



STAFF REPORT

City Council

Meeting Date: 1/9/2024
Staff Report Number: 24-004-CC

Regular Business: Accept the Vision Zero Action Plan

Recommendation

Staff recommends that the City Council accept the Vision Zero Action Plan (Attachment A).

Policy Issues

The Vision Zero Action Plan (VZAP) is consistent with General Plan policies CIRC 1.1, 1.7, 1.8, and 1.9 that establish vision zero as the City's guiding safety policy and establish specific safety policies for multimodal travel and safe routes to school.

Background

The City's VZAP, also referred to as a local road safety plan, was developed to implement the City's Vision Zero policy to eliminate fatalities and reduce collisions by 50% by 2030, as identified in the Circulation Element of the General Plan. A local road safety plan is required for local jurisdictions to compete for several grant programs, including the Highway Safety Improvement Program, the regional One Bay Area Grant (OBAG) program, the federal Safe Streets for All program, and others. The City received a grant from the OBAG program for the Middle Avenue Caltrain crossing project and staff anticipate pursuing other grant sources for safety improvements in the future. Without an adopted local road safety plan, the City would not be eligible to pursue these grant funding sources.

The VZAP is an extension of the City's Transportation Master Plan (TMP), which was adopted by City Council Nov. 17, 2020. The TMP included safety as one of several factors to prioritize transportation investments in the City. The VZAP focuses exclusively on safety and uses the nationally developed safe system approach for eliminating fatalities and serious injuries on the transportation system. This approach recognizes that humans make mistakes and that collaboration with all agencies and groups that have a role in safety, including roadway designers, vehicle development, emergency responders, educators, the public and decision makers is needed. It takes a public health approach that seeks to reduce the physical forces that result from collisions to a level where humans can survive when collisions occur.

On Nov. 15, 2022, the City Council authorized an agreement with Fehr & Peers to help the City develop the VZAP. Building on the City's ongoing work to develop the Environmental Justice Element to the General Plan, the City worked with Climate Resilient Communities (CRC) to help extend the outreach and engage populations in Menlo Park's historically under-resourced and underserved areas (i.e., Belle Haven and the Bayfront neighborhoods).

On Aug. 24, 2023, the Complete Streets Commission received an update on the VZAP. One public comment was received supporting the VZAP's comprehensive approach to safety. The Commission discussed connections to the City's Neighborhood Traffic Management Program (NTMP), inclusion of "near miss" and police calls, challenges of achieving vision zero, jurisdictional boundaries, potential intersection

improvements, recent roadway safety improvements and community outreach efforts.

On Sept. 12, 2023, the City Council conducted a study session on the NTMP. During that update, the City Council discussed implementing the NTMP within the safety strategy provided by the VZAP. The City Council directed staff to bring back a revised NTMP that implements an approach to safety on local, residential streets.

On Oct. 24, 2023, the City Council received an informational update on the VZAP, followed by a study session Nov. 7. The study session included a review of the process to identify priority projects and the draft actions. City Council members were supportive of the plan, encouraged rapid implementation and requested a few changes:

- Adding an action item to create a crossing guard policy that applies to all school districts,
- Updating the action item related to school speed zones to near term
- Adding the term 'under-resourced' to underserved to describe equity priority areas (e.g., under-resourced and underserved neighborhoods)
- Adding an action to add signage for parking restrictions during street sweeping hours.

The status of these requests is included in Table 1, below.

On Dec. 13, 2023, the Complete Streets Commission unanimously supported staff's recommendation that the City Council accept the VZAP. Commissioners provided feedback on the use of data to inform the plan recommendations, the emphasis of the plan on systemic safety strategies, the need to support alternate modes to reduce vehicle use and collisions, the need to target enforcement on behaviors connected with injury and fatality collisions, and the need to provide the public with a simple, clear presentation of the top priorities emerging from the plan.

Outreach

The City conducted extensive outreach and engagement events to develop the VZAP, including:

- Three meetings of a stakeholder working group that includes representatives from multiple City departments, the Menlo Park Fire Protection District, SamTrans, Caltrans, and the City's Complete Streets Commission. The most recent meeting occurred in late October and reviewed the draft framework, project priorities and action plan.
- A listening session with community-based organizations serving Menlo Park residents to gather input and encourage participation in public events.
- Public workshops, held in both English and one in Spanish, at the Belle Haven Branch Library. Two workshops were conducted early in the summer to review identified safety challenges, with over 80 individuals participating. Two more were conducted in the fall to review project priorities, with over 180 people participating.
- A pop-up event at the Menlo Park downtown farmers market held in early fall.
- Targeted presentations to the Menlo Park Safe Routes to School Task Force.
- A presentation to seniors hosted by Peninsula Volunteers, Inc. at Little House. Staff also coordinated with the Menlo Park Senior Center, but there was not time in the schedule for a unique presentation. Senior Center staff provided seniors with information about other outreach opportunities and ongoing coordination on implementation is planned for 2024.
- Development of a website for the project, including outreach events.

Analysis

Staff and Fehr & Peers have completed a final VZAP (Attachment A) and are working to capture key elements of the plan through a summary handout that will be available by mid-January. Several appendices to the plan are included on the project website (Attachment B). The plan includes a comprehensive review of safety data, identification of priority projects, and detailed actions to advance safety.

Table 1 summarizes City Council and Complete Streets Commission feedback that recommended specific changes and the actual changes made to the plan. Consistent with grant funding requirements and as communicated to City Council at the Nov. 7, 2023 study session, staff submitted the VZAP to the Metropolitan Planning Commission Dec. 21, 2023. Staff will incorporate any requested City Council changes into a revised version, though significant changes to the document at this time could disqualify the City for \$5 million in grant funding for the Middle Avenue Caltrain crossing project since submittal of the VZAP to MTC by the end of the 2023 calendar year was required to receive grant funding

Table 1: Changes to final plan based on City Council and Commission feedback			
Comment number	Comment	Modification to the VZAP	Page reference
CC-1	Add action item to develop crossing guard policy that is consistent across school districts	Added to action item for Citywide crosswalk policy	Page 53
CC-2	Update school speed zone action to near term	Changed to Near/Mid-term. Staff can start this process in the near term, but it will take multiple years to complete.	Page 52
CC-3	Include the term 'under-resourced' in addition to underserved neighborhoods	Updated.	Pages 11, 39, 40, 49, 50, 52
CC-4	Add signage for parking restrictions during street sweeping hours	No change. Staff will evaluate this request outside of the VZAP as a non-safety issue.	N/A
CSC-1	Make project prioritization simple and clearly responsive to where there are collisions	Updated project prioritization section	Pages 39-40
		Added a simple map with top priorities across all projects, included in the summary handout	Will be included in Handout
CSC-2	Reference the centrality that automobiles play in contributing to collisions and the role of mode shift in improving safety	Added text about the synergy between mode shift and safety	Page 8

Priority projects

A key product of the VZAP is a prioritized list of projects. Having a list of priorities helps to focus City resources and is also a requirement for several grant programs that the City might consider pursuing.

The VZAP includes the following priority projects:

- Ongoing TMP safety projects. The TMP identified a robust list of transportation projects considering safety and other factors. Several TMP corridor projects have been funded through the capital improvement program and are in progress. These projects were reviewed in context of the VZAP, which confirmed that each addresses a safety concern.
- Side-street stop controlled intersections. This project would develop and implement quick build improvements to enhance the safety of people crossing streets where the side street has a stop and the

primary street does not.

- Signalized intersections. This project would develop and implement signage, signal timing, pavement marking and similar improvements to address collisions at the City's signalized intersections.
- Slow streets/updated NTMP process. This project would identify and prioritize traffic calming on local streets, with a focus on streets that experience high speeds and cut-through traffic, while providing low cost options to encourage slow speeds on all residential streets.

Based on feedback from City Council, the Complete Streets Commission, and public events, the final prioritization approach considers three primary factors:

- History of collisions – locations with a concentration of collisions, especially severe collisions
- Speed – locations with above average speeds, which tend to lead to more severe collisions
- Presence of vulnerable road users – locations in historically under-resourced and underserved areas of the City or where children, seniors and transit riders are expected

In addition to these three factors, the slow streets/updated NTMP process would also consider the extent of cut-through traffic. The methodology to evaluate cut-through traffic will be defined as part of updating the NTMP process.

This approach provides a flexible framework that staff can use to dynamically evaluate both network considerations and requests that are received from the public.

Near term actions

Another key product of the VZAP is the action plan. The action plan is organized according the Safe System principles (Attachment C), the national framework used by vision zero cities to provide a comprehensive, collaborative approach to eliminating fatalities and serious injuries. Table 2 lists recommended near term actions.

Table 2: Recommended near term actions

Safe systems element	Near term actions (within one year of plan adoption)
Planning culture (relevant to all principles)	<ul style="list-style-type: none"> • Vision zero coordinator and agency working group – this will provide a means to track the plan and coordination across the City and with other agencies on plan implementation. The coordinator will be a member of the Public Works – Transportation staff. • Grant funding – continuing to pursue grants to implement transportation safety priorities. <ul style="list-style-type: none"> • Under-resourced and underserved communities in plans and projects – continuing to incorporate equity into all the transportation planning and design work conducted by the City, building on the work conducted for the Environmental Justice Element and the VZAP.
Safe users	<ul style="list-style-type: none"> • Youth leadership – this action builds on the City’s existing Safe Routes to School (SRTS) program to work with youth leaders through both SRTS and the Youth Advisory Commission who can help build a culture of safety for middle and high school students. • High-risk behaviors – this would target enforcement activities on vehicle code violations most likely to lead to severe collisions. In the near term, the police department would work on improving tools to track the reasons for traffic stops.
Safe roads	<ul style="list-style-type: none"> • Quick builds – implementing high priority improvements with low cost countermeasures where possible, similar to work completed at Menlo Avenue and University Drive and at Willow Road and Alma Street. • School speed zones – Design 15 mph (miles per hour) school zones aligned with target speed in those areas.* • Crosswalk policy – updating the City’s 2016 crosswalk policy to address how crosswalks are marked and enhanced across the City; ensuring consistent use of crossing guards across school districts*
Safe speeds	<ul style="list-style-type: none"> • Slow streets – this action includes reshaping the City’s NTMP as directed by City Council to proactively address speeding and cut through traffic on local streets.
Post-crash care	<ul style="list-style-type: none"> • Rapid response team – this would create a team comprised of Police, Public Works, and possibly other staff in reviewing locations with severe collisions. This would be piloted in the near term to develop a process.
Safe vehicles	<ul style="list-style-type: none"> • No near term actions recommended.

* Added or updated at the request of City Council

Impact on City Resources

The City Council included funding for the VZAP in the fiscal year 2022-23 capital improvement plan from the transportation fund. Implementation of the priority projects and action plan recommended in the VZAP will be requested through future operating and capital budgets.

Environmental Review

This informational update is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§ 15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Vision Zero Action Plan
- B. Hyperlink – VZAP webpage: menlopark.gov/visionzero
- C. Hyperlink – Federal Highway Administration (FHWA) Safe Systems approach website: highways.dot.gov/safety/zero-deaths

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Menlo Park Vision Zero Action Plan

January 4, 2024

Acknowledgements

Thank you to the community members and stakeholders who participated in virtual and in-person engagement events. Your input was invaluable in creating a successful Menlo Park Vision Zero Action Plan. Thank you to the elected officials, Menlo Park staff, Complete Streets Commission, business community, and Safe Routes to School group for providing input during this process. Your feedback helped align this plan with local priorities, policies, and existing programs. Thank you to Climate Resilient Communities, a community-based organization, for partnering with the City to elevate the voices of the Belle Haven community in the planning process.

Elected Officials

Cecilia Taylor, Mayor

Drew Combs, Vice Mayor

Maria Doerr, City Councilmember

Betsy Nash, City Councilmember

Jen Wolosin, City Councilmember

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Matthew Hui, Assistant Engineer

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Diana Shu (Road Operations Manager, County of San Mateo)

John Darroch (Operations Manager, Climate Resilient Communities)

Jon Johnston (Fire Marshall, Menlo Park Fire Protection District)

Sally Cole (Vice Chair, City of Menlo Park Complete Streets Commission)

Andre-Anne Cadieux (Coordinator, City of Menlo Park Safe Routes to School Task Force)

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Table of Contents

A Call to Action	6
About Vision Zero	6
Building on Prior Safety Investments	8
Plans	8
Infrastructure Projects	8
A Collaborative Effort	11
The State of Safety in Menlo Park	14
Key Safety Trends.....	15
Key Terms.....	16
Limitations to the Data.....	16
Vulnerable Populations.....	17
Where Collisions Occur.....	18
The Importance of Speed	21
Benchmarking Safety Practices	22
Roadway Contexts and Safety Countermeasures	23
State-Owned Roadways	23
Circulatory Roadways	26
Neighborhood Spotlight: Belle Haven	28
Local-Serving Roadways.....	29
Signalized Intersections.....	31
Neighborhood Spotlight: El Camino Real/Downtown Area	33
Side Street Stop Controlled Intersections	34
Neighborhood Spotlight: The Willows.....	36
School Zones	37
Priority Safety Projects	39
Prioritization Criteria	40
Priority Safety Project Locations	45
Safety Action Plan	48
Implementation Strategies	56
Evaluation Strategies	59

Appendices

- Appendix A: Engagement Activities Summary
- Appendix B: Collision Analysis Summary
- Appendix C: Benchmarking Assessment
- Appendix D: Countermeasure Toolbox

List of Figures

Figure 1: Ongoing Transportation Master Plan Infrastructure Safety Projects	9
Figure 2: Menlo Park Injury and Fatal/Serious Injury Collisions by Year	14
Figure 3: Menlo Park Injury Collision Victim Race versus Census Race Distributions	17
Figure 4: All Injury Collisions and Fatal/Serious Injury Collisions in Menlo Park (2017-2021).....	19
Figure 5: High Collision Corridors.....	20
Figure 6: State-Owned Roadways in Menlo Park	25
Figure 7: Circulatory Roadways in Menlo Park	27
Figure 8: Belle Haven Neighborhood Circulatory Roadways, State-Owned Roadways, and Collisions.....	28
Figure 9: Local-Serving Roadways in Menlo Park.....	30
Figure 10: Signalized Intersections in Menlo Park	32
Figure 11: El Camino Real/Downtown Area Signalized Intersections and Collisions	33
Figure 12: Side Street Stop Controlled Intersections in Menlo Park.....	35
Figure 13: The Willows Neighborhood Local Serving Roadways and Collisions.....	36
Figure 14: School Zones in Menlo Park	38
Figure 15: Systemic Safety Project Locations: Signalized Intersections	42
Figure 16: Systemic Safety Project Locations: Side Street Stop Controlled Intersections	43
Figure 17: Ongoing Transportation Master Plan Safety Projects & High Collision Corridors	44

List of Tables

Table 1: Top Priority Safety Project Locations.....	45
Table 2: Safety Project Funding Sources	57

A Call to Action

Every year in the City of Menlo Park (Menlo Park), approximately one person dies and five people are seriously injured due to traffic collisions. These deaths and serious injuries cause tragic personal loss for family and friends and significantly impact the Menlo Park community. They are preventable and unacceptable – no one should lose their life or experience a life-altering injury while traveling on Menlo Park streets, no matter who they are or how they travel.

Menlo Park’s commitment to Vision Zero began with the adoption of a Vision Zero policy in the General Plan Circulation Element in 2016, which was incorporated into the 2020 Transportation Master Plan. With the Vision Zero Action Plan (“Plan”), Menlo Park affirms its goal to **eliminate all traffic fatalities and serious injuries by 2040**. The Vision Zero Action Plan serves as a blueprint for Menlo Park to achieve this ambitious goal through prioritized investment in infrastructure, education, emergency services, enforcement, and culture change.

About Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and serious injuries while increasing safe, healthy, and equitable mobility for all. Vision Zero is a departure from the traditional approach to safety in several important ways:

- Vision Zero emphasizes “safety first,” prioritizing traffic safety over other transportation considerations.
- Vision Zero acknowledges that traffic deaths and serious injuries are preventable.
- Vision Zero requires a multidisciplinary approach, bringing together diverse stakeholders and community members to address the complex challenge of traffic safety.

Critically, Vision Zero shifts the burden of responsibility from falling exclusively on the individual traveler to encompassing the entire transportation network through the Safe System approach. The Safe System approach is founded on the principle that people make mistakes, and that the road system should be adapted to anticipate and accommodate human mistakes. It acknowledges the vulnerability of the human body when designing and operating a transportation network so that if collisions occur, they do not result in serious human injury.

The Safe System approach includes five key elements – safe road users, safe vehicles, safe speeds, safe roads, and post-crash care – integrated through a range of interventions. These interventions aim to:

- Separate users in physical space (e.g., sidewalks, dedicated bicycle facilities)
- Separate users in time (e.g., bicycle phases and dedicated turn phases at signalized intersections)
- Alert users to potential hazards
- Accommodate human injury tolerance through interventions that reduce speed or impact force



In a Safe System, interventions are deployed proactively and systemically, meaning they are applied across a network or a group of locations sharing similar roadway or land use characteristics, regardless of whether those locations experienced a significant collision history.

Building on Prior Safety Investments

In recent years, Menlo Park's efforts to improve safety have been visible through a range of plans and infrastructure projects. These efforts tackle safety explicitly, as well as enhance safety through their mode shift goals. Creating more comfortable transportation options for people to walk, bike, and take transit can make these modes more attractive and reduce the number of car trips in Menlo Park. Fewer car trips can mean fewer fatal and serious injury collisions.

The Vision Zero Action Plan builds on these past and ongoing efforts.

Plans

Key citywide and neighborhood plans established the foundation for safety planning in Menlo Park.

General Plan Circulation Element

The Circulation Element describes distinct transportation issues and opportunities the Menlo Park community is likely to face during the 2040 horizon of the General Plan, as well as key strategies for addressing them. The Circulation Element sets policy to create the most functional and safest circulation system possible for the full range of users and travel modes.

Transportation Master Plan

Menlo Park's Transportation Master Plan (TMP) guides implementation of the Circulation Element through the identification of citywide infrastructure projects and strategic programs to enhance the transportation system for all users, using a performance-based analysis approach that includes safety. The TMP emphasizes a multimodal approach, addressing the diverse needs of drivers, pedestrians, bicyclists, and transit users. It includes an action strategy with prioritized projects and programs to guide TMP implementation.

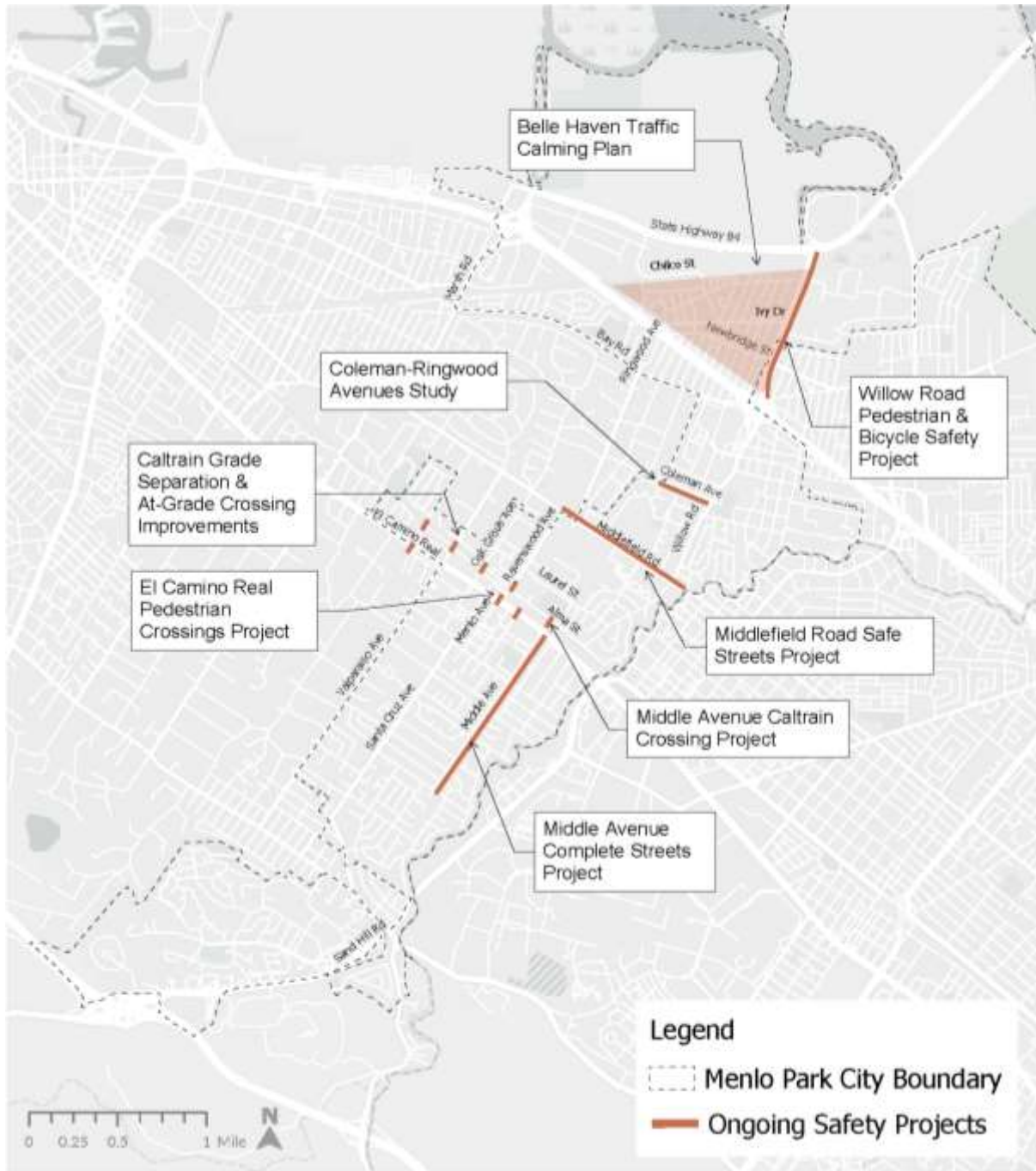
Menlo Park El Camino Real and Downtown Specific Plan (Circulation Section)

The Menlo Park El Camino Real and Downtown Specific Plan guides project implementation for a particular area of Menlo Park, reimagining the circulation patterns along El Camino Real and within the downtown area. The plan focuses on non-auto roadway users, including pedestrian-friendly streetscapes, dedicated bike lanes, efficient public transit systems, and thoughtful traffic management strategies.

Infrastructure Projects

The City is in the process of implementing a number of critical infrastructure projects from the Transportation Master Plan to enhance safety on Menlo Park roadways. A full list of ongoing transportation projects can be found on the City's website at menlopark.gov/transportation. A selection of current safety projects is illustrated in **Figure 1**, followed by a few key safety project descriptions.

Figure 1: Ongoing Transportation Master Plan Infrastructure Safety Projects





Willow Road Pedestrian and Bicycle Safety Project

The Willow Road Safety Project will upgrade pedestrian crossings and upgrade existing bike lanes to separated bikeways on Willow Road (State Route 114) from U.S. 101 to Bayfront Expressway. The City was recently awarded San Mateo County Transportation Authority Measure A & W Highway Program funding to complete final design and construction of these improvements.

Middle Avenue Complete Streets and Caltrain Crossing

Established priorities by City Council, these two projects will create a new pedestrian and bicycle crossing of the Caltrain railroad as well as bike lanes and traffic calming on Middle Avenue. The project will provide safety benefits for people crossing the railroad, enabling safer travel to several schools, employment destinations, and downtown. The Middle Avenue complete streets project is currently being piloted through buffered bike lanes.



Middlefield Road Safe Streets

The City recently implemented a pilot project to convert a portion of Middlefield Road from a four-lane avenue to a three-lane roadway with a center turn lane and buffered bike lanes along most of its length. The next steps of the project will be to review the pilot and identify additional safety improvements on portions of the corridor that were not included previously.

A Collaborative Effort

Conversations with Menlo Park stakeholders and the community provided critical input to the development of the Vision Zero Action Plan. Participants were engaged through a range of activities, including stakeholder meetings, community workshops, a community pop-up event, and presentations to the City's Complete Streets Commission and City Council.

The engagement process prioritized engaging early and often, targeting outreach for under-resourced and underserved communities, and providing a range of engagement activities to solicit input on the state of safety in Menlo Park, key safety emphasis areas for the City, and prioritization of safety strategies.

Stakeholder Meetings

An interdisciplinary group of stakeholders provided input on the Plan through three virtual meetings. The stakeholder group included ten representatives from Menlo Park Planning Division, Menlo Park Police Department, Menlo Park Fire Protection District, Menlo Park Safe Routes to School Task Force, Menlo Park Complete Streets Commission, SamTrans, and the non-profit community-based organization Climate Resilient Communities.

The first meeting was held in April 2023 and introduced the group to Vision Zero, the process of developing a Vision Zero Action Plan, and the current state of traffic safety in Menlo Park. The second meeting was held in July 2023 and focused on safety emphasis areas and candidate systemic safety strategies. The third meeting was held in October 2023 and provided an opportunity to discuss priority infrastructure projects and programmatic strategies to achieve the Plan's safety goals.

Throughout the three sessions, the stakeholder group provided key insights that informed the development of the Vision Zero Action Plan. This group identified critical priorities for the City, including:

- Addressing high volumes and high speeds of cut-through traffic that pose safety risks for pedestrians and bicyclists
- Filling gaps in the existing bicycle and pedestrian infrastructure
- Implementing safety improvements near schools
- Improving crossings for people walking and biking, especially on wider, higher speed roadways
- Ensuring that vulnerable populations, such as pedestrians, bicyclists, seniors, and children, are considered when prioritizing safety projects
- Allocating separate spaces for different roadway users, especially on wider, higher speed roadways
- Ensuring improvements support enhanced transportation safety in Belle Haven in alignment with the draft Environmental Justice Element

Community Workshops

Climate Resilient Communities (CRC) hosted a community organization listening session and four community workshops, two in English and two in Spanish, to gather input on the safety-related experiences of Belle Haven residents – a community that has experienced negative impacts of past transportation investments, as documented in the draft Environmental Justice Element of the Menlo Park General Plan. The listening session and workshops were hosted at the Belle Haven Branch Library.

The listening session and first set of workshops took place in August 2023 and covered roadway safety conditions in Menlo Park. The second set of workshops took place in November 2023 and provided a venue for residents to share input on the City's safety priorities. Residents showed a high level of interest in these workshops, with nearly 250 residents sharing their priorities for roadway safety in Menlo Park, including:

- Reducing speeds
- Increasing pedestrian level lighting
- Adding refuge islands on wider, higher speed roadways
- Slowing speeds at unsignalized intersections
- Implementing traffic management and other safety improvements around schools
- Increasing bicycle infrastructure, particularly for students going to school
- Increasing enforcement of unsafe driving and parking
- Adding speed limit signs



Community Pop-Up Event

In September 2023, the City hosted a pop-up event at the Menlo Park Farmers Market between Menlo Avenue and Santa Cruz Avenue in downtown Menlo Park. The project team spoke to over 100 people about the goals of the Vision Zero Action Plan, the current state of traffic safety in Menlo Park, and their individual experiences with safety on the roadways.

Through this event, community members shared their safety concerns and desires, including an emphasis on:

- Installing more robust bicycle infrastructure, such as wider bicycle lanes, protected bicycle lanes, and separated bicycle paths
- Filling gaps in sidewalks throughout the City
- Adding traffic calming and increasing speed-related signage to reduce speeds
- Providing bicycle safety programming for school children
- Increasing traffic safety enforcement, particularly around running red lights
- Installing high visibility crosswalks, particularly at mid-block crossings and unsignalized intersections
- Centering equity in the planning process



Complete Streets Commission & City Council Presentations

City staff presented updates on the development of the Plan to the Complete Streets Commission and City Council in August 2023, November 2023, and December 2023. These meetings provided an opportunity for elected and appointed officials to learn about and discuss the Vision Zero principles that are foundational to the Plan, the current state of traffic safety in Menlo Park, and recommended safety strategies to accomplish the City's safety goals.

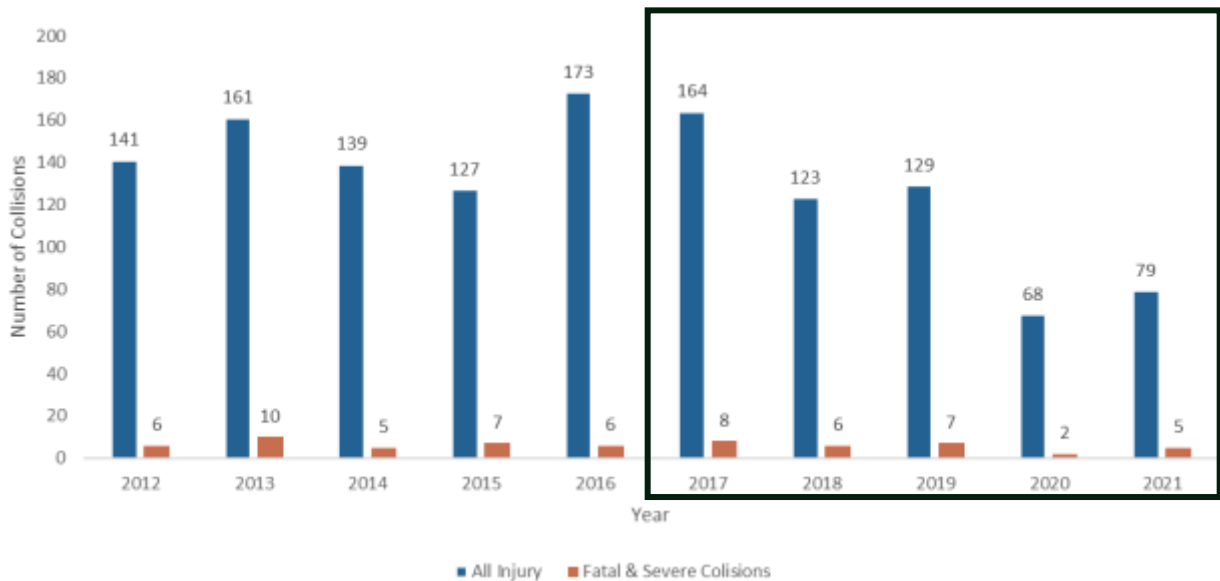
A summary of Vision Zero Action Plan engagement activities can be found in **Appendix A**.

The State of Safety in Menlo Park

The City of Menlo Park is home to approximately 34,000 people. Located in southeastern San Mateo County between San Francisco and San Jose, Menlo Park lies at the heart of the regional transportation network, bounded by two freeways and at the western terminus of the Dumbarton Bridge, a primary gateway to the Peninsula from the East Bay. The Menlo Park Caltrain station, adjacent to downtown Menlo Park, offers connections to the South Bay and San Francisco. Menlo Park residents are served by 28 public, private, and charter schools. Additionally, ongoing development downtown and in the Bayfront signifies exciting growth, blending residential and recreational spaces.

To better understand the state of safety in Menlo Park, the City investigated collision patterns on all non-freeway roadways within the City's boundaries from 2017 to 2021 – the five most recent years of available collision data. Over that period, approximately one person died and five people sustained serious injuries every year while traveling on roadways in the City. While these numbers reflect a safety improvement over the previous five years from 2012 to 2016, any number of traffic fatalities and serious injuries is unacceptable and preventable (**Figure 2**). The effect of the COVID-19 pandemic may also be present in the most recent years of collision data in 2020 and 2021, when the city saw reduced travel overall and the related benefit of fewer collisions.

Figure 2: Menlo Park Injury and Fatal/Serious Injury Collisions by Year



Source: Transportation Injury Mapping System (TIMS), 2012-2021; Fehr & Peers, 2023.

Key Safety Trends

Several important patterns appear in Menlo Park’s collision history over the five-year period from 2017-2021, indicating trends in the movements, parties, locations, and time periods associated with fatalities and injuries on Menlo Park roadways.

Movement-Based Trends	Collisions involving drivers traveling at unsafe speeds (as noted by the reporting officer) make up 40% of all injury collisions and nearly 30% of all fatal and serious injury collisions
	One quarter of all fatal and serious injury collisions involve broadside contact between two or more vehicles*
	Just over 20% of all fatal and serious injury collisions are due to a driver failing to yield properly at a traffic signal or sign
	Drivers turning left are involved in just under 30% of all pedestrian injury collisions and just over 20% of all bicycle injury collisions; another 20% of pedestrian injury and bicycle injury collisions involve a driver turning right
Party-Based Trends	Just over 40% of all pedestrian victims in an injury collision involve someone 65 years or older walking
	Nearly 20% of all bicyclist victims in an injury collision involve someone under 15 years bicycling
	Drugs and alcohol increase the likelihood that a collision will be more severe, with under 5% of all injury collisions involving drugs or alcohol but nearly 15% of all fatal and serious injury collisions involving drugs or alcohol
Location-Based Trends	Nearly 30% of all fatal and serious injury collisions, nearly 50% of all pedestrian injury collisions, and just over 20% of all bicycle injury collisions occur in Downtown

	Nearly 45% of all fatal and serious injury collisions occur on state-owned roadways*
Time-Based Trends	Over one quarter of injury collisions occur during evening peak travel between the hours of 3 PM and 6 PM
	Nearly 40% of all bicycle injury collisions occur during the fall months of September, October, and November

*Broadsides contact refers to collisions where the front end of one vehicle strikes the side of another vehicle, forming a perpendicular or close-to-perpendicular angle

*State-owned roadways in Menlo Park include State Route 82 (El Camino Real), State Route 84 (Bayfront Expressway), State Route 109 (University Avenue), and State Route 114 (Willow Road)

Key Terms

Injury Collisions – Refers to collisions where the collision report indicates that one or more individuals sustained some level of injury, including serious injury or death.

Killed or Seriously Injured (KSI) Collisions – Refers to collisions where the collision report indicates that one or more individuals were killed or seriously injured.

Limitations to the Data

Studies nationwide have shown that people of color, people with no or low income, people with no or limited English proficiency, people experiencing homelessness, youth, seniors, and people with disabilities are overrepresented in fatal and serious injury collisions. Research also shows that biases often exist in available collision data due to underreporting when they involve:

- People walking, bicycling, or on motorcycles
- Younger victims
- Alcohol-involved parties

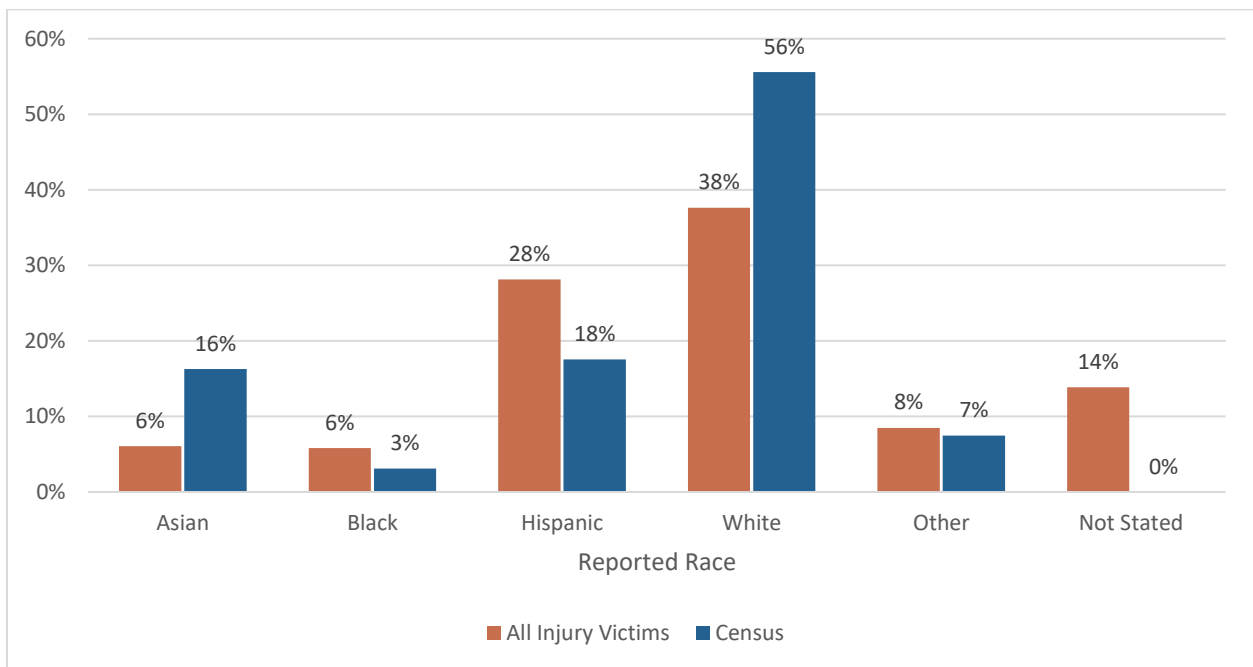
Vulnerable Populations

Vulnerable populations often are overburdened by traffic collisions. In Menlo Park, this includes people walking and bicycling, non-white individuals, seniors, and youth.

People walking and bicycling are overrepresented in fatal and serious injury collisions in Menlo Park, involved in 27% of all injury collisions and 39% of collisions involving death or serious injury.

Collisions disproportionately impact people of color in Menlo Park. While white individuals make up the largest percentage of the Menlo Park population (56%) and the largest percentage of victims of injury collisions overall (38%), Black and Hispanic populations are overrepresented in injury collisions relative to their populations with Black individuals representing 6% of injury collision victims and 3% of the population and Hispanic individuals representing 28% of injury collision victims and 18% of the population (**Figure 3**).

Figure 3: Menlo Park Injury Collision Victim Race versus Census Race Distributions



Source: American Community Survey 5-Year Estimates (2016-2020), Transportation Injury Mapping System (TIMS), 2017-2021; Fehr & Peers, 2023.

In Menlo Park, seniors 65 years and older are frequent victims in injury collisions. They make up only 14% of the Menlo Park population and just over 40% of victims in injury collisions involving someone walking.

In many communities, youth are another vulnerable population overrepresented in traffic collisions. In Menlo Park, children under 15 years old are 21% of the population and rarely are involved in traffic

collisions involving someone walking. However, they make up nearly 20% of victims in injury collisions involving someone bicycling.

Where Collisions Occur

Injury collisions occur throughout Menlo Park, but certain roadways experience higher concentrations of collisions than others. Twenty roadways in Menlo Park are designated High Collision Corridors based on their history of collisions (**Figure 4** and **Figure 5**). These roadways make up 20% of non-freeway roadway miles in Menlo Park, yet they account for:

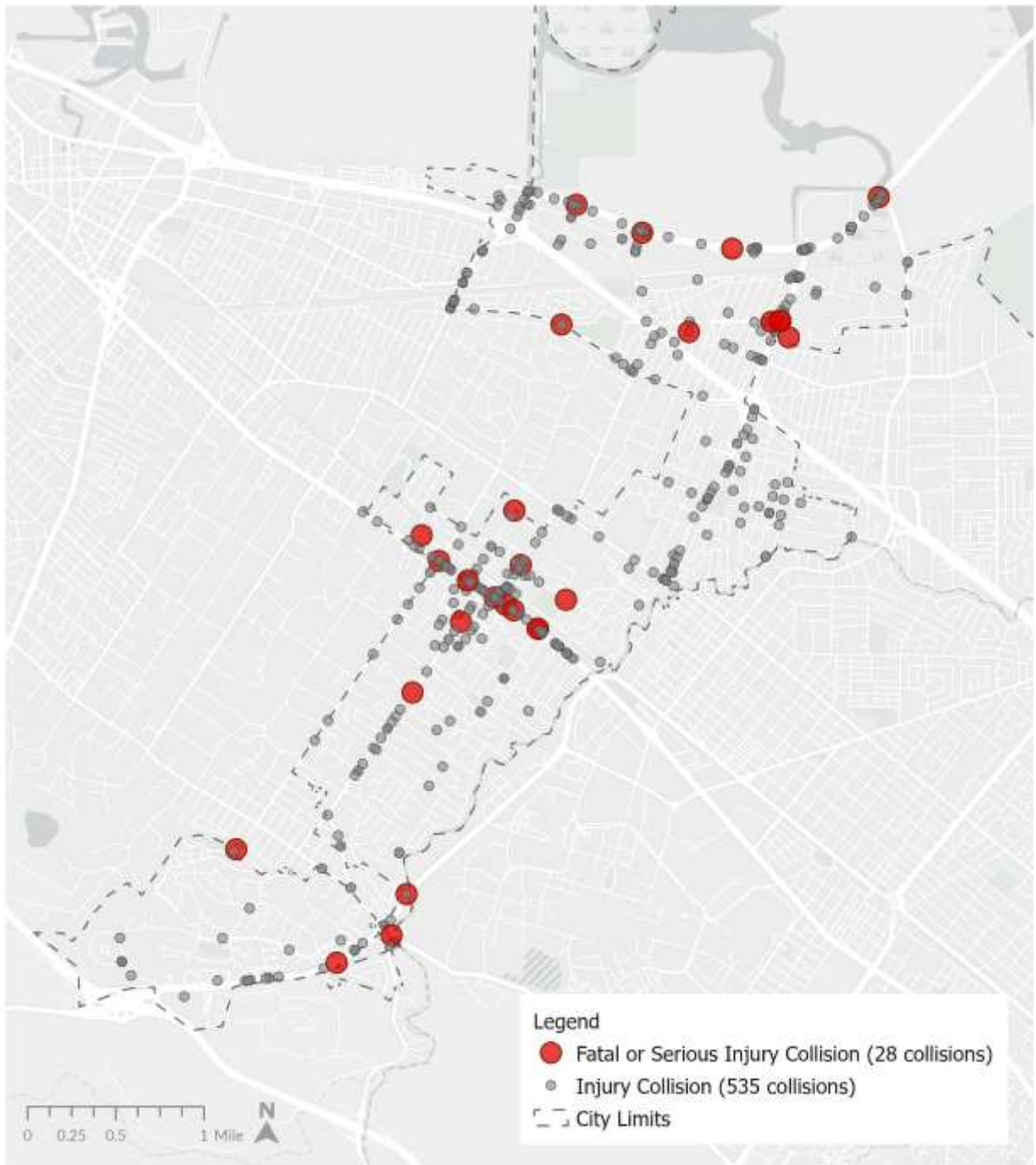
83% of injury collisions

93% of fatal and serious injury collisions

71% of pedestrian injury collisions

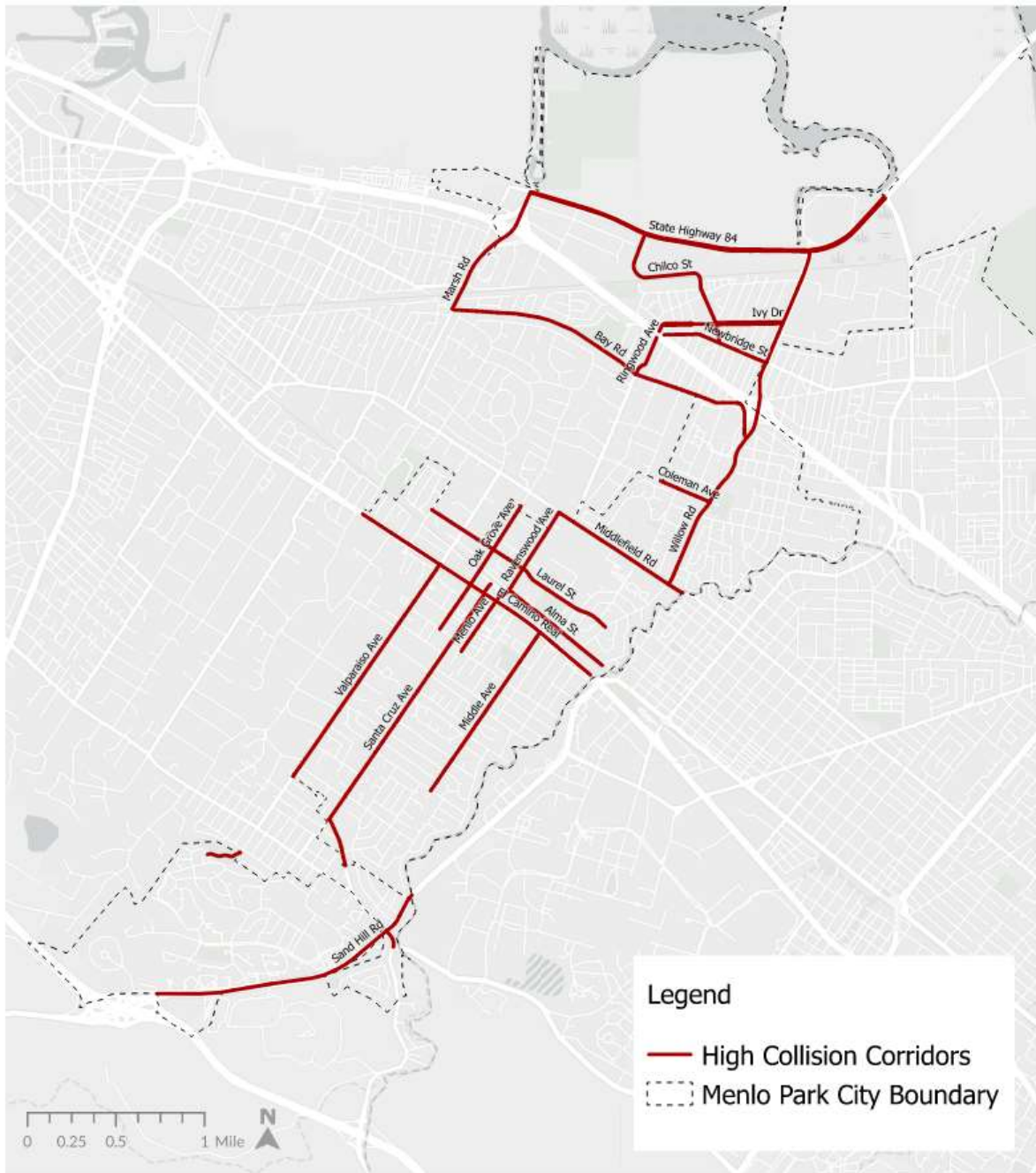
86% of bicyclist injury collisions

Figure 4: All Injury Collisions and Fatal/Serious Injury Collisions in Menlo Park (2017-2021)



Source: Transportation Injury Mapping System (TIMS), 2017-2021

Figure 5: High Collision Corridors



The Importance of Speed

Speed plays a critical role in determining the likelihood of survival in a traffic collision, and therefore is a fundamental factor in defining roadway safety priorities. According to the US Department of Transportation, someone walking or bicycling has a 90% chance of survival if hit by a vehicle traveling at 20 MPH but only a 50% chance of survival if hit by a vehicle traveling 40 MPH.¹



High speeds are a common factor in collisions in Menlo Park, influencing approximately 40% of all injury collisions and 20% of all fatal and serious injury collisions in the City. Many roadways in Menlo Park consistently experience excessive speeds for the roadway context and above the speed limit.

A focus on speed helps create safer streets that protect all road users and helps reduce the number of fatal and serious injury collisions in Menlo Park.

A full summary of the Vision Zero collision analysis can be found in **Appendix B**.

¹ USDOT, <https://www.transportation.gov/NRSS/SaferSpeeds>

Benchmarking Safety Practices

Menlo Park has numerous policies and programs in place that positively influence roadway safety. The City has prioritized safety through an established and well-funded Safe Routes to School program, pedestrian and bicycle plans working towards closing the gaps in citywide walking and bicycling networks, and a commitment to a goal of zero traffic fatalities and serious injuries on Menlo Park streets.

In some areas, Menlo Park aligns with suggested practice, while in other areas, there remains more work to do to fully integrate safety into the way the City operates. Moving the needle on safety will not come from infrastructure projects alone. Safety must be prioritized in all the City's operations to see change happen and reach the City's safety goals.

A full benchmarking assessment of Menlo Park's safety practices can be found in **Appendix C**.

Roadway Contexts and Safety Countermeasures

While it is important to identify and act at specific locations with a reported history of collisions, it is equally important to examine the entire roadway system and proactively address safety risk. Context matters in safety since different types of roadways have different safety challenges and different applicable safety strategies. By understanding context-based safety risk, the City can act proactively with effective safety interventions before collisions occur.

Menlo Park's roadway network can be divided into six critical contexts, each with its own unique safety patterns and applicable safety countermeasures:

- State-owned roadways
- Circulatory roadways
- Local-serving roadways
- Signalized intersections
- Side street stop controlled intersections
- School zones

A complete Safety Engineering Countermeasures Toolbox can be found in **Appendix D**.

Not all safety countermeasures are engineering strategies. There is a valuable supporting role for non-engineering interventions in advancing citywide safety goals. Education, engagement, and enforcement can help set expectations and shift road user behavior. Equipping first responders with appropriate training and supporting emergency services response times can help improve the chance of survival for collision victims. Harnessing emerging technology can provide opportunities to better understand and manage risky travel behaviors.

State-Owned Roadways

State-owned roadways are Caltrans operated non-freeway roadways within Menlo Park city boundaries (**Figure 6**). They include State Route 82 (El Camino Real), State Route 84 (Bayfront Expressway), State Route 109 (University Avenue), and State Route 114 (Willow Road). State-owned roadways are wide with 4 to 6 vehicle travel lanes and operate at high speeds with a posted speed limit of 30 to 55 MPH, often dividing neighborhoods. They represent 7% of roadway miles within the City.

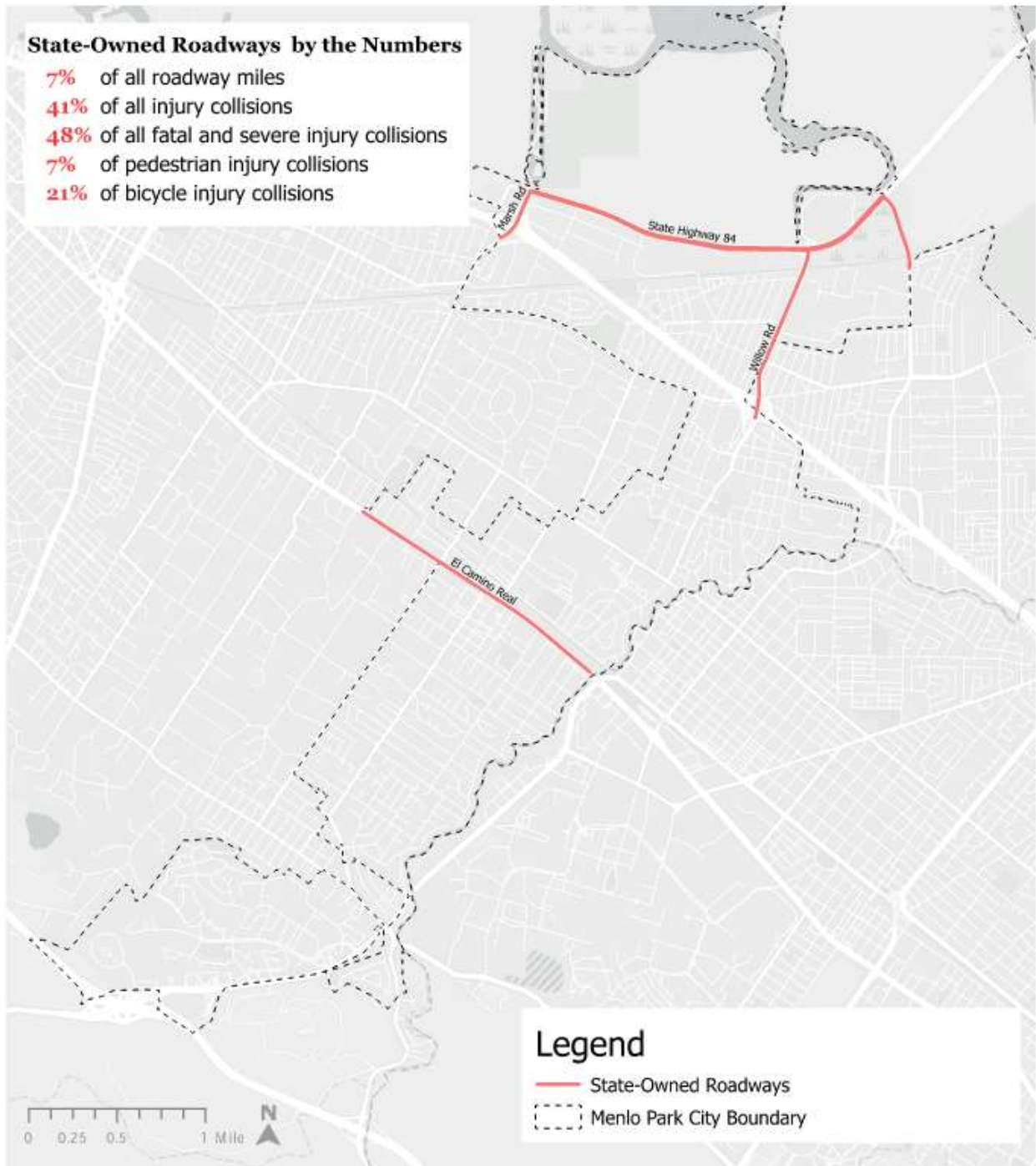
Key safety risks on state-owned roadways include high vehicle travel speeds and signalized intersections. One third of injury collisions on state-owned roadways occur where prevailing speeds are at least 50 MPH, and over 50% of the injury collisions on these roadways cite unsafe speeds. A large portion of injury collisions on state-owned roadways occur at signalized intersections associated with vehicle through

movements or turns. Rear end collisions are a common collision type on state-owned roadways, resulting in a relatively high number of severe injuries, likely due to higher speeds of travel.

Recommended countermeasures for state-owned roadways support managing vehicle travel speeds and making it easier for people walking and bicycling to travel along and across them. These include hardscape improvements like protected intersections, refuge islands, and curb extensions; signal treatments like protected turn phasing, shortened cycle lengths, retro-reflective signal backings, and extended yellow and all-red times; crossing improvements like rectangular rapid flashing beacons and pedestrian signals; and striping improvements like high-visibility crosswalks and lane narrowing.

The City also is exploring future relinquishment of State Route 114 (Willow Road) from Caltrans. Consistent with General Plan program CIRC-2.R, this would provide the City with more control over the design and operation of Willow Road.

Figure 6: State-Owned Roadways in Menlo Park



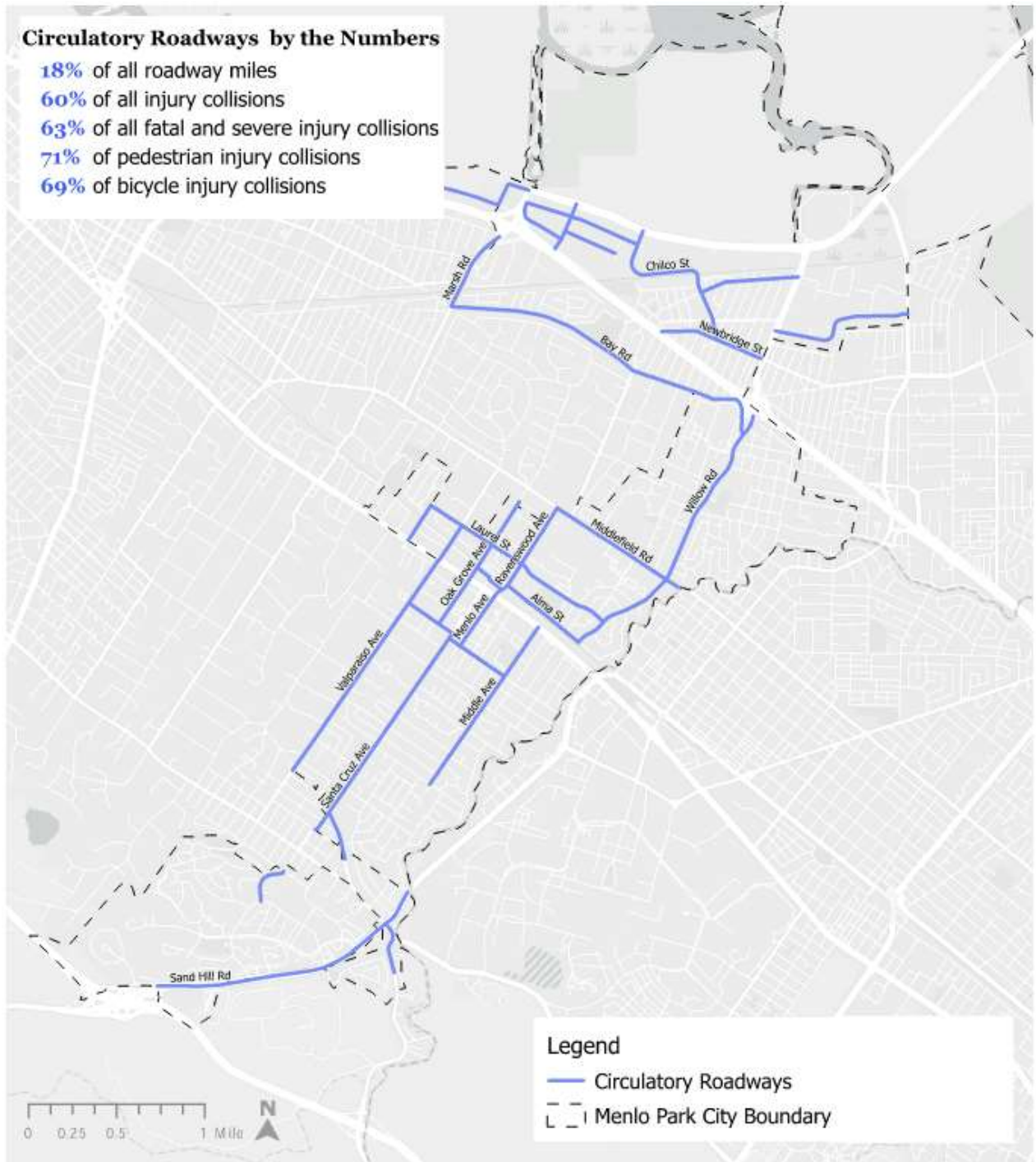
Circulatory Roadways

Circulatory roadways include Boulevards, Thoroughfares, Avenues, and Collector roadways, as classified by the Menlo Park 2016 Circulation Element (**Figure 7**). They typically are designed for vehicle throughput with 2 to 4 vehicle travel lanes and a posted speed limit of 30 to 45 MPH. These roadways often have diverse land uses, including residences, offices, parks, and schools. They represent 28% of roadway miles within the City.

Key safety risks on circulatory roadways include high vehicle travel speeds and intersections (both signalized and side street stop controlled). Forty percent of injury collisions on these roadways cite unsafe speeds, and 25% cite drivers failing to yield. Left turns often are indicated as the driver action preceding an injury collision. Many circulatory roadways have existing bicycle infrastructure, and two-thirds of all injury collisions on these roadways occur where a Class II bike lane is striped.

Recommended countermeasures for circulatory roadways support managing vehicle travel speeds and making it easier for people walking and bicycling to travel along and across them. These include striping improvements like green conflict striping for bikes and lane narrowing; signal improvements like signal coordination, protected turns, and flashing yellow turn phases; improved signage like speed feedback signs, LED-enhanced signs, and larger warning signs; and crossing improvements like Rectangular Rapid Flashing Beacons (RRFBs) and Pedestrian Signals.

Figure 7: Circulatory Roadways in Menlo Park



Neighborhood Spotlight: Belle Haven

The Belle Haven neighborhood is in the northeast corner of Menlo Park. Critical circulatory and state-owned roadways transect and border the neighborhood, presenting unique safety challenges. The Belle Haven neighborhood is home to approximately 15% of the Menlo Park population and experiences just under 10% of all injury collisions in Menlo Park, including 9% of all pedestrian injury collisions, and 8% of all bicycle injury collisions. Most of these collisions occur on Willow Road (state-owned), Newbridge Street (circulatory), and Chilco Street (circulatory) (**Figure 8**).

Collision patterns in Belle Haven reflect the safety risks of state-owned and circulatory roadways, including high vehicle travel speeds and intersections. However, collisions in Belle Haven also are more likely to occur midblock and at all way stop controlled intersections than in other parts of the city. Over half of the injury collisions in Belle Haven take place near transit and within one quarter mile of a school. Just over 10% of all injury collisions in Belle Haven involved a child 15 years or younger and just over 5% involve someone 65 years or older.

Recommended safety countermeasures in Belle Haven would help manage vehicle travel speeds and make it easier for people walking and bicycling to travel along and across the state-owned and circulatory roadways, especially children traveling to and from school.

Figure 8: Belle Haven Neighborhood Circulatory Roadways, State-Owned Roadways, and Collisions



Source: Transportation Injury Mapping System (TIMS), 2017-2021

Local-Serving Roadways

Local-serving roadways include Neighborhood Connectors, Bicycle Boulevards, and Local Access Roadways, as classified by the Menlo Park 2016 Circulation Element (**Figure 9**). They typically are two-lane roadways designed for lower speeds and shared use by bicyclists and pedestrians, with a posted speed limit of 25 MPH. They represent 74% of roadway miles within the City.

Key safety risks on local-serving roadways include vulnerable road users such as people walking and bicycling, children, and seniors, as well as driver failure to yield. The largest percentages of injury collisions involving pedestrians and bicyclists, children, and seniors occur on local roadways. Drivers failing to yield are more common on local roadways than on other roadways, while unsafe speeds are less commonly cited.

Recommended countermeasures for local-serving roadways support safe and comfortable travel for people walking and bicycling. These include striping improvements like lane narrowing, high visibility crosswalks, and advanced stop bars; and bicycle improvements like Bicycle Boulevards and Bikes May Use Full Lane signage. Speed management strategies are recommended for local-serving roadways that experience relatively high speeds. These include traffic calming devices like speed humps, speed tables, and raised crosswalks.

Figure 9: Local-Serving Roadways in Menlo Park



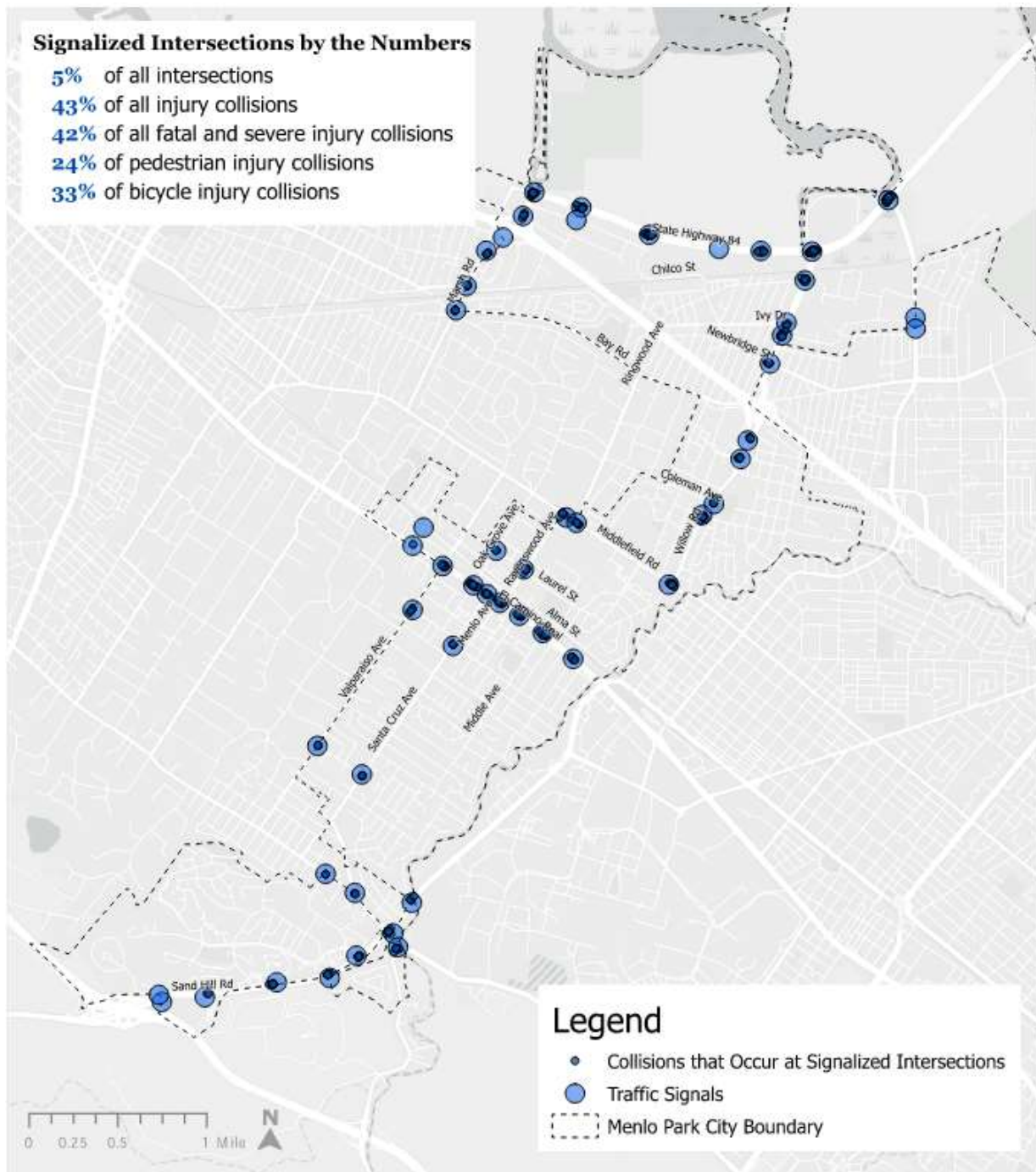
Signalized Intersections

Signalized intersections in Menlo Park can be found on roadways designed for vehicle throughput – those that operate at higher speeds and higher volumes (**Figure 10**). There are 52 signalized intersections in Menlo Park, representing 5% of the City's intersections.

Key safety risks at signalized intersections include rear-ends and people walking and bicycling. Overall, 43% of all fatal and serious injury collisions in Menlo Park occur at signalized intersections. Rear-end collisions make up 37% of all injury collisions at signalized intersections, and collisions involving bicyclists and pedestrians make up another 25% of all injury collisions at these locations.

Recommended countermeasures for signalized intersections help separate users in space and time. These include hardscape improvements like protected intersections, refuge islands, and curb extensions; and signal treatments like protected turn phasing, shortened cycle lengths, retro-reflective signal backings, and extended yellow and all-red times.

Figure 10: Signalized Intersections in Menlo Park



Source: Transportation Injury Mapping System (TIMS), 2017-2021

Neighborhood Spotlight: El Camino Real/Downtown Area

The Downtown area is in the center of Menlo Park. It is transected by El Camino Real running east-west and Menlo Avenue/Ravenswood Avenue running north-south. The Downtown, which accounts for only 7% of the city's roadway miles, experiences a high concentration of injury collisions: 25% of all injury collisions, 29% of fatal and serious injury collisions, 47% of pedestrian injury collisions, and 22% of bicycle injury collisions. Downtown also has a high concentration of signalized intersections, with approximately one third of the city's signalized intersections in Downtown, and many of the collisions in the area occur at signalized intersections (**Figure 11**).

Collision patterns in Downtown reflect the safety risks of signalized intersections, particularly involving people walking and bicycling. Recommended safety countermeasures at Downtown intersections like protected intersections and protected turn phasing would separate users in space and time to reduce the likelihood of interactions between roadway users.

Figure 11: El Camino Real/Downtown Area Signalized Intersections and Collisions



Source: Transportation Injury Mapping System (TIMS), 2017-2021

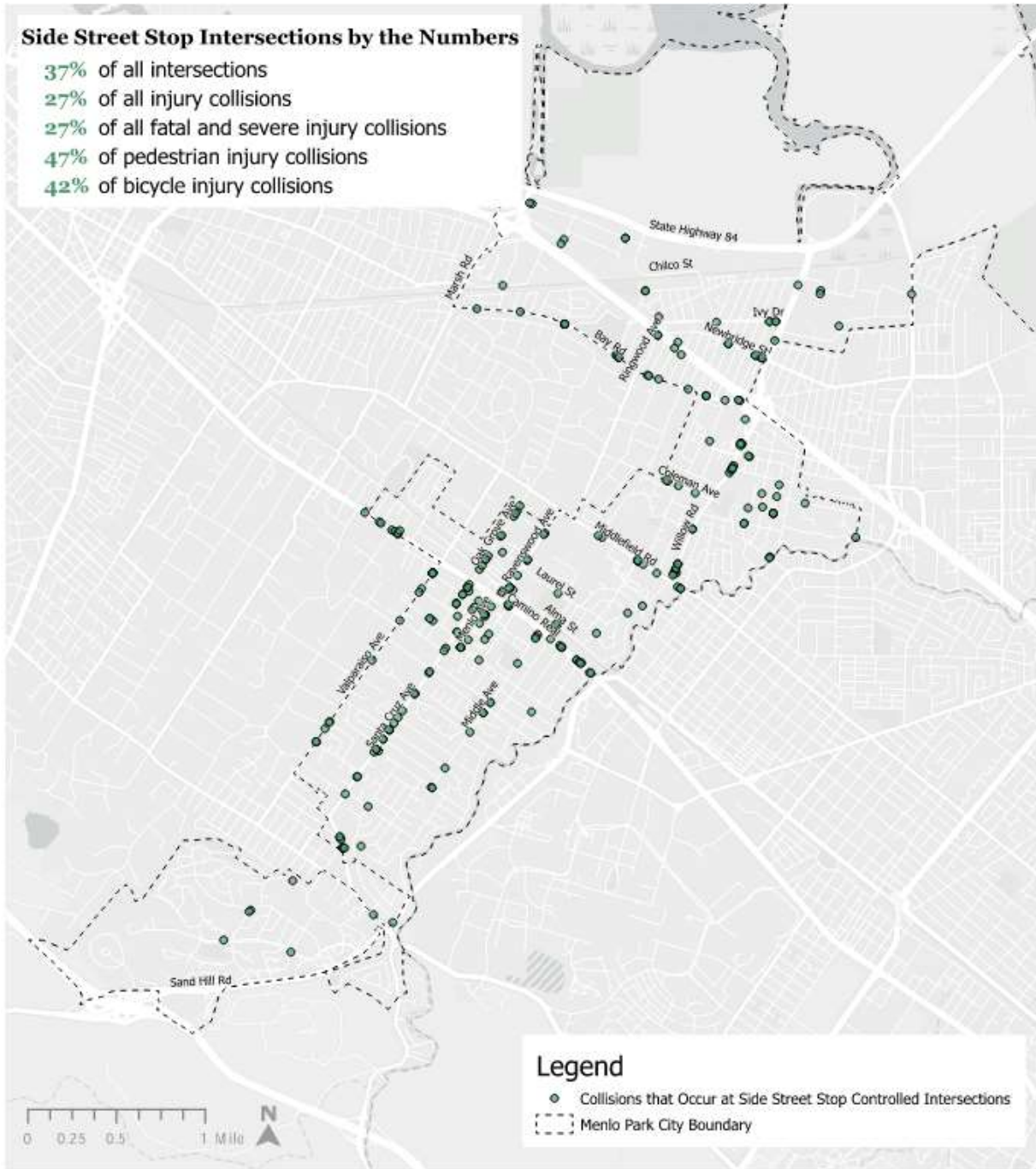
Side Street Stop Controlled Intersections

Side street stop controlled intersections occur where an uncontrolled major street intersects with a stop controlled minor street (**Figure 12**). There are over 1,000 side street stop controlled intersections in Menlo Park, representing 37% of the City's intersections.

Key safety risks at side street stop controlled intersections include vulnerable road users such as people walking and bicycling, children, and seniors, as well as driver turning movements and failure to yield. These intersections experience most of the injury collisions in Menlo Park involving pedestrians, especially those 65 years and older, and most of the injury collisions in Menlo Park involving bicyclists, especially those 15 years and younger. Over half of the pedestrian- and bicycle-injury collisions resulting from a vehicle turning occur at side street stop controlled intersections.

Recommended countermeasures for side street stop controlled intersections support safe crossing for people walking and bicycling, improved yielding for people driving, and speed management. These include crossing improvements like Rectangular Rapid Flashing Beacons (RRFBs), pedestrian signals, and curb extensions; traffic calming devices like speed humps, speed tables, and raised crosswalks; striping improvements like lane narrowing, high visibility crosswalks, and advanced stop bars; and control changes like all way stop control.

Figure 12: Side Street Stop Controlled Intersections in Menlo Park



Source: Transportation Injury Mapping System (TIMS), 2017-2021

Neighborhood Spotlight: The Willows

The Willows neighborhood is located just south of US 101 and east of Willow Road (circulatory roadway). It is bounded on all other sides by the city boundaries. Inside, it is made up of a network of local roadways (**Figure 13**). While collision patterns in The Willows do not cause any single roadway or intersection to stand out as a high collision concentration location, this neighborhood sees a high number of collisions distributed across many locations.

Collision patterns in The Willows reflect the safety risks of local-serving roadways, particularly at side street stop controlled intersections. This includes injury collisions involving people walking and bicycling, involving vehicle turning movements, and vehicle travel speeds above the desired level for small, neighborhood roadways.

Recommended safety countermeasures in The Willows would help manage vehicle travel speeds and make it easier for people walking and bicycling to cross the roadways by facilitating driver yielding at side street stop controlled intersections.

Figure 13: The Willows Neighborhood Local Serving Roadways and Collisions



Source: Transportation Injury Mapping System (TIMS), 2017-2021

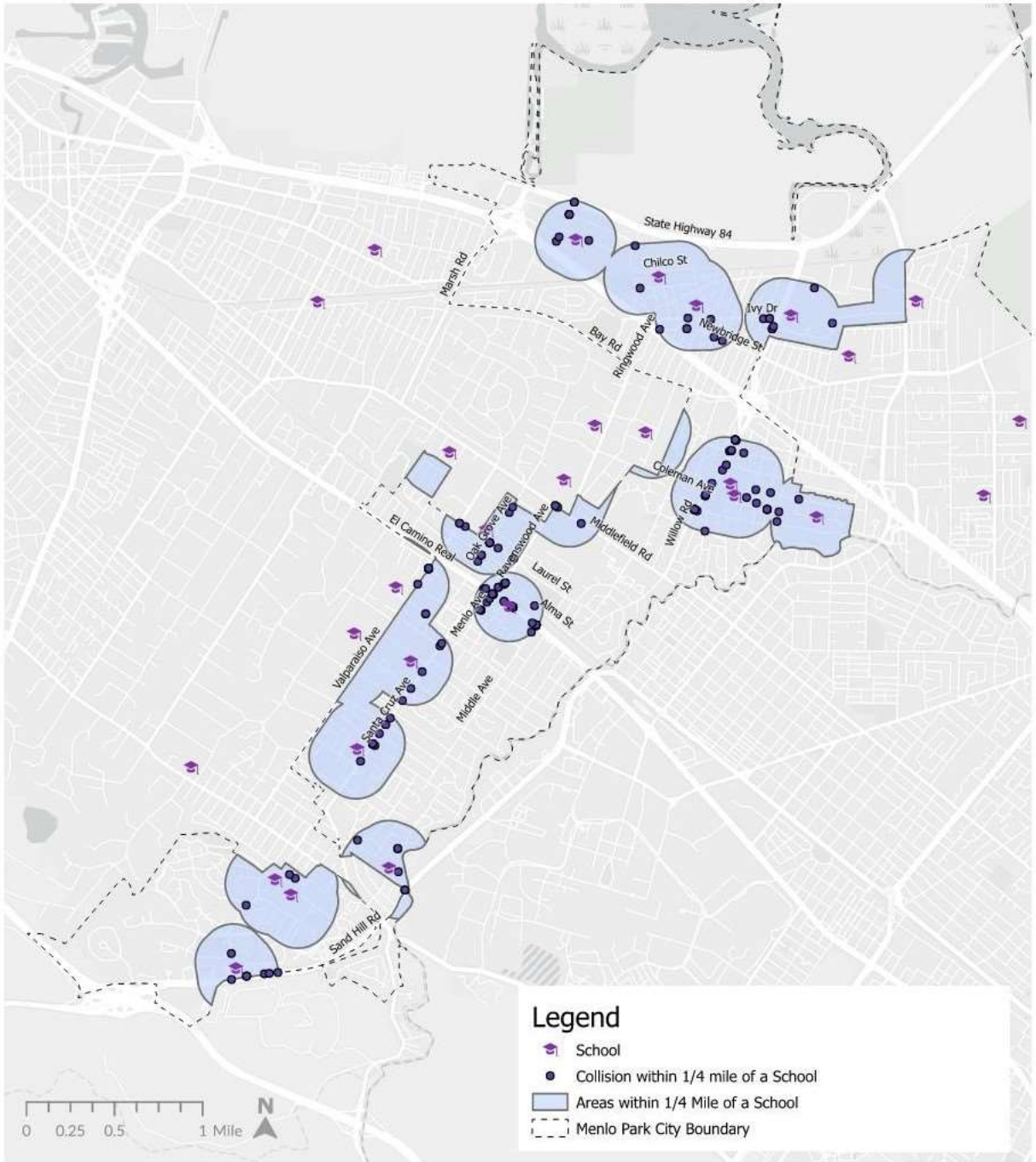
School Zones

School zones include roadways within the City of Menlo Park that fall within one quarter mile of a school (**Figure 14**). There are 28 public, private, and charter schools that serve Menlo Park residents.

Key safety risks in school zones include intersections and collisions involving children. Injury collisions in school zones often occur on wider, higher speed roadways designed for vehicle throughput. Injury collisions in school zones are common at intersections – both signalized and side street stop controlled. Individuals 15 years and younger, especially on bicycles, are over-represented in injury collisions in school zones.

Recommended countermeasures for school zones support safe crossing, particularly for children and those walking and bicycling. These include crossing improvements like Rectangular Rapid Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs); traffic calming devices like speed humps, speed tables, and raised crosswalks; striping improvements like lane narrowing, high visibility crosswalks, and advanced stop bars; and bicycle improvements like Bicycle Boulevards and Bikes May Use Full Lane signage.

Figure 14: School Zones in Menlo Park



Source: Transportation Injury Mapping System (TIMS), 2017-2021

Priority Safety Projects

One of the central outcomes of the Vision Zero Action Plan is the development of a set of priority safety projects. A prioritized project list helps the City focus its resources over the coming years and aligns with the prerequisites of several grant programs the City may pursue.

The prioritization process complements existing, ongoing safety-oriented projects identified in the Transportation Master Plan with systemic improvements that address key safety challenges identified in the Vision Zero Action Plan. The Transportation Master Plan identifies and prioritizes major infrastructure projects, considering safety and other factors like access, equity, and sustainability. It does not include smaller-scale intersection safety or operational improvements, which are included in this Plan.

The following are the identified safety priorities for the Menlo Park Vision Zero Action Plan:

- **Complete ongoing Transportation Master Plan (TMP) projects.** A subset of ongoing safety-oriented TMP projects were selected as safety priority projects for this Plan based on their location on a High Collision Corridor or in an under-resourced and underserved community. Completing these ongoing TMP projects helps address key safety needs for the City identified by the TMP and this Plan. When advancing future TMP projects, the City will prioritize efforts using the criteria identified below.
- **Advance safety at signalized intersections.** While only 5 percent of the City's intersections are signalized, over 40 percent of injury collisions occur at these locations. This systemic safety priority project focuses on reducing the common severe collision types at these intersections, particularly involving collisions between turning vehicles and people walking or bicycling.
- **Advance safety at side street stop controlled intersections.** There are over 1,000 side street stop controlled intersections in Menlo Park, and these locations present unique safety challenges for road users. This systemic safety priority project focuses on improving the safety of crossings at these intersections, particularly to address the observed safety challenges for pedestrians 65 years and older and bicyclists 15 years and younger.
- **Implement traffic calming on local-serving roadways.** The City has a previously established Neighborhood Traffic Management Program (NTMP) that was developed to address speeding and cut-through traffic on local-serving roadways. City Council put the program on hold during the COVID-19 pandemic. The Vision Zero Action Plan initiates the process to restart, rename, and streamline the NTMP program with a renewed focus on safety.

Prioritization Criteria

Each safety priority identified above presents a potentially substantial amount of work for the City to implement. To guide its investments, the City will advance its safety priorities based on criteria that account for both collision history and collision potential measured through the presence of systemic safety risk factors. Prioritization criteria include: (1) collision concentrations, (2) speed risk factors, and (3) vulnerable road user risk factors.

First, locations are categorized into Prioritization Tiers based on historic collision concentration:

- Tier 1 Locations: High historic collision concentration – 3+ injury collisions or 1+ pedestrian or bicycle serious injury or fatal collision
- Tier 2 Locations: Moderate historic collision concentration – on a High Collision Corridor
- Tier 3 Locations: Low historic collision concentration – all other locations

Locations within each Prioritization Tier are scored based on the presence of speed and vulnerable road user risk factors, according to the following scoring rubric, where possible risk factor scores range from 0 to 4.

Speed Risk Factors	Score	Vulnerable Road User Risk Factors	Score
Very high speeds	2	High count of vulnerable road users (2+)	2
High speeds	1	Moderate count of vulnerable road user (1)	1
Average or below average speeds	0	No vulnerable road users	0

Speed Risk Factors. Locations with “very high speeds” include state-owned roadways and circulatory roadways with average or median speeds over 35 MPH, and local-serving roadways with average or median speeds over 25 MPH. Locations with “high speeds” include state-owned roadways and circulatory roadways with average or median speeds over 30 MPH, and local-serving roadways with average or median speeds over 20 MPH. All other locations fall under the category of “average or below average speeds.” Consistent data on speeds is challenging to obtain, and the City commits to updating its existing speed data over time as it implements traffic calming projects.

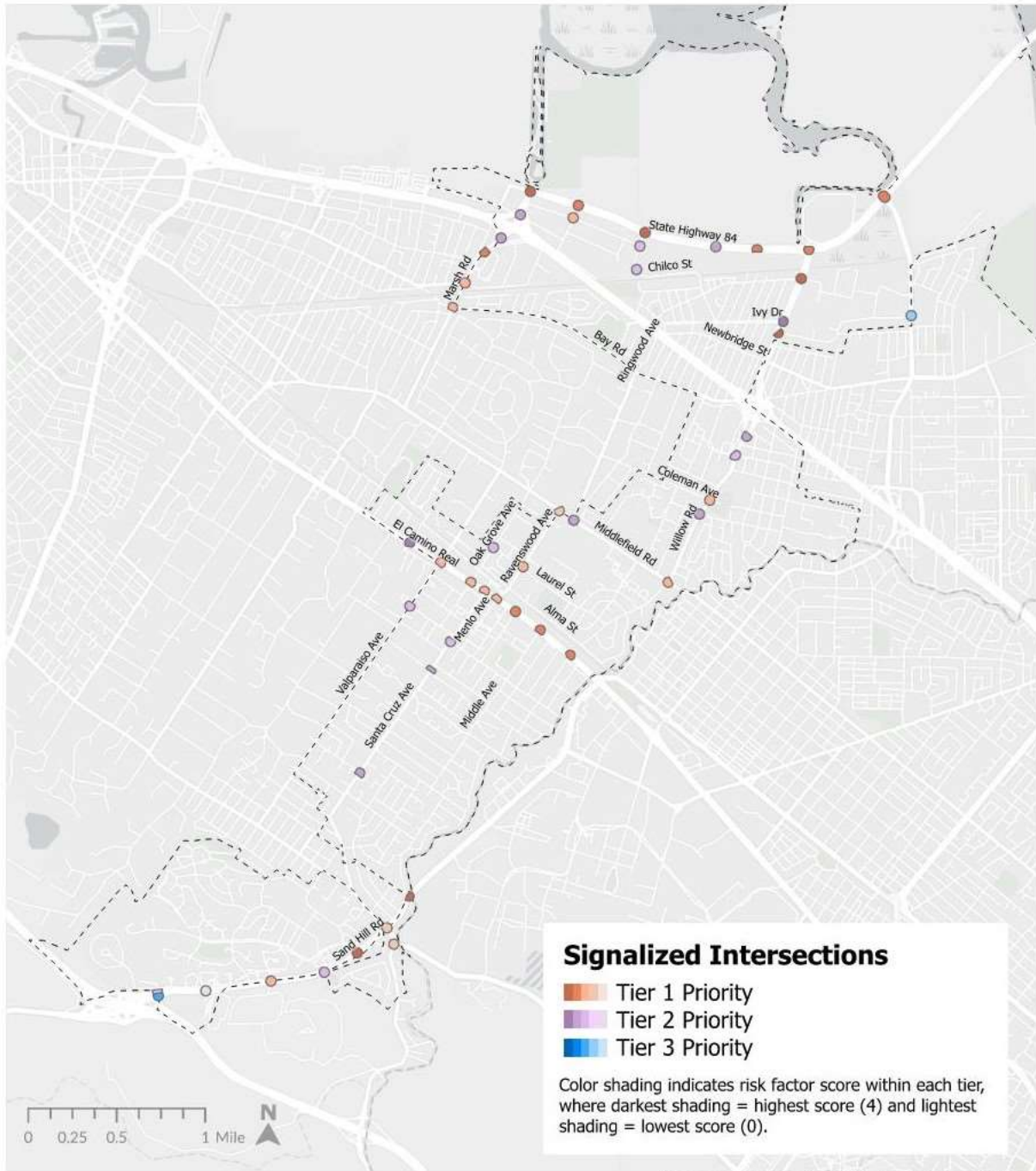
Vulnerable Road User Risk Factors. Locations with a “high count of vulnerable road users” contain high activity of two or more vulnerable road users. Locations with a “moderate count of vulnerable road users” contain high activity of one vulnerable road user. All other locations fall under the category of “no vulnerable road users.” Menlo Park defines its vulnerable road users as:

- School children: Roadways along a recommended school route (as defined by Menlo Park recommended routes to school maps)
- Seniors: Roadways within ¼ mile of senior housing or a senior center
- Under-resourced and underserved communities: Roadways in census tracts identified by the [Menlo Park Draft Environmental Justice Element](#) (Census Tract 6117 West Bayfront/Belle Haven; Census Tract 6118 East Bayfront)
- Transit riders: Roadways within 300 feet of a transit stop

Finally, an important additional prioritization criterion in advancing the city's fourth safety priority above – Implement Traffic Calming on Local-Serving Roadways – will be to assess a roadway's cut-through traffic. This criterion is relevant only for traffic calming projects and will be refined through the City's subsequent update to its Neighborhood Traffic Management Program.

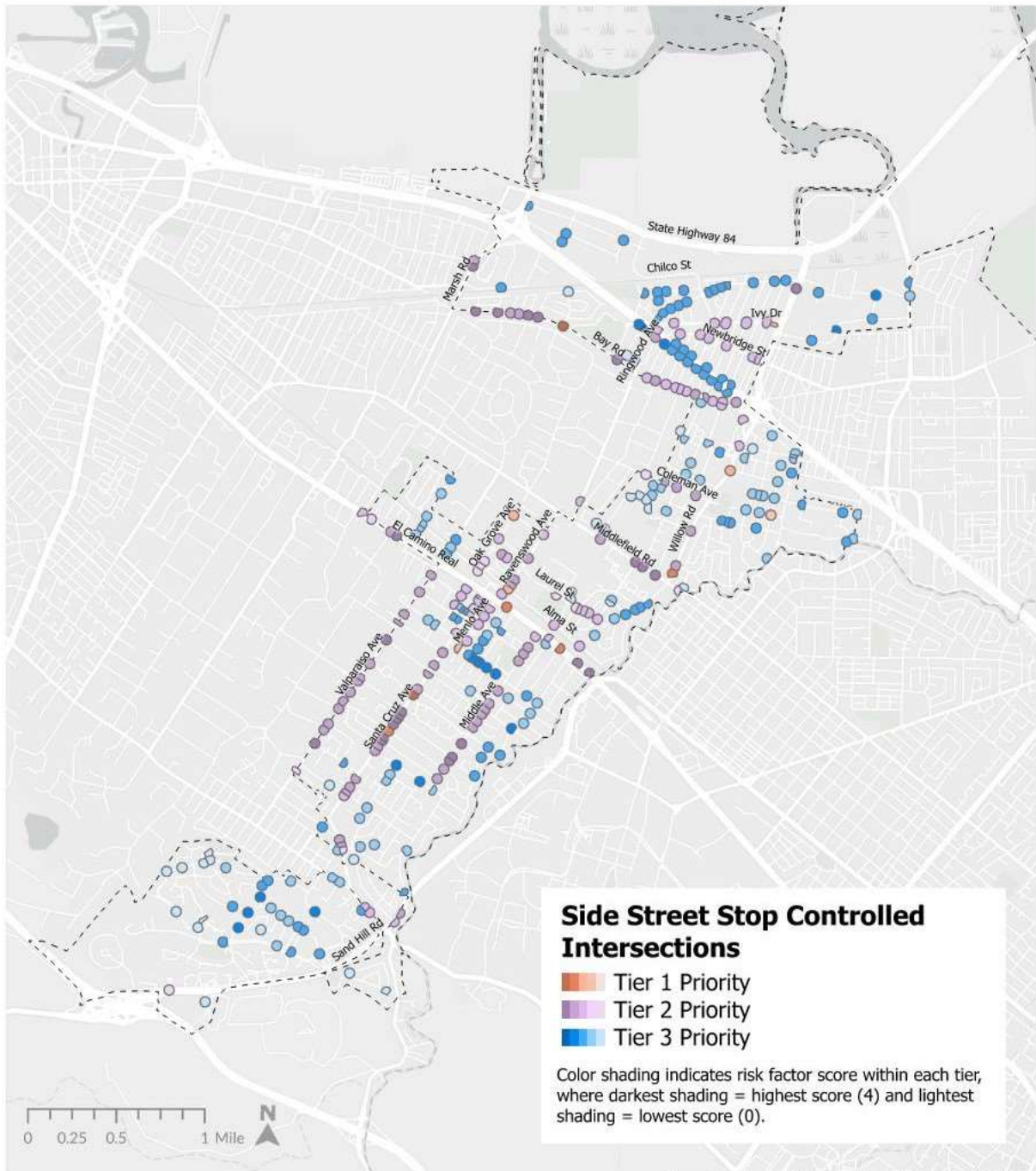
Signalized intersections and side street stop controlled intersections citywide are visualized by Prioritization Tier and risk factor score in **Figure 15****Error! Reference source not found.** and **Figure 16****Error! Reference source not found.**. Ongoing Transportation Master Plan priority safety projects are illustrated with High Collision Corridors in **Figure 17**.

Figure 15: Systemic Safety Project Locations: Signalized Intersections



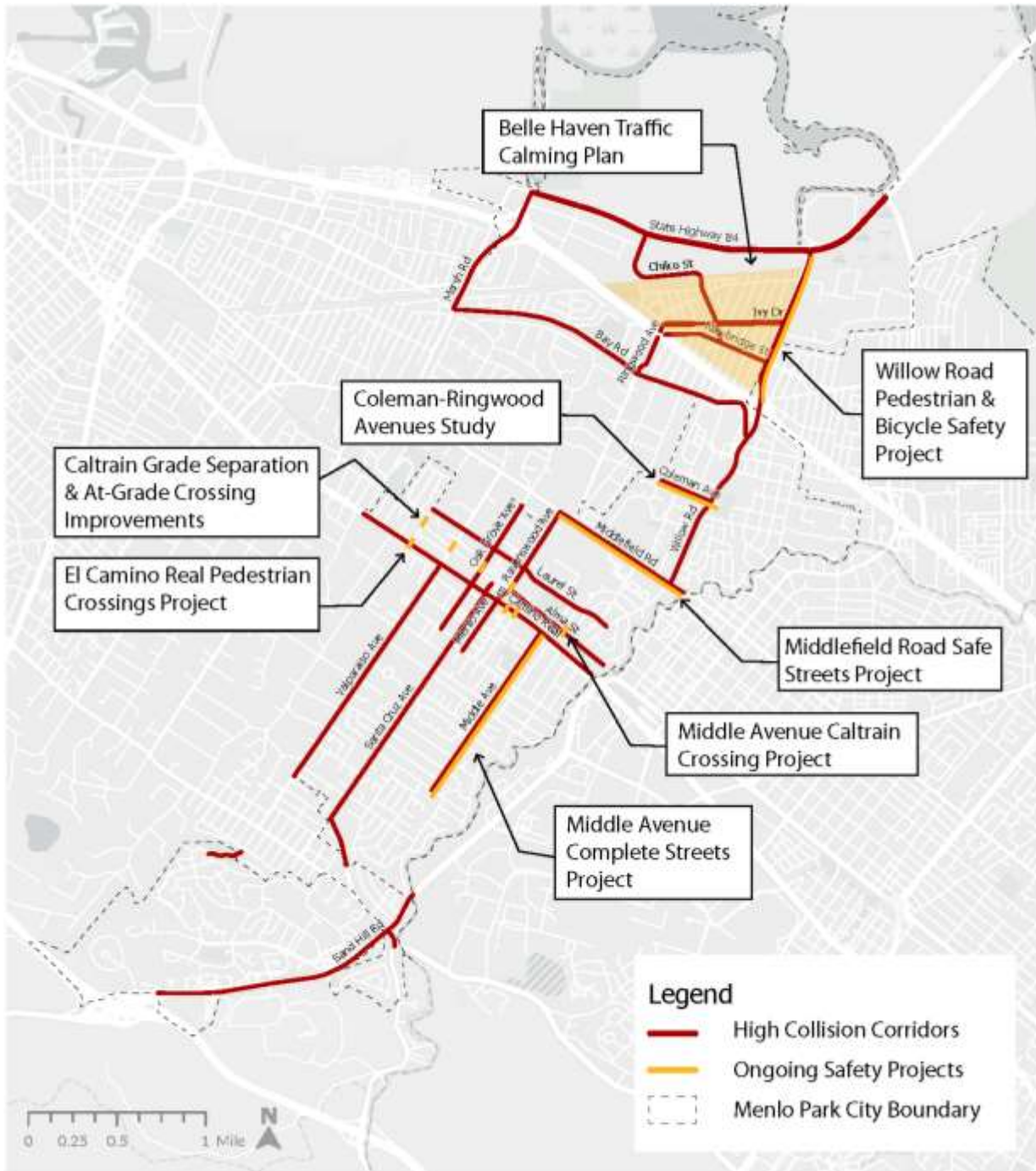
Source: TIMS Collision Data (2017 - 2021)

Figure 16: Systemic Safety Project Locations: Side Street Stop Controlled Intersections



Source: TIMS Collision Data (2017 - 2021)

Figure 17: Ongoing Transportation Master Plan Safety Projects & High Collision Corridors



Priority Safety Project Locations

The City’s prioritization framework provides a rigorous yet flexible approach to advancing corridor and intersection safety projects across Menlo Park. Based on the framework, the following top priority safety project locations are identified for the City (**Table 1**).

Table 1: Top Priority Safety Project Locations

<i>Priority Safety Project Locations: Ongoing Transportation Master Plan Safety Projects</i>	
Belle Haven Traffic Calming Plan	
Willow Road Pedestrian & Bicycle Safety Project	
Coleman-Ringwood Avenues Study	
Middlefield Road Safe Streets Project	
Middle Avenue Caltrain Crossing Project	
Middle Avenue Complete Streets Project	
Caltrain Grade Separation & At-Grade Crossing Improvements	
El Camino Real Pedestrian Crossings Project	
<i>Priority Safety Project Locations: Signalized Intersections (Systemic)</i>	
State Highway 84 and Chilco Street	Tier 1, with risk factor score of 4
Willow Road and O’Brien Drive	Tier 1, with risk factor score of 4
Willow Road and Hamilton Avenue	Tier 1, with risk factor score of 4
State Highway 84 and Marsh Road	Tier 1, with risk factor score of 4
Sand Hill Road and Oak Avenue	Tier 1, with risk factor score of 4
Sand Hill Road and Sharon Park Drive	Tier 1, with risk factor score of 4
State Highway 84 and Meta Way	Tier 1, with risk factor score of 3
State Highway 84 and Chrysler Drive	Tier 1, with risk factor score of 3
State Highway 84 and Willow Road	Tier 1, with risk factor score of 3
State Highway 84 and University Avenue	Tier 1, with risk factor score of 3
Marsh Road and Scott Drive	Tier 1, with risk factor score of 3
El Camino Real and Middle Avenue	Tier 1, with risk factor score of 3
El Camino Real and Cambridge Avenue	Tier 1, with risk factor score of 3
El Camino Real and Roble Avenue	Tier 1, with risk factor score of 3
State Highway 84 and Meta Way	Tier 1, with risk factor score of 3

Priority Safety Project Locations: Side Street Stop Controlled Intersections (Systemic)

Bay Road and Greenwood Drive	Tier 1, with risk factor score of 4
Anta Cruz Avenue and San Mateo Drive	Tier 1, with risk factor score of 4
El Camino Real and Live Oak Avenue	Tier 1, with risk factor score of 3
El Camino Real and Partridge Avenue	Tier 1, with risk factor score of 3
Santa Cruz Avenue and Cotton Street	Tier 1, with risk factor score of 3
Willow Road and Clover Lane	Tier 1, with risk factor score of 3
Menlo Avenue and University Drive	Tier 1, with risk factor score of 2
Oak Grove Avenue and Marcussen Drive	Tier 1, with risk factor score of 2
Ravenswood Avenue and Alma Street	Tier 1, with risk factor score of 2
Willow Road and O'Keefe Street	Tier 1, with risk factor score of 2
Ivy Drive and Alley near Willow Road	Tier 1, with risk factor score of 2
Menlo Avenue and University Drive	Tier 1, with risk factor score of 2
Central Avenue and Elm Street	Tier 1, with risk factor score of 1
Bay Road And Christopher Way	Tier 2, with risk factor score of 4
Bay Road and Harmon Drive	Tier 2, with risk factor score of 4
Bay Road and Hedge Road	Tier 2, with risk factor score of 4
Bay Road and Timothy Lane	Tier 2, with risk factor score of 4
Bay Road and Del Norte Ave	Tier 2, with risk factor score of 4
Creek Drive and El Camino Real	Tier 2, with risk factor score of 4
El Camino Real and Stone Pine Lane	Tier 2, with risk factor score of 4
Harvard Avenue and El Camino Real	Tier 2, with risk factor score of 4
Linfield Drive and Middlefield Drive	Tier 2, with risk factor score of 4
Marsh Road and Rolison Road	Tier 2, with risk factor score of 4
Middle Avenue and Hermosa Way (North)	Tier 2, with risk factor score of 4
Middle Avenue and Hermosa Way (South)	Tier 2, with risk factor score of 4
Middle Avenue and Santa Rita Avenue	Tier 2, with risk factor score of 4
Middlefield Road and Santa Margarita Avenue	Tier 2, with risk factor score of 4
Middlefield Road and Santa Monica Avenue	Tier 2, with risk factor score of 4
Santa Cruz Avenue and Hermosa Way (South)	Tier 2, with risk factor score of 4
Santa Cruz Avenue and Hobart Street (North)	Tier 2, with risk factor score of 4

Priority Safety Project Locations: Side Street Stop Controlled Intersections (Systemic)

Santa Cruz Avenue and May Brown Avenue	Tier 2, with risk factor score of 4
Santa Cruz Avenue and Hermosa Way (North)	Tier 2, with risk factor score of 4
Santa Cruz Avenue and Hobart Street (South)	Tier 2, with risk factor score of 4
Santa Cruz Avenue and Rosefield Way	Tier 2, with risk factor score of 4
Valparaiso Avenue and Arbor Road	Tier 2, with risk factor score of 4
Valparaiso Avenue and Elder Avenue	Tier 2, with risk factor score of 4
Willow Road and Frontage Road	Tier 2, with risk factor score of 4
Sonoma Place and Van Buren Road	Tier 3, with risk factor score of 4

Safety Action Plan

The City of Menlo Park commits to an action plan with 48 strategies to advance its safety goals and institutionalize safety practices in its policies, programs, and operations. The safety action plan is organized into six core elements, including five aligned with the Safe System approach – safe users, safe roadways, safe vehicles, safe speeds, and post-crash care – and one additional category capturing planning and culture. For every action, responsible parties and anticipated timeline are identified. Near-term actions are priorities within the first year; mid-term actions are priorities within the following 2-5 years; and long-term actions are priorities beyond five years. Several actions are identified as Ongoing, indicating that they are actions already underway in the City and anticipated to continue through continued investment.

The items included in the safety action plan are shaped by the outcomes of the safety benchmarking assessment, where benchmarks not currently an institutionalized practice for Menlo Park were considered opportunities for targeted investment within the action plan.

Element	Category	Action	Responsible Parties	Timeline
Planning & Culture	Leadership and Commitment	Performance indicator monitoring: Implement a monitoring process to evaluate progress of key safety performance indicators. Publicly share this data and intervene if city is not on track.	PD-Records, PW-Trans	Near/Mid
		Vision Zero coordinator + working group: Identify a staff coordinator to manage the City's Vision Zero program and convene a working group to review and coordinate on safety projects and initiatives.	PW-Trans	Near
		Safe System training: Develop and implement an ongoing Safe System training program, focused on management and key staff in City departments whose work touches transportation.	PW-Trans	Near/Mid

Element	Category	Action	Responsible Parties	Timeline
	Meaningful Engagement	Vision Zero website: Expand the City's existing Vision Zero project website into a program website to inform the public about Menlo Park's safety program goals and progress and the effectiveness of implemented safety projects.	PW-Trans; CMO-Comms	Near
		Materials in Spanish: Provide community engagement materials about traffic safety in Spanish for Menlo Park residents whose first language is not English.	CMO-Comms	Mid
	Data and Analysis	ACT Menlo Park process: Review the ACT Menlo Park process for reporting resident concerns to ensure that effective tracking of safety hazards and requests for safety interventions. Establish a data-driven approach for evaluating the reports/requests.	PW-Trans, PW-Maint	Mid
		Safety + asset data: Update and maintain the City's GIS inventory (Geodatabase and REMS). Actively work to improve accuracy and completeness of crash data, roadway data (e.g., sidewalks, bikeways, intersection controls, posted speed limits, signing, striping), and user volume data. With RIMS, ensure that demographic data is collected and maintained.	AS-IT, PD-Records	Long
		Innovative data: Explore opportunities to use innovative data collection and analysis approaches, such as crowdsourcing or video detection data.	PW-Trans, PD	Long
		Data dashboard: Create a data dashboard and update schedule to provide regular progress updates on Vision Zero implementation.	PD-Records	Long
	Funding	Project evaluation framework: Develop a project evaluation framework that prioritizes funding based on fatal and serious injury crash reduction opportunities, especially for under-resourced and underserved populations.	PW-Trans	Mid

Element	Category	Action	Responsible Parties	Timeline
		Grant funding: Proactively pursue grant funding to implement projects from the Vision Zero Action Plan.	PW-Trans	Ongoing
		Safety in CIP projects: Institutionalize safety considerations in all project types to systematically implement safety improvements through operations and maintenance efforts (such as repaving projects). Audit the city's Capital Improvement Program (CIP) for opportunities to enhance safety benefits of funded projects.	PW-Trans,PW-Eng	Mid
	Development Review	Safety impact assessment: Develop a process to conduct safety impact assessments of all new land use developments to identify standard safety improvements-and cost sharing opportunities.	PW-Trans,CDD-Plan	Mid/Long
	Under-resourced and underserved communities	Under-resourced and underserved communities in plans + projects: Set goals related to safety improvements for populations that have been traditionally under-resourced and underserved and incorporate into project planning, design, implementation, and assessment.	PW-Trans	Near
		Community design review: Continue to engage traditionally under-resourced and underserved communities in safety projects and programs by establishing a process of community design review for Vision Zero projects in traditionally under-resourced and underserved communities.	PW-Trans; CMO-Comms	Mid
		CSC oversight: Use the Complete Streets Commission to help advise on safety project development and build relationships and trust with community leaders in under-resourced and underserved communities.	PW-Trans	Ongoing

Element	Category	Action	Responsible Parties	Timeline
Safe Users	Education	<p>High-risk behaviors: Focus outreach and educational programs on the behaviors and target audiences most linked to fatalities and serious injuries, including improper turning, obeying traffic signs and signals, and unsafe speeding. Leverage partnerships with community-based organizations and advocacy groups.</p>	PD; PW-Trans, CMO-Comms	Mid/Long
		<p>Demonstration projects: Use demonstration projects to raise awareness of new designs, encourage piloting of safety projects requiring capacity trade-offs, and solicit feedback from the public. Demonstration projects also provide opportunity to measure safety effects and encourage innovation and design flexibility.</p>	PW-Trans	Mid
		<p>Motorcycle/e-bike training: Facilitate training opportunities for motorcycle riders, e-bike riders, and similar road users to encourage safe and informed riding. Collaborate with external partners to support a diversion program.</p>	PD	Mid
		<p>SRTS curriculum: Continue to implement safe walking and biking curriculum to elementary and middle school students throughout Menlo Park.</p>	PW-Trans, PD-SRO	Ongoing
		<p>Youth leadership: Develop targeted engagement for middle and high school students and families in traffic safety through the Safe Routes to School program and Youth Advisory Commission, with a focus on empowering youth leadership to promote safe transportation in their school communities.</p>	PW-Trans, LCS-YAC, PD-SRO	Near

Element	Category	Action	Responsible Parties	Timeline
	Enforcement	Disproportionate impact: Continue to investigate, document, and address the impacts of traffic safety enforcement and traffic safety surveillance on under-resourced and underserved communities. Share results of investigation using website, Vision Zero working group, and other methods.	PD, CMO	Mid/Long
		High-risk behaviors: Target enforcement on behaviors and locations most linked to fatalities and serious injuries, including speeding, obeying traffic signals and signs, and driving under the influence.	PD-Traffic	Near/Mid
Safe Roadways	Collision Avoidance	Vision Zero branding: Provide clear Vision Zero branding and education messaging along the High Crash Corridors to increase awareness among travelers.	CMO-Comms, PW-Trans	Mid
		AT network: Build complete active transportation network that provides high-quality, low-stress connections to key City destinations including schools, libraries, and community centers - supporting an age-friendly environment.	PW-Trans	Mid/Ongoing
		Priority safety projects: Prioritize implementation of the safety projects identified in this plan.	PW-Trans	Mid
	Kinetic Energy Reduction	Intersection design: Evaluate intersection design and control decisions in the planning or scoping stage for opportunities to better prioritize using design and control strategies that separate users in time and space.	PW-Trans, PW-Eng	Mid
	Policies and Tradeoffs	Functional classifications: Evaluate functional classification designations from the General Plan to identify whether any corridors should be reclassified from circulatory roads to local roadways.	PW-Trans, CDD-Plan	Long
		Signal timing: Adopt signal timing policies that prioritize pedestrian safety.	PW-Trans	Mid
		School speed zones: Design 15 mph school zones aligned with target speed in those areas.	PW-Trans	Near/Mid

Element	Category	Action	Responsible Parties	Timeline
		Maintenance: Routinely review maintenance conditions of infrastructure on High Crash Corridors (e.g., roadway striping, pavement condition, street sweeping) and allocate funding to support ongoing maintenance.	PW-Trans, PW-Maint, PW-Eng	Mid
		Quick builds: Systematically apply low cost safety countermeasures citywide, including through adoption of a Vision Zero Quick Build Policy to streamline and expedite project delivery.	PW-Trans	Near
		Crosswalk policy: Update the existing citywide crosswalk policy to enhance safety of pedestrian crossings, including process for assigning crossing guards.	PW-Trans	Near
		Curbside management: Develop a curbside management strategy to reduce double parking, prevent blocked intersections, and limit user conflicts around stopped or loading vehicles.	PW-Trans	Mid
		Construction detours: Develop guidance around construction detours and temporary disruptions to the transportation network to prioritize safety for people walking and biking. This may include supporting temporary changes to the street, such as creating a pathway in place of onstreet parking for the duration of the project.	PW-Trans	Mid
Safe Vehicles	Supportive Infrastructure	AV policy: Monitor relevant policy guidance and design guidelines that accommodate autonomous vehicles (AVs).	PW-Trans	Long
	Fleet Management	City vehicle fleet: Support safer operations of city and commercial vehicles through a plan to transition city's vehicle fleet to safety feature enhanced vehicles and an update of existing heavy duty vehicle routes to avoid high-pedestrian areas. Increase the use of alternate modes, such as e-bikes, for City tasks.	CMO-Sust, PW-Maint, PD	Long

Element	Category	Action	Responsible Parties	Timeline
Safe Speeds	Design and Operations	Standard plans + details: Update City standard plans and details to include best practices in speed management, (e.g., roadway geometries are designed for context-appropriate speeds).	PW-Trans, PW-Eng	Mid
		Slow streets: Identify a strategy for the designation of Slow Streets in the City, including updating the City's Neighborhood Traffic Management Program.	PW-Trans	Near
	Enforcement	Speed cameras: Monitor recently approved California pilot of speed cameras, including strategies and policy to ensure privacy. Work with representatives to advocate for legislation to allow the use of speed cameras statewide.	PD-Traffic, PW-Trans	Long
		Speed feedback signs: Increase the use of speed feedback signs along High Crash Corridors and ensure accuracy and maintenance of signage.	PW-Trans	Mid
	Policies and Programs	Speed management training: Provide speed management training focused on fatality and serious injury minimization to staff working on transportation safety.	PD?	Long
		Speed management plan: Develop a comprehensive speed management plan with the goal of slowing vehicle speeds on the High Crash Corridors using tools such as speed limit reductions (as authorized by AB 43), traffic signal re-timing, installing traffic calming devices, and re-purposing travel lanes. The Plan will include complementary tools like education and outreach and high visibility enforcement to slow speeds.	PW-Trans	Long

Element	Category	Action	Responsible Parties	Timeline
Post Crash Care	Crash Investigation	Collision reporting: Employ collision reporting practices that promote complete and accurate data collection and documentation of road user behavior and infrastructure.	PD-Records	Mid
		Feedback loop: Establish a feedback loop such that key insights from crash investigations are shared with roadway designers and/or influence outreach and education.	PD-Traffic, MPFPD, PW-Trans	Mid
		Near miss data: Explore ways to collect data on near misses.	PW-Trans, PD-Records	Long
	Partnerships	Data sharing: Share data across agencies and organizations, including first responders and hospitals, to develop a holistic understanding of the safety landscape and improve data accuracy to reduce the likelihood of collision underreporting.	PW-Trans, PD-Traffic, MPFPD	Mid/Long
		Rapid response team: Deploy a multi-agency rapid response team to all crash locations with a fatality or serious injury to evaluate the site for safety enhancements.	MPFPD, PD-Traffic, PW-Trans, PW-Maint	Near/Mid

Note: Near-term actions are priorities within the first year; mid-term actions are priorities within the following 2-5 years; and long-term actions are priorities beyond five years.

Implementation Strategies

Implementation is a critical step in the Vision Zero Action Plan process where priority projects and strategies are executed. Key recommendations for successful implementation include:

Oversight & Accountability - A Vision Zero committee or task force made up of key stakeholders should meet regularly to oversee and facilitate delivery of safety projects and programs, holding all parties accountable for their commitments to advancing safety.

Coordination & Partnerships – Sustained support from key safety partners is essential and can be achieved through regular updates on action plan progress, consultation early in the implementation process to gather suggestions and feedback, and project bundling to align safety goals with other partner projects.

Communication – Continued communication with stakeholders and community members in collaboration with the Complete Streets Commission builds trust and support for the City’s safety goals through strategies such as communication across diverse channels, publication of factsheets on action plan progress, and regular public conversation on the topic of safety.

Phasing & Sequencing – Safety implementation requires ongoing, long-term commitment from the City, with different areas of focus over different time horizons.

- Near-term implementation efforts may focus on successful completion of ongoing safety efforts and lower-cost improvements that can be constructed within three years.
- Medium-term implementation goals may target larger and more comprehensive safety infrastructure projects and more complex programmatic efforts that require extensive cross-department collaboration.
- Long-term implementation goals may focus on initiating significant shifts in the City’s approach to planning and design to formalize the institutionalization of safety.

Funding – Funding can be a major hurdle to plan implementation, so it is important to stay up to date on relevant grant opportunities and proactively pursue grant funding for the most competitive projects. Menlo Park can take advantage of a variety of regional, state, and federal funding sources to finance safety project planning, design, and construction (**Table 2**).

Table 2: Safety Project Funding Sources

Funding Source	Program Purpose
City of Menlo Park Transportation Impact Fees (TIF)	Menlo Park adopted a transportation impact fee (TIF) program to facilitate transportation and promote economic well-being within the City. Per the TIF Nexus Study, these funds can generally be invested in the City’s Transportation Master Plan projects. The amount of TIF funding available varies by the amount of development taking place in the City.
Safe Streets and Roads for All (SS4A) Grant Program	The Safe Streets & Roads for All (SS4A) grant program is a new Federal grant program established by the Bipartisan Infrastructure Law centered around the Department of Transportation’s National Roadway Safety Strategy and its goal of zero deaths and serious injuries on America’s roadways. It will provide \$5 billion in grant funding over 5 years to develop safety action plans and implement safety projects.
Congestion Mitigation and Air Quality (CMAQ) Improvement Program	The FAST Act continued the CMAQ program to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	This program supports projects that for surface transportation infrastructure projects that will improve: safety; environmental sustainability; quality of life; mobility and community connectivity; economic competitiveness and opportunity including tourism; state of good repair; partnership and collaboration; and innovation.
Highway Safety Improvement Program (HSIP)	California's Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors (CRFs). Local HSIP projects must be identified on the basis of collision experience, collision potential, collision rate, or other data-supported means.
Active Transportation Program (ATP)	ATP is a statewide competitive grant application process with the goal of encouraging increased use of active modes of transportation. The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The ATP administered by the Division of Local Assistance, Office of State Programs.
SB-1 Transportation Funding	The State Transportation Improvement Program (STIP) is the biennial five-year plan for future allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements.
City/County Association of Governments (C/CAG) of San Mateo County’s Transportation Development Act (TDA) Article 3	The goal of the TDA Article 3 Pedestrian and Bicycle Program is to fund projects that encourage and improve bicycling and walking conditions in San Mateo County. Bicycling and walking are sustainable forms of transportation and contribute to the overall goals of the TDA Article 3 to reduce commute corridor congestion, make regional connections, enhance safety, and meet local mobility needs. The program is funded every two to three years.

Funding Source	Program Purpose
City/County Association of Governments (C/CAG) of San Mateo County's Transportation Fund for Clean Air (TFCA)	The TFCA provides funding for arterial traffic management utilizing advanced technology and traffic calming projects, including quick build bicycle and/or pedestrian improvement projects.
San Mateo County Transportation Authority's Measure A & W Programs	The goals of Measures A & W are to improve transportation infrastructure, reduce traffic congestion, enhance road safety, and invest in multimodal infrastructure. Measures A & W fund several programs, including the Pedestrian and Bicycle Program, the Highways Program, and the Alternative Congestion Relief and Transportation Demand Management (ACR-TDM) Program.
Metropolitan Transportation Commission (MTC) One Bay Area Grant (OBAG) Program	Federally funded program administered by MTC to invest in local street and road maintenance, streetscape enhancements, bicycle and pedestrian improvements, transportation planning, and safe routes to school while advancing regional housing goals.
Caltrans Sustainable Transportation Planning Grant Program	To encourage local and regional planning that furthers state goals, including, but not limited to, the goals and best practices cited in the Regional Transportation Plan Guidelines adopted by the California Transportation Commission.
California Office of Traffic Safety (OTS)	OTS administers traffic safety grants in the following areas: Alcohol Impaired Driving, Distracted Driving, Drug-Impaired Driving, Emergency Medical Services, Motorcycle Safety, Occupant Protection, Pedestrian and Bicycle Safety, Police Traffic Services, Public Relations, Advertising, and Roadway Safety and Traffic Records.
Affordable Housing and Sustainable Communities (AHSC)	The Affordable Housing and Sustainable Communities (AHSC) Program makes it easier for Californians to drive less by making housing, jobs, and key destinations accessible by walking, biking, and transit.

Evaluation Strategies

Ongoing safety program evaluation is how Menlo Park will understand its performance in achieving its safety goals and inform future decision-making about safety investments. Key recommendations for effective program evaluation include:

Update the Plan Regularly – Plan to update the action plan every three to five years to assess whether new direction is needed as conditions within the City and region change.

Identify Target Metrics and Measure Performance – Recommended safety metrics for annual tracking include the following outcome measures and output measures:

- Reduction in fatal and serious injury collisions year over year
- Reduction in prevalence of particularly severe collision types year over year, including those involving high speeds and turning vehicles
- Installation of at least three safety infrastructure improvements per year

Performance measurement can be done through an annual action plan update or safety scorecard highlighting successes and areas in need of additional attention and resources.

Continue Stakeholder Engagement – To supplement quantitative measurement of performance targets, input from diverse partners will be valuable in adapting the City's safety priorities as projects and programs are rolled out and conditions change.

Appendix A: Engagement Activities Summary

Appendix B: Collision Analysis Summary

Appendix C: Benchmarking Assessment

Appendix D: Countermeasure Toolbox