



## City of La Verne



# LOCAL ROADWAY SAFETY PLAN

June 2023 Revised

# Table of Contents

1. INTRODUCTION.....	3
2. VISION & GOALS.....	4
3. SAFETY PARTNERS.....	7
4. PROCESS.....	8
5. EXISTING EFFORTS & PLANS.....	10
6. DATA SUMMARY.....	26
7. EMPHASIS AREAS.....	29
8. EVALUATION.....	49
Appendix A:.....	50
Appendix B:.....	51

# 1. INTRODUCTION

## Background to the LRSP

The Local Roadway Safety Plan (LRSP) identifies and analyzes traffic safety concerns and recommends safety improvements. The preparation of an LRSP relies on local agency partnerships and stakeholder collaboration, and results in a community-supported, prioritized list of improvements and actions that demonstrate defined needs and solutions to local roadway safety challenges. Local Roadway Safety Plans scale down to the local level the goals and approach of the federally mandated State Highway Safety Plan (SHSP).

A SHSP is a statewide data-driven traffic safety plan that coordinates the efforts of a wide range of organizations to reduce traffic accident fatalities and serious injuries on all public roads. In coordination with federal, state, local and private sector safety stakeholders, the SHSP establishes goals, objectives, and emphasis (or challenge) areas.

High Priority issues are:

- lane departures
- speed management/aggressive driving
- impaired driving
- active transportation
- intersections

Effective data driven and collaborative countermeasures are:

- Specific
- Measurable
- Achievable
- Relevant
- Time constrained

Safety improvements recommended in the LRSP are eligible for state funding through implementation grant programs including the HSIP (Highway Safety Implementation Program). HSIP funds are eligible for work on any public road or publicly owned bicycle or pedestrian pathway or trail, or on tribal lands for general use of tribal members, that improves the safety for its users. Projects proposed for HSIP funding must be consistent with the SHSP, the statewide plan which provides the policy foundation for the LRSP.

The LRSP is meant to be a living document. To be eligible for funding and to assist the City in moving toward its vision of enhanced safety, development of the LRSP is important. The tight timeline for completing the LRSP does not mean that all countermeasures proposed in the LRSP will be funded or constructed. This plan is meant to be a starting point for identifying and addressing roadway safety issues in La Verne. The City will continue to work with the community and stakeholders after adoption to ensure that the LRSP is regularly reviewed and updated.

## City of La Verne

The City of La Verne is a close-knit residential community with a mix of commercial and industrial uses, including the University of La Verne, an airport, and several public and private schools. It is located at the eastern edge of the San Gabriel Valley in metropolitan Los Angeles County (LA County), yet maintains small-town traditions and virtues. The 8.56-square mile City's topography is relatively flat south of Baseline Road, but climbs into the San Gabriel Mountains to the north of Baseline Road. The City's roadway facilities range from local neighborhood streets to major freeways. Interstate 210 runs east to west and bisects the City. In the southern part of La Verne, the street network is primarily gridded, consisting of residential neighborhoods with commercial corridors and office and industrial uses on the edge of the City. To the north, the street network is curvilinear, with lower-density neighborhoods.

According to the most recent US Census data, the City of La Verne has an estimated population of 32,078, about 20% of which are under 18 and another 20% are over 65. Historically, La Verne has had a significant senior population, but an influx of new upscale housing during the past two decades has led to a larger population of school-age residents.

The City of La Verne is committed to improving transportation safety. This Local Roadway Safety Plan (LRSP) will address traffic safety needs and strategies, laying the groundwork to improve the health and safety of all residents and visitors. The intent of the LRSP is to:

1. Analyze traffic incidents in the City of La Verne's roadway network.
2. Determine traffic incident patterns and high-risk locations.
3. Identify safety partner agencies and gain insight from the local community.
4. Establish a vision and goals for traffic safety in the City of La Verne.
5. Develop a list of countermeasures to address key safety issues at high-risk locations.

## 2. VISION & GOALS

### La Verne Transportation Safety Program

The City, in collaboration with Safety Partners, will implement a new transportation safety program that will be ongoing and build on past work of Safety Partners. The new program will use data driven analysis and collaboration between the City, public agencies, and local groups to improve transportation safety utilizing Vision Zero and Safe System approaches.

### Goals

1. Reduce the number of fatal and severe injury collisions in La Verne
2. Implement systemic physical countermeasures to target emphasis areas identified in this report
3. Develop, implement, assess outcomes, and adjust course to achieve effective roadway safety through education, engagement, and enforcement.

## **Vision Zero**

The City of La Verne aims to advance roadway safety through a Vision Zero strategy to reduce the number of fatal and severe traffic incidents to zero by 2030. Vision Zero is based on an underlying ethical principle that it is never acceptable for people to be killed or seriously injured when moving on public roadways. Vision Zero provides a new lens for decision making in which safety outcomes are prioritized above all else. It also redistributes the responsibility for accidents from solely the roadway users, to collectively between roadway users, policy makers, designers, and enforcement. Vision Zero is not a slogan, tagline, or even a program, but rather a fundamentally different approach to traffic safety. The City of La Verne is committed to increasing safe, healthy, equitable mobility for all, while eradicating traffic fatalities and injuries.

Each year, more than 40,000 people are needlessly killed on American streets and thousands more are injured. We call this suffering traffic “accidents” — but there are strategies to prevent traffic collisions. Vision Zero is a multidisciplinary approach that brings together diverse stakeholders to address this complex issue. In the past, meaningful, cross-disciplinary collaboration among local traffic planners and engineers, policymakers, and public health professionals has not been the norm. Vision Zero addresses the many factors that contribute to safe mobility -- including roadway design, speeds, behaviors, technology, and policies.

Equity is not only a desired outcome of Vision Zero, but also integral to every component of Vision Zero planning and implementation. Equitable strategies include prioritizing safety improvements in areas that have historically been underserved, and robust engagement strategies to reach those who are most vulnerable on the roadways including those who have not typically been included in traditional city planning processes.

Committing to Vision Zero requires building and sustaining leadership, collaboration, and accountability, collecting, analyzing, and using data to understand trends and potential disproportionate impacts of traffic deaths on certain populations, prioritizing equity and community engagement, managing speed to safe levels, and setting a timeline to achieve zero traffic deaths and serious injuries, which brings urgency and accountability, and ensuring transparency on progress and challenges.

## **Safe System Approach**

To achieve Vision Zero, the City of La Verne is utilizing the Safe System approach, a global movement that has been around for more than 30 years. The fundamental objectives of a Safe System approach are to eliminate fatalities and serious injuries for all road users by accommodating human mistakes and keeping impacts on the human body at tolerable levels. Like Vision Zero, no death or level of injury is acceptable in a transportation network. However, a Safe System employs an extremely comprehensive approach to see significant decreases in traffic fatalities.

The core principles of a Safe System approach include sharing responsibility with all stakeholders, ensuring safety is proactive, prioritizing a redundant safety system, recognizing human error, and accounting for human vulnerability. When all principles are successfully implemented, each of the five elements of a safe transportation system are advanced: Safe roads, Safe speeds, Safe vehicles, Safe road users, and Post-crash care.

As opposed to traditional road safety practices that attempt to modify human behavior and prevent all crashes, a Safe System approach focuses on modifying transportation system design to anticipate human mistakes and lessen impact forces to reduce crash severity and save lives. For example, to better anticipate and prevent human mistakes, Safe System road design may add a median barrier to prevent drivers from entering oncoming traffic.

A Safe System also acknowledges that the human body is vulnerable in terms of the amount of kinetic energy transfer it can withstand. This vulnerability must be considered when designing and operating a transportation network to minimize serious injuries. Therefore, it is crucial that responsibility is shared by those who design and operate the road transport system. In a Safe System, all stakeholders work together in a manner that recognizes we are responsible for doing our part. Stakeholders include, but are not limited to, road users, system managers, law enforcement, emergency responders, and vehicle manufacturers.

In contrast to traditional road safety practices that react after a crash occurs, roadway system managers in a Safe System use proactive systemic approach to safety. This involves using crash history, roadway design characteristics, and other data to identify patterns that lead to certain crash types. System designers then systemically review the possibility of countermeasures at all locations matching that pattern to mitigate that crash type.

Lastly, redundancy is key in reducing crash potential. All parts of the system should be strengthened so that if one part fails, other parts still protect roadway users. A simple implementation of this would be rumble strips that protect people when their own ability to be safe road users is compromised by distractions or drowsiness.

Though the Safe System movement is new to the United States, it has proven its efficacy in at least 53 other countries. Early adopters of a Safe System approach experienced at least 50% reductions in traffic fatalities, while the United States only saw an 11% reduction during the same period without a Safe System. Achieving Vision Zero is possible by establishing a Safe System in the City of La Verne, though aligning existing safety programs will require a one-step-at-a-time collaborative approach.

### **3. SAFETY PARTNERS**

Safety Partners are a variety of stakeholders and community groups who contribute to the development and implementation of the LRSP by providing support, assistance, advice, data, and resources. A complete list of safety partners can be found below.

- Caltrans District 7
- LA County Public Works
- Bonita Unified School District
- La Verne Police Department
- LA Metro
- SGVCOG
- La Verne Chamber of Commerce
- La Verne Bicycle Coalition

## 4. PROCESS

### Data Analysis

Collision Reports from the La Verne Police Department were analyzed from 2017 to 2021 to better understand the recent collision history within the City and assist in the selection of emphasis areas. Key data points from the reports were extracted and organized for ease of analysis. The Transportation Injury Mapping System (TIMS) provided by UC Berkeley was also utilized as a supplemental source for collision data analysis, specifically data from the California Statewide Integrated Traffic Records System (SWITRS).

### Safety Partners

Safety partners were initially contacted starting in February 2022 and communications continued through the development for the first draft of the LRSP.

### Plan Development

Plan development began in December 2021. The first draft was finished in April 2022, with public outreach beginning in May 2022. A final Plan was finished in August 2022. The Plan was revised in June 2023 to reflect the addition of the pedestrian bridge for the future train station.

### Emphasis Areas

Emphasis areas were selected based on collision report data, TIMS data, and feedback from City staff, safety partners, and community members. Once emphasis areas were selected, a variety of methods were utilized to select countermeasures to address the issues found in each emphasis area. Previous traffic reports and studies as well as guidelines from the Federal Highway Administration on Proven Safety Countermeasures were referenced. Satellite imagery was used to view emphasis areas and a field review was also conducted to further evaluate specific hotspots and identify the best fitting countermeasures.

### Public Outreach and Engagement Plan

The core objectives of this Public Outreach and Engagement Plan are outlined as follows:

- Broaden local understanding of the purpose of the LRSP.
- Develop acceptance of the LRSP and its visions and goals.
- Promote the long-term community benefits associated with the LRSP.
- Understand public opinions and concerns regarding traffic safety.
- Receive community feedback and input on emphasis areas and countermeasures.

### Outreach Approach

#### 1. Survey & Interactive Map

The survey and interactive map were the main format to provide feedback on the LRSP. The survey and map were open for feedback from 5/17/2022 to 6/14/2022, along with the first draft of the LRSP. The survey and map were created via Social Pinpoint and offered a variety

of questions, visuals, and mapping tools, allowing community members to easily give feedback on the LRSP's vision and goals, emphasis areas, and countermeasures. A flyer was created to publicize the survey and map and was shared with the community on the City and School District's social medias. A total of 56 map comments and 12 survey responses were received. The full results from the survey and interactive map can be found in the Public Engagement Summary in Appendix B.

## **2. Public Comment**

A draft of the LRSP was made available via the City website and a link was included on the outreach flyers. One email comment was received (included in Appendix B).

## **3. Committee Engagement**

The City has an Active Transportation Committee (ATC) responsible for input on various plans/programs such as the City's adopted 2018 Active Transportation Plan and related LRSP. The ATC operates as a Brown Act body with meetings open to the public providing additional exposure to important topics. An internal task force that oversaw the development of the Local Roadway Safety Plan presented drafts to the board of the ATC which provided input on the final plan.

The ATC is tasked with regularly reviews accident reports which will be used for future project and program prioritizations. The ATC additionally monitor's the progress of the LRSP's implementation and is the appointed body for the Plan's future updates to meet the City's evolving needs.

## 5. EXISTING EFFORTS & PLANS

### City of La Verne Active Transportation Plan

The City's Active Transportation Plan (ATP) was developed in February of 2021 by Kittelson & Associates, Inc. The ATP establishes the City's vision and comprehensive approach to improving walking and biking in La Verne. The ATP provides an action plan for goals, improvement projects, and programs intended to encourage walking, biking and rolling throughout La Verne. The ATP's purpose is to understand existing facilities, assess active transportation needs, establish goals, actions, and performance measures, identify an implementation plan, and identify funding opportunities to augment local funds.

The ATP identifies four overarching goals for the City, with proposed actions to address each goal. The ATP goals are:

1. Accessibility: Provide Safe, direct, and comfortable routes for all people walking, biking, and rolling.
2. Safety: Improve safety for people walking, biking, and rolling.
3. Support: Create a welcoming and friendly environment for walkers and bikers in La Verne that encourages more people to choose to walk or bike.
4. Encouragement: Support a culture of active transportation that creates more visibility and awareness of walkers and bikers.

Performance measures were identified to track and evaluate the progress of the ATP, as shown below in Figure 1.

**Figure 1: ATP Performance Measures**

Goal	Performance Measure	Measurement
ACCESSIBILITY	Bicycle network completion	Miles of bicycle lanes installed
		Miles of buffered or protected bicycle-lane miles installed
	Amount of people that can walk or bike to transit	Percent of population within a ½-mile network walking distance to a transit stop
		Percent of population within a 2-mile network biking distance to a transit stop
	Sidewalk completion	Feet of sidewalk infill
		Number of linear sidewalk miles within the City
New connections	Number of new opportunities to cross barriers	
SAFETY	Number of crashes involving a person biking	Number of fatal or serious injuries of people biking over five-year period
	Number of crashes involving a person walking	Number of fatal or serious injuries of crashes involving a person walking over five-year period
	Number of walking or biking related citations	Number of common traffic violations assigned motor vehicles that affect people walking or biking. These include failure to yield to pedestrians or bicyclists, turning, driving under the influence, driving distracted, speeding, running a red light/sign, passing a bicyclist too closely
		Number of Citations issued to people walking or biking
		Number of people walking
SUPPORT	Number of people walking	Bicycle commute mode share (ACS five-year estimates)
	Number of people biking	Walking commute mode share (ACS five-year estimates)
ENCOURAGEMENT	Number of outreach events held	Number of outreach events held

The ATP also identifies locations for walking and biking recommendations. Recommended improvements include sidewalk enhancements, shared use paths, bikeways, pedestrian crossing enhancements, and bicyclist crossing enhancements. Figure 2 and Figure 3 below illustrate the locations of the recommended walking and biking improvements.

Figure 2: ATP Existing and Recommended Walking Network

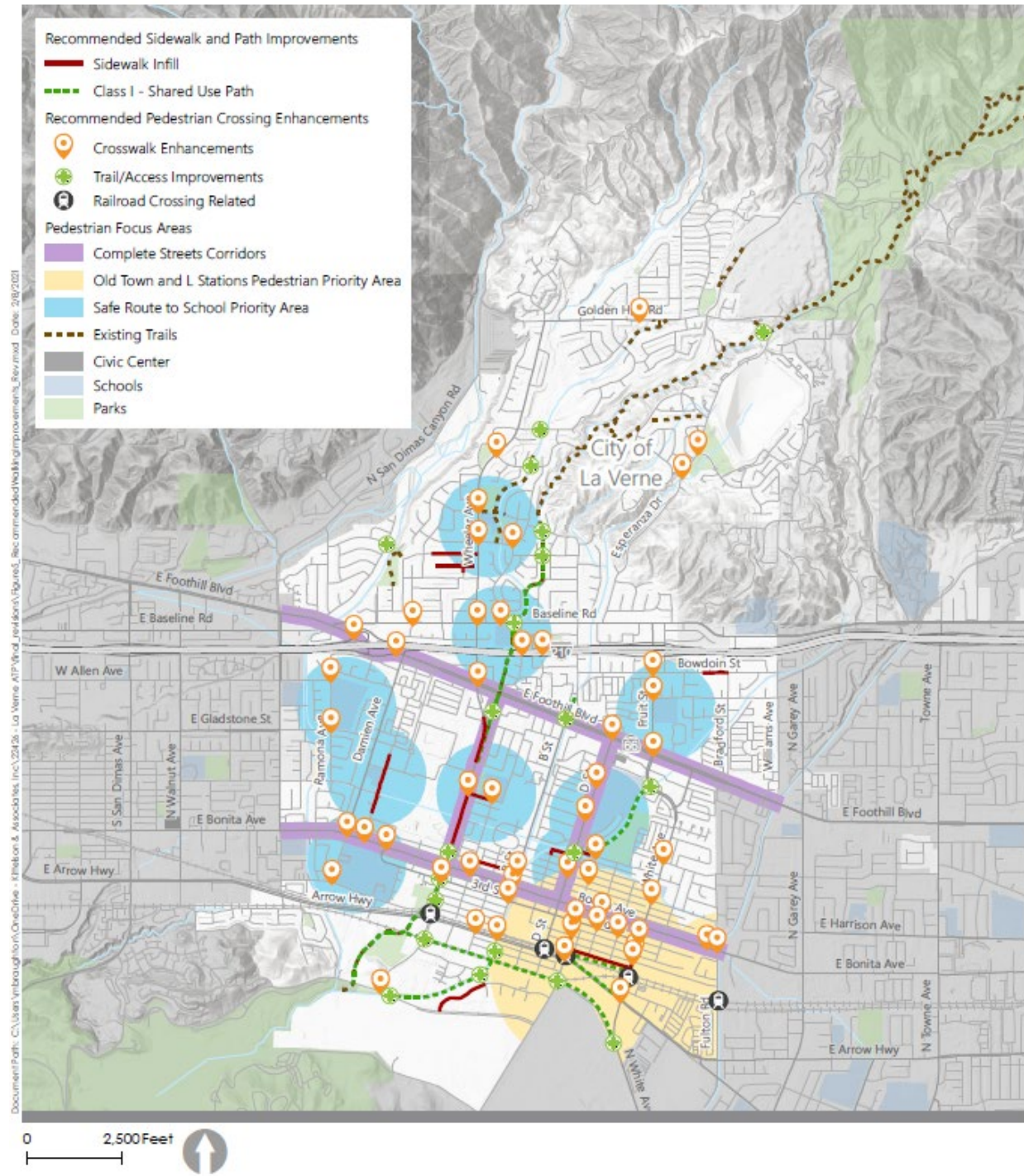
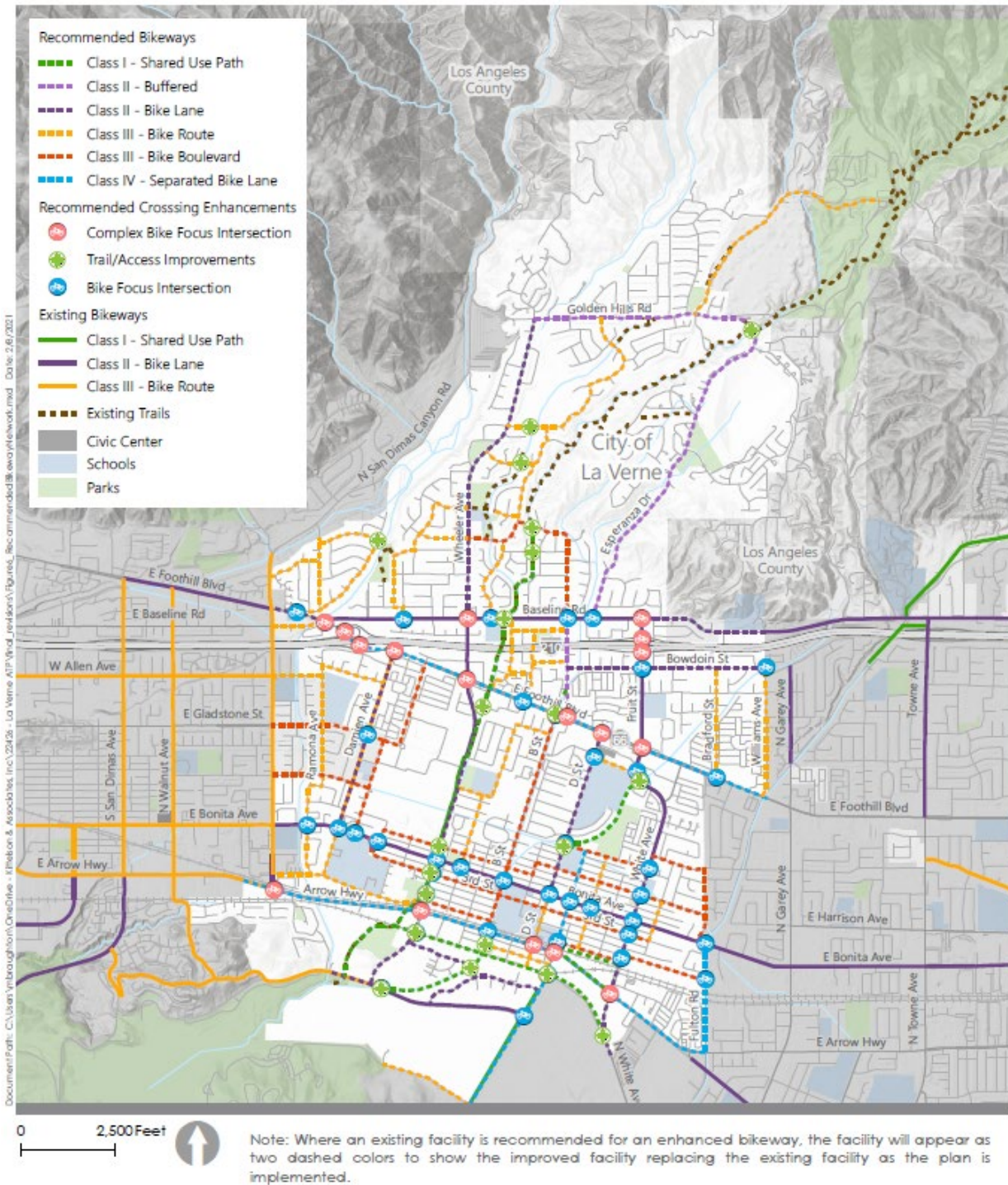


Figure 3: ATP Existing and Recommended Bikeway Network



### Existing Public Transportation

There are two existing local bus lines run by Foothill Transit that serve portions of the City. Foothill Transit Route 197 stops in the Southeastern corner of the City at White Avenue and Arrow Highway. A map of the route can be found below in Figure 4. Foothill Transit Route 291 Connects between Fruit Street, Baseline Road, Towne Avenue, and Foothill Boulevard between La Verne and Claremont. A map of the route can be found below in Figure 5.

**Figure 4: Foothill Transit Route 197**

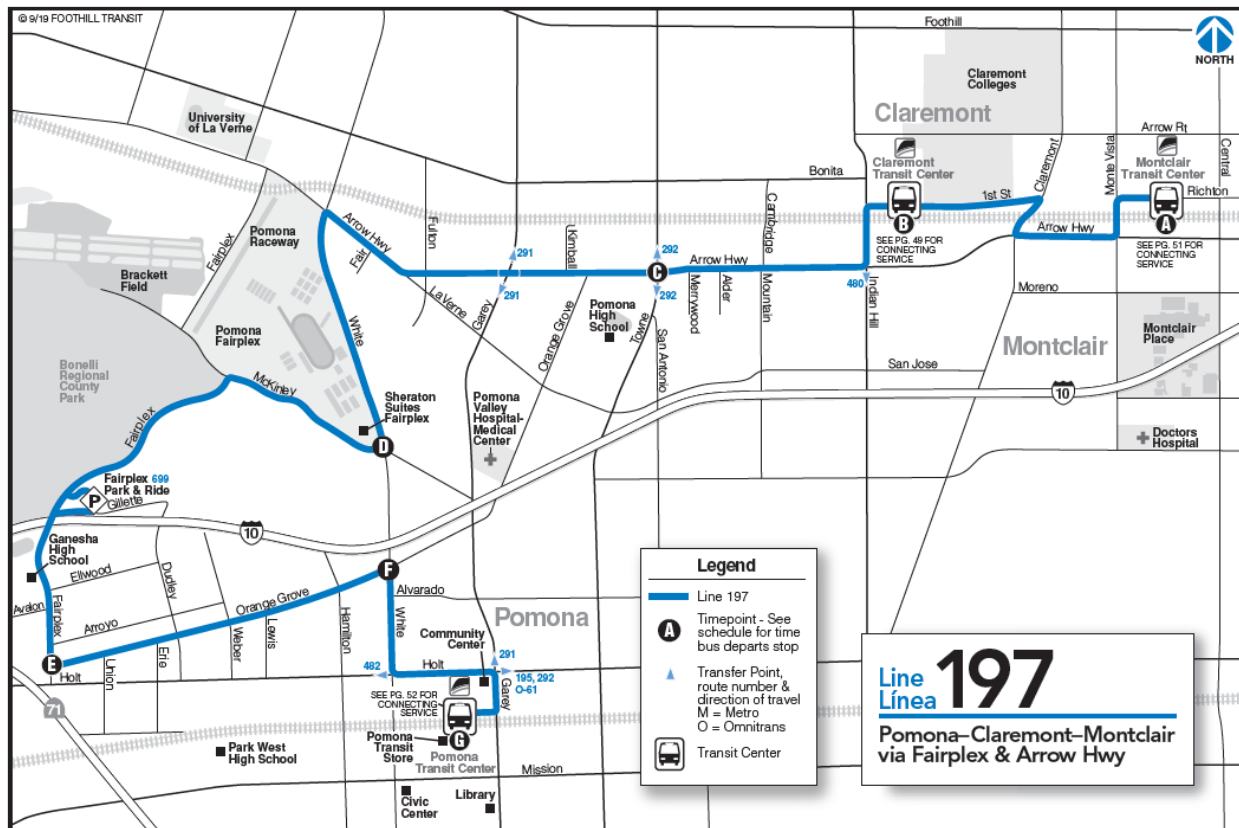
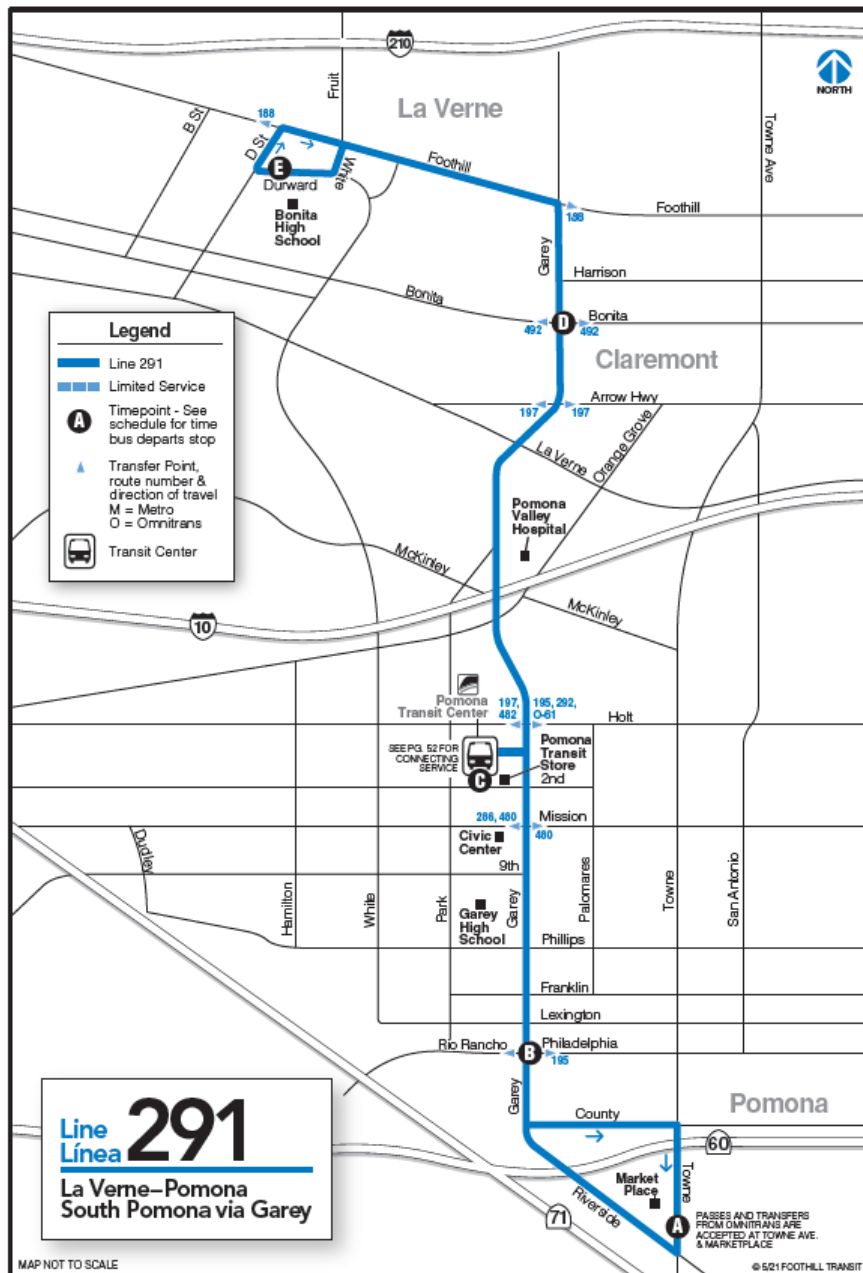


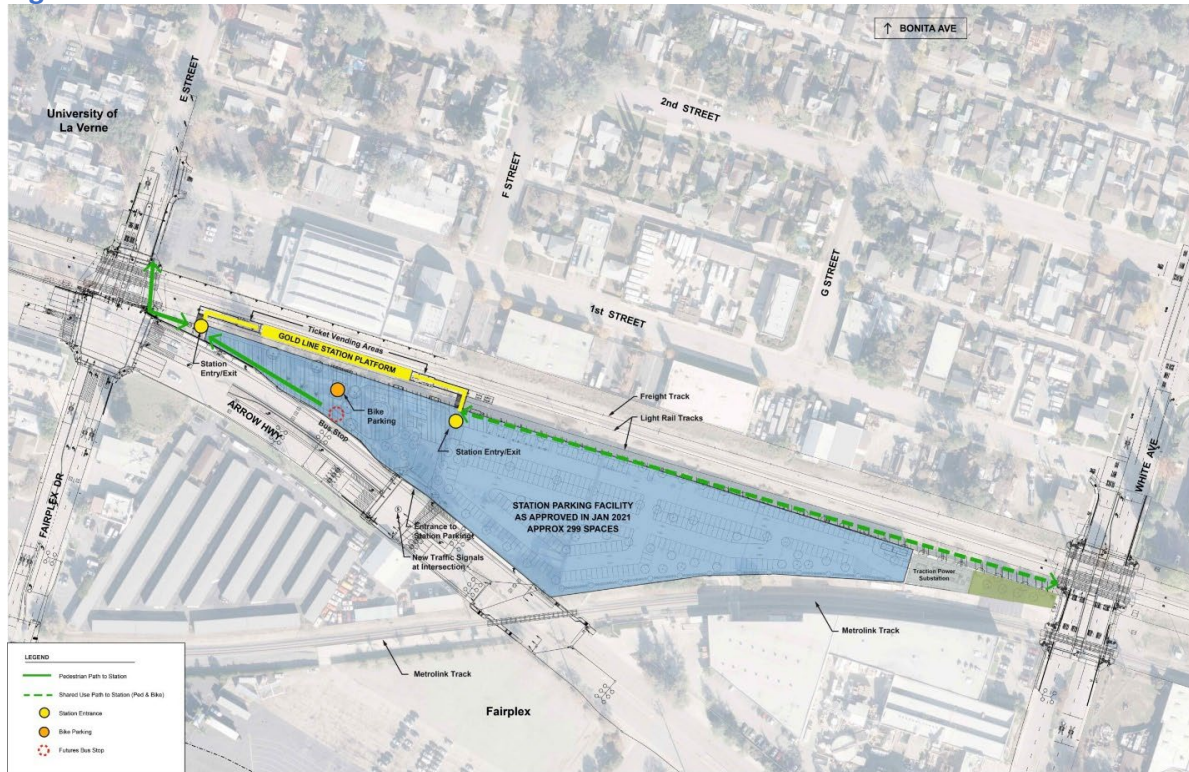
Figure 5: Foothill Transit Route 291



Additionally, regional transit opportunities include access to the Metrolink commuter and Amtrak passenger rail services in Pomona. Within La Verne, the Fairplex Metrolink station is only operational during the Los Angeles County Fair and is in the southern area of the City, adjacent to the Fairplex. LA Metro is planning to provide light rail service to La Verne with the extension of the L Line (Gold Line). The La Verne station is part of the Foothill Gold Line from Glendora to Montclair and will be located north of Arrow Highway and east of E Street, between the University of La Verne and the Pomona Fairplex. The station will be a center platform station, with the light rail tracks on either side (one for each eastbound and westbound). The station will have an associated parking facility and amenities for riders arriving

by walking, bicycle, and bus drop-off. Construction of this project will also include safety enhancements at street crossings (such as raised medians, red curbing, and turn restrictions at all street crossings within 100 feet of the rail corridor). A pedestrian bridge is also planned to facilitate crossings at Arrow Highway. A site plan for the project is included in Figure 6 below.

**Figure 6: La Verne Gold Line Station Site Plan**



### Existing Bikeway Network

There are currently two Class I, six Class II, and two Class III bikeways within the City. Additionally, there are two bicycle/pedestrian bridges and several multi-use trails. The existing bike infrastructure is illustrated in the map in Figure 7 and the locations are described below:

#### **Shared-Use Paths or Bike Paths (Class I):**

1. Class I bike path running parallel to Fairplex Drive from Wright Avenue to city limits
2. Marshall Canyon Trail (paved, shared-use path from Bonita Avenue to Paseo Avenue)

#### **Bike Lanes (Class 2):**

1. White Avenue from Foothill Boulevard to Eighth Street
2. Fruit Street from Foothill Boulevard to Baseline Road
3. Baseline Road from Landeros Avenue to just east of Foothill Boulevard
4. Wheeler Avenue from Baseline Road to Paseo Avenue
5. Bonita Avenue from western city limits to eastern city limits

6. Puddingstone Drive from Fairplex Drive to Wheeler Avenue

***Bike Routes (Class 3):***

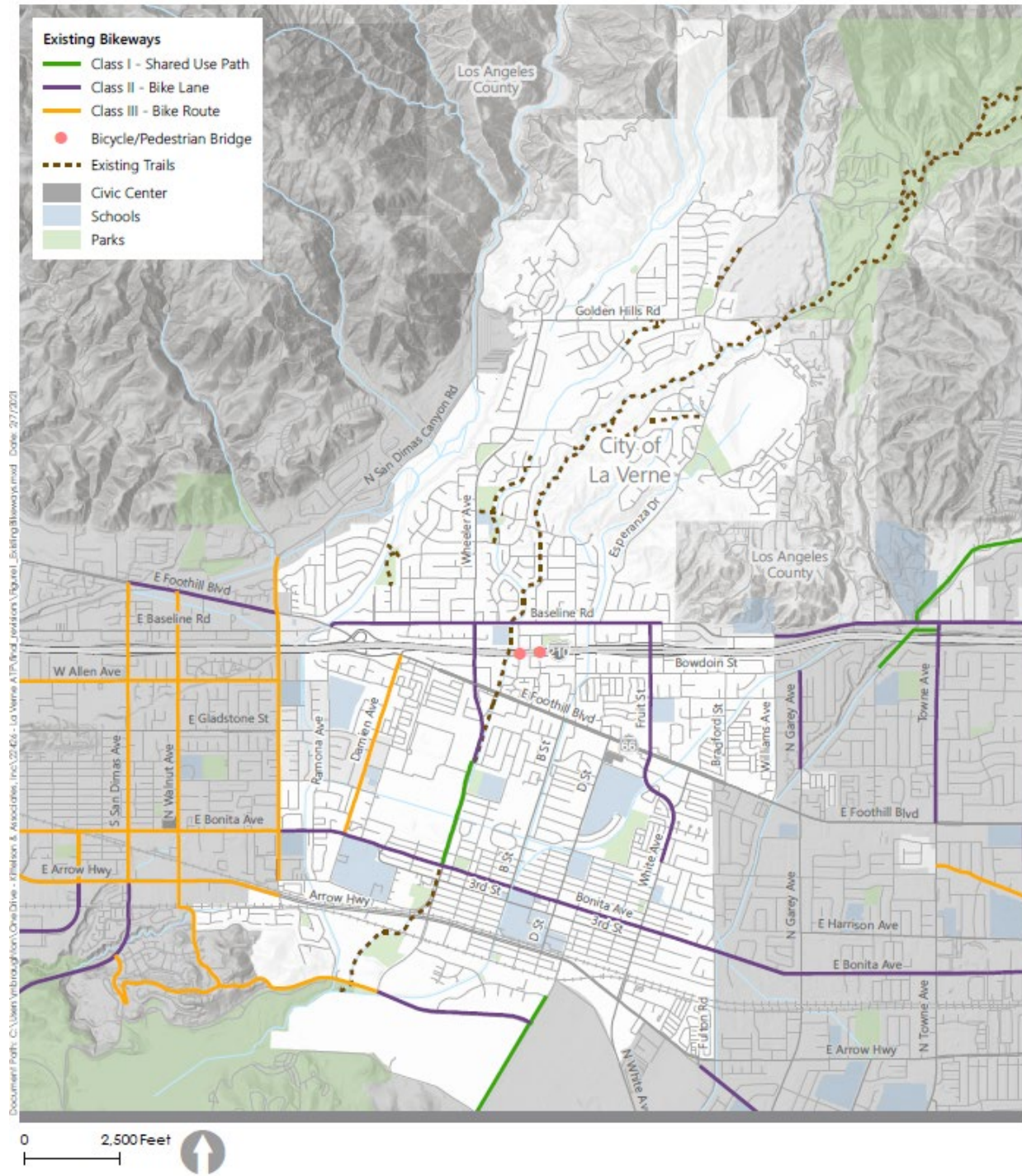
1. Class III bike route on Puddingstone Drive, west of Wheeler Avenue
2. Class III bike route on Damien Avenue from Foothill Boulevard to Bonita Avenue

***Other Bicycle Facilities:***

1. Bicycle/pedestrian bridge over I-210 freeway on Bixby Drive
2. Bicycle/pedestrian bridge over I-210 freeway on Chelsea Drive
3. Marshall Canyon Trail runs diagonally through the City and varies between a flood control channel, a natural dirt trail, and a Class I shared-use path (trail is unpaved north of Orangewood Street). Various access points, including at the eastern end of Via Arroyo and near the intersection of Golden Hills Road and Esperanza Road
4. Multi-use trail connecting Los Encinos Park with surrounding neighborhoods
5. Multi-use trails running between Heritage Park, Oak Mesa Park, and north along the drainage to just north of Via Arroyo
6. Multi-use trail connecting between Canyon Crest Drive and Esperanza Drive
7. Multi-use trail running from the southern portion of the Golden Hills Wilderness Park at Country Club Drive up to Golden Hills Road

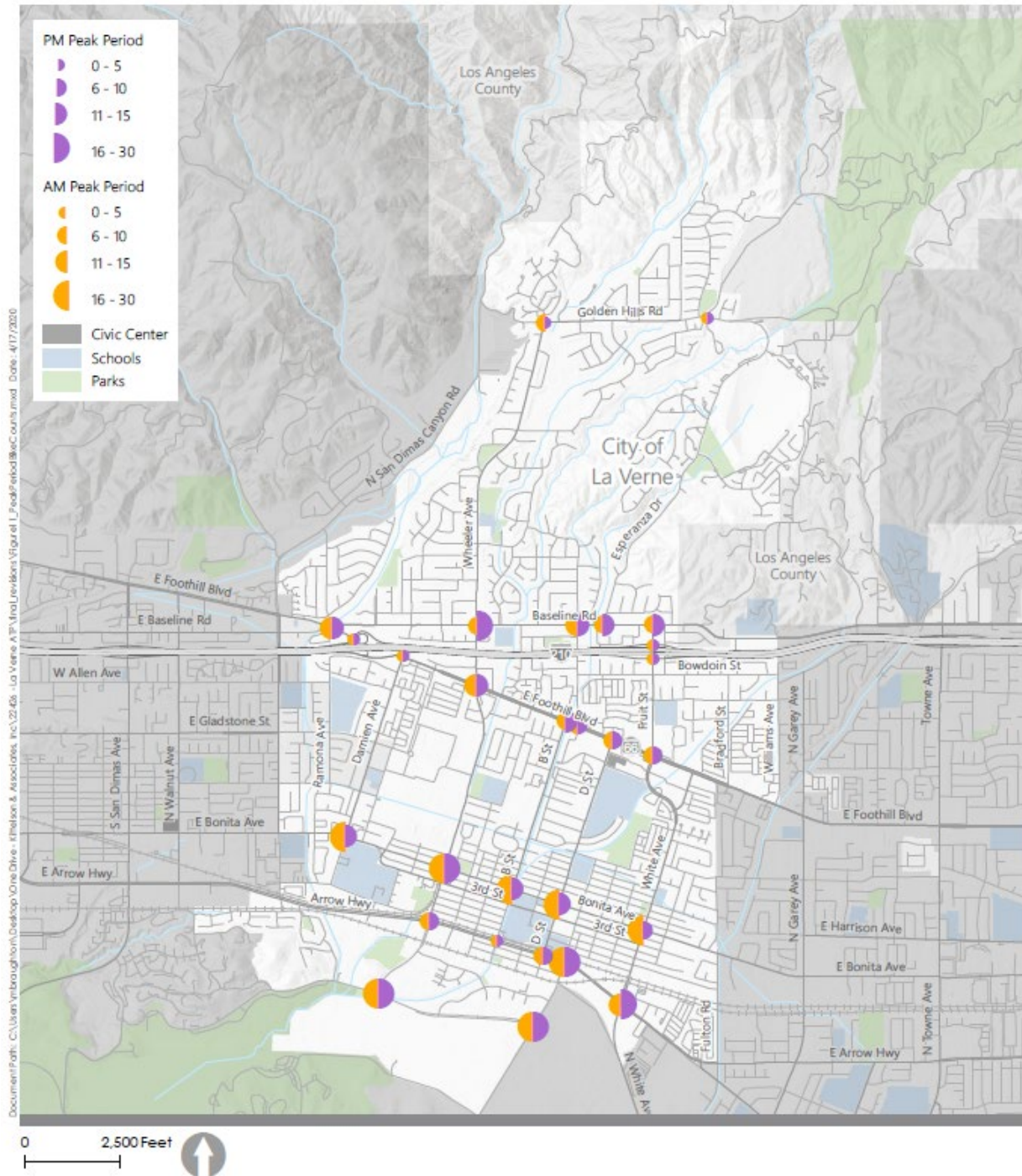
Additionally, as part of the General Plan Update, bicyclist counts were collected at 28 intersections on typical weekdays during the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak periods. A map displaying bicycle volumes can be found in Figure 8 below.

Figure 7: Existing Bicycle Facilities



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Figure 8: Peak Hour Bicycle Volumes



### Bicyclist Level of Stress

The City’s ATP uses the Bicyclist Level of Traffic Stress (LTS) methodology to help identify where people biking feel the most and least comfortable while biking. This methodology identifies four types of cyclists:

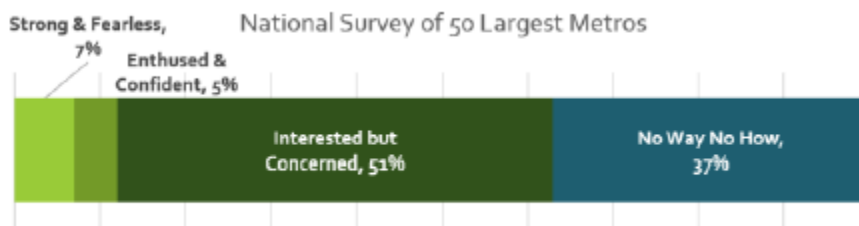
1. *Strong and Fearless:* People who will ride on the street regardless of roadway

conditions.

2. *Enthused and Confident*: People comfortable sharing the road with motor vehicles but are more comfortable riding in a bike lane or shared-use path.
3. *Interested but Concerned*: People who are curious about bicycling but are afraid to ride a bicycle without safe and comfortable bicycling infrastructure.
4. *No Way, No How*: People who are unwilling to bicycle in any situation.

A national survey of the 50 largest Metros found that most people fall into the “Interested but Concerned” category. The full breakdown of the survey results is illustrated below in Figure 9.

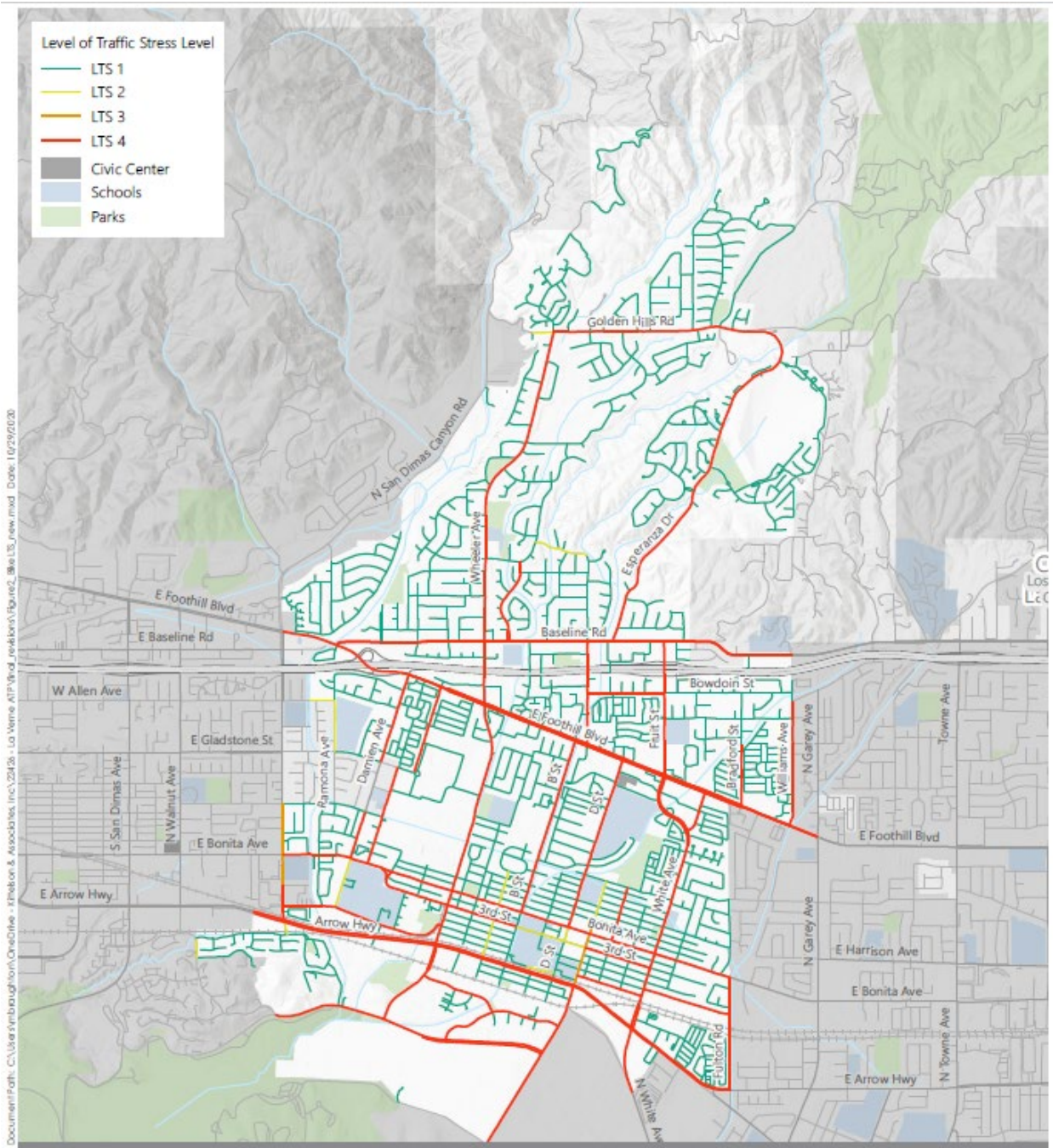
**Figure 9: Four Types of Cyclists**



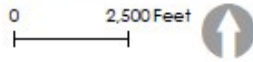
Source: [jenniferdill.net](http://jenniferdill.net), 2020.

The results of the LTS evaluation for bicycling on La Verne streets is shown below in Figure 10. LTS 1 (shown in green) indicates a roadway segment or intersection where most people, including children, would feel comfortable biking, while LTS 4 (shown in red) represents roadways or intersection that are only comfortable for “Strong and Fearless” bicyclists. As shown, arterial roads in the City generally score worse, given their high vehicle speeds and volumes. These roadways across the City form high-stress barriers preventing younger, older, or less confident bicyclists from having comfortable access to areas outside their residential neighborhood.

Figure 10: Bicyclist Level of Traffic Stress



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**Notes:**

- The LTS scores shown are calculated for on-street bikeways only. Trails, shared-use paths, and side paths are defined as LTS 1 and are not shown. Side paths in La Verne include Wheeler Avenue from Paseo Avenue to Bonita Avenue, and Fairplex Drive from Wright Avenue to McKinley Avenue.
- Recent bikeway improvements have been made at several locations through the City of La Verne as part of an Active Transportation Program grant that improve the LTS scores shown.

## Existing Walking Network

### ***Sidewalks:***

Sidewalks are consistently available throughout most of the City, however there are several gaps in the existing infrastructure, including Golden Hills Road, Baseline Road, Esperanza Drive, Wheeler Avenue, and Puddingstone Drive. Figure 11 below illustrates the gaps in the existing sidewalk infrastructure.

### ***Trails:***

- Marshall Canyon Trail (extends diagonally through the City)
- Trail system connecting Los Encinos Park with surrounding neighborhoods
- Trails running between Heritage Park, Oak Mesa Park, and north along the drainage just north of Via Arroyo
- Trail connecting Canyon Crest Drive and Esperanza Drive
- Trail running from southern portion of Golden Hills Wilderness Park at Country Club Drive to Golden Hills Road

### ***Amenities:***

Pedestrian-oriented amenities throughout Old Town La Verne include landscaping, restaurants, retail, and street furniture. Some residential areas of the City contain sidewalks with landscaping that provide separation between the sidewalk and vehicle traffic. However, many residential areas do not have this landscaping and separation making them less welcoming and comfortable to walk on. Retail along major arterials within the City, such as Foothill Boulevard, do contain landscaping and sidewalk paving, but often do not have street facing entrances. Additionally, some streets, particularly in the areas surrounding Old Town La Verne, have a mature tree canopy that provides shade and enhances walking.

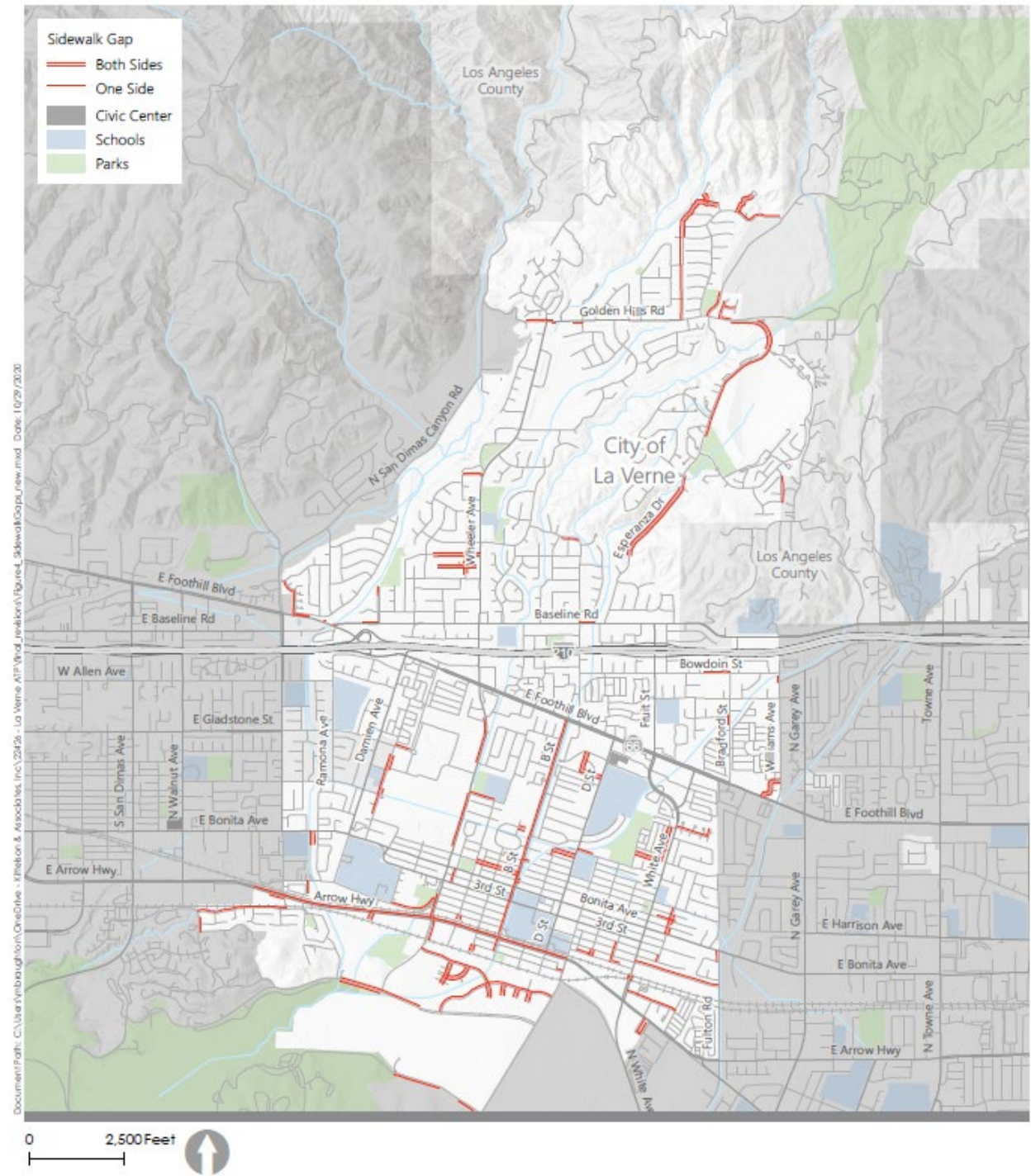
### ***Crosswalks and Signals:***

Marked crosswalks exist at most major intersections. However, several arterials have long distances between crossings. Several I-210 interchanges also lack marked crosswalks. In central La Verne, some streets have limited marked crossings, notably D Street. In Old Town La Verne, some crosswalks are augmented with painted and planted curb extensions. In northern La Verne, ladder crosswalks are provided in some residential locations. Additionally, as part of the General Plan Update, pedestrian counts were collected at 28 intersections on typical weekdays during the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak periods. A map displaying pedestrian volumes can be found in Figure 12 below.

### ***Pedestrian bridges:***

In addition to sidewalks, crosswalks, and the unpaved Marshall Canyon Trail, people walking can utilize two pedestrian bridges over the I-210 freeway at Bixby Drive and at Chelsea Drive as well as another bridge crossing the drainage in the riparian and oak preserve at Lowell Brandt Park.

Figure 11: Sidewalk Gaps



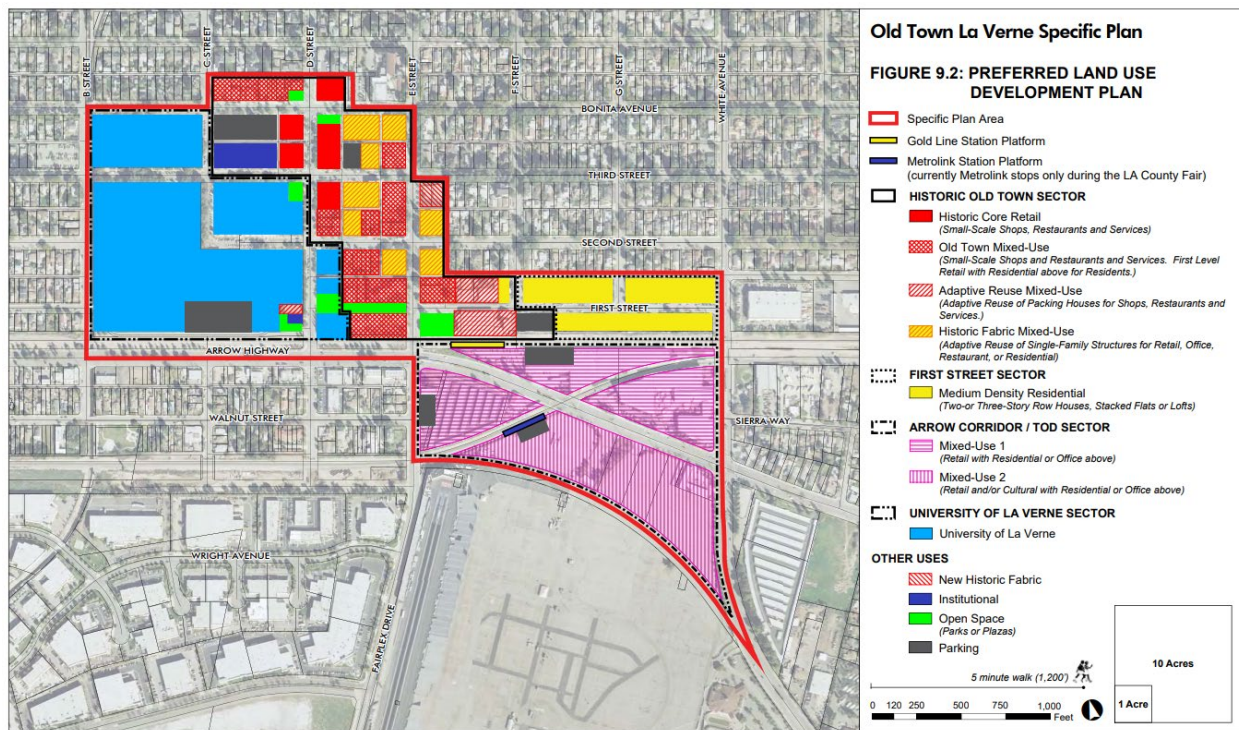
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### Old Town La Verne Specific Plan

The Old Town La Verne Specific Plan was adopted in March of 2013 and provides detailed information and plans for the Old Town La Verne area along Arrow Highway. The long-term land use planning for this area is noteworthy as it is located in the same area as the forthcoming Gold Line station and includes substantial changes from the current land use. The Preferred Land Use Development Plan is shown in figure 13 below. Substantial increases in residential space, office space, and small-scale shops, restaurants, and services, along with the development of the Gold Line Station, will have considerable impacts on the Arrow Highway corridor and its intersections. Given the expected major changes along Arrow Highway, the ability to address roadway safety concerns along this corridor is limited. The City recognizes that there are safety concerns within this corridor and will continue to evaluate issues and potential countermeasures on an ongoing basis as conditions change.

Figure 13: Preferred Land Use Development Plan



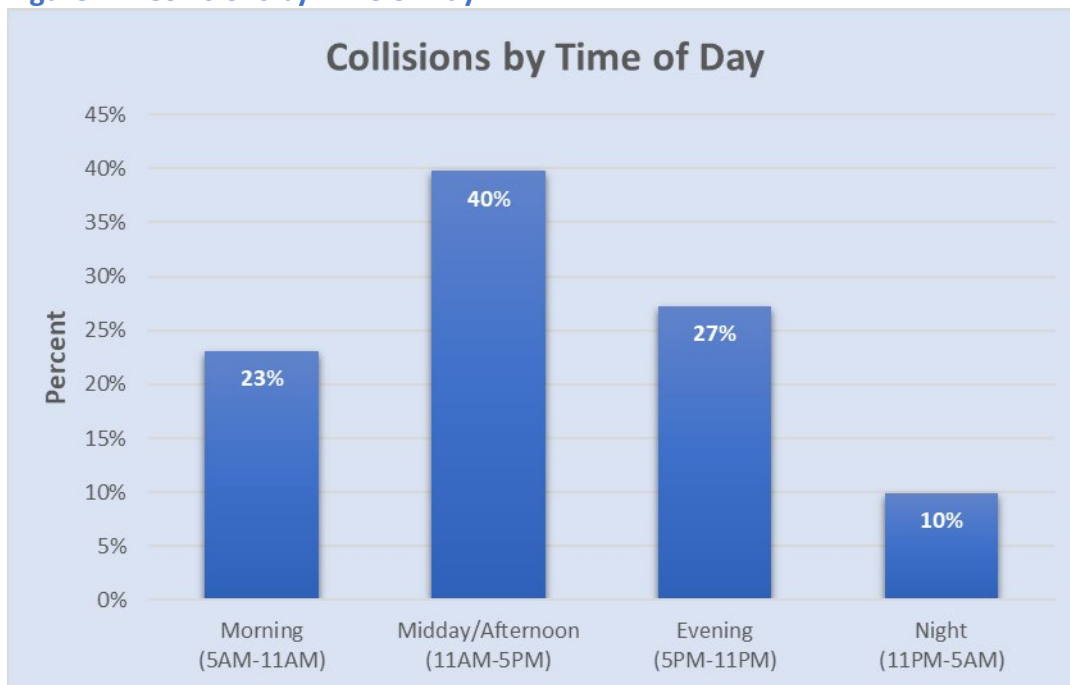
## 6. DATA SUMMARY

### La Verne Police Department Collision Reports

A report summarizing traffic collisions from 2017 to 2021 was provided by the La Verne Police Department. The report included records of over 870 collisions. For each collision, the report included street location or nearest cross street, date, time, injury type, collision type, number of fatalities and injured, and incident number. The data in the report was analyzed to help pinpoint the intersections and roadway segments where there are frequent collisions. This analysis was used to inform the selection of emphasis areas and proposed countermeasures. The report also provided some general insights into when and how traffic collisions occur.

As seen in Figure 14 below, the day was split up into four six-hour time slots for analysis: Morning, Midday/Afternoon, Evening, and Night. According to the data, collisions occur most frequently in the afternoon (about 40% of collisions take place between 11AM and 5PM). Morning and evening hours each account for about a quarter of all collisions, with 23% occurring between 5AM and 11AM and 27% occurring between 5PM and 11PM. Only 10% of collisions occur at night between 11PM to 5AM.

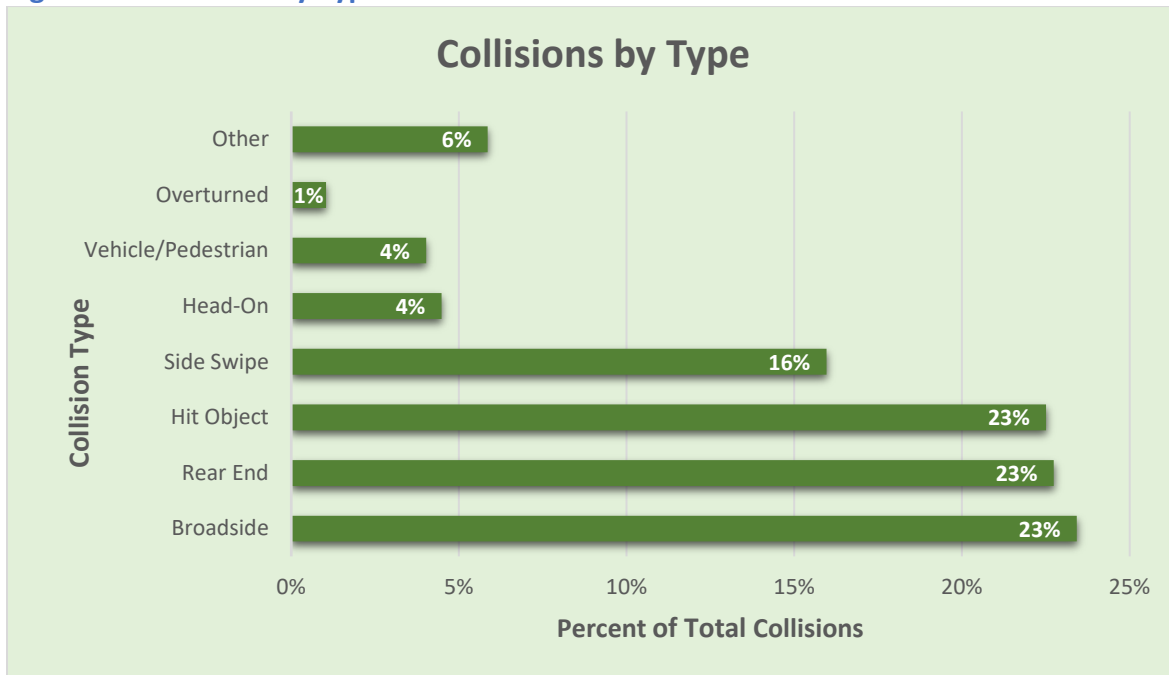
**Figure 14: Collisions by Time of Day**



Source: Collision Reports 2017-2021

Figure 15 below illustrates the frequency of different types of collisions as a percentage of total collisions. Broadside, rear-end, and hit object collisions make up the largest percentage of total collisions, collectively accounting for nearly 70% of reported crashes. Side swipe collisions are the fourth most common collision type, accounting for 16% of reported collisions.

**Figure 15: Collisions by Type**

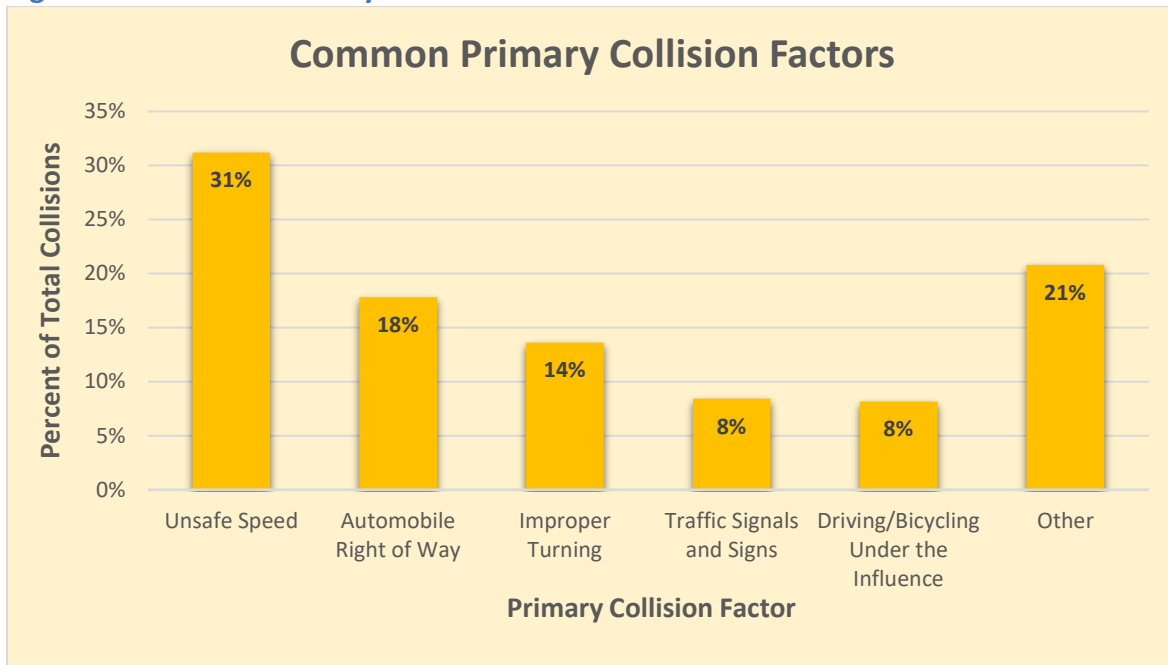


Source: Collision Reports 2017-2021

**UC Berkeley Transportation Injury Mapping System (TIMS)**

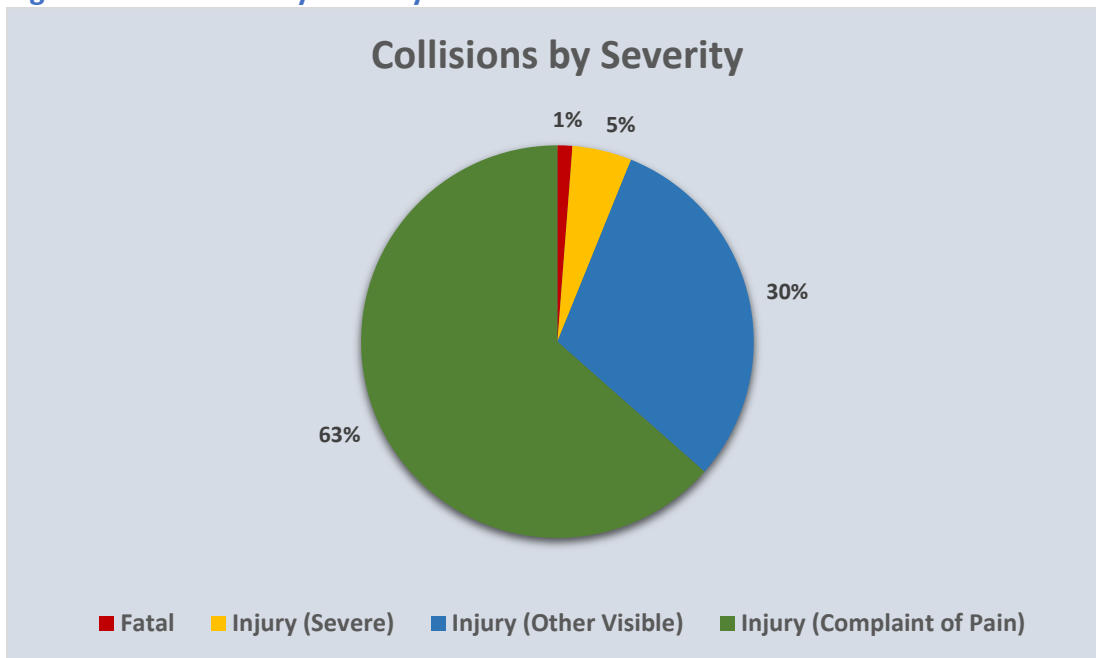
The Transportation Injury Mapping System (TIMS) is an online tool provided by the University of California Berkeley. The California Statewide Integrated Traffic Records System (SWITRS) Query and Map tool was utilized to review collision data within the City of La Verne from 2016 to 2020. During this time frame, 408 crashes were reported in the SWITRS database. These records provide further detail on collisions, including severity and injuries, pedestrian and bicyclist involvement, the type of collision, etc. This information was used in tandem with Police Department collision data to provide a more detailed picture of the traffic safety issues facing the La Verne community. Figure 16 below highlights the five most common primary collision factors (PCFs) in the TIMS data. The most common PCF was unsafe speed, accounting for over 30% of reported collisions. Automobile right of way is the second most common PCF, accounting for 18% of reported collisions. Figure 17 separates collisions by severity. Severe and fatal collisions made up 6% of the total reported collisions, while another 30% resulted in other visible injuries. Remaining collisions reported complaints of pain only.

**Figure 16: Common Primary Collision Factors**



Source: UC Berkeley Transportation Injury Mapping System (TIMS) Data, La Verne 2016-2020.

**Figure 17: Collisions by Severity**



Source: UC Berkeley Transportation Injury Mapping System (TIMS) Data, La Verne 2016-2020.

## 7. EMPHASIS AREAS

**Table 1: Emphasis Areas**

13	Location	Type	Traffic Safety Concern	Proposed countermeasure
1	Arrow Hwy at N White Ave	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian countdown heads</li> <li>Lead pedestrian interval timing</li> <li>Widen and extend medians to create pedestrian refuge islands</li> <li>Floating pedestrian refuge islands on N White Ave, creating separated right turn lanes</li> </ul>
2	Fulton Rd	Midblock	<ul style="list-style-type: none"> <li>Insufficient pedestrian and bicycle infrastructure &amp; access to Metrolink Station</li> </ul>	<ul style="list-style-type: none"> <li>Remove parking south of Bonita Ave, except on east side between Roosevelt St and Brandt St</li> <li>Roadway width: 40 ft – 5 ft bike lanes, 4 ft buffers, 11 ft travel lanes</li> <li>Roosevelt St to Brandt St – 5 ft bike lanes, 11 ft travel lanes, 8 ft parking lane on east side only</li> <li>Add ped/bike crosswalk at the south side of Metrolink Station driveway (may need to shorten median by a few feet)</li> <li>Add crosswalk at north end of Fulton Rd, at Bonita Ave (from west corner of Fulton Rd)</li> <li>Add RRFB and bulb outs to crosswalk at Bonita</li> </ul>
3	I St	Midblock	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Narrow roadway to construct sidewalk on east and west sides from Bonita Ave to 6<sup>th</sup> St (new roadway width will be 35 ft, consistent with width north of 6<sup>th</sup> St)</li> </ul>
4	Bonita Ave at N White Ave	Intersection	<ul style="list-style-type: none"> <li>Broadside collisions</li> <li>Insufficient pedestrian and bicycle infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Provide pedestrian ADA ramp on NW corner</li> <li>Remove permissive green time for dedicated left turns</li> <li>Evaluate and adjust signal timing</li> <li>Add bike boxes at all four approaches (including bike</li> </ul>

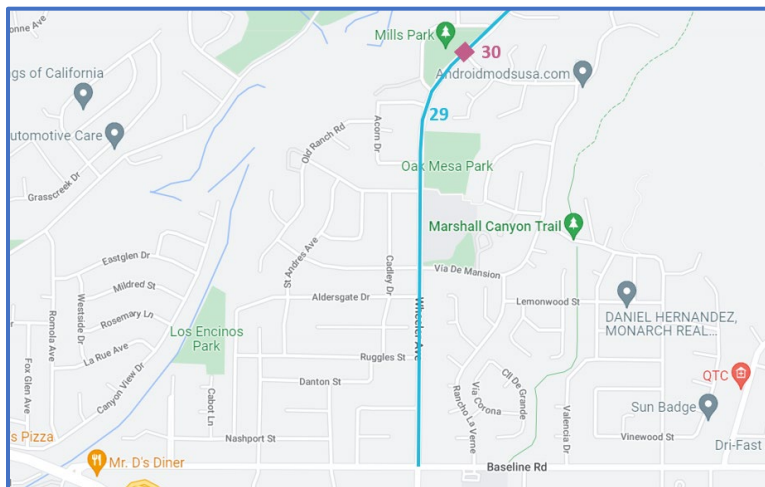
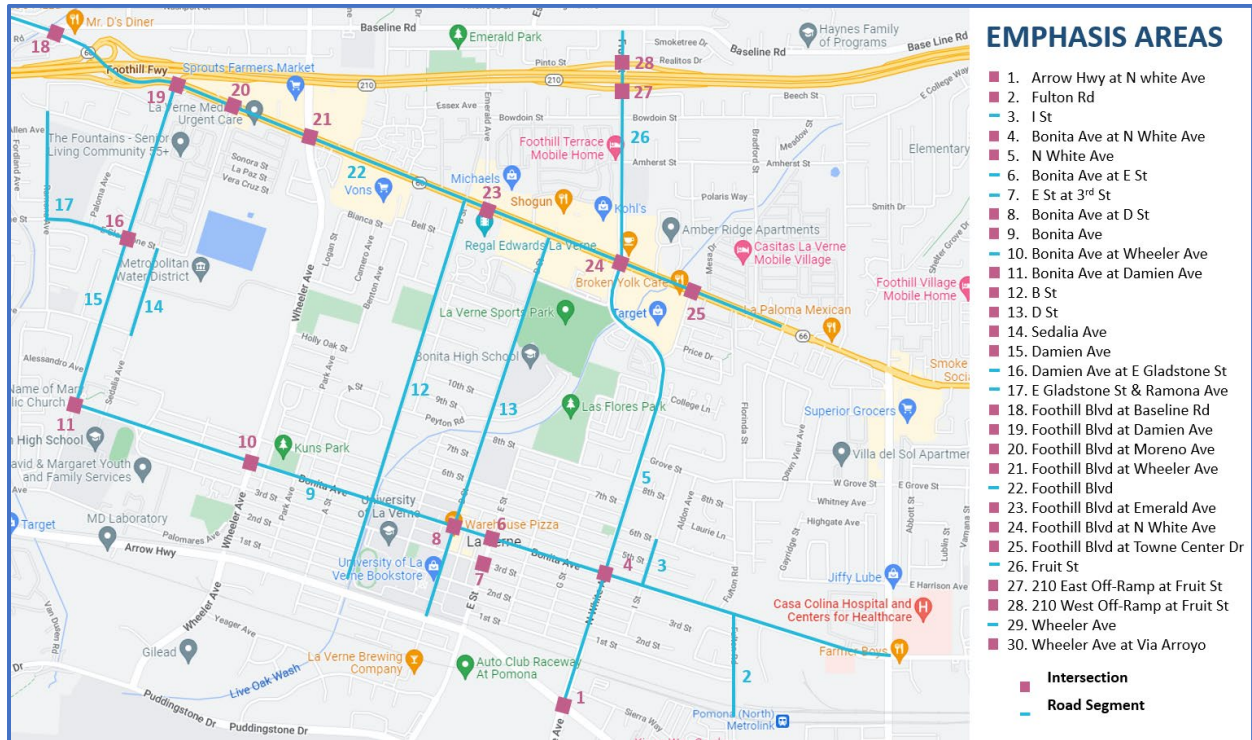
				sensors)
5	N White Ave	Midblock	<ul style="list-style-type: none"> <li>Speeding</li> </ul>	<ul style="list-style-type: none"> <li>Add buffered bike lanes, narrow travel lanes</li> <li>Roadway Width: 52 ft- 5' bike lanes, 3' buffers, 10' travel lanes, 8' parking lanes</li> </ul>
6	Bonita Ave at E St	Intersection	<ul style="list-style-type: none"> <li>Insufficient bicycle infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Add bike boxes on Bonita Ave</li> <li>Add bike sensors on Bonita Ave for left turn phasing</li> </ul>
7	E St at Third St	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Bulb outs at all four corners</li> </ul>
8	Bonita Ave at D St	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate timing for pedestrian crossing signal</li> <li>Add bulb outs at all four corners (transition bike lane around bulb out, to bike box)</li> </ul>
9	Bonita Ave	Midblock	<ul style="list-style-type: none"> <li>speeding</li> </ul>	<ul style="list-style-type: none"> <li>Add bike lane buffers, narrow travel lanes</li> <li>Rumble strips on inner edge of buffer</li> <li>East of Magnolia Ave- Roadway Width: 52 ft- 5' bike lanes, 3' buffers, 10' travel lanes, 8' parking lanes</li> <li>West of Wheeler Ave- Roadway Width: 68 ft- 6' bike lanes, 3' buffers, 11' travel lanes, 8' parking lanes, 12' two-way left turn lane</li> </ul>
10	Bonita Ave at Wheeler Ave	Intersection	<ul style="list-style-type: none"> <li>Failure to yield on left turns</li> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Bulb out on northwest corner for north-south crossing</li> <li>Add left turn phasing for Wheeler Ave (with permissive left turn on green, take away permissive if issue persists)</li> </ul>
11	Bonita Ave at Damien Ave	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Floating pedestrian refuge islands at all four corners</li> </ul>
12	B St	Midblock	<ul style="list-style-type: none"> <li>Speeding</li> </ul>	<ul style="list-style-type: none"> <li>Install center line striping</li> <li>Install edge line striping in 25mph zone from 5<sup>th</sup> St to south of 12<sup>th</sup> St</li> <li>Install radar feedback signs at 25mph signs</li> <li>Consider additional community outreach and feasibility study for bike facilities along flood channel, connecting B St to</li> </ul>

				Baseline Ave
13	D St	Midblock	<ul style="list-style-type: none"> <li>Speeding</li> <li>Insufficient bicycle &amp; pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>RRFB and bulb outs at Sixth St</li> <li>Replace existing School Speed Limit signs with S5-1 flashing signs and additional radar feedback signs beneath</li> </ul>
14	Sedalia Ave	Midblock	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Fill in sidewalk gaps on western side (north of Juanita Ave and north of Forestdale St)</li> </ul>
15	Damien Ave	Midblock	<ul style="list-style-type: none"> <li>Driveway slopes within sidewalk are not ADA compliant</li> </ul>	<ul style="list-style-type: none"> <li>Widen curb to add parkway and remove slope from sidewalks (opportunity to construct storm water capture planters-parkway bioswales)</li> </ul>
16	Damien Ave at E Gladstone St	Intersection	<ul style="list-style-type: none"> <li>Failure to yield</li> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Roundabout</li> <li>Acquire ROW on NE and SE corners</li> </ul>
17	E Gladstone St & Ramona Ave	Midblock & Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian &amp; bicyclist infrastructure surrounding school</li> </ul>	<ul style="list-style-type: none"> <li>Inter-City collaboration needed between La Verne and San Dimas to address safety surrounding Ramona Middle School.</li> </ul>
18	Foothill Blvd at Baseline Rd	Intersection	<ul style="list-style-type: none"> <li>Insufficient bicycle &amp; pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Extend bike lanes on west Foothill Blvd to intersection</li> <li>Extend bike lanes on Baseline Rd to intersection</li> <li>Add green bike boxes and decals at intersection (Baseline Rd and west Foothill Blvd)</li> <li>Add pedestrian countdown signals</li> <li>Add "watch for bicyclists and pedestrians" signage</li> <li>Widen path on ped refuge island</li> </ul>
19	Foothill Blvd at Damien Ave	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Widen and extend median to create pedestrian refuge island</li> </ul>
20	Foothill Blvd at Moreno Ave	Intersection	<ul style="list-style-type: none"> <li>Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Widen and extend medians to create pedestrian refuge islands</li> </ul>
21	Foothill Blvd at Wheeler Ave	Intersection	<ul style="list-style-type: none"> <li>Failure to yield on left turns</li> </ul>	<ul style="list-style-type: none"> <li>Widen and extend medians to create pedestrian refuge islands</li> <li>Evaluate left turn signal timing and remove permissive left turn on green</li> </ul>
22	Foothill Blvd	Midblock	<ul style="list-style-type: none"> <li>Unsafe lane changes</li> </ul>	<ul style="list-style-type: none"> <li>Detailed corridor study (in</li> </ul>

				<p>conjunction with Caltrans) needed to assess opportunities for bicycle facilities and enhance safety at intersections.</p> <ul style="list-style-type: none"> <li>• Add advance warning pavement markings for westbound Hwy 210 on ramps (210 symbol, WEST, ONLY) placed west of Damien Ave and west of 210 off-ramp</li> <li>• Extend eastbound right turn only lane (east of Ramona Ave) to Ramona Ave. Striping will promote orderly and safe flow of traffic and discourage weaving.</li> <li>• Evaluate and coordinate intersection signal timings on west Foothill Blvd</li> </ul>
23	Foothill Blvd at Emerald Ave	Intersection	<ul style="list-style-type: none"> <li>• Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Request Caltrans consider lead pedestrian interval timing</li> </ul>
24	Foothill Blvd at Fruit St/N White Ave	Intersection	<ul style="list-style-type: none"> <li>• Automobile right of way</li> <li>• Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Widen and extend medians to create pedestrian refuge islands</li> <li>• Evaluate yellow and all-red interval timings</li> </ul>
25	Foothill Blvd at Towne Center Dr	Intersection	<ul style="list-style-type: none"> <li>• Insufficient pedestrian infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Widen and extend medians to create pedestrian refuge islands</li> </ul>
26	Fruit St	Midblock	<ul style="list-style-type: none"> <li>• Speeding</li> </ul>	<ul style="list-style-type: none"> <li>• Add bike lane buffers</li> <li>• Roadway width: 82 ft- 10' &amp; 11' travel lanes, 6' bike lane, 5' buffer (leaving median intact)</li> <li>• Add breakaway bollards to center of bike lane buffer</li> <li>• Rumble strips on inner edge of bike lane buffer</li> <li>• Extend southbound bike lane to Foothill Blvd—Remove separated right-turn lanes into parking lots</li> <li>• Add bike box to southbound lanes at intersection with Foothill Blvd. Provide bike lane transition markings to guide bicyclists to right-most through lane (add sharrow markings).</li> </ul>

27	210 East Off-Ramp at Fruit St	Intersection	<ul style="list-style-type: none"> <li>• Unsafe lane changes</li> </ul>	<ul style="list-style-type: none"> <li>• Add cat tracks for right-turn lanes</li> </ul>
28	210 West Off-Ramp at Fruit St	Intersection	<ul style="list-style-type: none"> <li>• Unsafe lane changes</li> </ul>	<ul style="list-style-type: none"> <li>• Add cat tracks for left-turn lanes</li> </ul>
29	Wheeler Ave	Midblock	<ul style="list-style-type: none"> <li>• Speeding</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed corridor study needed for north of Baseline Rd to assess potential for road diet north of Oak Ridge Dr—reduce to one travel lane in each direction with the addition of buffered bike lanes. Study should consider whether a road diet would negatively impact traffic flow.</li> <li>• Consider extending bike path south of Bonita Ave to Arrow Hwy (once Arrow Hwy improvements are finalized).</li> </ul>
30	Wheeler Ave at Via Arroyo	Intersection	<ul style="list-style-type: none"> <li>• Speeding</li> <li>• Insufficient pedestrian infrastructure (prohibits access to Mills Park)</li> </ul>	<ul style="list-style-type: none"> <li>• Roundabout</li> </ul>

Figure 18: Emphasis Areas Map



### **Field Review**

A field review was conducted by MNS staff in April, 2022. The review allowed for a closer analysis of several emphasis areas, providing insight into the existing infrastructure and safety issues, as well as how to address them with effective and realistic countermeasures.

### **Approach to recommendations for countermeasures**

The City is taking the following approach to improve local roadway safety:

1. Streets are considered as part of a network, so countermeasures create a pattern that drivers, pedestrians and cyclists are accustomed to, instead of being “spot treatments”. For example, narrowing the lanes on one street might divert traffic to another street. This plan may be used to influence a new set of standards that can be applied in certain areas of the City.
2. Safety countermeasures should address both night-time and day-time conditions.
3. Recommendations build on the existing and planned bicycle network.
4. Land-use and zoning along streets have to complement recommendations for roadway design and vice-versa.

### **Emphasis areas**

Below are in-depth analyses based on collision data and field review of several emphasis areas. These exemplify the need for the countermeasures specified in the table above.

## FLOATING PEDESTRIAN REFUGE ISLANDS

### Locations:

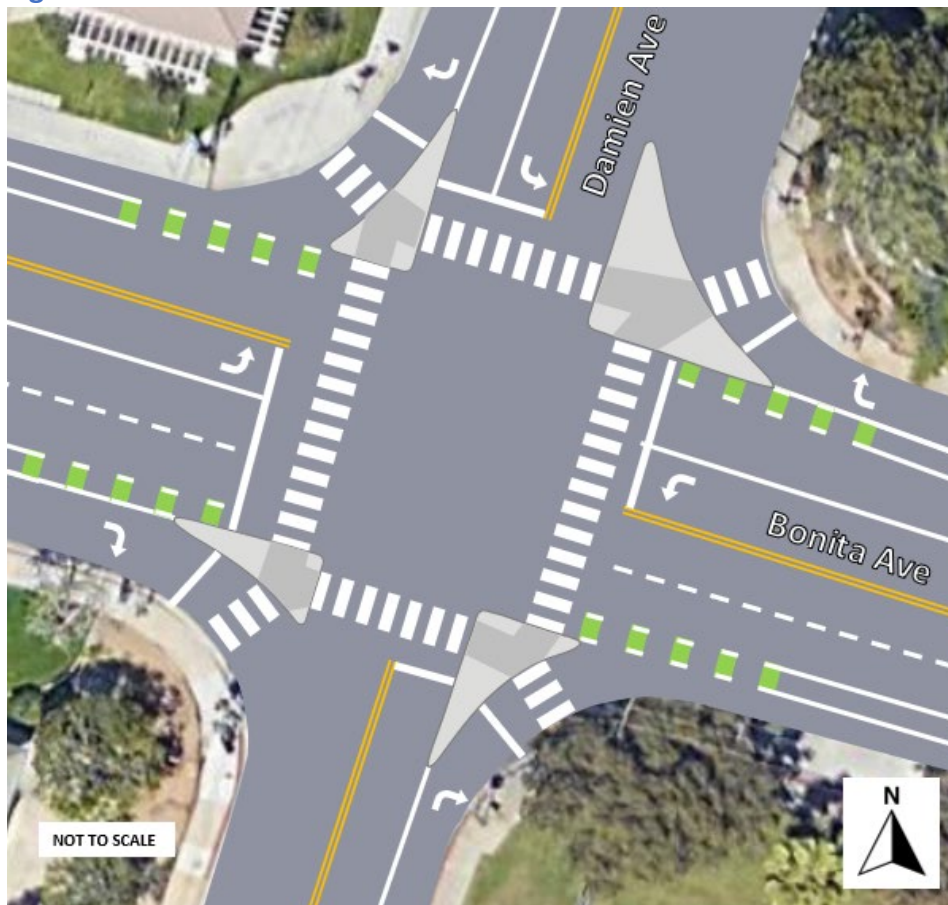
1. Arrow Hwy at N White Ave
11. Bonita Ave at Damien Ave

### Case Study: Bonita Ave at Damien Ave

**Traffic Safety Concern:** The intersection of Bonita Avenue at Damien Avenue has been the location of a variety of collision types, including side swipe, head-on, hit-object, broadside, and rear-end collisions. The intersection is also of particular concern for pedestrian safety. It is a signal-controlled intersection located at the northwest corner of Damien High School. Pedestrian safety should be a high priority within school zones and this intersection with its existing infrastructure does not prioritize pedestrian safety and comfort.

**Proposed Countermeasures:** The intersection of Bonita Avenue and Damien Avenue, with proposed countermeasures, is shown below in Figure 19. The proposed countermeasures are four floating pedestrian refuge islands. The pedestrian refuge islands will enhance visibility of pedestrians, reduce speeds of approaching vehicles, and reduce the amount of time that a pedestrian spends in the roadway. These countermeasures would be implemented subject to further engineering analysis for safety and function.

**Figure 19: Bonita Ave at Damien Ave**



## ROUNDBABOUTS

### Locations:

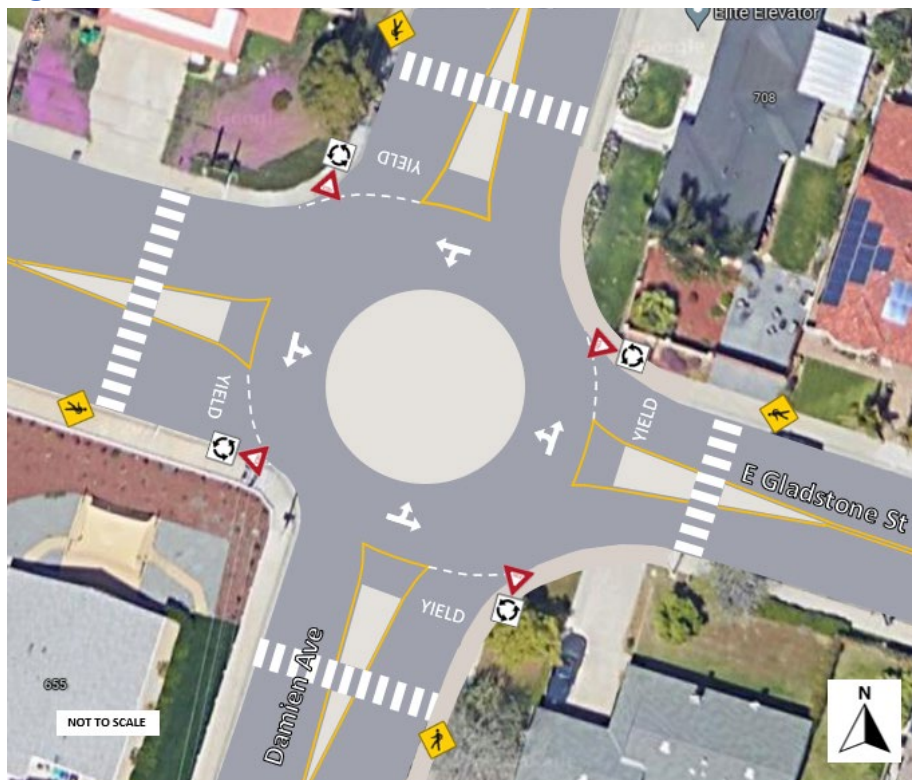
- 15. Damien Ave at E Gladstone St
- 30. Wheeler Ave at Via Arroyo

### Case Study: Damien Ave at E Gladstone St

**Traffic Safety Concern:** The intersection of Damien Ave at E Gladstone St is a four-way-stop-controlled intersection. The intersection experiences substantial congestion, particularly at Damien High School drop-off and pick-up times. Collision types at this intersection include rear-end and head-on. Failure to yield is a common issue and a safety concern for all types of roadway users.

**Proposed Countermeasures:** The intersection of Damien Ave at E Gladstone St, with proposed countermeasures, is shown below in Figure 20. The proposed countermeasure at this intersection is a roundabout. Roundabouts efficiently move traffic without the need for complete stops at stop signs or waiting at a traffic signal. Roundabouts can serve moderate traffic volumes with less delay than all-way stop-controlled intersections and provide fewer conflict points. Collisions at roundabouts tend to be less severe because of the speed constraints and elimination of left-turn and right-angle movements. Adequate pedestrian crossing signage, along with the proximity of the sidewalk to the vehicle travel lane will assist in making pedestrians more visible and remind drivers to be aware of pedestrians. A small amount of Right of Way would likely need to be acquired on the northeast and southeast corners in order to provide enough space to construct the roundabout. These countermeasures would be implemented subject to further engineering analysis for safety and function.

**Figure 20: Damien Ave at E Gladstone St**



## BIKE BOXES

### Locations:

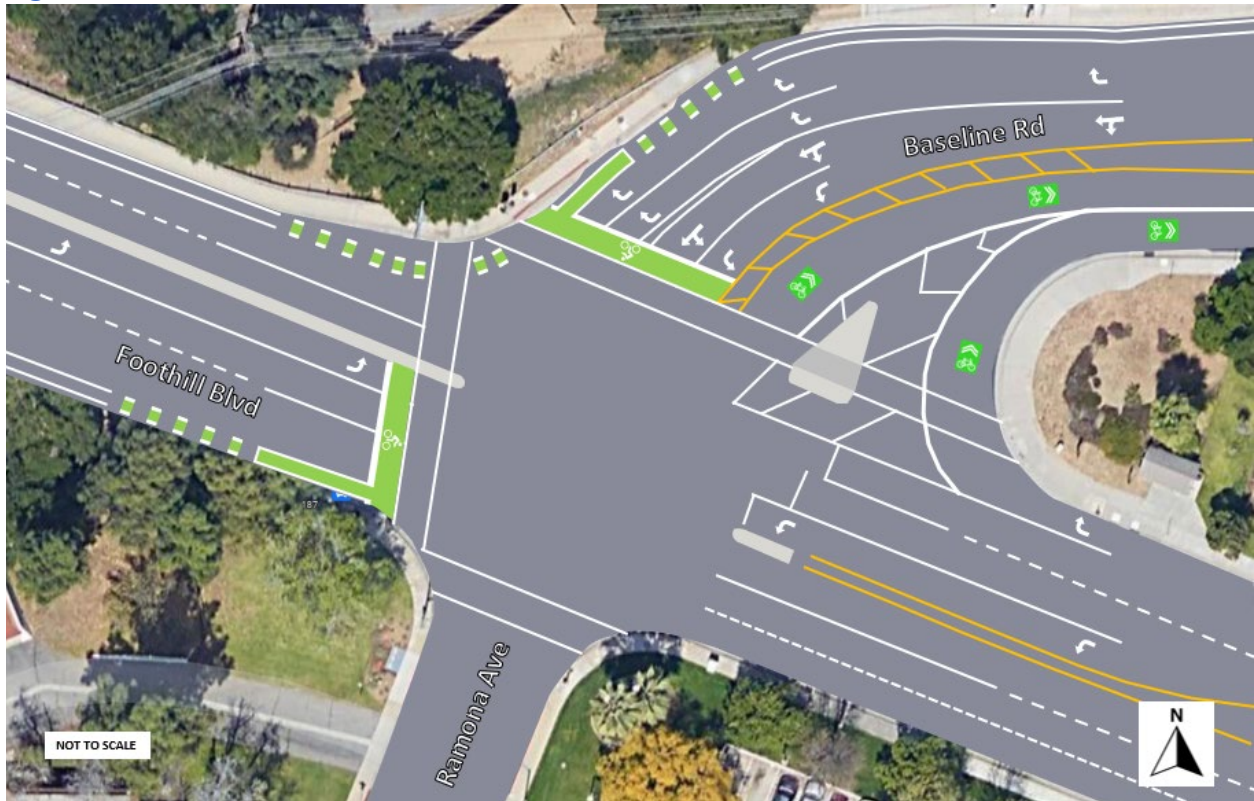
- 4. Bonita Ave at N White Ave
- 6. Bonita Ave at E St
- 18. Foothill Blvd at Baseline Rd
- 26. Fruit St

### Case Study: Foothill Blvd at Baseline Rd

**Traffic Safety Concern:** The intersection of Foothill Blvd at Baseline Rd has been the location of 8 traffic collisions (including one pedestrian collision) between 2017 and 2021, according to La Verne Police Department Collision Reports. It is a signal-controlled intersection and the main traffic safety concerns are insufficient pedestrian and bicyclist infrastructure. There are marked bike lanes on Baseline Rd which stop about 350 feet north of the intersection. Bike lanes continue on Foothill Blvd, west of N San Dimas Canyon Rd. This gap in the bicyclist infrastructure presents a substantial safety concern for bicyclists traveling between Foothill Blvd and Baseline Rd (a common bicyclist route). Additionally, vehicle failure to yield is a safety concern for pedestrians. Vehicles frequently stop for the traffic signal in the middle of the crosswalks, particularly vehicles in the right turn lanes.

**Proposed Countermeasures:** The intersection of Foothill Blvd at Baseline Rd, with proposed countermeasures, is shown below in Figure 21. The first proposed countermeasure is extending marked, Class II bike lanes on west Foothill Blvd and Baseline Rd to the intersection. The second proposed countermeasure is adding green bike boxes and decals to the intersection on Baseline Rd and the west side of Foothill Blvd. Bike boxes provide a designated area at the head of a traffic lane. This provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase. Additionally, these bike boxes will help keep motorists out of the crosswalks and provide additional protection for pedestrians. The last proposed countermeasure is sharrow markings on the Baseline Rd northbound lanes. This will remind motorists to watch for bicyclists potentially turning left off of Foothill Blvd and remind motorists to share the lane until they reach the separated bike lanes further north on Baseline Rd. Any countermeasures would be implemented subject to further engineering analysis for safety and function.

Figure 21: Foothill Blvd at Baseline Rd



## PEDESTRIAN BRIDGE AND MEDIAN PEDESTRIAN REFUGE ISLANDS

### Locations:

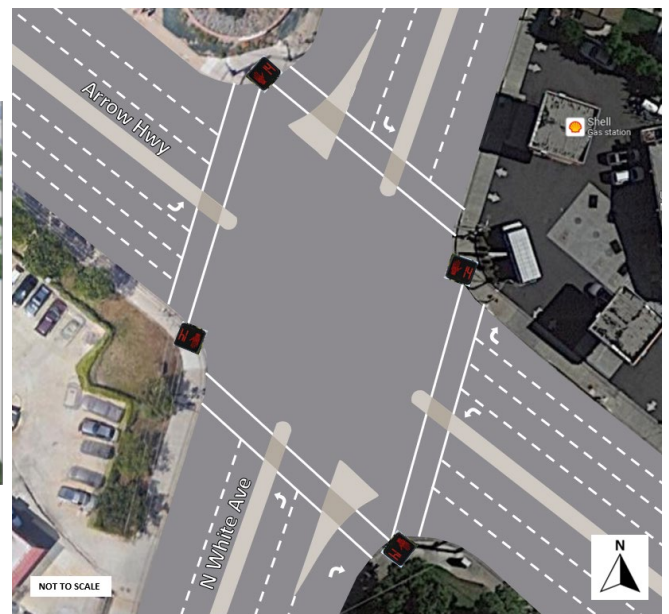
1. Arrow Hwy at N White Ave
19. Foothill Blvd at Damien Ave
20. Foothill Blvd at Moreno Ave
21. Foothill Blvd at Wheeler Ave
24. Foothill Blvd at Fruit St/N White Ave
25. Foothill Blvd at Towne Center Dr

### Case Study: Arrow Hwy at N White Ave

**Traffic Safety Concern:** The intersection of Arrow Hwy at N White Ave has been the location of 21 traffic collisions between 2017 and 2021, according to La Verne Police Department Collision Reports. It is a signal-controlled intersection and the main traffic safety concern is insufficient pedestrian infrastructure. The length of the crosswalks on Arrow Hwy are over 100 feet and the pedestrian signals do not include countdowns. This presents a safety concern that pedestrians could end up stuck in the middle of the crosswalk as the signals change.

**Proposed Countermeasures:** The intersection of Arrow Hwy at N White Ave, with proposed countermeasures, is shown below in Figure 22. The first proposed countermeasure is a pedestrian bridge to provide complete separation from traffic and accessibility from the future train station. The second proposed countermeasure is widening and extending the medians to create pedestrian refuge islands in each of the four crosswalks. This splits the long crosswalk into two shorter lengths and ensures that pedestrians have a protected space to wait if they do not finish crossing during one signal length. Another proposed counter measure is pedestrian countdown signals and lead pedestrian interval timing to help pedestrians better time their crossings. The final proposed countermeasure is floating pedestrian refuge islands on N White Ave, creating separated right turn lanes and providing another platform where pedestrians will be more visible to the approaching through-traffic. These islands are favorable to bulb outs at this particular intersection due to the high traffic volumes and the potential for bulb outs to affect intersection performance and efficiency. Countermeasures would be implemented subject to further engineering analysis for safety and function.

**Figure 22: Arrow Hwy at N White Ave - Pedestrian Bridge and Median Pedestrian Refuge Islands**



## PARKWAYS

### Locations:

16. Damien Ave

### Case Study: Damien Ave

**Traffic Safety Concern:** Damien Ave is a mostly residential street, but features two larger community spaces; Damien High School and the Calvary Baptist Church and Schools. Pedestrian infrastructure on this roadway is very important and should be comfortable and accessible for all. Most of the roadway currently has no parkway alongside the sidewalks, excluding a stretch with parkway on the western side of Damien Ave between E Gladstone St and Juanita Ave. This results in many sloped driveways within the sidewalk, presenting an ADA accessibility issue and a significant barrier for those using mobility assistance devices.

**Proposed Countermeasures:** A section of Damien Ave, with proposed countermeasures, is shown below in Figure 23. The proposed countermeasure is adding a parkway to any areas of the roadway where driveways are present and sloping occurs within the sidewalk. Not only will this remove sloping from the sidewalk, but it will also present the opportunity to plant trees or other greenery in the parkway, providing an array of beautification, environmental, health, shade, and traffic calming benefits. By narrowing the roadway width, this also reduces roadway maintenance and liability. Additionally, this could provide an opportunity for adding a stormwater element through the inclusion of bioswales within the parkway. This countermeasure is an example of what could be applied city-wide to all areas with the aforementioned sidewalk conditions. Any countermeasures would be implemented subject to further engineering analysis for safety and function.

**Figure 23: Damien Ave**



## BUFFERED BIKE LANES

### Locations:

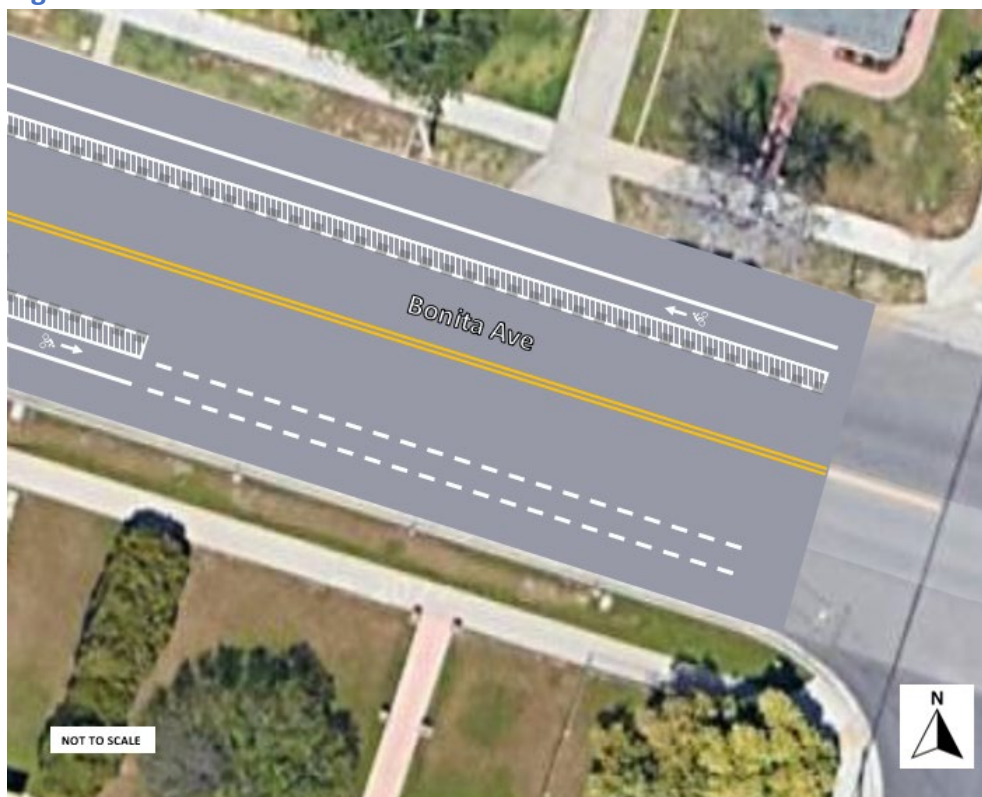
- 4. Fulton Rd
- 5. N White Ave
- 9. Bonita Ave
- 26. Fruit St
- 29. Wheeler Ave

### Case Study: Bonita Ave

**Traffic Safety Concern:** Bonita Ave has been the location of 19 midblock traffic collisions between 2017 and 2021, according to La Verne Police Department Collision Reports. Many of these were related to speeding. Speeding presents a safety concern for all roadway users; motorists, bicyclists, and pedestrians.

**Proposed Countermeasures:** The proposed countermeasures for Bonita Ave are shown below in Figure X. The proposed countermeasure is restriping the roadway to narrow travel lanes and add bike lane buffers. This will provide additional protection for bicyclists and pedestrians while also having a traffic calming effect on motorists. The width of Bonita Ave is approximately 52 feet east of Magnolia Ave, where the roadway would be restriped with 8-foot parking lanes, 5-foot bike lanes, 3-foot bike lane buffers, and 10-foot travel lanes. The width of Bonita Ave is approximately 68 feet west of Wheeler Ave, where the roadway would be restriped with 8-foot parking lanes, 6-foot bike lanes, 3-foot bike lane buffers, 11-foot travel lanes, and a 12-foot two-way left turn lane. An additional proposed countermeasure is rumble strips on the inner edge of the bike lane buffers to help reduce speeds and ensure motorists stay in their lane. Any countermeasures would be implemented subject to further engineering analysis for safety and function.

**Figure 24: Bonita Ave**



## RRFBs

### Locations:

- 2. Fulton Rd
- 13. D St

### Case Study: D St

**Traffic Safety Concern:** D St has been the location of 14 midblock traffic collisions (including one pedestrian collision) between 2017 and 2021, according to La Verne Police Department Collision Reports. The main traffic safety issues on D St are speeding and insufficient pedestrian infrastructure. There are many community spaces and services located along D St, including La Verne City Hall, La Verne Library, La Verne Community Center, Bonita High School, Bonita Skatepark, and J Marion Roynon Elementary School. It's essential to provide comprehensive pedestrian infrastructure and safe pedestrian crossings on D St to ensure that these resources are accessible for all community members.

**Proposed Countermeasures:** The proposed countermeasures for D St are shown in figure 25 below. Proposed countermeasures on D St include bulb outs and an RRFB on the north side of 6<sup>th</sup> St. This intersection is uncontrolled on D St, however the addition of bulb outs and an RRFB will bring attention to pedestrians waiting to cross and encourage motorists to stop. This provides enhanced safety for students traveling to and from J. Marion Roynon Elementary School. An additional countermeasure for D St is replacing the existing school speed limit signs with S5-1 flashing signs and additional radar feedback signs below. This will help slow down vehicle speeds surrounding the schools on D St. Any countermeasures would be implemented subject to further engineering analysis for safety and function.

Figure 25: D St



### SYSTEMIC COUNTERMEASURES:

Below is a list of countermeasures that are particularly relevant to the traffic infrastructure and issues within the City of La Verne. Each of the following is an approved countermeasure listed in the 2020 Local Roadway Safety Manual (LRSM) created by Caltrans in conjunction with FHWA and SafeTREC. The No. columns below refer to the countermeasure number listed in the LRSM, while CRF refers to the Crash Reduction Factor. Any countermeasures would be implemented subject to further engineering analysis for safety and function.

ADD INTERSECTION AND SEGMENT LIGHTING			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
S01, NS01, R01	35-40%	20	100%
<p><b>Description:</b> This countermeasure should be used at signalized and unsignalized intersections as well as midblock segments where there are patterns of nighttime crashes. Providing roadway and intersection lighting improves the safety during nighttime conditions by (1) making drivers more aware of the surroundings, which improves drivers' perception-reaction times, (2) enhancing drivers' available sight distances to perceive roadway characteristic in advance of the change, and (3) improving non-motorist's visibility and navigation. Intersection lighting is of particular benefit to non-motorized users. Lighting not only helps them navigate the intersection, but also helps drivers see them better.</p>			

IMPROVE SIGNAL HARDWARE			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
S02	15%	10	100%
<p><b>Description:</b> This countermeasure should be used in signalized intersections with a high frequency of right-angle and rear-end crashes occurring because drivers are unable to see traffic signals sufficiently in advance to safely negotiate the intersection being approached. Signal intersection improvements include new LED lighting, signal back plates, retro-reflective tape outlining the back plates, or visors to increase signal visibility, larger signal heads, relocation of the signal heads, or additional signal heads.</p>			

INSTALL PEDESTRIAN COUNTDOWN SIGNAL HEADS			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
S17PB	25%	20	100%
<p><b>Description:</b> This countermeasure should be used at signalized pedestrian crossing with walk/don't walk indicators and where there has been pedestrian vs. vehicle crashes. A pedestrian countdown signal contains a timer display and counts down the number of seconds left to finish crossing the street. Countdown signals can reassure pedestrians who are in the crosswalk when the flashing "DON'T WALK" interval appears that they still have time to finish crossing.</p>			

IMPLEMENT LEADING PEDESTRIAN INTERVAL			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
S21PB	60%	10	100%
<p><b>Description:</b> This countermeasure should be used in intersections with signalized pedestrian crossing that have high turning vehicles volumes and have had pedestrian vs. vehicle crashes. A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left. LPIs provide (1) increased visibility of crossing pedestrians; (2) reduced conflicts between pedestrians and vehicles; (3) Increased likelihood of motorists yielding to pedestrians; and (4) enhanced safety for pedestrians who may be slower to start into the intersection.</p>			

CONVERT INTERSECTION TO ROUNDABOUT			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
S16, NS04, NS05	Varies	20	100%
<p><b>Description:</b> This countermeasure should be used in intersections that have a high frequency of right-angle and left-turn type crashes. Whether such intersections have existing crash patterns or not, a roundabout provides an alternative to signalization. The primary target locations for roundabouts should be moderate-volume unsignalized intersections. Roundabouts provide an important alternative to signalized and all-way stop-controlled intersections. Modern roundabouts differ from traditional traffic circles in that they operate in such a manner that traffic entering the roundabout must yield the right-of-way to traffic already in it. Roundabouts can serve moderate traffic volumes with less delay than all-way stop-controlled intersections and provide fewer conflict points. Crashes at roundabouts tend to be less severe because of the speed constraints and elimination of left-turn and right-angle movements.</p>			

INSTALL/UPGRADE PEDESTRIAN CROSSING AT UNCONTROLLED LOCATIONS			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
NS20PB, NS21PB, NS22PB, R37PB	25-35%	10-20	100%
<p><b>Description:</b> Adding pedestrian crossings can enhance pedestrian safety at locations noted as being problematic. Pavement markings delineate a portion of the roadway that is designated for pedestrian crossing. These markings will often be different for controlled verses uncontrolled locations. The use of "ladder", "zebra" or other enhanced markings at uncontrolled crossings can increase both pedestrian and driver awareness to the increased exposure at the crossing. Incorporating advanced "stop" or "yield" markings provides an extra safety buffer and can be effective in reducing the 'multiple-threat' danger to pedestrians. At many locations, a marked crosswalk alone may not be sufficient to adequately protect non-motorized users. In these cases, flashing beacons, curb extensions,</p>			

advanced "stop" or "yield" markings, and other safety features should be added to complement the standard crossing elements. Rectangular Rapid Flashing Beacons (RRFBs) can enhance safety by increasing driver awareness of potential pedestrian conflicts and reducing crashes between vehicles and pedestrians at unsignalized intersections and mid-block pedestrian crossings. RRFBs feature pedestrian-activated flashing lights and additional signage that enhance the visibility of marked crosswalks and alert motorists to pedestrian crossings. It uses an irregular flash pattern that is similar to emergency flashers on police vehicles. RRFBs are installed at unsignalized intersections and mid-block pedestrian crossings.

INSTALL MEDIAN BARRIER OR RAISED MEDIAN			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
R03, R08	25%	20	90-100%
<p><b>Description:</b> This countermeasure should be used in areas where crash history indicates drivers are unintentionally crossing the median and the cross-overs are resulting in high severity crashes. This strategy is designed to prevent head-on collisions by providing a barrier between opposing lanes of traffic. The variety of median barriers available makes it easier to choose a site-specific solution. The main advantage is the reduction of the severity of the crashes. Installing a raised median is a more restrictive approach in that it represents a more rigid barrier between opposing traffic.</p>			

ADD TWO-WAY LEFT TURN LANE			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
R13	30%	20	90%
<p><b>Description:</b> This countermeasure should be used on roadways having a high frequency of drivers being rear-ended while attempting to make a left turn across oncoming traffic. It can also be effective for drivers crossing the centerline of an undivided multilane roadway inadvertently. Two-way left-turn lanes provide a buffer between opposing directions of travel and separate left turning traffic from through traffic. They can also help to allow vehicles to begin to accelerate before entering the through-traffic lanes. They reduce the disruption of flow of through-traffic and reducing rear-end and sideswipe collisions.</p>			

ROAD DIET (REDUCE 4 TRAVEL LANES TO 3 WITH TWO-WAY LEFT TURN LANE)			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
R14	30%	20	90%
<p><b>Description:</b> This countermeasure should be used in areas noted as having a higher frequency of head-on, left-turn, and rear-end crashes with traffic volumes that can be handled by only 2 free flowing lanes. Using this strategy in locations with traffic volumes that are too high could result in diversion of traffic to routes less safe than the original four-lane design. The application of this strategy usually reduces the roadway segment speeds and serious head-on crashes. In many cases the extra pavement width can be used for the installation of bike lanes.</p>			

<b>INSTALL DELINEATORS, REFLECTORS, AND/OR OBJECT MARKERS</b>			
<b>No.</b>	<b>CRF</b>	<b>Expected Life (Years)</b>	<b>HSIP Funding Eligibility</b>
R27	15%	10	100%
<p><b>Description:</b> This countermeasure should be used on roadways that have an unacceptable level of crashes on curves (relatively flat to sharp) during periods of light and darkness. Any road with a history of fixed object crashes is a candidate for this treatment, as are roadways with similar fixed objects along the roadside that have yet to experience crashes. If a fixed object cannot be relocated or made break-away, placing an object marker can provide additional information to motorists. Delineators, reflectors and/or object markers are intended to warn drivers of an approaching curve or fixed object that cannot easily be removed. They are intended to provide tracking information and guidance to the drivers. They are generally less costly than Chevron Signs as they don't require posts to place along the roadside, avoiding an additional object with which an errant vehicle can crash into</p>			

<b>INSTALL EDGE-LINES AND CENTERLINES</b>			
<b>No.</b>	<b>CRF</b>	<b>Expected Life (Years)</b>	<b>HSIP Funding Eligibility</b>
R28	25%	10	100%
<p><b>Description:</b> Any road with a history of run-off-road right, head-on, opposite-direction-sideswipe, or run-off-road-left crashes is a candidate for this treatment -install where the existing lane delineation is not sufficient to assist the motorist in understanding the existing limits of the roadway. Depending on the width of the roadway, various combinations of edge line and/or center line pavement markings may be the most appropriate. Installing edge-lines and centerlines where none exist or making significant upgrades to existing lines (paint to thermoplastic, adding audible disks/bumps in the thermoplastic stripes, or adding RPMs) are intended/designed to help drivers who might leave the roadway because of their inability to see the edge of the roadway along the horizontal edge of the pavement or crossover the centerline of the roadway into oncoming traffic. New pavement marking products tend to be more durable, are all-weather, more visible, and have a higher retroreflectivity than traditional pavement markings.</p>			

<b>INSTALL EDGE-LINE AND CENTERLINE RUMBLE STRIPS/STRIPES</b>			
<b>No.</b>	<b>CRF</b>	<b>Expected Life (Years)</b>	<b>HSIP Funding Eligibility</b>
R30, R31	15-20%	10	100%
<p><b>Description:</b> Center Line rumble strips/stripes can be used on virtually any roadway – especially those with a history of head-on crashes, while shoulder and edge line milled rumble strips/stripes should be used on roads with a history of roadway departure crashes. It is recommended that rumble strips/stripes be applied systematically along an entire route instead of only at spot locations. For all rumble strips/stripes, pavement condition should be sufficient to accept milled rumble strips. Special requirements may apply and care should be taken when considering installing rumble strips in locations with residential land uses or in</p>			

areas with high bicycle volumes. Rumble strips provide an auditory indication and tactile rumble when driven on, alerting drivers that they are drifting out of their travel lane, giving them time to recover before they depart the roadway or cross the center line. Additionally, rumble stripes (pavement marking in the rumble itself) provide an enhanced marking, especially in wet dark conditions.

INSTALL BIKE LANES			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
R32PB	35%	20	90%
<p><b>Description:</b> This countermeasure should be used on roadway segments noted as having crashes between bicycles and vehicles or crashes that may be preventable with a buffer/shoulder. Most studies present evidence that bicycle lanes provide protection against bicycle/motor vehicle collisions. Bicycle lanes provide marked areas for bicyclist to travel along the roadway and provide for more predictable movements for both bicyclist and motorist. Evidence also shows that riding with the flow of vehicular traffic reduces bicyclists’ chances of collision with a motor vehicle. Locations with bicycle lanes have lower rates of wrong-way riding. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.</p>			

INSTALL SEPARATED BIKE LANES			
No.	CRF	Expected Life (Years)	HSIP Funding Eligibility
R33PB	45%	20	90%
<p><b>Description:</b> This countermeasure should be used on streets with high volumes of bike traffic and/or high bike-vehicle collisions, presumably in an urban or suburban area. Separation types range from simple, painted buffers and flexible delineators, to more substantial separation measures including raised curbs, grade separation, bollards, planters, and parking lanes. Separated bike lanes provide increased safety and comfort for bicyclists beyond conventional bicycle lanes. By separating bicyclists from motor traffic, “protected” or physically separated bike lanes can offer a higher level of comfort and are attractive to a wider spectrum of the public. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.</p>			

## 8. EVALUATION

### Performance Measures:

Measures the City can use to evaluate the success of the goals laid out in this plan include:

- Total number of injury collisions on City roads.
- Total amount of property damage caused by traffic collisions on City roads.
- Number of collisions within emphasis areas after proposed countermeasures are implemented.
- Total number of claims and lawsuits.
- Total amount of payments on settlements and judgments.

Collisions should be reported annually, and performance should be evaluated within the context of the latest 5-year annual average to normalize any random fluctuations in collisions on a year-to-year basis.

### Updating the Plan:

This plan relies on collision data from 2016 through 2021. The City should review new collision data periodically for key findings and performance measures to track progress. More substantial updates to the LRSP should be considered every five years. The City, in conjunction with safety partners, should assess the plan, consider new trends and technologies, and determine whether an update to the plan is necessary.

### Funding Opportunities:

This plan lays out the City's priorities for transportation safety & identifies locations and countermeasures in order to reach the City's roadway safety goals. In doing so, this plan provides an important foundation to apply for funding assistance to implement the proposed roadway safety countermeasures.

### Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance. An adopted LRSP will be required for agencies to be eligible for upcoming Caltrans HSIP funds.

### Safe Streets and Roads for All

Safe Streets and Roads for All is a new, one-time competitive grant program authorized by section 24112 of the Bipartisan Infrastructure Bill. Sub-state municipal governments, MPOs, and tribes will be able to apply for grants to develop Vision Zero plans, or (if they already have a plan), for projects implementing that plan. The program has been appropriated \$5 billion, to be separated into five years of the program, with \$1 billion awarded each year.

## Appendix A:

### LIST OF ABBREVIATIONS

ADA	Americans with Disabilities Act
ATP	Active Transportation Plan
BCR	Benefit Cost Ratio (HSIP Funding Category)
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
CIP	Capital Improvement Plan
CRF	Crash Reduction Factor
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
LA Metro	Los Angeles County Metropolitan Transportation Authority
LRSP	Local Roadway Safety Plan
LRSM	Local Roadway Safety Manual
RRFB	Rectangular Rapid Flashing Beacon
SA	Set-Aside (HSIP Funding Category)
SafeTREC	Safe Transportation Research and Education Center at the University of California, Berkeley
SGVCOG	San Gabriel Valley Council of Governments
SWITRS	Statewide Integrated Traffic Records System
TIMS	Transportation Injury Mapping System

## Appendix B:

### CITY OF LA VERNE LOCAL ROADWAY SAFETY PLAN Public Engagement Summary

The City of La Verne conducted public engagement for the City’s Local Roadway Safety Plan (LRSP) in order to gain community feedback on roadway safety issues within the City. The community feedback was gathered through an online engagement site (Social Pinpoint) featuring an interactive map and survey. There were 56 map comments and 12 survey responses. The engagement site was open to the public for four weeks, from 5/17/2022 to 6/14/2022. A flier was created to promote the engagement site (see Attachment 1).

Reoccurring themes amongst comments and responses have been color-coded as follows:

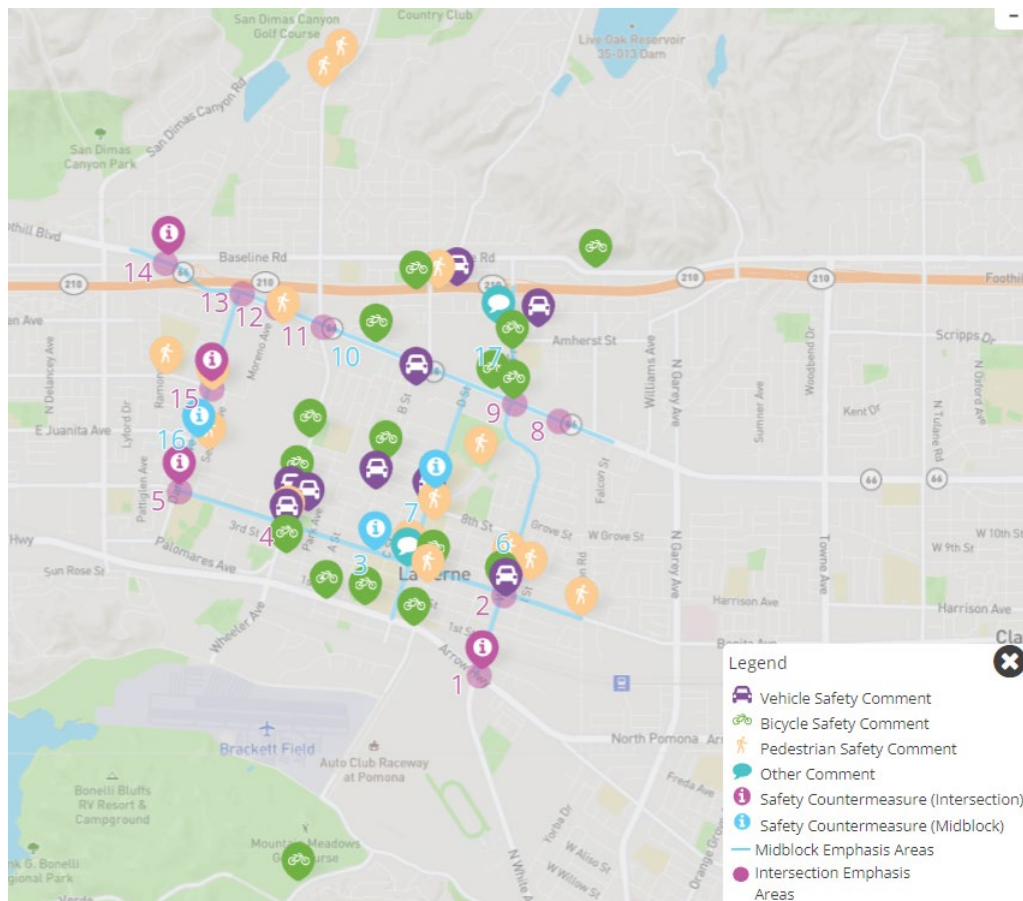
**Blue – Speeding**

**Green – Pedestrian infrastructure**

**Yellow – Bike Infrastructure**

**Orange – Intersection Issues**

#### INTERACTIVE MAP:



**INTERACTIVE MAP COMMENTS:**

Location	Type	Comment/Concern	Likes & Dislikes	Discussion Threads
<b>Wheeler Ave (next to Mills Park)</b>	Ped Safety	<b>No safe way to cross</b> Wheeler to get to Mills Park	Likes (1)	-
<b>Wheeler Ave</b>	Ped Safety	<b>Speeding</b> on Wheeler. Especially a concern for students walking to/from school. No stop lights from Golden Hills Rd to Oak Mesa Dr (next to school).	Likes (3)	<i>Comment 1:</i> Recommends road diet (from Foothill to Golden Hills). Design makes it feel comfortable driving 60mph. Enforcement can't compensate. <i>Comment 2:</i> Recommends bike lanes, rumble strips, crosswalk by Mills Park.
<b>Baseline Rd</b>	Bike Safety	Poor surface conditions going westbound (east of Fruit St). <b>Bicyclists go into vehicles lane</b> . Multiple bike wheels destroyed or given flats.	Likes (2)	-
<b>Emerald Ave at Bowdoin St</b>	Vehicle Safety	Requests <b>signal or three-way stop</b> . Traffic using Bowdoin as cut through to Fruit St and Foothill.	-	-
<b>Foothill at Emerald</b>	Ped Safety	Requests left turn arrow for <b>crosswalk</b> at Foothill and Emerald running North/South. Unsafe for pedestrians.	Likes (1)	-
<b>Foothill Blvd</b>	Bike Safety	Foothill east of 210 – traveling east, no room for buses to stop, drivers to enter, or bicycles to travel without being in the travel lane. Requests road diet (change from 3 to 2 lanes in each direction).	Likes (3)	<i>Comment 1:</i> LRSP must include improvements to Foothill Blvd (many bike and ped collisions occur). City needs to work with Caltrans to find solutions. <i>Comment 2:</i> Also requests third lane be removed. Or alternatively, a bi-

				directional protected bike path on North side where there is more road width.
<b>First St</b>	Other	<b>Speeding</b> - requests speed humps on First St between White and Fulton.	-	-
<b>210 East Offramp</b>	Vehicle Safety	Make it more clear on 210 East offramp at Fruit that both lanes turn right. Unsafe lane changes.	-	-
<b>Foothill Blvd at Moreno Ave</b>	Ped Safety	Requests left turn arrow for <b>crosswalk at Foothill</b> and Moreno running north & south. Dangerous place to cross.	-	-
<b>Fruit St</b>	Bike Safety	Supports proposed improvements for roadway and bike lanes, but worries that endpoint intersection at Foothill needs further countermeasures (high-stress intersection).	Likes (1)	-
<b>Foothill Blvd</b>	Bike Safety	Eastbound on foothill is <b>hazardous for bicyclists</b> - no shoulder on right most lane. No sharrows. Avoids biking in that area for safety concerns (but sees many people who do because it's the only practical path to take).	Likes (5)	<i>Comment 1:</i> Requests protected bike/mobility lane.
<b>Foothill Blvd</b>	Bike Safety	Requests <b>protected bike lanes</b> in each direction	-	-
<b>Foothill Blvd at White Ave</b>	Bike Safety	<b>Left turn signal does not respond to bikes</b> in left lane waiting at the light	-	-
<b>E Gladstone St</b>	Ped Safety	<b>Unsafe for ped/bikes</b> to travel past school during school pick-up/drop-off.	Likes (2)	-
<b>Gladstone St at Damien Ave</b>	Ped Safety	Concerned about proposed countermeasure (roundabout) for	Dislikes (2)	<i>Comment 1:</i> Generally supportive of roundabouts, but can

		<b>peds/bikes.</b> High levels of ped traffic near schools and vehicles will not expect to stop.		create ped/bike challenges. Design would be critical to encourage safe/comfortable walking/biking to schools.
<b>B St at Foothill Blvd</b>	Vehicle Safety	<b>Turning left</b> onto Foothill from B St is dangerous. Suggests making right turn only.	Likes (4) Dislikes (1)	-
<b>Wheeler Ave</b>	Bike Safety	Requests trail be expanded on both sides of Wheeler, <b>bike lane is too small.</b> Light for crosswalks is very slow and difficult to reach on bike.	Likes (1)	-
<b>Wheeler Ave</b>	Bike Safety	Requests <b>bike lane</b> going north from Bonita Ave. Currently bicyclists must ride in vehicle travel lane.	Likes (3)	-
<b>B St</b>	Bike Safety	Requests <b>Protected bike lanes</b> on B St.	Likes (1)	-
<b>Craig Way</b>	Ped Safety	Requests break in fence so that peds can reach La Flores Park.	Likes (1)	-
<b>Sedalia Ave</b>	Ped Safety	<b>Lack of sidewalks</b> on eastern side of Sedalia-unsafe conditions for peds.	-	-
<b>B St</b>	Vehicle Safety	Speed limit was changed from 35 to 40mph, with 25mph zone between Peyton to Bonita. <b>Drivers speed</b> through 25 zone, passing drivers going the speed limit. Dangerous for <b>peds as well.</b>	Likes (1)	<i>Comment 1:</i> Narrowing road and <b>adding bike lanes</b> would help slow down traffic. Currents lanes are too wide. Need more crosswalks as well.
<b>D St</b>	Vehicle Safety	<b>Speeding-</b> Requests digital speed signs or other methods to slow down traffic coming over bridge (between 8 <sup>th</sup> and Peyton) in both directions	Likes (1)	<i>Comment 1:</i> Should determine "desired" speed. Reconfigure lanes to slow down traffic, traffic calming measures, bike/mobility lanes.

				<p><i>Comment 2:</i> Narrow road with <b>protected bike lane</b> to slow down traffic.</p> <p><i>Comment 3:</i> Reduce speed limit to 30mph. Hard to turn onto D St from Peyton with <b>cars speeding over bridge at 45mph.</b></p>
<b>Roads around elementary school/other schools</b>	Ped Safety	Make roads <b>safer for pedestrians, kids, and bikes.</b> Crosswalks at all corners, road narrowing, protected bike lanes.	Likes (1)	-
<b>Wheeler Ave at Fifth St</b>	Vehicle Safety	<b>Line of sight issues</b> from Fifth St (whether turning north, south, or continuing straight).	-	-
<b>Fifth St</b>	Vehicle Safety	Roadway too narrow- requests removal of parking lane on one side	Dislikes (1)	-
<b>Wheeler Ave at Bonita Ave</b>	Ped Safety	Crossing Wheeler on Bonita is <b>dangerous for pedestrians/students</b> walking to Damien. Requests floating ped refuge islands, no right on red during school hours, left turn signals.	Likes (2)	<i>Comment 1:</i> Railroad tracks that run N/S on Wheeler at Bonita need repair- risk for bike riders.
<b>Wheeler Ave at Bonita Ave</b>	Vehicle Safety	<b>Speeds</b> and traffic volumes keep increasing. Requests <b>updates to intersection-</b> turn arrow signals, adequate delays between signal phases. Vehicles speeding to beat changing signal are risk to other vehicles and <b>pedestrians.</b>	Likes (3)	-
<b>Bonita Ave at D St</b>	Ped Safety	<b>Ped signal</b> timing is too short.	Likes (1)	-
<b>D St</b>	Other	South of Bonita Ave- make permanent ped & outdoor	Likes (2)	-

		seating zone like it was during pandemic.		
<b>Bonita Ave</b>	Bike Safety	Bike box added eastbound but not westbound. <b>Requests bike box</b> be added to E St to allow westbound bicyclists to pre-position to share the lane between E & D St.	Likes (3)	-
<b>E St at Third St</b>	Ped Safety	<b>Crossing E St</b> , almost hit by vehicles traveling northbound on several occasions.	Likes (2)	<i>Comment 1:</i> Agrees- motorists don't notice pedestrians, even already in the intersection.
<b>White Ave</b>	Ped Safety	<b>Lack of sidewalk</b> on portions north of Bonita.	Likes (2)	-
<b>I St</b>	Ped Safety	<b>Lack of sidewalks</b> – ped have to walk in street	Likes (2)	-
<b>Bonita Ave at White Ave</b>	Bike Safety	Requests sensor for left turn signal so that <b>bikes</b> can trigger it	Likes (1)	-
<b>Bonita Ave at White Ave</b>	Bike Safety	Many <b>bicycle-involved crashes</b> at this intersection. Design forces riders to right side, blocks vehicles making right turns. Requests bike boxes.	Likes (1)	-
<b>Bonita Ave at Fulton Rd</b>	Ped Safety	Gold Line project deleted southbound vehicle access to Metrolink station. <b>Peds/bikes</b> have to cross Bonita Ave with limited sight distance and high vehicle traffic. No sidewalk on east side of Fulton. Safer pedestrian and bike access should have been addressed prior to deleting the vehicle access.	Likes (5)	-
<b>Wheeler Ave</b>	Bike Safety	Railroad tracks that run N/S on Wheeler and Bonita need repair. Multiple <b>flat</b>	Likes (2)	-

		tires on bikes and things fly out of bike baskets.		
<b>Arrow Hwy</b>	Bike Safety	<b>Narrow bike lanes</b> , fast traffic (frequently 55mph), no consideration for bicyclists.	Likes (5)	<i>Comment 1:</i> Requests protected bike lane.
<b>Arrow Hwy</b>	Bike Safety	Requests <b>protected bike/mobility lane</b> on both sides.	-	-
<b>Arrow Hwy</b>	Bike Safety	Requests <b>proper bike/mobility lane</b> . No safe way to get to bike path by the airport, motorists traveling really fast.	Likes (6)	-
<b>Fairplex Dr</b>	Bike Safety	Requests <b>protected bike/mobility lanes</b> on each side of road- lots of bikes go here. No sidewalks and there are blind corners with vehicles traveling at 55mph	Likes (3)	-

**SURVEY RESPONSES:**

**Question 1:** How important is traffic safety (including motorist, pedestrian, and bicyclist safety) to the wellbeing of the La Verne community?  
 (12 answers)

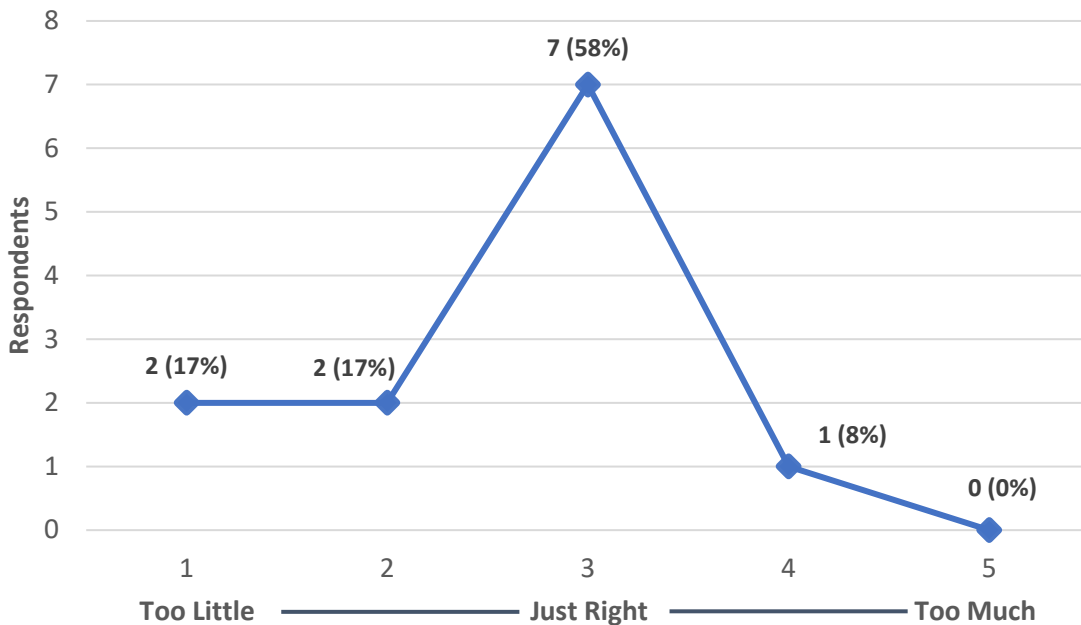
- 1. Unimportant (1) **8%**
- 2. Somewhat Important (0) **0%**
- 3. Very Important (11) **92%**

**Question 2:** What are your biggest traffic safety concerns? (Please rank from most to least concerning)  
 (9 answers)

- 1. **Pedestrian Safety and Infrastructure** (avg ranking: **2.33**)
- 2. **Speeding** (avg ranking: **2.17**)
- 3. **Bicycle safety and infrastructure** (avg ranking: **1.83**)
- 4. Vehicle safety and infrastructure (avg ranking: **1.67**)
- 5. Driving under the influence (avg ranking: **0.75**)

*\*The answer choice with the largest average ranking is the most preferred choice*

**Question 3:** How do you feel about the Police Department's level of traffic enforcement?  
 (12 answers)



**Question 4:** Provide any comments on the Police Department's role in traffic safety.

(6 answers)

1. "Constant vehicle racing down First Street between White Avenue and Fulton. **Speed** humps are necessary. "
2. "I believe is significant Police Department enforcement is required, then there is a street design problem, that **makes people comfortable driving faster than the desired speed**. Significant need for Police enforcement should lead to examination of the street design."
3. "Start to enforcing jaywalking on Bonita near the fourth street mill. I scene some very close calls especially after someone had a few drinks."
4. "There are too many signals in La Verne. In the last 30 years it seems like we have twice the traffic signals while population is up only 10% "
5. "There is too much **speeding** on Wheeler Avenue north of Baseline. I am also concerned at the speed of car passing Oak Mesa school during student release times. I have witnessed many cars ignoring the speed when children are present. There is also continues speeding on Baseline where it bends. I have it has been a very long time since I have seen police officers monitoring this stretch of the street."
6. "They can't be everywhere at once, but it's good to seem them patrolling high traffic locations"

**Question 5:** Which of the following safety measures are most important to you? (Select up to three).

(12 answers)

1. **Implementing traffic calming measures** (slowing down vehicle speeds) (7) – **58%**
2. Improving safety in school zones (e.g. signage, traffic calming, crossing guards, intersection improvements) (7) – **58%**
3. **Improving pedestrian infrastructure** (e.g. sidewalks, crosswalks, signage) (5) – **42%**
4. Improving intersection infrastructure (e.g. traffic signals, roundabouts, crosswalks, etc.) (4) – **33%\***
5. **Improving bicycle infrastructure** (e.g. bike lanes, signage) (3) – **25%**
6. Addressing driving under the Influence (e.g. education, enforcement) (1) – **8%**
7. Other (describe) (1) – **8%**
  - a. "Fewer signals and stop signs. I use Durwood 5-7 times a week. Why a new Signal? Never saw an accident. Don't believe Metro is going to increase traffic."

*\*Percentages reflect the percent of respondents who selected that choice as one of their 3 votes.*

**Question 6:** Are there any other roadway safety improvements you would like to see in the City of La Verne?

(4 answers)

1. "Implement **crosswalks** and solar powered crosswalk signs and lights on the street on Esperanza at both Shemiran intersections. There are people who speed through here when people are crossing the street which have led to many close calls."
2. "Jaywalking during peak hours of traffic"
3. "**Reduced speed limit ahead signs** that are visible, especially in residential areas"
4. "While I strongly support bicycle and pedestrian infrastructure, the greatest improvement to safety and severity of crashes will come from **reducing speeds**. I'd like to see La Verne adopt a lower baseline speed limit (e.g. 15-20mph) in residential / pedestrian zones as is being done in many other cities. Additionally, look at all the streets where speed limits have been raised and explore if they can be returned to the desired speed limits through street improvements(e.g. calming). We should seriously consider if we need speed limits above 30-35 on most of our streets other than a few main arterials."

#### EMAIL COMMENTS:

1.

"I saw the Roadway safety info. I wanted to check if anything is being done about the intersection of **Wheeler and Via Arroyo**. It is very difficult to pull out of Via Arroyo onto Wheeler now. I am afraid every time I do it and often drive the long way around down Orangewood so that I don't take a chance. There are many factors to why this is unsafe.

-It is a blind corner

-**Cars drive way above the speed limit** both north and south bound on Wheeler

-The houses on the south east side of Wheeler just below Via Arroyo have plants that have grown in the past many years to make it so we can't see cars traveling north on Wheeler until it is too late.

I would appreciate any help that the city can do to improve the safety of drivers coming out of Via Arroyo.

Thank you,

Kim Groom"

## ATTACHMENT 1



### HOW CAN YOU HELP?

Leave feedback via our community engagement map and survey:

<https://mnsengineers.mysocialpinpoint.com/la-verne-lrsp>



Provide comments on the first draft of the LRSP:

<https://www.cityoflaverne.org/DocumentCenter/View/1945/Local-Roadway-Safety-Plan-Draft-PDF>



Please send comments to: [cjarvinen@cityoflaverne.org](mailto:cjarvinen@cityoflaverne.org)

## HELP IMPROVE ROADWAY SAFETY IN LA VERNE

The City of La Verne is preparing a **Local Roadway Safety Plan (LRSP)** to analyze and address traffic safety issues throughout the City.

### Questions?

Contact Clay Jarvinen  
[cjarvinen@cityoflaverne.org](mailto:cjarvinen@cityoflaverne.org) | (909) 596-8756



## Appendix C:

### CITY OF LA VERNE LOCAL REGIONAL SAFETY PLAN

#### Prioritization Evaluation Criteria

Prioritization in the adopted LRSP document utilized data analysis, input from safety partners, creation of emphasis areas, development of proposed project features (countermeasures), and public review/input. The goal is to have list evaluated and prioritized for implementation during the budget process based on criteria such as funding availability and engineering feasibility.

#### Future Project Prioritization Process

##### Data Analysis

Annually, Collision Reports from the La Verne Police Department will be analyzed – current and historical - to better understand the recent collision history within the City. Every five years, these reports will be formally used to assist in the selection of emphasis areas. Key data points from the reports will be extracted and organized for ease of analysis. The Transportation Injury Mapping System (TIMS) provided by UC Berkeley will also be utilized as a supplemental source for collision data analysis, specifically data from the California Statewide Integrated Traffic Records System (SWITRS).

##### Update of Emphasis Areas (Prioritized Projects)

Emphasis areas (prioritized projects) will be selected based on collision report data, TIMS data, City needs related to new projects (such as future train station) / new developments, and feedback from Active Transportation Committee and community members through the public meeting process. The selection of projects (and future performance measurement of projects) will include consideration of the following areas as outlined in the LRSP:

1. Accessibility: Provide Safe, direct, and comfortable routes for people walking, biking, and rolling.
2. Safety: Improve safety for people walking, biking, rolling, and driving.
3. Support: Create a welcoming and friendly environment for walkers and bikers in La Verne that encourages more people to choose to walk or bike, which acknowledges other roadway users.
4. Encouragement: Support a culture of active transportation that creates more visibility and awareness of walkers and bikers while understanding shared uses of roadways.

These factors will be utilized to rank projects listed within the LRSP. Once emphasis areas are selected, a variety of methods will be utilized to determine proposed project features (countermeasures) to address the issues found in each emphasis area. Some of these methods will include engineering feasibility, neighboring uses, and available funding. Satellite imagery will be used to view emphasis areas / proposed projects and a field review may be conducted to further evaluate specific hotspots and identify the best fitting countermeasures. A key determination of actual project prioritization will be funding availability.

##### Capital Improvement Program Budget

Prioritized projects and related schedule will be included in the City's Capital Improvement Program budget. The budget is adopted through a public process including community input and City Council consideration.

**Appendix D:**

**CITY OF LA VERNE LOCAL REGIONAL SAFETY PLAN  
Implementation Update & Future Scheduling**

**Table 1. Emphasis Areas**

<b>Number</b>	<b>Location</b>	<b>Type</b>	<b>Timeline &amp; Implementation Update</b>
1	Arrow Highway at North La Verne	Intersection	FY 27 – Project scheduling will be considered upon Gold Line station construction and activation.
2	Fulton Road	Midblock	FY 27 - Project scheduling will be considered upon Gold Line station construction and activation.
3	I Street	Midblock	TBD - Will be considered with future paving project.
4	Bonita Avenue at North White Avenue	Intersection	Completed various phases of project including bike lanes and modifications to signal to provide protective permissive left turns. Other enhancements will be considered with future paving project.
5	North White Avenue	Midblock	Completed buffered bike lanes in areas where right-of-way allowed enhancement.
6	Bonita Avenue at E Street	Intersection	Completed installation of bike-detecting video sensor. Enhanced bikeway markings installed.
7	E Street at Third Street	Intersection	FY 27 – Project scheduling to be considered upon Gold Line transit station construction and activation. Similar improvements completed nearby enhancing pedestrian access and bicycle use.
8	Bonita Avenue at D Street	Intersection	Completed bike boxes and bike lanes. Timing to be reviewed in FY 24.
9	Bonita Avenue	Midblock	Completed narrowing of travel lanes and installation of bike lanes. Continual evaluation of additional enhancements will occur in future.
10	Bonita Avenue at Wheeler Avenue	Intersection	Completed adjacent bikeways and facilities. FY 26 – Review left-turn phasing. Prioritization of funding for left-turn phasing will be activated when warrants are met.

11	Bonita Avenue at Damien Avenue	Intersection	Completed Class II Bike Lane installation to enhance visibility and safety. Monitoring pedestrian activity/timing for determination of future project enhancements.
12	B Street	Midblock	Features will be considered on upcoming pavement project anticipated to be constructed in FY 25.
13	D Street	Midblock	FY 23 – Project began with purchase of RRFB. Construction anticipated in FY 24. Consider other improvements in future.
14	Sedalia Avenue	Midblock	FY 26 - Review for prioritization.
15	Damien Avenue	Midblock	FY 25 – Review for prioritization.
16	Damien Avenue at East Gladstone Street	Intersection	FY 29 - Engineering evaluation to occur in FY 29 with potential paving project.
17	East Gladstone Street & Ramona Avenue	Midblock & Intersection	FY 29 - Engineering evaluation to occur with potential paving project.
18	Foothill Boulevard at Baseline Road	Intersection	FY 29 - Planning to begin along with paving reconstruction.
19	Foothill Boulevard at Damien Avenue	Intersection	Plan provided to Caltrans for consideration for inclusion in future paving project.
20	Foothill Boulevard at Moreno Avenue	Intersection	Plan provided to Caltrans for consideration for inclusion in future paving project.
21	Foothill Boulevard at Wheeler Avenue	Intersection	Plan provided to Caltrans for consideration for inclusion in future paving project.
22	Foothill Boulevard	Midblock	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.
23	Foothill Boulevard at Emerald Avenue	Intersection	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.
24	Foothill Boulevard at Fruit Street/North White Avenue	Intersection	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.

25	Foothill Boulevard at Towne Center Drive	Intersection	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.
26	Fruit Street	Midblock	Completed project. Buffered bike lanes installed and minor enhancements eliminated due to engineering infeasibility.
27	210 East Off-Ramp at Fruit Street	Intersection	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.
28	210 West Off-Ramp at Fruit Street	Intersection	FY 24 – Begin discussion with Caltrans regarding feasibility for potential inclusion in future paving project.
29	Wheeler Avenue	Midblock	FY 26 – Perform corridor study. Public engagement process to follow completion in future fiscal years.
30	Wheeler Avenue at Via Arroyo	Intersection	FY 26 – will be reviewed as part of the corridor study.
31	Arrow Highway Pedestrian Bridge	Midblock	Design completed and project is construction ready. Construction to commence up award of grant funding.