

SUMMER 2021

South Market Street (SR-273), Redding Summary and Recommendations Report

COMMUNITY PEDESTRIAN & BICYCLE SAFETY TRAINING PROGRAM

Creating Safer Streets for Walking and Biking



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Acknowledgments

Thank you to the Planning Committee for inviting us into their community and partnering with us to make South Market Street (SR-273) a safer place to walk and bike. In particular, their contributions prompted meaningfully informed discussions and strengthened the workshop's outcomes. A warm thank you to Anne Thomas and Bryson Schreder for their organizing and outreach efforts for this follow-up event, including taking photos of the CPBST focus area.

We also want to acknowledge the Northern Wintu peoples as the traditional land caretakers of the greater Redding area.

Planning Committee:

Anne Thomas	Shasta Living Streets
Bryson Schreder	Shasta Living Streets
Chrissy Thomure	Caltrans District 2, Office of Complete Streets & Livable Communities
Sara Sundquist	Shasta County Health & Human Services Agency
Steve Pendergast	Caltrans District 2, Office of Complete Streets & Livable Communities
Tamy Quigley	Caltrans District 2, Office of Complete Streets & Livable Communities
Vishnu Shankar Krishnan	City of Redding Planning Department

This report was prepared by:

California Walks

Marina Ramirez

Caro Jauregui

Wendy Ortiz

<https://calwalks.org>

UC Berkeley Safe Transportation Research & Education Center

Garrett Fortin

<https://safetrec.berkeley.edu>

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Introduction

The Community Pedestrian and Bicycle Safety Program (CPBST) is a statewide project of UC Berkeley Safe Transportation Research and Education Center (SafeTREC) and California Walks (Cal Walks). The program uses the Safe System Framework to engage residents and safety advocates to develop a community-driven action plan to improve walking and biking safety in their communities and to strengthen collaboration with local officials and agency staff. Cal Walks & SafeTREC (the project team) works with the local Planning Committee, a group of local stakeholders, over the course of 6-8 weeks to develop workshop goals and tailor the curriculum to address the community's needs and priorities. The South Market Street (SR-273), Redding CPBST Planning Committee conducted a virtual walking and biking assessment of three key routes in the community and drafted infrastructure improvement plans during a virtual site visit. The virtual workshop convened the larger community to learn about Safe System strategies to address walking and biking concerns and review, modify, and strengthen the infrastructure improvement plans; resulting in the development of preliminary action plans for priority infrastructure and community programs.

The South Market Street (SR-273), Redding CPBST workshop was held virtually and convened 31 participants on August 19, 2021, including residents, business owners, developers, and representatives from Shasta Living Streets, Caltrans District 2, the City of Redding, the City of Anderson, Shasta County Health and Human Services Agency, Shasta Regional Transportation Agency, Trails and Bikeway Council of Greater Redding, and the Shasta Wheelmen. Shasta Living Streets requested that the Project Team conduct a CPBST in the City of Redding with the goals to:

1. Increase multimodal safety, will attention to bicycle and pedestrian safety along South Market Street (SR-273) between Buenaventura Boulevard and Eureka Way (SR-999); and
2. Identify short and long-term infrastructure treatments and community programs to improve walking and biking safety along the focus area.

The following report summarizes the outcomes of the workshop and provides community and Project Team recommendations for continued guidance in project and program implementation.



Screenshot of participants at the August 19th virtual workshop.

Safe System Framework

Traditionally, human behavior was considered to be the primary variable associated with traffic injury. The Safe System approach refocuses efforts to emphasize transportation system design and operation. It prioritizes reducing crash severity to save lives. A Safe System also anticipates that people will make mistakes and acknowledges that the human body has a limited injury tolerance.

A Safe System approach improves safety for all road users through multiple layers of protection seen in the wedges of the wheel:

- safe speeds;
- safe streets design;
- understanding how people use the road;
- improving post-crash response;
- capacity building and empowerment; and
- through analysis of safety data and development of policies and plans.

It is built around several principles as seen around the outside of the wheel:

- death or serious injury is unacceptable;
- humans make mistakes at one time or another;
- multiple protections are crucial;
- all road users share responsibility;
- humans are vulnerable; safety is proactive; and
- equity is a priority throughout the system.



Background

The Pine Street/South Market Street (SR-273) corridor is located in Redding in Shasta County. Per [OTS Crash Rankings](#), in 2018, Redding ranked 69th out of 102 cities of similar population size for people killed or injured in a traffic crash (with a ranking of “1” indicating the worst). It ranked 35th for pedestrian crashes and 40th for bicycle crashes.

Local Policies and Plans

In 2022, Caltrans South Market Street Americans with Disabilities Act (ADA) Project will upgrade pedestrian facilities to current ADA standards on the west side of SR-273 from Wyndham Lane to California Street, a key focus area of this CPBST. Construction will include new corner curb ramps, continuous sidewalks, upgraded pedestrian signals and pushbuttons, a bicycle lane from California Street to Wyndham Lane, and a retaining wall south of the Redding Rescue Mission to create room to install a sidewalk. These improvements align with the recommendations from this CPBST. For more information, contact Caltrans District 2 office: d2pio@dot.ca.gov.

Caltrans District 2 is currently collecting community feedback to identify locations for future walking and biking safety improvements on and along State Routes SR-273 and SR-299 in Redding via the [Active Transportation Plan Survey](#). Feedback will provide specific data about the type and location of needed infrastructure improvements. For more information about this project, contact Caltrans District 2 office: d2pio@dot.ca.gov.

Caltrans District 2 and Shasta Regional Transportation Agency are drafting the [SR-273 Multimodal Corridor Plan](#) to evaluate the needs and priorities of SR-273 to reduce mobility barriers and enhance safety for all users. The Plan will consider the Community and Project Team Recommendations in this report to identify SR-273's safety priorities. For more information about this developing project, contact the Shasta Regional Transportation Agency: srta@srta.ca.gov.

The [Downtown Redding Specific Plan Update](#) 2018 prioritizes a “pedestrian-first” downtown environment. Construction is currently underway for two large Affordable Housing and Sustainable Communities projects with retail and associated walk, bike, and transit improvements for residents and visitors. Improvements include a public bikeshare program. For more information about this project, contact the City of Redding Planning Department: planning@cityofredding.org.

Pedestrian and Bicycle Crash History

The following data is based on police-reported pedestrian and bicycle crashes resulting in injuries to pedestrians¹ and bicyclists along SR-273 in Redding. Data reported in this section are from the Statewide Integrated Traffic Records Systems (SWITRS) for the years 2010 to 2019. Crash data for 2019 is provisional as of December, 2020. A full discussion of the pedestrian and bicycle crash data can be found in the Appendix.

Pine Street/South Market Street (SR-273) Community Workshop Boundaries

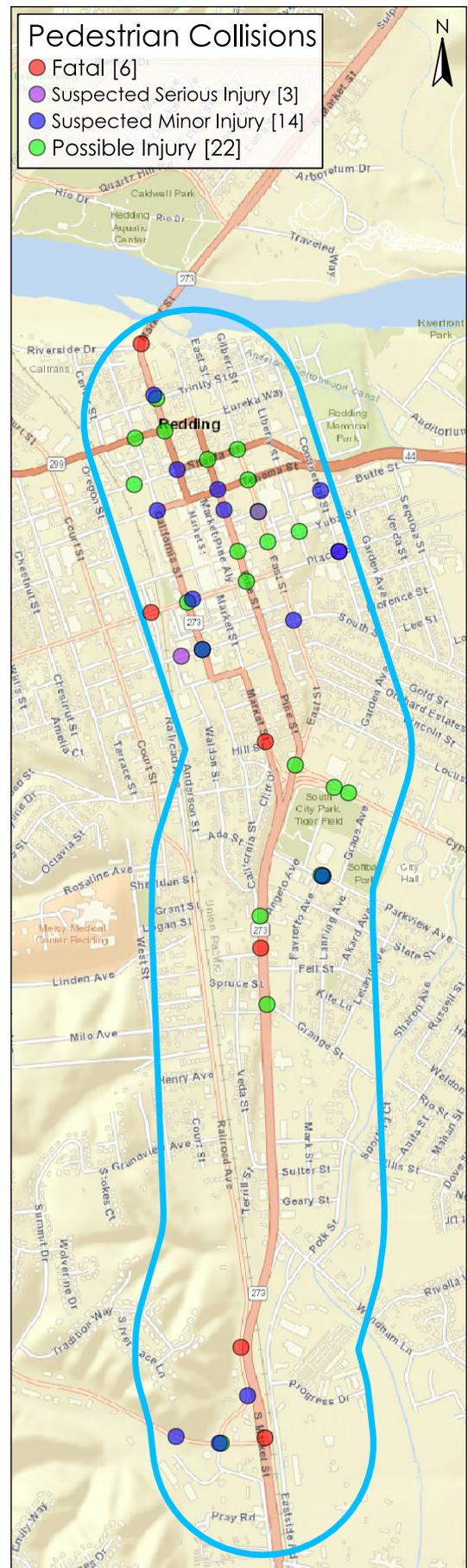
The focus area is a quarter-mile radius around a corridor running from the Pine Street/Eureka Way intersection in the north, along Pine Street to South Market Street (SR-273), then along South Market Street (SR-273) to the South Market Street (SR-273)/Buenaventura Boulevard intersection. This corridor was chosen because the southern part, near Buenaventura Boulevard and the railroad underpass known locally as the *Mousehole*, is seen as one of the most dangerous segments of SR-273. The northern part has significant pedestrian and bike traffic, as well as many interested community voices, such as local business owners. In addition, the southbound portion of SR-273 in downtown Redding parallel to Pine Street was already improved as part of a prior project, so the focus of efforts in the community is turning to improving the parallel road.

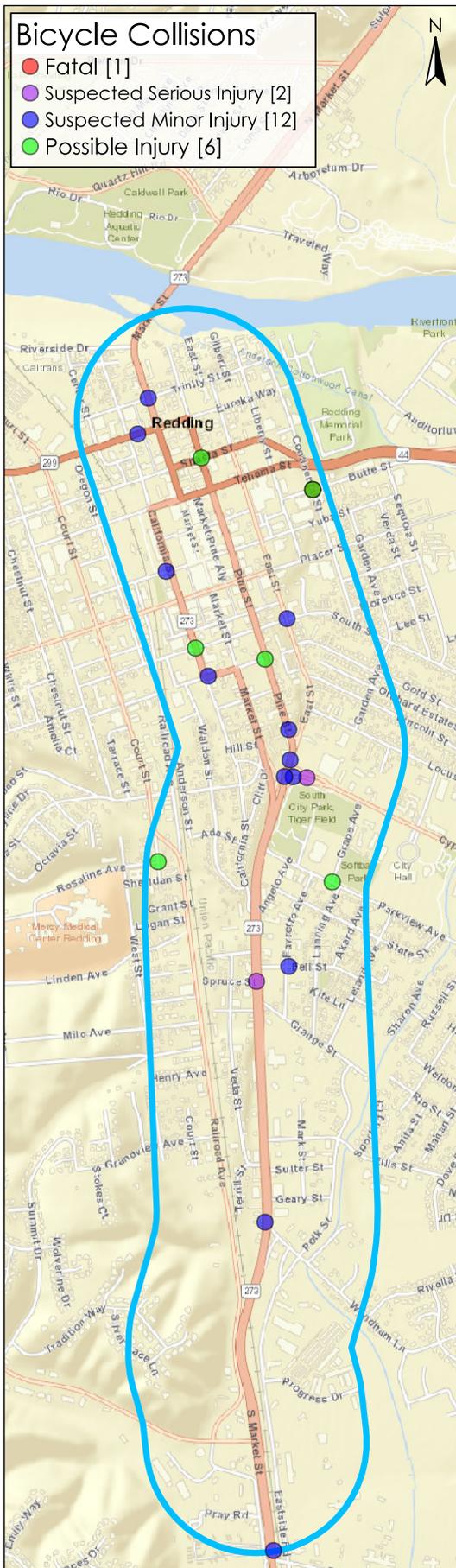
The maps on this page and the next show all of the crashes in which a person was injured and that involved a pedestrian or bicyclist from 2015 to 2019. To see more detailed maps of pedestrian and bicycle crashes by severity, see the data factsheet on page 29 in the Appendix.

Pedestrian Crashes

In the five-year period 2015 to 2019, there were 45 crashes involving 49 pedestrian victims. Among the 49 pedestrian victims, six pedestrian victims died and three were seriously injured. Pedestrian crashes made up over a third of all fatal and serious crashes (39.1 percent), which was more than twice the statewide proportion of 18.3 percent and almost four times the proportion in Shasta County (10.9 percent). Multiple fatal pedestrian crashes occurred along South Market Street (SR-273), while many minor crashes occurred on Pine Street in the downtown area. Many of the victims of these crashes were older adults, with over one-third of victims aged 60 years old or older (40.8 percent).

¹ A pedestrian is defined as any person who is afoot or using a non-motorized personal conveyance other than a bicycle. This includes skateboards, strollers, wheelchairs, and any electric assistive mobility device.





Bicycle Crashes

In the five-year period 2015 to 2019, there were 21 crashes involving 21 bicyclists. Among the 21 bicycle victims, there was one fatality and two were seriously injured. Bicycle crashes made up 8.7 percent of all fatal and serious crashes, which is greater than the statewide proportion of 5.9% and the Shasta County proportion of 4.7 percent. There was a cluster of bicycle crashes at the South Market Street (SR-273)/West Cypress Avenue intersection, including one serious injury crash, while one fatal crash occurred at the Butte Street/Continental Street intersection. Two-thirds of bicycle crash victims (66.7%) were male and over one-third of bicycle victims were in the age range 25 to 34.

Free SafeTREC Data Resources

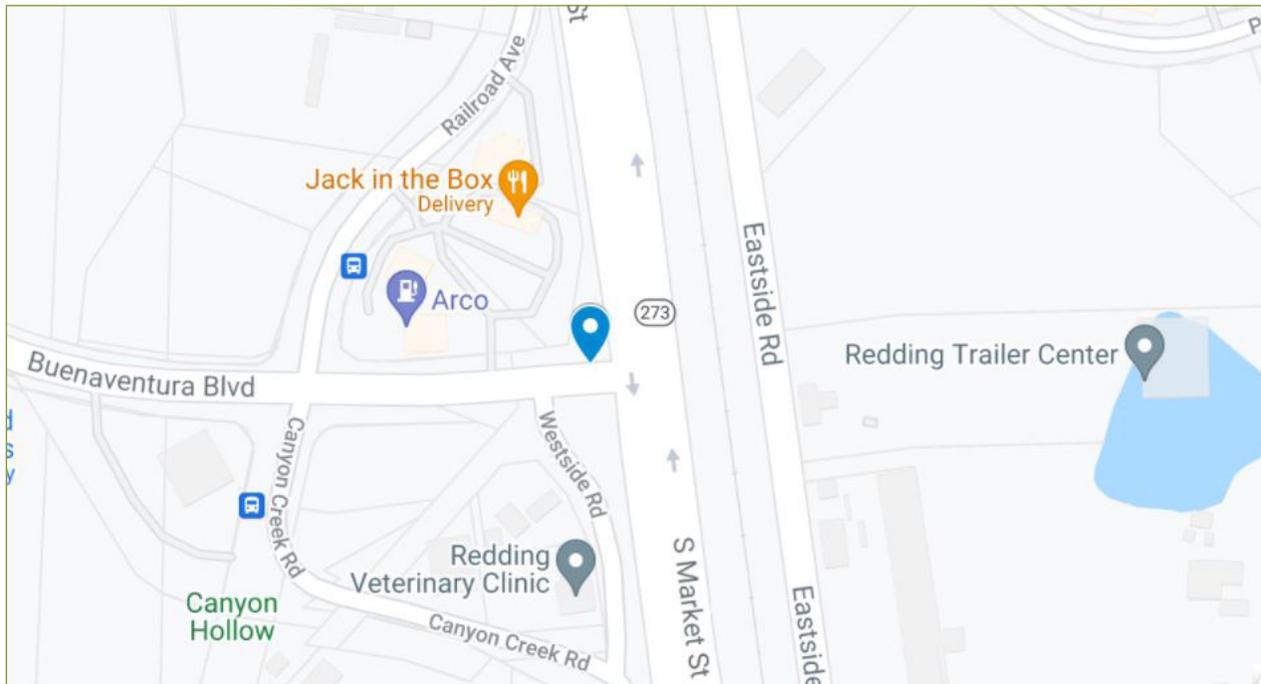
The **Transportation Injury Mapping System (TIMS)** is a web-based tool that allows users to analyze and map California crash data from the Statewide Integrated Traffic Records System (SWITRS). TIMS provides quick, easy, and free access to geocoded crash data. TIMS is available at: <https://tims.berkeley.edu>

Street Story is a web-based community engagement tool that allows residents and community organizations to gather information that is important to transportation safety, including crashes, near-misses, general hazards and safe locations to travel. To promote access to the tool, SafeTREC offers technical assistance to communities and organizations interested in using Street Story. The platform and the information collected is free to use and publicly available. Street Story is available at: <https://streetstory.berkeley.edu>

Walking & Biking Assessment

At the virtual site visit, the Project Team and the Planning Committee took part in a virtual walking and biking safety assessment along three focus routes frequently traveled by community residents. Participants were asked to assess infrastructure conditions and share how road users engage with the built environment. During the CPBST virtual workshop, participants also shared their experiences and concerns walking and biking in the focus area. The following is a summary of the walking and biking assessment.

Route 1: South Market Street / Buenaventura Boulevard Intersection



The intersection of South Market Street (SR-273) and Buenaventura Boulevard serves as a southern entry point into the City of Redding. This intersection is highly traveled because South Market Street becomes SR-273 is an alternate route to Interstate Highway 5. Additionally, Buenaventura Boulevard receives driver traffic from SR-299, another highly traveled road in the area.

Strengths

1. Surrounded by local foothills, the South Market Street (SR-273) and Buenaventura Boulevard intersection's natural beauty is scenic and enjoyable. The local beauty makes the surrounding region an attractive place to live and is a charming setting for those who bike recreationally along SR-273.
2. Before and after Buenaventura Boulevard meets South Market Street (SR-273), South Market Street has two vehicular lanes in either direction with a wide shoulder on the right side when heading north. South Market Street (SR-273) is 122 feet wide across, potentially allowing local jurisdictions to install and implement pedestrian and bicycle amenities.

Route 1: South Market Street / Buenaventura Boulevard Intersection, cont'd

Strengths *(continued)*



The view near South Market Street (SR-273)/Buenaventura Boulevard is scenic and surrounded by trees.

Concerns

1. The entire intersection lacks both pedestrian and bicycle infrastructure. There are no marked crosswalks and sidewalks to get around the local hotels, gas stations, restaurants, and convenience stores. In addition, pedestrians are prohibited by law from crossing South Market Street (SR-273) at this intersection. Neither the design nor the law match the actual use of the street, which includes pedestrians crossing and walking where it is currently illegal to do so.
2. Drivers appear to be driving over the posted 55 miles per hour through this intersection. Participants shared that for this reason, driving, walking, or biking here feels very dangerous and uncomfortable.
3. This intersection has three traffic signals, two along South Market Street (SR-273) in both directions, and there is a third traffic signal on Buenaventura Boulevard. Participants expressed that the signal timing at this intersection is problematic; all three traffic signals take a long time to change. These delays cause traffic to back up on all legs of the intersection and at both South Market Street (SR-273) and Buenaventura Boulevard, resulting in driver frustration and speeding through the intersection before the light turns red.
4. There is limited street lighting at this intersection, limiting visibility of and for pedestrians who walk along South Market Street (SR-273) at night time. These pedestrians often work in Redding's city center and must walk home in the dark because the bus service is no longer available during the late hours, and they do not have access to a vehicle.
5. Pedestrians travel from trucking yards located on Eastside Road adjacent to the South Market Street (SR-273)/Buenaventura intersection, cross multiple railroad tracks, and six travel lanes to fast food and convenience stores on the northwest corner of the Breslauer Way and South Market Street (SR-273) intersection. These conditions lead to many near misses between drivers and pedestrians.

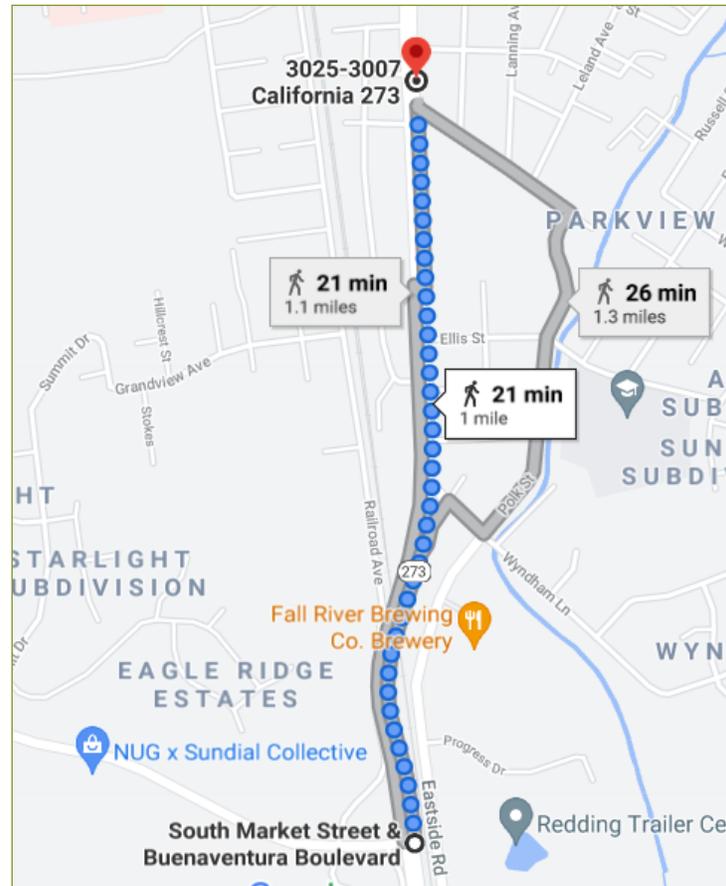
Route 1: South Market Street / Buenaventura Boulevard Intersection, cont'd**Concerns (continued)**

6. From South Street to Breslauer Way, there are no pedestrian crosswalks across SR-273.
7. When people cross with wheelchairs and strollers heading east on SR-273 at Breslauer Way, there is no curb cut when they approach the pedestrian call button from the west; therefore they must walk around a curb onto SR-273, and into gravel to reach the pedestrian call button.
8. From Eastside Road traveling west on Breslauer Way, the only crosswalk goes across SR- 273 on the south side of the intersection, making this intersection a difficult place to navigate for bicyclists.
9. The Redding Area Bus Authority buses run infrequently. The only southbound route stops on a side road on the west side of SR-273 and the only northbound route stops on a side road on the east side of SR-273. People using transit must either endure long travel times or walk or bike across SR-273 at Breslauer Way.



South Market Street (SR-273) and Buenaventura Boulevard has no pedestrian or bicyclist amenities and it is currently illegal to for pedestrians to cross South Market Street (SR-273) at this intersection.

Route 2: South Market Street (SR-273)



This section of South Market Street (SR- 273), between Buenaventura Avenue and Grange Street, serves as an entry point to the downtown core. This route shifts from a fast moving, high speed commercial corridor into a slower traffic area with a two-lane business corridor (South Market Street). This transition is abrupt and is reflected in change in the road name from SR-273 to South Market Street, and changes in the posted speed limit, road facilities, and increased pedestrian and bicyclists traffic. This creates points of conflict between drivers, bicyclists, and pedestrians that live and work along this route.

Strengths

1. There appears to be sufficient space to install a buffered bike lane on the east side of South Market Street (SR-273), north of Wyndham Lane. Caltrans' South Market Street Americans with Disabilities Act (ADA) Project will upgrade pedestrian facilities to current ADA standards on the west side of SR-273 from Wyndham Lane to California Street in 2022.
2. [Good News Rescue Mission](#) provides meals, beds, and other services to people experiencing houselessness, especially U.S. military veterans. These Redding residents mostly walk or bike to and from the Mission, creating a visible pedestrian and bicyclist community. The Mission is located on the South Market Street (SR-273)/Grange Street intersection.

Route 2: South Market Street (SR-273), continued

Concerns



LEFT: Traveling northbound on South Market Street (SR-273), posted 45 miles per hour speed limit approaching a railroad undercrossing. RIGHT: Trash adjacent to the shoulder on South Market Street (SR-273)

1. Drivers appear to be driving above the posted speed limit on South Market Street (SR-273) of 45 miles per hour between Buenaventura Boulevard and Wyndham Lane and above 40 miles per hour between Wyndham Lane and Grange Street. Participants shared they feel vulnerable sharing the road with high-speed drivers and have experienced many near misses. High speeds also contribute to local air pollution and increase pedestrian and bicyclist exposure to vehicle exhaust.
2. There is a paved shoulder on South Market Street (SR-273), between Buenaventura Boulevard and Wyndham Lane, that gradually narrows leading to a Union Pacific Railroad Company undercrossing known as the *Mousehole*. The shoulder completely disappears there, leaving only two narrow travel lanes. Pedestrians and bicyclists that travel through this area compete for space with drivers. Similarly, bicyclists may travel in the center of the vehicle lane when traveling to try to discourage drivers from attempting to squeeze past them. This slows down drivers traveling at approximately 45 miles per hour, aggravating them, and putting bicyclists in a stressful and dangerous situation.
3. Walking over the *Mousehole* requires crossing multiple railroad tracks and a dirt path on the east side of South Market Street (SR-273), through debris and houseless camps, and back onto the roadway. As people in this residential area walk back onto the road, they again compete for space with drivers because there is no sidewalk or designated space for pedestrians. The dirt path is a major way people access food and other necessary services along this route.

The shoulder on South Market Street (SR-273), between Buenaventura Boulevard and Wyndham Lane, contains a lot of debris (broken glass, trash, etc), creating a falling hazard for bicyclists and pedestrians.

4. It is very dark on South Market Street (SR-273), between Buenaventura Boulevard and Wyndham Lane. There is very poor visibility for all road users, causing many near misses between drivers and pedestrians. The South Market Street (SR-273)/ Buenaventura Boulevard intersection has no pedestrian or bicyclist amenities. It is currently illegal to cross South Market Street (SR-273), but pedestrians continue to use it because it provides direct access to the business located on the west side of the intersection.
5. People experiencing houselessness are frequent pedestrians and bicyclists along this route. Workshop participants shared that many houseless active transportation users experience mental health challenges. During an in-person site visit, the Project Team was followed and yelled at by people visibly experiencing mental health challenges.

Route 2: South Market Street (SR-273), continued

Concerns *(continued)*



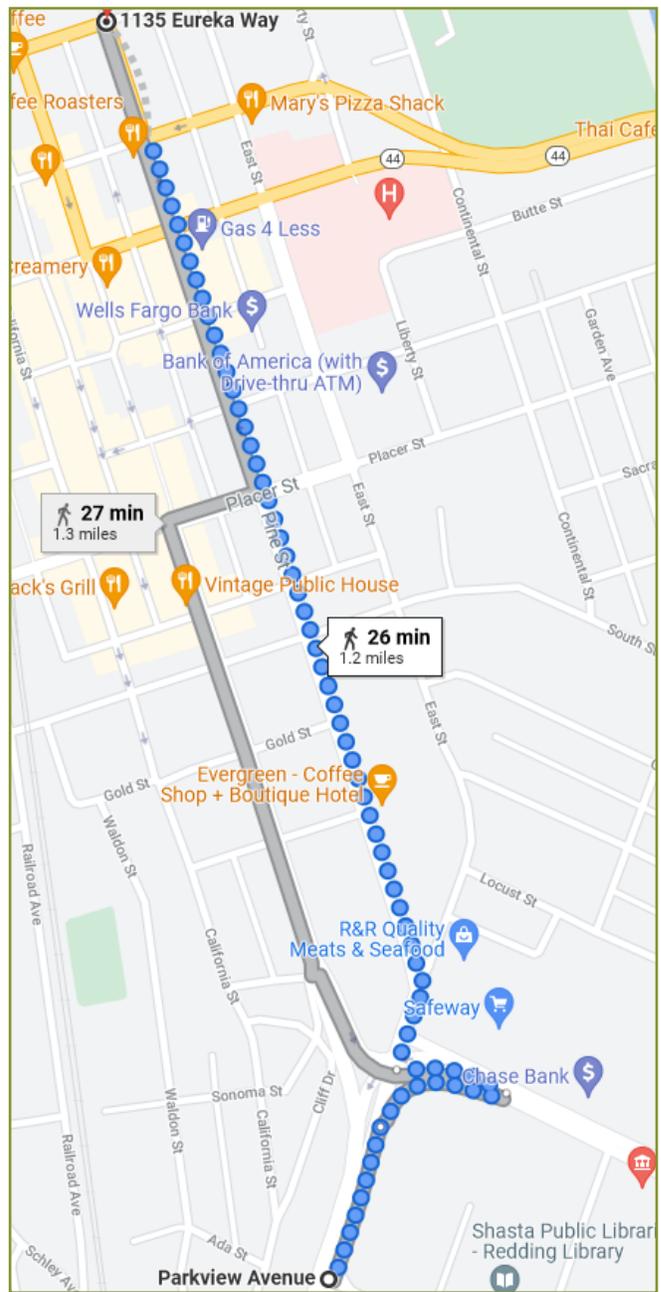
TOP LEFT: Paved shoulder on South Market Street (SR-273), traveling north, approaching and at grade with the Mousehole. TOP RIGHT: Railroad tracks traveling north, on the east side of the Mousehole, steering towards the left are the tracks on top of the Mousehole. The tracks steer right are traveling parallel to Railroad Avenue. MIDDLE LEFT: The makeshift dirt path traveling north of the railroad overpass to the South Market Street (SR-273)/Wyndham Lane intersection. MIDDLE RIGHT: The dirt path sloping down towards the South Market Street (SR-273)/Wyndham Lane intersection. BOTTOM: The view of the Mousehole from the South Market Street (SR-273)/Wyndham Lane intersection. The Union Pacific railroad tracks above and on the east side of South Market Street (SR-273).

Route 3: Pine Street

This stretch of SR-273 runs from the South Market Street (SR-273)/Parkview Avenue intersection to the Pine Street/Eureka Way intersection. It is the segment of SR-273 with the greatest density, crossing through downtown Redding. Many bicyclists and pedestrians use this portion to travel downtown and connect to other portions of the city. Pine Street also intersects with SR-44 and SR-299 in this area, contributing to the mix of road users - both local on local streets and state highways - in this area.

Strengths

1. The block between Parkview Ave and West Cypress Ave contains Redding City Hall, Redding Police Department, the Redding Library, Tiger Field, and multiple park areas, making it a popular destination for community members.
2. There are many commercial destinations along Pine Street, which runs through downtown Redding. Participants shared that this area is also part of Redding’s Cultural District and the people in the community are interested in making it more accessible for walking and biking. Development is ongoing in this area, with current construction of two affordable housing sites that may increase the number of pedestrians and bicyclists moving through downtown Redding.



BOTTOM RIGHT: The Pine Street/Yuba Street intersection exemplifies much of downtown Redding, with commercial destinations and trees for shade.



Route 3: Pine Street, continued

Concerns

1. The South Market Street (SR-273)/West Cypress Avenue intersection is a barrier for pedestrians and bicyclists trying to access the City Hall, park, and library as well as the grocery store on the north side of West Cypress Avenue. There is only one marked east-west crosswalk. This crosswalk crosses only the northbound direction of SR-273, while the nearest marked crossing of the southbound lanes is several blocks away at the Lincoln Street/South Market Street (SR-273) intersection. The pedestrian crossing on the slip lane (a road that allows drivers to veer right prior to entering an intersection) is also dangerous due to the speed of the drivers, who continue from South Market Street (SR-273) to West Cypress Avenue without slowing. Visibility is blocked by the curve of the raised wall between the narrow sidewalk and the park for both turning drivers and pedestrians on the east side of the crossing.
2. SR-273 continues to pose a barrier to pedestrians traveling northbound past the West Cypress Street intersection. The road in this area consists of three, one-way uncontrolled lanes until South Street, giving priority to drivers traveling along SR-273 over road users using cross streets. There are no marked crosswalks at the base of the hill, at the East Street intersection, or past Lincoln Street until South Street, so there is about a third of a mile between marked crossings over northbound SR-273 in this area.
3. Drivers accelerate uphill on Pine Street before the Lincoln Street intersection, creating a speed concern, which is aggravated by the crest of the hill limiting visibility between vehicles on Pine Street and road users at the Lincoln Street intersection. Pedestrians and bicyclists trying to cross Pine Street at Lincoln Street are especially at risk.
4. All along Pine Street from Lincoln Street to Eureka Way, there are conflicts between drivers and other road users, including pedestrians and bicyclists. Speeds on this stretch remain high, due to the three, one-way lanes, and contribute to the impression among some drivers that they are traveling on a highway rather than through a downtown district. Pedestrians and bicyclists access businesses and other destinations in the downtown area, including low-income housing, housing for older adults, and the hospital. Some pedestrians attempt mid-block crossings in this area, though the cause is unclear since there are many marked crosswalks at signalized intersections and the distances between them are mostly about 300-400 feet.
5. Driver speeding is a concern along Pine Street from the Tehama Street intersection to the Eureka Way intersection. Three highways converge in this area, resulting in high speeds and lack of awareness of and yielding to pedestrians and bicyclists using the area. Some participants who drive in this area shared that drivers are traveling at such high speeds that they feel yielding to pedestrians is unsafe because it may cause a crash with other drivers who are not prepared or willing to yield. Participants noted that there is a community vision and planning conflict between treating this roadway like a highway, or like a part of the downtown neighborhood, when planning improvements. Currently, with large overhead highway signage, three uncontrolled turning lanes, and few pedestrian and bicycle improvements it functions as a highway.

Route 3: Pine Street, continued

Concerns (continued)



TOP LEFT: The crosswalk on the slip lane from South Market Street (SR-273) to West Cypress Avenue has limited visibility to oncoming traffic due to the wall seen on the right side of the photo. TOP RIGHT: There are no marked crosswalks at the Pine Street/East Street intersection. MIDDLE LEFT: The Lincoln Street/Pine Street intersection only has one marked crosswalk, across Lincoln Street. MIDDLE RIGHT: The Lincoln Street intersection is not visible from the base of the uphill segment of Pine Street. BOTTOM LEFT: Pine Street is three lanes wide, with a bike lane outside of parked cars along the curb. BOTTOM RIGHT: Pine Street near the Eureka Way intersection, has three uncontrolled lanes, highway signage, and little pedestrian or bicycle infrastructure.

Recommendations

The recommendations in this report are based on observed pedestrian and bicycle safety concerns, Safe System strategies, and workshop participants' preferences and priorities. The suggested timelines and resources needed for implementation are estimated based on general pedestrian and bicycle safety best practices knowledge and may need to be further adjusted by the community. The Planning Committee and workshop participants asked the Project Team to include all community recommendations. The Planning Committee will consider all community recommendations in future plans, projects, and funding opportunities.

Community Recommendations

The Planning Committee developed preliminary walking and biking safety infrastructure improvement plans during a virtual site visit on August 5, 2021. Planning Committee members were assigned to three separate groups to develop these preliminary plans, based on the bicycle and pedestrian crash data, a virtual walking assessment of a focus area, and Safe System strategies. The CPBST virtual workshop on August 19, 2021 assigned workshop participants to 3 groups to review and build on these infrastructure improvement plans, and share their ideas for incorporating complementary community programs and engagement strategies. Reviewing the plans, participants discussed all ideas and outlined plans for implementing projects that received consensus and the greatest support. Participants considered the following community programs and infrastructure projects:

Proposed safety improvements for pedestrians and bicyclists at the South Market Street (SR-273)/Buenaventura Boulevard intersection:

- Quickbuild road rightsizing project at the South Market Street (SR-273)/Buenaventura Boulevard intersection that removes a vehicular lane to slow speeds;
- Temporary demonstration to support the reduction of vehicular speeds along the South Market Street (SR-273)/Buenaventura Boulevard intersection;
- Install pedestrian safety improvements like sidewalks, pedestrian scale lighting and crosswalks at the South Market Street (SR-273)/Buenaventura Boulevard intersection; and
- Strengthen safe routes to school programming south of Buenaventura Boulevard and South Market Street (SR-273) to involve Juniper Elementary School, because many students cross the South Market Street (SR-273)/Buenaventura Boulevard intersection to get to and from school.

Proposed safety improvements for pedestrians and bicyclists traveling through the *Mousehole*:

Improve the Conditions of Alternative, Parallel Routes:

- Reroute pedestrians to safer parallel routes and provide access points to businesses and services on South Market Street (SR-273). Add shade trees, vegetation, lighting, repave the street and road shoulders, improve paint stripping, close sidewalk gaps and install a buffered bike lane along the alternative routes Eastside Road and Railroad Avenue. This could provide a safe designated space for bicyclists and pedestrians on the road. Alternatively, a multi-use path can be installed on Eastside Road and Railroad Avenue. The path should be at-grade with the railroad crossing north of the *Mousehole*. Both roads should include wayfinding to direct pedestrians and bicyclists where to exit the road to arrive at their intended destinations. These street reconfiguration improvements could increase pedestrian safety by slowing driver speeds. Both alternative routes have lower vehicle traffic, which may result in less vehicle congestion, fewer emissions, and less traffic noise. These streets also have fewer driveways and are more directly connected to neighborhoods where community members would be traveling to key destinations including restaurants, county services, gyms, and laundromats.

Improve the Conditions of Alternative, Parallel Routes: (continued)

- Extend Blue Gravel Trail at Buenaventura Boulevard to the Railroad Avenue/Buenaventura Boulevard intersection, to connect with the new multi-use path at Railroad Avenue.

Improve Walking and Biking Infrastructure Conditions on South Market Street (SR-273):

- Add a “[pedestrian, bicyclist in tunnel](#)” push button-activated yellow flashing sign at the *Mousehole* to alert drivers to slow down and provide space for other road users.
- Reallocate one or two existing car travel lanes to a designated bicyclists and pedestrian travel lane on the approach to the *Mousehole*. If two car travel lanes are redesignated, they could be built as protected multi-use paths. If one car travel lane is redesignated, it could be a cycle track with a sidewalk.
- Create a pedestrian bridge over the railroad tracks above the *Mousehole*. Currently, pedestrians are traveling along or over the *Mousehole* and crossing the railroad tracks. A pedestrian bridge will coincide with pedestrians’ natural travel patterns. Sidewalks and other pedestrian improvements will need to be added on South Market Street (SR-273) and Railroad Avenue to accommodate this pedestrian bridge.
- Install landscaping with decomposed granite, vegetation, and shade trees on the east side of South Market Street (SR-273), in between the railroad tracks to offer shade and buffer noise from the trains. This can increase the water table’s quality, improve the aesthetics and encourage active transportation along a multi-use path.
- Install more trees, shrubs, and pedestrian-scale lighting in the concrete center median along South Market Street (SR-273) between Wyndham Lane and Grange Street. This would provide a cost-effective way to add visual cues to encourage drivers to slow down and provide more visibility of people walking and biking during periods of low light.
- Add a buffer, such as delineators, to a planned bike lane on South Market Street (SR-273), from Wyndham Lane to California Street, per Caltrans’ South Market Street Americans with Disabilities Act (ADA) Project. This could increase actual and perceived safety for bicyclists.

Proposed safety improvements for pedestrians and bicyclists on Pine Street:

- Re-establish the Business Improvement District or form a similar organization in downtown Redding to build and maintain improvements to the Pine Street corridor such as pedestrian-scale lighting, parklets, vegetation, and wayfinding signage, among many possibilities.
- Study the Pine Street/Eureka Way intersection and, in consultation with the community, determine 1) whether this intersection should have the downtown improvements extended to it, making it safer for pedestrians, or 2) whether this intersection is more of a highway space past the downtown and pedestrians should be guided to safer crossings.
- Install high-visibility marked crosswalks at the Pine Street/East Street intersection and study potential improvements, especially on the long crossing on the west side of East Street across Pine Street.

The Planning Committee and workshop participants developed preliminary action plans for infrastructure improvement projects and community programs that received the most community support. The following tables are a summary of their efforts.

Project Name: Reconfiguration of the South Market Street (SR-273)/Buenaventura Boulevard Intersection

Project Description: The reconfiguration of this intersection involves the installation of a separated multi-use path along South Market Street (SR-273) and the installation of a raised roundabout as a traffic calming feature that can connect the multi-use path.

Project Goals:

1. Reduce driver speeds along Buenaventura Boulevard and South Market Street (SR-273);
2. Connect the Buenaventura Boulevard and South Market Street intersection with the rest of the SR-273 corridor; and
3. Establish and beautify an entryway into the City of Redding.

Action Steps	Timeline	Responsible Party	Resources
<p>Gather feedback from community to determine both the feasibility and excitement for a multi-use path along SR 273 and a raised roundabout at Buenaventura Boulevard/ South Market Street (SR-273).</p> <p>Participants shared it would be important to receive feedback from the following agency staff as well:</p> <ul style="list-style-type: none"> • Tamy Quigley, Senior Transportation Planner at Caltrans District 2; and • Caltrans SHOPP Project Team. 	Short term - Fall 2021	City of Redding, Caltrans District 2, Shasta Living Streets	<p>Public Participation Guide: Charrettes</p> <p>Principles For Equitable Public Outreach & Engagement During Covid-19 and Beyond</p>
<p>Create a matrix with upcoming grant opportunities and timelines to visually understand which opportunities will be pursued to reconfigure Buenaventura Boulevard/South Market Street (SR-273).</p>	Short term - Fall 2021	City of Redding, Caltrans District 2, Shasta Living Streets	<p>Grant Funding Matrix Example</p> <p>Walking and Biking Funding Opportunities</p>

Project Name: Reconfiguration of the South Market Street (SR-273)/Buenaventura Boulevard Intersection (*continued*)

Action Steps	Timeline	Responsible Party	Resources
Gather previous and current community engagement summaries, photos, and community feedback such as the California Walks and UC Berkeley SafeTREC final report with recommendations and summaries of all activities that Shasta Living Streets and other partners can reference in the future. This report may be used in funding applications for infrastructure changes along Buenaventura Boulevard/South Market Street (SR-273) intersection.	Short term - Fall 2021	California Walks UC Berkeley SafeTREC	2015 Recommendations to Improve Pedestrian Safety in Downtown Redding
Apply for funding to reconfigure Buenaventura Boulevard/South Market Street (SR-273) for speed calming and improved safety for all road users.	Ongoing	City of Redding, Caltrans District 2, Shasta Living Streets	SHOPP Developing Effective Active Transportation Projects and Programs
Install a multi-use path east of South Market Street (SR-273) traveling parallel to the state route and Eastside Road and install a raised roundabout at the Buenaventura Boulevard/South Market Street (SR-273) intersection.	Long term - 2028	City of Redding, Caltrans District 2	Federal Highway Administration: Bikeway Selection Guide Caltrans District 2: A Guide to Bikeway Classification PEDSAFE by U.S. Department of Transportation Federal Highway Administration
Upon implementation, engage the community through a public education campaign so they can understand how to use the new infrastructure and its benefits to the community.	Long term - 2028	City of Redding, Caltrans District 2	Roundabouts - Outreach and Education Resources Office of Traffic Safety grant program

Project Name: Improve Walking and Biking Conditions on South Market St (SR-273), between Buenaventura Boulevard and Grange Street through Infrastructure Improvements and Community Programs

Project Description: Identify and develop short- and long-term infrastructure improvements and community programs to ease the transition from a fast-speed, commercial transportation state route (SR-273) along an industrial corridor to a local neighborhood road (South Market Street) along a business corridor. Infrastructure improvements include reconfiguring the street, encouraging slower speeds, improving lighting, and creating a multi-use path parallel to South Market Street (SR-273).

Project Goals:

1. Reduce driver speed on South Market Street (SR-273);
2. Improve visibility of all road users on or along South Market Street (SR-273);
3. Improve pedestrian crossings on South Market Street (SR-273); and
4. Create designated travel space for bicyclists and pedestrians on or along South Market Street (SR-273).

Action Steps	Timeline	Responsible Party	Resources
<p>Gather feedback from all road users to determine who uses the route, why they use it, where they are traveling to, and what is important to them.</p> <p>Pedestrians and bicyclists: Conduct pedestrian and bike counts. Determine why they walk or bike on South Market Street (SR-273), if they would use a safer alternative route, and what would encourage them to use an alternative route.</p> <p>Commercial transportation: Survey commercial transportation trucks to inquire about diverting this type of traffic and whether truck cargo could be transported on the railroad.</p>	Present - 2022	City of Redding, Caltrans District 2, Shasta Living Streets	<p>Pedestrian and Bicycle Information Center: Pedestrian Safety on Arterial Streets</p> <p>Pedestrian and Bicycle Information Center: Bicycle and Pedestrian Count</p> <p>Los Angeles County Metropolitan Transportation Authority & Southern California Association of Governments: Conducting Bicycle and Pedestrian Counts</p>
<p>Add reflectors on the concrete median on South Market Street (SR-273), between Buenaventura Boulevard and Wyndham Lane; and on, in, and around the concrete railroad tunnel, known as the <i>Mousehole</i>.</p>	Present - 2022	City of Redding, Caltrans District 2	

Project Name: Improve Walking and Biking Conditions on South Market St (SR-273), between Buenaventura Boulevard and Grange Street through Infrastructure Improvements and Community Programs (*continued*)

Action Steps	Timeline	Responsible Party	Resources
Install fluorescent signage approaching the <i>Mousehole</i> , warning drivers to slow down and watch for other road users.	Present - 2022	City of Redding, Caltrans District 2	
Create a buffered bike lane on the east side of South Market Street (SR-273), between Wyndham Lane and Grange Street. Coordinate with Caltrans District 2's ADA Project listed in the Local Policies and Plans box.	Present - 2022	City of Redding, Caltrans District 2	NACTO Bikeway Design Guide: Buffered Bike Lanes
Reconfigure the travel lanes on South Market Street (SR-273) from about 12' to 10' lanes to reduce driver speeds.	Long term - 2024	City of Redding, Caltrans District 2	NACTO Street Design Guide: Lane Width
Install lighting on and around the <i>Mousehole</i> to improve driver's visibility and decrease near misses.	Long term - 2024	City of Redding, Caltrans District 2	Pedestrian and Bicycle Information Center: Lighting Strategies to Improve Pedestrian Safety
Add pedestrian scale lighting on South Market Street (SR-273) from Buenaventura Boulevard to Grange Street.	Long term - 2024	City of Redding, Caltrans District 2	See Lighting Strategies to Improve Pedestrian Safety above
Install a multi-use path east of South Market Street (SR-273) , traveling parallel to the state route and Eastside Road. The path should travel from Bonnyview Road to Wyndham Lane. The path could connect to a buffered bike lane on South Market Street (SR-273), traveling north of Wyndham Lane.	Long term - 2028	City of Redding, Caltrans District 2	Federal Highway Administration: Bikeway Selection Guide Caltrans District 2: A Guide to Bikeway Classification

Project Name: Pedestrian and Bicyclist Improvements on South Market Street (SR-273) and Pine Street from Parkview Avenue to Eureka Way

Project Description:

This project seeks to implement short- and long-term improvements on South Market Street (SR-273) and Pine Street including reconfiguring the street, adding pedestrian and bicycle infrastructure, encouraging slower speeds, and changing the Cypress Avenue intersection into a roundabout.

Project Goals:

1. Improve pedestrian and bicycle safety along South Market Street (SR-273) and Pine Street;
2. Improve access to local businesses and other destinations, including the park and library;
3. Connect existing or planned segments of the bicycle network; and
4. Transform Pine Street into a pleasant route that enhances downtown Redding.

Action Steps	Timeline	Responsible Party	Resources
<p>A series of quick-build projects that model the intended long-term changes:</p> <ul style="list-style-type: none"> • Remove a lane on Pine Street, move the parking to the outside of that former lane, and use the new space as a buffered bike lane. • Install bulb-outs at intersections on Pine Street with high pedestrian traffic. • Install a protected bike lane from Parkview Avenue to West Cypress Avenue. 	Present - 2022	City of Redding, Caltrans District 2, Shasta Living Streets	Calbike guide on Quick-Build Street Design
<p>Paint improvements:</p> <ul style="list-style-type: none"> • Paint speed limits on the driving lanes of Pine Street between East Street and Lincoln Street. • Paint high-visibility crosswalk markings on the Lincoln Avenue/Pine Street intersection and add signage here to alert drivers to the crosswalk. • Paint markings for bicyclists, such as bike boxes, where appropriate along Pine Street to complement the quick build bike lane above. 	Present - 2022	City of Redding, Caltrans District 2, Shasta Living Streets	NACTO Urban Bikeway Design Guide: Colored Bike Facilities

Project Name: Pedestrian and Bicyclist Improvements on South Market Street (SR-273) and Pine Street from Parkview Avenue to Eureka Way *(continued)*

Action Steps	Timeline	Responsible Party	Resources
<p>Change the South Market Street (SR-273)/West Cypress Avenue intersection into a roundabout that includes access to the park and grocery store.</p> <p>Remove the slip lane from the South Market Street (SR-273)/ Parkview Avenue intersection.</p>	Long term - 2028	Caltrans District 2	Caltrans Highway Design Manual (July 1, 2020) Chapter 400 - Intersections at Grade
<p>Install a crossing signal, such as a HAWK (High-intensity Activated Crosswalk) signal or RRFB (Rectangular Rapid Flashing Beacon), at the crosswalk across Pine Street at the Lincoln Street intersection.</p>	Long term - 2028 (or potentially within 2022 time frame)	Caltrans District 2	NACTO Urban Bikeway Design Guide to Hybrid Beacons
<p>Reconfigure Pine Street from Lincoln Street to Shasta Street:</p> <ul style="list-style-type: none"> Remove the right-most vehicle lane and use this space to extend the sidewalk. Use part of this wider sidewalk for a two-way cycle track. Install bulbouts and pedestrian-scale lighting, as well as raised crosswalks at intersections with many pedestrians. 	Long term - 2028	City of Redding, Caltrans District 2	NACTO Urban Bikeway Design Guide: Two-Way Cycle Tracks
<p>Extend the Pine Street bike route at the Pine Street/ Eureka Way intersection to the two-way cycle track one block north at Trinity Street.</p> <p>Study pedestrian and driver behavior at the Pine Street/ Eureka Way intersection with an eye towards improving the crosswalk across Pine Street, potentially including a signal, or guiding pedestrians to a safe crossing.</p>	Long term - 2028	Caltrans District 2	See NACTO guides on Hybrid Beacons and Bikeways above

Project Team Recommendations

The Project Team submits the following recommendations for consideration based on our observations. The suggested timelines are included for reference, but implementation may take more or less time depending on specific community factors. Ultimately, local stakeholders, such as city staff and the Planning Committee, may need to refine the recommendations to ensure they are appropriate for the current walking and biking environment.

Community Shade Tree and Landscaping Assessment

The Project Team recommends the City of Redding and Caltrans District 2 conduct a community shade tree and landscaping assessment to identify where additional greenery can be planted to provide shade for pedestrians and bicyclists along South Market Street (SR-273). This can act as an extension of the over 100 shade trees planted in Downtown Redding by the City of Redding through the 2018 CalFire and California Climate Investment program funding. This will strengthen an existing community asset, the natural green landscape. Caltrans and the City of Redding can work with the [California Conservation Corp](#) and [Master Gardeners of Shasta County](#) to conduct the assessment, develop community education, volunteer planning, and seek public donations. Trees have the advantage of visually narrowing streets, thereby slowing driver speeds. They also provide canopy coverage and green space in an effort to alleviate the effects of heat and air pollution when walking and biking along or adjacent to South Market Street (SR-273). Shade trees can help improve the air quality and offset carbon emissions from the commercial trucks that frequent these state routes. The City can use the assessment results to identify key areas where to plant trees.

Empower the City of Redding Bicycle Advisory Committee

The Project Team recommends the City of Redding Public Works Department work with the City to add pedestrian representatives to the Bicycle Advisory Committee and provide input through a formalized process to decision makers on bicycle and pedestrian projects, programs, and policies. During the site visit and workshop, some participants mentioned the desire for an active BPAC to have a role in informing the many walking and biking improvements taking place around Redding. A BPAC could also serve as a bridge to community residents and ensure they have an opportunity to give input to the City. One model of an effective BPAC is the [City of Fresno BPAC](#), which facilitates communication among local advocates, elected officials, and city agency staff. The Advocacy Advance provides [Best Practices for Bicycle and Pedestrian Advisory Committees](#).

Bike Lights and Helmet Distribution Program

The Project Team recommends the City of Redding, Shasta Living Streets, and Shasta County Health and Human Services, co-host a Bike Lights and Helmet Distribution program to provide crucial safety equipment and education to Redding's most vulnerable users. These vulnerable bicyclists may include children, low-income residents, and people experiencing homelessness. This will encourage safe riding, prevent head injuries, and increase bicyclists' visibility. A distribution program is usually held in conjunction with basic bike education. The City may reference [Santa Ana's bicycle safety equipment distribution program](#), funded by the Office of Traffic Safety. The City may use the [CPBST Site Visit Data Presentation \(linked in the appendix\)](#) to identify high-priority locations and time of day to distribute the safety equipment in the workshop focus area. The Project Team recommends the City and Shasta County Health and Human Services Agency collaborate to submit grant proposals to the funding sources listed at the end of this report to implement this program.

Project Team Recommendations, continued

Speed Reduction Safety Messaging Campaign

The Project Team recommends the City of Redding apply for funding to design and implement a road safety campaign that provides safety messaging to reduce unsafe driver speeds. Safety messaging can also include top primary crash factors found to address other common unsafe road user behaviors. Safety messaging should be developed with the community to reflect the community's culture and language needs. Once safety messaging has been developed, signs can be posted at street lights in the community and other prominent locations to maximize the chance that drivers will see them. The City may explore the following funding opportunities listed at the end of this report to implement this program to implement a safety messaging campaign.

The [Transformative Climate Communities](#) program (TCC) is administered by the Strategic Growth Council and the Department of Conservation and funds bicycle and pedestrian facilities projects in California's most disadvantaged communities.

The [Sustainable Transportation Equity Project](#) (STEP) is administered by the Air Resources Board and can support various types of pedestrian and bicycle facilities. Funding is intended to help low income and disadvantaged communities identify residents' transportation needs.

Caltrans manages the [Active Transportation Program](#). The ATP provides funding to communities throughout California to support infrastructure projects, non-infrastructure projects and plans to further active modes of transportation, such as walking and biking.

[The Office of Traffic Safety](#) provides grants for education and outreach. Public entities are eligible to submit applications for funding. Non-profit organizations need a public entity as a grant host.

Appendix

- CPBST Workshop Data Fact Sheet
- CPBST Site Visit Data Presentation

South Market St (SR-273), Redding Pedestrian & Bicycle Data Analyses

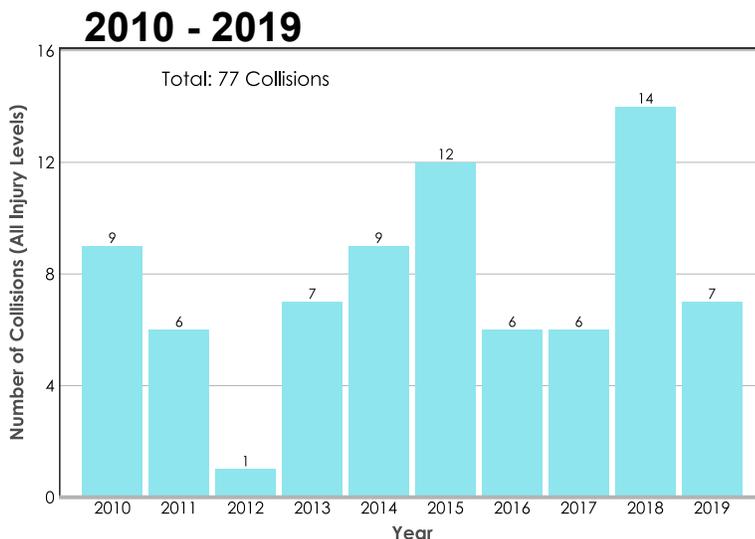
Community Pedestrian and Bicycle Safety Training Workshop (CPBST)
Redding, CA | August 19, 2021

In California, almost one in three people who died in a crash is a pedestrian or bicyclist. There was a 0.6 percent decrease in pedestrian deaths from 2018 to 2019 and a 19.4 percent decrease in cycling deaths (FARS 2018 and 2019). In this workshop, we provide you with local crash data so that we can identify ways to make walking and biking safer in your community.

The local data seen below reflects crash data from the last 5 years (2015-2019) within Redding along Pine Street and South Market Street (SR-273) from the Eureka Way (SR-299) intersection in the north to the Beunaventura Boulevard intersection in the south and within 1/4 mile of this corridor.

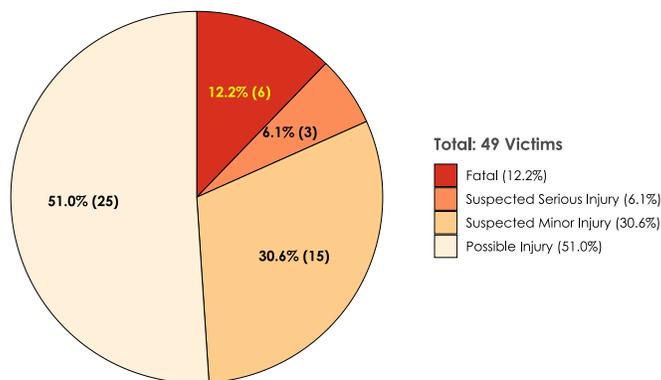
Pedestrian Collisions Over Time

The number of collisions appears to be *slightly increasing*.

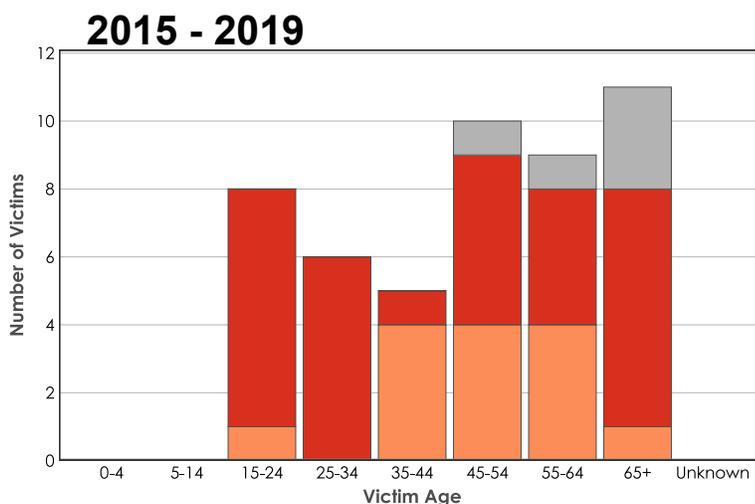


Victim Injury Severity ——— Victim Demographics

2015 - 2019



18.4% of victims suffered fatal or serious injuries



Total: 49 Victims Unknown (10.2%) Male (61.2%) Female (28.6%)

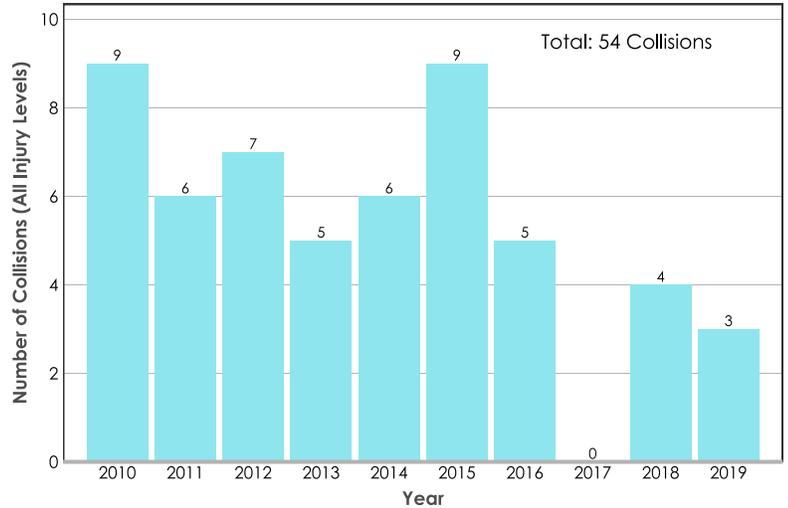
40.8% of victims were 60 or older

Bicycle Collisions Over Time

The number of collisions appears to be **decreasing**.

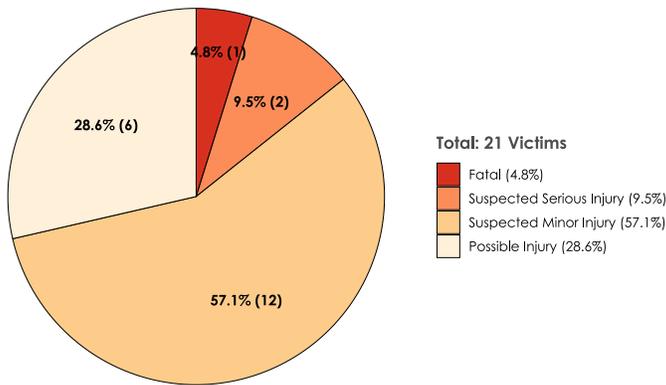
 **54** people injured
 **54** bicycle collisions

2010 - 2019

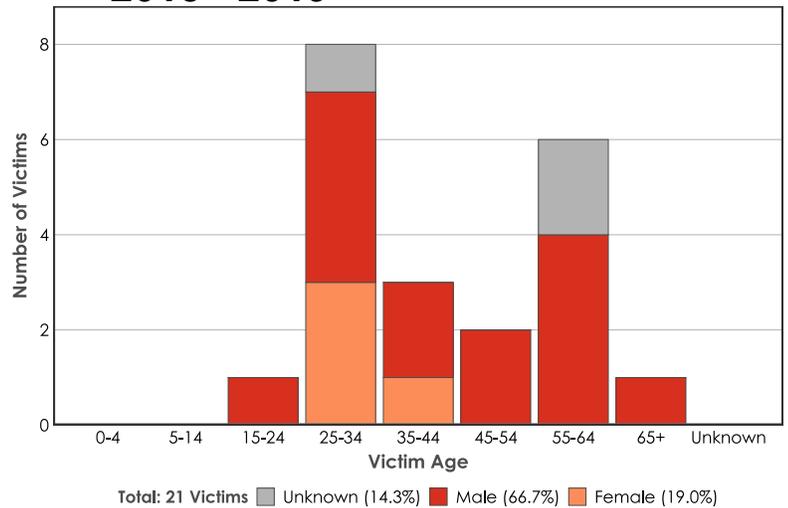


Victim Injury Severity ——— Victim Demographics

2015 - 2019



2015 - 2019



14.3% of victims suffered suspected serious injuries

9.5% of victims were 60 or older

What other data could help inform decision-making?

While these numbers do not tell the whole story, do they resonate with your experience?

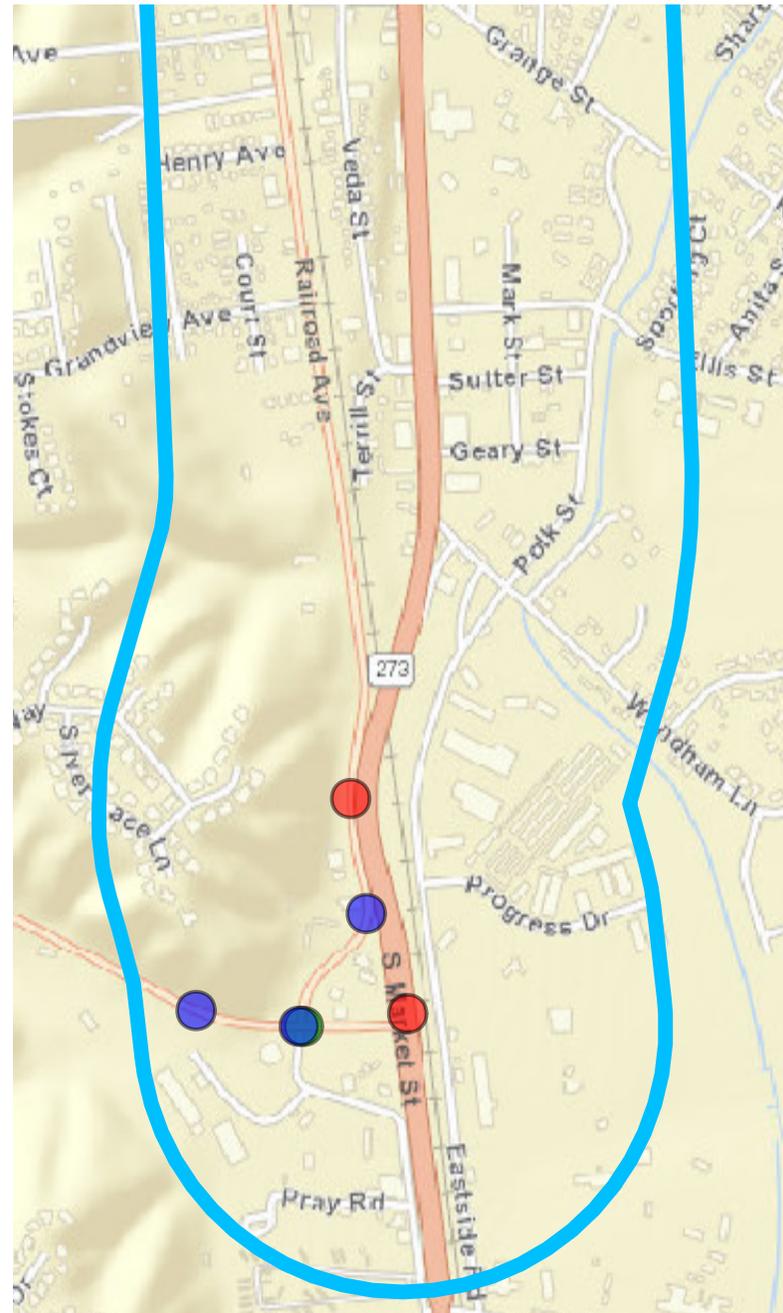
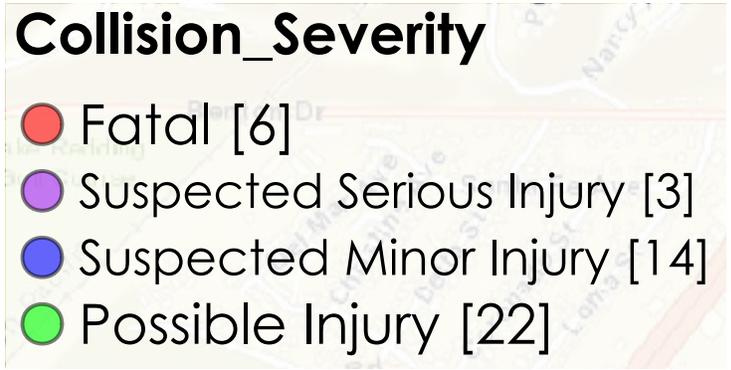
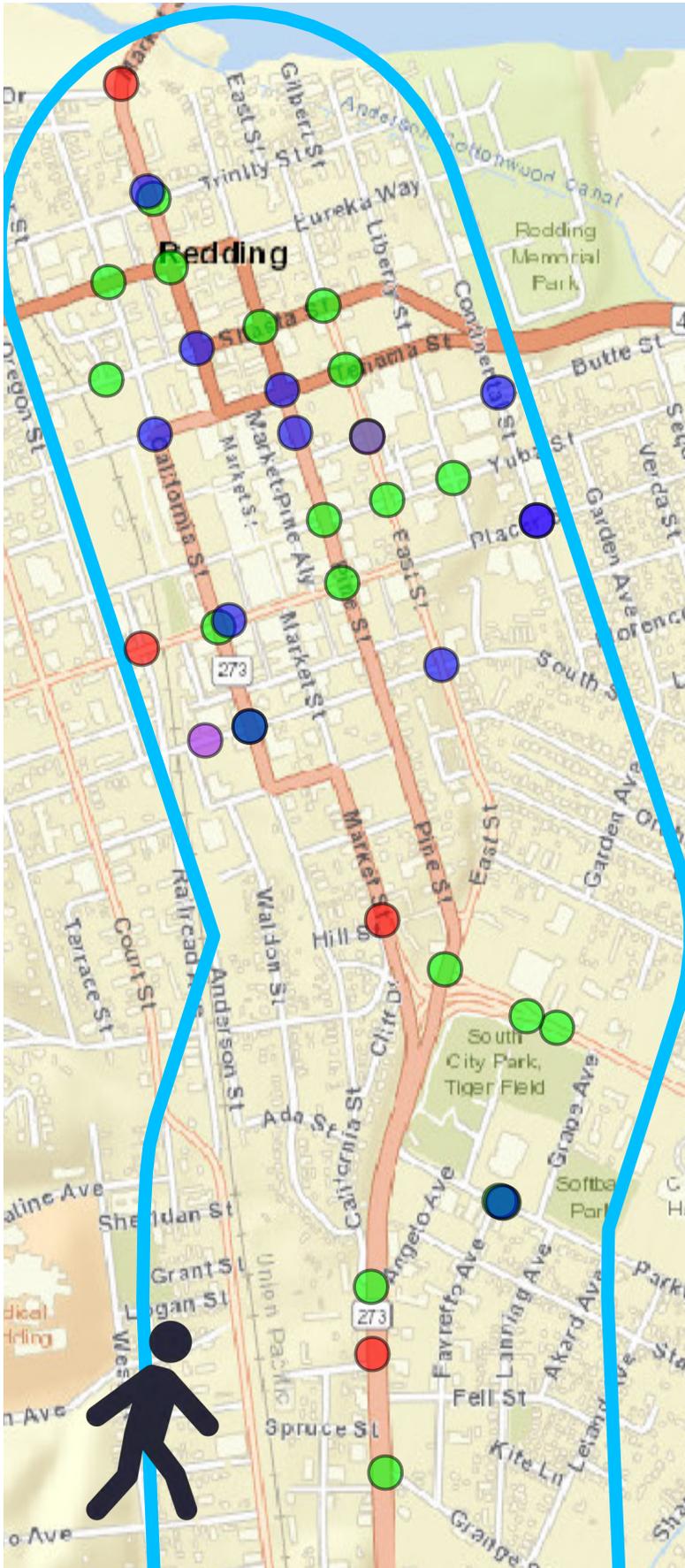
What kinds of improvement do you think could help make walking and biking safer in your community?

To learn more about collision data in your community, visit the free tools available through the Transportation Injury Mapping System (tims.berkeley.edu).

For additional assistance, email us at safetrec@berkeley.edu.

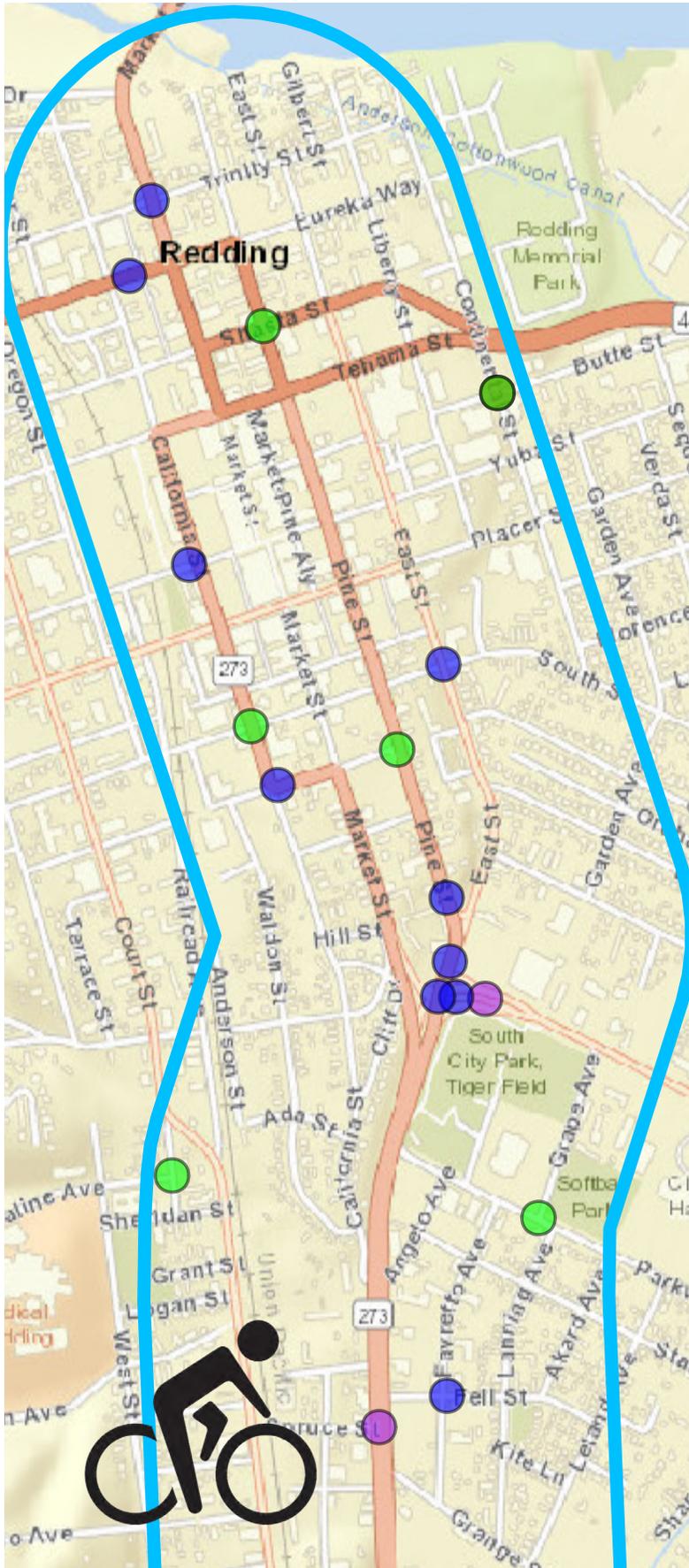


Redding Pine St and South Market St (SR-273) Pedestrian Collision Map (2015 - 2019)



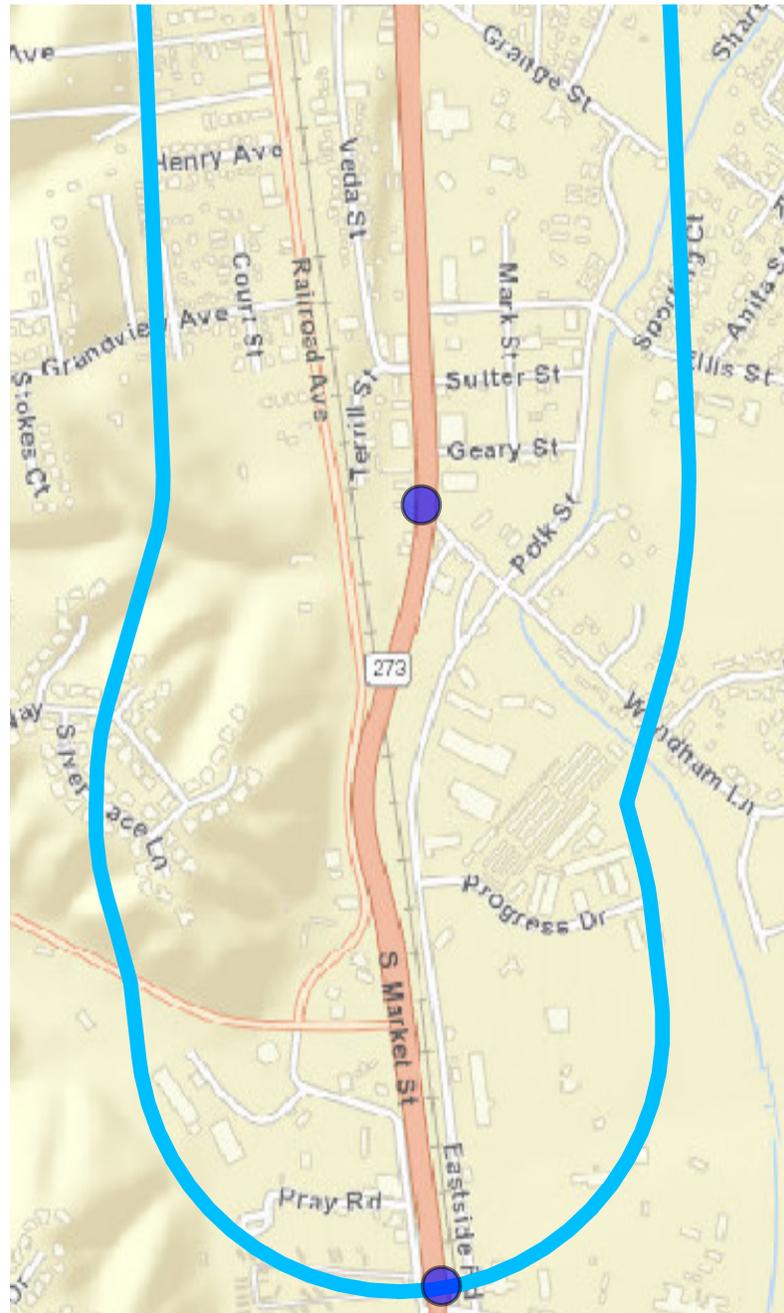
Data source: California Highway Patrol, Statewide Integrated Traffic Records System (SWITRS) 2015-2019, Collision data for 2019 are provisional as of March 2021. Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Traffic Safety Administration.

Redding Pine St and South Market St (SR-273) Bicycle Collision Map (2015 - 2019)



Collision_Severity

- Fatal [1]
- Suspected Serious Injury [2]
- Suspected Minor Injury [12]
- Possible Injury [6]



Redding and Anderson Pedestrian & Bicycle Crash History

CPBST Site Visit | August 5, 2021

Garrett Fortin, fortinga@berkeley.edu

Berkeley SafeTREC
SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

What is a pedestrian crash?



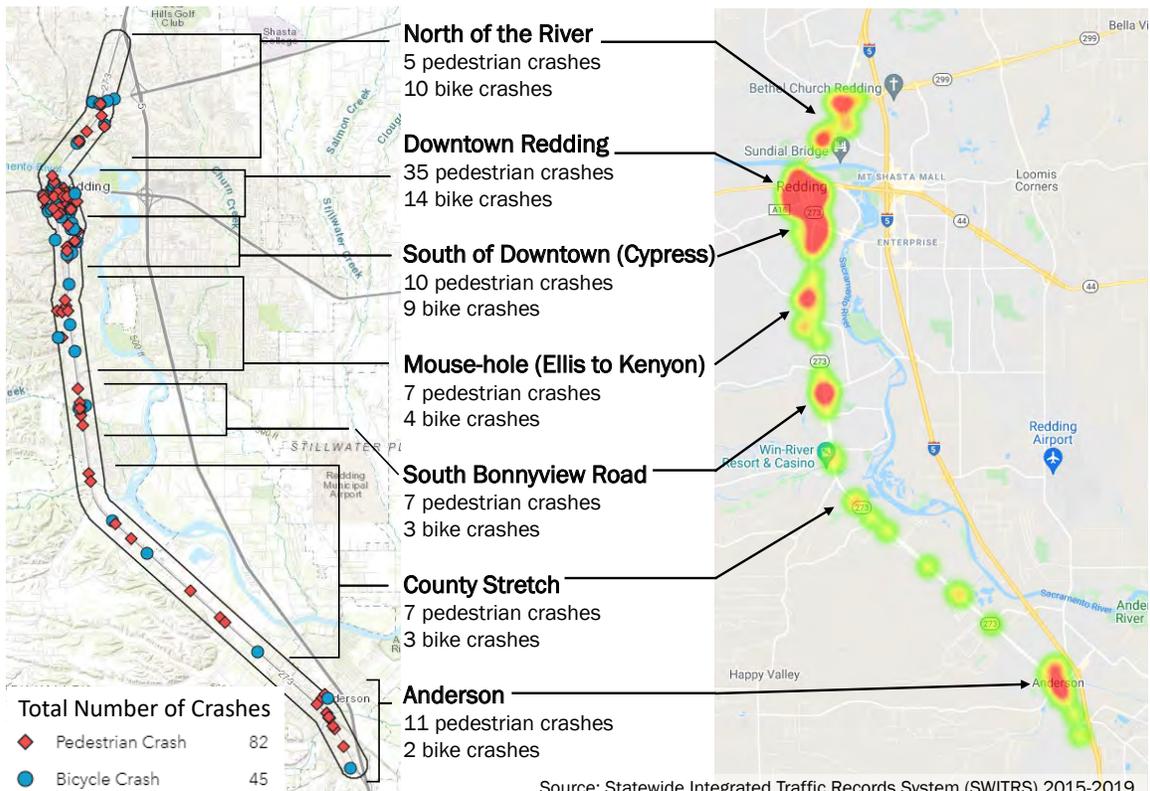
- Pedestrian-motor vehicle crash
 - Includes a person afoot, on a skateboard, stroller, wheelchair, electric assistive mobility device
- One crash may result in multiple pedestrian victims

What is a bicycle crash?



- Bicycle-motor vehicle crash
- Bicycles are considered vehicles and therefore violations committed by a “driver” could have been committed by a motor vehicle driver or bicyclist.

SR 273 Pedestrian and Bike Crashes Overview 2015-2019



SR 273 Pedestrian and Bike Crashes 2015-2019

Anderson

Severity	Pedestrian	Bike
Fatal	1	0
Severe	5	0
Other Visible	2	2
Complaint of Pain	3	0

- Six fatal or severe pedestrian crashes on SR 273 at South St and southwards, with a cluster at the bridge over Anderson Creek
- A line of minor pedestrian injuries along North Street
- No bicycle crashes on SR 273 in this segment

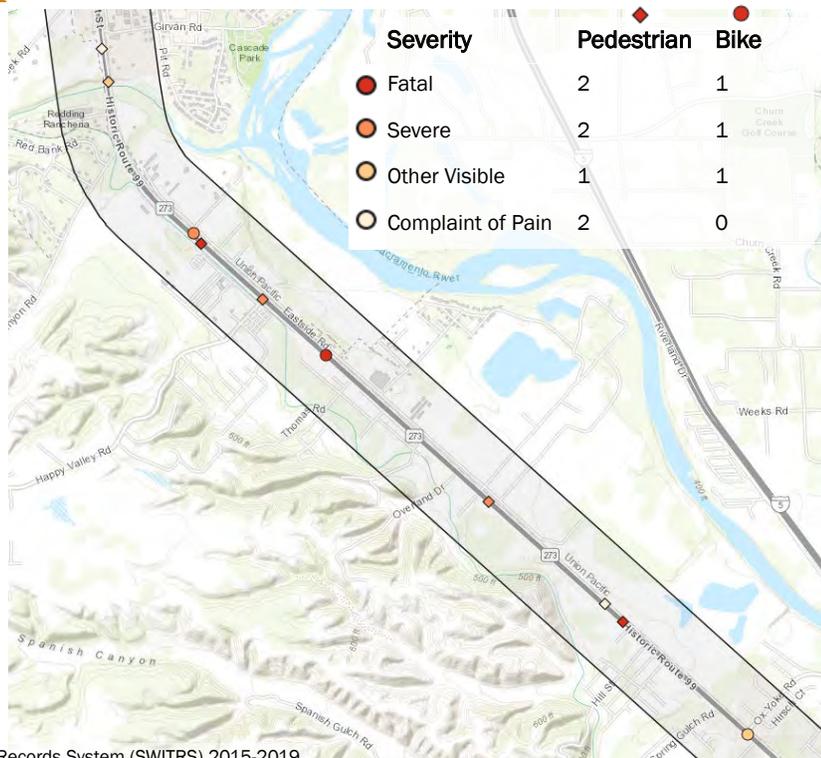


Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

County Stretch

- There are high levels of severity for both pedestrians and bicyclists.
- Many crashes are not at intersections and all of these crashes are on SR 273.



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

South Bonnyville Road

Severity	Pedestrian	Bike
Fatal	3	0
Severe	2	1
Other Visible	1	1
Complaint of Pain	1	1

- These crashes are closely clustered; note how zoomed-in the map is.
- There is a high level of severity for pedestrians.
- All of the pedestrian crashes occurred on SR 273.
- Two of the three bicycle crashes occurred on roads leading to SR 273.



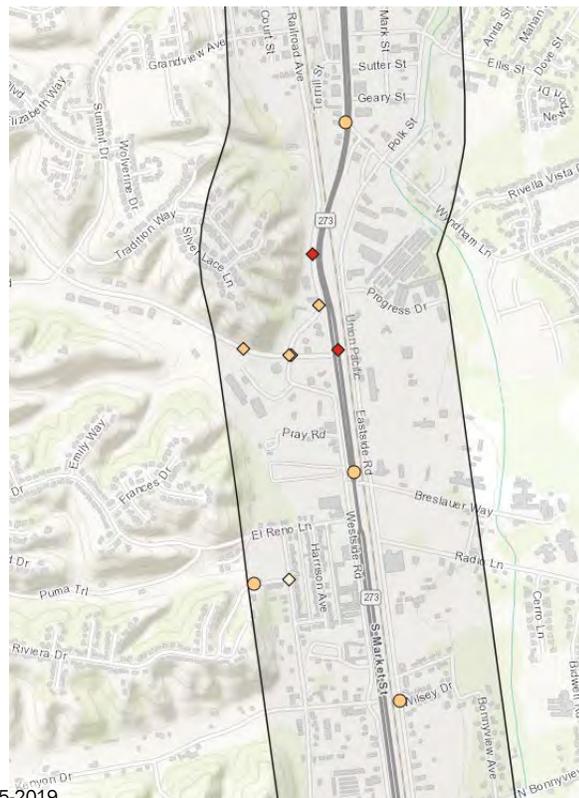
Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

Mouse-hole Area

Severity	Pedestrian	Bike
Fatal	2	0
Severe	0	0
Other Visible	3	4
Complaint of Pain	2	0

- Most crashes in this segment did not occur on SR 273 but may still be related.
- Several pedestrian crashes, including one fatal, occurred on Railroad Avenue, which parallels SR 273 to the west and may serve as a bypass to the Mouse-hole.



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

South of Downtown

Severity	Pedestrian	Bike
Fatal	2	0
Severe	0	2
Other Visible	1	5
Complaint of Pain	7	2

- Many bicyclist crashes around the Cypress Ave intersection, including one severe.
- Two fatal pedestrian crashes along SR 273
- A large number of minor injury crashes with a cluster on Parkview Ave near the library



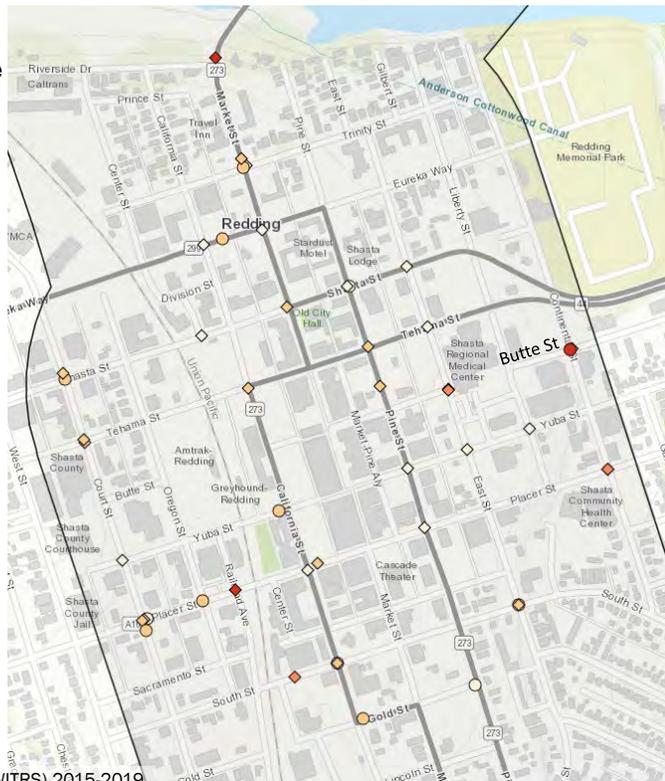
Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

Downtown Redding

Severity	Pedestrian	Bike
Fatal	2	1
Severe	3	0
Other Visible	14	8
Complaint of Pain	16	5

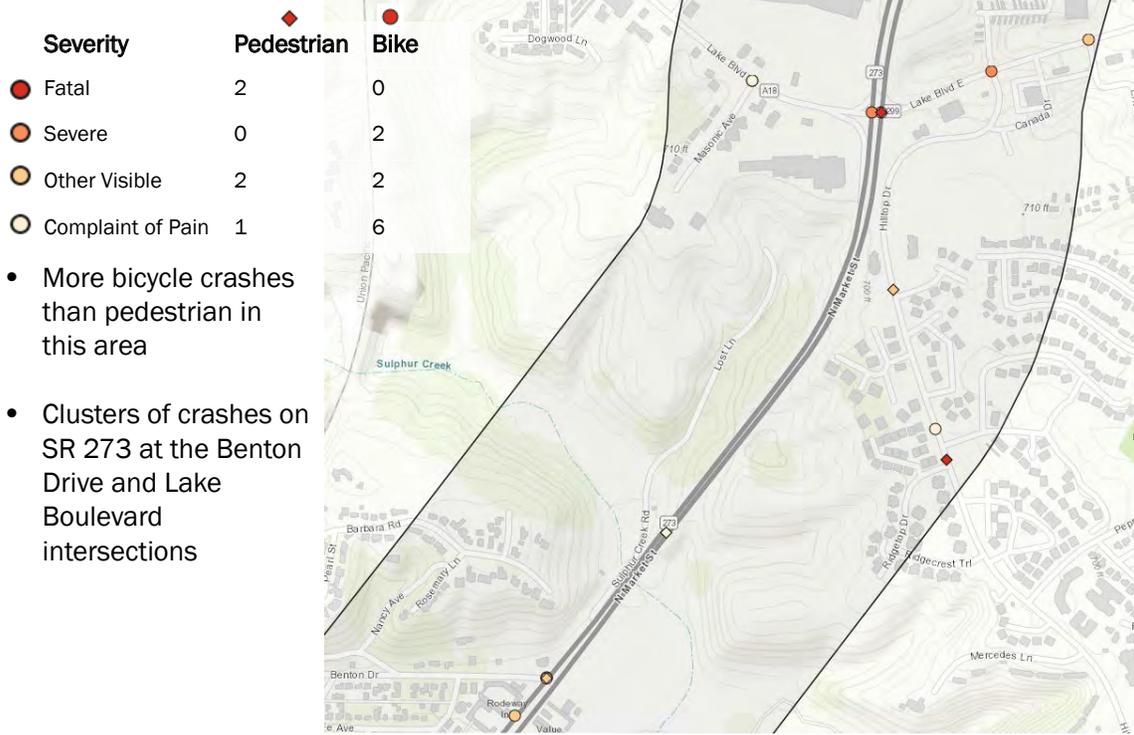
- Many minor crashes in clusters at intersections
- The fatal and severe crashes occurred at the edges of the area or away from SR 273
- Three streets had more than one fatal or severe injury: Butte Street, Placer Street, and Continental Street



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

SR 273 Pedestrian and Bike Crashes 2015-2019

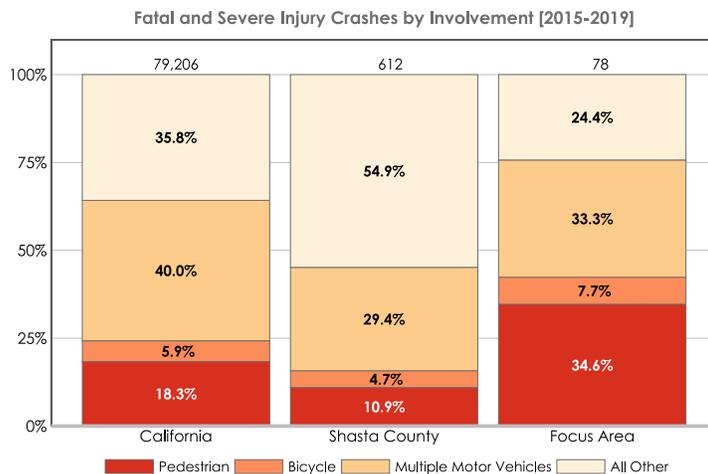
North of the River



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

How does the SR 273 corridor compare to other areas?

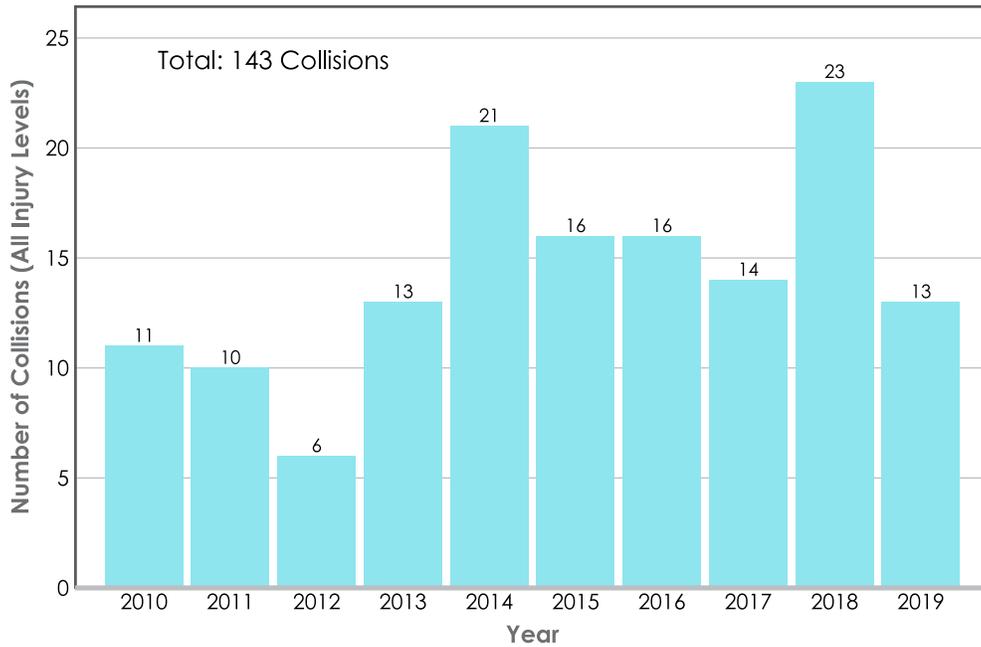
Fatal and Severe Injury Crashes by Involvement 2015-2019



- The focal area along SR 273 has a relatively **higher** number of pedestrian and bicyclist fatal and severe injury crashes than Shasta County and the State.
- Over one-third of fatal and severe crashes along SR 273 involved a pedestrian.

Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

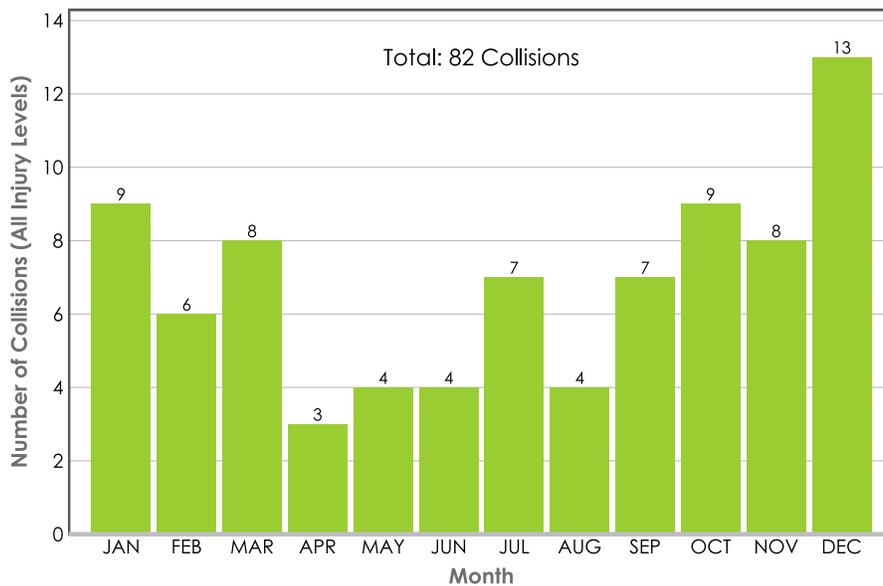
Pedestrian Crashes 2010-2019



Source: Statewide Integrated Traffic Records System (SWITRS) 2010-2019

Pedestrian Crashes 2015-2019

By month



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Pedestrian Crashes 2015-2019

By time of day & day of week

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	0	0	1	0	1	0	0	2
3-6AM	0	1	0	1	1	1	0	4
6-9AM	0	1	1	3	0	0	0	5
9AM-Noon	4	1	5	1	1	0	1	13
Noon-3PM	2	1	1	2	0	0	0	6
3-6PM	1	2	1	2	2	1	1	10
6-9PM	5	2	1	5	4	2	3	22
9PM-Midnight	1	2	5	1	3	5	3	20
Unknown	0	0	0	0	0	0	0	0
TOTAL	13	10	15	15	12	9	8	82

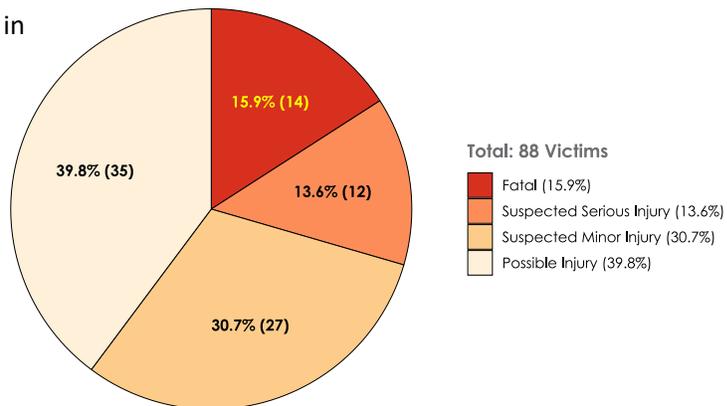
Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Pedestrian Crashes 2015-2019

By injury severity

88 victims were injured in 82 pedestrian crashes

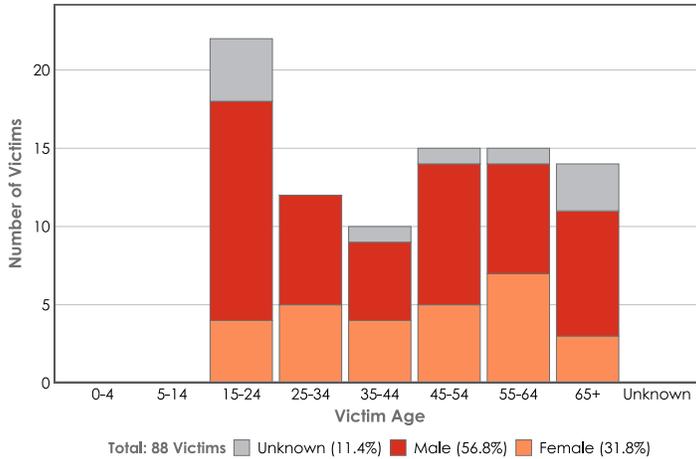
85 injured victims were pedestrians



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Pedestrian Crashes 2015-2019

By victim age & gender



27.3% of victims were older adults (age 60 or older).

- All were pedestrians.
- Seven of the 24 pedestrian victims 60 or older were fatally or severely injured.

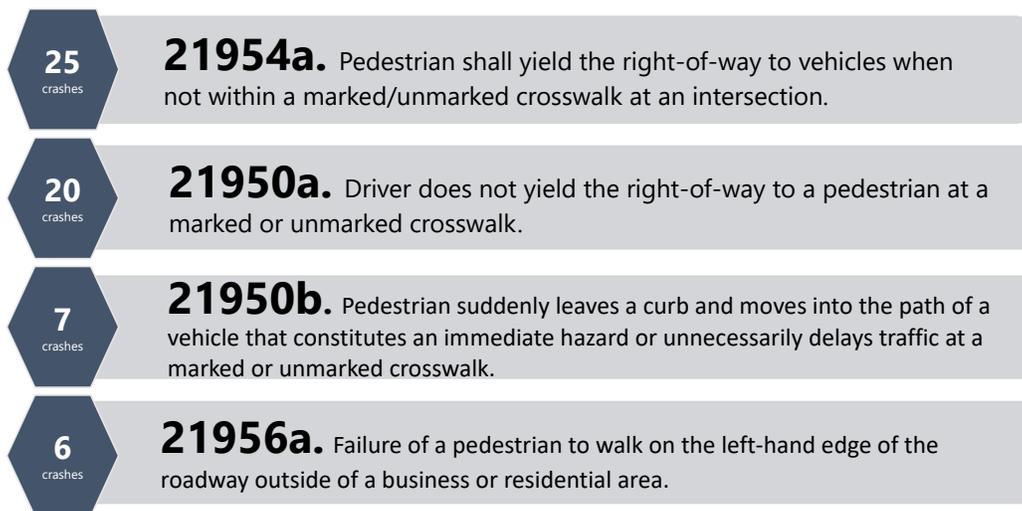
8.0% of victims were school-age children (ages 5 to 18).

- Six of the seven school-age victims were pedestrians.
- Three of these seven victims were fatally or severely injured.

Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

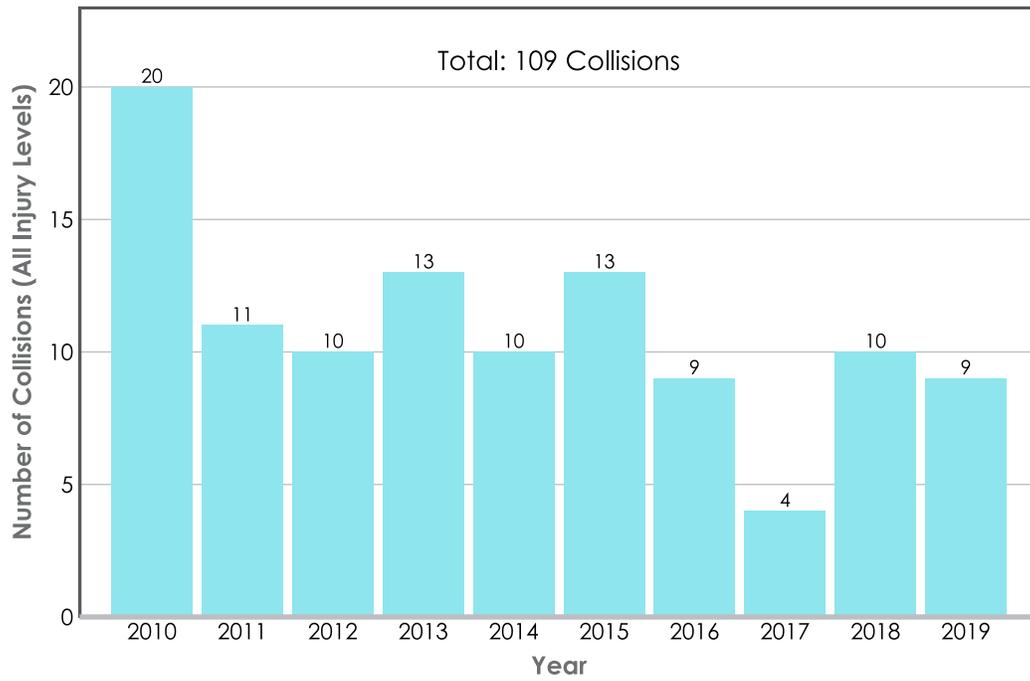
Pedestrian Crashes 2015-2019

Most frequently cited violations in injury crashes



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

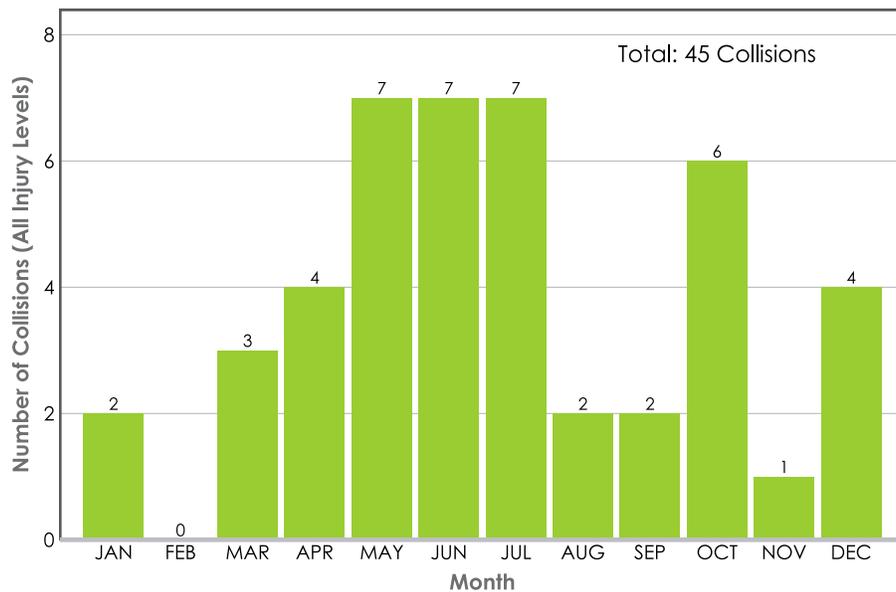
Bicycle Crashes 2010-2019



Source: Statewide Integrated Traffic Records System (SWITRS) 2010-2019

Bicycle Crashes 2015-2019

By month



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Bicycle Crashes 2015-2019

By time of day & Day of Week

	MON	TUE	WED	THU	FRI	SAT	SUN	TOTAL
Midnight-3AM	0	0	0	0	0	0	1	1
3-6AM	0	0	1	0	0	0	0	1
6-9AM	0	0	2	0	1	0	0	3
9AM-Noon	2	0	4	0	1	0	0	7
Noon-3PM	2	1	0	1	0	3	1	8
3-6PM	2	3	1	2	2	1	1	12
6-9PM	2	1	4	1	1	1	1	11
9PM-Midnight	0	1	0	1	0	0	0	2
Unknown	0	0	0	0	0	0	0	0
TOTAL	8	6	12	5	5	5	4	45

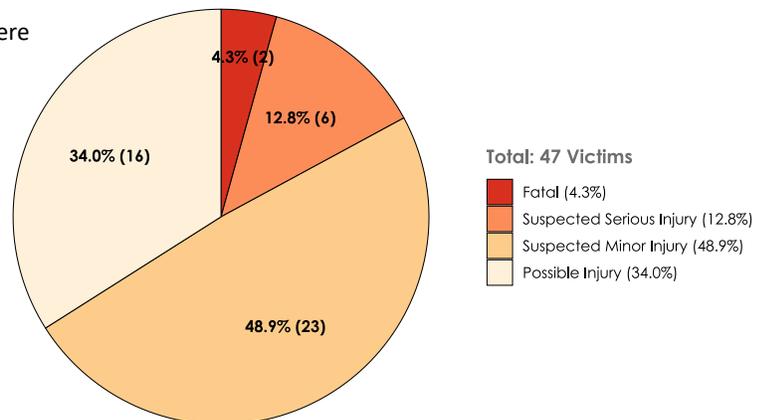
Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Bicycle Crashes 2015-2019

By injury severity

47 victims were injured in 45 bicycle crashes

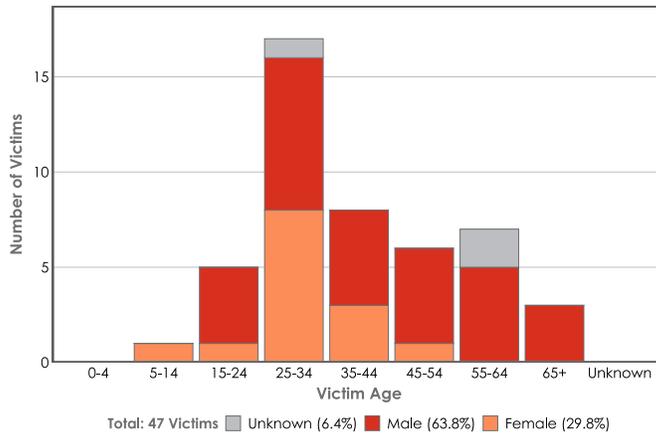
- 45 injured victims were bicyclists.



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Bicycle Crashes 2015-2019

By victim age & gender



10.6% of victims were adults older than 60.

- All five victims older than 60 were bicyclists.
- Three of these five victims were fatally or severely injured.

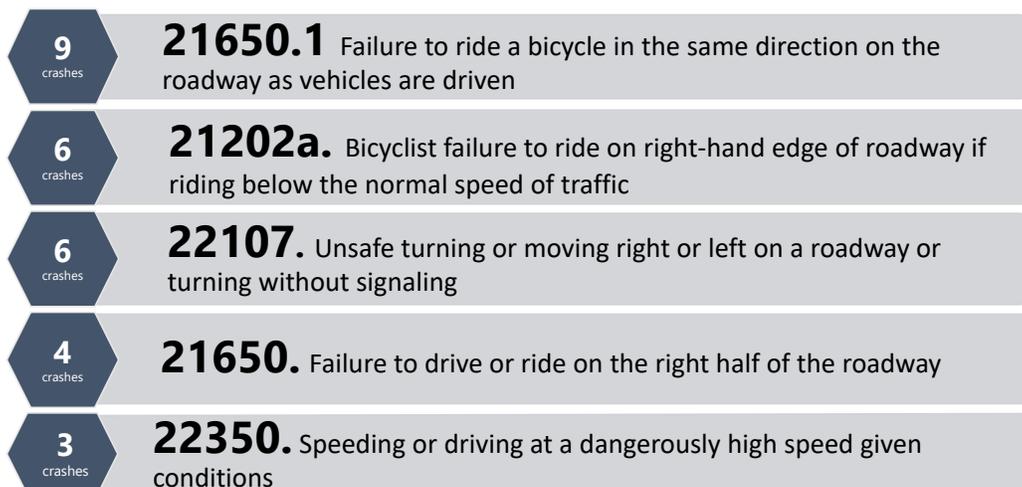
Over a third (36.1%) of victims were 25 to 34 years old.

- All but one of these 17 victims was a bicyclist.
- Only one of these 17 victims suffered a fatal or severe injury.

Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

Bicycle Crashes 2015-2019

Most frequently cited violations in injury crashes



Source: Statewide Integrated Traffic Records System (SWITRS) 2015-2019

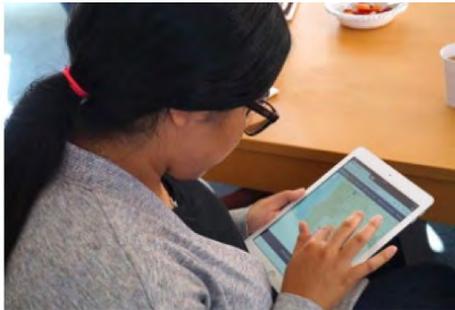
Additional Resources

Street Story

Street Story is a tool for collecting community feedback on transportation safety issues.

Share stories on Street Story of where you've been in a crash or near miss, or where you feel safe or unsafe traveling.

<https://streetstory.berkeley.edu>



Transportation Injury Mapping System (TIMS)

TIMS is a web-based tool that allows users to analyze and map data from California's Statewide Integrated Traffic Records System (SWITRS).

To further explore collision data, register for a free account to access the tools and resources on TIMS.

<https://tims.berkeley.edu>

Thank you for your interest in the Community Pedestrian and Bicycle Safety Program. For more information, please visit:

<https://safetrec.berkeley.edu/programs/cpbst> or <https://www.calwalks.org/cpbst>

safetrec@berkeley.edu or cpbst@calwalks.org

