



Recommendations to Improve Pedestrian & Bicycle Safety for the Valley West Community in Arcata



October 2018



Acknowledgements

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We would like to thank the Planning Committee for inviting us into their community and for hosting the Community Pedestrian and Bicycle Safety Training in the Valley West community of Arcata.

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Table of Contents

Acknowledgements	2
Planning Committee	2
Introduction	4
Background	5
Planning Process	5
Existing Conditions	6
Pedestrian & Bicycle Collision History	6
Equity Concerns	7
Walkability & Bikeability Assessment Reflections	8
Key Opportunities to Improve Walking and Biking Safety	15
Community Recommendations	15
Cal Walks/SafeTREC Recommendations	17
Appendix A	19
Appendix B	24

Recommendations to Improve Pedestrian & Bicycle Safety for the Valley West Community in Arcata

By Mihaela Tomuta, Daniel Gonzalez, Tony Dang, California Walks;
Katherine Chen, UC Berkeley Safe Transportation Research & Education Center

Introduction

At the invitation of the City of Arcata, California Walks (Cal Walks), the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC), and the Planning Committee collaboratively planned and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) for the Valley West community of Arcata on August 29, 2018. The CPBST is a community-driven pedestrian and bicycle safety action-planning workshop aimed to improve walkability, and bikeability across California.

Cal Walks and SafeTREC (Project Team) facilitated the workshop on August 29, 2018 from 4:00 p.m. to 7:30 p.m. at the Valley West Red Roof Inn. Dinner, childcare, and simultaneous English-to-Spanish interpretation were provided to maximize community participation. Thirty-eight (38) individuals attended the workshop, including the Mayor of Arcata and representatives from the City of Arcata Community Development Department; Recreation Division; Engineering Division; Transportation Safety Committee; Police Department; and Humboldt County, Department of Health and Human Services; AmeriCorps; Caltrans District 1; Humboldt Bay Bicycle Commuters Association; Redwood Community Action Agency; GHD Engineering; Bikes There; and residents.



Source: Jennifer Weiss

The three and a half (3.5) hour training consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety using the intersectional 6 E's framework including: Equity & Empowerment, Evaluation, Engineering, Education, Encouragement, and Enforcement; 2) three walking assessments along three key routes; and 3) small group action-planning discussions to prioritize recommendations for Arcata Valley West's active transportation efforts.

Background

The CPBST is a joint project of Cal Walks and SafeTREC that aims to leverage a community's existing strengths to develop a community-driven pedestrian and bicycle safety action plan and to identify pedestrian and bicycle safety priorities and actionable next steps in collaboration with community partners. For each training, the program convenes a local multi-disciplinary Planning Committee to tailor the training focus and curriculum to meet the community's needs. Cal Walks and SafeTREC conduct pre-training site visits to collect on-the-ground observations of existing walking and biking conditions to adapt the CPBST curriculum and to provide context-specific strategies for the community's existing conditions.

Planning Process

The Arcata Valley West CPBST planning process started in April 2018. The planning process consisted of:

- **Community Plans and Policies Review:** Cal Walks conducted a review of current community planning documents to inform the training with local context and prepare to build off existing efforts. The following documents were reviewed prior to the site visit:
 - [Humboldt County Transit Development Plan](#), 2017
 - [2018 Regional Transportation Improvement Program](#), 2017
 - [Humboldt County Association of Governments Regional Transportation Plan](#), 2017
 - [Humboldt County Regional Bike Plan Update](#), 2012
 - [City of Arcata Pedestrian and Bicycle Master Plan](#), 2010
 - [Arcata General Plan 2020 -Transportation Element](#), 2008
 - [Humboldt County Regional Pedestrian Plan](#), 2008
- **Analysis and Mapping of Pedestrian and Bicycle Injury Data:** SafeTREC used the Statewide Integrated Traffic Records System (SWITRS) and the Transportation Injury Mapping System (tims.berkeley.edu) to analyze pedestrian and bicycle injury data in Valley West, as well as Census data to create collision rates based on population. Patterns of injury collisions, victim characteristics, and demographics were analyzed to inform the planning process for the CPBST.
- **Identification of Priority Discussion Topics for Training:** The Planning Committee identified the Valley West community as the focus of the workshop in order to: 1) evaluate the active transportation needs of Valley West residents; 2) explore opportunities to improve pedestrian and bicycle safety and access in Valley West; and 3) explore opportunities to provide safe

walking and bicycle connectivity between the Valley West neighborhood and Downtown Arcata.

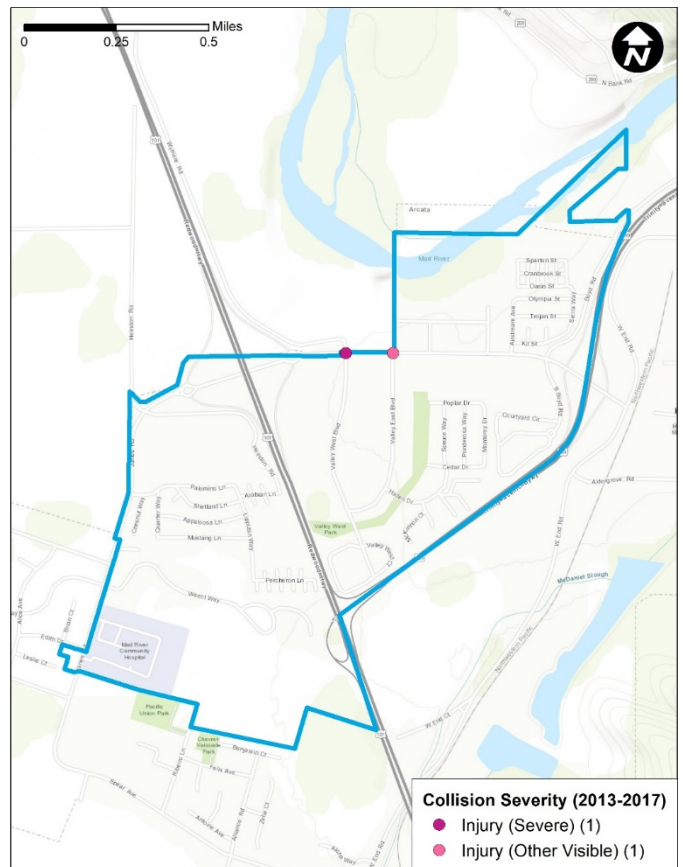
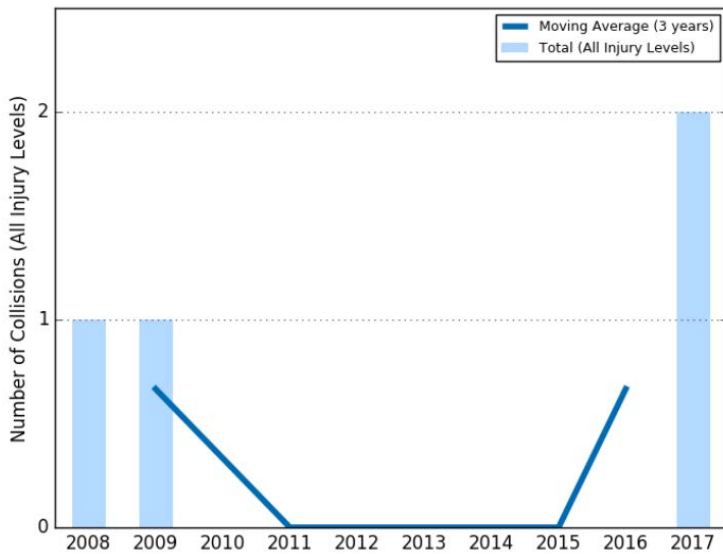
- **Site Visit:** The Project Team conducted an in-person site visit on May 23, 2018 to 1) collect qualitative data based on in-person observations of existing conditions and travel behaviors and; 2) conduct preliminary walking assessments of the focal neighborhood. The Project Team used the site visit findings to develop the workshop presentation, including featuring local infrastructure examples and developing the walking/biking assessment route maps.

Existing Conditions

Pedestrian & Bicycle Collision History

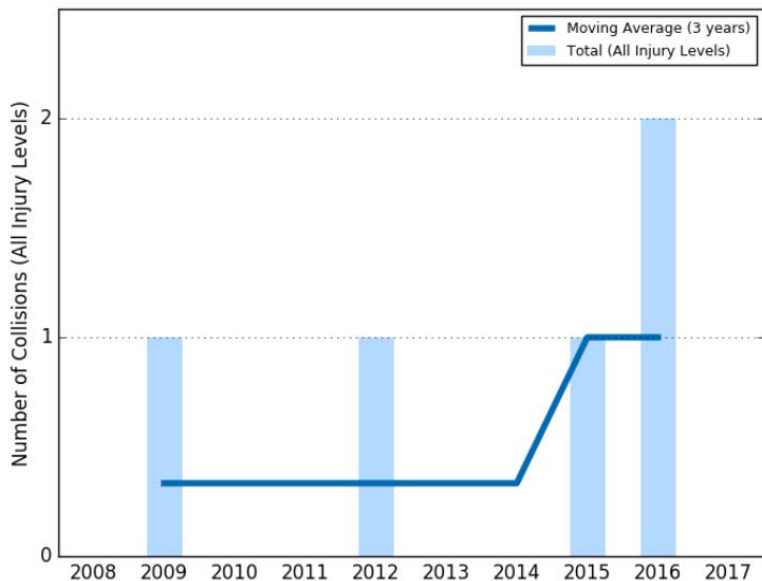
Between 2013-2017, there were two (2) pedestrian collisions, including one (1) severe injury in Valley West. Collisions in this time period occurred on Giuntoli Lane. Both (100%) pedestrian victims were male. Over the 10-year period between 2008-2017, pedestrian collisions appear to be on an upward trajectory.

Pedestrian Collision Trend
with 3-year moving average



Between 2013-2017, there were three (3) bicycle collisions, including three (3) visible injuries in Valley West. Collisions in this time period occurred on Giuntoli Lane. The three (3) bicycle collision victims were male between the ages of 15-34. Over the 10-year period between 2008-2017, bicycle collisions appear to be on an upward trajectory.

Bicycle Collision Trend
with 3-year moving average



A full discussion of the pedestrian and bicyclist collision data prepared by UC Berkeley SafeTREC can be found in Appendix A.

Equity Concerns

Nationwide, pedestrian fatality rates in lower-income communities are generally higher—sometimes more than twice as high¹—when compared to higher income communities. State funding programs generally define Census tracts at or below 80% of the statewide median household income (\$51,026) as disadvantaged communities. Valley West is a predominantly Latino community with a median household income of \$35,000 or below according to the U.S. Census Bureau. The community is also geographically separated and isolated from the rest of the City by CA-101 and SR-299 and is one of the lowest income neighborhoods in Arcata where many residents experience homelessness and housing insecurity. Additionally, many residents must travel on foot or by bicycle on a daily basis for transportation.

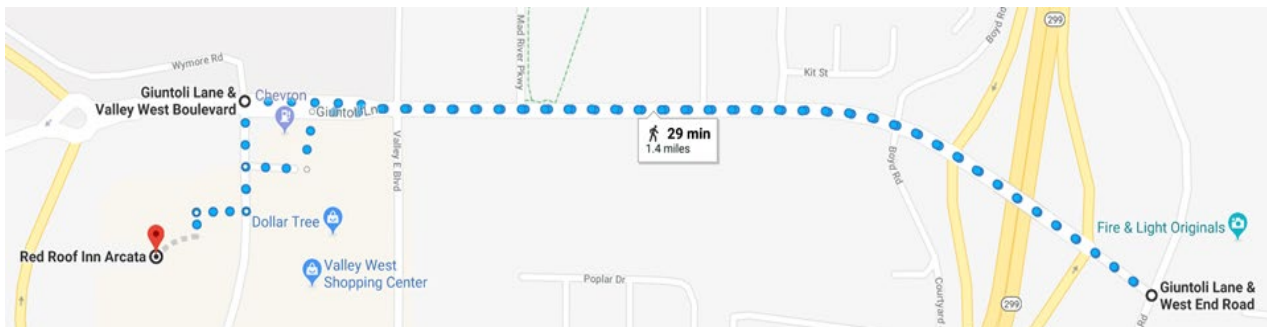
¹ Pedestrian Deaths in Poorer Neighborhoods Report," Governing, August 2014. Available at <http://www.governing.com/gov-data/pedestrian-deaths-poor-neighborhoods-report.html>

Walkability & Bikeability Assessment Reflections

Participants were asked to 1) observe infrastructure conditions and the behavior of all road users; 2) assess the qualitative and emotional experience of walking or biking along the route; 3) identify positive community assets and strategies which can be built upon; 4) consider how the walking and biking experience might feel different for other vulnerable users. Workshop participants conducted walking and biking assessments along three key routes:

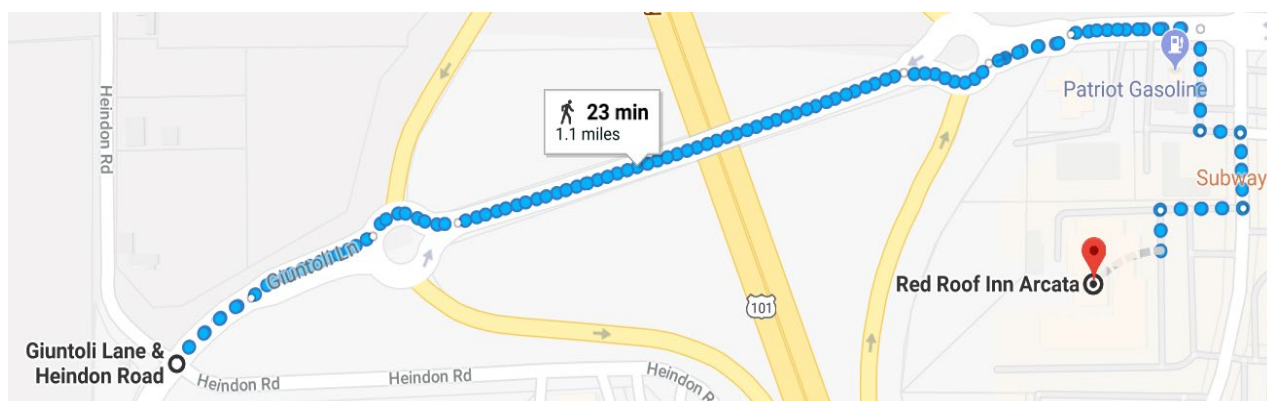
Route 1: Giuntoli Lane to West End Road

The first assessment route focused on Giuntoli Lane from Valley West Boulevard to West End Road. The route is the main ingress and egress into the Valley West community and used by community members and visitors to access both US State Route 101 (US 101) and California State Route 299 (SR 299) and the shops, gas station, and other amenities along Giuntoli Lane. Starting the walk assessment at the Red Roof Inn, the group of observers walked north on Valley West Boulevard, east on Giuntoli Lane to West End Road, and returned to the Red Roof Inn along Giuntoli Lane. Observations were conducted at several locations along Giuntoli Lane including the Valley East Boulevard, the transit bus stop near the SR 299 onramp, and at West End Road.



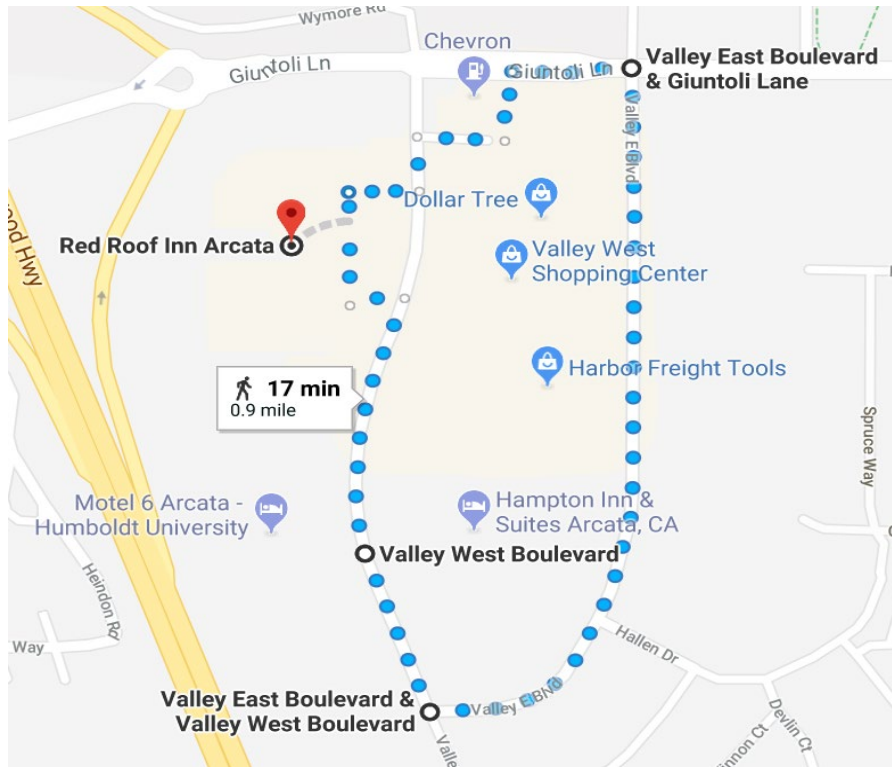
Route 2 – West on Giuntoli Lane to SR 101 to Heindon Road

The second assessment route focused on Giuntoli Lane going west to Heindon Road over SR 101. The Planning Committee selected this route due to the numerous crossing challenges at roundabouts the on- and off-ramps of SR 101, particularly for bicyclists. Starting the walking assessment at Red Roof Inn, participants walked north on Valley West Boulevard, then west on Giuntoli Lane crossing the two roundabouts at the SR 101 ramps, and ending at the Giuntoli Lane/Heindon Road intersection before returning to the Red Roof Inn.



Route 3 – Valley West & Valley East

The third assessment route focused on Valley West Boulevard and Valley East Boulevard. Starting the walk assessment at Red Roof Inn, this group walked south on Valley West Boulevard, east on Valley East, a slight detour onto Hallen Drive before continuing north on Valley East Boulevard, west on Giuntoli Lane, and south on Valley West Boulevard.

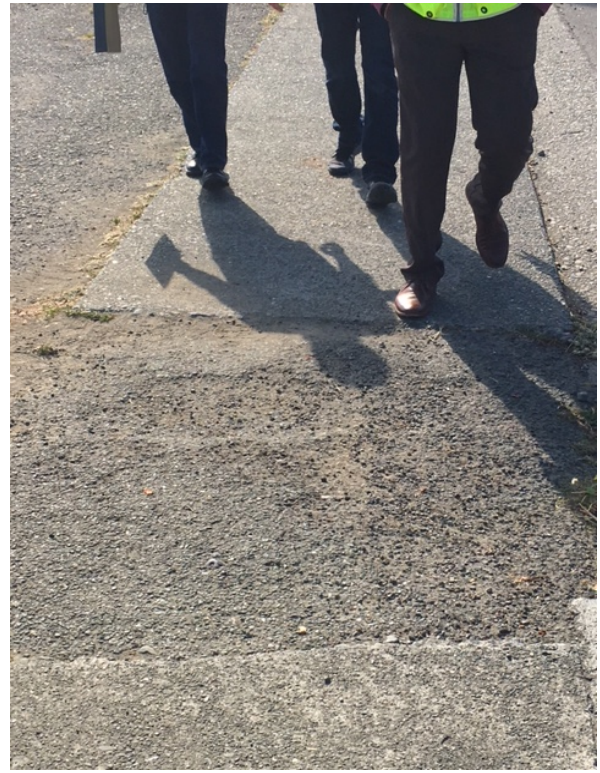


Following the walking and biking assessment, the participants shared the following reflections:

- **Missing Sidewalks and Various Sidewalk Conditions:** Though sidewalks are present on the Valley East and West Boulevard loop, many areas in the community lack sidewalks, most notably, sections of Giuntoli Lane. Participants identified missing sidewalks on Giuntoli Lane from Boyd Road to West End Road; the entire north side of Giuntoli Lane heading west from Valley West Boulevard; and on West End Road south toward Alder Grove Road. Participants also noted that where sidewalks exist, the widths and maintenance conditions of the sidewalks varied throughout the community. Participants on Route 3 noted that the sidewalks along Valley West Boulevard and Valley East Boulevard are narrow and challenging to navigate, particularly for individuals using assisted mobility devices and the elderly. Participants also experienced a number of sidewalk obstructions (e.g., utility poles, overgrown vegetation) and tripping hazards (e.g., large cracks in the sidewalk, gravel) on some segments of sidewalks along Giuntoli Lane and Valley East Boulevard near the Stonebridge Montessori Academy.



Workshop participants walk on a dirt path along Giuntoli Road towards West End Road



Rough and gravelly sidewalks along Giuntoli Lane.

- Additional Roadway and Wayfinding Signage:** Participants noted a lack of signage in the community, including pedestrian crossing signage, bicycle lane and bicycle wayfinding signs, and landmark signs identifying the Valley West community. Participants on Route 1 noted a lack of signage and road markings identifying the bike lane along Giuntoli Lane, especially at the SR 299 on- and off- ramps. Workshop participants also identified a need for wayfinding signage to direct bicyclists to nearby destinations such as parks, schools, and nearby trails, similar to wayfinding signage present in other parts of Arcata. Participants on Route 3, for example, were excited to experience Valley West Park for the first time—many participants were not aware of the park’s location despite living in the neighborhood. Participants also shared that advanced pedestrian crossing warning signage at Boyd Road may help signal to motorists to expect pedestrians in the marked crosswalk on the southside of Giuntoli Road.



A bicyclist rides along Giuntoli Lane and Boyd Road where the bicycle lane markings end.



Playground at Valley West Park at Hallen Drive is not easily found by both residents and non-residents.

- Challenging Marked and Unmarked Crossings:** Though sidewalks do not exist on Giuntoli Lane or West End Road near the SR 299 on- and off-ramps, participants on Route 1 shared that residents regularly walk in this area. Accordingly, participants expressed that they would feel safer walking in the area with marked crosswalks as a short-term improvement, while the City, County, and Caltrans work toward installing sidewalks in the long-term. Participants on Route 2 appreciated the high-visibility crosswalk at the Heindon Road/Giuntoli Lane intersection but noted that the existing street configuration and markings were not sufficient. The high-visibility crossing that goes across Heindon Road is skewed to accommodate a very wide turning radius for drivers turning right onto Giuntoli Lane, thereby creating a longer crossing distance for pedestrians. Additionally, participants observed that there are no crosswalks across Giuntoli Lane at this intersection that would enable residents to access the regional Hammond Trail and Mad River on foot or by bike. Participants supported the addition of a high-visibility marked crossing across Giuntoli Lane with enhancements, such as pedestrian refuge islands and rectangular rapid flashing beacons to increase the visibility of pedestrians.

- **Inadequate Street Lighting:** Participants identified limited nighttime visibility for and of pedestrians and bicyclists as a major safety challenge. While the neighborhood has some lighting, most street lights are directed at the roadway and largely illuminate the driving lanes only. In general, the neighborhood lacks pedestrian-scale lighting along most sidewalks, at pedestrian crossing locations, at transit stops, and at Valley West Park. Participants highlighted that the lack of pedestrian-scale and street lighting on Giuntoli Road between Valley West Boulevard and West End Road and the presence of many driveways along Giuntoli Road are safety barriers that makes it difficult to navigate at night. Participants on Routes 1 and 3 shared that they will not leave their homes or walk at night along Valley West Boulevard and Valley East Boulevard once the sun sets because of the missing street lighting, limited visibility, and fear that they will not be seen by motorists.



Giuntoli Lane in the late afternoon, looking west from the transit stop towards CA US 101 has long stretches with limited streetlights.

- **Challenging Roundabouts for All Users:** Participants in Route 2 observed and evaluated two roundabouts that cross SR 101. Participants identified two major challenges with the current roundabouts and user behaviors. When pedestrians cross at the designated marked crosswalks, drivers generally tend to yield the right-of-way to pedestrians. However, this has the unintended consequence of causing drivers to come to a full stop in the roundabout. Because roundabouts are generally designed to facilitate free-moving traffic, drivers are not expecting other drivers to stop in roundabouts, and participants shared that during peak traffic times, many rear-end collisions occur.

The second major challenge is related to how a bicyclist is expected to navigate this roundabout. Though a bike lane exists on the south side of Giuntoli Lane, the eastbound bike lane abruptly ends as it approaches the roundabout. Participants deduced that eastbound bicyclists are expected to ride onto an unmarked curb ramp, navigate on the sidewalk to clear the roundabout, and then descend another unmarked curb ramp to re-merge into traffic. Participants found this design to be confusing and unintuitive for bicyclists and for drivers who may not be expecting bicyclists to merge into traffic from the sidewalk. Moreover, the current roundabout design is inconsistent for westbound bicyclists who must bike along the north side of Giuntoli Lane with no bike lanes and navigate through the roundabout as a driver would.

- **Bus Shelters:** Not all transit stops in the community have bus shelters to protect riders from the elements, especially during the rainy season. Participants on Route 3 who travel by bus shared that some transit stops are in disrepair with trash adjacent to them and missing lighting and benches. On Route 3, a bus rider was observed sitting on the sidewalk waiting for the bus in front of the former Little Learners Center along Valley East Boulevard.



Bus shelter without a bench on Valley East Boulevard. Bus transit user awaits bus on sidewalk due to missing bus bench.



- **Unsafe Road User Behavior:** Participants noted a number of unsafe road user behaviors, including drivers traveling at speeds above the posted speed limits and failing to share the road with bicyclists; pedestrians crossing mid-block outside of marked or unmarked crossings; and bicyclists riding on the sidewalk and failing to yield at stop signs and marked crosswalks. On Route 3, participants observed pedestrians walking in the street in the bike lanes and crossing outside of marked and unmarked crosswalks. Participants on all routes also agreed that some drivers traveling along Giuntoli Lane, Valley West Boulevard, and Valley East Boulevard appeared to be traveling above the posted speed limits. Participants shared they do not feel safe crossing the street, even in the marked crosswalks along Valley West due to high vehicle speeds and drivers often failing to yield to pedestrians at marked crosswalks, particularly at Giuntoli Lane/Boyd Road.



Pedestrians cross Valley West Boulevard midblock and outside a crosswalk.

- **Individuals Experiencing Homelessness and Housing Insecurity:** Participants noted that the number of individuals experiencing homelessness is increasing in the community, particularly in empty lots and neighborhood park. Participants shared that community members experience housing insecurity often live in recreational vehicles (RVs) that are parked along the Valley West loop, which limits visibility between motorists, bicyclists, and pedestrians along Valley West Boulevard and Valley East Boulevard. Participants on Route 1 shared that there are Humboldt State University (HSU) students living in the community who are experiencing housing insecurity. As of April 2018, 19% of HSU students reported being housing insecure at least once in the last twelve months.²
- **Overgrown Vegetation and Lack of Shade Trees:** Participants shared that overgrown bushes and low hanging tree branches block visibility and access for pedestrians using the sidewalk along Giuntoli Lane, Valley West Boulevard, and Valley East Boulevard.



Narrow sidewalk with light post and overgrown tree roots creating barriers for pedestrians along Valley West Boulevard (left). Overgrown shrubbery limits walkability along Valley East Boulevard (right).

² An Unprecedented Look at CSU Students' Food and Housing Insecurity. Humboldt State Now. April 2018. Accessed September 30, 2018.

Key Opportunities to Improve Walking and Biking Safety

Following the walking and biking assessment, the Project Team facilitated small-group action planning discussions where participants prioritized and preliminarily planned infrastructure projects and community programs aimed at reducing the number of injuries and fatalities, as well as increasing the number of people and the frequency of walking and biking in Valley West.

Through a voting process during the training, participants chose to focus on and preliminarily plan for crossing enhancements and temporary demonstrations, a bicycling education campaign, and a neighborhood speed watch program. Participants self-selected which project they wanted to collaborate on with their fellow participants to develop a plan and discussed:

- The problem the infrastructure project/community program is intended to solve;
- The people, organizations and agencies that should be involved to implement the infrastructure project/community program;
- Resources needed to implement the infrastructure project/community program; and
- Short-term and long-term action steps to implement the infrastructure project/community program.

Community Recommendations

Workshop participants provided the following priority recommendations and next steps for overall pedestrian and bicyclist safety improvements in the workshop area and throughout the Jackson Academy community.

Community Programs, Policies, and Campaigns

- **Bicycle Educational Campaign:** Participants were interested in creating a comprehensive bicycle education program targeting youth and their parents, adults, and college students as a means to improve bicyclist behaviors in the community and create a safer environment for bicyclists and drivers. Participants in this group planned to outreach to and partner with the Arcata School District and HSU to create educational materials, such as pamphlets, a service directory, and signage throughout the community for students from K-12, parents, and university students with the premise that bicycling education begins at home and is a valuable life skill.

The partnership between the Arcata School District and Humboldt State University envisions HSU students educating youth through presentations, bike rodeos, and group bike rides. In order to see these projects through to fruition, the participants identified the Arcata School District, HSU, Humboldt State University Police, Arcata Police Department, the City of Arcata, local bicycle organizations, local bicycle shops, and parents as key partners for implementation. Participants committed to forming a group of community leaders who conduct outreach to HSU students to participate in the creation of educational tools to distribute in the community and to begin

organizing presentations, bike rodeos, and group bike rides. Participants hope to form a community group and begin conducting outreach to students and the district by the end of 2018. They also hope to develop educational materials and host one bike rodeo within a year of the CPBST.

- **Neighborhood Speed Watch and Education Program:** Participants were interested in implementing a neighborhood speed watch and education program utilizing handheld speed radar devices and roadway speed feedback signs as a strategy to reduce high vehicle speeds in the community. Participants identified Giuntoli Lane, Valley West Boulevard, and Valley East Boulevard as the target corridors for the program. The main goals of the program are to increase drivers' awareness of how fast they are traveling and to alert drivers when they are traveling at excessive speeds through the use of speed radar devices and warning letters issued by the California Department of Motor Vehicles (DMV) office in Eureka. In order to start the program, participants identified developing relationships with the DMV office in Eureka and the City of Arcata to assess the feasibility of the program and any support the two agencies can offer. Participants expected the program would require volunteers, signage, speed radar devices, and DMV collaboration to being the program and hoped to develop specific educational material to provide drivers. Cal Walks committed to e-mailing the group information on [Sacramento County's Neighborhood Speed Watch Program](#) to review and to scheduling a planning call in late October 2018 to discuss the program and identify next steps.

Infrastructure Concerns & Priorities

- **Crossing Enhancements and Temporary Demonstrations:** Participants were very interested in improving crossings in the neighborhood, particularly at intersections that currently lacked any marked crossings. Participants identified geographic proximity to parks, mobile home parks, bus stops, schools, and commercial developments (e.g. along Valley East Boulevard) as criteria for prioritizing the installation of new crosswalks. Additionally, this group identified some specific locations that sorely needed marked crosswalks, including all legs of the Wymore Road/Valley West Boulevard/Giuntoli Lane intersection and across Giuntoli Lane at the intersections east of Valley East Boulevard. Participants identified the key stakeholders for implementing these crossing enhancements as the City of Arcata, Humboldt County, Caltrans District 1, Humboldt County Public Health, residents, and local businesses. In particular, participants noted that residents will be crucial for collecting qualitative safety data to help in the prioritization of new crosswalk locations and enhancements. Additionally, improved interagency communications between the City, Count, and Caltrans will help streamline implementation of the crosswalk enhancements. In terms of specific crosswalk enhancements, participants voiced support not only for high-visibility crosswalk markings, pedestrian-scale lighting, rectangular rapid flashing beacons, and fluorescent crossing signage but also for more greening and aesthetic-focused safety improvements, such as landscaped medians that could also serve as pedestrian refuge islands.

Recognizing that many of these improvements will require a longer time frame to implement, this group also discussed hosting a temporary demonstration of crossing enhancements in May 2019 as a way to build momentum and sustain engagement with residents. The group identified the need for establishing a project team to oversee the temporary demonstration and set a goal of October/November 2018 to recruit project team members, as well as to gauge interest from City staff, particularly from the Public Works Department. Participants also discussed the importance of evaluating before and after conditions with the temporary demonstrations to measure success and impact on pedestrian and bicycle safety. The group also identified the following preliminary tasks that would need to be completed but left the target completion dates to be determined by the project team:

- Identify location(s), dates, and times for demonstration(s);
- Secure donations for the event, including spray paint, hay bales, traffic safety cones, chalk, webcam or GoPro camera;
- Recruit volunteers to help set up demonstration(s), conduct outreach, and assist with traffic control and evaluation activities;
- Promote demonstration event(s);
- Secure permit(s) and/or permit fee waivers from City or County as needed; and
- Develop evaluation plan and/or survey for before and after data collection, including, but not limited to, driver speeds, number of people walking, number of people crossing and driver yield rates to pedestrians crossing.

Cal Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the Planning Committee:

- **Expand Zagster Bikeshare to the Valley West Neighborhood:** Participants during the workshop repeatedly communicated that Valley West neighborhood is isolated from the rest of the City and felt that many Arcata residents do not view Valley West as part of the larger Arcata community. The Project Team **recommends that the City of Arcata explore the feasibility of expanding the existing Zagster Bikeshare system to the Valley West Neighborhood.** Expansion of the current bikeshare system beyond its current focus around HSU and Downtown Arcata can help to foster a shared sense of community identity, while also encouraging more travel between Valley West and the other neighborhoods of Arcata. Given the lower-income and demographics of the Valley West neighborhood, **any expansion of the system would require Spanish-language outreach and educational materials and include proactive strategies to enable people with low incomes, without credit cards, and with old or no smartphones to be able to access the system.** Potential strategies that may work in Valley West that have been implemented in other bikeshare systems include:

- Reduced fares or membership discounts for residents receiving state welfare or other assistance;
 - Enabling access to the system with cash payments that can be loaded onto membership cards in person; and
 - Enabling access to the system via text message to unlock a bike, ride, and end a trips. This strategy would enable riders without smartphones to be able to fully use the bikeshare system.
- **Lighting Assessment:** The Project Team encourages and recommends the Planning Committee and workshop participants to collaboratively conduct a community-wide street lighting assessment focused on pedestrian and bicycle lighting needs around Giuntoli Lane, Valley West Boulevard, Valley East Boulevard, and Valley West Park. Proper street lights provide safety and security as well as improve the overall well-being of road users. A lighting assessment can be used to identify and inventory nighttime pedestrian-scale lighting needs in areas of high nighttime pedestrian activity. A nighttime assessment will also identify lighting fixtures in need of repair or replacement, and with an inventory, the City can develop a proactive and equitable plan for streetlight maintenance that is not complaint-driven. Lighting should be uniform and consistent to increase visibility.
 - **Valley West Park Wayfinding and Additional Signage:** Residents participating in the workshop were unaware of Valley West Park, a linear park located along Valley East Boulevard behind the apartment complexes from Poplar Drive to Valley West Boulevard and bisected by Hallen Drive. The park has a community playground along Hallen Drive. Although the park is listed on the [City of Arcata, Arcata Parks and Playground](#) map, participants did not see any entrance signage identifying the park. The Project Team **recommends the addition of an entrance sign at Hallen Drive** near the park parking lot (at Poplar Drive) and interpretative signage explaining the park floods during rainy season. Participants shared that while the playground can be used year-round, some portions of the park flood. The Project Team also **recommends the City explore the possibility of adding a trail or sidewalk through the park** to allow residents a safe, comfortable and pleasant place to walk. Several older residents shared they walk regularly in the community and would like to have additional places to walk away from vehicle traffic.

Appendix A

Pedestrian and Bicycle Collision Data Analysis
Workshop Handout

2013-2017 ARCATA VALLEY WEST DATA ANALYSES

Community Pedestrian and Bicycle Safety Training Workshop August 29, 2018

The goal of the Community Pedestrian and Bicycle Safety Training (CPBST) is to make communities safer and more pleasant for walking and bicycling. This workshop will train local residents and safety advocates in pedestrian and bicycle safety as well as create opportunities for collaboration with local officials and agency staff.

This fact sheet highlights some of the most recent pedestrian and bicycle collision data available for Arcata Valley West to help the community better prioritize recommendations that emerge from this workshop.

PEDESTRIANS

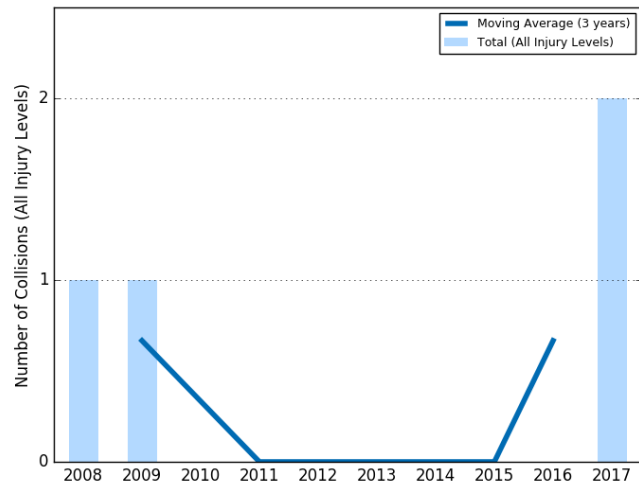


4 people were injured in 4 pedestrian collisions in the last 10 years (2008-2017).

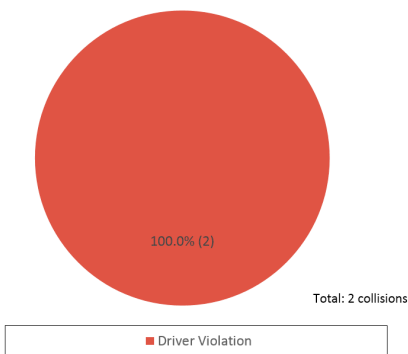
The **three-year moving average** line shows an **upward** trend in pedestrian collisions.*

There were **0** pedestrian collisions in 2016, but an average of **2** pedestrian collisions per year for the 3-year rolling average between 2015 and 2017.

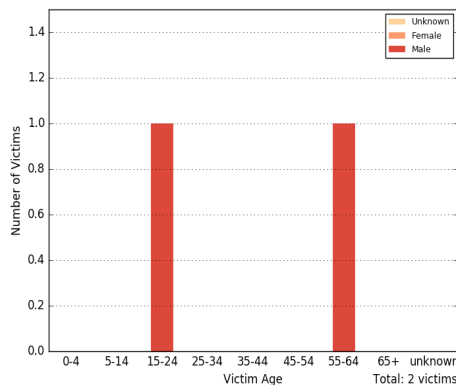
*This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are at the midpoint of the three years of data specified.



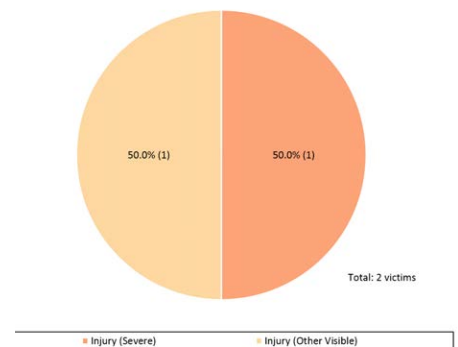
100% driver violations
VS.
0% pedestrian violations



* Note: There were only 2 collisions in the last 5 years (2013-2017).



100.0% of victims were male



50.0%
of victims (or 1 person) was
SEVERELY INJURED

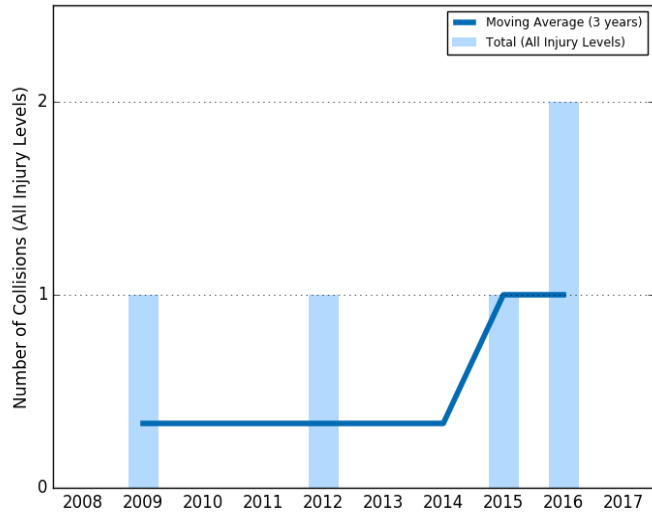
BICYCLES



5 people were killed or injured in 5 bicycle collisions in the last 10 years (2008-2017).

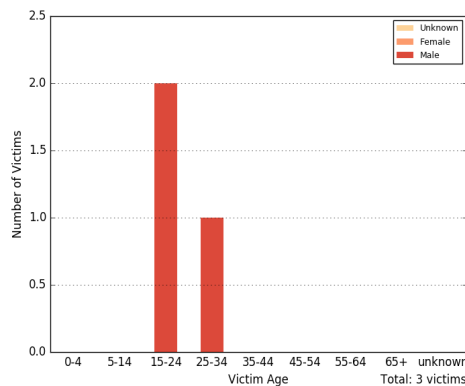
The **three-year moving average** line shows **no change** in bicycle collisions.*

There were **2** bicycle collisions in 2016, but an average of **1** bicycle collisions per year for the 3-year rolling average between 2015 and 2017.

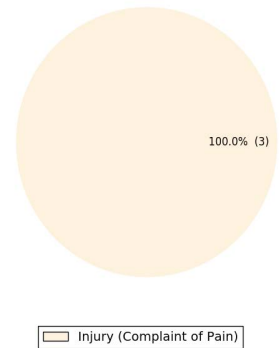


* This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are at the midpoint of the three years of data specified.

Bicycles **must follow all the same rules of the road as vehicles**. As a result, we cannot break down violations by driver vs. bicyclist.



100.0% of victims were male
100.0% of victims were age 19-29



100.0% of victims (or 3 people) had **MINOR INJURIES**

SUMMARY



37.8 pedestrian fatalities & injuries per 100,000 population over the last five years, which is **15.6% less than** Humboldt County and **5.3% more than** California



60.1 bicyclist fatalities & injuries per 100,000 population over the last five years, which is **65.1% more than** Humboldt County and **80.5% more than** California

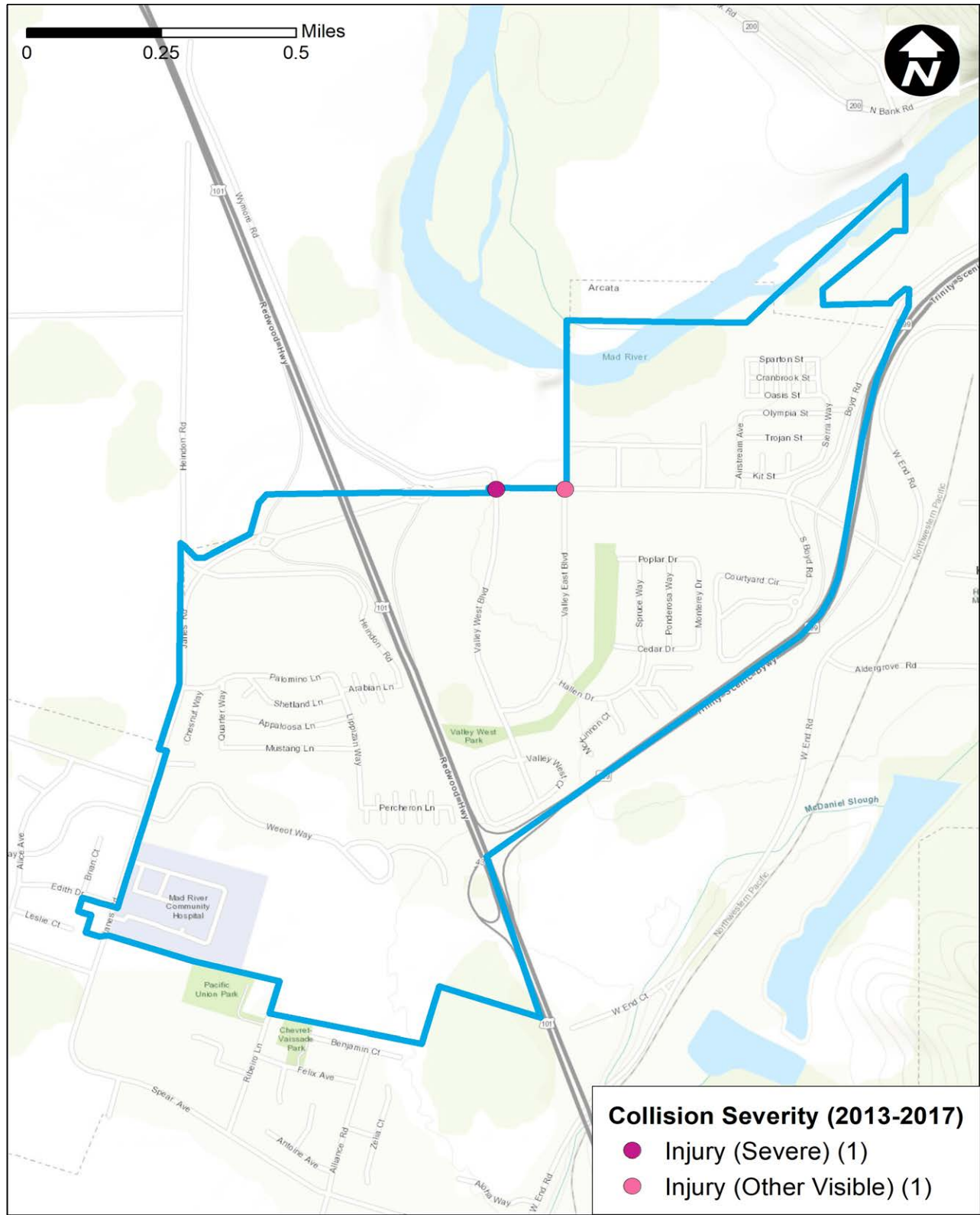
	Yearly Population Rate of Fatalities & Injuries per 100,000 Population Calculated Over a 5-year Period*	
	Pedestrian	Bicyclist
Arcata	37.8	60.1
Humboldt	44.8	36.4
California	35.9	33.3

Source: U.S. Census Bureau, Population Division (intercensal population data for 2016).

* The rate per population is calculated by adding the number of fatalities and injuries from 2012 to 2016 divided by five times the population in 2016.

Pedestrian Collisions 2013-2017

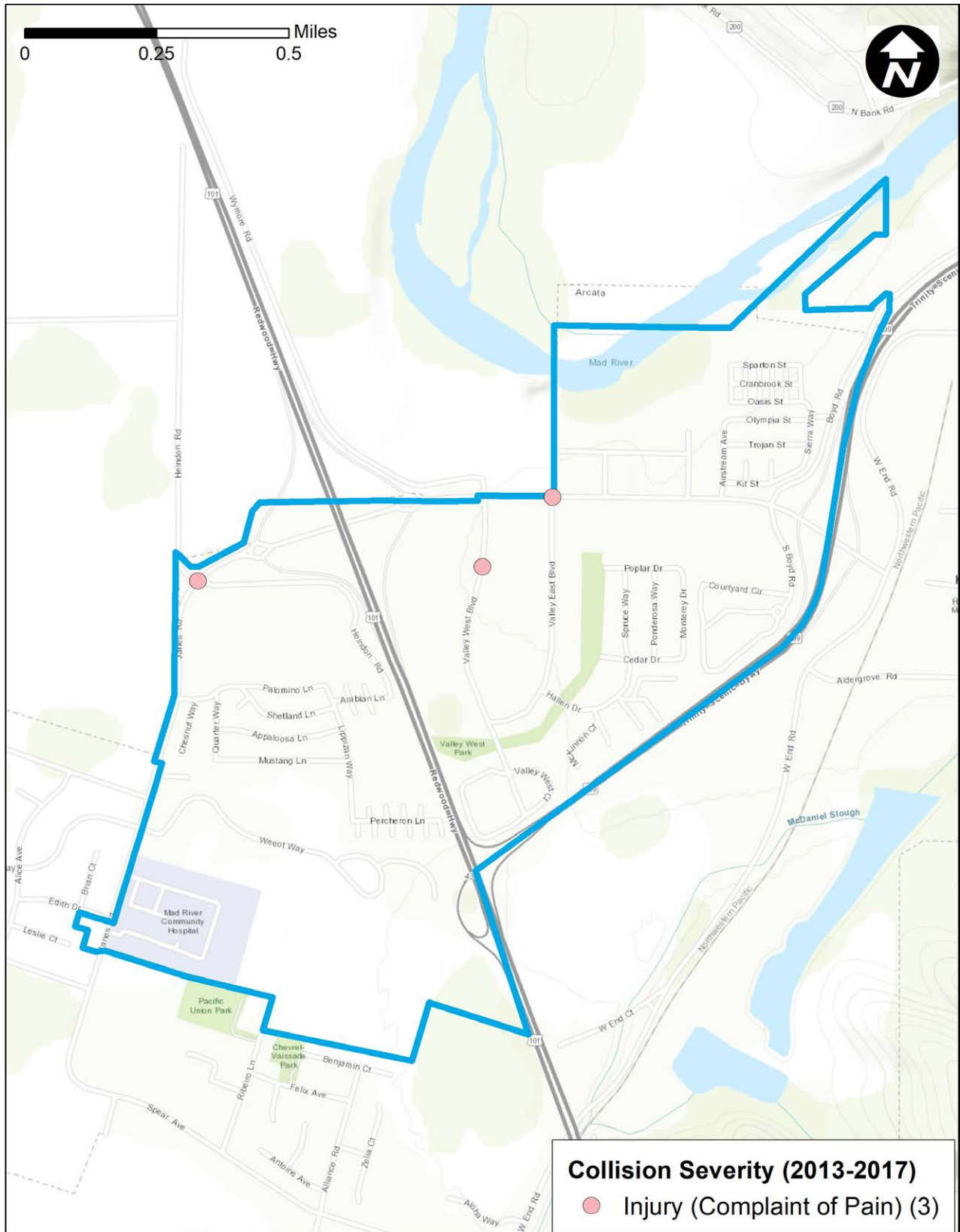
2 collisions mapped in the Valley West area of Arcata, CA.



Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional.

Bicyclist collision locations, 2013-2017

3 collisions mapped in the Valley West area of Arcata, CA.



Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional.

Appendix B

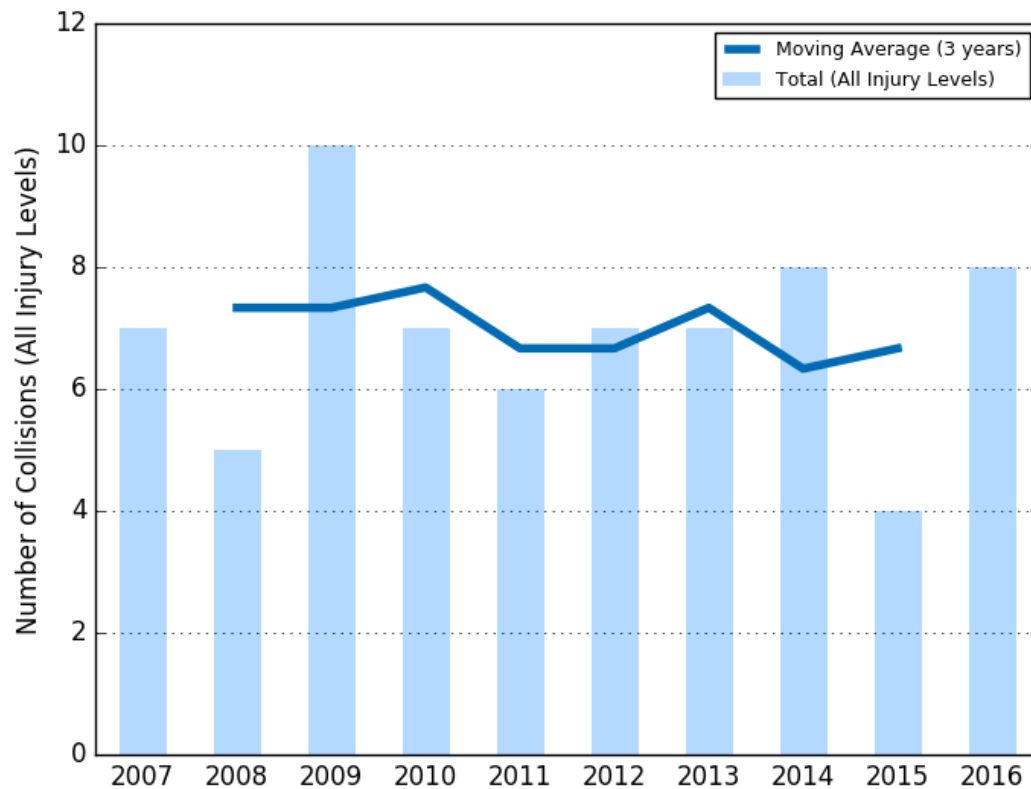
Pedestrian and Bicycle Collision Data Analysis
Site Visit Presentation

Community Pedestrian and Bicycle Safety Workshop - Data

Arcata, CA

6/27/18

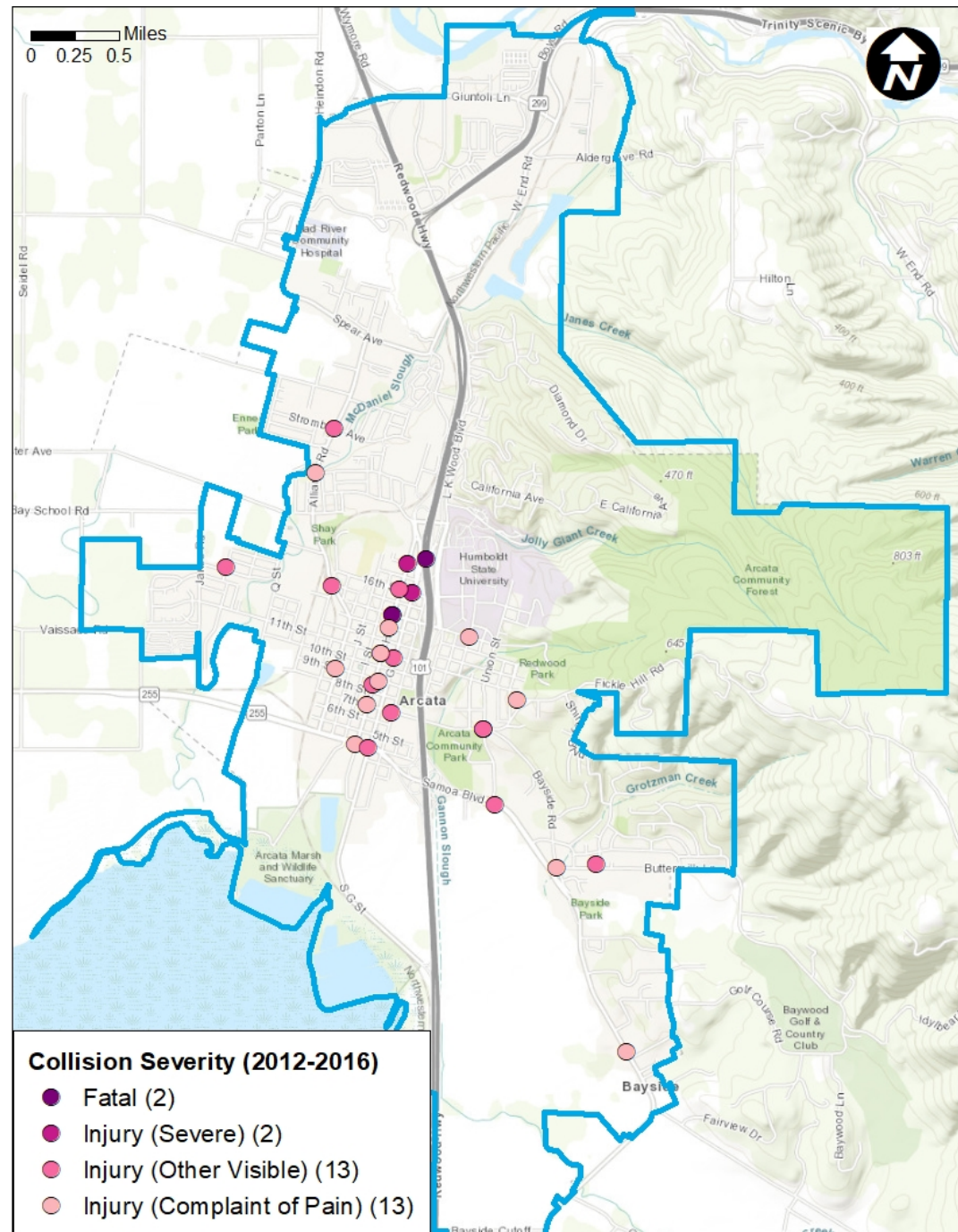
Pedestrian Injury Collision Trend with 3-year moving average



Source: Statewide Integrated Traffic Records System (SWITRS), 2007-2016;
2015 and 2016 SWITRS are provisional as of November 2017.

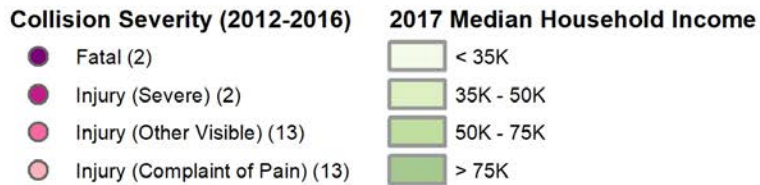
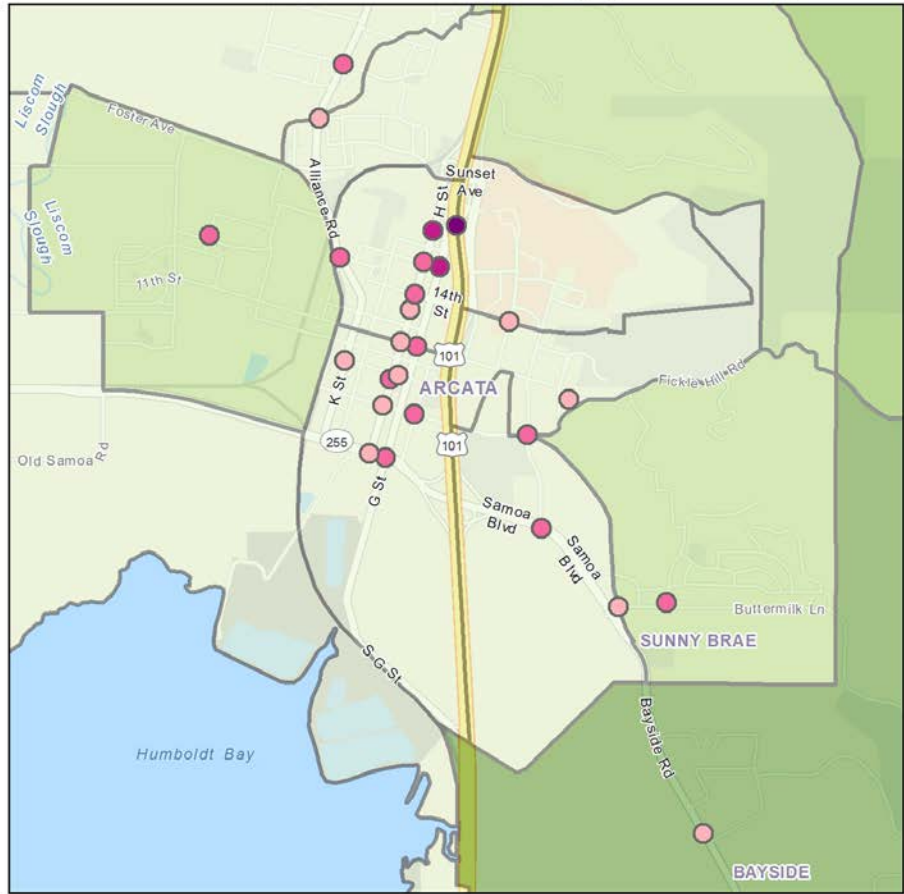
Pedestrian Injury Collisions 2012-2016

Only 30 of 34 collisions are mapped.



Source: SWITRS, 2012-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

Arcata Pedestrian Collision Map (2012 - 2016)



Pedestrian Injury Collisions by Time of Day and Day of Week Total: 34 collisions

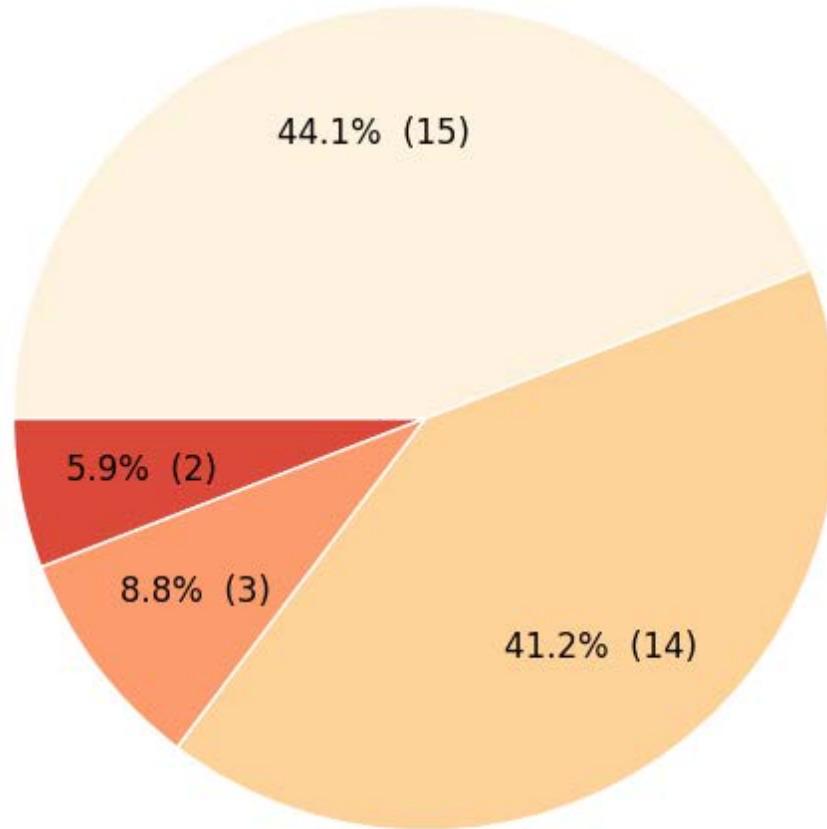
09:00PM-11:59PM	1	0	1	0	0	1	0
06:00PM-08:59PM	2	2	1	1	1	0	1
03:00PM-05:59PM	1	1	1	4	2	0	1
Noon-02:59PM	0	1	1	1	0	0	0
09:00AM-11:59AM	0	1	2	0	2	0	1
06:00AM-08:59AM	1	0	0	0	1	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0
Midnight-02:59AM	0	1	0	0	0	1	0
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

*The colors in this graph refer to how frequently a collision occurs at that time & day.

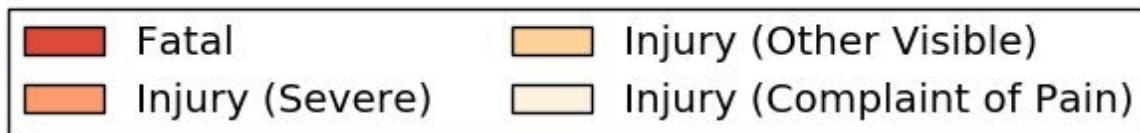
Top Violations in Pedestrian Injury Collisions Total: 34 collisions

CVC No.	Description	No.	%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	17	50.0%
0	Unknown	4	11.8%
21954	Pedestrian failure to yield right-of-way to vehicles	3	8.8%
22107	Unsafe turning with or without signaling	2	5.9%
22350	Speeding on the highway	2	5.9%
22106	Unsafe starting or backing of vehicle	2	5.9%
23152	Driving under the influence of alcohol	2	5.9%
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present	1	2.9%
21235	Failure of motorized scooter operator	1	2.9%
Total		34	100.0%

Pedestrian Victim Injury Severity

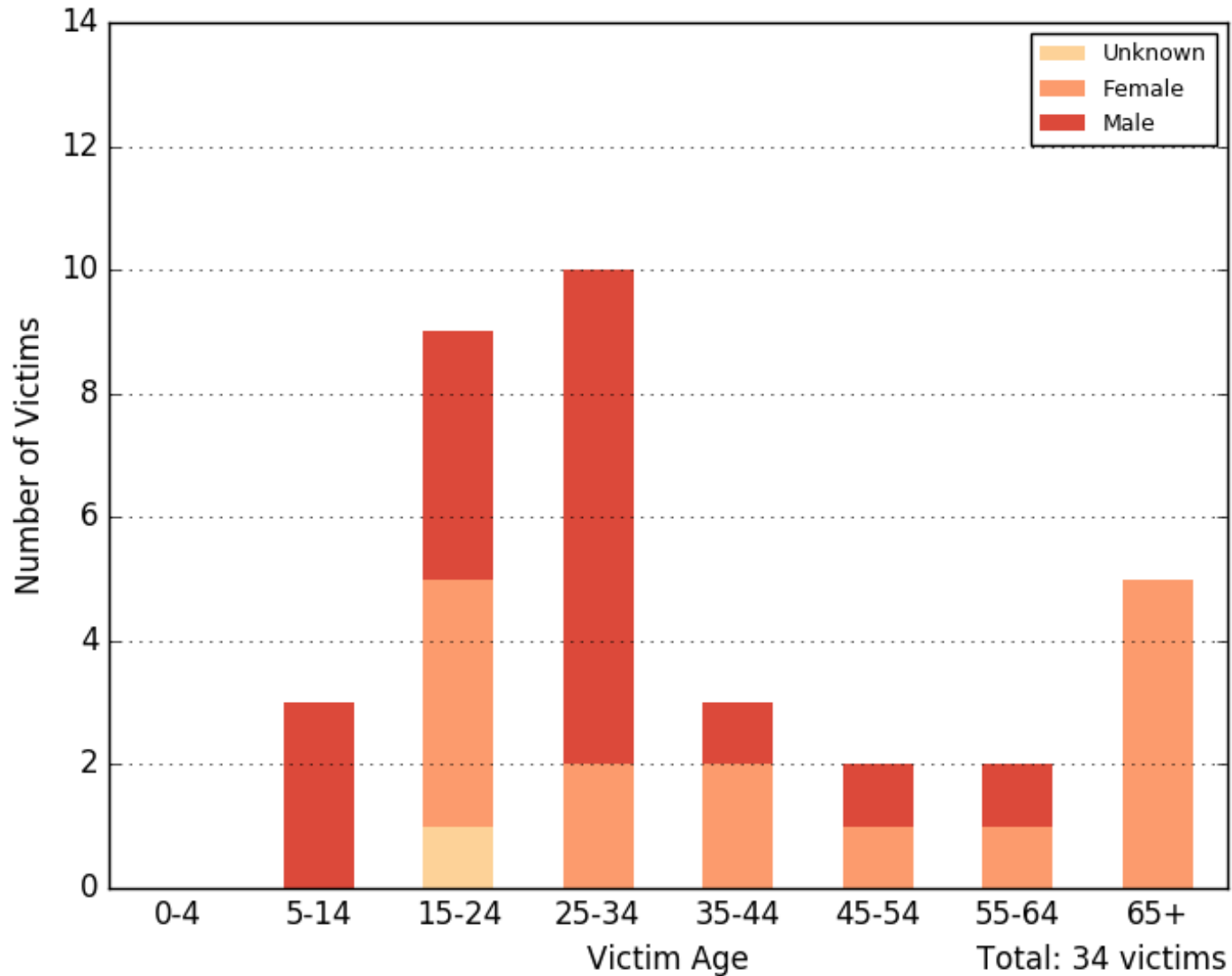


Total: 34 victims



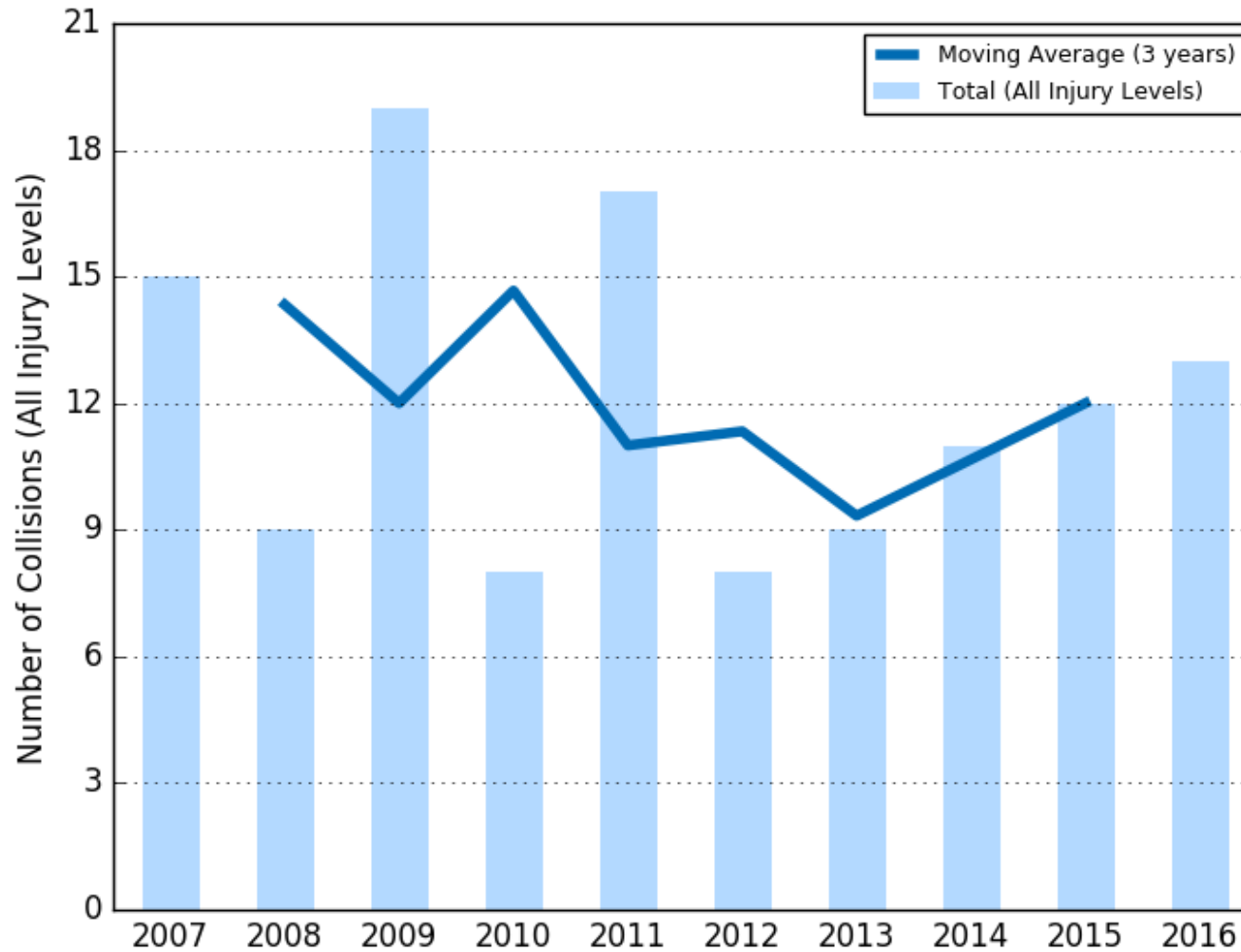
Source: SWITRS, 2012-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

Pedestrian Victims by Age and Gender



Source: SWITRS, 2012-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

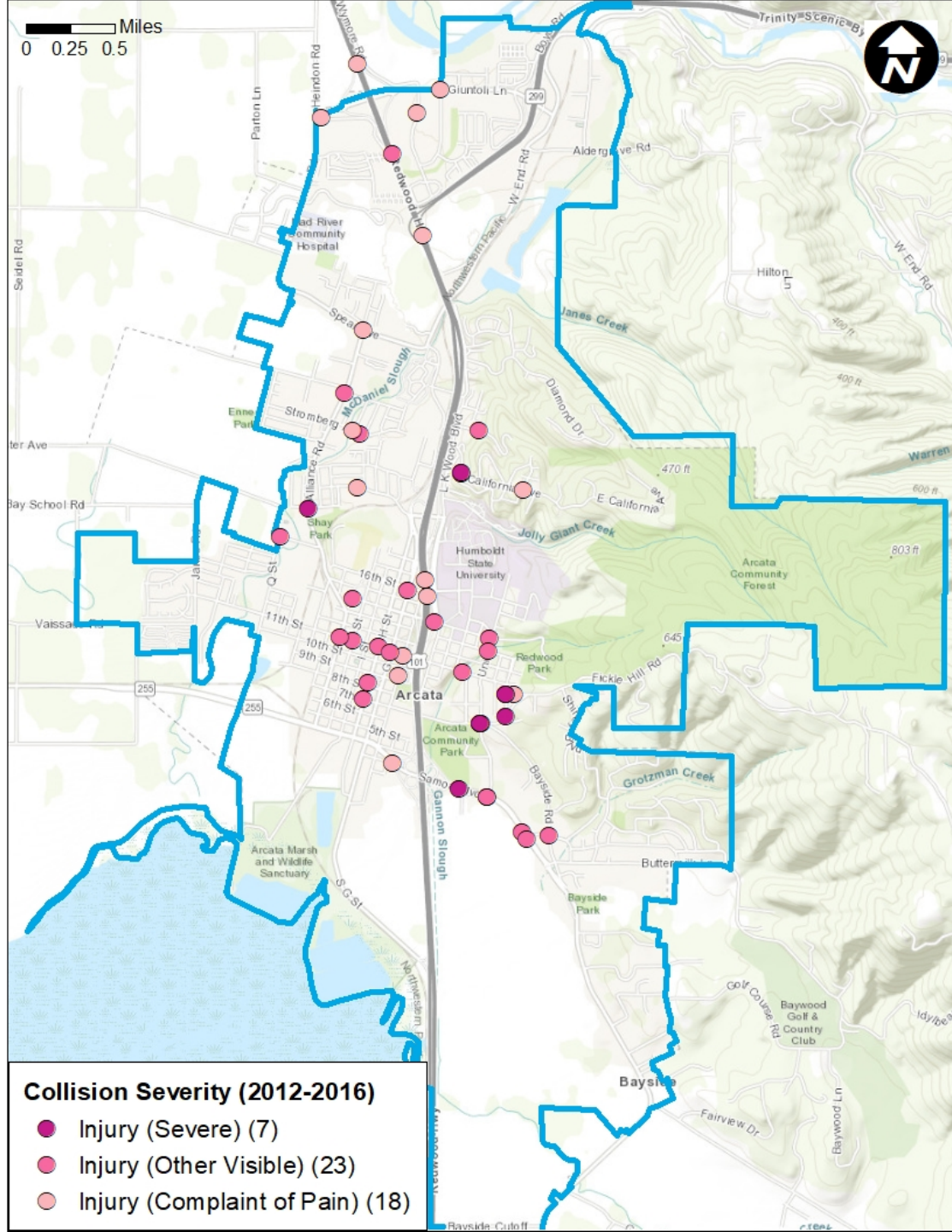
Bicycle Injury Collision Trend with 3-year moving average



Source: SWITRS, 2007-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

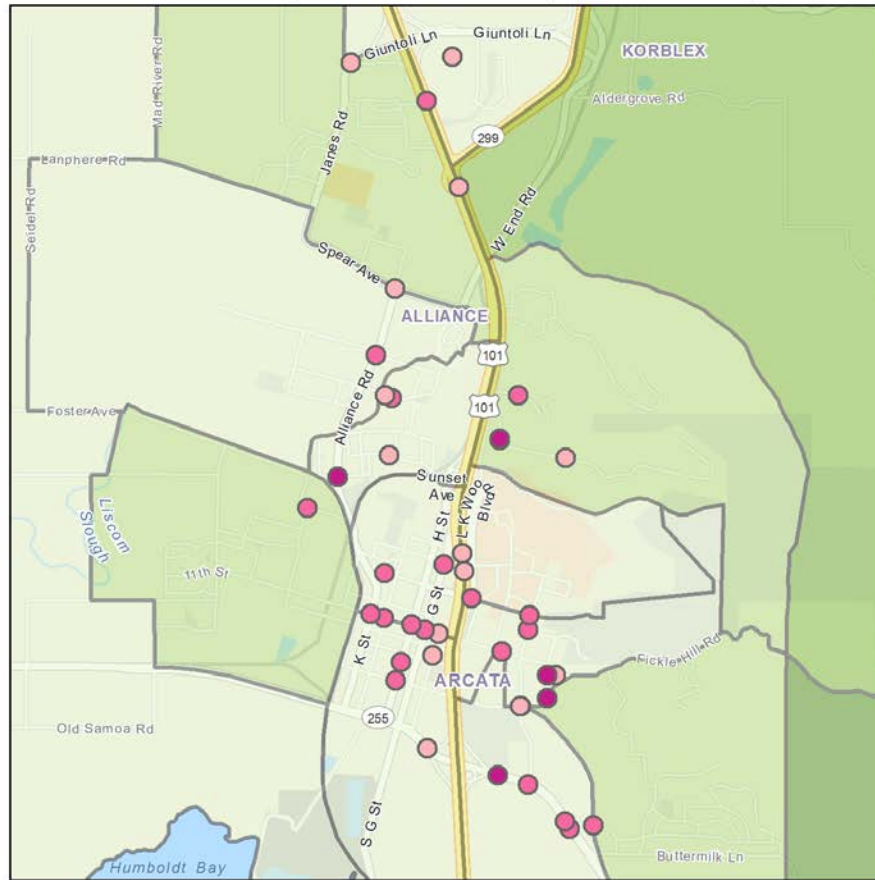
Bicycle Injury Collisions 2012-2016

Only 48 of 53 collisions are mapped.



Source: SWITRS, 2012-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

Arcata Bicycle Collision Map (2012 - 2016)



Collision Severity (2012-2016)

- Injury (Severe) (7)
- Injury (Other Visible) (23)
- Injury (Complaint of Pain) (16)

2017 Median Household Income

- < 35K
- 35K - 50K
- 50K - 75K
- > 75K

Bicycle Injury Collisions by Time of Day and Day of Week

Total: 53 collisions

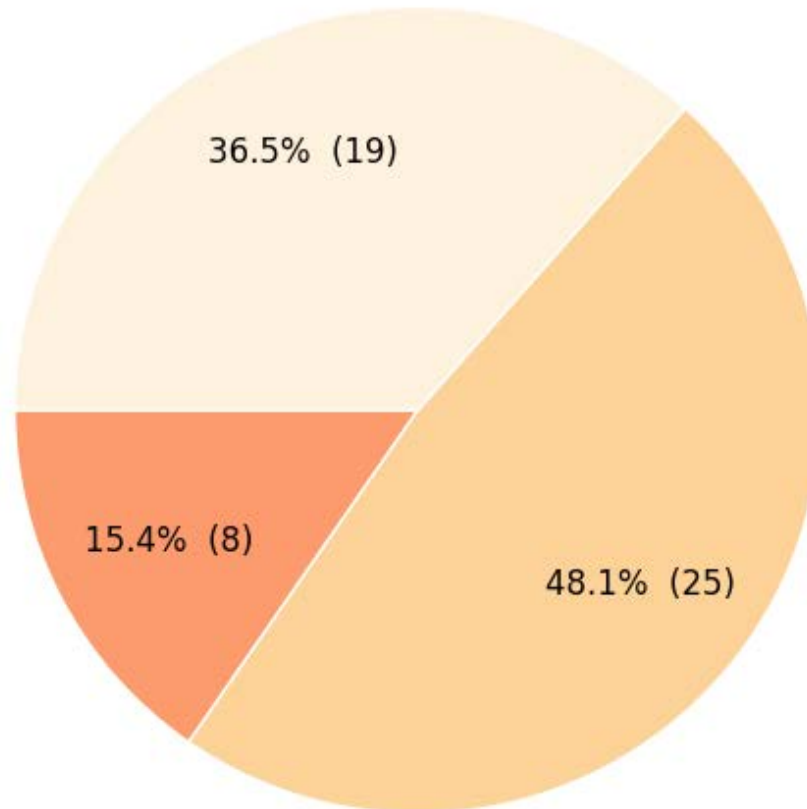
09:00PM-11:59PM	0	0	0	0	0	0	0
06:00PM-08:59PM	2	2	2	1	2	1	2
03:00PM-05:59PM	2	2	2	3	1	2	0
Noon-02:59PM	0	2	1	2	2	2	1
09:00AM-11:59AM	0	3	1	1	1	2	1
06:00AM-08:59AM	1	1	2	1	2	0	1
03:00AM-05:59AM	0	0	0	0	0	0	1
Midnight-02:59AM	0	0	0	0	1	0	0
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

*The colors in this graph refer to how frequently a collision occurs at that time & day.

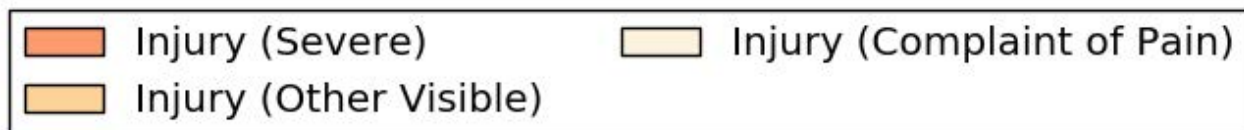
Top Violations in Bicycle Injury Collisions

CVC No.	Description	No.	%
22350	Speeding on the highway	9	17.0%
0	Unknown	8	15.1%
22107	Unsafe turning with or without signaling	7	13.2%
21200	Bicyclist failure to follow same rights and laws on the road as drivers	5	9.4%
21650	Failure to drive/ride on right half of the roadway (with some exceptions)	4	7.5%
22450	Driver failure to stop at a limit line or crosswalk at a stop sign	4	7.5%
21800	Failure to yield right-of-way at intersection	3	5.7%
21802	Failure to stop or yield right-of-way at a stop sign.	3	5.7%
21202	Bicyclist failure to ride on right edge of roadway if riding below the normal speed of traffic	2	3.8%
21760	Driver failure to pass bicyclists under safe conditions	2	3.8%
Total		47	88.7%

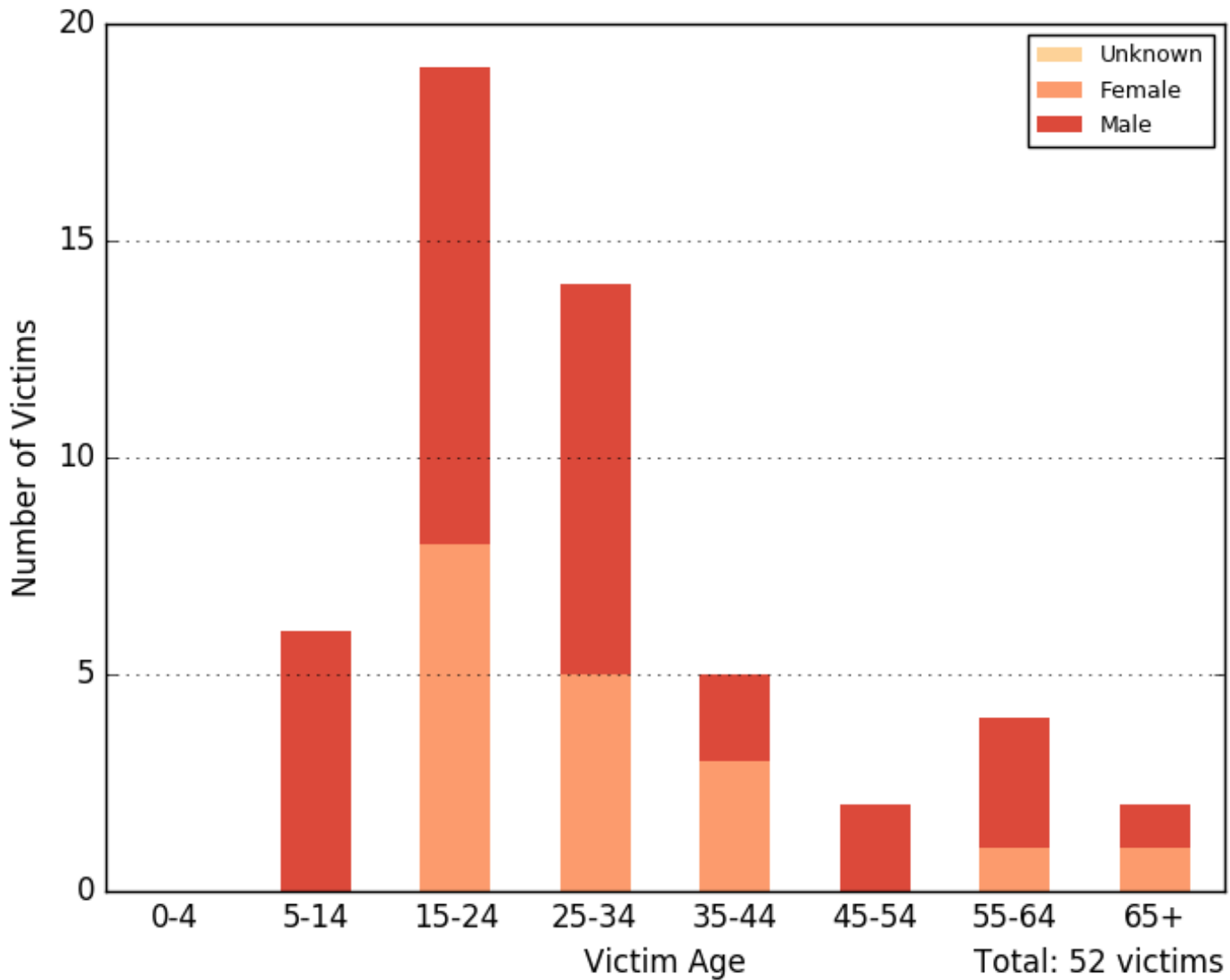
Bicycle Victim Injury Severity



Total: 52 victims



Bicycle Victims by Age and Gender



Source: SWITRS, 2012-2016; 2015 and 2016 SWITRS are provisional as of November 2017.

Laurel Tree Charter

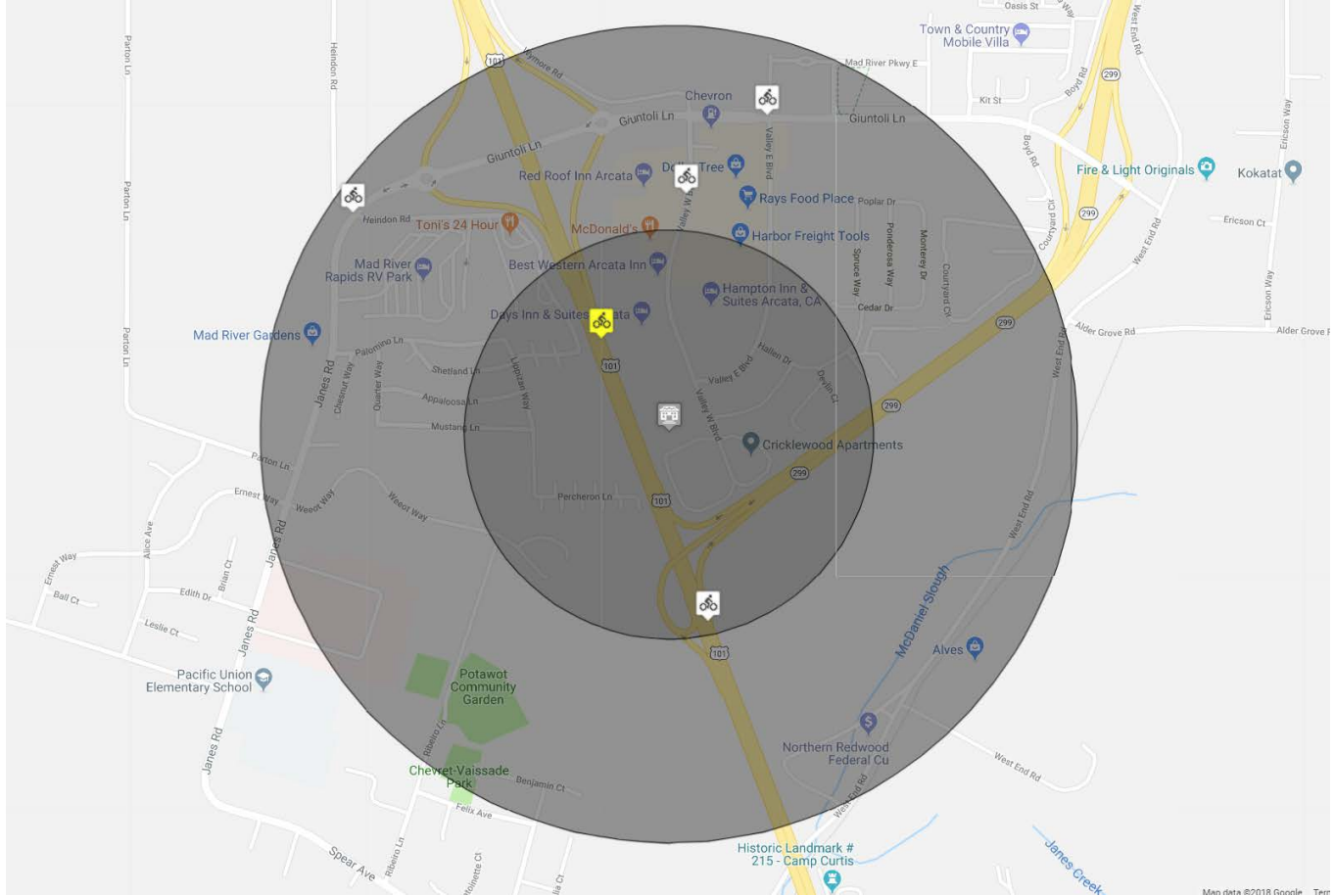
4555 Valley West Blvd | Arcata | Humboldt County | CDS: 12626870124263

Types of Collisions: Bicycle Pedestrian

Collision Severity: Fatal Severe Injury Other Visible Injury Complaint of Pain

Years: 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 * 2016 *

* 2015 - 2016 data is provisional and subject to change.



Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< 1/4 mi.	0	0	1	1	0	2	2
1/4 - 1/2 mi.	0	0	0	3	0	3	3
Total	0	0	1	4	0	5	5

The Transportation Injury Mapping System (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/>

