

Summer 2023

North Arvin Summary and Recommendations Report

Community Pedestrian and Bicycle Safety Training



Berkeley SafeTREC

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Thank you to the Planning Committee for inviting us into their community and partnering with us to make Arvin a safer place to walk and bike.

Our work took place on the ethnohistoric territory of the Chumash, Kitanemuk, and Yokuts peoples. We recognize that every community member in Arvin has, and continues to benefit from, the use of Chumash, Kitanemuk, and Yokuts land.

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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 Approach 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. California Walks and SafeTREC (Project Team) worked with the Planning Committee to develop workshop goals and tailor the curriculum to address the community's safety needs and priorities.

The City of Arvin requested a CPBST to:

- Conduct a walking assessment of students crossing the Bear Mountain Boulevard (State Route 223)/Walnut Drive intersection.
- Conduct a walking assessment of Bear Mountain Boulevard to better understand the conditions for all road users and identify areas of concern.
- Assess road conditions for students walking to and from school and identify areas of improvement to support multi-modal transportation among students.
- Strengthen the collaboration between residents, city officials, and state officials in creating safer streets and roads in the City of Arvin.

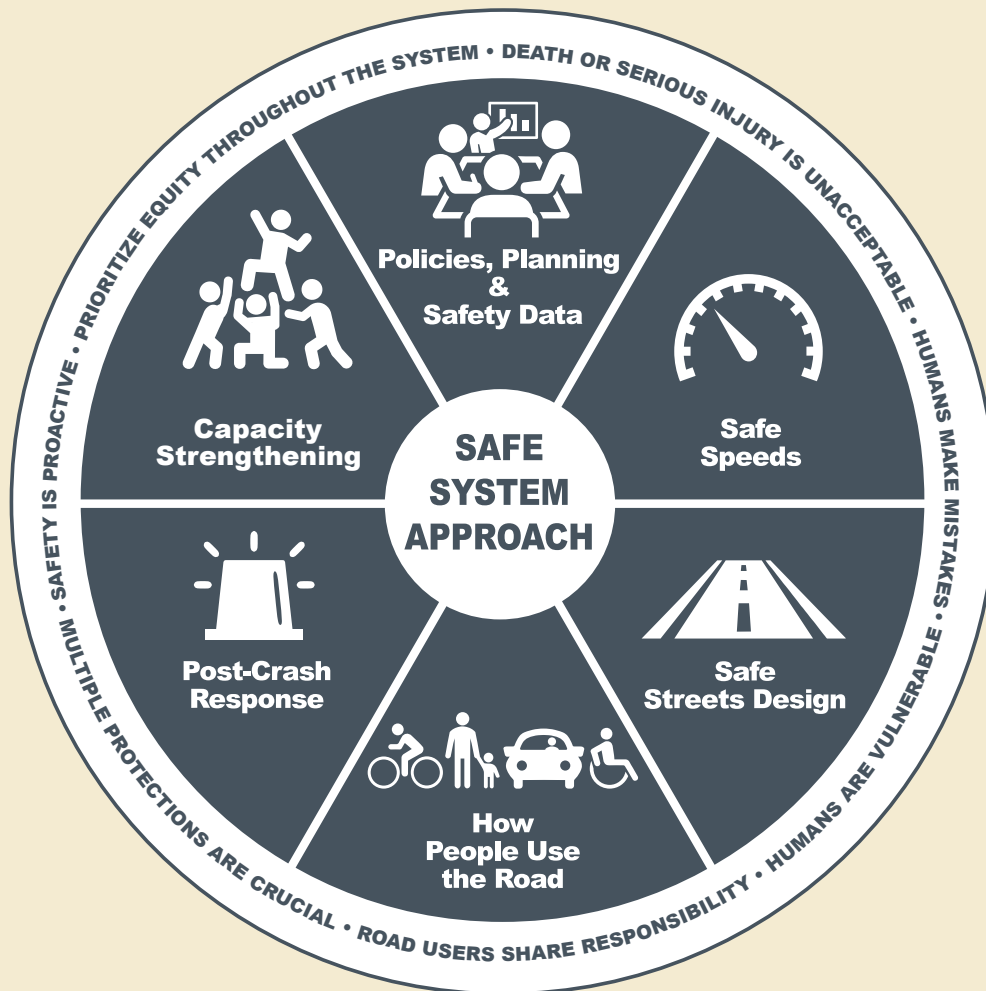
The Arvin CPBST workshop convened the larger local community on June 13, 2023, at the GROW Academy in Arvin. Thirty community members participated in the workshop, including the City of Arvin, Arvin Unified High School District, GROW Academy, the Dolores Huerta Foundation, Comunidades Aliadas Tomando Acción, and Caltrans District 6 representatives.

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

Safe System Approach

The Project Team adapted the Federal Highway Administration's Safe System framework to make them more impactful for grassroots community engagement. The Safe System approach aims to eliminate all fatal and serious injuries. We emphasize equity as a central component and acknowledge the critical need to strengthen partnerships between transportation professionals and the communities they serve in order to create safe streets for everyone.

For more information about the Safe System Approach, please review our [policy brief](#). To learn more about Safe System strategies, please review our [toolkit](#).



Background

The City of Arvin is located in Kern County, southeast of Bakersfield. Per the [California Office of Traffic Safety's Crash Rankings](#), in 2020, Arvin ranked 8th out of 103 cities of similar population size for people killed or injured in a traffic crash (with a ranking of "one" indicating the worst crash rate). Most notably, Arvin was ranked 1st out of 103 cities for number of killed or injured victims of Hit and Run crashes and 9th for killed or injured victims of Speed Related crashes.

Per 2022 Esri Community Analyst estimates¹ of the project area, which covered Arvin along Bear Mountain Boulevard and northwards, about a quarter of households (27 percent) were below the poverty level, and 20 percent of households did not own a personal vehicle. A similar proportion of households, 19 percent, had one or more people with a disability. About 30 percent of the population were under 18, and about 10 percent were 65 or older.

The largest commute pattern outside of solo drives to work was carpooling, estimated at 19 percent. An estimated one percent of commuters walked to work, and less than one percent took public transportation or biked to work. The full demographic report from 2022 Esri Community Analyst data can be found in the appendix.

¹ U.S. Census Bureau 2018-2022 American Community Survey (ACS) 5-year Estimates, 2022 ESRI estimates.

Local Policies and Plans

AB 617 established the [Community Emissions Reduction Program \(CERP\)](#) for four San Joaquin Valley communities, including the Arvin/Lamont community, to reduce air pollution exposure. Each focus area convenes a Community Steering Committee comprising residents, community-based organizations, and local agencies to support AB 617 activities. In 2023, the CERP allocated \$12 million dollars to road improvements, sidewalk installations, and bike paths throughout the [Arvin/Lamont communities](#).

The [Arvin Complete Streets and Safe Routes to School Plan](#) conducted in 2020 provides recommendations for road design and safety. It takes an integrative approach by considering different modes of travel, accommodating the diverse needs and abilities of all road users, and promoting walking and biking to school for students. Arvin's Complete Streets and Safe Routes to School Plan identifies Bear Mountain Boulevard as a high area of concern and suggests various road improvements, such as a signal with marked crosswalks at Walnut Drive, high visibility mid-block crosswalks along Bear Mountain Boulevard, and increasing pedestrian scale lighting.

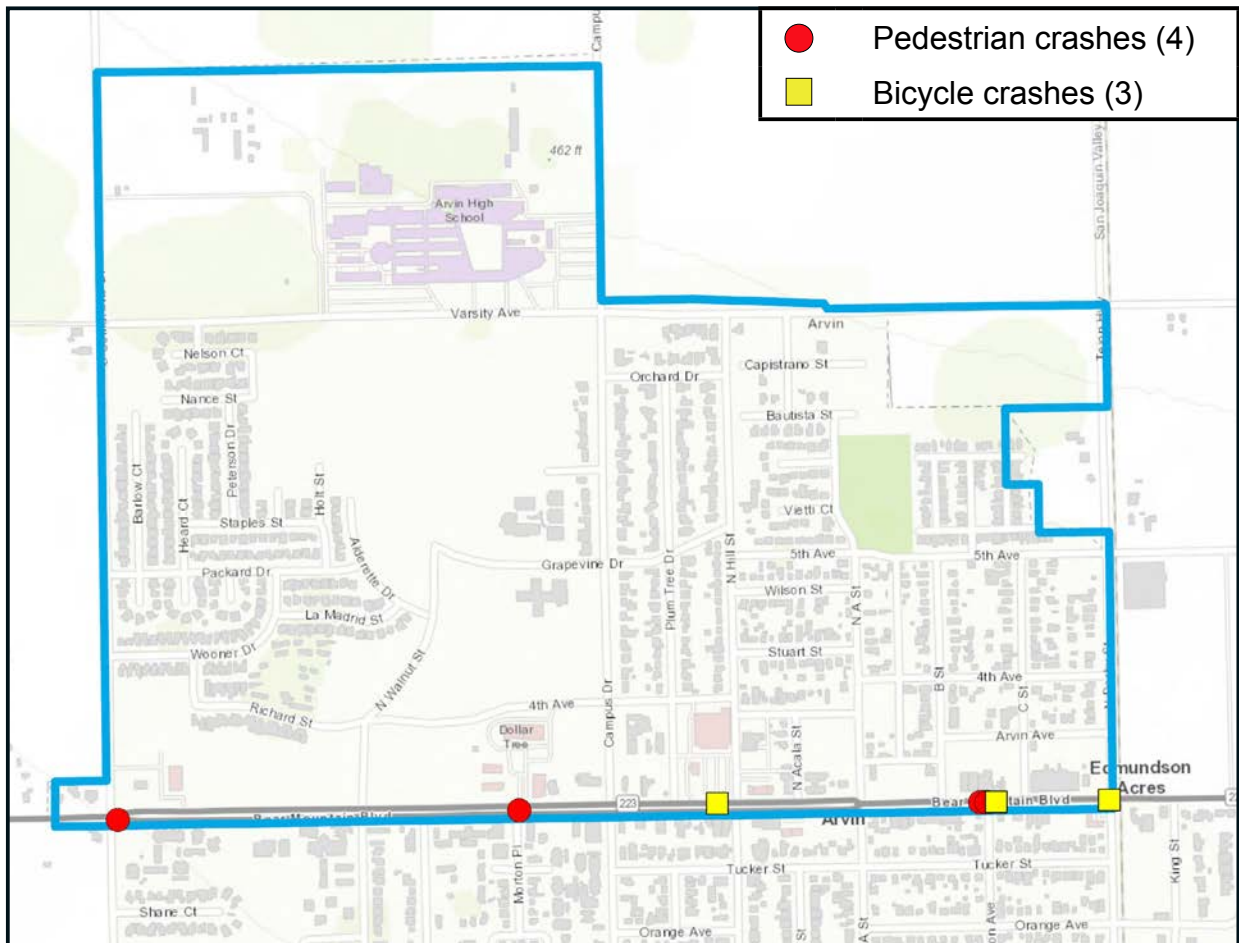
The [City of Arvin's General Plan](#), adopted in 2012, encourages walking and biking through various infrastructure projects and traffic calming measures such as pedestrian refuge islands, curb extensions, and mini-roundabouts. The general plan also encourages "pedestrian-oriented design" by planning future development, such as a Kern Community College campus, retail and affordable housing units, within the City's existing built-up area to ensure pedestrian and bicycle accessibility.

Pedestrian and Bicycle Crash History

The following data is based on police-reported pedestrian and bicycle crashes resulting in injuries to pedestrians² and bicyclists on the north side of Arvin. Data reported in this section are from the Statewide Integrated Traffic Records Systems (SWITRS) for the years 2017 to 2021. Crash data for 2021 is provisional as of March 2023. A complete discussion of the pedestrian and bicycle crash data can be found in the appendix.

Arvin Community Workshop Boundaries

The boundaries for this workshop ran along Bear Mountain Boulevard to the south, and the Arvin city limits to the west, north, and east. The Planning Committee focused on students crossing Bear Mountain Boulevard going to and from the schools at the northern end of town.



The map above shows all of the crashes within the workshop boundaries in which a person was injured and involved a pedestrian or bicyclist from 2017 to 2021.

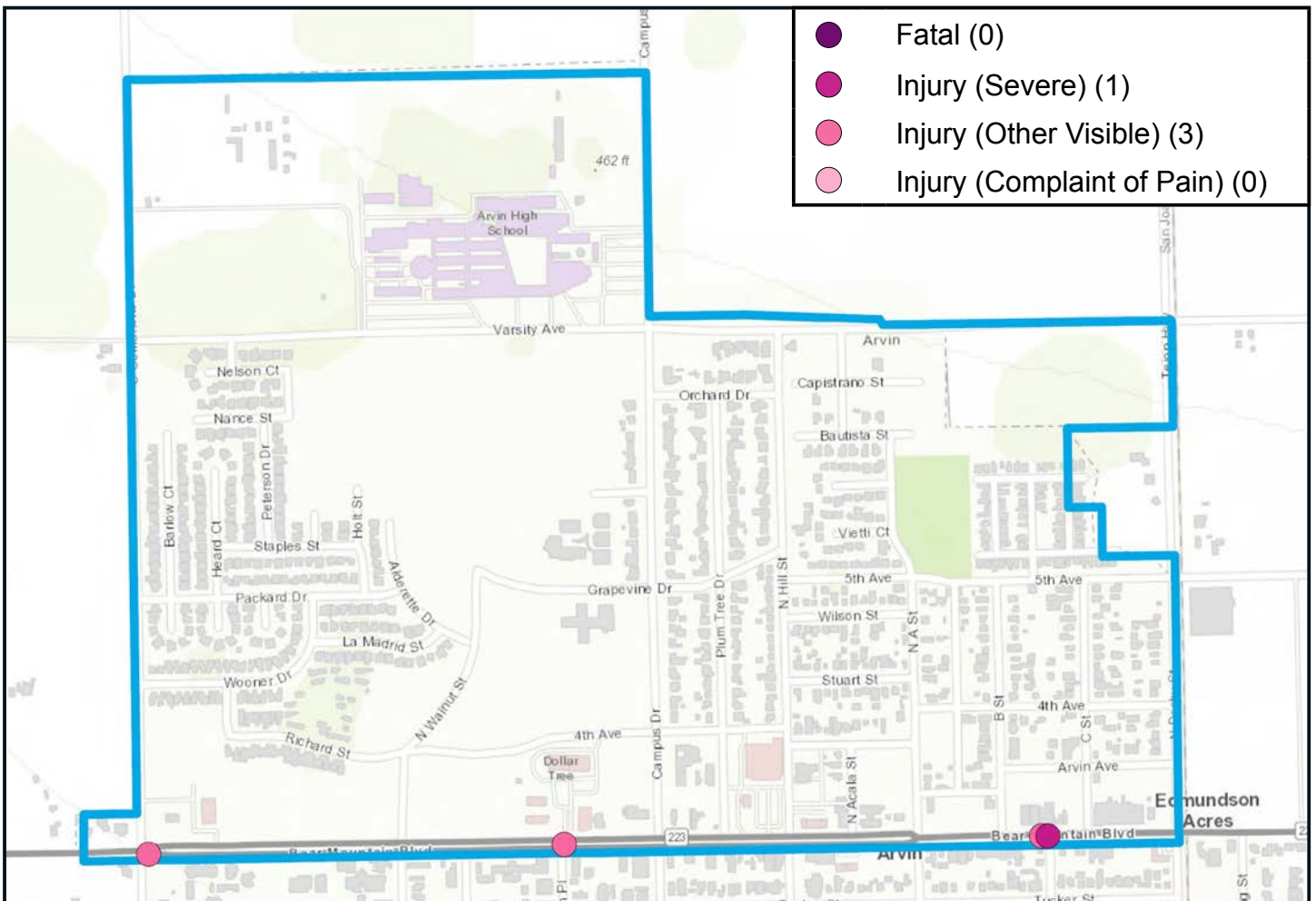
Data Source SWITRS 2017-2021. 2021 data is provisional as of March 2023.

² 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.

Pedestrian Crashes

Over the 10-year period between 2012 and 2021, pedestrian crashes seem to have declined after 2016, with one or zero pedestrian crashes occurring in each of the past five years. In the most recent five years of data available, 2017 to 2021, there were four pedestrian crashes, including one serious injury crash. All four pedestrian crashes occurred on Bear Mountain Boulevard, with a cluster of two crashes, including the serious injury crash, at the Stockton Avenue intersection. Two of the four pedestrian crashes occurred between 6 pm and 9 pm, while all four crashes occurred on weekdays. The primary crash factor for three of these four pedestrian crashes was a driver not yielding the right-of-way to a pedestrian at a marked or unmarked crosswalk.

Among the four victims of these four pedestrian crashes, there were zero fatalities and one serious injury. The youngest victim was a woman aged 17 to 20, and the oldest victim was a woman aged 65 or older. The other two victims were working-age men ages 45 to 64.

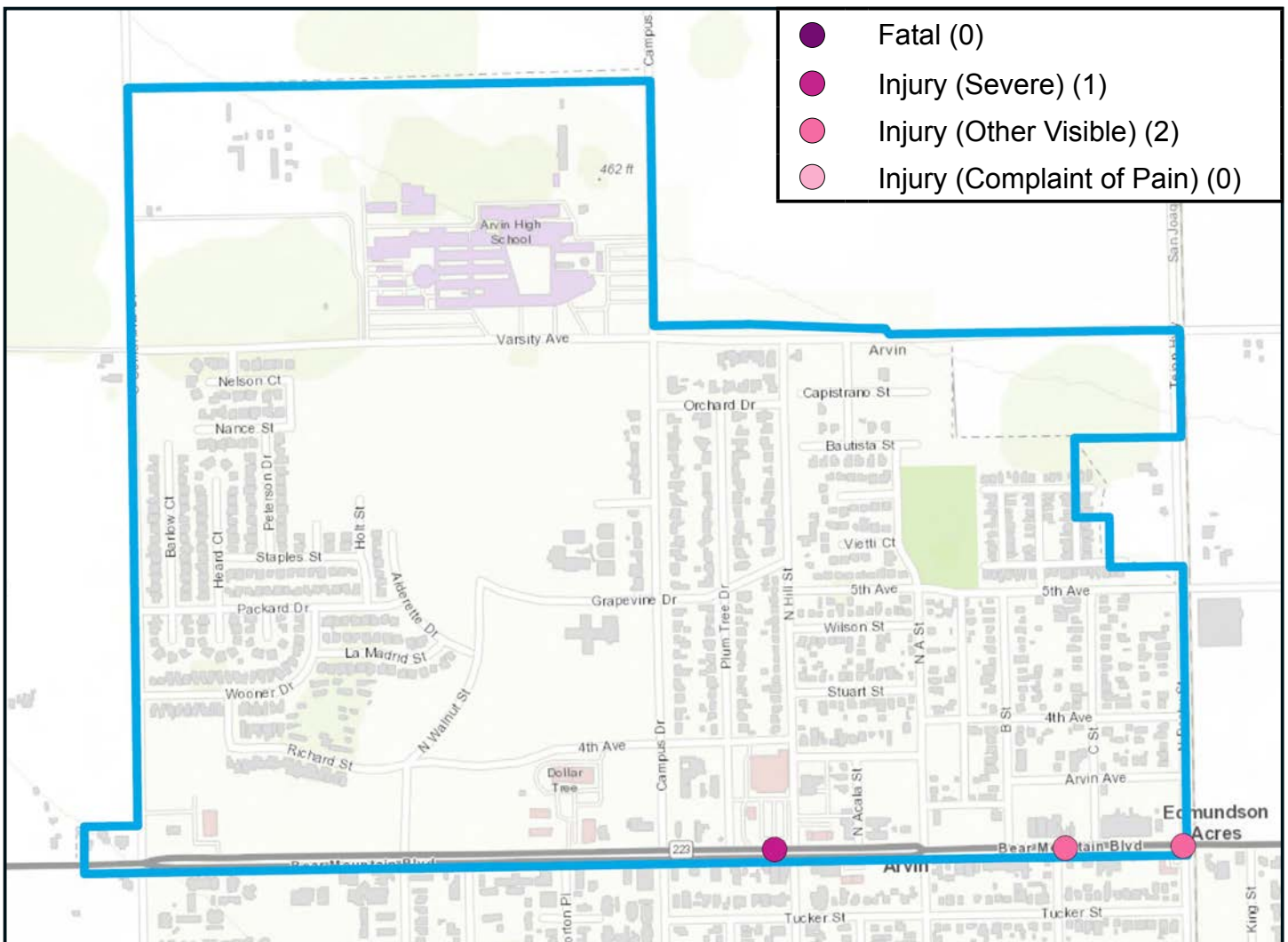


Pedestrian crash severity. Data Source SWITRS 2017-2021. 2021 data is provisional as of March 2023.

Bicycle Crashes

Over the 10-year period between 2012 and 2021, bicycle crashes varied between zero and two each year without a clear trend. In the most recent five years of data available, from 2017 to 2021, there were three bicycle crashes in the focus area. All three bicycle crashes occurred on Bear Mountain Boulevard, including one serious injury crash just west of the Hill Street intersection. All three crashes occurred during the day, from noon to 6 pm, on a weekday. There were three different primary crash factors for the three crashes, including failure to drive in a single lane, failure to stop at a stop sign, and opening the door of a vehicle such that it interferes with traffic.

Among the three victims of these three bicyclist crashes, there was one serious injury. The other two victims suffered minor injuries. There was one school-aged victim, between 13 and 16 years old, while the other two victims were between the ages of 35 and 44. All three victims were male.



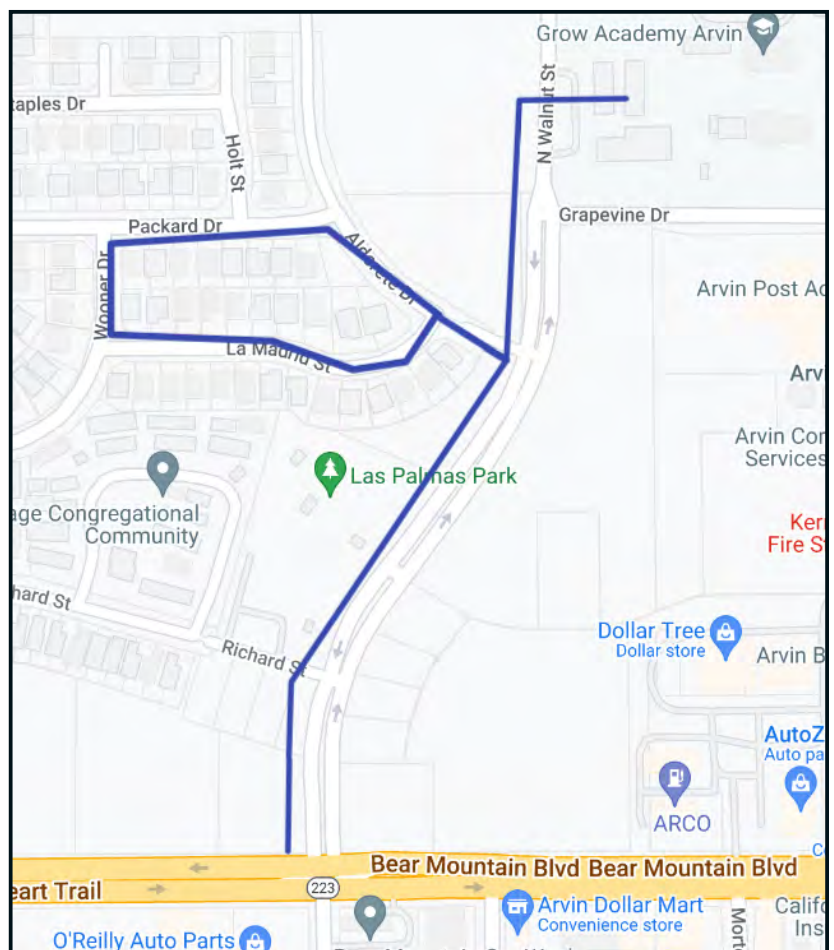
Bicycle crash severity. Data Source SWITRS 2017-2021. 2021 data is provisional as of March 2023.

Walking and Biking Assessments

During the workshop, the Project Team and participants participated in walking and biking safety assessments along two routes frequently traveled by community residents. Participants were asked to identify community assets, assess infrastructure conditions, and share how road users engage with the built environment. The following is a summary of the walking and biking assessment.

Route 1: North Walnut Street/Bear Mountain Boulevard/Alderete Drive

This route focused on North Walnut Street, from Bear Mountain Boulevard to Alderete Drive. Students, parents, and residents walk, bike, take transit, and travel along Bear Mountain Boulevard to access Arvin High School and GROW Academy, which serves transitional kindergarten through eighth-grade students. While a popular travel path, residents have significant safety concerns about students and community members crossing Bear Mountain Boulevard at Walnut Street. This route was prioritized to allow community members the opportunity to identify areas to strengthen pedestrian and bicycle safety for students and assess safety concerns for the broader Arvin community.



Walking Assessment, Route One

Strengths:

1. North Walnut Street has Class II (striped or buffered) bicycle lanes, mid-block crosswalks, pedestrian refuge islands, accessible curb ramps, pedestrian-scale lighting, and trees along the sidewalks. Upon entering North Walnut Street from Bear Mountain Boulevard, there is school zone signage and road markings alerting drivers that they are entering a school zone where pedestrians and bicyclists are present. These pedestrian and bicycle infrastructure amenities make North Walnut Street feel safer for people to walk or bike.



ABOVE: North Walnut Street has a striped and buffered bike lane and pedestrian refuge island.



ABOVE: The City of Arvin proposes extending 4th Street to connect to the school zone.

2. North Walnut Street is currently under development and has the opportunity to strengthen its pedestrian and bicycle infrastructure even further.
- a) The City of Arvin has already identified ways to improve pedestrian safety by extending 4th Street west to North Walnut Street and installing a multi-use pathway. This will provide a safer alternative for those walking and biking to Arvin High School, GROW Academy, and the larger community of Arvin. The City of Arvin is also proposing to improve the local urban greening landscape throughout this project by adding 200 trees along this future route.
 - b) Arvin High School and GROW Academy are both located on the northern edge of Arvin. This creates an opportunity to expand pedestrian and bicycle networks throughout Arvin, further their reach into the school zone, and support infill development by creating needed pedestrian and bicycle amenities near the school zone.
 - c) The Jewitt Square lot, located along the North Walnut Street/Nectarine intersection south of Arvin High School, is currently designated as the future site of a Kern Community College campus. The City of Arvin has identified expanding connector streets, like Alderete Drive, with pedestrian and bicycle amenities like wider sidewalks, stop signs, and bike lanes to accommodate the increase in pedestrian and bicycle volume presence.



ABOVE: A Kern Community College Campus is planned for this lot directly across the street from GROW Academy and Arvin High School.

Concerns:

1. The Walnut Drive/Bear Mountain Boulevard intersection has no signalized or marked crosswalk, which forces students, parents with children, seniors, and bicyclists to cross a highway in order to access the local school zone. This highway divides North Walnut Drive and North Walnut Street, and many students who attend Arvin High School and GROW Academy must cross this high-speed, multi-lane highway daily. Bear Mountain Boulevard is also trafficked by cargo trucks and vehicles traveling through Arvin daily. This intersection also lacks street signage identifying North Walnut Street and school zone signage on Bear Mountain Boulevard.
 - a) Residents feel that they cannot yield to students crossing here because of the risk of being rear-ended by other drivers.
 - b) Participants noted that the left turn lane leading from eastbound Bear Mountain Boulevard to North Walnut Street is not aligned with the northbound lanes on North Walnut Street, leading to confusion for drivers and creating a risk of wrong-way traffic and head-on crashes.
2. The north leg of the North Walnut Street/Bear Mountain Boulevard intersection has standard crosswalk markings and older style curb ramps that direct people into the intersection and do not meet current accessibility best practices. The intersection does not have traffic signals or signs. Drivers traveling westbound on Bear Mountain Boulevard at high speeds turning onto North Walnut Street might not yield to pedestrians crossing or stop without encroaching into the crosswalk.



ABOVE: The Bear Mountain Boulevard/North Walnut Street intersection is unmarked and unsignalized, which makes it difficult for Arvin community members to cross.



ABOVE: Although this is a frequently trafficked intersection, this crosswalk lacks important infrastructure features that make pedestrians and bicyclists more visible to drivers.



ABOVE: Palm trees along North Walnut Street and current construction significantly reduce the width of sidewalks, make walking along the sidewalks difficult and obstructive to pedestrians and especially to people with limited mobility.

3. Although palm trees offer placemaking and aesthetic benefits, the trees along North Walnut Street also take up a large portion of the sidewalk. Consequently, this makes sidewalks very narrow and can limit the comfort of large groups walking along the sidewalk and the ability to maneuver strollers or mobility devices safely.
4. The eastbound crosswalk at the North Walnut Street/Grapevine Drive intersection connects students walking or biking to GROW Academy. Crossing guards are only assigned at this intersection in the mornings, so students are exposed to potentially dangerous driving behavior during the dismissal period.
 - a) Participants noted that North Walnut Street, north of Grapevine Drive, is currently very wide, lacks lane markings and is missing sidewalks on the south side. While the situation may be temporary due to the current construction project, the lack of markings may further contribute to confusion during school arrival and dismissal.



ABOVE: A yellow continental crosswalk on Grapevine Drive used frequently by GROW Academy and Arvin High School students.



ABOVE: Grapevine Drive is missing sidewalks and lane markings.

5. North Walnut Street is scheduled to receive multiple new development projects in the coming years, with the first development starting as soon as June 2024. The large plot south of GROW Academy will be developed to include retail and affordable housing. The vacant Jewitt Square lot, west of Grow Academy, will be developed into a Kern Community College campus. These developments may impact and increase the vehicle, pedestrian, and bicycle traffic on North Walnut Street.

6. Arvin's land use includes oil drilling near the schools. There are privately owned oil wells located adjacent to the North Walnut Street/Nectarine Court intersection directly across from GROW Academy, Arvin High School, and the future Kern Community College campus. This can negatively impact air and water quality. As of June 2023, California Geologic Energy Management ([CALGEM](#)) found twenty-seven oil drilling sites to be leaking uncontrolled methane in the Arvin and Lamont communities, including three wells that are only 1,000 feet away from Arvin High School. La Palmas Park is located less than 500 feet away south of the private oil wells in the school zone. Residents and students who live nearby and walk, bike or use the park for recreation are also exposed to dangerous and toxic air, making their walking or biking activities hazardous to their overall health.



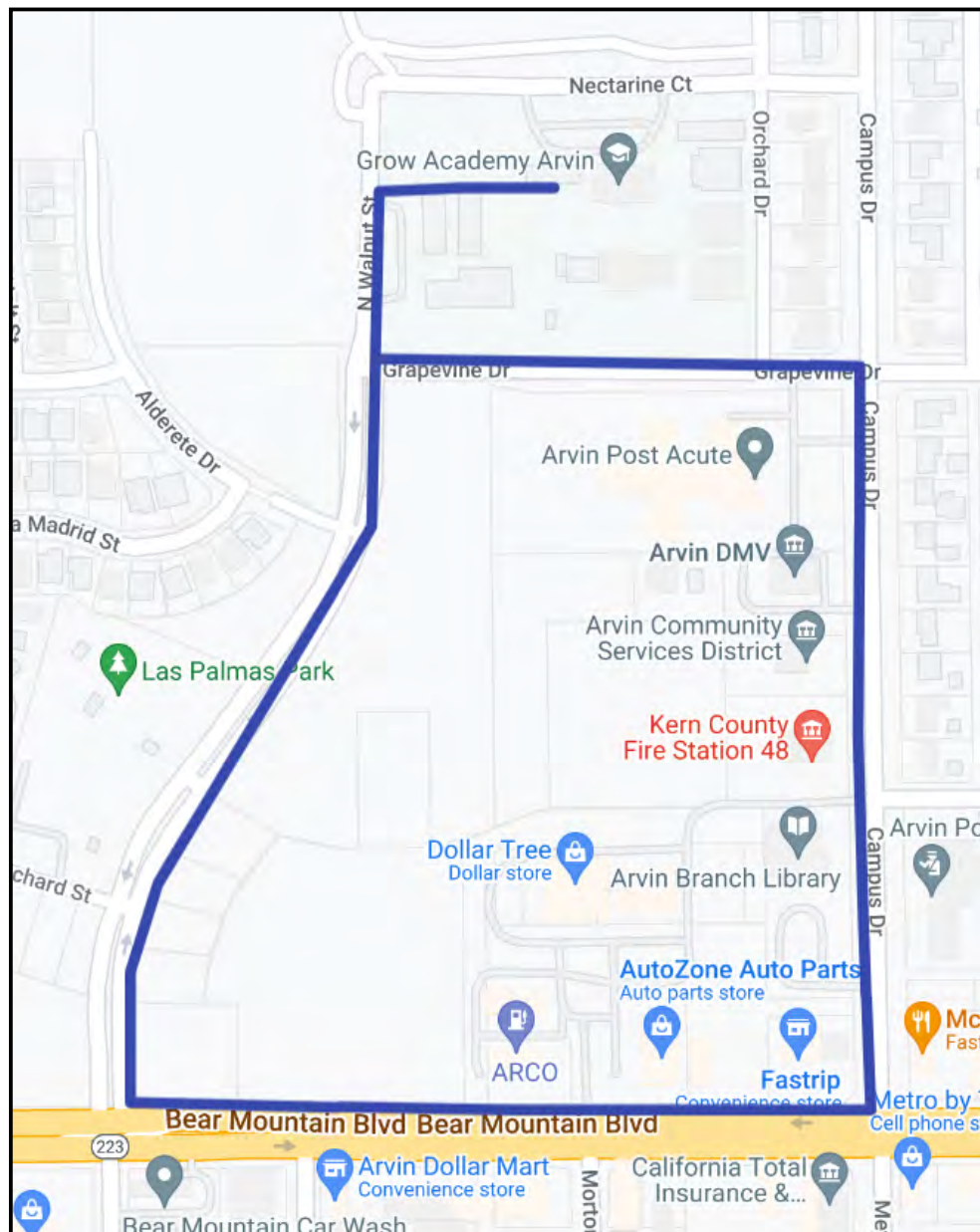
ABOVE: Future retail and affordable housing is proposed to be developed at the 4th Street/North Walnut Drive intersection.



ABOVE: Private oil well near the future site of a Kern Community College campus.

Route 2: Campus Drive/Bear Mountain Boulevard/North Walnut Street

This route focused on Campus Drive and Bear Mountain Boulevard. Campus Drive is another route for students walking to and from Arvin High School and GROW Academy. Campus Drive has a diverse range of destinations, including a nursing home, library, and fire station. The Campus Drive/Bear Mountain Boulevard intersection is centrally located, while the Bear Mountain Boulevard corridor as a whole serves both local and through traffic.



Walking Assessment, Route Two

Strengths:

1. While the workshop discussion focused on students walking to GROW Academy or Arvin High School, there is also a library, several government offices, and a nursing home that community members access along Campus Drive. Vallarta Supermarket, which residents described as a very popular walking destination, is one block to the east.
2. There are also many walking destinations on Bear Mountain Boulevard near the Campus Drive intersection. Much of Bear Mountain Boulevard has wide sidewalks and trees to provide shade. Hopefully, the ongoing work on the planters will result in an even more accessible and pleasant walking experience.
3. Walking is pleasant on Campus Drive with well-maintained sidewalks and plentiful shade trees, especially near the library.



LEFT: The fire department is one of several public service offices on Campus Drive.



ABOVE: The old trees are visible in this view looking westward along Bear Mountain Boulevard from Campus Drive.



ABOVE: View of the library on Campus Drive and some of its shade trees.

Concerns:

1. Drivers park on the north side of Nectarine Court near GROW Academy, which blocks the visibility of students crossing the street, especially during busy morning dismissal periods. At the Nectarine Court/Campus Drive intersection, there are no marked crosswalks, which may discourage students from walking to school in this area.
2. Speed is a concern along Campus Drive, posing a danger to students walking to either GROW Academy or Arvin High School. Residents reported that drivers don't yield to students crossing Campus Drive. The crosswalk markings are faded at the Grapevine Drive/Campus Drive intersection, and there are discontinuous sidewalks along Grapevine Drive. There is a nursing home at this intersection, so the walking challenges in this area may affect older adults as well as students.
3. Farther south on Campus Drive, there are no marked crosswalks at the 4th Street/Campus Drive intersection. This intersection is also missing accessible curb ramps, which require detectable warnings like truncated domes. There appears to be a missing stop sign on eastbound 4th Street west of Campus Drive. Currently, traffic is uncontrolled in three directions, increasing the risk of crashes.
4. The Bear Mountain Boulevard/Campus Drive intersection is dangerous for pedestrians, including students crossing to and from school. Program staff witnessed a pedestrian crash involving a student during the site visit. Traffic volumes are high, and there are numerous commercial driveways, resulting in many potential conflicts. Residents reported that drivers do not yield to pedestrians in the crosswalks at this intersection. There are only three marked crosswalks, which attendees believed may be due to an old traffic pattern when the intersection was first developed.



ABOVE: Students try to cross Campus Drive at the Nectarine Court intersection, despite the lack of marked crosswalks.



ABOVE: The high-visibility crosswalks at Grapevine Drive/Campus Drive are almost completely faded.



ABOVE: The west side of the 4th Street/Campus Drive intersection lacks a marked crosswalk, truncated domes on the curb ramp, and a stop sign. The buildup of debris in the curb ramp could also become a drainage problem.



ABOVE: The crosswalk across the east side of the Bear Mountain Boulevard/Campus Drive intersection, standing very near where the pedestrian crash occurred at the site visit

5. Along Bear Mountain Boulevard, driver speeds are a concern. Participants believed that drivers typically exceed the 45 MPH posted speed limits. Truck traffic is significant along Bear Mountain Boulevard, with residents noting that truck traffic is even higher at certain times of the year, depending on crop seasons.
6. The bike lane along Bear Mountain Boulevard is discontinuous, lasting only about 200 feet near the right turn lane onto North Walnut Street.
7. Distances between crosswalks are very long in this section of Bear Mountain Boulevard west of Campus Drive; it is about a half mile to the next marked crosswalk at Comanche Drive. Some of the sidewalks along Bear Mountain Boulevard need repair, and the shade provided by the trees will hopefully be restored once the trees along Bear Mountain Boulevard are replaced.

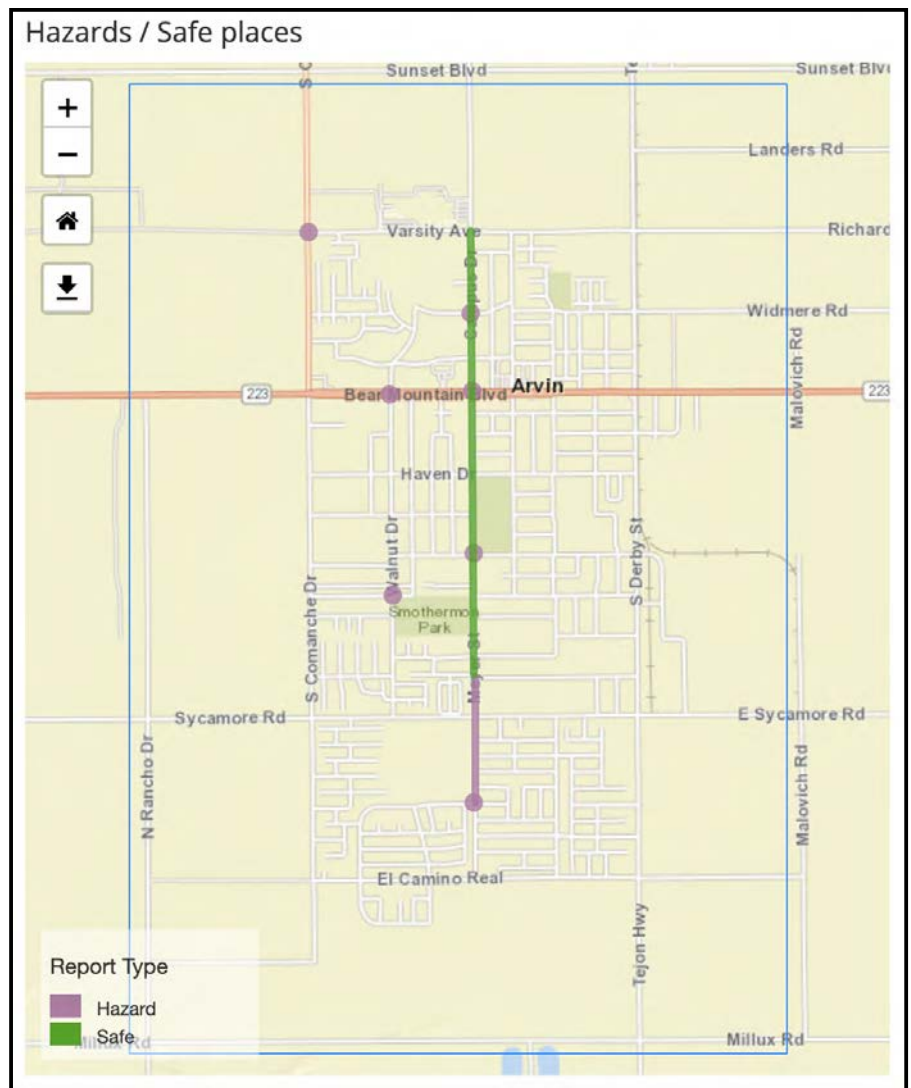


ABOVE: An older adult using a cane crosses Bear Mountain Boulevard at North Walnut Street.

Street Story

During the workshop, some participants shared their traffic safety experiences via the Street Story tool. Their experiences, plus those of other people who have used Street Story, are mapped and [viewable online](#). Some of the experiences participants shared support the observations and concerns mentioned on the routes chosen for the walking and biking assessments during the workshop.

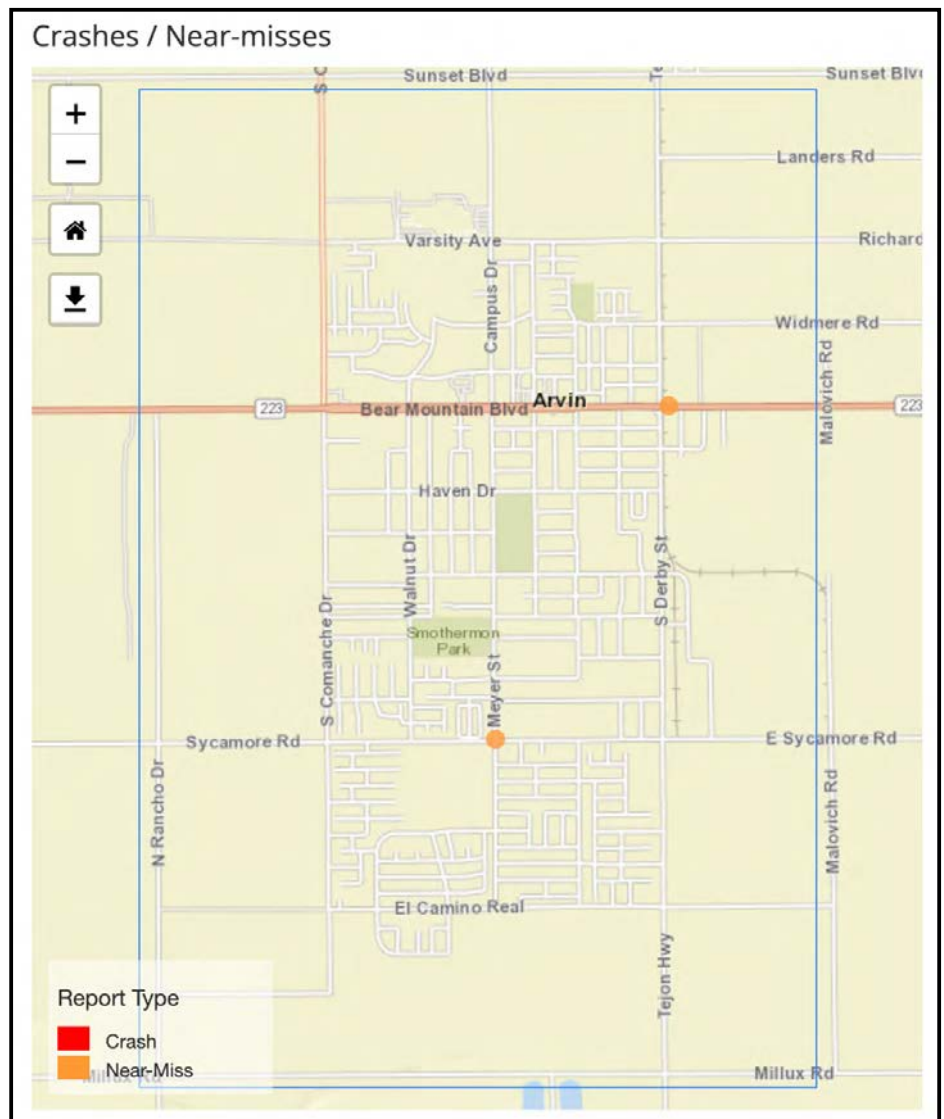
- A participant shared that the Bear Mountain Boulevard/Walnut Drive intersection feels unsafe due to poor lighting and unsafe speeds. They noted that there are many students crossing and no [marked] crosswalk.
- The Bear Mountain Boulevard/Campus Drive intersection was also indicated as unsafe for pedestrians crossing. A participant shared that there should be a crosswalk across Bear Mountain Boulevard on the west side of the intersection since many students attempt to cross there.
- The Campus Drive/Grapevine Drive intersection was noted to be unsafe for pedestrians due to poor lighting, a wide street, and drivers that don't yield to pedestrians.
- The Campus Drive-Meyer Street corridor north of Schipper Avenue was noted as a safe place to walk and drive by another participant, who noted that the sidewalks feel safe because there is enough space to walk.
- One participant shared that the Varsity Avenue/North Comanche Drive intersection feels unsafe due to unsafe speeds. They noted that the traffic in the area gets chaotic, especially when it's raining, and suggested a traffic light to improve safety for drivers and pedestrians.



Street Story, Map One

Other participants shared experiences that occurred in Arvin south of Bear Mountain Boulevard, outside of the workshop focus area.

- One participant reported suffering a near-miss while walking at the Sycamore Road/Meyer Street intersection. They shared that they were crossing at about 4 PM when they had to run to prevent a distracted driver from hitting them. This participant suggested that a pedestrian-activated traffic signal is needed, along with lights and signage alerting drivers that they are approaching a stop sign.
- A participant reported that the Felecita Road/Meyer Street intersection feels unsafe for pedestrians due to the missing sidewalk and lack of marked crosswalks.
- Meyer Street from Schipper Avenue south to Felecita Road was reported as unsafe due to narrow or missing sidewalks. This participant noted that students walk to school in this area since there is no school bus for them to take. They also noted that there is new construction along this corridor and hopefully, there will be better sidewalks in the future.
- The Franklin Street/ Meyer Street intersection was noted to be unsafe for pedestrians due to the width of the streets. The participant said there needs to be a signal of some kind to alert drivers when a pedestrian is crossing.
- At the Bush Street/ Walnut Drive intersection, a participant felt that the area was unsafe for drivers due to a lack of stop signs or signals.



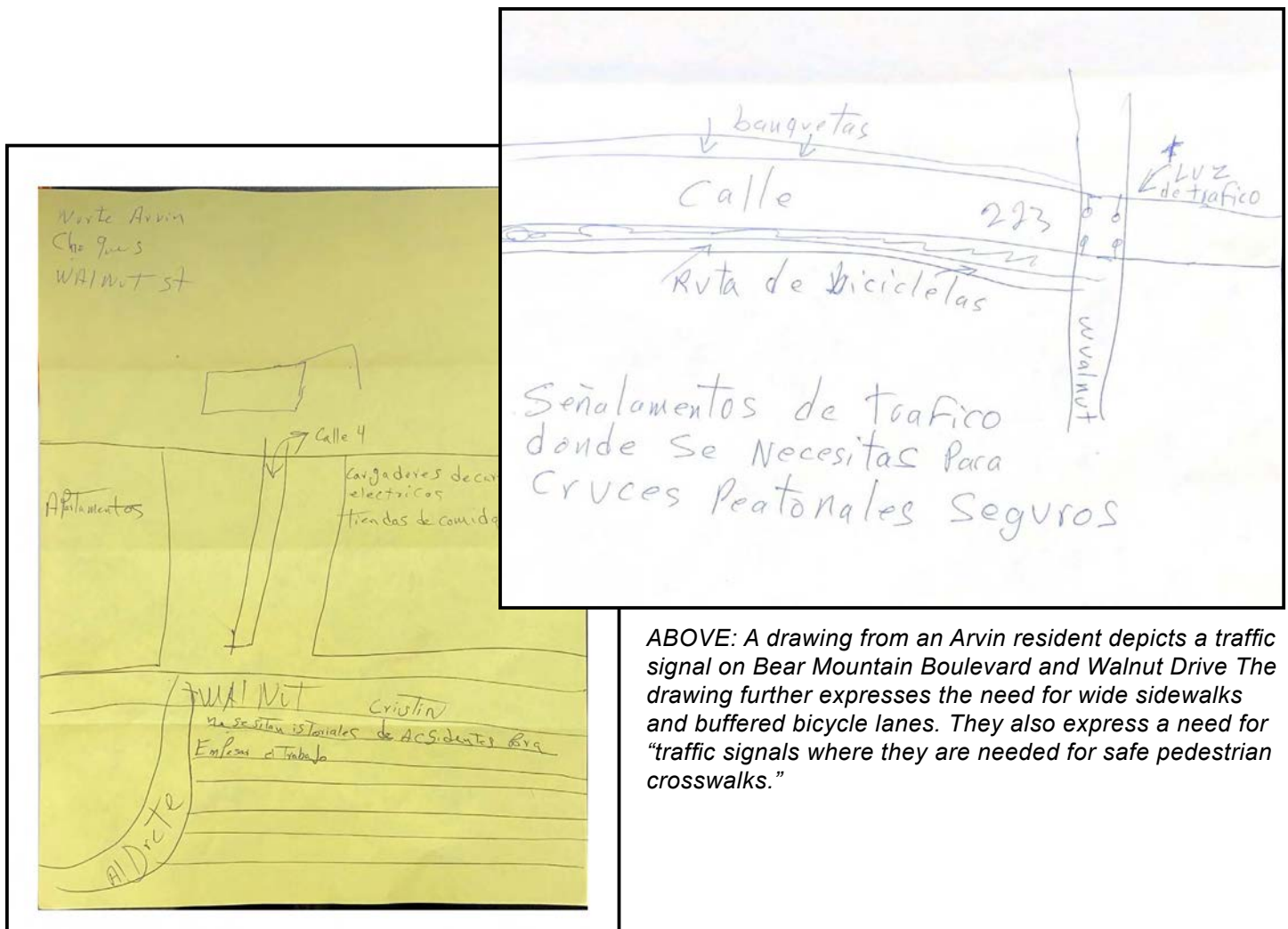
Street Story, Map Two

Recommendations

The recommendations in this report are based on observed pedestrian and bicycle safety concerns, Safe System strategies, and workshop participants' priorities. The suggested timelines and resources needed for implementation are estimated based on general pedestrian and bicycle safety best practices and may need to be further tailored by the community.

Visioning Exercise

Workshop participants were asked to envision how a healthy, safe, and welcoming Arvin community looks, feels, and sounds. They generated the following visions and ideas to develop the community recommendations below.



ABOVE: The image depicts a participant's visual representation of how they understand North Walnut Street to look like once the proposed developments are implemented.

ABOVE: A drawing from an Arvin resident depicts a traffic signal on Bear Mountain Boulevard and Walnut Drive. The drawing further expresses the need for wide sidewalks and buffered bicycle lanes. They also express a need for "traffic signals where they are needed for safe pedestrian crosswalks."

Community Recommendations

Participants offered the following programmatic and infrastructure recommendations to create a safer environment for walking and biking. General priorities included:

Addressing Pedestrian and Bicyclist Safety:

- Many intersections along Campus Drive are either unmarked crosswalks or have very faded crosswalk markings. Residents suggested that high-visibility crosswalks be painted or repainted at these intersections.
- Participants asked that the city install street name signs where they are missing, including at the Bear Mountain Boulevard/North Walnut Street intersection. The City of Arvin should also replace the missing stop sign at the 4th Street/Campus Drive intersection. Finally, the city should install signage alerting drivers to the proximity of the school and students crossing on Campus Drive, east of GROW Academy, and along Bear Mountain Boulevard.
- At the Campus Drive/Grapevine Drive intersection, participants suggested several improvements for students and older adults, including bulb-outs, pedestrian refuge islands, and medians with trees. Participants also suggested that a [Rectangular Rapid Flashing Beacon](#) (RRFB) could be used to help increase driver awareness of pedestrians crossing Campus Drive.
- At the Campus Drive/Bear Mountain Boulevard intersection, participants suggested several improvements to increase the safety of pedestrians crossing, including prohibiting right turns on red and adjusting the signal timing to include a [leading pedestrian interval](#) (also called a pedestrian head start.) Participants also suggested the installation of improvements such as pedestrian refuge islands or a [pedestrian scramble](#) (a dedicated pedestrian signal phase where all vehicles must stop and pedestrians can cross in any direction).
- Participants had many ideas for pedestrian crossing improvements at the Bear Mountain Boulevard/Walnut Drive intersection. Among the ideas discussed at the workshop was a pedestrian bridge or tunnel crossing Bear Mountain Boulevard. Another idea mentioned was to install a marked crosswalk with [a HAWK beacon](#) (also called a pedestrian hybrid beacon, which is a signal at a marked crosswalk that stops vehicles when activated by a pedestrian).
- The Bear Mountain Boulevard corridor is missing key elements to make walking and rolling feel more comfortable and safe such as trees that provide adequate shade and wider sidewalks to accommodate enough space between vehicles on Bear Mountain Boulevard and pedestrians.
- Caltrans and the City of Arvin should work together to install protected bike lanes along Bear Mountain Boulevard and improve bike connectivity along this corridor.

Addressing Vehicle Safety:

- With new development on the horizon in the North Walnut Street corridor, an increase in vehicle traffic is expected. Participants mentioned drivers speeding on North Walnut Street and recommend installing speed humps to reduce speeding along the corridor.
- Along with high-visibility paint and crosswalks, participants recommend installing a Rectangular Rapid Flashing Beacon where students cross on North Walnut Street and on Bear Mountain Boulevard.
- Participants noted a large concern over high-speed cargo trucks traveling on Bear Mountain Boulevard as an alternate truck route to reduce travel time. Some noted they travel at dangerous speeds, while also contributing to already severe air pollution conditions in Arvin. Participants recommended implementing a policy prohibiting cargo trucks from traveling down Bear Mountain Boulevard.
- The Planning Committee should explore how to bring the [California Highway Patrol's Start Smart teen driving education](#) program to Arvin.
- The City of Arvin should work with Caltrans to explore opportunities to lower the speed limit on Bear Mountain Boulevard within Arvin, considering the history of crashes on this corridor and the local pedestrian traffic.
- Residents noted that the Arvin Police Department does not have a dedicated traffic unit. The City and Police Department should explore establishing a traffic unit.
- Participants noted that crossing guards could help students cross Bear Mountain Boulevard more safely. Arvin High School already has a crossing guard program, and this program should be maintained. In addition, the school district should continue to evaluate where students are crossing and hire more guards or move guards as needed since their walking routes may change as construction in the area continues.

Signalized Intersection at Bear Mountain Boulevard/Walnut Drive

Project Goals:

1. Create a safe intersection that provides access from Walnut Drive to North Walnut Street.
2. Prioritize pedestrian and bicycle safety by providing a marked and signalized crosswalk.
3. Increase multi-modal options for Arvin community members.

The Arvin community expressed a need for a signalized crosswalk at the Bear Mountain Boulevard/Walnut Drive intersection. Students, parents, and community residents of all ages and abilities cross at this unmarked intersection to access the northern side of Bear Mountain Boulevard and enter the school zone. For years, the community has experienced near misses, drivers' vehicles traveling at high speeds well over the posted 30 MPH (eastbound) and 45 MPH (westbound) speed limit, and pedestrian and bicycle crashes at this intersection and along the entire Bear Mountain Boulevard corridor.

Safe System Strategies:

Hybrid Beacon (HAWK), High-Visibility Road Markings and Signage, Neighborhood Speed Awareness Program, Reduced Speed Limit Zone, Road Rightsizing, Speed Hump, Temporary Demonstration Project, Traffic Signal

Because Bear Mountain Boulevard is operated and maintained by the California Department of Transportation (Caltrans), they must be involved in order to implement any infrastructure improvements on this highway. The City of Arvin and community members have also expressed a desire to work alongside Caltrans to provide specific community context and knowledge to implement key safety improvements. Specifically, community groups such as the AB 617 Steering Committee, the Dolores Huerta Foundation, Arvin High School, and GROW Academy should be involved to help provide insight throughout the project.

This project requires physical infrastructure changes like road rightsizing and installing new amenities. However, improving bike connectivity and crosswalk visibility can be implemented sooner by repainting existing crosswalks. Portions of this project, like paint improvements, can be installed within a year's time frame. Longer-term infrastructure projects may take two-plus years to complete.

Signalized Intersection at Bear Mountain Boulevard/Walnut Drive, continued

Action Steps:

- 1) Data Collection:
 - a) To acquire funding for infrastructure improvements, the Bear Mountain Boulevard/Walnut Drive intersection requires comprehensive data collection that reflects the daily travel experiences of the Arvin community. During our CPBST workshop, participants discussed the need to capture qualitative data from students, parents, and community members who travel and cross Bear Mountain Boulevard by using Street Story to include any crash data, near misses, or hazards that current reported data may be missing. Participants also discussed the need for a coordinated effort between local schools, parents, and students to ensure comprehensive data collection.
- 2) [Pedestrian Count](#):
 - a) During the walking assessment, participants observed many community residents crossing Bear Mountain Boulevard. Caltrans identified a need for a pedestrian count to help support data collection and further document pedestrian and bicycle activity in this intersection. The project team also suggested that a data collection effort and pedestrian count efforts be combined to maximize data collection and further strengthen collaboration amongst partners.
- 3) Funding Acquisition:
 - a) Caltrans District 6 should research and apply to state and federal funding sources to support infrastructure improvements on State Route 223.
 - b) The [California Active Transportation Safety Information Pages](#) (CATSIP) provides a list of possible funding sources for various agencies at the regional, state, and federal levels. Possible funding sources include
 - i. [Neighborhood Access and Equity](#) (NAE) Grant Program
 - ii. [Reconnecting Communities Pilot](#) (RCP) Program

Signalized Intersection at Bear Mountain Boulevard/Walnut Drive, continued

4) Temporary Demonstration:

- a) In a previous traffic study of this intersection, Caltrans suggested a roundabout to slow traffic and allow a right-of-way for pedestrians and bicyclists to cross. Participants disagreed with this suggestion and expressed a desire to conduct a temporary demonstration to assess implementing a signalized stop instead. A temporary demonstration project would require collaboration between the City of Arvin, Caltrans District 6, and community residents. This project could help deepen understanding of how the intersection is used, expand community engagement, and create the opportunity for real-time feedback before committing

T-Intersection Redesign at Bear Mountain Boulevard/North Walnut Street

Project Goals:

1. Improve pedestrian and bicyclist safety at the Bear Mountain Boulevard/North Walnut Street intersection, emphasizing the safety of people crossing the state highway.
2. Build an intersection that is better suited for the anticipated increase in vehicle, pedestrian, and bicycle traffic on North Walnut Street.

To meet the community's desire for a signalized pedestrian crossing at the Bear Mountain Boulevard/North Walnut Street intersection, while also thinking about the future traffic that North Walnut Street will likely see as development and construction continues in the area, the City of Arvin should work with Caltrans to evaluate the intersection and explore converting it into a T-intersection with traffic signals in three directions and the closure of Walnut Drive on the south side of the intersection.

Bear Mountain Boulevard is a state highway, and as such, Caltrans is the agency responsible for construction and maintenance. The City of Arvin is responsible for City streets, including North Walnut Street and Walnut Drive, and is also the lead in applying for grants that will fund the project. The residents of Arvin have an important role in providing information and expressing preferences that will inform the planning and grant applications. The Planning Committee can support this project by continuing to engage community members and connect them with agency stakeholders.

Community engagement is already in progress, including at the CPBST workshop, and should continue on an ongoing basis. The timeline for the next steps depends on the improvement once it is determined by community engagement and on the availability of grant funds. Still, it will take more than two years to apply for grants, be awarded, receive the grant funding, and construct the improved intersection.

Safe System Strategies:

Complete Streets, Curb Extensions (Bulbouts), Curb ramp, Daylighting, High-Visibility Road Markings and Signage, Pedestrian Head Start (Leading Pedestrian Interval), Pedestrian Safety Island (Pedestrian Refuge Island), Protected Intersection, Quick-Build Project, Road Rightsizing, Temporary Demonstration Project, Vision Zero

T-Intersection Redesign at Bear Mountain Boulevard/North Walnut Street, continued

Action Steps:

- 1) Community Engagement
 - a) Caltrans and the City of Arvin will engage with Arvin residents about their needs and concerns with the Bear Mountain Boulevard/North Walnut Street intersection. This will also give Caltrans staff the opportunity to learn about the area and the new development that is taking place.
- 2) Feasibility Study
 - a) This study will look at the various options for the intersection and determine which is the preferred one. Community support is an important element of feasibility, and the study should involve community meetings to gather this input. The concept of the T-intersection should be one of the ideas that this study considers.
 - b) This step requires its own funding, and the City will need to use grants or identify another funding source for it.
- 3) Identify Cost
 - a) Develop a design plan for the intersection from the feasibility study. This plan will call for one or more projects with projected costs.
- 4) Obtain funding
 - a) With an extensive record of community input, a feasible plan, and projected cost, the city could now apply for grants to fund the construction.
 - b) Participants at the workshop mentioned a number of funding sources:
 - i. [Active Transportation Program \(ATP\) grants](#)
 - ii. [Clean California grants](#)
 - iii. [State Highway Operation and Protection Program \(SHOPP\) program](#)
 - iv. [Sustainable Transportation Planning Grants](#)
 - c) The California Air Resources Board (CARB) is funding improvements in Arvin via the Community Emissions Reduction Program. The city should work with CARB to determine what role they can play in this project.
- 5) Caltrans implements design changes
 - a) Once grant funding is secured, the city will work with Caltrans to schedule the work and allocate the needed funds.

Project Team Recommendations

The Project Team recommends the following for local stakeholder consideration.

Pedestrian Improvements along Bear Mountain Boulevard

While this workshop focused on the western half of Bear Mountain Boulevard in Arvin, the Project Team had the chance to walk the full length of Bear Mountain Boulevard during the site visit. East of A Street, there is a downtown area of storefronts with some walkability improvements, including pedestrian-scale lighting, pedestrian refuge islands, and decorative crosswalks. Caltrans and the City should consider extending these improvements westwards from the A street intersection at crossings on the Bear Mountain Boulevard corridor to extend the “downtown” area, ideally all the way to North Walnut Street or beyond, and improve the experience of pedestrians walking along or crossing Bear Mountain Boulevard. When coupled with other safety improvements on Bear Mountain Boulevard, this can help improve drivers’ awareness of people walking and encourage them to slow down.

Crossing Improvements at Key Intersections

There are several destinations along Bear Mountain Boulevard that people drive, walk, bike, or roll to. Still, there are many mid-block crossings and intersections that lack high-visibility marked crosswalks and other signals that alert drivers to the presence of people walking, including Rectangular Rapid Flashing Beacons or a Hybrid Beacon (HAWK). The Project Team recommends the Planning Committee work with the City of Arvin, Caltrans District 6 representatives, and residents to identify which key intersections are eligible for high-visibility or artistic crosswalk markings. Workshop participants have already identified the following crosswalks to upgrade: Bear Mountain Boulevard along Stockton Street (leads directly to Haven Drive Middle School) and the 4-way intersection at North A Street/Bear Mountain Boulevard/ South A Street. Both intersections would also benefit from curb extensions (bulbouts), and bi-directional, accessible curb ramps. Participants were also interested in the installation of Rectangular Rapid Flashing Beacons at key unsignalized crossings to alert drivers that pedestrians are crossing.

Road Rightsizing on Campus Drive

When walking on Campus Drive, workshop participants expressed surprise at how wide it was. While recognizing that there are road users such as the Fire Department who require a certain width, the Project Team recommends that the City explore ways to reconfigure Campus Drive (see this example in the [NACTO Urban Street Design Guide](#)). In addition to the community recommendation above which mentioned bulbouts and medians with pedestrian safety islands and trees, the City should also

consider removing one of the travel lanes in either direction and replacing it with a center turn lane. This configuration would keep space open for fire trucks to maneuver while eliminating some passing and speeding behavior caused by the presence of a second travel lane. The city should also consider upgrading the existing standard bike lanes into buffered bike lanes or protected bike lanes because bicyclists are currently forced to ride in the door zone of cars parked along the street.

Implementing an Active Transportation Commission

The Project Team recommends the City of Arvin to establish an Active Transportation Commission to further encourage key community feedback and participation within the broader mission to develop an Arvin Active Transportation Plan. This Commission could leverage the momentum built from the CPBST workshop and community participation on the AB 617 Steering Committee. Implementing an Active Transportation Plan and Commission can support the City of Arvin's Complete Streets Plan and its goals by ensuring a space for a diverse group of Arvin community members to further:

1. Advise staff and the City Council on the implementation, criteria, and priority of pedestrian and bicycling-related policies and projects;
2. Encourage broader public participation and involvement in walking and bicycling projects and program implementation and other active transportation matters;
3. Review and discuss current walking and bicycling issues and advise staff and council on how to fix the issues; and
4. Propose and develop the Active Transportation Plan and community events within the City of Arvin.

Active Transportation Resources:

- Reference the [Active Transportation Planning Toolkit](#) for Small- and Mid-Sized Communities 2022 for a comprehensive guide on how to develop an Active Transportation Plan
- The City of Arvin can apply to [Caltrans' Active Transportation Program](#) (ATP) or the [Sustainable Transportation Planning Grant](#) for funding to create the Plan.
- Reference the [City of Costa Mesa Active Transportation Committee](#) for further guidance on implementing an Active Transportation Committee.

Appendix

- CPBST Site Visit Data Presentation
- Esri Community Analyst

Historial de Choques Peatonales y Ciclistas

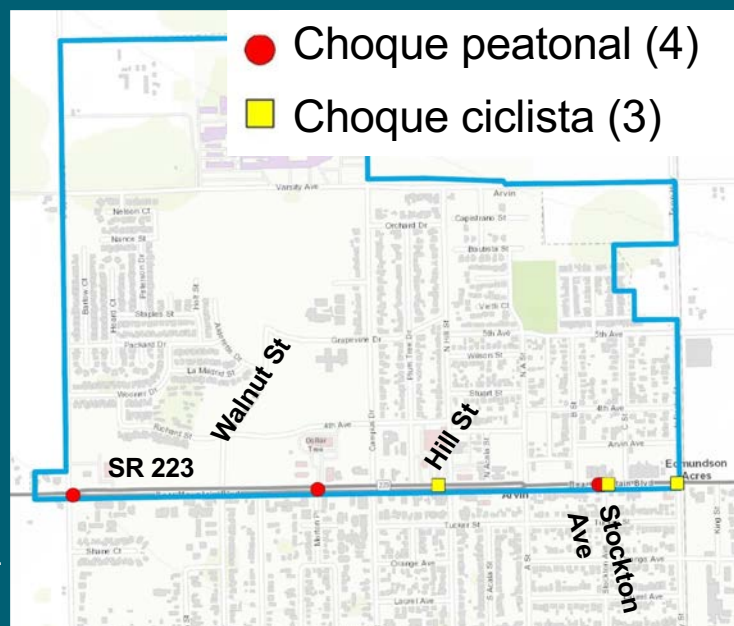
Walking and Biking Crash Data



Área de enfoque

Focus Area

- Focus Area: Arvin north of SR 223
- The planning committee focused on this area due the hazards of crossing SR 223 to the nearby schools and the development that is occurring in this area.
- Area de enfoque: Arvin al norte de la SR 223
- El comité de planificación se centró en esta área debido a los peligros de cruzar la SR 223 hacia las escuelas cercanas y el desarrollo que está ocurriendo en esta área.



Fuente de datos: Registro integrado del tráfico estatal (Statewide Integrated Traffic Records System, SWITRS) del 2017 al 2021. Los datos de 2020 y 2021 son provisionales a marzo de 2023.

Cómo se recopilan los datos de choques

How crash data is collected



A pedestrian and/or bicyclist is involved in a crash.

Un peatón y/o ciclista está involucrado en choque.



Law enforcement arrives at the scene and writes a crash report.

Las personas involucradas en el choque llaman a la policía. La policía llega a la escena y escribe un informe de choque.



Crash reports are sent to CHP and compiled into a statewide database known as SWITRS.

Los informes de choque se envían a la policía (CHP) y se comilan en una base de datos estatal conocida como SWITRS.

Vistazo de Datos de Arvin del norte

North Arvin Data Snapshot

Key Facts



19% Households with 1+ Disability
10% Population 65+
20% Households without a vehicle
27% Households below poverty level

Commute Profile



0% Took Public Transit
19% Carpooled
1% Walked to Work
0% Bike to Work

Datos Clave

Población Vulnerable



19% Hogares con 1+ personas con discapacidades
10% Población 65+
20% Hogares sin vehículo
27% Hogares por debajo del nivel de pobreza

Perfil de Viaje



0% Viajó en transporte público al trabajo
19% Compartió conche al trabajo
1% Camino al trabajo
0% Viajó al trabajo en bicicleta

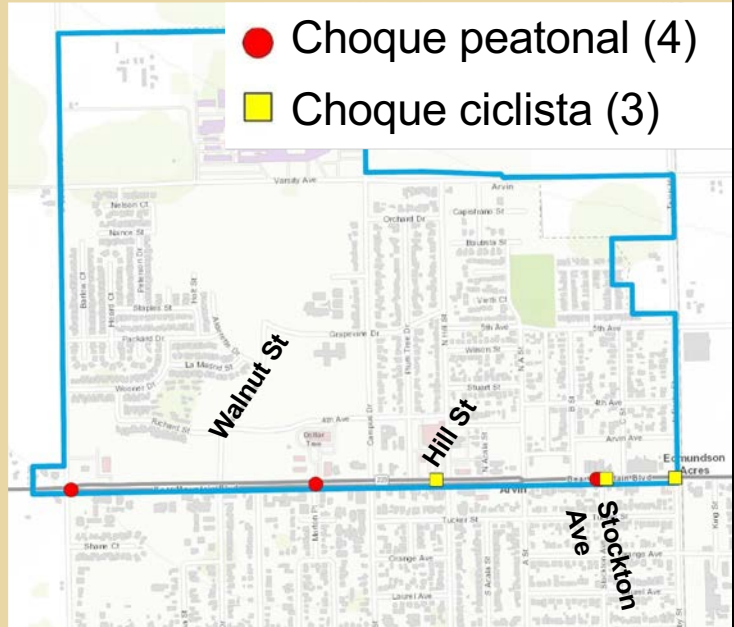
Resumen de choques

Overview of crashes

2017-2021

Los cuatro choques de peatones y los tres choques de ciclistas ocurrieron en la SR 223.

All four pedestrian crashes and three bicyclist crashes occurred on SR 223.



Fuente de datos: Registro integrado del tráfico estatal (Statewide Integrated Traffic Records System, SWITRS) del 2017 al 2021. Los datos de 2020 y 2021 son provisionales a marzo de 2023.

Pedestrian Crashes

Choques de peatones

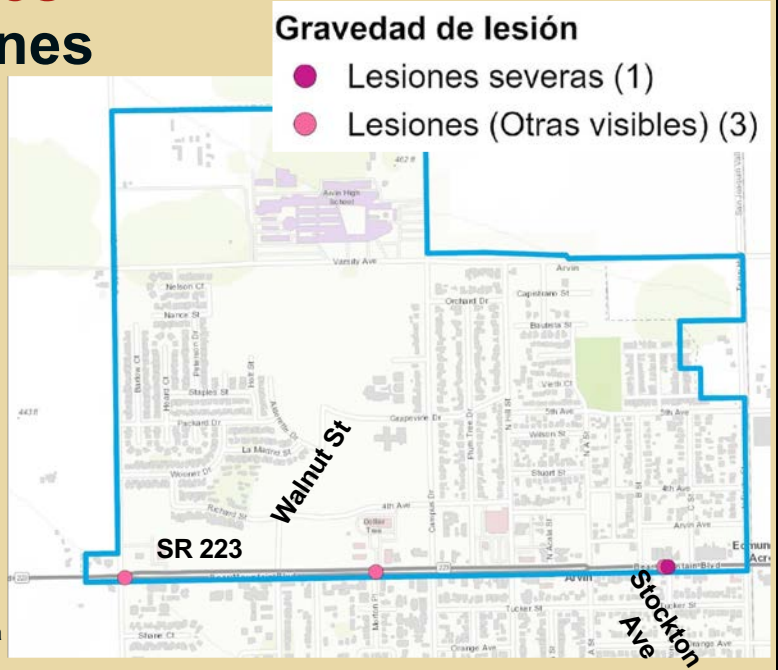
2017-2021

Todos los choques ocurrieron en la SR 223, en o cerca de las intersecciones.

Hubo 1 choque con heridos graves, en la intersección de Stockton Ave.

All crashes occurred on SR 223, at or near intersections.

There was 1 crash with serious injuries, at the intersection of Stockton Ave.

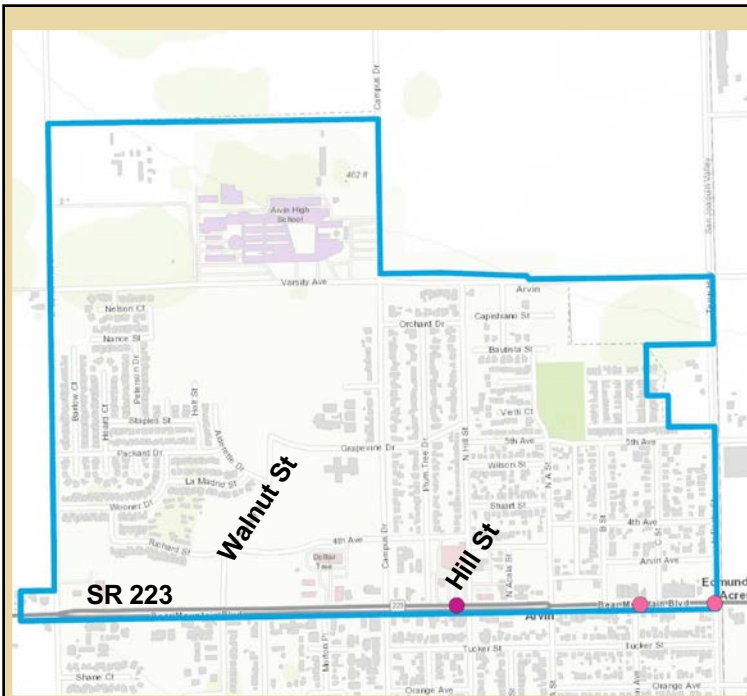


Fuente de datos: Registro integrado del tráfico estatal (Statewide Integrated Traffic Records System, SWITRS) del 2017 al 2021. Los datos de 2020 y 2021 son provisionales a marzo de 2023.

Bicycle Crashes

Choques ciclistas

2017-2021



Todos los choques ocurrieron en la SR 223.

Hubo un choque con heridos graves, justo al oeste de la intersección de Hill St.

All crashes occurred on SR 223.

There was a serious injury crash just west of the intersection of Hill St.

Fuente de datos: Registro integrado del tráfico estatal (Statewide Integrated Traffic Records System, SWITRS) del 2017 al 2021. Los datos de 2020 y 2021 son provisionales a marzo de 2023.

Data Snapshot

Instantánea de datos

Of the four pedestrian crashes:

- Two occurred between 6PM and 9PM.
- Two occurred on a Monday afternoon.
- The most common violation mentioned was failure of a motorist to yield to a pedestrian in a crosswalk.

Of the three bicyclist crashes:

- Two occurred between noon and 3pm.
- All three occurred during daylight.
- All three occurred on different days and had different violations.

De los cuatro choques de peatones:

- Dos ocurrieron entre las 6 y las 9 de la noche.
- Dos ocurrieron un lunes por la tarde.
- La infracción más común mencionada fue que un automovilista no cedía el paso a un peatón en un cruce de peatones.

De los tres choques de ciclistas:

- Dos ocurrieron entre el mediodía y las 3 de la tarde.
- Los tres ocurrieron durante el día.
- Los tres ocurrieron en días diferentes y tuvieron diferentes violaciones.

Data Snapshot

Instantánea de datos

Seven people were injured in these crashes, including four pedestrians and three bicyclists.

- Two of the seven victims were teenagers, ages 16 and 17. One was a pedestrian and the other was a bicyclist.
- One victim, a pedestrian, was 86 years old.
- Half of the pedestrian victims were female, while all three bicyclist victims were male.

Siete personas resultaron heridas en estos choques, incluidos cuatro peatones y tres ciclistas.

- Dos de las siete víctimas eran adolescentes, de 16 y 17 años. Uno era peatón y el otro ciclista.
- Una víctima, un peatón, tenía 86 años.
- La mitad de las víctimas peatonales eran mujeres, mientras que las tres víctimas ciclistas eran hombres.

Additional Resources

Recursos adicionales

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 Systems (SWITRS).

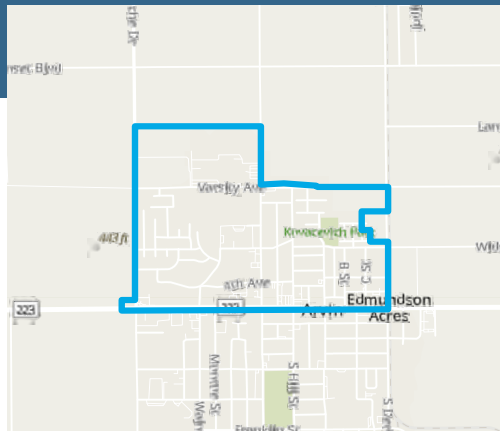
To further explore collision data, register for a free account to access the tools and resources on TIMS.

TIMS es una herramienta basada en la web que permite a los usuarios analizar y mapear los datos del Sistema Integrado de Registros de Tráfico de Estado de California (SWITRS).

Para seguir explorando los datos de colisiones, regístrese para obtener una cuenta gratuita y acceder a las herramientas y recursos de TIMS

North Arvin

Community Pedestrian and Bicycle Safety Program



Key Facts



19%

Households with 1+ Persons with a Disability

Vulnerable Population



10%

Population 65+



20%

Households without a vehicle



27%

Households Below the Poverty Level

Commute Profile



0%

Took Public Transportation



19%

Carpooled



1%

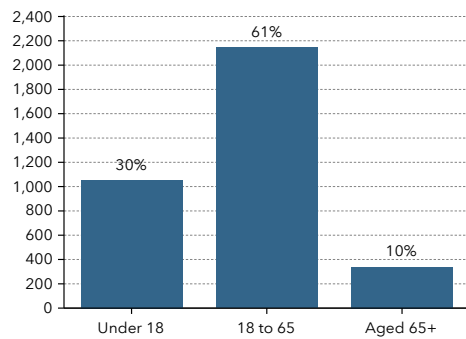
Walked to Work



0%

Bike to Work

Population by Age



2023 Race and ethnicity (Esri)

The largest group: Hispanic Origin (Any Race) (93.75)

The smallest group: Pacific Islander Alone (0.00)

Indicator ▲	Value	Diff
White Alone	27.08	-12.29
Black Alone	0.73	-4.79
American Indian/Alaska Native Alone	3.08	+1.07
Asian Alone	0.31	-5.02
Pacific Islander Alone	0.00	-0.16
Other Race	54.24	+23.16
Two or More Races	14.56	-1.96
Hispanic Origin (Any Race)	93.75	+37.27

Bars show deviation from 06029 (Kern County)

Household Income (2021)

Income Bracket	Count	Percentage
Median Household Income	\$41,899	
Median Household Income < \$10,000	61	8%
Median Household Income \$10,000 - \$14,999	57	7%
Median Household Income \$15,000 - \$19,999	55	7%
Median Household Income \$20,000 - \$24,999	17	2%
Median Household Income \$25,000 - \$29,999	79	10%
Median Household Income \$30,000 - \$34,999	75	9%
Median Household Income \$35,000 - \$39,999	38	5%
Median Household Income \$40,000 - \$44,999	32	4%
Median Household Income \$45,000 - \$49,999	91	11%
Median Household Income \$50,000 - \$59,999	22	3%
Median Household Income \$60,000 - \$74,999	84	11%
Median Household Income \$75,000 - \$99,999	76	10%
Median Household Income \$100,000 - \$124,999	34	4%
Median Household Income \$125,000 - \$149,999	24	3%
Median Household Income \$150,000 - \$199,999	40	5%
Median Household Income \$200,000+	7	1%

Thank you for your interest in the Community Pedestrian and Bicycle Safety Training Program.

For more information, please visit:
<https://safetrec.berkeley.edu/programs/cpbst> or
<https://www.calwalks.org/cpbst>

For questions, please email:
safetrec@berkeley.edu or cpbst@calwalks.org

This report was prepared in cooperation with the California Office of Traffic Safety (OTS). The opinions, findings, and conclusions expressed in this publication are those of the author(s) and not necessarily those of OTS.



California Walks
Stepping Up for Health, Equity, & Sustainability

Berkeley SafeTREC