MASON ST	8
17A	FARROLL EAST OF OAK PARK TO WEST OF HALCYON	EAST OF OAK PARK	WEST OF ELM	7
18B	ASH EAST OF ELM TO EAST OF ALDER	EAST OF ELM	WEST OF ALDER	6
1A	GRAND OAK PARK TO EAST OF COURTLAND	OAK PARK	EAST OF COURTLAND	5
11C	ELM NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	5
13A	COURTLAND NORTH OF GRAND TO NORHT OF BRIGHTON	NORTH OF GRAND	NORTH OF BRIGHTON	5
21A	ALDER ST NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	4
27C	TRAFFCI WAY NORTH OF POOLE TO SOUTH OF BRANCH	NORTH OF POOLE	SOUTH OF BRANCH	4
28A	STATION NORTH OF FAIR OAKS SOTUH OF TRAFFIC	NORTH OF FAIR OAKS	SOUTH OF TRAFFIC	4
29A	OLOHAN ALLY EAST OF TRAFFIC WAY EAST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	4
4A	FAIR OAKS EAST OF ELM TO EAST OF HALCYON	EAST OF ELM	EAST OF HALCYON	3
16B	THE PIKE EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	3
20A	VALLEY RD SOUTH OF CASTILLO DEL MAR	CITY LIMIT	SOUTH OF CASTILLO DEL MAR	3
25A	CROWN HILL FROM NORTH OF BRANCH TO 227	NORTH OF BRANCH	SOUTH OF 227	3
31A	ALLEN ST EAST OF TRAFFIC WAY TO WEST OF PCR PL	EAST OF TRAFFIC WAY	WEST OF PACIFIC COAST RAILWAY PLACE	3
11A	ELM SOUTH OF PIKE TO SOUTH OF FARROLL	SOUTH OF PIKE	SOUTH OF FARROLL	2
20B	VALLEY RD CASTRILLO SOUTH OF DEL MAR TO FAIR OAKS	NORTH OF CASTILLO DEL MAR	SOTH OF FAIR OAKS AVE	2
22A	RENA ST NORTH OF DODSON TO SOUTH OF GRAND	NORTH OF DODSON	SOUTH OF GRAND	2
27A	TRAFFIC WAY NORTH OF RAMP TO SOUTH OF FAIR OAKS	NORHT OF 101 RAMP	SOUTH OF FAIR OAKS	2
27B	TRAFFIC WAY SOUTH OF FAIR OAKS TO NORTH OF POOLE	SOUTH OF FAIR OAKS	NORTH OF POOLE	2
30A	NELSON ST EAST OF TRAFFIC WAY TO WEST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	2
33A	ORCHARD SO. OF CASTILLO DEL MAR TO SO. OF CHERRY	SOUTH OF CASTILLO DEL MAR	SOUTH OF CHERRY AVER	2
34A	WHITELEY ST	EXTENT	EXTENT	2
11D	ELM NORTH OF GRAND TO LIMIT	NORTH OF GRAND	TERMINUS	1
17B	FARROLL EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	1
19A	MAPLE EAST OF ELM TO WEST OF ALDER	EAST OF ELM	WEST OF ALDER	1
4D	FAIR OAKS EAST OF CALIFORNIA TO WEST OF TRAFFIC	EAST OF CALIFORNIA	WEST OF TRAFFIC WAY	0
6A	HALCYON SOUTH OF PIKE TO SOUTH OF FAIR OAKS	SOUTH OF PIKE	SOUTH OF FAIR OAKS	0
7A	OAK PARK SOUTH OF CHITTON NORTH OF BRANCH	SOUTH OF CHITTON	NORTH OF BRANCH	0
14B	BRISCO SOUTH OF ECR TO NORTH OF NB RAMPS	SOUTH OF ECR	NORTH OF NB RAMPS	0
16A	PIKE CITH LIMIT TO WEST OF ELM	CITY LIMIT (DEL SOL ST)	WEST OF ELM	0

Segment ID	Ranked Segment by Overall Crash Rate	From	To	Overall Crash Rate
26A	BRIDGE ST NORTH OF TRAFFIC TO SOUTH OF W BRANCH	NORTH OF TRAFFIC WAY	SOUTH OF W BRANCH	2.92
9A	CAMINO MERCADO NO. OF BRANCH TO SO. OF RANCHO PKWY	NORTH OF BRANCH	SOUTH OF RANCHO PKWY	2.53
31A	ALLEN ST EAST OF TRAFFIC WAY TO WEST OF PCR PL	EAST OF TRAFFIC WAY	WEST OF PACIFIC COAST RAILWAY PLACE	2.16
5C	BRANCH WEST OF BRISCO TO NORTH OF W BRANCH	WEST OF BRISCO	NORTH OF W BRANCH	2.07
10A	RANCHO PKWY NORTH OF BRANCH TO NO. OF VIA VAQUERO	NORTH OF BRANCH	NORHT OF VIA VAQUERO	1.63
32A	BRANCH MILL RD SO. OF HUEBNER LN TO CITY LIMIT	SOUTH OF HUEBNER LN	CITY LIMIT	1.62
1B	GRAND COURTLAND TO ELM	EAST OF COURTLAND	EAST OF S ELM	1.43
15A	EL CAMINO REAL EAST OF OAK PARK TO WEST OF BRISCO	EAST OF OAK PARK	WEST OF BRISCO	1.43
15C	EL CAMINO REAL EAST OF HALCYON TO SOUTH OF GRAND	EAST OF HALCYON	SOUTH OF GRAND	1.42
23A	TALLY HO RD EAST OF MASON TO WEST OF 227	EAST OF MASON	WEST OF 227	1.29
5B	BRANCH WEST OF CAMINO MERCADO TO WEST OF BRISCO	WEST OF CAMINO MERCADO	WEST OF BRISCO	1.15
14A	BRISCO NORTH OF GRAND TO SOUTH OF ECR	NORTH OF GRAND	SOUTH OF EL CAMINO REAL	1.15
6B	HALCYON NORTH OF FAIR OAKS TO SOUTH OF GRAND	NORTH OF FAIR OAKS	SOUTH OF GRAND	1.14
5A	BRANCH EAST OF OAK PARK TO WEST OF CAMINO MERCADO	EAST OF OAK PARK	WEST OF CAMINO MERCADO	1.09
4B	FAIR OAKS EAST OF HALCYON TO WEST OF VALLEY	EAST OF HALCYON	WEST OF VALLEY	0.93
8A	JAMES WAY EAST OF OAK PARK WEST OF TALLY HO	EAST OF OAK PARK	WEST OF TALLY HO	0.83
17A	FARROLL EAST OF OAK PARK TO WEST OF HALCYON	EAST OF OAK PARK	WEST OF ELM	0.79
18B	ASH EAST OF ELM TO EAST OF ALDER	EAST OF ELM	WEST OF ALDER	0.78
4C	FAIR OAKS WEST OF VALLEY TO EAST OF CALIFORNIA	WEST OF VALLEY	EAST OF CALIFORNIA	0.77
1C	GRAND EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0.66
18A	ASH WEST OF COURTLAND TO WEST OF ELM	WEST OF COURTLAND	WEST OF ELM	0.65
3C	W BRANCH EAST OF MASON TO EAST OF HUSANA/227	EAST OF MASON ST	EAST OF HUSANA/227	0.55
11B	ELM SOUTH OF FARROLL TO NORTH OF ASH	SOUTH OF FARROLL	NORTH OF ASH	0.53
13A	COURTLAND NORTH OF GRAND TO NORHT OF BRIGHTON	NORTH OF GRAND	NORTH OF BRIGHTON	0.49
4A	FAIR OAKS EAST OF ELM TO EAST OF HALCYON	EAST OF ELM	EAST OF HALCYON	0.41
30A	NELSON ST EAST OF TRAFFIC WAY TO WEST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	0.34
16B	THE PIKE EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0.34
7B	OAK PARK SOUTH OF BRANCH TO CITY LIMIT	NORTH OF BRANCH	CITY LIMIT	0.33
3B	W BRANCH WEST OF BRIDGE TO EAST OF MASON	WEST OF BRIDGE ST	EAST OF MASON ST	0.32
11C	ELM NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	0.27
33A	ORCHARD SO. OF CASTILLO DEL MAR TO SO. OF CHERRY	SOUTH OF CASTILLO DEL MAR	SOUTH OF CHERRY AVER	0.26
11D	ELM NORTH OF GRAND TO LIMIT	NORTH OF GRAND	TERMINUS	0.26
15B	EL CAMINO REAL EAST OF BRISCO TO WEST OF HALCYON	EAST OF BRISCO	WEST OF HALCYON	0.23
2B	GRAND/BRANCH EAST OF ECR TO EAST OF W BRANCH	EAST OF EL CAMINO REAL	EAST OF W BRANCH	0.22
2A	GRAND WEST OF HALCYON TO EAST OF EL CAMINO REAL	WEST OF HALCYON	EAST OF EL CAMINO REAL	0.22
20A	VALLEY RD SOUTH OF CASTILLO DEL MAR	CITY LIMIT	SOUTH OF CASTILLO DEL MAR	0.22
6C	HALCYON NORTH OF GRAND NORTH OF ECR TO	NORTH OF GRAND	NORTH OF ECR	0.21
27C	TRAFFCI WAY NORTH OF POOLE TO SOUTH OF BRANCH	NORTH OF POOLE	SOUTH OF BRANCH	0.20
17B	FARROLL EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0.19
20B	VALLEY RD CASTRILLO SOUTH OF DEL MAR TO FAIR OAKS	NORTH OF CASTILLO DEL MAR	SOTH OF FAIR OAKS AVE	0.14
1A	GRAND OAK PARK TO EAST OF COURTLAND	OAK PARK	EAST OF COURTLAND	0.14
3D	HUSANA EAST OF 227 TO CITY LIMIT	EAST OF 227	CITY LIMITS	0.13
27A	TRAFFIC WAY NORTH OF RAMP TO SOUTH OF FAIR OAKS	NORHT OF 101 RAMP	SOUTH OF FAIR OAKS	0.13
11A	ELM SOUTH OF PIKE TO SOUTH OF FARROLL	SOUTH OF PIKE	SOUTH OF FARROLL	0.11
27B	TRAFFIC WAY SOUTH OF FAIR OAKS TO NORTH OF POOLE	SOUTH OF FAIR OAKS	NORTH OF POOLE	0.09
3A	W BRANCH EAST OF W BRANCH TO WEST OF BRIDGE	EAST OF W BRANCH ST	WEST OF BRIDGE ST	0.08
4D	FAIR OAKS EAST OF CALIFORNIA TO WEST OF TRAFFIC	EAST OF CALIFORNIA	WEST OF TRAFFIC WAY	0.00
6A	HALCYON SOUTH OF PIKE TO SOUTH OF FAIR OAKS	SOUTH OF PIKE	SOUTH OF FAIR OAKS	0.00
7A	OAK PARK SOUTH OF CHITTON NORTH OF BRANCH	SOUTH OF CHITTON	NORTH OF BRANCH	0.00
14B	BRISCO SOUTH OF ECR TO NORTH OF NB RAMPS	SOUTH OF ECR	NORTH OF NB RAMPS	0.00
16A	PIKE CITH LIMIT TO WEST OF ELM	CITY LIMIT (DEL SOL ST)	WEST OF ELM	0.00
12A	SPRUCE ASH TO POPLAR	ASH	SOUTH OF POPLAR	-
24A	LE POINTE RD FROM CROWN TER TO 227	CROWN TER	SOUTH OF 227	-
21A	ALDER ST NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	-
28A	STATION NORTH OF FAIR OAKS SOTUH OF TRAFFIC	NORTH OF FAIR OAKS	SOUTH OF TRAFFIC	-
29A	OLOHAN ALLY EAST OF TRAFFIC WAY EAST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	-
25A	CROWN HILL FROM NORTH OF BRANCH TO 227	NORTH OF BRANCH	SOUTH OF 227	-
22A	RENA ST NORTH OF DODSON TO SOUTH OF GRAND	NORTH OF DODSON	SOUTH OF GRAND	-
34A	WHITELEY ST	EXTENT	EXTENT	-
19A	MAPLE EAST OF ELM TO WEST OF ALDER	EAST OF ELM	WEST OF ALDER	-

Segment ID	Ranked Segment by Total Crashes	From	To	Overall Crashes
1B	GRAND COURTLAND TO ELM	EAST OF COURTLAND	EAST OF S ELM	50
6B	HALCYON NORTH OF FAIR OAKS TO SOUTH OF GRAND	NORTH OF FAIR OAKS	SOUTH OF GRAND	30
5B	BRANCH WEST OF CAMINO MERCADO TO WEST OF BRISCO	WEST OF CAMINO MERCADO	WEST OF BRISCO	27
5A	BRANCH EAST OF OAK PARK TO WEST OF CAMINO MERCADO	EAST OF OAK PARK	WEST OF CAMINO MERCADO	27
10A	RANCHO PKWY NORTH OF BRANCH TO NO. OF VIA VAQUERO	NORTH OF BRANCH	NORHT OF VIA VAQUERO	25
1C	GRAND EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	19
4C	FAIR OAKS WEST OF VALLEY TO EAST OF CALIFORNIA	WEST OF VALLEY	EAST OF CALIFORNIA	16
14A	BRISCO NORTH OF GRAND TO SOUTH OF ECR	NORTH OF GRAND	SOUTH OF EL CAMINO REAL	15
4B	FAIR OAKS EAST OF HALCYON TO WEST OF VALLEY	EAST OF HALCYON	WEST OF VALLEY	15
26A	BRIDGE ST NORTH OF TRAFFIC TO SOUTH OF W BRANCH	NORTH OF TRAFFIC WAY	SOUTH OF W BRANCH	12
5C	BRANCH WEST OF BRISCO TO NORTH OF W BRANCH	WEST OF BRISCO	NORTH OF W BRANCH	12
15A	EL CAMINO REAL EAST OF OAK PARK TO WEST OF BRISCO	EAST OF OAK PARK	WEST OF BRISCO	12
3C	W BRANCH EAST OF MASON TO EAST OF HUSANA/227	EAST OF MASON ST	EAST OF HUSANA/227	11
11B	ELM SOUTH OF FARROLL TO NORTH OF ASH	SOUTH OF FARROLL	NORTH OF ASH	10
7B	OAK PARK SOUTH OF BRANCH TO CITY LIMIT	NORTH OF BRANCH	CITY LIMIT	10
8A	JAMES WAY EAST OF OAK PARK WEST OF TALLY HO	EAST OF OAK PARK	WEST OF TALLY HO	9
12A	SPRUCE ASH TO POPLAR	ASH	SOUTH OF POPLAR	8
9A	CAMINO MERCADO NO. OF BRANCH TO SO. OF RANCHO PKWY	NORTH OF BRANCH	SOUTH OF RANCHO PKWY	8
23A	TALLY HO RD EAST OF MASON TO WEST OF 227	EAST OF MASON	WEST OF 227	8
3B	W BRANCH WEST OF BRIDGE TO EAST OF MASON	WEST OF BRIDGE ST	EAST OF MASON ST	8
2B	GRAND/BRANCH EAST OF ECR TO EAST OF W BRANCH	EAST OF EL CAMINO REAL	EAST OF W BRANCH	8
17A	FARROLL EAST OF OAK PARK TO WEST OF HALCYON	EAST OF OAK PARK	WEST OF ELM	7
2A	GRAND WEST OF HALCYON TO EAST OF EL CAMINO REAL	WEST OF HALCYON	EAST OF EL CAMINO REAL	7
15C	EL CAMINO REAL EAST OF HALCYON TO SOUTH OF GRAND	EAST OF HALCYON	SOUTH OF GRAND	6
18B	ASH EAST OF ELM TO EAST OF ALDER	EAST OF ELM	WEST OF ALDER	6
32A	BRANCH MILL RD SO. OF HUEBNER LN TO CITY LIMIT	SOUTH OF HUEBNER LN	CITY LIMIT	5
18A	ASH WEST OF COURTLAND TO WEST OF ELM	WEST OF COURTLAND	WEST OF ELM	5
13A	COURTLAND NORTH OF GRAND TO NORHT OF BRIGHTON	NORTH OF GRAND	NORTH OF BRIGHTON	5
11C	ELM NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	5
15B	EL CAMINO REAL EAST OF BRISCO TO WEST OF HALCYON	EAST OF BRISCO	WEST OF HALCYON	5
1A	GRAND OAK PARK TO EAST OF COURTLAND	OAK PARK	EAST OF COURTLAND	5
21A	ALDER ST NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	4
28A	STATION NORTH OF FAIR OAKS SOTUH OF TRAFFIC	NORTH OF FAIR OAKS	SOUTH OF TRAFFIC	4
29A	OLOHAN ALLY EAST OF TRAFFIC WAY EAST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	4
6C	HALCYON NORTH OF GRAND NORTH OF ECR TO	NORTH OF GRAND	NORTH OF ECR	4
27C	TRAFFCI WAY NORTH OF POOLE TO SOUTH OF BRANCH	NORTH OF POOLE	SOUTH OF BRANCH	4
24A	LE POINTE RD FROM CROWN TER TO 227	CROWN TER	SOUTH OF 227	3
25A	CROWN HILL FROM NORTH OF BRANCH TO 227	NORTH OF BRANCH	SOUTH OF 227	3
31A	ALLEN ST EAST OF TRAFFIC WAY TO WEST OF PCR PL	EAST OF TRAFFIC WAY	WEST OF PACIFIC COAST RAILWAY PLACE	3
4A	FAIR OAKS EAST OF ELM TO EAST OF HALCYON	EAST OF ELM	EAST OF HALCYON	3
16B	THE PIKE EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	3
20A	VALLEY RD SOUTH OF CASTILLO DEL MAR	CITY LIMIT	SOUTH OF CASTILLO DEL MAR	3
22A	RENA ST NORTH OF DODSON TO SOUTH OF GRAND	NORTH OF DODSON	SOUTH OF GRAND	2
34A	WHITELEY ST	EXTENT	EXTENT	2
30A	NELSON ST EAST OF TRAFFIC WAY TO WEST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	2
33A	ORCHARD SO. OF CASTILLO DEL MAR TO SO. OF CHERRY	SOUTH OF CASTILLO DEL MAR	SOUTH OF CHERRY AVER	2
20B	VALLEY RD CASTRILLO SOUTH OF DEL MAR TO FAIR OAKS	NORTH OF CASTILLO DEL MAR	SOTH OF FAIR OAKS AVE	2
3D	HUSANA EAST OF 227 TO CITY LIMIT	EAST OF 227	CITY LIMITS	2
27A	TRAFFIC WAY NORTH OF RAMP TO SOUTH OF FAIR OAKS	NORHT OF 101 RAMP	SOUTH OF FAIR OAKS	2
11A	ELM SOUTH OF PIKE TO SOUTH OF FARROLL	SOUTH OF PIKE	SOUTH OF FARROLL	2
27B	TRAFFIC WAY SOUTH OF FAIR OAKS TO NORTH OF POOLE	SOUTH OF FAIR OAKS	NORTH OF POOLE	2
3A	W BRANCH EAST OF W BRANCH TO WEST OF BRIDGE	EAST OF W BRANCH ST	WEST OF BRIDGE ST	2
19A	MAPLE EAST OF ELM TO WEST OF ALDER	EAST OF ELM	WEST OF ALDER	1
11D	ELM NORTH OF GRAND TO LIMIT	NORTH OF GRAND	TERMINUS	1
17B	FARROLL EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	1
4D	FAIR OAKS EAST OF CALIFORNIA TO WEST OF TRAFFIC	EAST OF CALIFORNIA	WEST OF TRAFFIC WAY	0
6A	HALCYON SOUTH OF PIKE TO SOUTH OF FAIR OAKS	SOUTH OF PIKE	SOUTH OF FAIR OAKS	0
7A	OAK PARK SOUTH OF CHITTON NORTH OF BRANCH	SOUTH OF CHITTON	NORTH OF BRANCH	0
14B	BRISCO SOUTH OF ECR TO NORTH OF NB RAMPS	SOUTH OF ECR	NORTH OF NB RAMPS	0
16A	PIKE CITH LIMIT TO WEST OF ELM	CITY LIMIT (DEL SOL ST)	WEST OF ELM	0

Collisions at Segments (no Intersections)

Intersection #	Name	From	To	Severity					Type								Pedestrian	Bicycle*	Year					EPDO	24-HOUR ENTERING VOLUME	Fatal + Injury	Overall Crash Rate	Fatal Crash Rate	Fatal + Injury Crash rate	Total
				Fatal	Injury (Severe)	Injury (Other Visible)	Injury (Complaint of Pain)	Property Damage Only	Head-on	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Vehicle/ Pedestrian	Other/Not Listed			2014	2015	2016	2017	2018							
1A	GRAND OAK PARK TO EAST OF COURTLAND	OAK PARK	EAST OF COURTLAND	0	0	0	0	5	1	0	2	1	1	0	0	2	0	0	0	2	1	0	2	5	19,216	0	0.143	-	-	5
1B	GRAND COURTLAND TO ELM	EAST OF COURTLAND	EAST OF S ELM	0	0	6	0	44	2	9	15	8	4	0	2	16	2	1	7	12	9	4	18	110	19,216	6	1.426	-	0.171	50
1C	GRAND EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0	0	1	2	16	1	0	6	2	2	0	0	12	0	2	7	3	3	4	2	39	15,707	3	0.663	-	0.105	19
2A	GRAND WEST OF HALCYON TO EAST OF EL CAMINO REAL	WEST OF HALCYON	EAST OF EL CAMINO REAL	0	0	1	1	5	1	1	0	2	1	0	0	18	0	0	1	1	1	1	3	22	17,402	2	0.220	-	0.063	7
2B	GRAND/BRANCH EAST OF ECR TO EAST OF W BRANCH	EAST OF EL CAMINO REAL	EAST OF W BRANCH	0	0	1	0	7	0	1	2	2	0	0	0	9	0	0	0	3	3	2	0	18	19,646	1	0.223	-	0.028	8
3A	W BRANCH EAST OF W BRANCH TO WEST OF BRIDGE	EAST OF W BRANCH ST	WEST OF BRIDGE ST	0	0	1	0	1	0	0	0	2	0	0	0	3	0	0	1	0	1	0	0	12	13,699	1	0.080	-	0.040	2
3B	W BRANCH WEST OF BRIDGE TO EAST OF MASON	WEST OF BRIDGE ST	EAST OF MASON ST	0	0	0	0	8	0	1	3	0	2	0	0	16	0	0	0	4	0	0	4	8	13,699	0	0.320	-	-	8
3C	W BRANCH EAST OF MASON TO EAST OF HUSANA/227	EAST OF MASON ST	EAST OF HUSANA/227	0	1	0	1	9	1	3	4	0	1	0	0	3	0	0	2	3	2	2	2	45	10,980	2	0.549	-	0.100	11
3D	HUSANA EAST OF 227 TO CITY LIMIT	EAST OF 227	CITY LIMITS	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	1	22	8,187	2	0.134	-	0.134	2
4A	FAIR OAKS EAST OF ELM TO EAST OF HALCYON	EAST OF ELM	EAST OF HALCYON	0	0	0	0	3	0	2	1	0	0	0	0	2	0	0	2	0	1	0	0	3	4,046	0	0.406	-	0.000	3
4B	FAIR OAKS EAST OF HALCYON TO WEST OF VALLEY	EAST OF HALCYON	WEST OF VALLEY	0	0	2	5	8	1	4	7	1	0	1	0	1	0	1	4	3	3	3	2	60	8,805	7	0.933	-	0.436	15
4C	FAIR OAKS WEST OF VALLEY TO EAST OF CALIFORNIA	WEST OF VALLEY	EAST OF CALIFORNIA	0	0	2	4	10	1	5	1	7	0	0	0	3	0	1	2	4	7	3	0	56	11,348	6	0.773	-	0.290	16
4D	FAIR OAKS EAST OF CALIFORNIA TO WEST OF TRAFFIC	EAST OF CALIFORNIA	WEST OF TRAFFIC WAY	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	13,091	0	0.000	-	-	0
5A	BRANCH EAST OF OAK PARK TO WEST OF CAMINO MERCADO	EAST OF OAK PARK	WEST OF CAMINO MERCADO	0	0	0	0	27	2	6	9	1	1	0	0	8	0	0	9	4	4	5	5	27	13,536	0	1.093	-	-	27
5B	BRANCH WEST OF CAMINO MERCADO TO WEST OF BRISCO	WEST OF CAMINO MERCADO	WEST OF BRISCO	0	0	1	4	22	2	1	12	4	2	0	0	12	0	0	3	5	3	8	8	57	12,810	5	1.155	-	0.214	27
5C	BRANCH WEST OF BRISCO TO NORTH OF W BRANCH	WEST OF BRISCO	NORTH OF W BRANCH	0	0	0	0	12	0	4	2	0	1	0	0	9	0	0	3	4	2	2	1	12	3,175	0	2.071	-	-	12
6A	HALCYON SOUTH OF PIKE TO SOUTH OF FAIR OAKS	SOUTH OF PIKE	SOUTH OF FAIR OAKS	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	13,643	0	0.000	-	-	0
6B	HALCYON NORTH OF FAIR OAKS TO SOUTH OF GRAND	NORTH OF FAIR OAKS	SOUTH OF GRAND	0	0	1	5	24	0	5	8	3	5	0	0	10	0	0	9	6	5	5	5	65	14,363	6	1.144	-	0.229	30
6C	HALCYON NORTH OF GRAND NORTH OF ECR TO	NORTH OF GRAND	NORTH OF ECR	0	0	0	1	3	0	1	2	0	0	0	0	1	0	0	2	1	1	0	0	9	10,625	1	0.206	-	0.052	4
7A	OAK PARK SOUTH OF CHITTON NORTH OF BRANCH	SOUTH OF CHITTON	NORTH OF BRANCH	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	16,065	0	0.000	-	-	0
7B	OAK PARK SOUTH OF BRANCH TO CITY LIMIT	NORTH OF BRANCH	CITY LIMIT	0	0	0	1	9	0	1	1	2	0	1	0	5	0	0	4	3	2	1	0	15	16,645	1	0.329	-	0.033	10
8A	JAMES WAY EAST OF OAK PARK WEST OF TALLY HO	EAST OF OAK PARK	WEST OF TALLY HO	0	0	0	0	9	2	1	2	1	1	0	1	1	0	0	0	2	3	1	3	9	6,114	0	0.807	-	-	9
9A	CAMINO MERCADO NO. OF BRANCH TO SO. OF RANCHO PKWY	NORTH OF BRANCH	SOUTH OF RANCHO PKWY	0	0	0	1	7	0	1	0	1	3	0	0	3	0	0	3	2	1	2	0	13	1,736	1	2.525	-	0.316	8
10A	RANCHO PKWY NORTH OF BRANCH TO NO. OF VIA VAQUERO	NORTH OF BRANCH	NORHT OF VIA VAQUERO	0	0	0	2	23	1	4	1	5	3	0	0	12	0	0	3	7	6	4	5	35	8,391	2	1.633	-	0.131	25
11A	ELM SOUTH OF PIKE TO SOUTH OF FARROLL	SOUTH OF PIKE	SOUTH OF FARROLL	0	0	0	0	2	0	0	1	1	0	0	0	2	0	0	0	2	0	0	0	2	10,252	0	0.107	-	-	2
11B	ELM SOUTH OF FARROLL TO NORTH OF ASH	SOUTH OF FARROLL	NORTH OF ASH	0	0	0	0	10	0	3	1	5	0	0	0	2	0	0	0	3	1	4	2	10	10,252	0	0.534	-	-	10
11C	ELM NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	0	0	0	0	5	0	3	1	0	0	0	0	1	0	0	0	1	2	2	0	5	10,252	0	0.267	-	-	5
11D	ELM NORTH OF GRAND TO LIMIT	NORTH OF GRAND	TERMINUS	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	2,145	0	0.255	-	-	1
12A	SPRUCE ASH TO POPLAR	ASH	SOUTH OF POPLAR	0	0	0	1	7	0	3	0	1	1	0	1	3	1	0	1	2	1	2	2	13	-	1	-	-	-	8
13A	COURTLAND NORTH OF GRAND TO NORHT OF BRIGHTON	NORTH OF GRAND	NORTH OF BRIGHTON	0	0	0	0	5	0	0	0	2	1	0	0	2	0	1	0	0	3	0	2	5	5,596	0	0.490	-	-	5
14A	BRISCO NORTH OF GRAND TO SOUTH OF ECR	NORTH OF GRAND	SOUTH OF EL CAMINO REAL	0	0	1	0	14	0	5	4	1	4	0	0	1	0	0	2	3	1	1	8	25	7,135	1	1.152	-	0.077	15
14B	BRISCO SOUTH OF ECR TO NORTH OF NB RAMPS	SOUTH OF ECR	NORTH OF NB RAMPS	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13,990	0	0.000	-	-	0
15A	EL CAMINO REAL EAST OF OAK PARK TO WEST OF BRISCO	EAST OF OAK PARK	WEST OF BRISCO	1	1	0	2	8	2	1	3	1	5	0	0	0	0	0	1	3	1	2	5	594	4,613	4	1.425	0.119	0.475	12
15B	EL CAMINO REAL EAST OF BRISCO TO WEST OF HALCYON	EAST OF BRISCO	WEST OF HALCYON	0	0	0	1	4	0	2	1	0	1	0	0	1	0	0	3	0	1	1	0	10	11,962	1	0.229	-	0.046	5
15C	EL CAMINO REAL EAST OF HALCYON TO SOUTH OF GRAND	EAST OF HALCYON	SOUTH OF GRAND	0	0	0	1	5	1	0	2	0	2	0	0	2	0	0	3	1	1	1	0	11	2,312	1	1.422	-	0.237	6
16A	PIKE CITH LIMIT TO WEST OF ELM	CITY LIMIT (DEL SOL ST)	WEST OF ELM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,901	0	0.000	-	0.000	0
16B	THE PIKE EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0	0	0	0	3	0	1	1	1	0	0	0	2	0	0	1	0	0	0	2	3	4,901	0	0.335	-	-	3
17A	FARROLL EAST OF OAK PARK TO WEST OF HALCYON	EAST OF OAK PARK	WEST OF ELM	0	0	0	0	7	0	1	3	1	0	0	0	3	0	0	1	2	3	1	0	7	4,849	0	0.791	-	-	7
17B	FARROLL EAST OF ELM TO WEST OF HALCYON	EAST OF ELM	WEST OF HALCYON	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	2,915	0	0.188	-	-	1
18A	ASH WEST OF COURTLAND TO WEST OF ELM	WEST OF COURTLAND	WEST OF ELM	0	0	0	1	4	0	1	1	1	0	0	1	1	1	0	2	1	0	1	1	10	4,210	1	0.651	-	0.130	5
18B	ASH EAST OF ELM TO EAST OF ALDER	EAST OF ELM	WEST OF ALDER	0	0	0	0	6	0	2	1	0	0	0	0	3	0	0	1	1	1	1	2	6	4,210	0	0.781	-	-	6
19A	MAPLE EAST OF ELM TO WEST OF ALDER	EAST OF ELM	WEST OF ALDER	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	1	-	0	-	-	-	1
20A	VALLEY RD SOUTH OF CASTILLO DEL MAR	CITY LIMIT	SOUTH OF CASTILLO DEL MAR	0	0	0	0	3	0	0	0	0	2	0	0	2	0	0	1	0	0	0	2	3	7,619	0	0.216	-	-	3
20B	VALLEY RD CASTRILLO SOUTH OF DEL MAR TO FAIR OAKS	NORTH OF CASTILLO DEL MAR	SOTH OF FAIR OAKS AVE	0	0	0	0	2	0	0	0	1	1	0	0	4	0	0	0	1	1	0	0	2	7,619	0	0.144	-	-	2
21A	ALDER ST NORTH OF ASH TO SOUTH OF GRAND	NORTH OF ASH	SOUTH OF GRAND	0	0	0	0	4	0	0	0	0	2	0	0	3	0	0	0	1	1	0	2	4	-	0	-	-	-	4
22A	RENA ST NORTH OF DODSON TO SOUTH OF GRAND	NORTH OF DODSON	SOUTH OF GRAND	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0	0	2	0	0	0	2	-	0	-	-	-	2
23A	TALLY HO RD EAST OF MASON TO WEST OF 227	EAST OF MASON	WEST OF 227	0	0	1	0	7	1	1	1	0	4	0	0	2	0	0	3	0	1	2	2	18	3,407	1	1.287	-	0.161	8
24A	LE POINTE RD FROM CROWN TER TO 227	CROWN TER	SOUTH OF 227	0	0	1	0	2	0	0	1	1	1	0	0	0	0	0	1	0	1	1	0	13	-	1	-	-	-	3
25A	CROWN HILL FROM NORTH OF BRANCH TO 227	NORTH OF BRANCH	SOUTH OF 227	0	0	0	0	3	0	1	1	1	0	0	0	0	0	0	0	2	0	0	1	3	-	0	-	-	-	3
26A	BRIDGE ST NORTH OF TRAFFIC TO SOUTH OF W BRANCH	NORTH OF TRAFFIC WAY	SOUTH OF W BRANCH	0	0	2	0	10	0	5	2	2	0	0	0	5	0	1	3	2	1	1	5	32	2,250	2	2.922	-	0.487	12
27A	TRAFFIC WAY NORTH OF RAMP TO SOUTH OF FAIR OAKS	NORHT OF 101 RAMP	SOUTH OF FAIR OAKS	0	0	0	0	2	0	0	0	1	1	0	0	4	0	0	0	1	1	0	0	2	8,487	0	0.129	-	-	2
27B	TRAFFIC WAY SOUTH OF FAIR OAKS TO NORTH OF POOLE	SOUTH OF FAIR OAKS	NORTH OF POOLE	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0	1	0	0	1	0	2	12,640	0	0.087	-	-	2
27C	TRAFFCI WAY NORTH OF POOLE TO SOUTH OF BRANCH	NORTH OF POOLE	SOUTH OF BRANCH	0	0	0	0	4	0	0	0	1	2	0	0	2	0	0	0	0	1	0	3	4	10,768	0	0.204	-	-	4
28A	STATION NORTH OF FAIR OAKS SOTUH OF TRAFFIC	NORTH OF FAIR OAKS	SOUTH OF TRAFFIC	0	0	0	0	4	0	1	1	0	0	0	0	2	0	0	1	1	1	0	1	4	-	0	-	-	-	4
29A	OLOHAN ALLY EAST OF TRAFFIC WAY EAST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	0	0	0	0	4	0	0	2	1	0	0	0	1	0	0	1	1	1	0	1	4	-	0	-	-	-	4
30A	NELSON ST EAST OF TRAFFIC WAY TO WEST OF MASON ST	EAST OF TRAFFIC WAY	EAST OF MASON ST	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0	2	3,238	0	0.338	-	-	2
31A	ALLEN ST EAST OF TRAFFIC WAY TO WEST OF PCR PL	EAST OF TRAFFIC WAY	WEST OF PACIFIC COAST RAILWAY PLACE	0	0	0	0	3	0	1	0	0	1	0	0	2	0	0	0	0	0	1	2	3	761	0	2.161	-	-	3
32A	BRANCH MILL RD SO. OF HUEBNER LN TO CITY LIMIT	SOUTH OF HUEBNER LN	CITY LIMIT	0	0	1	1	3	0	1	0	0	1	2	0	1	0	0	3	0	0	1	1	20	1,691	2	1.620	-	0.648	5
33A	ORCHARD SO. OF CASTILLO DEL MAR TO SO. OF CHERRY	SOUTH OF CASTILLO DEL MAR	SOUTH OF CHERRY AVER	0	0	0	0	2	0	1	0	0	1	0	0	1	0	0	0	0	1	0	1	2	4,173	0	0.263	-	-	2
34A	WHITELEY ST	EXTENT	EXTENT	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	2	-	0	-	-	-	2
Total				1	2	24	34	396	20	85	108	65	60	4	5	221	4	7	91	101	87	71	107	-	-	-	-	-	-	457

Appendix C – SSAR Priority Projects

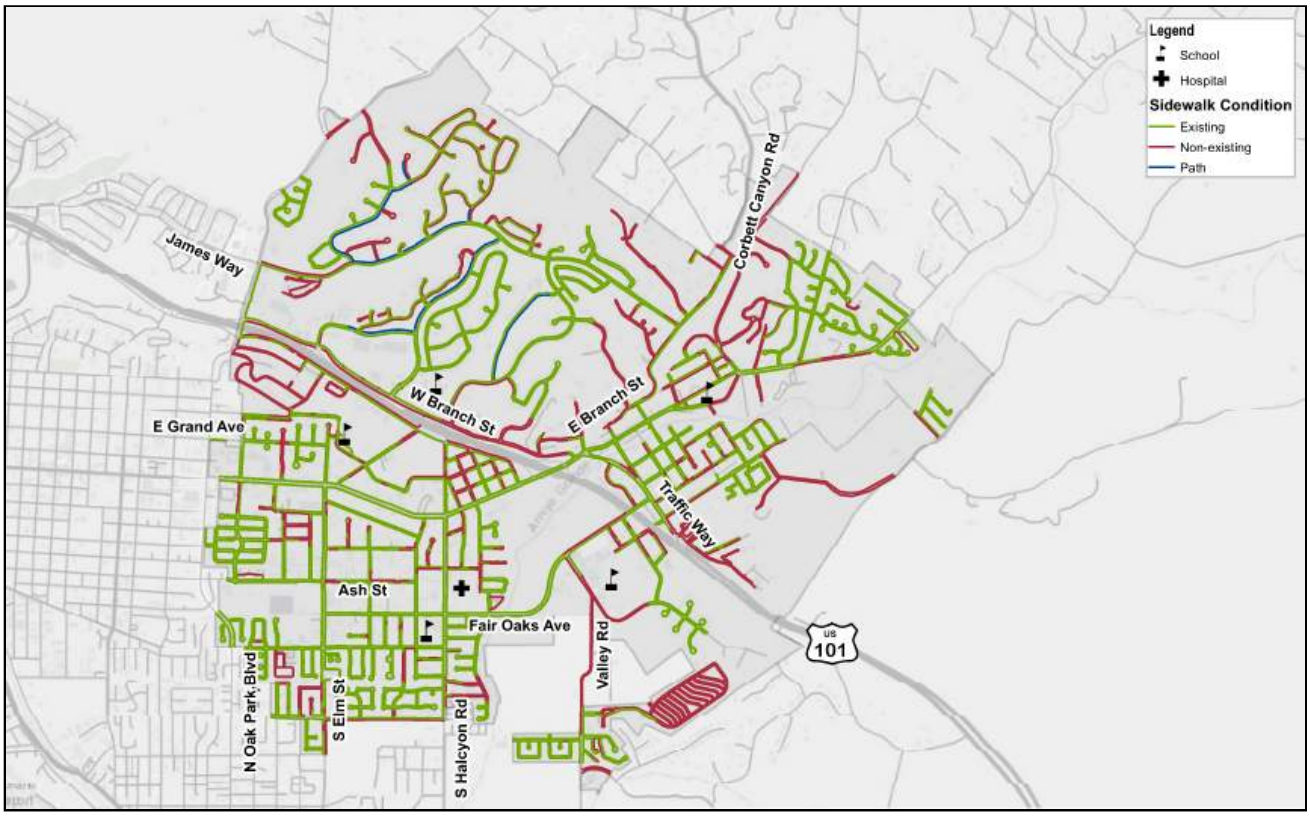
Exhibit 1 Recommended HSIP Projects

Pedestrian Improvements at Signalized intersection (S19, S20, S22)				
Locations	Type of collision	Benefit	Cost	B/C
4 following signalized intersections: E GRAND AVE & COURTLAND ST E GRAND AVE & S ELM ST E GRAND AVE & S HALCYON RD E GRAND AVE & PEDESTRIAN SIGNAL (WEST OF ALDER ST)	P&B	$ 1,946,647	$ 476,000	4.09
General Vehicular Signal Improvements (S2, S3, S6)				
Locations	Type of collision	Benefit	Cost	B/C
3 following signalized intersections: E GRAND AVE & COURTLAND ST E GRAND AVE & S ELM ST E GRAND AVE & S HALCYON RD	All	$ 5,539,826	$ 620,000	8.94
Pedestrian Hybrid Beacon (NS19)				
Locations	Type of collision	Benefit	Cost	B/C
2 pedestrian hybrid beacons at the following locations: E GRAND AVE & BELL ST FARROLL AVE & S HALCYON RD	P&B	$ 5,107,961	$ 500,000	10.22
Pedestrian Improvements at Unsignalized Locations and Crosswalks (NS16, NS17, NS18)				
Locations	Type of collision	Benefit	Cost	B/C
2 following unsignalized intersections: E BRANCH ST & SHORT ST W BRNACH ST & BRIDGE ST	P&B	$ 10,409,861	$ 237,500	43.83
Improve Striping and Pavement Markings (R31, R32, R36, Green Conflict markings)				
Locations	Type of collision	Benefit	Cost	B/C
2 following roadway segments: E GRAND AVE FROM COURTLAND ST TO ELM ST E GRAND AVE FROM EAST OF ELM ST TO WEST OF HALCYON RD	All	$ 1,648,506	$ 245,000	6.73

Appendix D – Circulation Element Figures

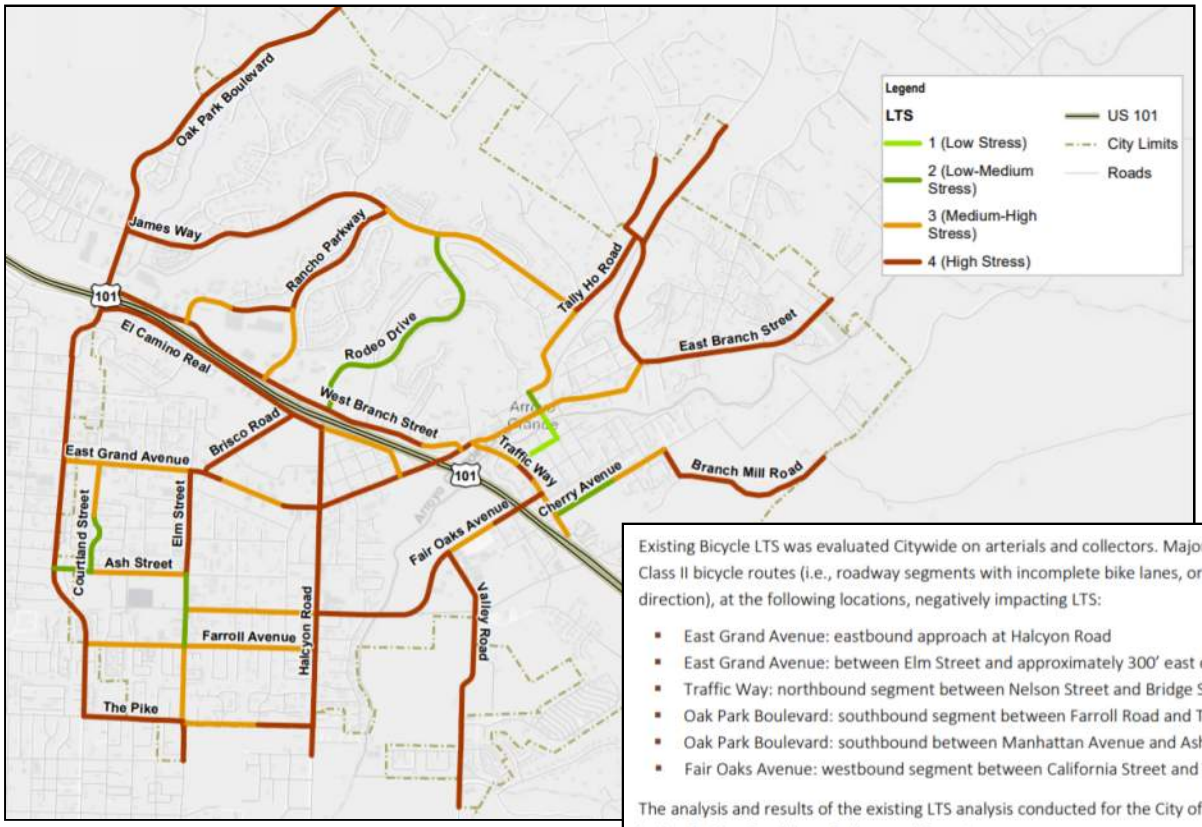
Sidewalk Gaps

Source: City of Arroyo Grande Circulation Element, Background Report



Bicycle Level of Traffic Stress on Arterials and Collectors

Source: City of Arroyo Grande Circulation Element, Background Report



Existing Bicycle LTS was evaluated Citywide on arterials and collectors. Major gaps exist along current Class II bicycle routes (i.e., roadway segments with incomplete bike lanes, or bike lanes only in one direction), at the following locations, negatively impacting LTS:

- East Grand Avenue: eastbound approach at Halcyon Road
- East Grand Avenue: between Elm Street and approximately 300' east of Brisco Road
- Traffic Way: northbound segment between Nelson Street and Bridge Street
- Oak Park Boulevard: southbound segment between Farroll Road and The Pike
- Oak Park Boulevard: southbound between Manhattan Avenue and Ash Street
- Fair Oaks Avenue: westbound segment between California Street and Traffic Way

The analysis and results of the existing LTS analysis conducted for the City of Arroyo Grande are detailed in the Existing Conditions Background Report.