Boulder County
Vision Zero Action Plan
Phase 2 Engagement Summary

March 2025

Contents

Introduction

Recognizing the importance of implementing a regional approach to road safety, Boulder County, Lafayette, and Superior (the Partners) joined forces to apply for 2023 Safe Streets and Roads for All (SS4A) grant funding. The Partners were awarded the SS4A grant funding which enables each Partner to develop a Vision Zero Action Plan (VZAP) of their own. The VZAP will be a detailed analysis of traffic crashes and risk factors in the county or jurisdiction, and provide specific recommendations to comprehensively improve transportation safety in the coming years. The Boulder County Vision Zero Action Plan is being developed using community engagement to supplement the data-driven safety analysis completed for the project. Two phases of community outreach were planned in the form of public meetings and pop-up events:

- Phase 1 served as a listening session to learn from the public about traffic safety attitudes and location-specific feedback; and
- Phase 2 informed the public by presenting draft content from the Vision Zero Action Plan, including high-priority recommendations.

In winter 2024/2025, the project team implemented Phase 2 of outreach. During this phase, the community was asked to review high-level results from the safety analysis and provide feedback on proposed countermeasures. The community and stakeholder engagement efforts included a blend of in-person, virtual, and digital engagement strategies, including informational online videos, an online survey, and participation at in-person community events. The community feedback collected in Phase 2 will be used to prioritize Vision Zero projects and specific actions Boulder County can implement to improve traffic safety.

Project Outreach Set-up & Promotion Information

Understanding that outreach and communication with the community was a top priority, the project team created a variety of content to promote and encourage participation in the engagement efforts for this project. Diversifying the outreach platforms allowed Boulder County to reach a wider array of community members for more comprehensive engagement.

Website

During Phase 1, the project team worked closely with the Partners to develop a Vision Zero Action Plan project website hosted on Boulder County's webpage. The website contains static information including project overview, project schedule, to-date safety progress in each of the jurisdictions, an opportunity to sign up for project updates, FAQs, and program contact information. It also includes information that is updated regularly including public engagement opportunities, upcoming public meetings, and past public meeting recordings and presentations. The Partners promoted the project website with their constituents, and the project team included the website address and QR code on all promotional and engagement materials.

The website can be accessed by QR code, by the abbreviated weblink, or by the full weblink:

QR Code:

Abbreviated weblink: https://boco.org/visionzeroactionplan

Full weblink: https://bouldercounty.gov/transportation/multimodal/vision-zero-action-plan/

Flyer

The project team created a project flyer in both English and Spanish to promote public involvement in Phase 2 of outreach for the Vision Zero Action Plan. The flyer encouraged community members to take the transportation survey and provided both a QR code and an abbreviated weblink to access the project website.

Social Media

The project team assembled a social media calendar to promote attendance at the pop-up event and encourage online survey completion. The project team worked with the Boulder County communications teams to push content out through their social media channels. Each social media calendar included text content, images, and outlined the platforms for distribution (Twitter [X], Facebook, Instagram, Nextdoor, LinkedIn) for each post.

Newsletter

The project team drafted a news release to be distributed to residents explaining the Vision Zero Action Plan project and how residents can get involved and provide feedback. The newsletter content was emailed to website subscribers of Vision Zero, Transportation News, or Media Only (5,438 recipients).

Stakeholder Engagement

A Steering Committee was formed to help foster and shape the development of the Vision Zero Action Plan. The Steering Committee consisted of members from Boulder County, Lafayette, Superior, Nederland, Colorado Department of Transportation (CDOT), and advocacy agencies. Throughout the project duration, the team facilitated meetings with the Steering Committee, and targeted meetings as needed. The Stakeholder Committee convened once between Phase 1 and Phase 2 engagement efforts (Steering Committee Meeting #2), and were provided a memorandum with updates on the project status as well as an encouragement to take the online survey and share with their networks during Phase 2.

Steering Committee Meeting #2

On October 10, 2024, the project team hosted a virtual meeting with members of the Steering Committee including representatives from Boulder County, Lafayette, Superior, Nederland, Colorado Department of Transportation (CDOT), and advocacy agencies. The team reviewed information about the project scope, background, and schedule, then provided an overview of input received during Phase 1 of community outreach as well as the results of the safety analysis. Steering Committee members were asked to react to the results of the crash analysis and High-Injury Networks. The following discussion revolved around potential inputs focusing on roadways being used for recreation versus commuting/non-recreation. Finally, the group discussed potential outreach events and ways to support Phase 2 of engagement. The Steering Committee Meeting presentation and meeting notes are available in Appendix A.

Steering Committee December Update

In December 2024, the project team developed graphic updates for each agency that were shared with the Steering Committee members. The updates focused on a review of Phase 1 community feedback, the safety analysis findings, the High-Injury Network, and an overview of the recommendation development process including example recommended actions. The Steering Committee Update specific to Boulder County can be found in Appendix A.

Community Engagement

Community engagement strategies included two in-person events, informational online videos, and an online survey. Community engagement materials can be found in Appendix B.

Pop-Up Event – Boulder County Winter Bike to Work Day

The Boulder County Winter Bike to Work Day pop-up event occurred on February 14th, 2024 from 7AM-9AM at the Boulder Chamber. At the event, the project team set up boards with project background information, a summary of crash analysis statistics in Boulder County, and the High-Injury Network (HIN). The project team also set up an activity that prompted the public to place stickers to indicate their level of support for the preliminary recommended countermeasures to address the top crash types in Boulder County. Figure 1 displays photos from the pop-up event. Overall, the more than 65 participants were supportive of the six countermeasures, with some concerns raised about median barriers and their effectiveness on reducing crashes. In addition to the sticker exercise, the project team facilitated an activity to understand priorities for where to implement safety improvements first. Participants were given 7 tokens and asked to distribute them among 4 buckets based on their top priorities. The top priority for participants was to improve walking and biking ability, followed by locations with known crash history.

Figure 1. Boulder County Bike to Work Day Pop-Up Event

Pop-Up Event – Nederland TownTalk

The Nederland TownTalk pop-up event occurred on February 20th, 2024 from 3PM-5PM at Kathmandu. Similarly to the Boulder County Winter Bike to Work Day Event, the project team set up boards with project background information, a summary of crash analysis statistics in Boulder County, and the High-Injury Network (HIN). The project team also set up an activity that prompted the public to place stickers to indicate their level of support for the preliminary recommended countermeasures to address the top crash types in Boulder County. **Figure 2** displays a feedback board from the pop-up event. Overall, participants were supportive of the six countermeasures, with some concerns raised about speed cameras and their efficacy, as well as privacy concerns. In addition to the sticker exercise, the project team facilitated an activity to understand priorities for where to implement safety improvements first. Participants were given 7 tokens and asked to distribute them among 4 buckets based on their top priorities. The top priority for participants was to improve walking and biking ability, followed by locations with known crash history.

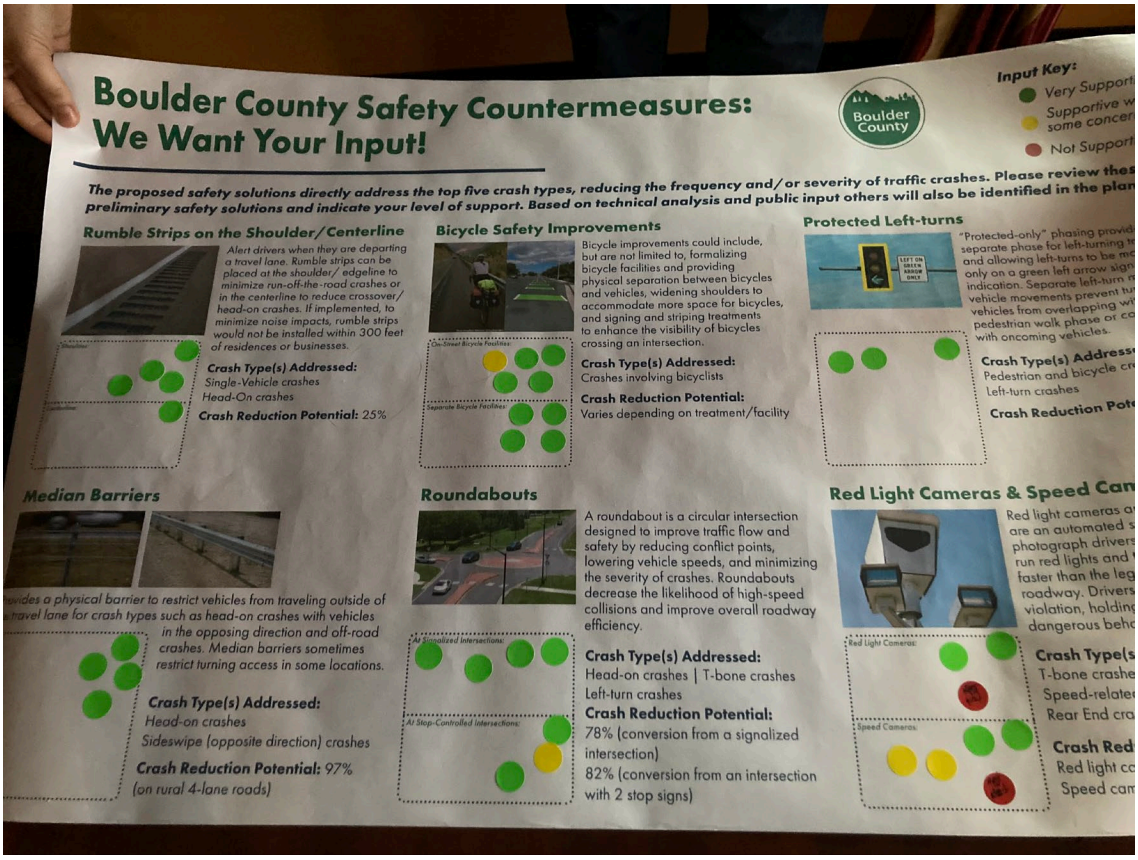


Figure 2. Nederland TownTalk Pop-Up Event

Informational Videos

Informational videos were posted to the project website in early 2025 to provide community members with an update on project process, present the results of the safety analysis, and describe proposed safety solutions. An introductory video provided an overview of the project, what Vision Zero is, and how the Partners are collaboratively developing their individual Vision Zero Action Plans. Next, a Boulder County-specific video detailed insights from the safety analysis process, including the HIN, as well as describing some of the proposed safety solutions and how they address the most common crash types in Boulder County. Finally, the video provided an overview of the Vision Zero Action Plan next steps, such as project prioritization, and prompted viewers to participate in the online survey.

Online Survey

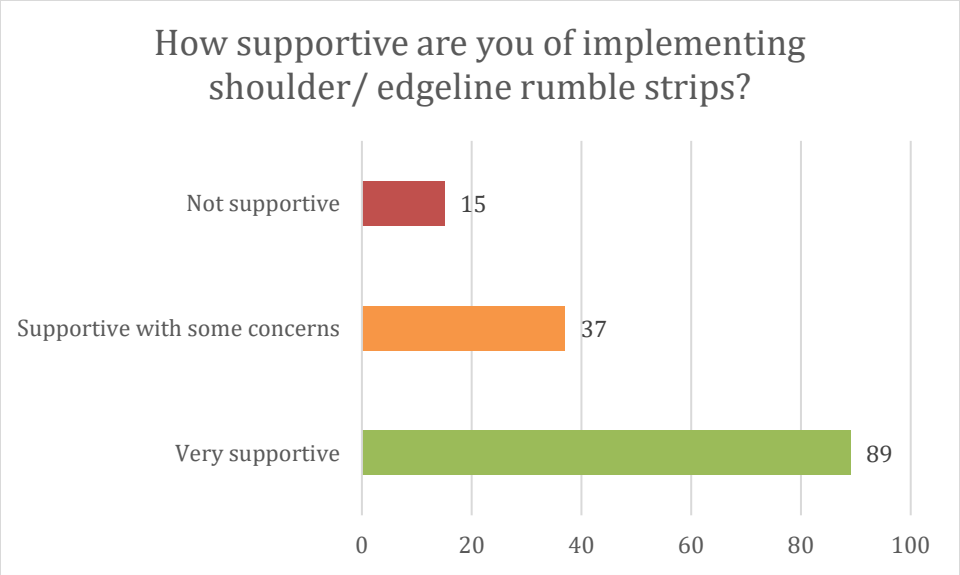
An online survey was shared with the public on SurveyMonkey and was open from February 11, 2025 through March 2, 2025. The survey presented high-level results from the safety analysis and proposed safety solutions related to the top crash types in Boulder County. The survey also gathered feedback about potential prioritization factors and provided the opportunity to provide additional open-ended comments. The full online survey can be viewed in Appendix C. There were 129 online survey responses, which were supplemented by the results of the activities at the pop-up events to inform the following results.

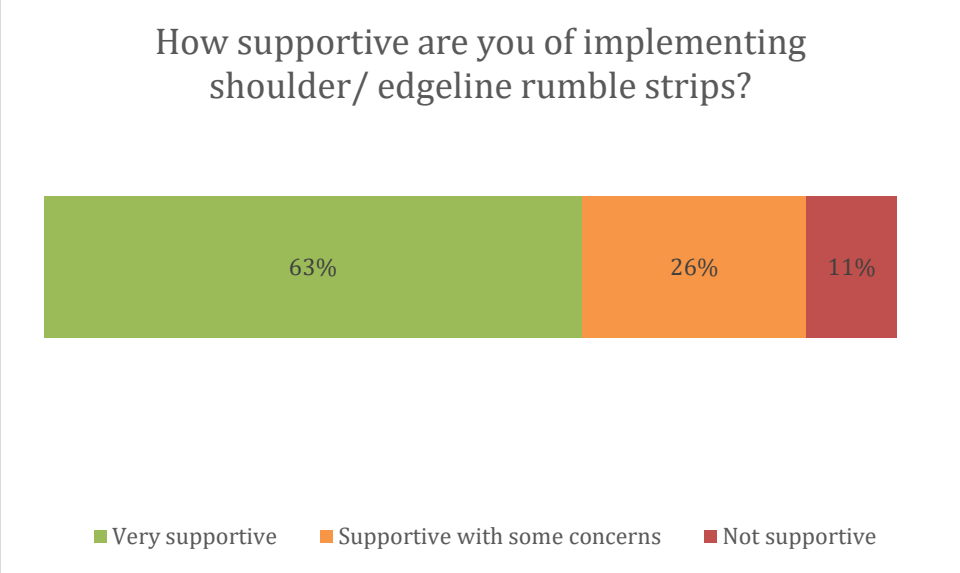
Proposed Safety Solutions

For each of the proposed safety solutions, participants indicated their level of support for implementation within Boulder County and had the opportunity to share any concerns about the safety solution.

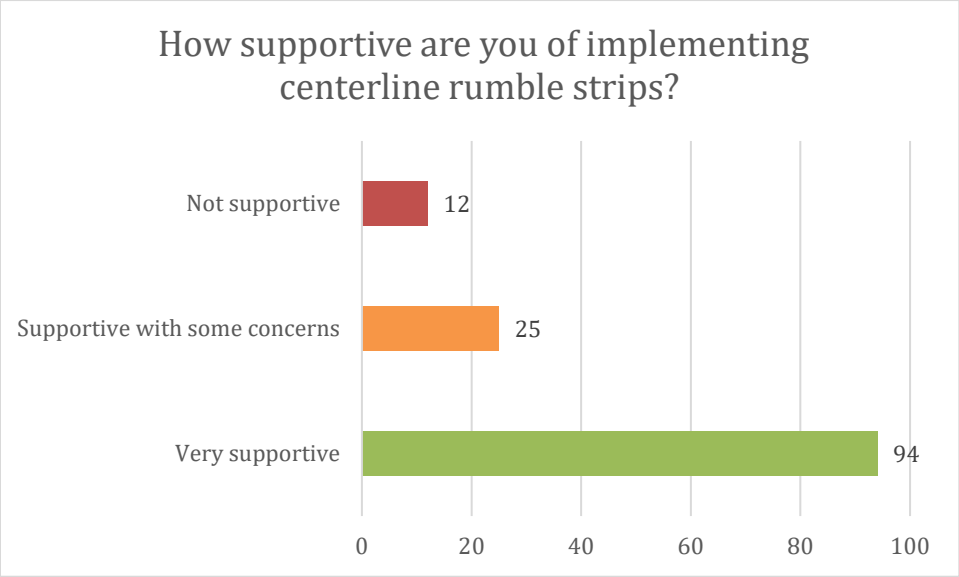
Rumble Strips

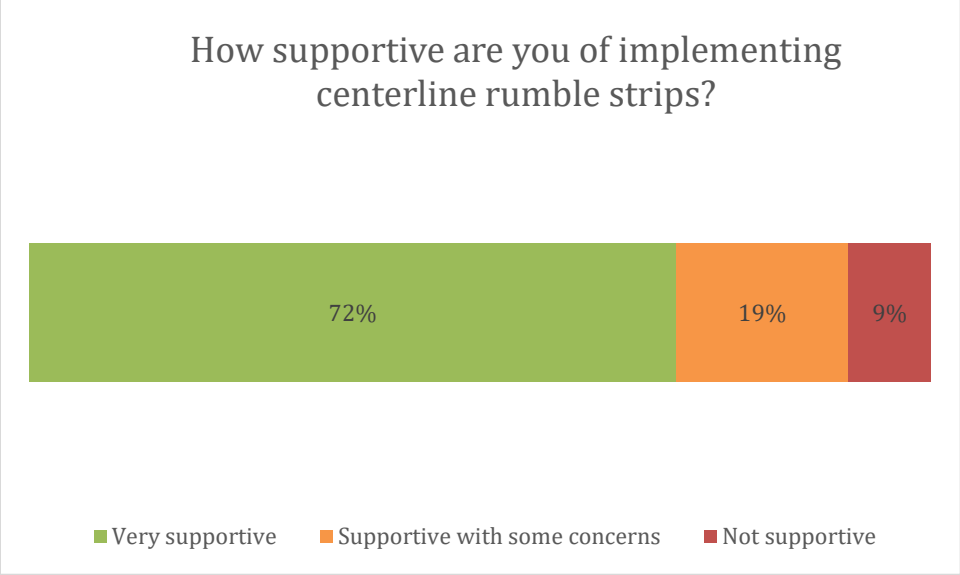
Shoulder/ Edgeline Rumble Strips





Centerline Rumble Strips

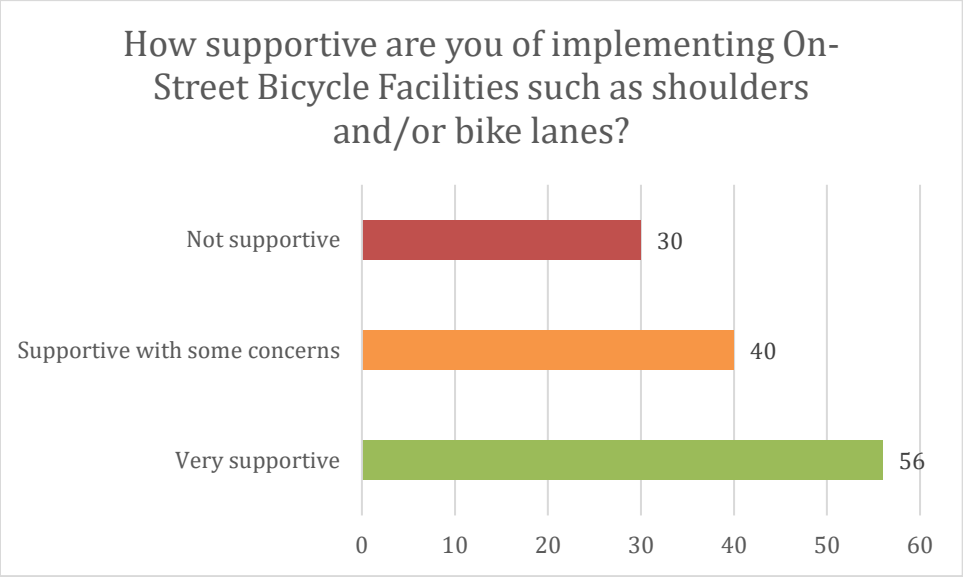


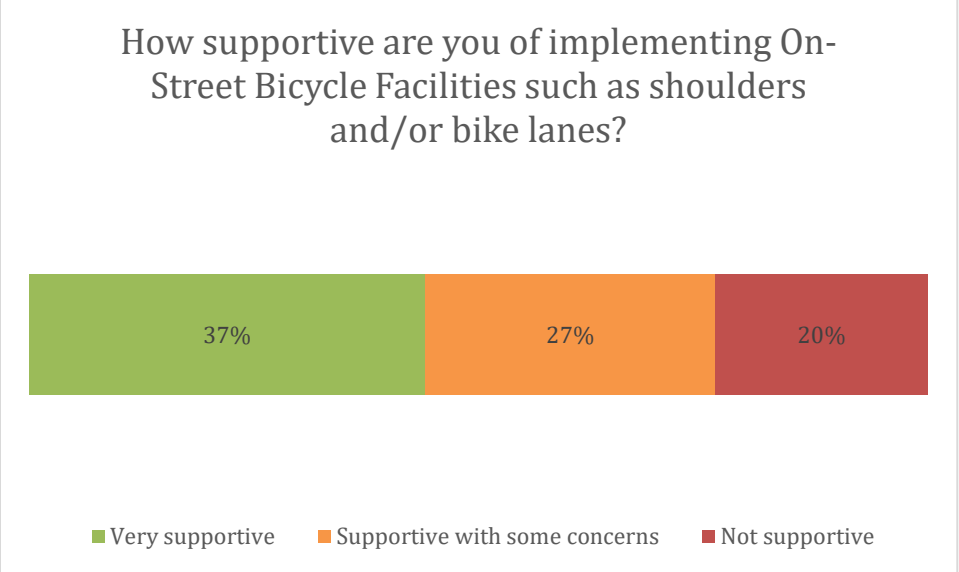


Of the 47 open-ended responses, many focused on concerns about bike safety when rumble strips are installed. Many of these concerns were related to cutting down the size of bike lanes and shoulders, and concerns about bikers accidentally running over rumble strips. Responses also highlighted only installing rumbles strips on high-volume roads, such as US 36 and Lee Hill Rd. Based on the concerns shared regarding the safety of cyclists in relation to the installation of rumble strips, implementation of this countermeasure should be prioritized on locations with non-shoulder bicycle facilities and paired with education about how to navigate rumple strips as a bicyclist.

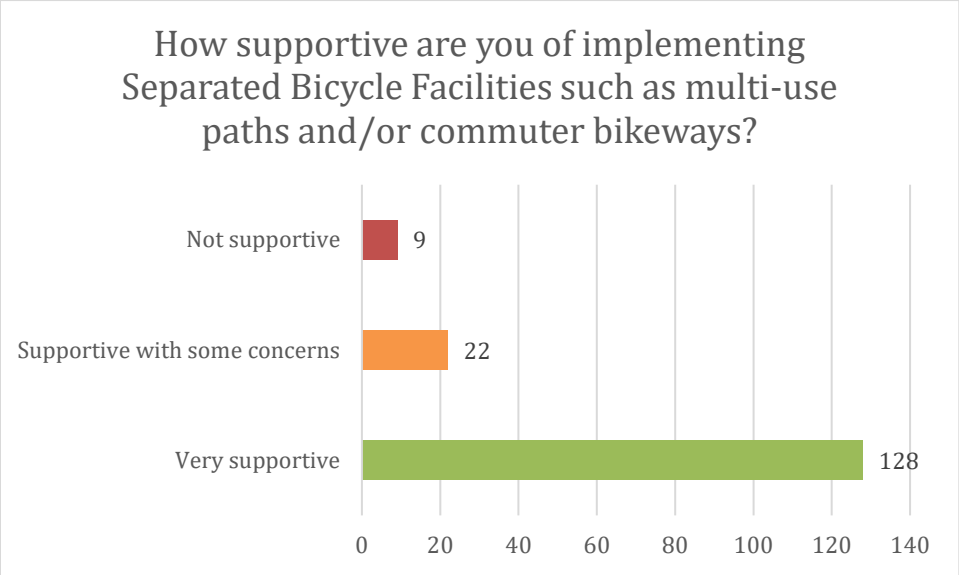
Bicycle Safety Improvements

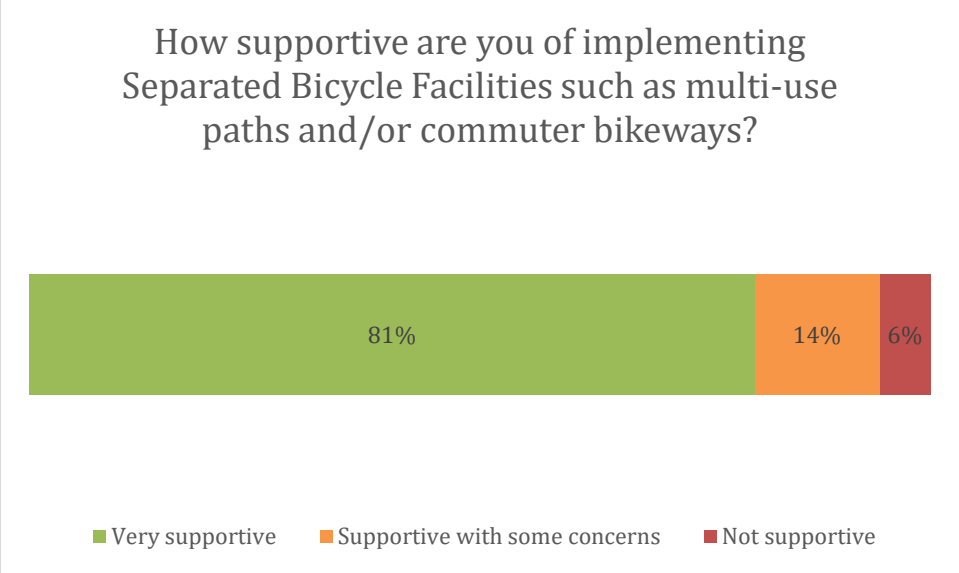
On-Street Bicycle Facilities





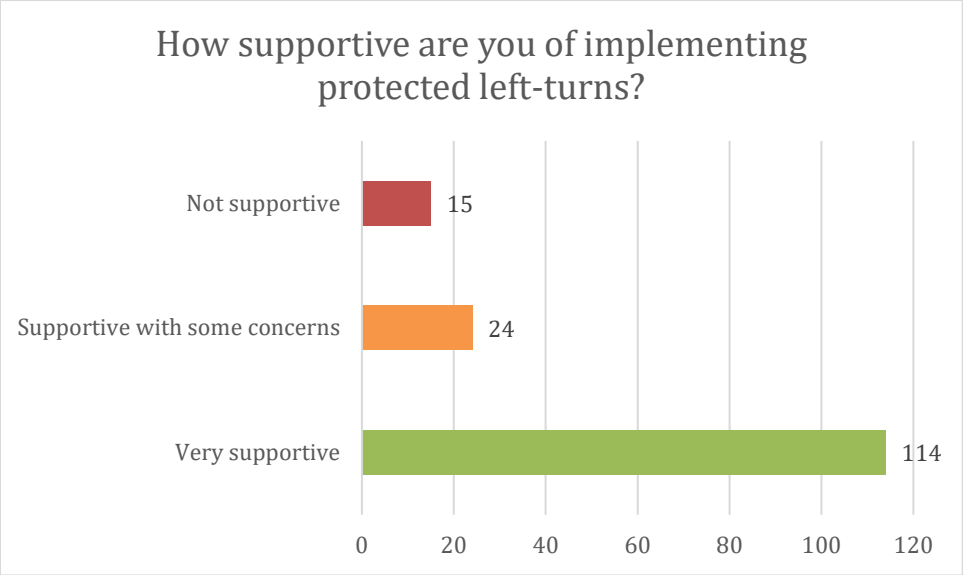
Separated Bicycle Facilities

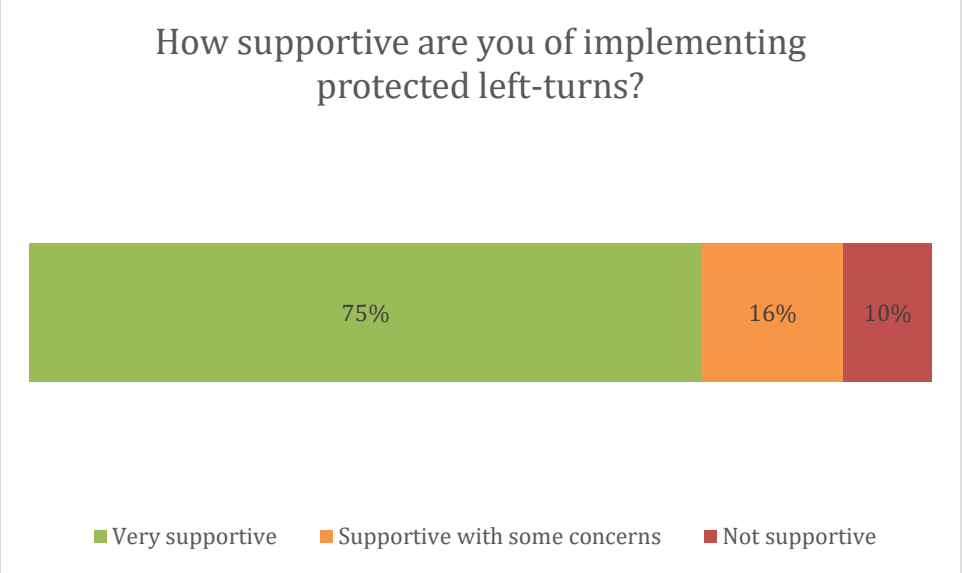




Of the 75 open-ended responses, many focused on concerns about the impacts to vehicle lanes with the implementation of bicycle safety measures. Many of these concerns were related to cutting down the size and amount of vehicle lanes and traffic flow issues that arise with smaller and fewer lanes. Responses also highlighted concerns about the visual clutter of on-street facilities (particularly those with flexible delineators) and how they impact both biker safety and vehicle safety. In general, responses were more supportive of separated, bicycle-only facilities rather than on-street facilities. Based on the concerns shared regarding the size and number of lanes available to cars as well as safety concerns with visual noise, implementation of this countermeasure should be paired with consideration for areas where bike safety measures do not impede the flow of traffic.

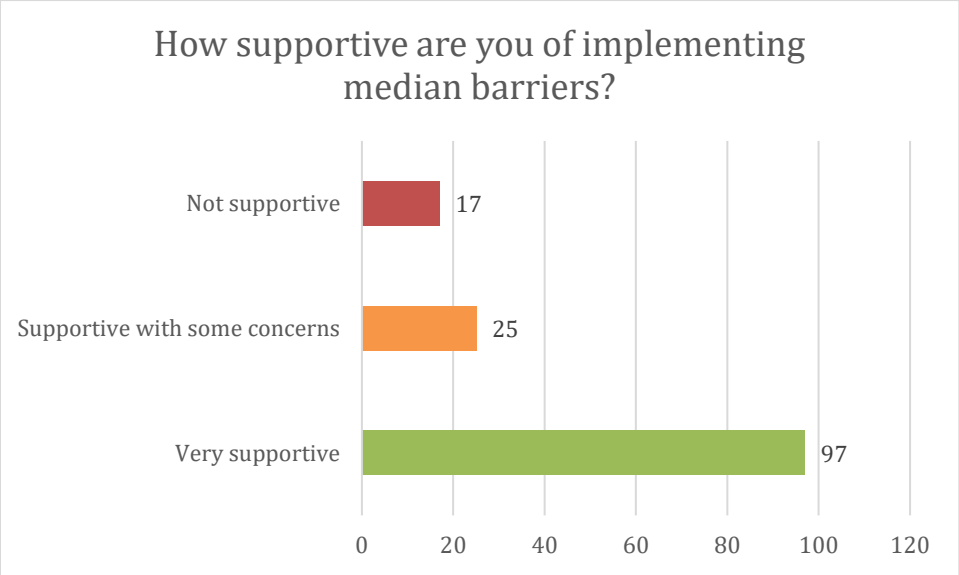
Protected Left-Turns

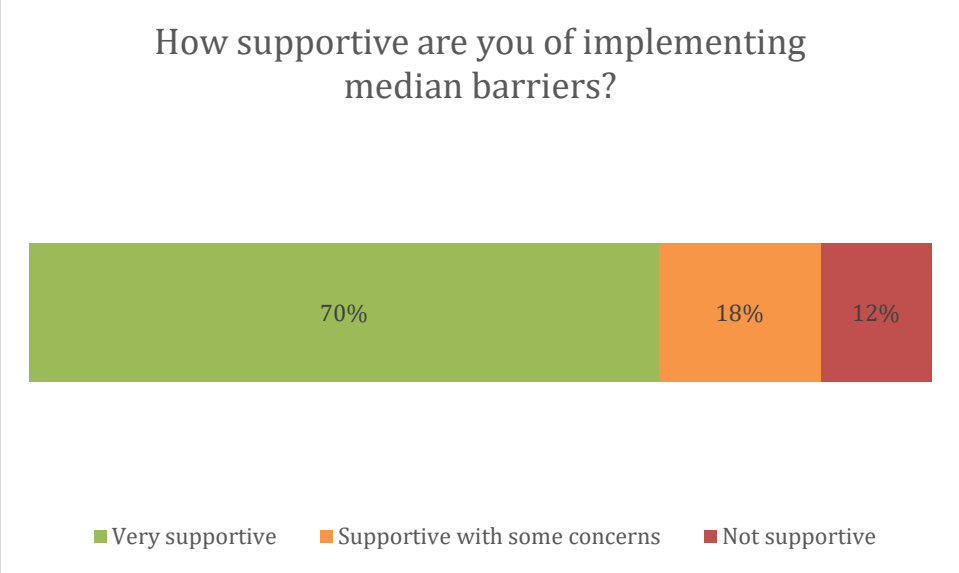




Of the 47 open-ended responses, many focused on concerns about traffic signals at intersections with protected left-turns, highlighting concerns about signal timing, flashing yellow lights, and drivers ignoring traffic signals. An additional subset of responses emphasized the implementation of protected left-turns only in areas of need. Additional concerns noted in the open-ended responses included concerns about bike and pedestrian safety, vehicle safety, traffic flow concerns, and the desire for increased police enforcement of traffic laws. Based on the concerns shared regarding the efficacy of traffic signals and impacts on drivers, bikers, and pedestrians by the community, implementation of this countermeasure should focus on maintaining existing traffic flow whenever possible while prioritizing collaboration with law enforcement to improve compliance with traffic signals.

Median Barriers

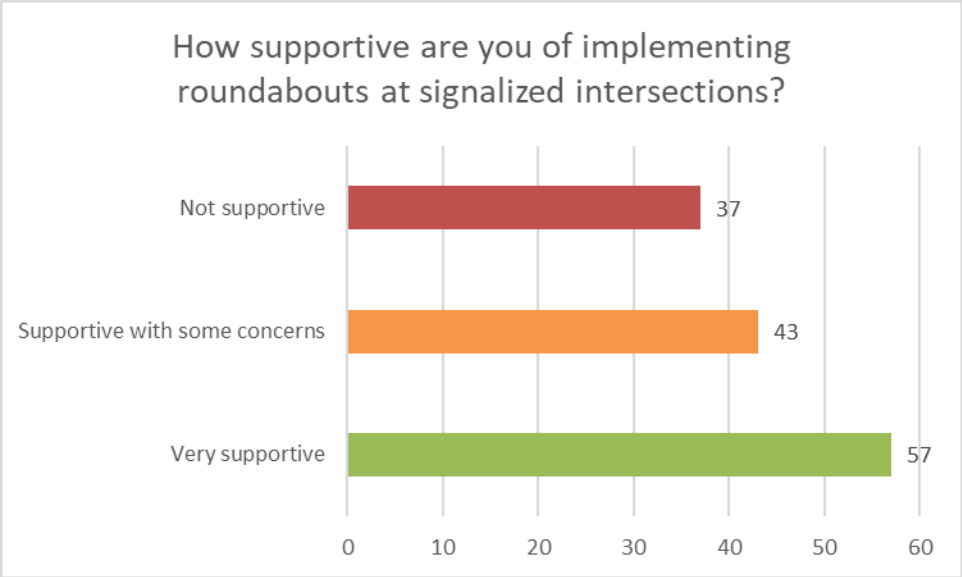


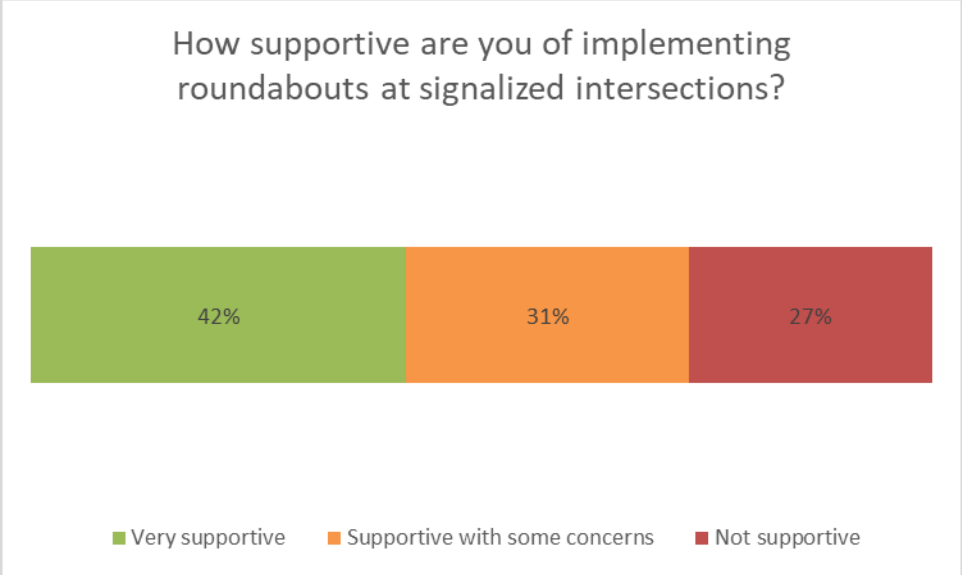


Of the 34 open-ended responses, many focused on concerns about the implementation of median barriers impacting the size of travel lanes. An additional subset of respondents were concerned with implementing median barriers in areas of need such as US 287, US 36, and Hwy 93. Based on the concerns shared regarding median barriers by the community, implementation of this countermeasure should focus on areas with high concentrations of prior accidents and where median barriers have the least impact on the size of travel lanes.

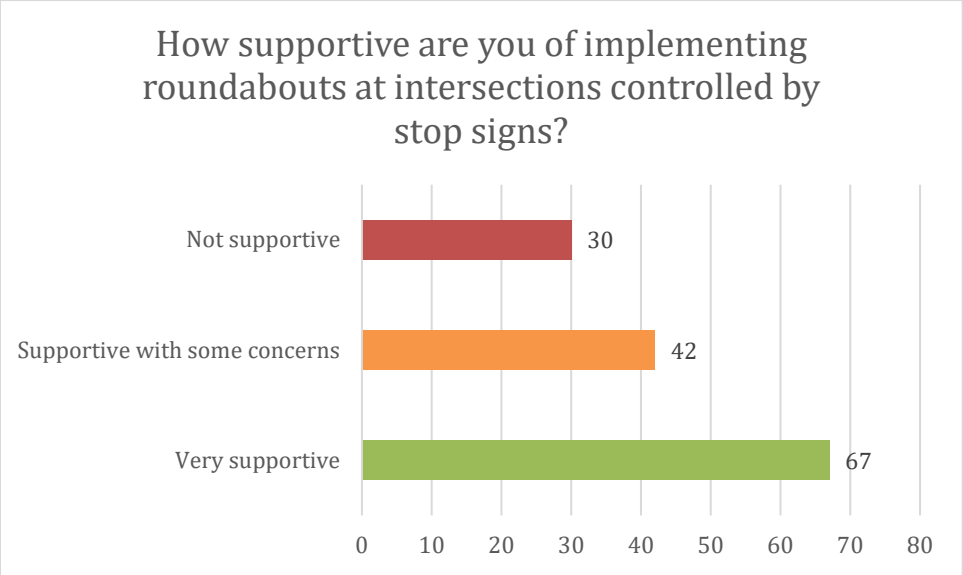
Roundabouts

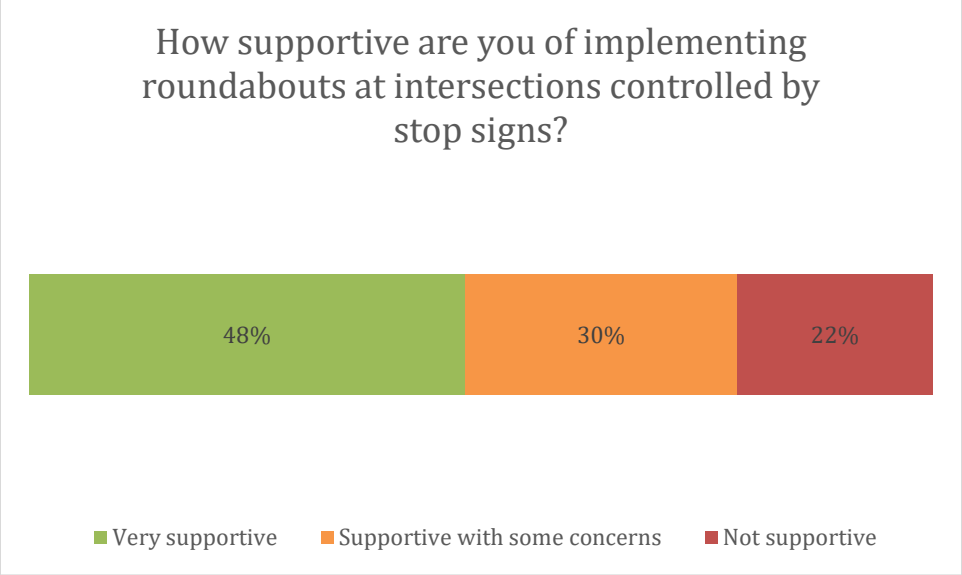
Roundabouts at Signalized Intersections





Roundabouts at Intersections Controlled by Stop Signs

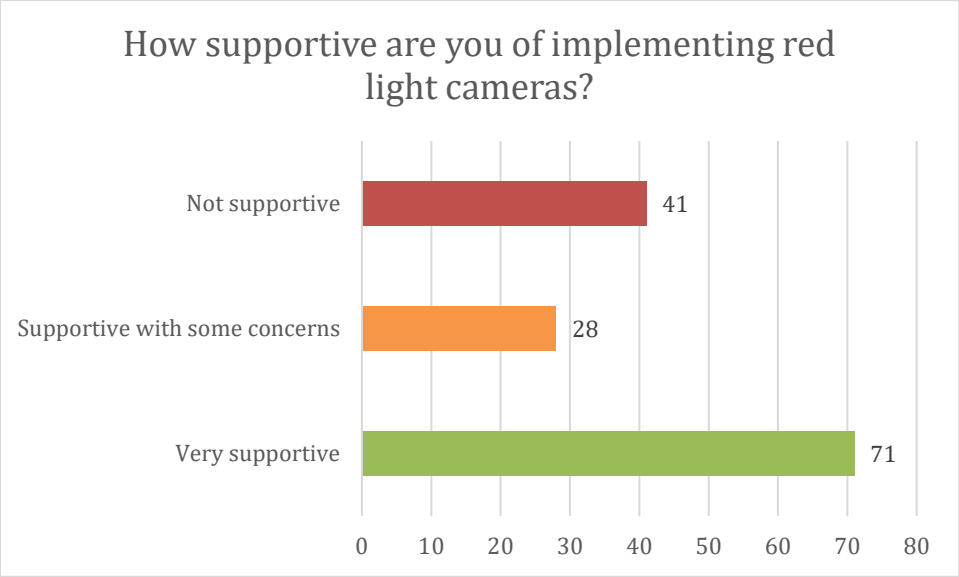


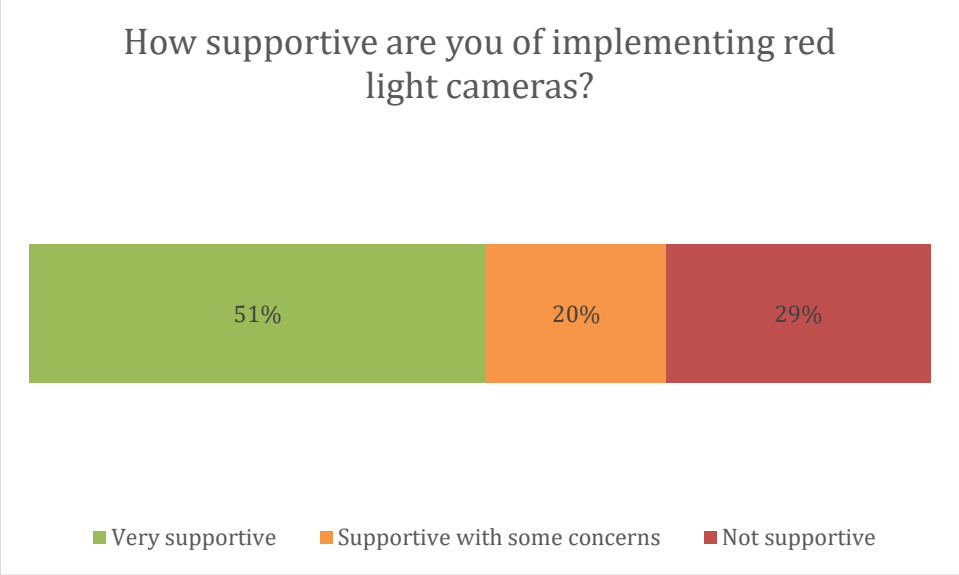


Of the 67 open-ended responses, the majority of responses focused on concerns about confusion about how these roundabouts work as well as calling for more public education on driving on roundabouts. Many of these concerns are related to drivers not understanding how to correctly navigate roundabouts, and traffic flow concerns. Additional concerns noted in the open-ended responses included how roundabouts may impact travel lane and intersection size. Based on concerns regarding roundabouts shared by the community, implementation of this countermeasure should be accompanied by educational outreach.

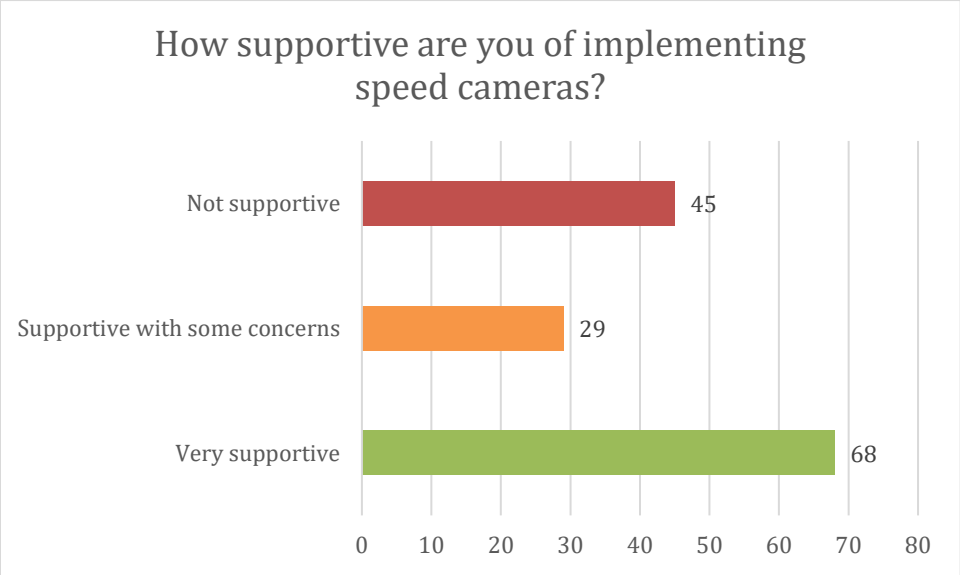
Red Light and Speed Cameras

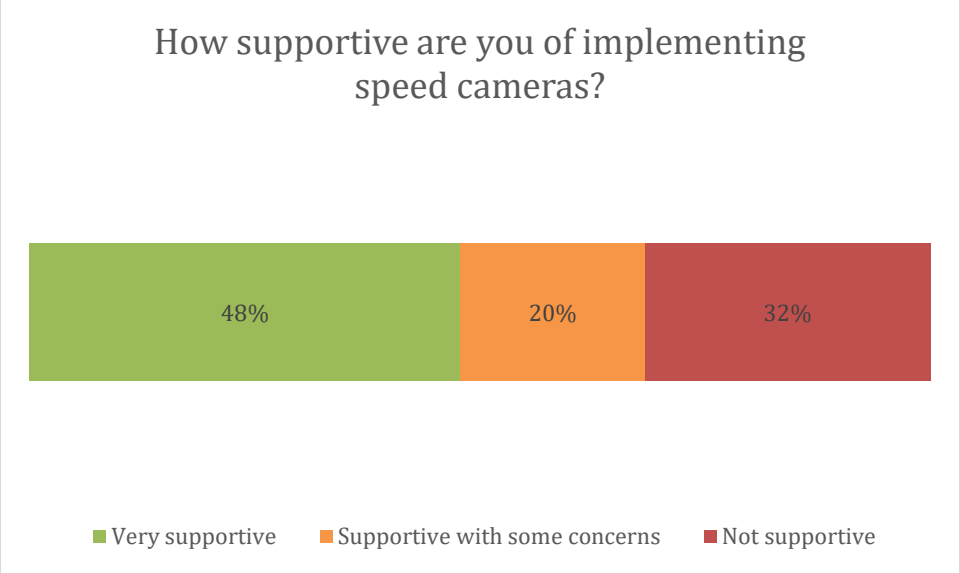
Red Light Cameras





Speed Cameras

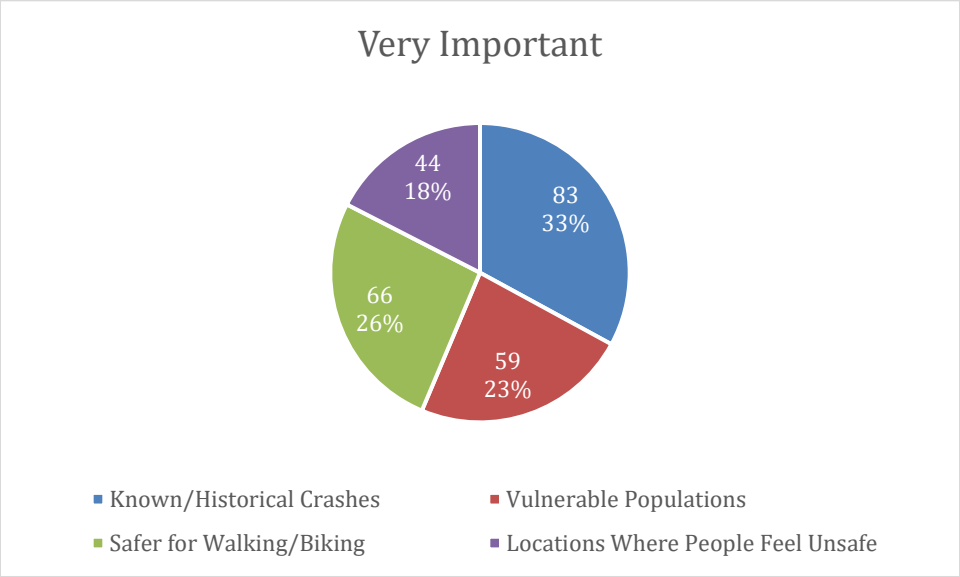




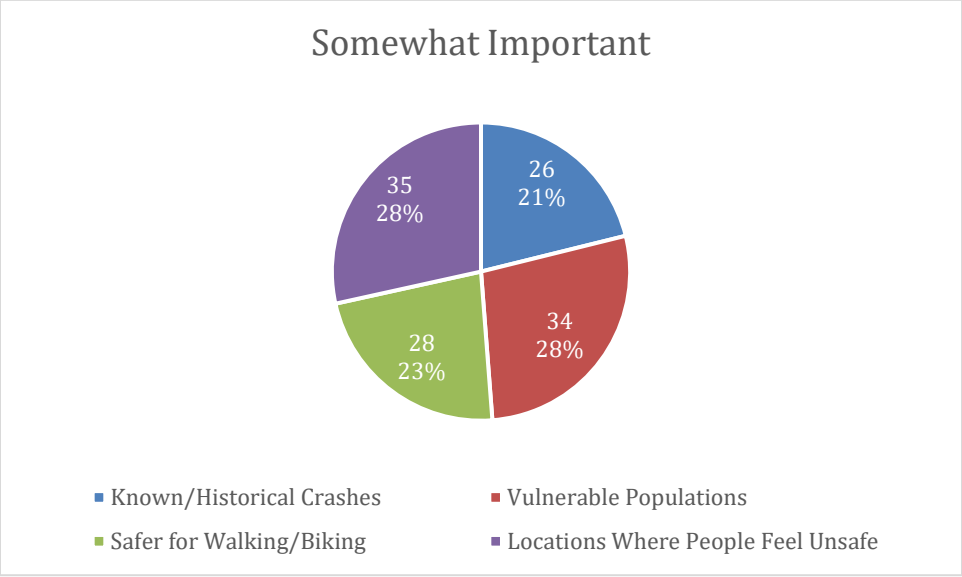
Of the 63 open-ended responses, many responses focused on concerns about technical errors associated with red light and speed cameras as well as calling for increased police enforcement as an alternative. Several responses also highlighted concerns about inequities and conflicts with for profit law enforcement, noting that higher income residents in the community have no problem paying tickets but lower income residents may be more financially impacted by traffic tickets. Based on concerns regarding the implementation of red light and speed cameras shared by the community, implementation of this countermeasure should focus on ensuring the enforcement of traffic laws is equitable and errors associated with technology are minimal.

Project Prioritization

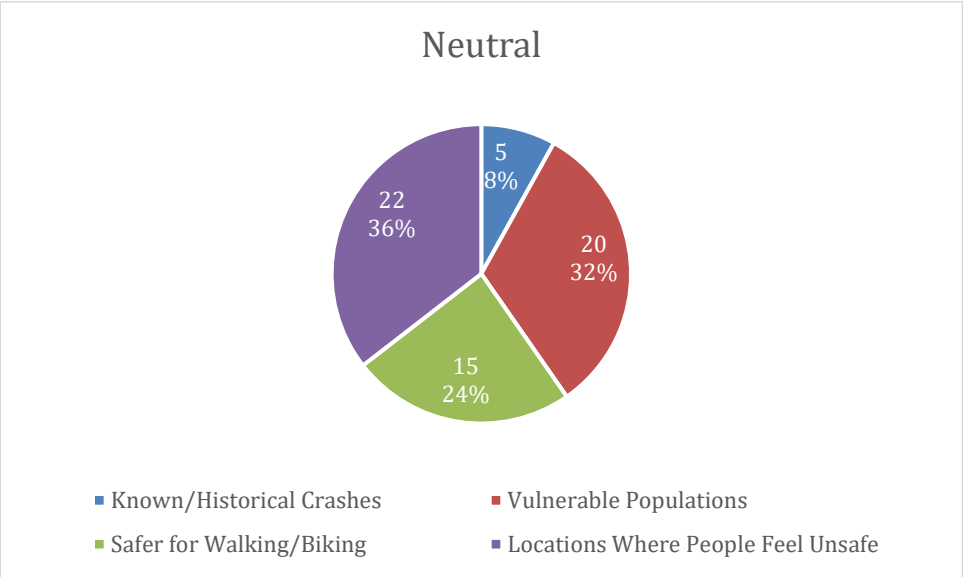
To inform prioritization of proposed projects, survey participants were asked to rank potential prioritization factors from highest to lowest priority.



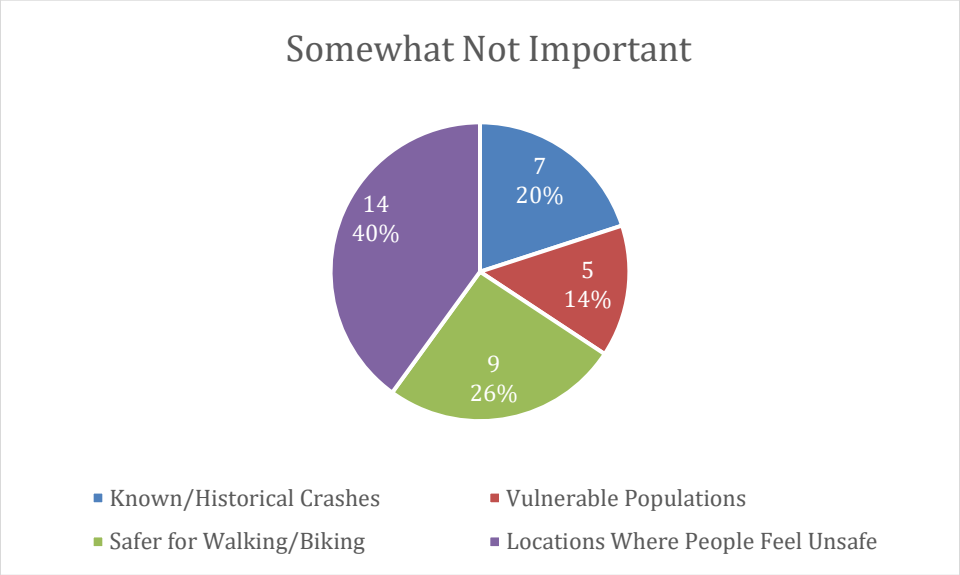
Most responses (33%) place areas of known/ historical crashes as a very important priority, while safer walking and biking infrastructure was another significant factor that participants placed as a very important priority (26%). The following lower priorities were vulnerable populations (23%) and locations that feel unsafe based on Summer 2024 community feedback (18%).



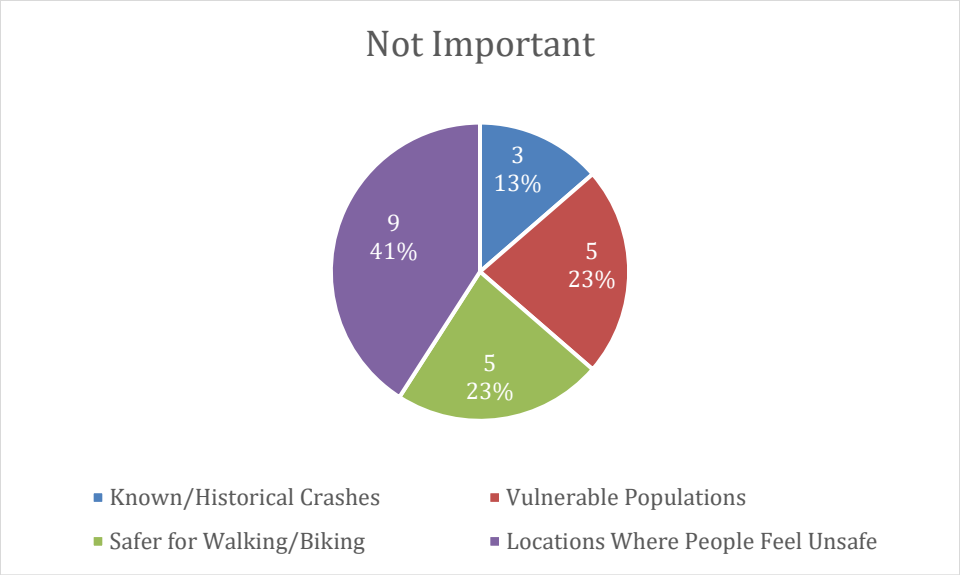
Responses indicated a somewhat important priority with nearly equal proportions: vulnerable populations (28%), locations that feel unsafe (28%), safer walking and biking infrastructure (23%), areas of known/ historical crashes (21%)



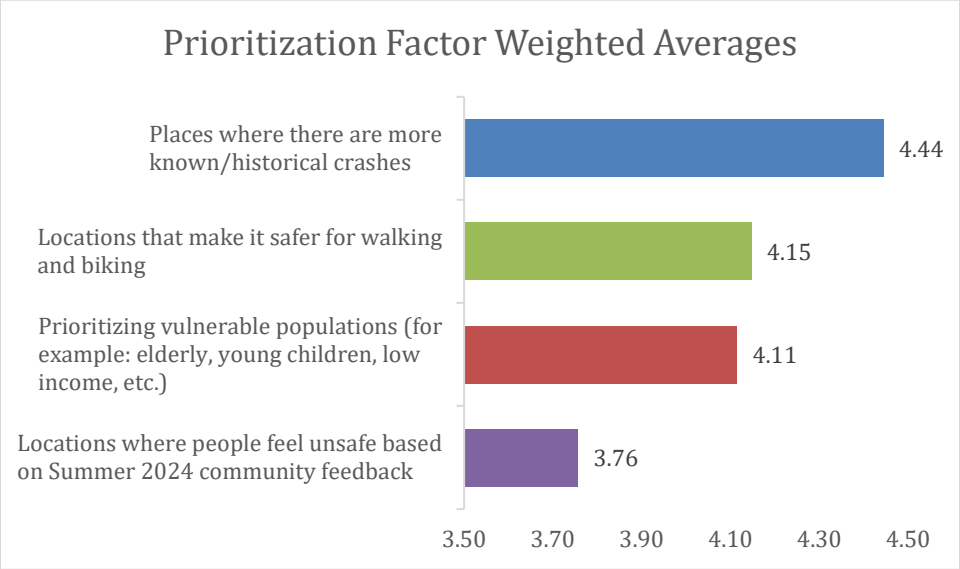
Most respondents (36%) identified locations that feel unsafe as a neutral priority. The remaining respondents identified vulnerable populations (32%), safer walking and biking infrastructure (24%), and sites of known/ historical crashes (8%) as other lower priorities.



When identifying somewhat not important priorities, most responses identified the locations that feel unsafe (40%) followed by making spaces safer for walking and biking (26%), known/ historical crashes (20%), and vulnerable populations (14%).



In person responses placed making locations that feel unsafe as their least important priority (41%) followed by making spaces safer for walking and biking (23%) and vulnerable populations (23%). Responses placed known/ historical crashes as their lowest priority (13%).



A weighted average was determined for each prioritization factor based on the number of responses in each level of importance, with “not important” associated with 1 and “very important” associated with 5. Known/historical crashes received the highest weighted average, followed by walking and biking and vulnerable populations in close proximity to each other. Locations where people feel unsafe based on community feedback received the lowest weighted average. These results informed the weighting of prioritization factors when assigning priority scores to each HIN segment and determining priority categories.

Open-Ended Responses

Finally, participants were invited to share any additional thoughts on safety countermeasures or prioritization. Many emphasized concerns about high vehicle speeds and reckless driving, particularly in residential areas and along rural roads. Several comments highlighted the need for better pedestrian and bicycle infrastructure, as well as improved traffic flow and lane design. Some respondents expressed skepticism about the effectiveness of traffic calming measures, while others voiced support for increased law enforcement and proactive maintenance. A few noted frustration with past planning efforts, stating that community input often feels overlooked. Several comments were related specifically to locations or practices within the City of Boulder, rather than Unincorporated Boulder County. Overall, the comments reflected a desire for balanced, data-driven safety solutions that also consider local context and lived experience.

Next Steps

Phase 2 outreach for the Boulder County Vision Zero Action Plan project solicited feedback from project stakeholders as well as over 200 in-person and virtual comments and survey responses from people who live, work, and travel through Boulder County. This feedback is invaluable for understanding support and prioritization of projects to ensure that solutions eliminate fatal and serious crashes in Boulder County. The project team will use the Phase 2 outreach results to refine strategies and actions developed within the Vision Zero Action Plan, which will be available for public review in spring 2025.

Appendices

Appendix A: Steering Committee Meeting Materials

Boulder County, Lafayette, and Superior

VISION ZERO ACTION PLANS

Steering Committee Meeting # 2

October 30, 2024

Introductions

- Name
- Organization (if applicable)
- Where do you live?





Goals of Meeting

1. **Review Project Background & Schedule**
2. **Discuss Where We've Been**
   - Phase 1 Community Outreach
   - Safety Analysis
3. **Discuss Where We're Going**
   - Working Towards the Action Plan
   - Next Steps





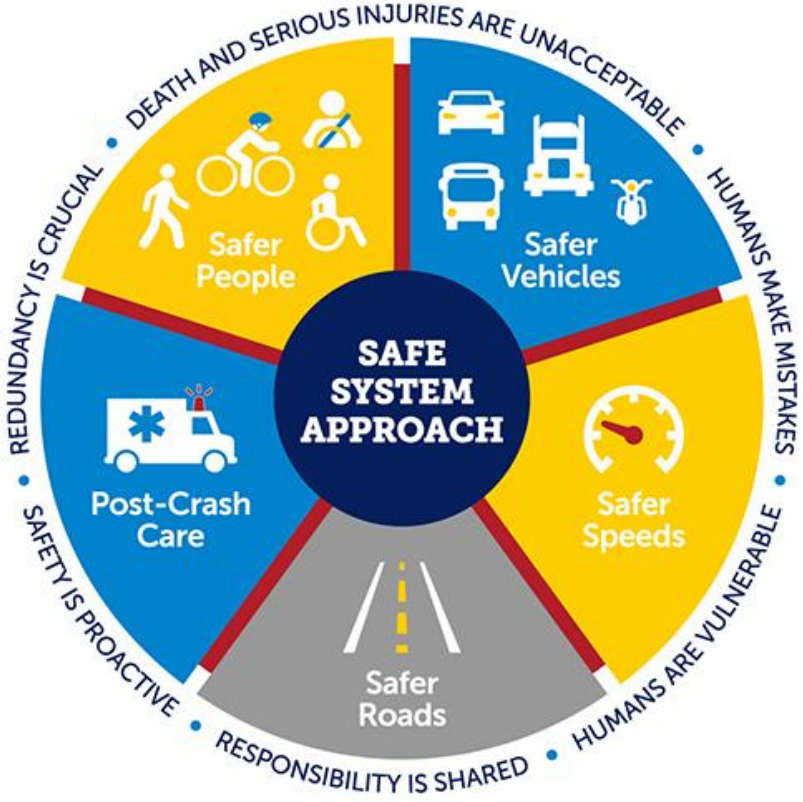
Project Background

Vision Zero & Safe System Approach

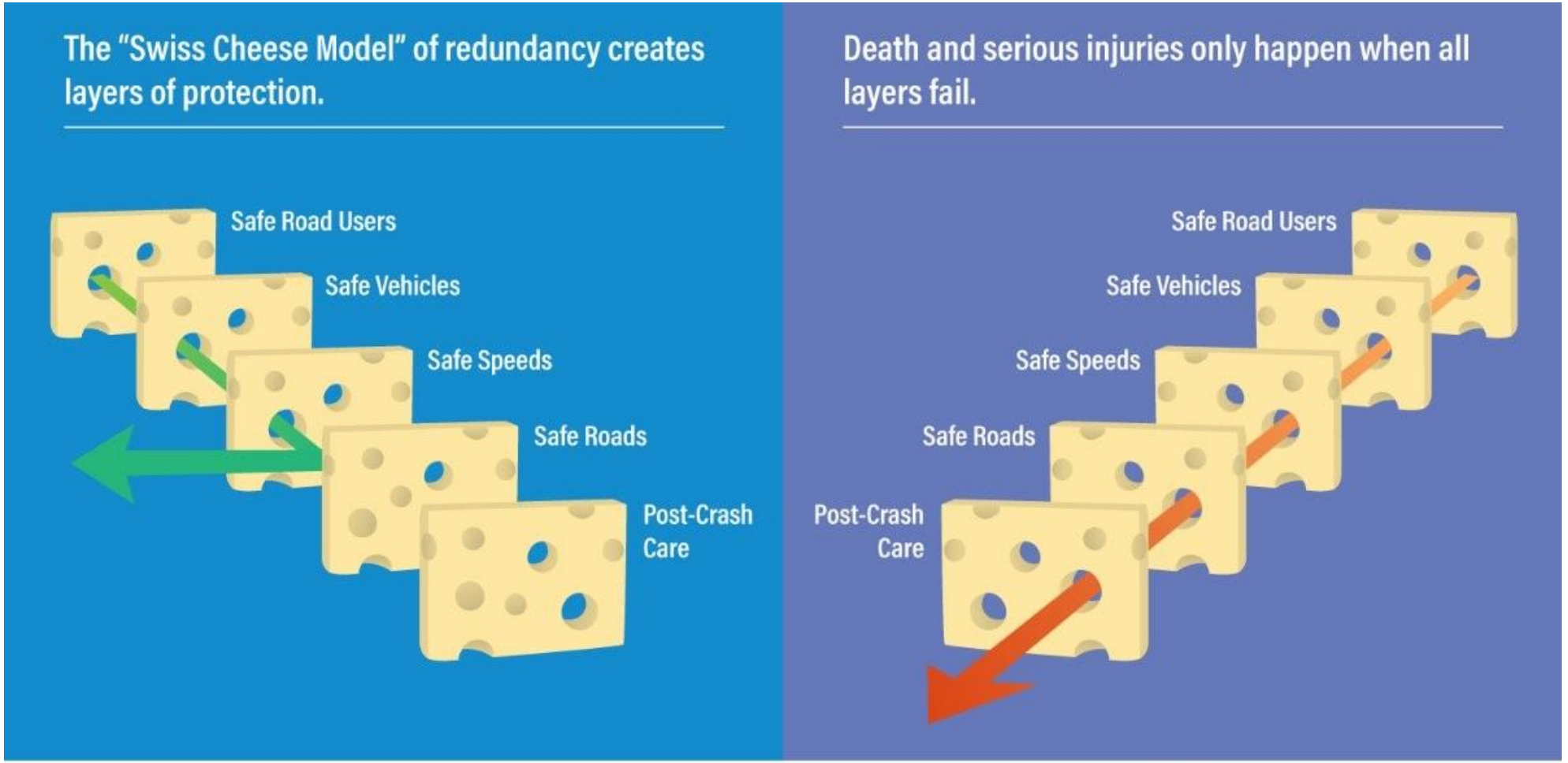
Goal: Eliminate all traffic fatalities and serious injury crashes

TRADITIONAL APPROACH		VISION ZERO
Traffic deaths are **INEVITABLE**		Traffic deaths are **PREVENTABLE**
PERFECT human behaviour	VS	Integrate **HUMAN FAILING** in approach
Prevent **COLLISIONS**		Prevent **FATAL AND SEVERE CRASHES**
INDIVIDUAL responsibility		**SYSTEMS** approach
Saving lives is **EXPENSIVE**		Saving lives is **NOT EXPENSIVE**

Source: Vision Zero Network



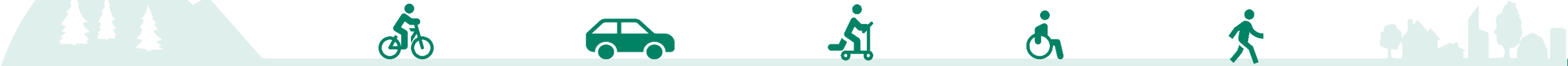
Vision Zero & Safe System Approach



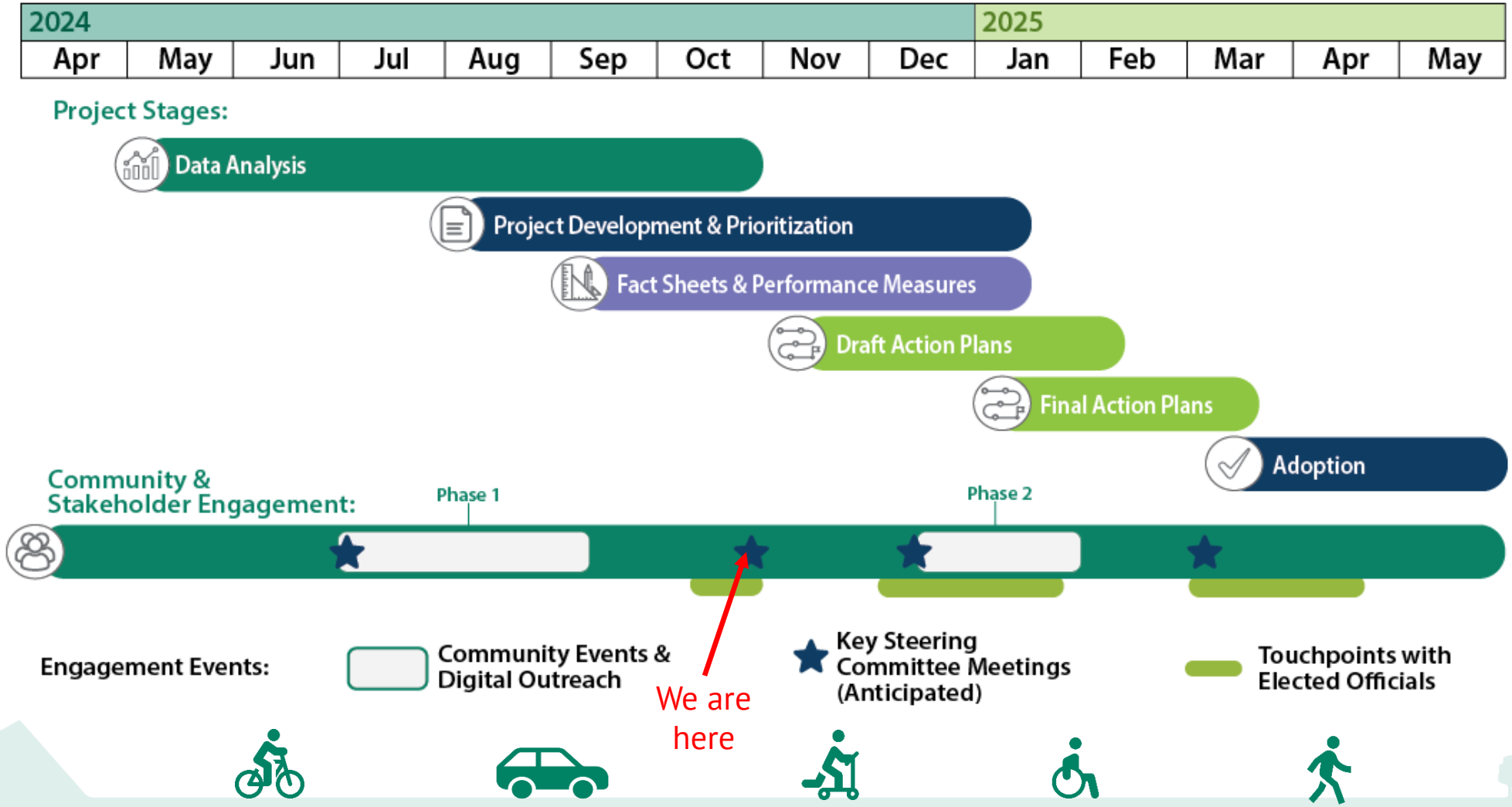
The Safe System Approach

Action Plan Development

- Deliver three standalone Vision Zero Action Plans:
  1. **Boulder County** – includes unincorporated, State Highways, Jamestown, Nederland, and Ward
  2. **City of Lafayette**
  3. **Town of Superior**
- Create list of specific actions, noting responsibility and potential funding sources for implementation.

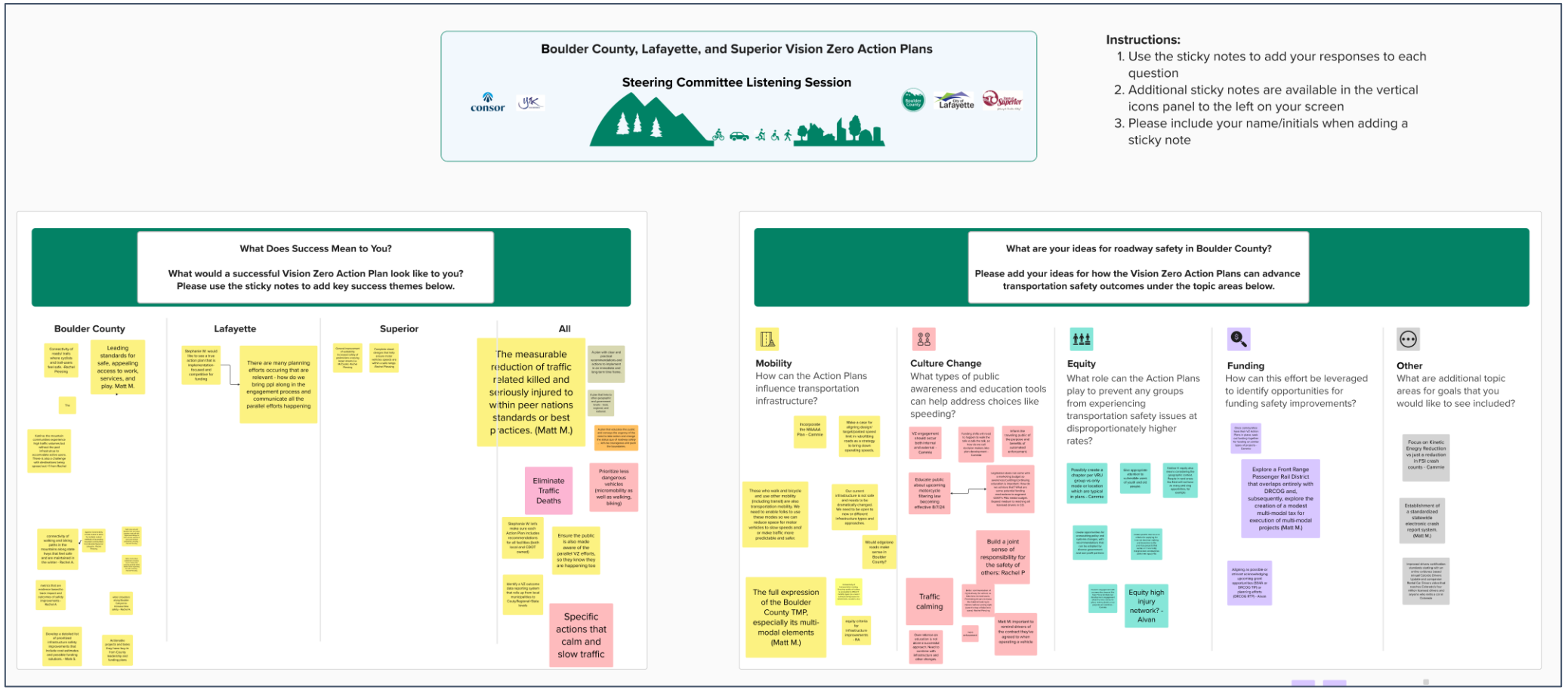


Schedule


2024
2025
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Project Stages:
Data Analysis
Project Development & Prioritization
Fact Sheets & Performance Measures
Draft Action Plans
Final Action Plans
Adoption
Community & Stakeholder Engagement:
Phase 1
Phase 2
We are here
Engagement Events:
Community Events & Digital Outreach
Key Steering Committee Meetings (Anticipated)
Touchpoints with Elected Officials

What We Covered at the June Meeting

- Project Background
- Promotion of Phase 1 Outreach
- Listening Session



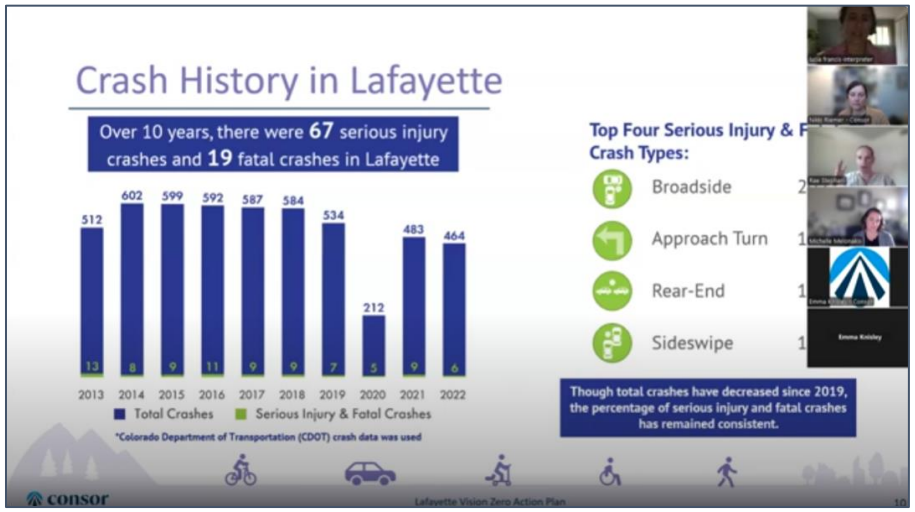
Where We've Been: Phase 1 Community Outreach

How We Collected Input for Each Partner

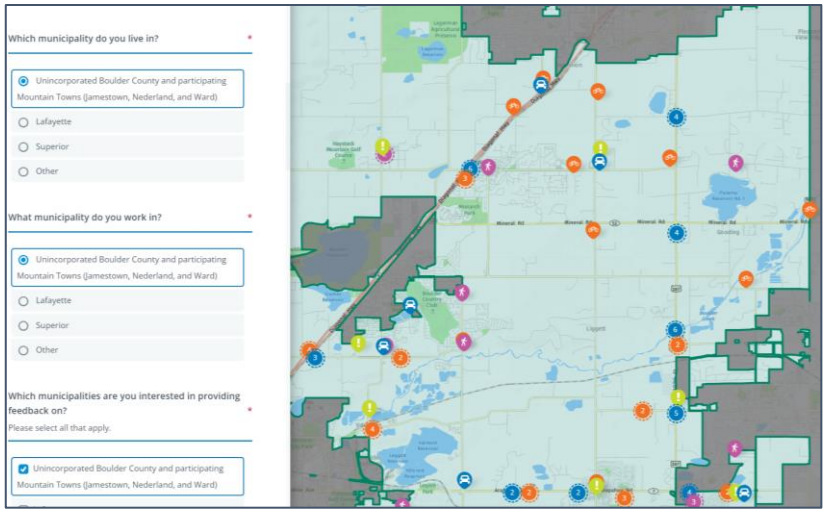
July and August 2024

In-person Pop-up Events

Virtual Public Meetings



Online Input Map & Survey



Summary of What We Heard

Online Survey Responses

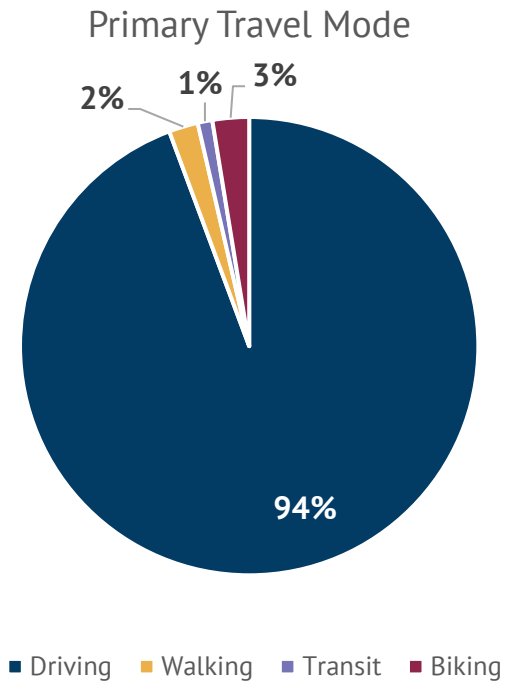
Boulder County	Lafayette	Superior
196 survey responses 309 map pins	378 survey responses 463 map pins	78 survey responses 83 map pins





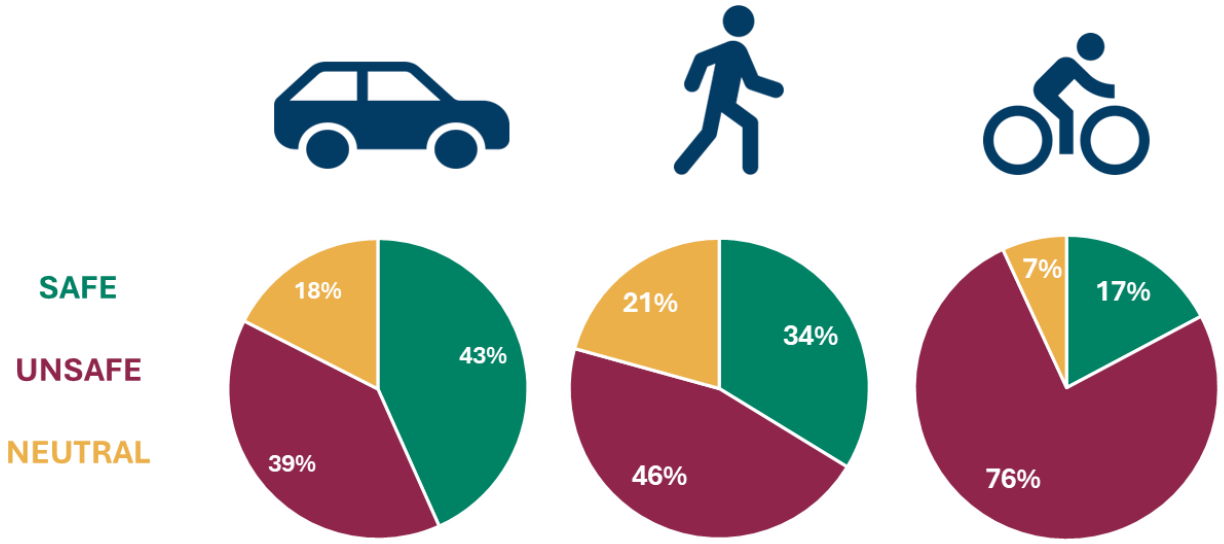
What We Heard: Boulder County & Mountain Towns

- 196 survey responses
- Majority (62%) of survey respondents live in Unincorporated Boulder County and Mountain Towns



What We Heard: Boulder County

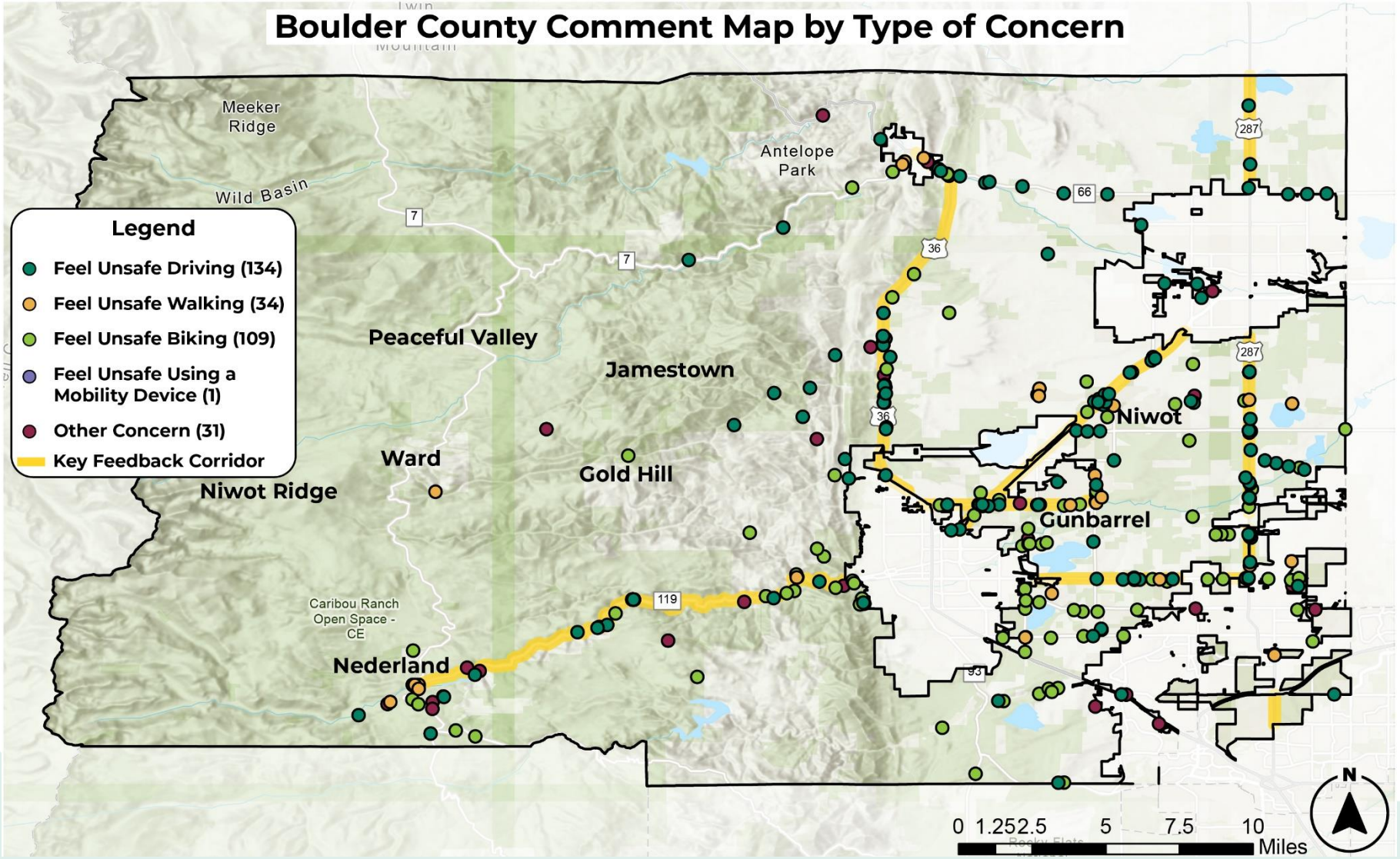
How safe do you feel traveling in Boulder County?



**The number of responding reporting to use transit or a mobility device is not significant enough to draw conclusions about the perceived safety of those modes.*

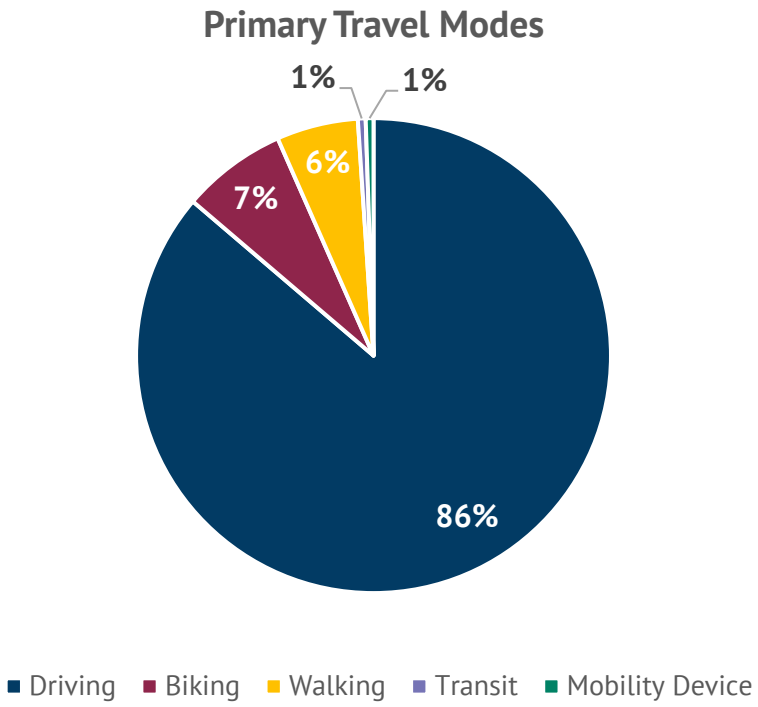
Respondents or someone they know involved in a crash in unincorporated Boulder County in past five years: **31%**

What We Heard: Boulder County (309 pins)



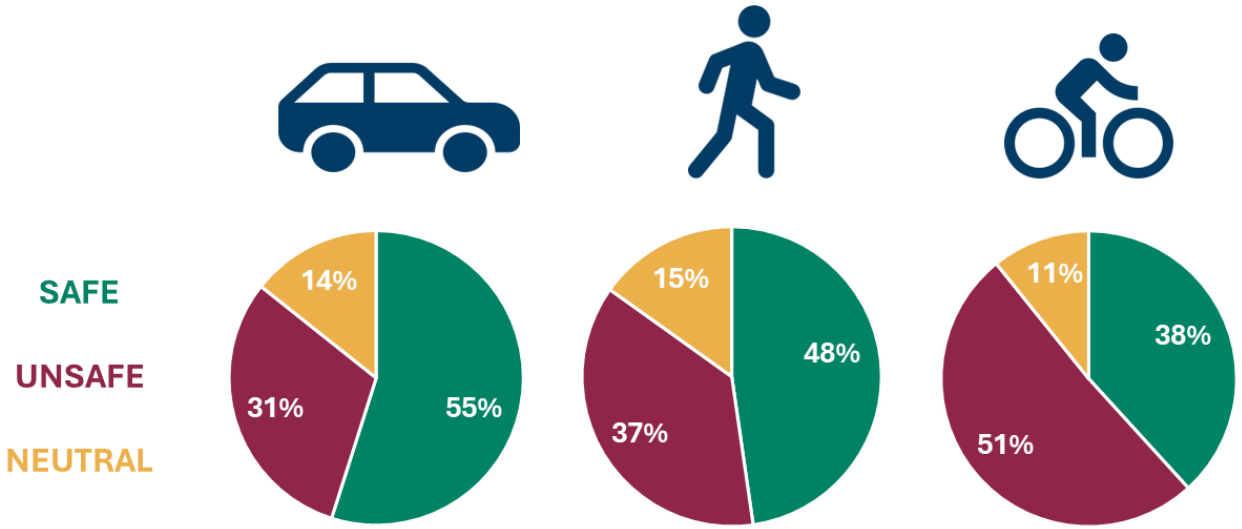
What We Heard: Lafayette

- 378 survey responses
- 463 map pins
- Majority (76%) of survey respondents live in Lafayette



What We Heard: Lafayette

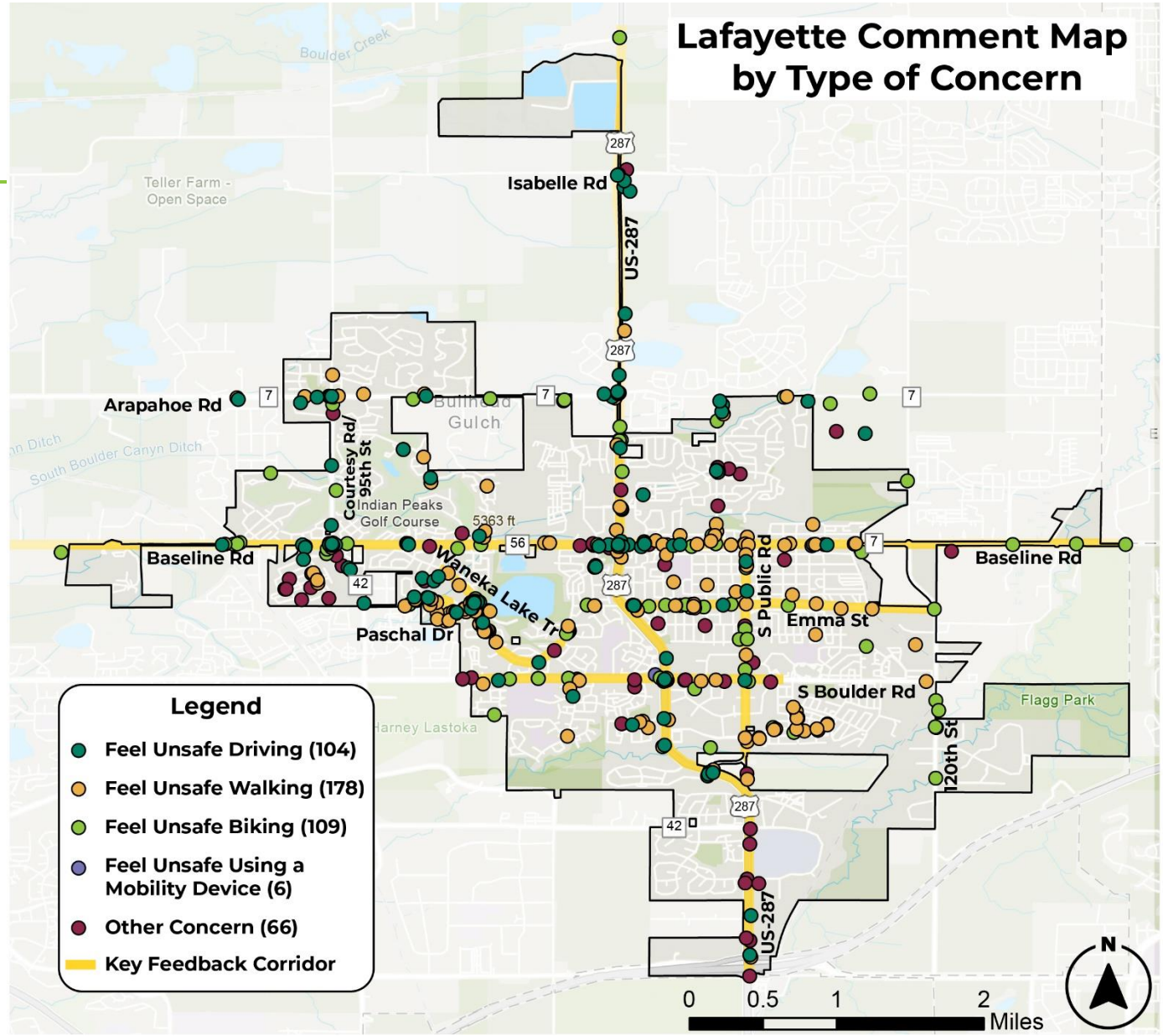
How safe do you feel traveling in Lafayette?



Respondents or someone they know involved in a crash in Lafayette in past five years: **22%**

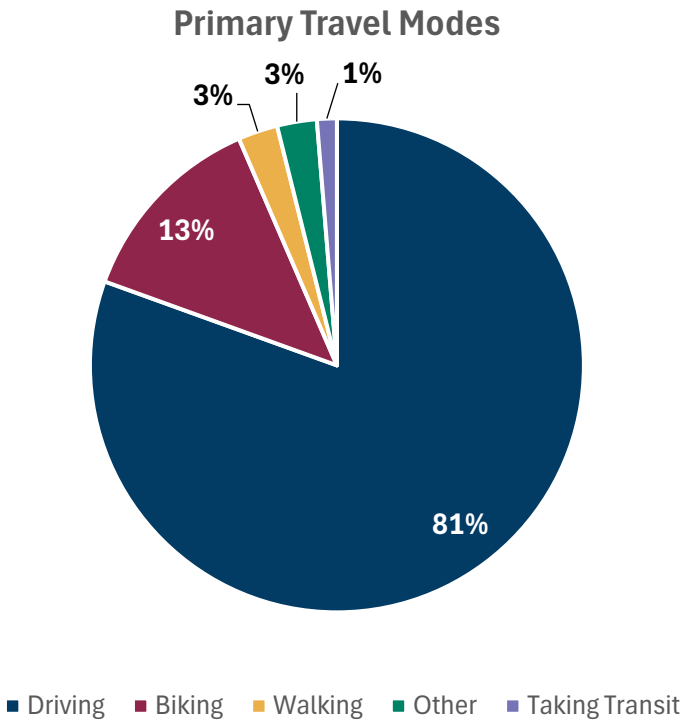
**The number of responding reporting to use transit or a mobility device is not significant enough to draw conclusions about the perceived safety of those modes.*

What We Heard: Lafayette (463 pins)



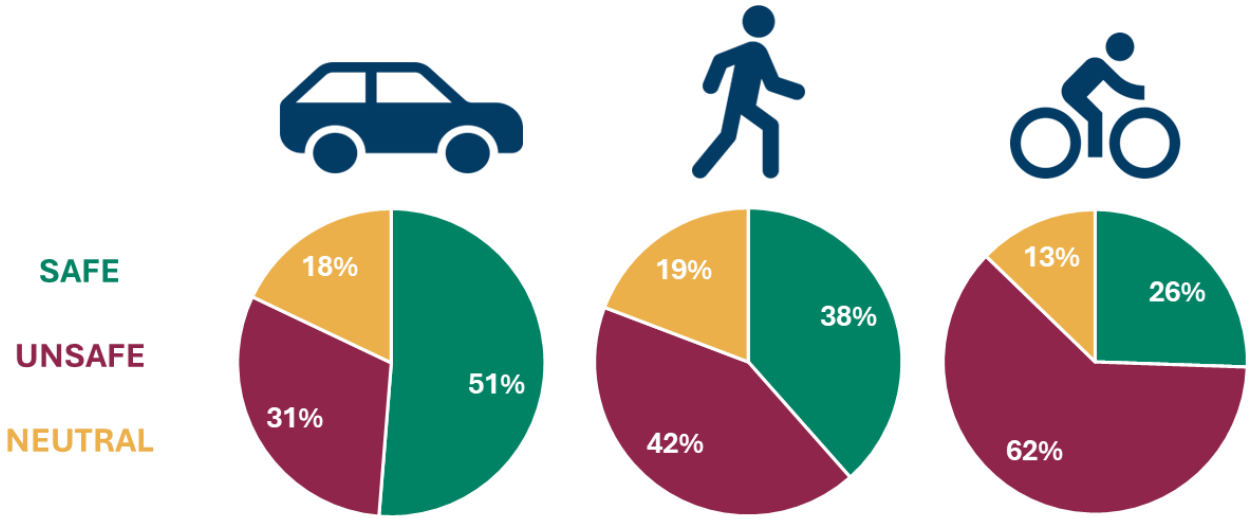
What We Heard: Superior

- 78 of survey responses
- 83 map pins
- 29% of survey respondents live in Superior while most respondents (67%) live elsewhere in Boulder County or in Lafayette.



What We Heard: Superior

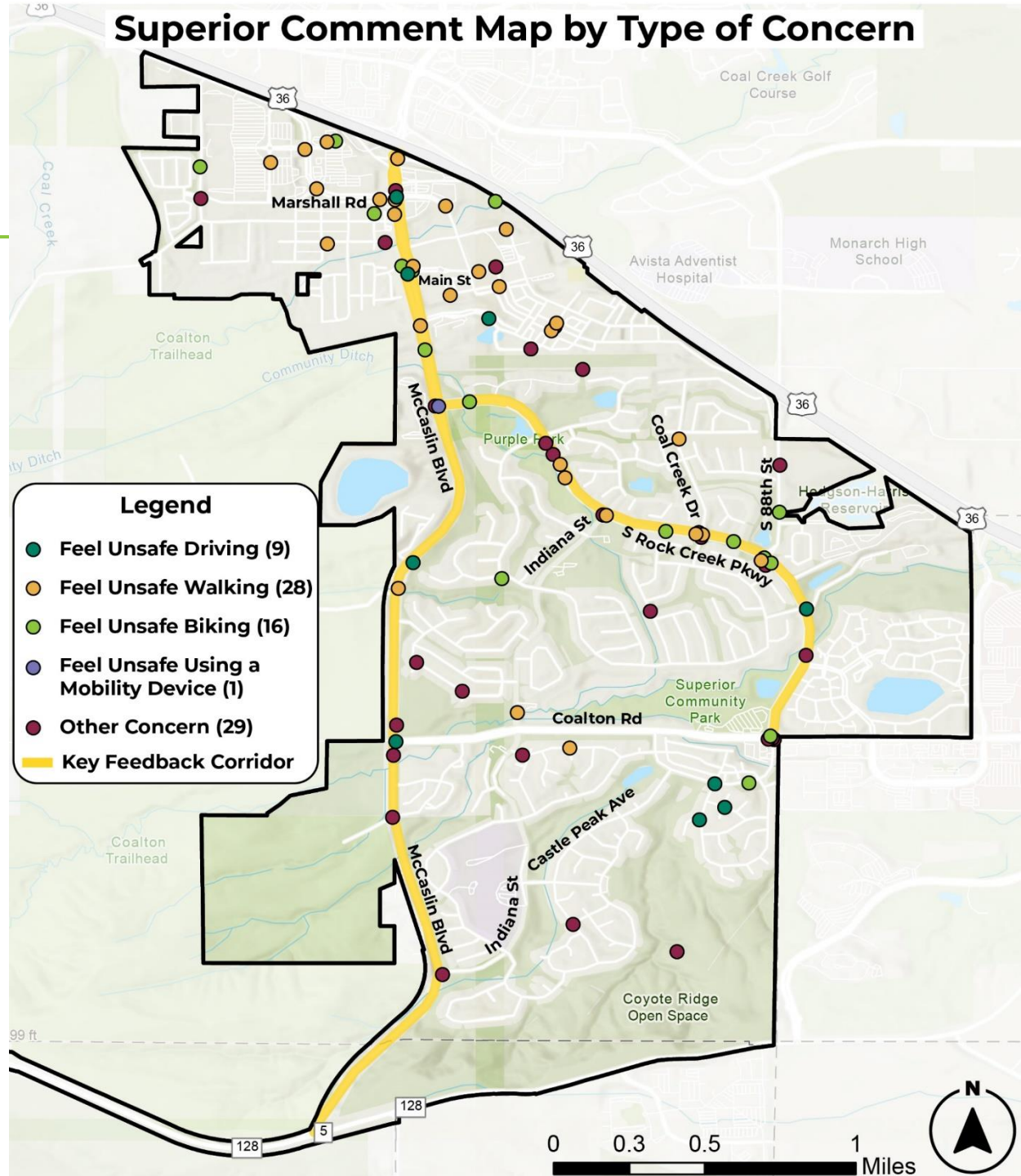
How safe do you feel traveling in Superior?



Respondents or someone they know involved in a crash in Superior in past five years: **7%**

**The number of responding reporting to use transit or a mobility device is not significant enough to draw conclusions about the perceived safety of those modes.*

What We Heard: Superior (83 pins)



Questions?

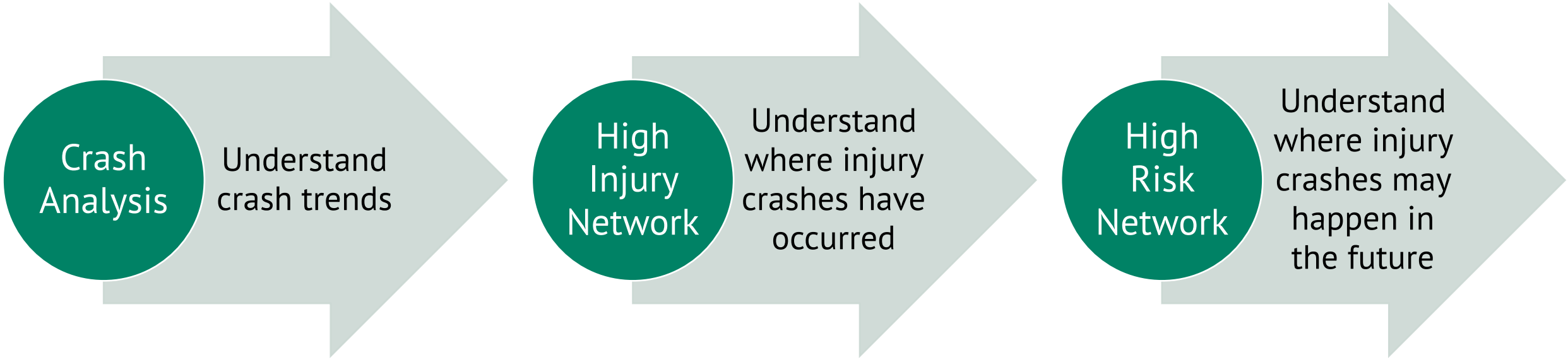




Where We've Been: Safety Analysis

Safety Analysis Process

- Detailed analysis for Unincorporated Boulder County & the Mountain Towns, Lafayette, & Superior
- Analyzed 10 years of CDOT crash data (January 2013 to December 2022)



HIN & HRN: What's the Difference?

High Injury Network

Addressing Crashes Today

Identifies locations where the top injury crashes are occurring based on historical crash data

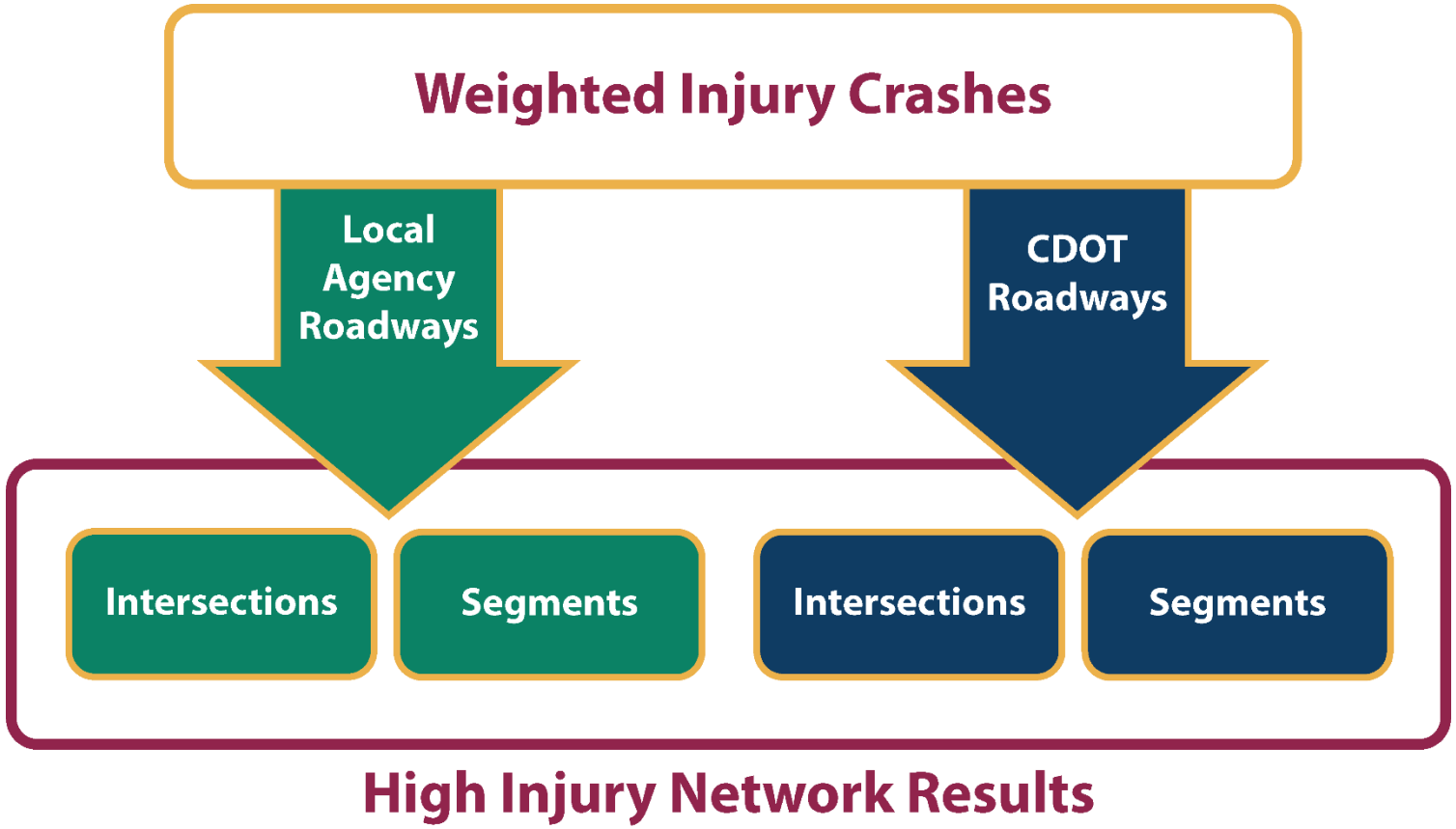
High Risk Network

Preventing Crashes Tomorrow

Identifies locations where there is high risk for potential crashes based on roadway characteristics

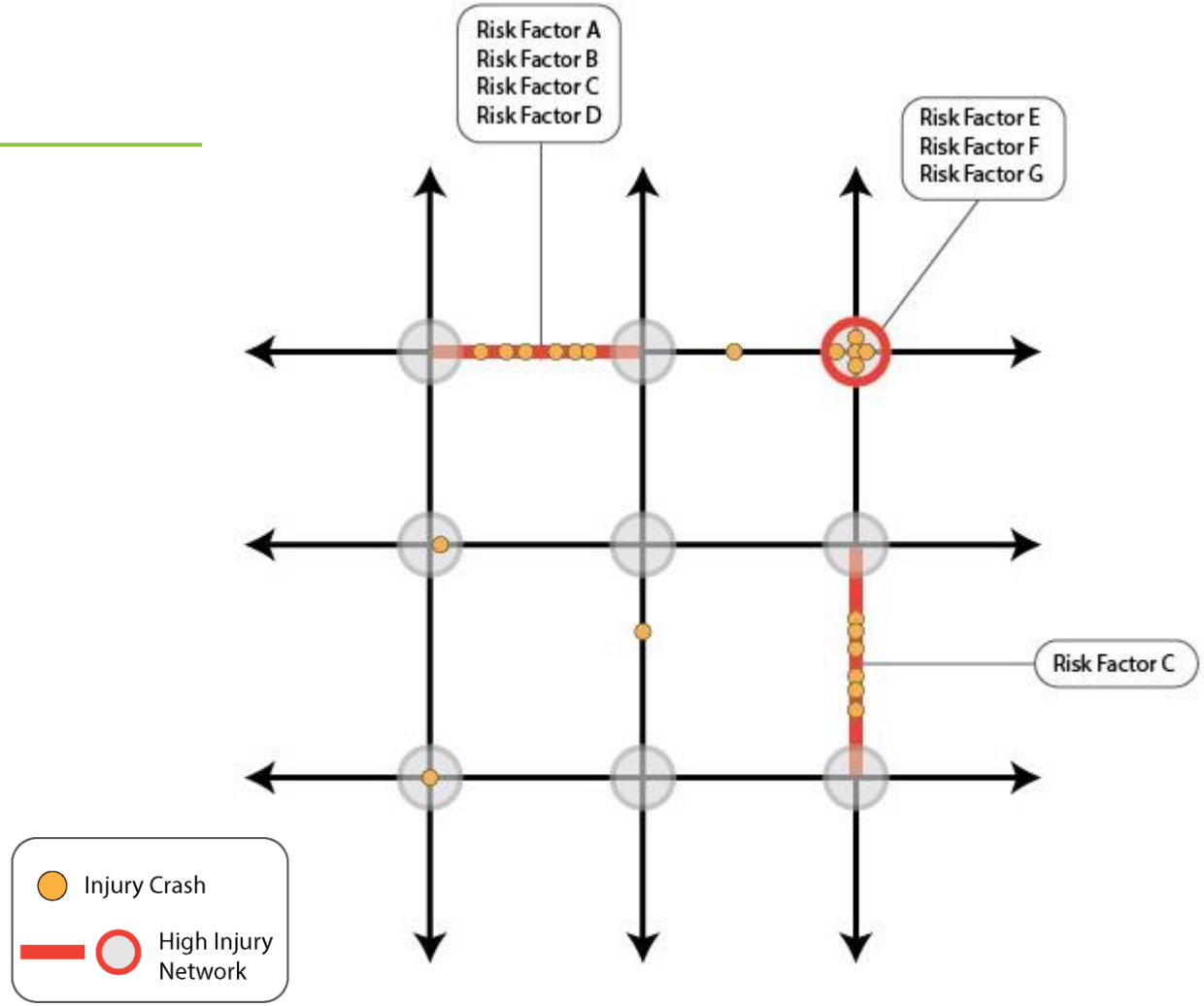
HIN Process

- Serious and fatal injury crashes weighted higher than minor injury crashes
- Local Agency roadways were analyzed separately from CDOT roadways to account for the higher number of crashes and different crash trends on DOT roadways.



HRN Process

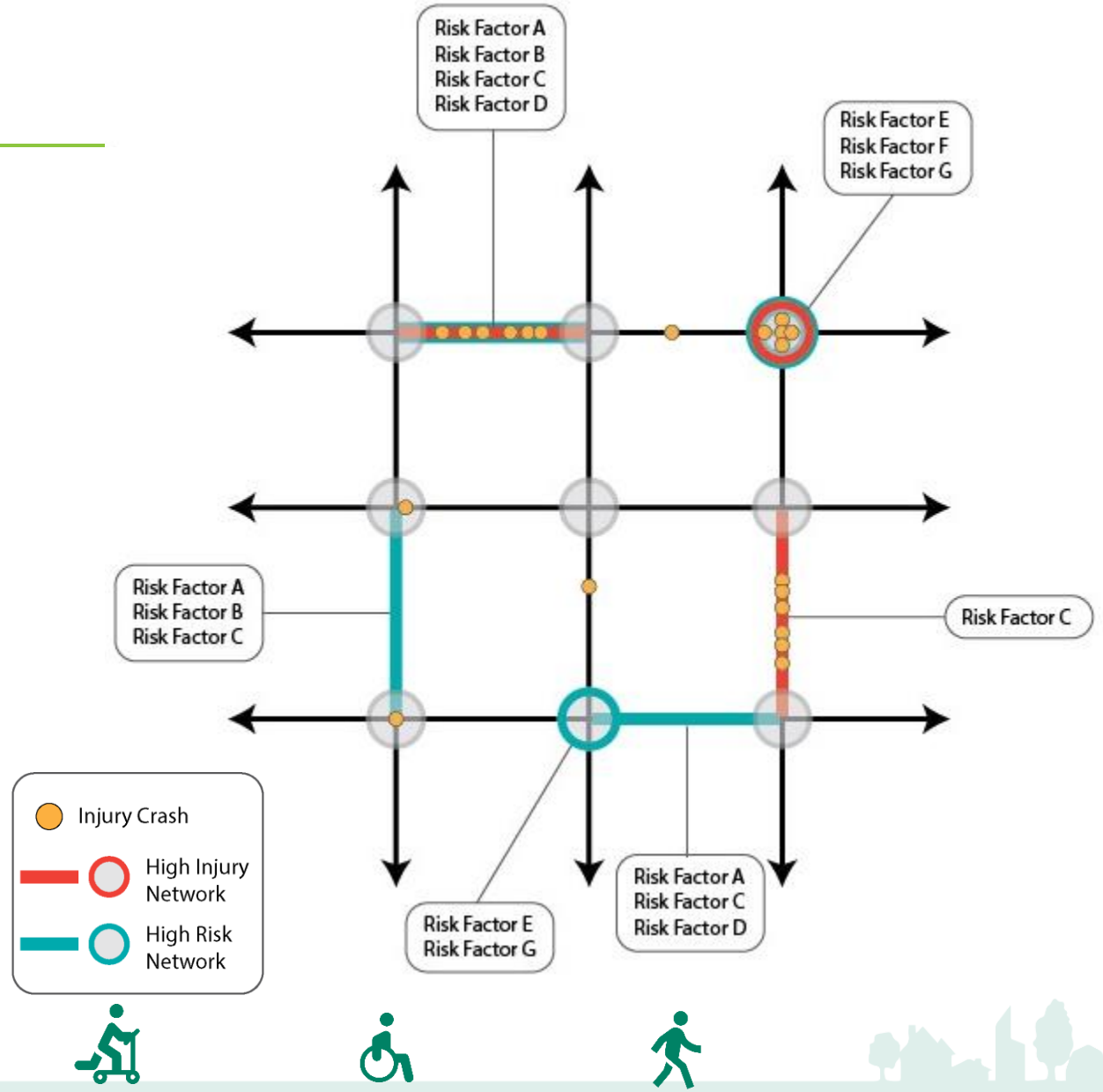
- Identified common roadway characteristics of the serious injury, fatal, and vulnerable user crashes to select risk factors



HRN Process

Example Risk Factors:

- Number of travel lanes
- Speed limit
- Roadway classification
- Intersection control
- Presence of sidewalks
- Presence of bicycle facility
- Proximity to school
- Land use
- And more….



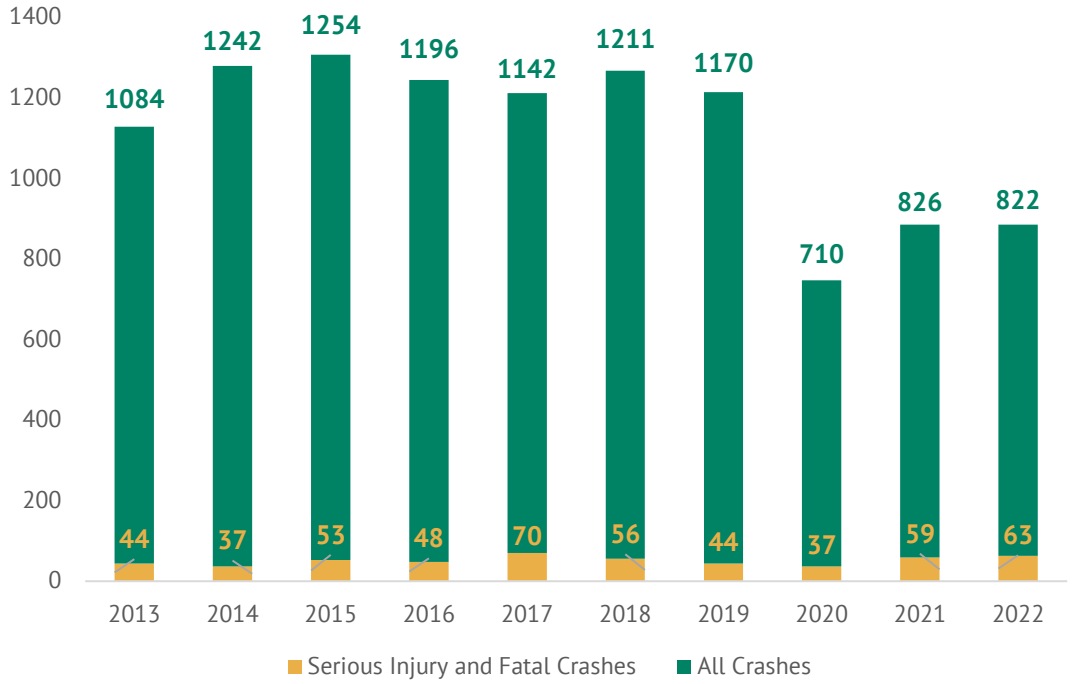
HRN Example

95th Street & Lookout Road
(HIN Intersection)

95th Street & Mineral Road
(Potential HRN Example)

Questions?

Boulder County: Safety Analysis

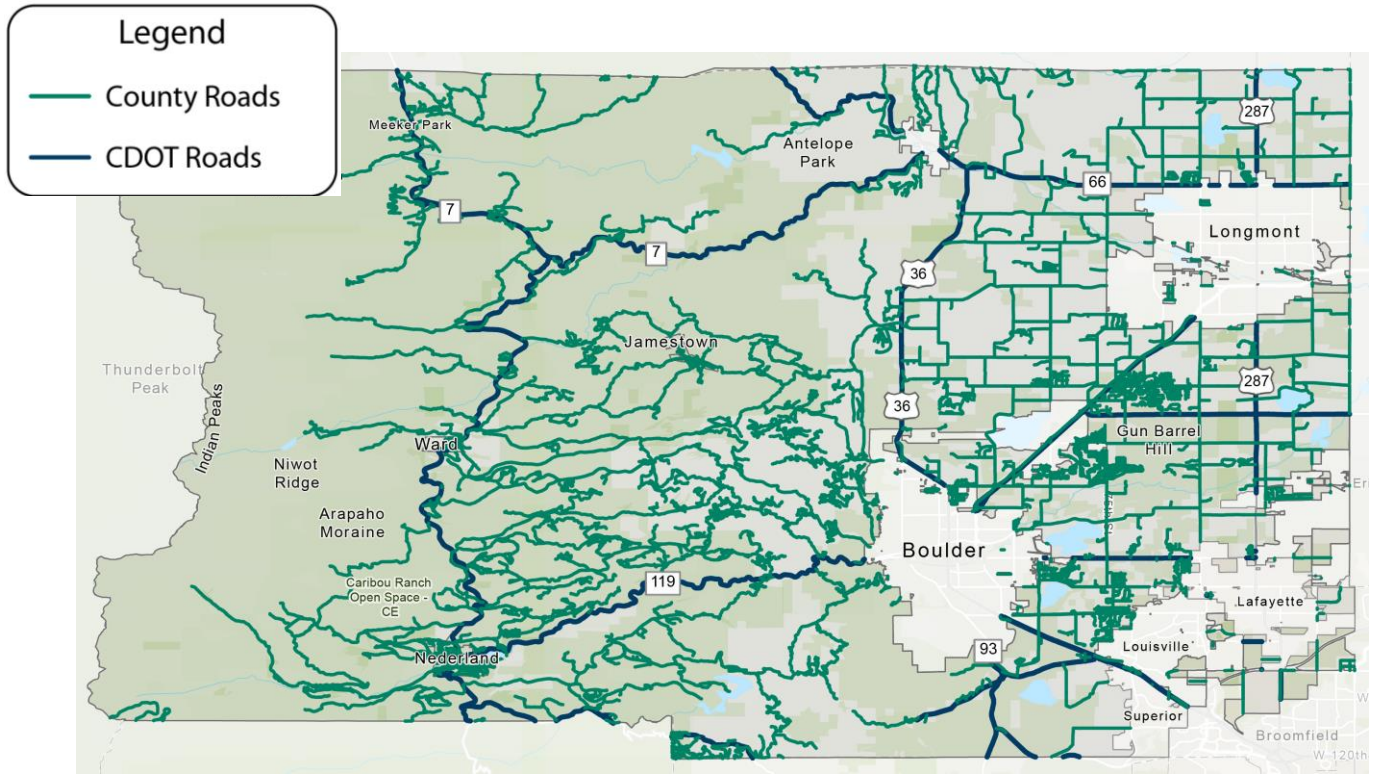


Over 10 years, **135** people died in traffic crashes in the Project Area

Although the number of crashes has decreased in recent years, **the percent of serious injury and fatal crashes has increased** since 2020

Source: Colorado Department of Transportation (CDOT) crash data

Boulder County Safety Analysis



County Roads

86% of roadway centerline miles

30% of serious injury and fatal crashes

CDOT Roads

14% of roadway centerline miles

70% of serious injury and fatal crashes

Boulder County Safety Analysis

Boulder County Roads

All Crashes

25% *Fixed Object*

23% *Rear-end*

9% *Overturning*

Serious Injury & Fatal Crashes

22% *Bicycle*

20% *Fixed Object*

15% *Overturning*

Bicycle crashes are over-represented.

CDOT Roads

All Crashes

41% *Rear-end*

13% *Fixed Object*

10% *Sideswipe*

Serious Injury & Fatal Crashes

16% *Overturning*

13% *Head-on*

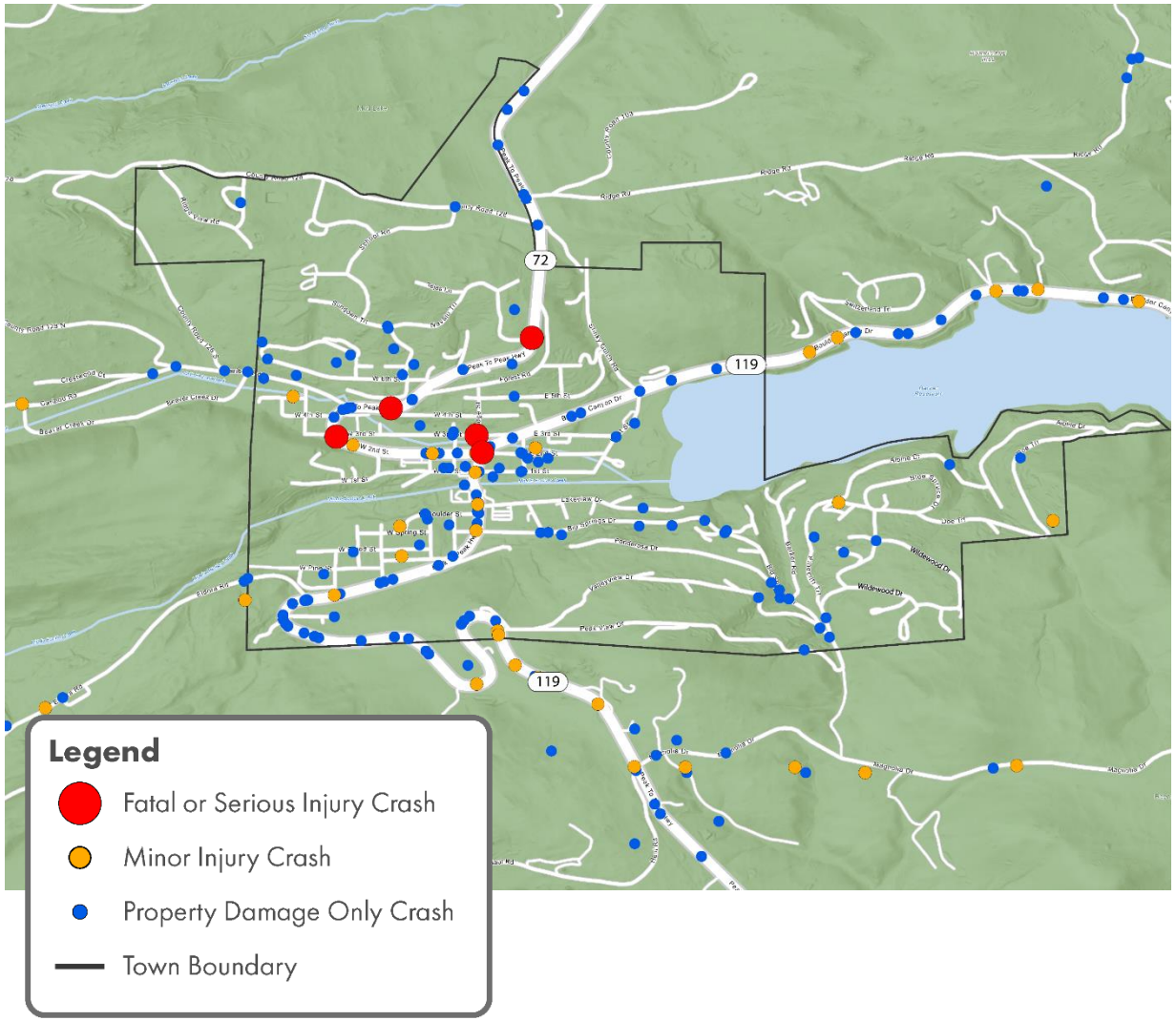
12% *Broadside*

Rear-end crashes are common, but are less likely to result in serious injury or fatality.

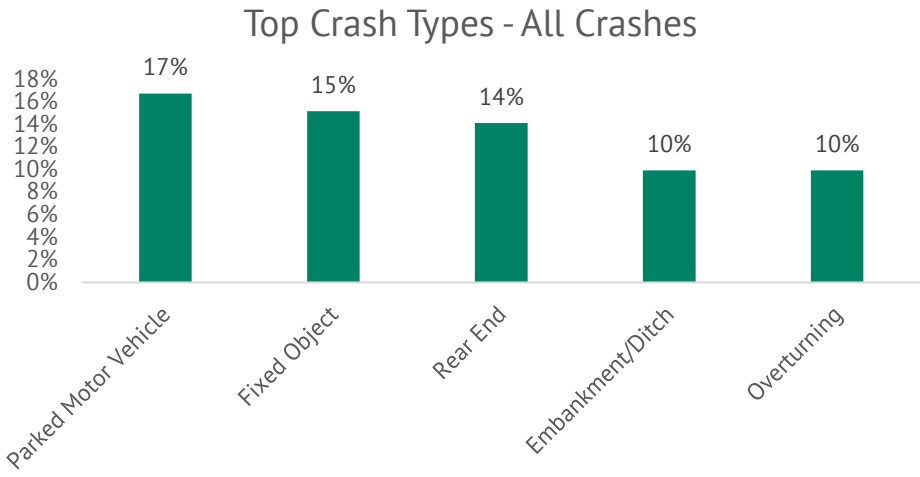




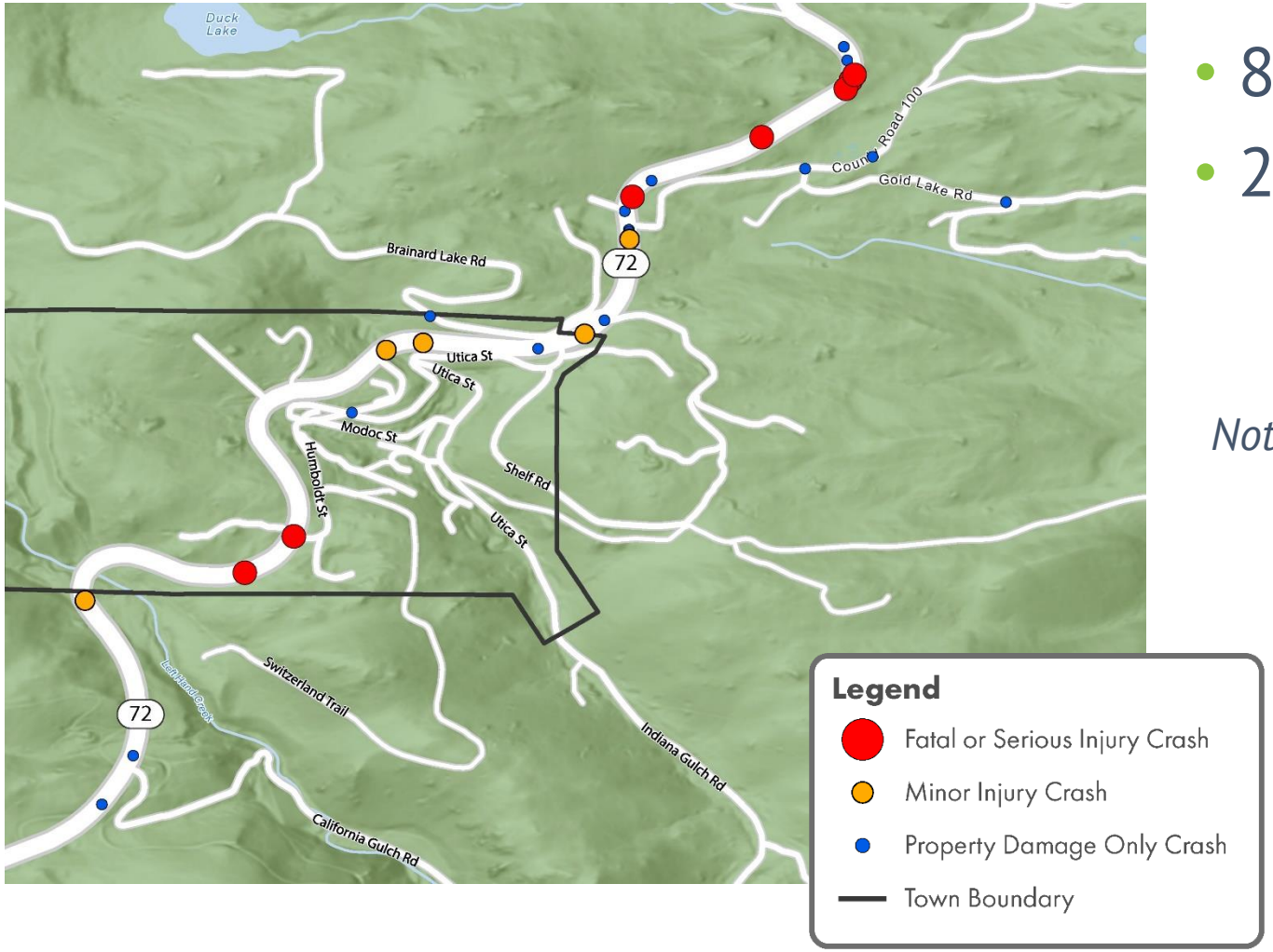
Mountain Town Zoom-in - Nederland



- 191 crashes
- 5 serious injury & fatal crashes:
  - 1 Broadside
  - 1 Pedestrian
  - 2 Head-on (1 fatal involving motorcycle)
  - 1 Fixed Object



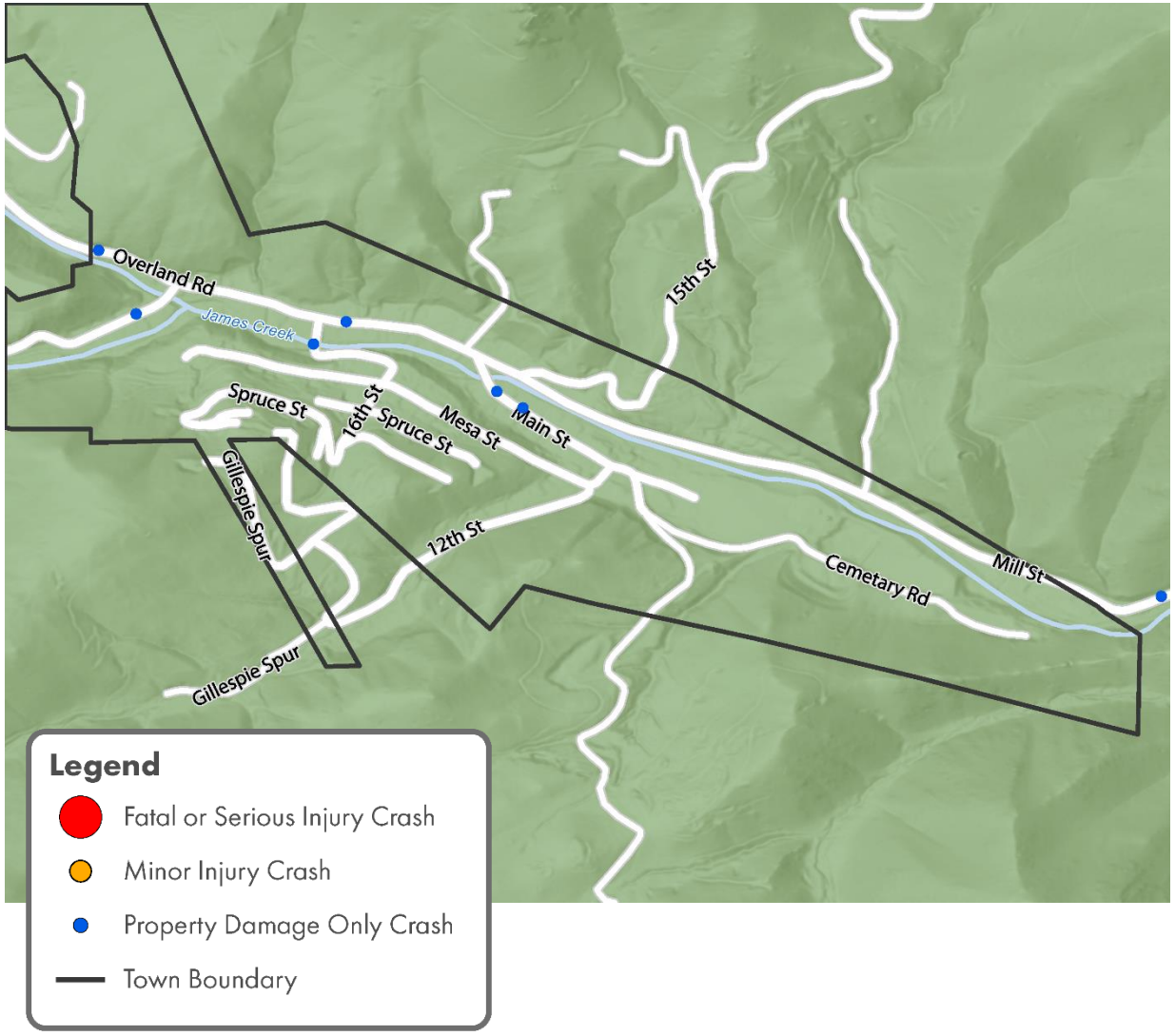
Mountain Town Zoom-in - Ward



- 8 crashes
- 2 serious injury crashes:
  - Guard Rail
  - Overturning

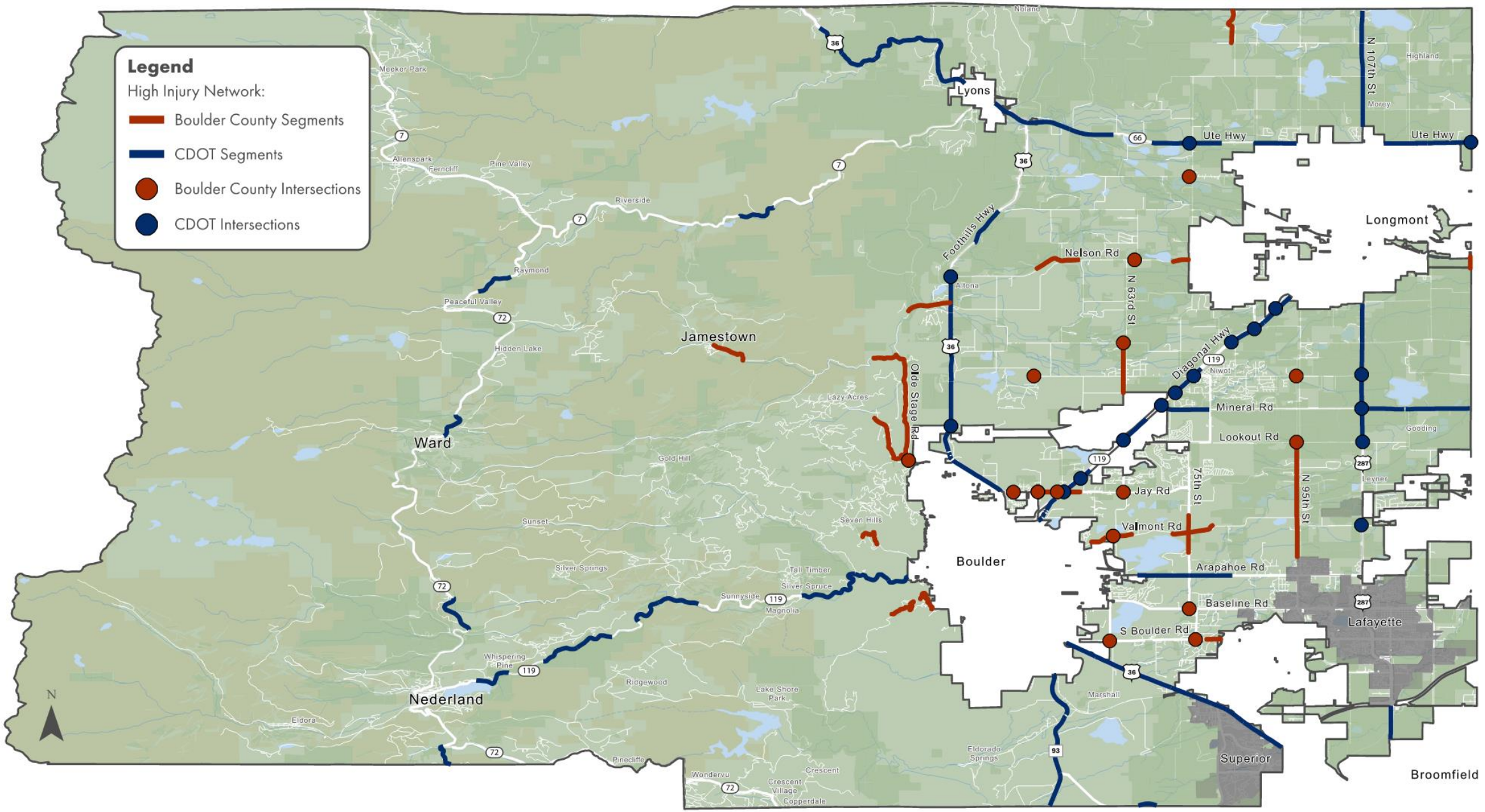
Note: Summary includes only crashes within Ward

Mountain Town Zoom-in - Jamestown



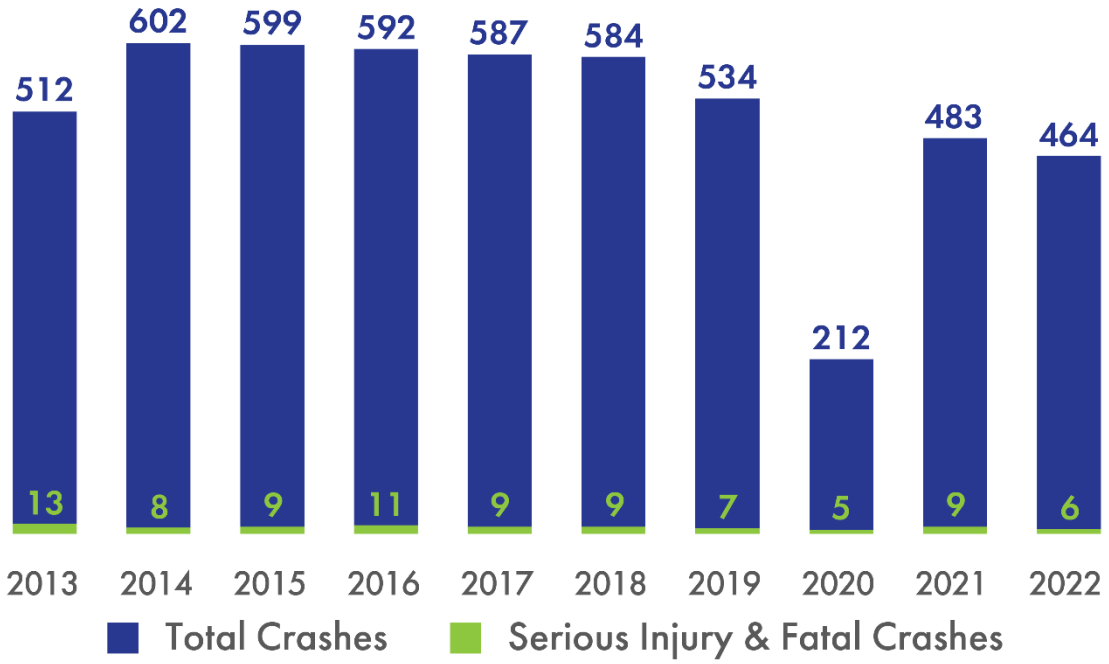
- 10 crashes
- No serious injuries or fatalities

Boulder County: High Injury Network



Lafayette: Safety Analysis

Over 10 years, there were **67** serious injury crashes and **19** fatal crashes in Lafayette



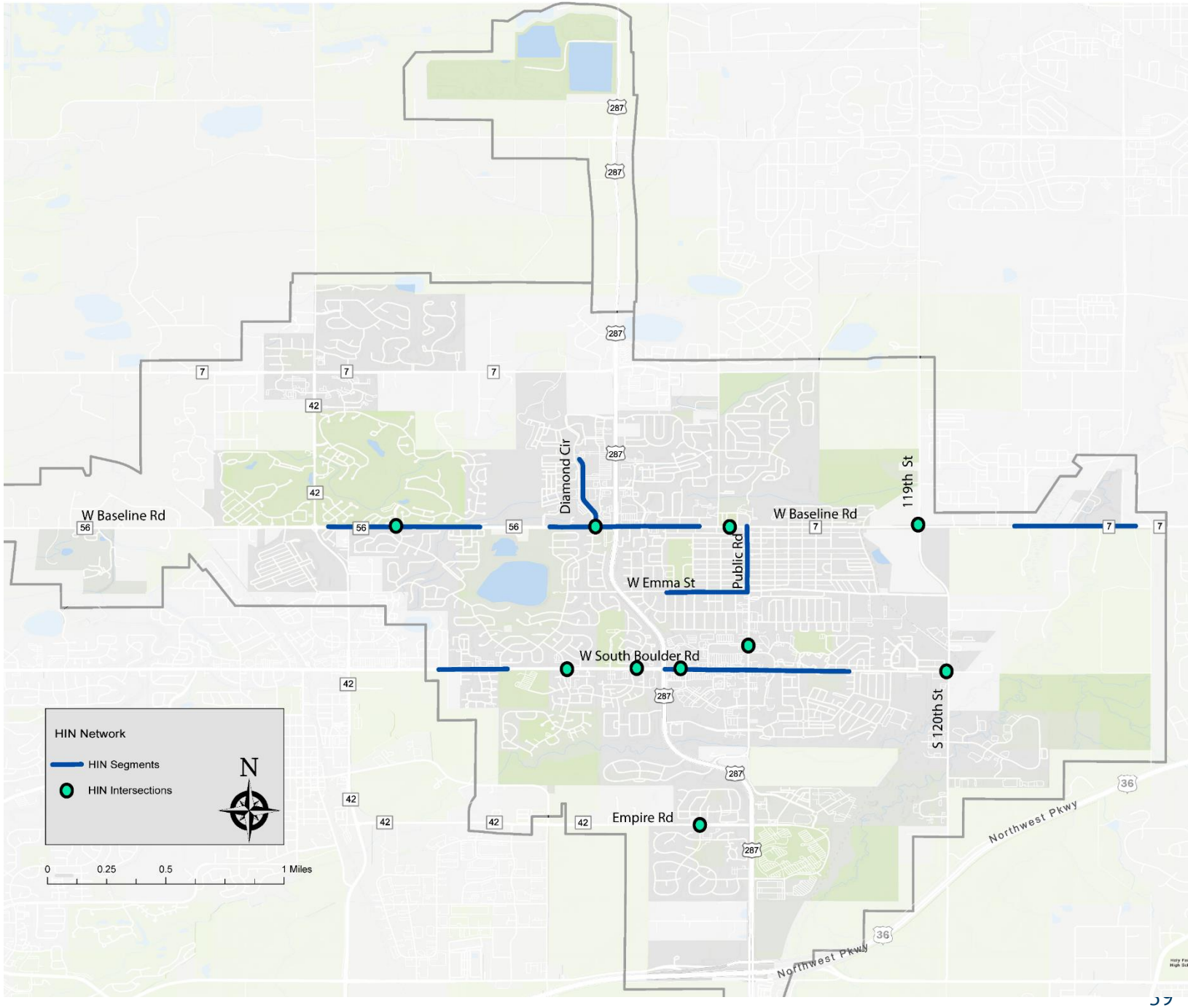
Source: Colorado Department of Transportation (CDOT) crash data

Top Four Serious Injury & Fatal Crash Types:

Broadside	20%
Approach Turn	18%
Rear-End	16%
Sideswipe	12%

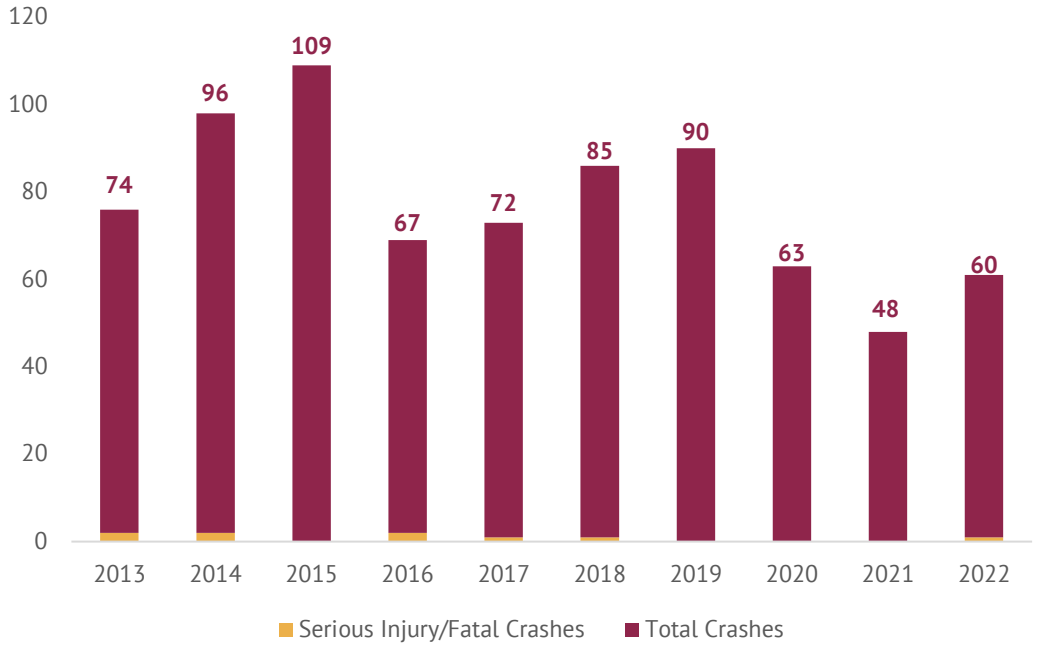
Though total crashes have decreased since 2019, the percentage of serious injury and fatal crashes has remained consistent.

Lafayette: High Injury Network

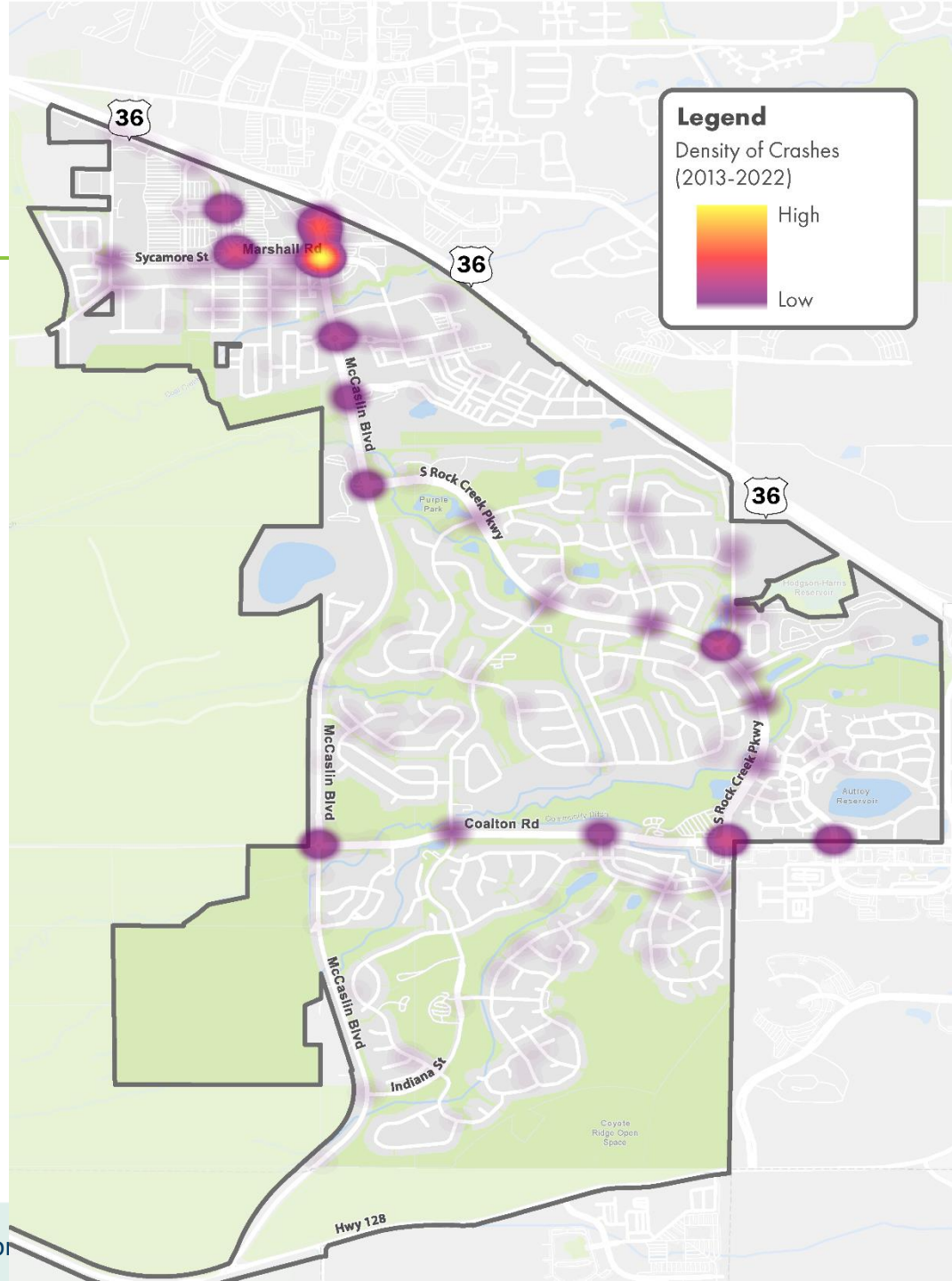


Superior: Safety Analysis

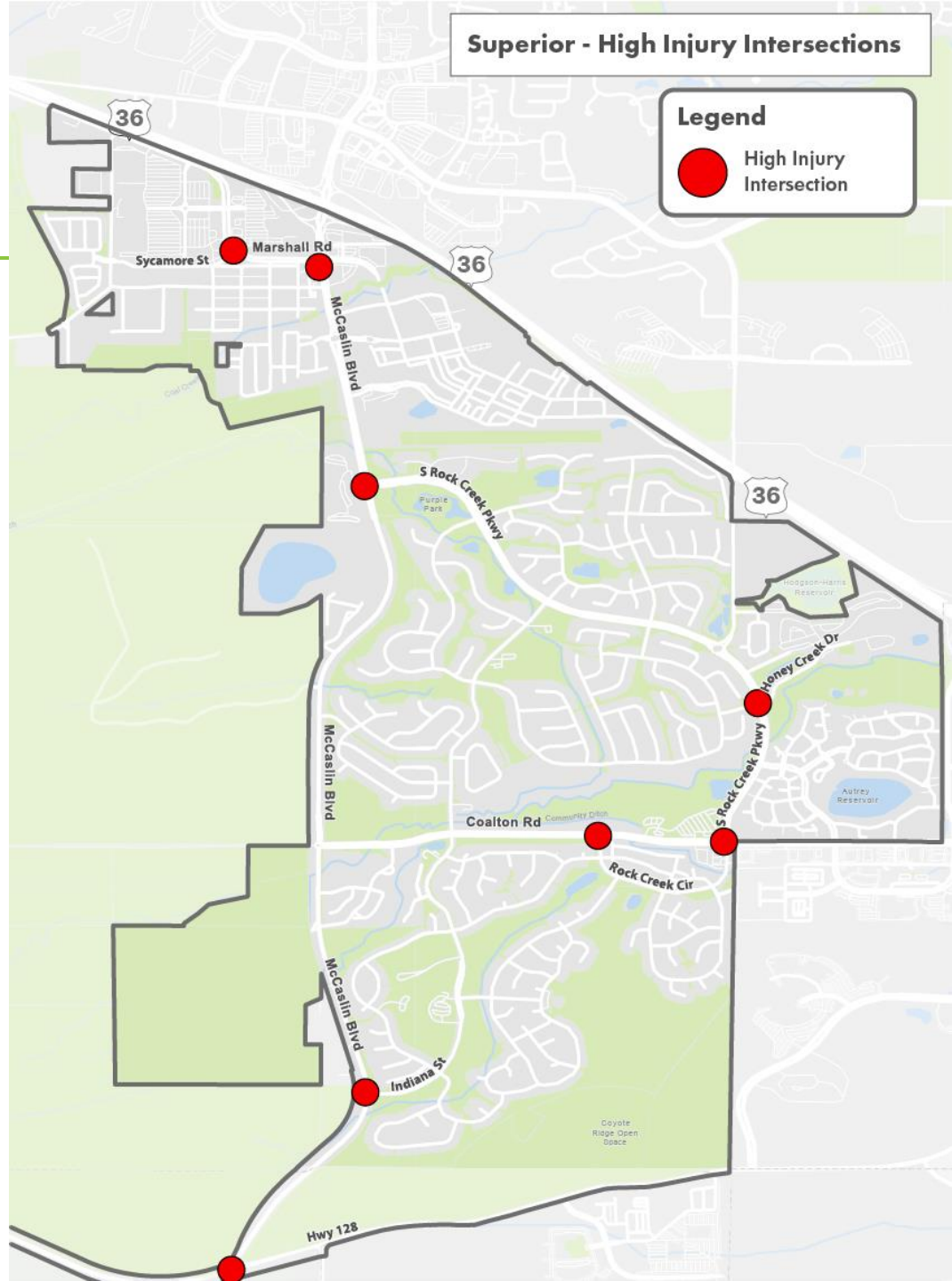
Over 10 years, there were 8 serious injury crashes and 1 fatality in Superior



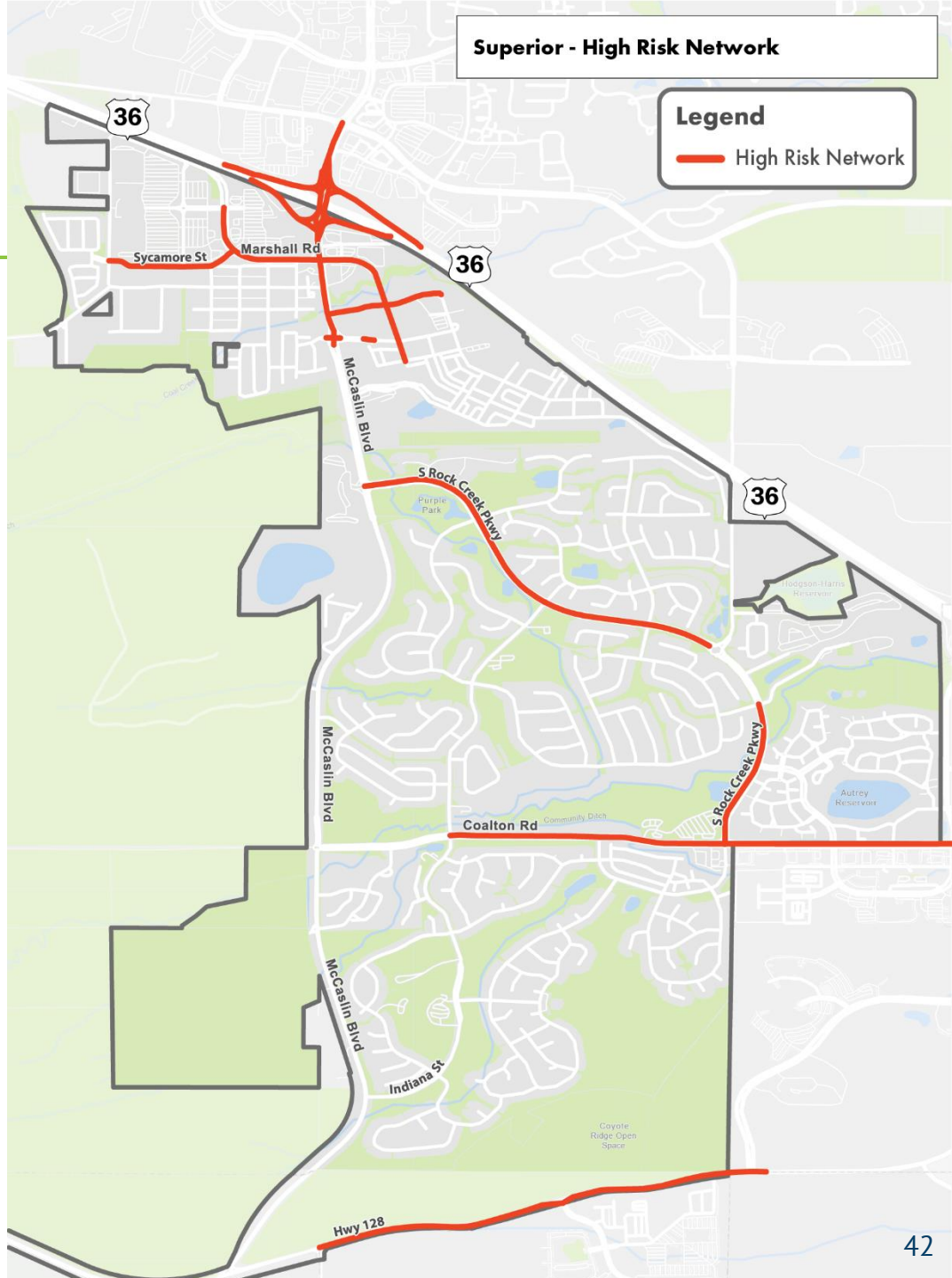
Source: Colorado Department of Transportation (CDOT) crash data



Superior: High Injury Network



Superior: High Risk Network



Discussion

- Do the results of the crash analysis, HIN, or HRN resonate with you? Are there any that are surprising?

Where We're Going: Working Towards the Action Plans





Action Plan Development

Develop Safety Strategies and Initial Recommended Actions

- Variety of Types: Infrastructure & Non-Infrastructure
- Different Applications: location based, systemic, programmatic

Public Input

Finalize Recommended Actions

- Near-term
- Mid-term
- Long-term

Action Plans

Includes additional detail/plans for priority, near-term actions

Next Steps

How You Can Help

Actions

- **Upcoming Phase 2 Outreach** Goal: Present initial recommended actions to Community
- Promote public outreach events, website, and survey
- Attend/participate!
- **Do you know of upcoming events that can help promote this outreach?**

Calendar

- **December 2024 – Early 2025:** Phase 2 Outreach
  - **December:** Superior Pop-up at Winter Fest
  - **January/February:** All other Partners pop-ups and public meetings
- **December:** Project Update (likely email)

Boulder County, Lafayette, & Superior Vision Zero Action Plans Steering Committee #2

October 30, 2024 | 10 am – 11:30 am

LOCATION: Virtual (Zoom)

Project Management Team (PMT) Members:

Liv Lewin, Boulder County, VZAP PM		Nikki Riemer, Consor
Alex Hyde-Wright, Boulder County		Emma Knisley, Consor
Mark Shisler, Boulder County		Geoffrey Weathers, Superior
Alex Bullen, Superior		George Eveleth, Boulder County
Michelle Melonakis, Lafayette		

Steering Committee Members:

Matthew Muir, Coalition 4 Cyclists		Rachel Plessing, *Superior resident*
Clark Chapman, *Boulder/Nederland area resident*		Landon Hillard, Boulder County, *Boulder resident*
Bryce Reeves, CDOT Bike/Ped Coordinator & ADA Coordinator, *Windsor resident*		Rachel Arndt, Boulder County Public Health *Nederland resident*
Craig Towler, Center for People with Disabilities, *Boulder resident*		Denice Walker, Mobility for All Ambassador *Lafayette resident*
Stephanie Walton, former DRCOG board *Lafayette resident*		Katrina Harms, Peak to Peak Housing & Human Services Alliance, Peak to Peak Scenic Byway Board member, *Nederland resident*
Alexandra Phillips, Boulder County *South Boulder resident*		Krista Nordback, Community Cycles *Boulder resident*
Cammie Edson, City of Longmont Vision Zero *Longmont resident*		John Flora, JM Flora Law Group *Superior resident*
Frank Phillips, Lafayette Planning Commission *Lafayette resident*		Amy Thompson, SRTS Boulder County School District *Gunbarrel resident*
Nick Aguilera, Boulder County		Cass Grady, Town of Nederland Sustainability Coordinator
Tierney Maris, Nederland Board of Trustees		Erik Braaten, DRCOG Senior Safety Planner

Areas with participant discussion are marked in orange text

MEETING NOTES

1. **Introductions**
2. **Meeting Goals**
    a. Review Project Background & Schedule
    b. Discuss Where We've Been

1. Phase 1 Community Outreach
2. Safety Analysis

c. Discuss Where We're Going
    1. Working Towards the Action Plan
    2. Next Steps

3. **Project Background**
    a. What is Vision Zero?
        1. Definition: Vision Zero is a transportation strategy to eliminate all traffic fatalities and serious injuries for people using all modes of transportation. Vision Zero recognizes that humans make mistakes and therefore the transportation system should be designed to minimize the consequences of human error.
    b. Safe System Approach
        1. Principals of Safe Systems:
            a. Humans Make Mistakes
            b. Humans are Vulnerable
            c. Responsibility is Shared
            d. Safety is Proactive
            e. Redundance is critical
        2. Elements
            a. Safer People
            b. Safer Vehicles
            c. Safer Speeds
            d. Safer Roads
            e. Post-Crash Care
        3. "Swiss Cheese Model"
            a. Redundancy in elements of the Safe System Approach elements creates layers of protection
            b. Death and serious injury only happen when all layers fail
    c. Action Plan Development
        1. Deliver three standalone Vision Zero Action Plans:
            a. Boulder County – includes unincorporated, State Highways, Jamestown, Nederland, and Ward
            b. City of Lafayette
            c. Town of Superior
        2. Create list of specific actions, noting responsibility and potential funding sources for implementation.
    d. Schedule
        1. Phase 1 engagement occurred in July/August
        2. Phase 2 engagement will occur in Winter 2024/2025
        3. Draft action plan by late early 2025
        4. Final action plan April 2025
    e. What We Covered at June Meeting
        1. Project Background
        2. Promotion of Phase 1 Outreach
        3. Listening Session
            a. Questions:
                1. What does Success Mean to you? What would a successful Vision Zero Action Plan look like to you?

2. What are your ideas for roadway safety in Boulder County? Please add your ideas for how the Vision Zero Action Plan can advance transportation safety outcomes under the topic areas below.

b. Input from these questions will be used as our team is developing recommendations and the action plan

4. **Where We've Been: Phase 1 Community Outreach**
    a. How We Collected Input for Each Partner (July and August 2024)
        1. In-person Pop-up Events
        2. Virtual Public Meetings
        3. Online Input Map & Survey
    b. Summary of What We Heard
        1. Online Survey Responses
            a. Boulder County: 196 survey responses, 309 map pins
            b. Lafayette: 378 survey responses, 463 map pins
            c. Superior: 78 survey responses, 83 map pins
    c. What We Heard: Boulder County & Mountain Towns
        1. 196 survey responses
        2. Majority (62%) of survey respondents live in Unincorporated Boulder County and Mountain Towns
        3. 94% of respondents drive as their primary travel mode, with 3% biking, 2% walking, and 1% taking transit
    d. What We Heard: Boulder County
        1. 31% of respondents or someone they know were involved in a crash in unincorporated Boulder County in the past 5 years
        2. Very few respondents indicated that they use transit or a mobility device as their primary mode
        3. Driving: 43% feel safe, 39% feel unsafe, 18% feel neutral
        4. Walking: 34% feel safe, 46% feel unsafe, 21% feel neutral
        5. Biking: 76% feel unsafe, 17% feel safe, 7% feel neutral
    e. What We Heard: Boulder County Map Survey (309 pins)
        1. Heard the most feedback on US 287, SH 119, and US 36 north of boulder
    f. What We Heard: Lafayette
        1. 378 survey responses
        2. 463 map pins
        3. Majority (76%) of survey respondents live in Lafayette
        4. 86% of respondents drive as their primary travel mode, with 7% biking, 6% walking, 1% taking transit, and 1% using a mobility device
    g. What We Heard: Lafayette
        1. 22% of respondents or someone they know were involved in a crash in Lafayette in the past 5 years
        2. Very few respondents indicated that they use transit or a mobility device as their primary mode
        3. Driving: 55% feel safe, 31% feel unsafe, 14% feel neutral
        4. Walking: 47% feel safe, 37% feel unsafe, 15% feel neutral
        5. Biking: 38% feel safe, 51% feel unsafe, 11% feel neutral
        6. Heard the most feedback on US 287, Baseline Road, South Boulder Road, Emma Road, Public Road

h. What We Heard: Superior
    1. 78 survey responses
    2. 83 map pins
    3. 29% of survey respondents live in Superior while most respondents (67%) live elsewhere in Boulder County or in Lafayette
    4. 81% of respondents drive as their primary travel mode, with 13% biking, 3% walking, 3% other (electric scooter, motorcycle), and 1% taking transit
i. What We Heard: Superior
    1. 7% of respondents or someone they know were involved in a crash in Superior over the last 5 years
    2. Very few respondents indicated that they use transit or a mobility device as their primary mode
    3. Driving: 51% feel safe, 31% feel unsafe, 18% feel neutral
    4. Walking: 38% feel safe, 42% feel unsafe, 19% feel neutral
    5. Biking: 26% feel safe, 62% feel unsafe, 13% feel neutral
    6. Heard most feedback on McCaslin Blvd and S Rock Creek Pkwy

5. **Where We've Been: Safety Analysis**
    a. Safety Analysis Process
        1. Detailed analysis for Unincorporated Boulder County & the Mountain Towns, Lafayette, and Superior
        2. Analyzed 10 years of CDOT crash data (January 2013 to December 2022)
        3. For each study area, developing:
            a. Crash Analysis (understand crash trends)
            b. High Injury Network (understand where injury crashes have occurred)
            c. High Risk Network (understand where injury crashes may happen in the future)
        4. Overlaying Phase 1 Community Input with this analysis to make sure we're not missing anything and to give us more context on the human behavior and human comfort
    b. HIN & HRN: What's the Difference?
        1. High Injury Network: Addressing Crashes Today
            a. Identifies locations where the top injury crashes are occurring based on historical crash data
        2. High Risk Network: Preventing Crashes Tomorrow
            a. Identifies locations where there is high risk for potential crashes based on roadway characteristics
    c. HIN Process
        1. Serious and fatal injury crashes weighted higher than minor injury crashes
            a. Minor injury = 1 point; serious injury=2 points; fatal=4 points
        2. Local Agency roadways were analyzed separately from CDOT roadways to account for the higher number of crashes and different crash trends on DOT roadways
            a. Thinking towards implementation and responsible parties

        b. Different types of crash trends on CDOT roads versus local roads
    3. Weighted Injury crashes were split into local agency roadway crashes and CDOT roadway crashes, then separated into intersection and segment crashes to determine the High Injury Network Results.
d. HRN Process
    1. Identified common roadway characteristics of the serious injury, fatal, and vulnerable road user crashes to select risk factors
    2. Identifying the elements of the roadways where injury crashes are currently occurring to understand where they might happen in the future
e. HRN Example
    1. 95th St & Lookout Rd is flagged as a HIN Intersection
    2. 95th St & Mineral Road – has similar context in terms of signalization, roadway width, has potential to be on HRN

6. **Q&A**
    a. Matt Muir: How is this weighted against the Boulder County Transportation Master Plan? The TMP seems to predict these same conditions.
        1. Nikki: Bike crashes are the top serious injury and fatal crash type on County roadways. We are developing a Bike/Ped HIN, as well as including roadways with subpar bicycle facilities as a risk on the HRN.
        2. We will also make sure recommendations and priorities align with the TMP.
    b. Stephanie Walton: How are we factoring in future development? In the list of risk factors, are we considering facilities that accommodate older adults?
        1. Nikki: We are looking at destination types (libraries, senior centers, transit facilities, etc) and determining if there are trends within the crash data in proximity to these destinations to be potential risk factors. We are also considering planned or recently completed improvements when considering locations for recommended improvements.
    c. Frank Phillips: Once we have all the recommendations assembled, do we see this moving forward into a funding phase?
        1. Nikki: Our goal is to deliver a plan to each agency that is focused on implementation, so prioritizing actions and determining high level planning cost as well as implementation responsibility and potential funding sources.
7. **Safety Findings**
    a. Boulder County: Safety Analysis
        1. The total number of crashes has decreased in recent years (following the pandemic in 2020), but the number of serious injury and fatal crashes has remained consistent, so the percentage of these crashes has increased.
        2. Over 10 years, 135 people died in traffic crashes in the project area.
        3. County roadways make up 86% of roadway centerline miles, but only 30% of serious injury and fatal crashes. CDOT roadways make up only 14% of roadway centerline miles, but 70% of serious injury and fatal crashes.

        a. Given this distribution, the project team analyzed CDOT and county roadways separately.
    4. On Boulder County roads, the top crash types were fixed object, rear-end, and overturning. However, the top serious injury and fatal crash types were bicycle, fixed object, and overturning. The disproportionate amount of serious injury and fatal bicycle crashes compared to all crashes emphasizes the vulnerability of this road user.
    5. On CDOT roads, the top crash types were rear-end, fixed object, and sideswipe. The top serious injury and fatal crash types were overturning, head-on, and broadside. Rear-end crashes are common, but they are less likely to result in serious injury and fatality.

b. Mountain Town Zoom-in – Nederland
    1. 191 crashes occurred within the Nederland boundary, including 5 serious injury and fatal crashes consisting of:
        a. 1 broadside crash
        b. 1 pedestrian crash
        c. 2 head-on crashes (1 fatal involving motorcycle)
        d. 1 fixed object crash
    2. The top crash types in Nederland were Parked motor Vehicle, Fixed Object, Rear End, Embankment/Ditch, and Overturning.

c. Mountain Town Zoom-in – Ward
    1. 8 crashes occurred within the Ward boundary, including 2 serious injury crashes consisting of
        a. 1 guard rail crash
        b. 1 overturning crash

d. Mountain Town Zoom-in – Jamestown
    1. 10 crashes occurred within the Jamestown boundary, with no serious injuries or fatalities.

e. Boulder County: High Injury Network (HIN)
    1. The HIN consists of segments and intersections broken down into county and CDOT-owned roadways with the highest concentrations of injury crashes
    2. Splitting out county-owned roadways allows us to identify segments with a high concentration of injury crashes compared to other county roadways, without being skewed by the proportionally higher CDOT roadways

f. Lafayette: Safety Analysis
    1. Similarly to Boulder County, total crashes have declined in the past few years, but the number of serious injury and fatal crashes has remained consistent.
    2. Over 10 years, there were 67 serious injury crashes and 19 fatal crashes in Lafayette.
    3. The top serious injury and fatal crash types in Lafayette were broadside, approach turn, rear-end, and sideswipe.

g. Lafayette: High Injury Network (HIN)
    1. The HIN consists of the segments and intersections with the highest concentrations of injury crashes. Some state highways (US 287, Arapahoe w/o US 287, 95th St s/o Arapahoe Road) were removed from the analysis due to having recently completed planning studies, with a desire to have a complete sense of where the most impact can be had on areas that haven't been studied yet
h. Superior: Safety Analysis
    1. Over 10 years, there were 8 serious injury crashes and 1 fatality in Superior (which occurred on Hwy 128).
    2. The majority of crashes occurred at intersections, with a hotspot of crashes at McCaslin and Marshall.
    3. Due to this concentration of crashes at intersections and the lack of concentrated injury crashes on segments, the High Injury Network consists only of intersections.
    4. The High Risk Network was developed using known risk factors such as speed limit and number of lanes. High risk segments appear around the US 36 interchange, as well as along Rock Creek Pkwy, Coalton, and Hwy 128.

8. **Discussion: Do the results of the crash analysis, HIN, or HRN resonate with you? Are there any that are surprising?**
    a. Stephanie Walton: Is there any way to break out how roadways or transportation infrastructure is being used for recreation versus commuting/non-recreation?
        1. Nikki: One thing might be able to do is look at where bicycle/pedestrian crashes are occurring, such as trail crossings, to try and determine trip purpose.
        2. Alexandra: What is the purpose of breaking down the data that way?
            a. Stephanie: assumptions and priority of investment might be different
        3. Katrina Harms: Agree with Stephanie about difference between work and recreation, especially for communities like Nederland and Ward that experience high volumes of tourists in the summertime.
        4. Michelle: Lafayette has had some conversations about using Strava data to determine locations of recreation rides, but there is concern that it may not be equitable. Also, can consider looking at exposure during peak commuting times.
        5. Krista: Wary of the danger of diving into recreation vs commuters, given that this is data we don't have and may not need. Is this data relevant for other things, such as when people are traveling? We could get this data from counts. Caution against going down that rabbit hole unless we have a better clearer reason for it. Would also like to hear more about the bike crashes as we dive into it and have maps for that specifically.
            a. Nikki: As part of our crash analysis we are looking at a variety of factors, which includes time of day and day of week, so can potentially break

down by crash type, etc. to understand more specifically when crashes are occurring.

b. Nikki: We are working on developing a bike/ped specific HIN for Boulder County, as well as diving into the locations with bike/ped crashes in Lafayette and Superior.

b. Rachel: There are places on Strava that are hot and are used a lot, which introduces potential for collisions. There are also areas that show up as gaps where there is no one riding, which can be used of evidence of where areas do not feel safe. Is the project team looking at that?

1. Nikki: We haven't specifically driven into the Strava data, but if we do go down that path it would be a combination of looking at hotspots and gaps to understand the whole picture.
2. Liv: Community input was specifically about where people don't feel safe, so we do have input from the community about where people don't feel safe biking and why, which we can use to fill in the gaps of the crash data.

c. Krista: Wanted to mention project by Portland State University, which fused Strava data with the bicycle counts provided by Boulder County, so we have an estimate across the County to try to overcome some of the bias inherent with the Strava data. It is the researchers' best estimate of where bicyclists are traveling across the County.

1. https://nitc.trec.pdx.edu/research/project/1269/Exploring_Data_Fusion_Techniques_to_Estimate_Network-Wide_Bicycle_Volumes
2. https://jbroachpdx-map-share.nextgis.com/resource/21/display?panel=none

9. **Where We're Going: Working Towards the Action Plans**
    a. Action Plan Development
        1. Develop Safety Strategies and Initial Recommended Actions
            a. Variety of Types: Infrastructure & Non-Infrastructure
            b. Different Applications: Location based, systemic, programmatic
        2. Public Input
        3. Finalize Recommended Actions
            a. Near Term
            b. Mid Term
            c. Long Term
        4. Action Plans
            a. Includes additional detail/plans for priority, near-term actions
10. **Next Steps**
    a. Actions
        1. Upcoming Phase 2 Outreach
            a. Goal: Present initial recommended actions to community
        2. Promote public engagement events, website, and survey
        3. Attend/participate
        4. Do you know of upcoming events that can help promote this outreach?

b. Calendar
    1. December 2024 – Early 2025: Phase 2 Outreach
        a. December: Superior Pop-up at Winter Fest
        b. January/February: All other Partners pop-ups and public meetings
    2. December: Project Update (likely via email)
c. Katrina: there are a handful of pop-up events in December, but can keep an eye out for events early next year
d. Stephanie: Is the Lafayette Chamber continuing Oatmeal Festival in January?
    1. Frank: Yes, Saturday January 13th
        a. Note: Post-meeting research showed that the actual date for 2025 is Tue., Jan. 14.
    2. https://festivalnet.com/27257/Lafayette-Colorado/Lifestyle-Healthy-Living-Events/Lafayette-Quaker-Oatmeal-Festival
e. Stephanie: CDOT grant was awarded to do safety improvements on US 287 as part of NAMS projects, congratulations to anyone who was involved in making that happen.

Boulder County Vision Zero Action Plan
Steering Committee December 2024 Update

Project Overview: Create Vision Zero Action Plans for Boulder County, Lafayette, and Superior to address roadway safety, with a Vision Zero goal of eliminating all traffic fatalities and serious injuries by 2035.

Study Area*:

The Boulder County plan includes county roads and Colorado Department of Transportation (CDOT) highways in unincorporated Boulder County and in the mountain towns of Jamestown, Nederland, and Ward.

Community Input Summary:

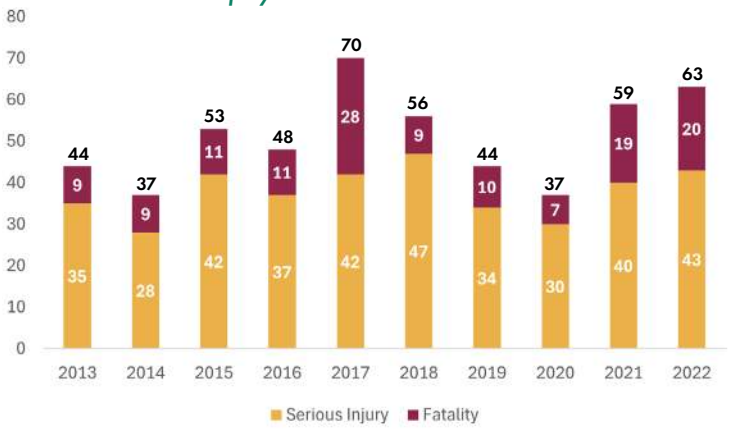
Top concerns that emerged from a community survey (Summer 2024):

- Lack of infrastructure for cyclists and pedestrians
- Speeding and reckless driving
- Dangerous intersections

Safety Analysis Findings:

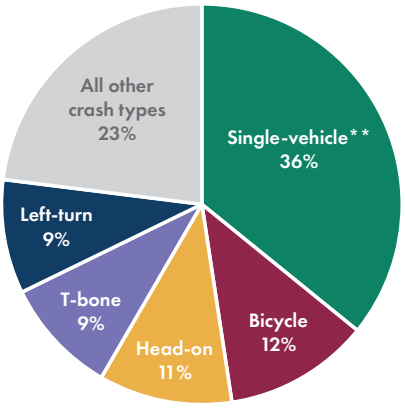
- Over the ten-year analysis period (2013 –2022), 125 people died in traffic crashes, and the **number of serious injury and fatal crashes has fluctuated and has been increasing since 2020.**
- **Top crash types** include:
  - Single-vehicle crashes**
  - Crashes involving bicyclists
  - Head-on crashes
  - T-bone crashes
  - Left-turn crashes
- **Speeding makes all of the above crash types more likely and more severe.**
- A **high-injury network (HIN)** based on historical crash data has been identified that includes **7% of the centerline miles** but accounts for **66% of the serious injury and fatal crashes**. Safety improvements will be focused on the HIN (see next page for map).

Serious Injury and Fatal Crashes Over Time



Top Serious Injury and Fatal Crash Types

The top five serious injury and fatal crash types account for 77% of the serious injury and fatal crashes.

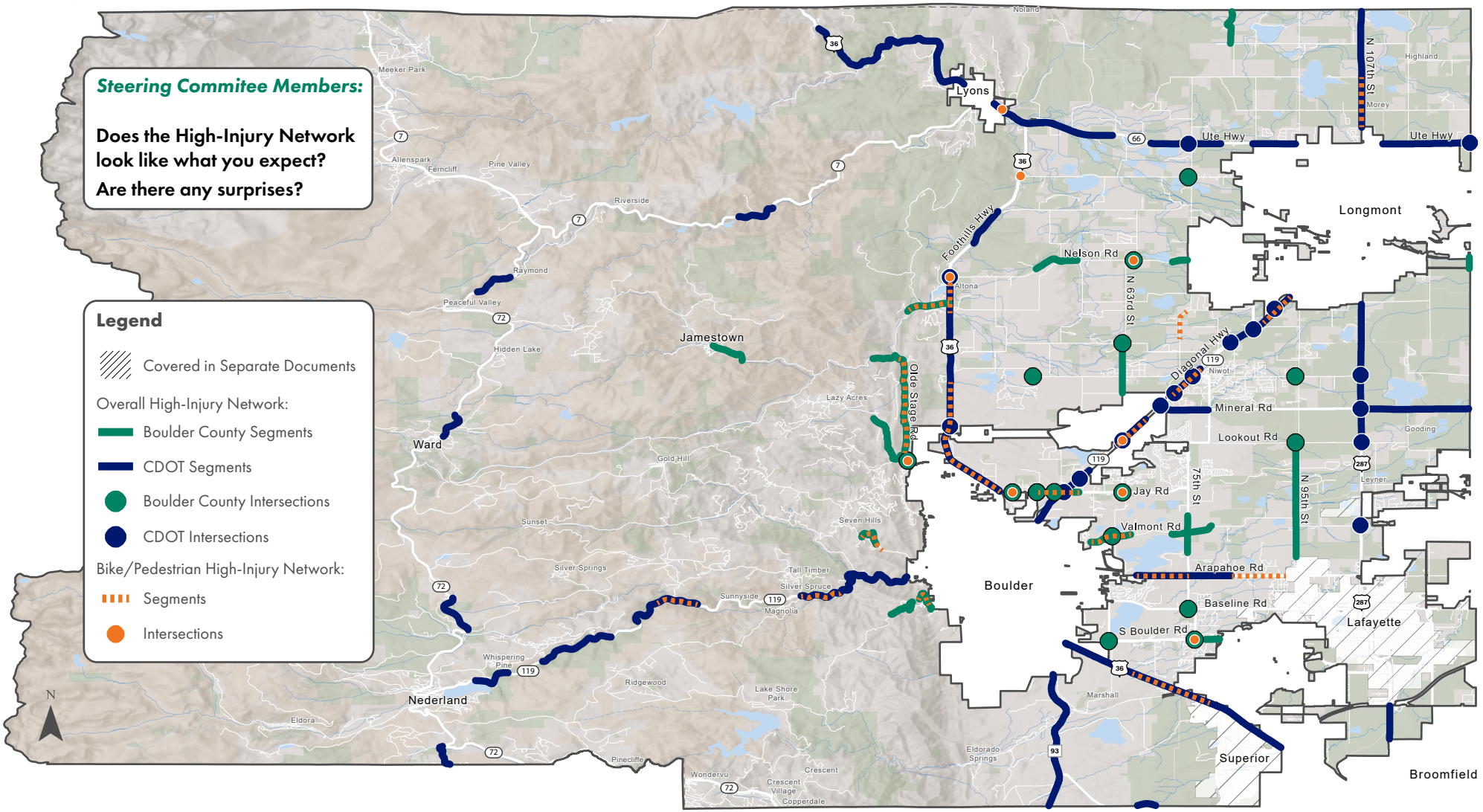


*Lafayette and Superior Vision Zero Action Plan updates are covered in separate documents.
**Examples of single-vehicle crashes include departing the road, colliding with fixed objects, collisions with animals, and overturning vehicles.

Boulder County Vision Zero Action Plan

Steering Committee December 2024 Update

Draft High-Injury Network for Steering Committee Review - December 2024



Boulder County Vision Zero Action Plan
Steering Committee December 2024 Update

Recommended Actions:

The plan will follow the FHWA's Safe System Approach and will primarily focus recommendations for Engineering, Enforcement, Education, and Evaluation actions in the following areas:

- Safer Roads
- Safer Speeds
- Safer People

Recommended actions will be developed and prioritized by considering factors such as being in the HIN, risk for future crashes, crash reduction potential, proximity to disadvantaged populations, community input, and planning-level costs. The actions will be categorized for phased implementation over the next several years, with progress tracked and evaluated.

Examples of the types of recommended actions that will be explored include:

Focus Area	Action	Type
Safe Roads	Add rumble strips to 'Example Corridor' from 'Street A' to 'Street B'	Engineering
	Update 'Example Intersection' to protected left-turn phasing during the AM and PM peak periods	Engineering
Safe Speeds	Pilot automated enforcement, such as red-light cameras and speed cameras	Enforcement
Safe People	Implement targeted education campaigns that align with "back-to-school" to raise awareness of increased school-aged children traveling on the roadways	Education
	Implement targeted education campaigns about driving under the influence	Education
All	Create a public-facing annual report that tracks the Boulder County Vision Zero Action Plan progress	Evaluation

Next Steps:

- Q4 2024-Q1 2025: **Participate in and help promote the next round of community outreach.** Stay tuned for more details!
- Q1 2025: Steering Committee meeting to discuss draft recommended actions; Draft Action Plan available for review
- Q2 2025: Final Action Plan

Appendix B: Pop-up Materials

Boulder County Vision Zero Action Plan

Vision Zero Action Plans (VZAPs) identify specific, prioritized strategies to comprehensively improve transportation safety for all roadway users with the goal of eliminating serious and fatal traffic crashes. **The vision is zero traffic deaths.**

Boulder County, along with the City of Lafayette, and the Town of Superior are all working on VZAPs funded through a single federal grant. The project started in spring 2024 and is expected to wrap up in summer 2025. The first step was to analyze historic and potential crash activity on roadways and to gather community input about perceptions of roadway safety.

We've drafted solutions for improving traffic safety through Boulder County's Vision Zero Action Plan, and we need your feedback! Help us prioritize solutions to make our streets safer for everyone!

Visit the project website to learn more and take our survey by March 2, 2025!

boco.org/VisionZeroActionPlan

Condado de Boulder
Plan de Acción de *Vision Zero*

Los Planes de Acción Visión Cero (VZAP, por sus siglas en inglés) identifican estrategias específicas y priorizadas para mejorar de manera integral la seguridad del transporte para todos los usuarios de las carreteras, con el objetivo de eliminar los accidentes de tráfico graves y fatales. La visión o meta es reducir a cero las muertes por accidentes de tráfico.

El condado de Boulder, junto con la ciudad de Lafayette y la ciudad de Superior están trabajando en VZAP, financiados a través de una sola subvención federal. El proyecto comenzó en la primavera de 2024 y se espera que concluya en el verano de 2025. El primer paso fue analizar la actividad histórica y potencial de accidentes en las carreteras, y recopilar las opiniones de la comunidad sobre las percepciones de seguridad vial.

Hemos elaborado soluciones para mejorar la seguridad vial a través del Plan de Acción *Vision Zero* del Condado de Boulder, ¡y necesitamos su opinión! Ayúdenos a priorizar soluciones para hacer que nuestras calles sean más seguras para todos.

Visite el sitio web del proyecto para obtener más información y completar nuestra encuesta antes del Marzo 2, 2025!

boco.org/VisionZeroActionPlan

Boulder County
Vision Zero Action Plan

Vision Zero Action Plans (VZAPs) identify specific, prioritized strategies to comprehensively improve transportation safety for all roadway users with the goal of eliminating serious and fatal traffic crashes. **The vision is zero traffic deaths.**

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Learn More About the Plan:

boco.org/VisionZeroActionPlan

Traffic Safety Analysis

Crash Trends in Boulder County:

77% of all injury crashes in Boulder County include the following crash types:

Single-Vehicle: This crash type includes only one vehicle and can involve vehicles departing from the road, colliding with a fixed object or animal, and overturning vehicles.

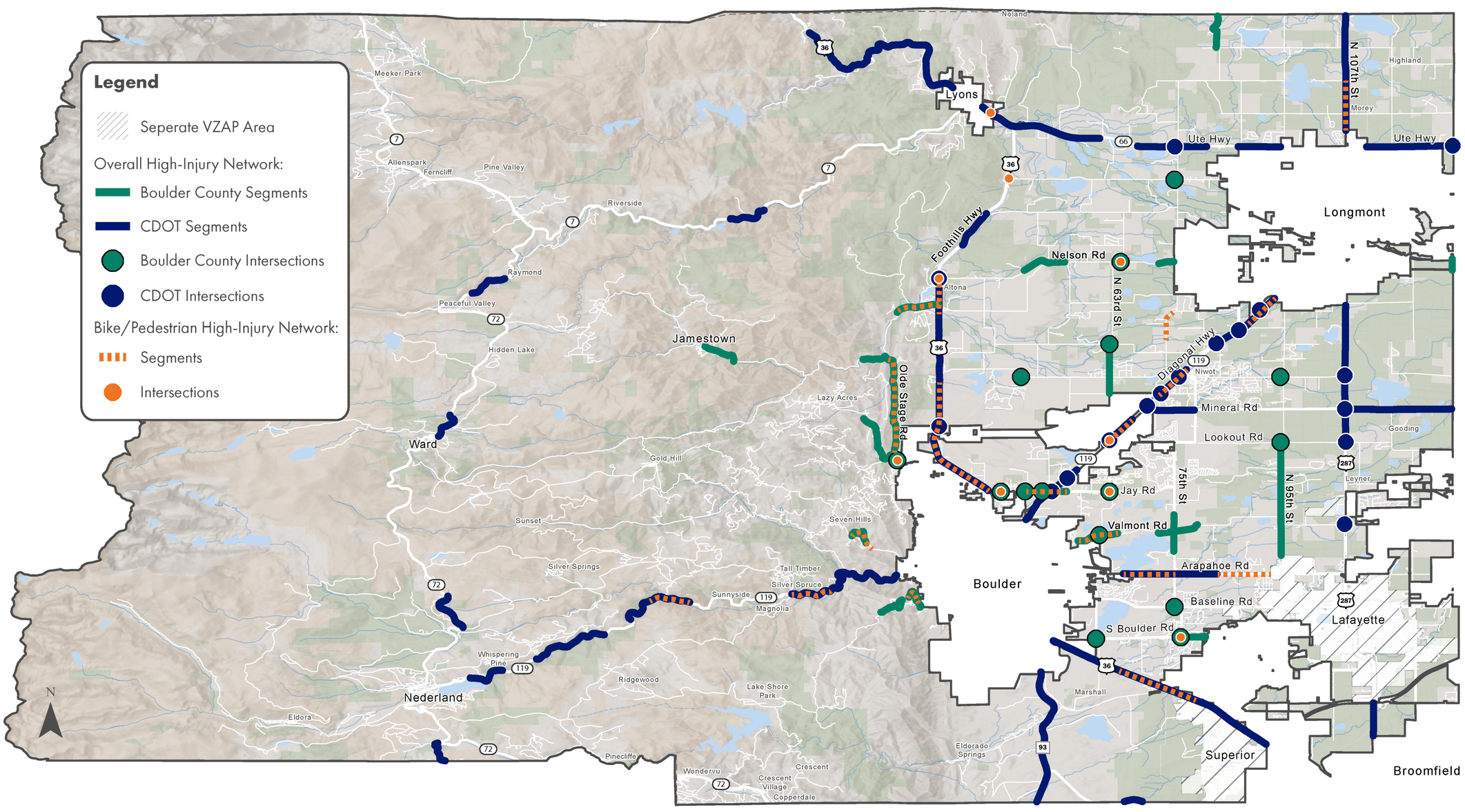
Bicycle Involved: This crash type involves a motor vehicle and at least one person who is biking.

Head-on: This crash type occurs when two vehicles traveling in opposite directions hit each other with the front ends of each vehicle.

T-Bone: Also known as a broadside crash or an angle collision, this crash type occurs when the front end of one car crashes into the side of another car.

Left-Turn: This crash type occurs when someone turns left in front of oncoming traffic without yielding the right-of-way.

High Injury Network: A high-injury network (HIN) identifies locations where the highest number of injury crashes are occurring based on historical crash data. The project improvements in the plan will largely focus on the HIN.



Boulder County, Lafayette, and Superior

VISION ZERO ACTION PLANS

Condado de Boulder
Plan de Acción de *Vision Zero*

Los Planes de Acción *Vision Zero* (VZAP, por sus siglas en inglés) identifican estrategias específicas y priorizadas para mejorar de manera integral la seguridad del transporte para todos los usuarios de las carreteras, con el objetivo de eliminar los accidentes de tráfico graves y fatales. **La visión o meta es reducir a cero las muertes por accidentes de tráfico.**

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Learn More About the Plan:

boco.org/VisionZeroActionPlan

Análisis de Seguridad Vial

Tendencias de accidentes

Cinco tipos de accidentes representan el **77%** de todos los accidentes con lesiones graves y aquellos que resultan en muertes en el condado de Boulder:

Accidente de un solo vehículo: Este tipo de accidente incluye solo un vehículo y puede implicar la salida del vehículo de la carretera, la colisión con un objeto fijo o un animal, y que el vehículo se vuelque.

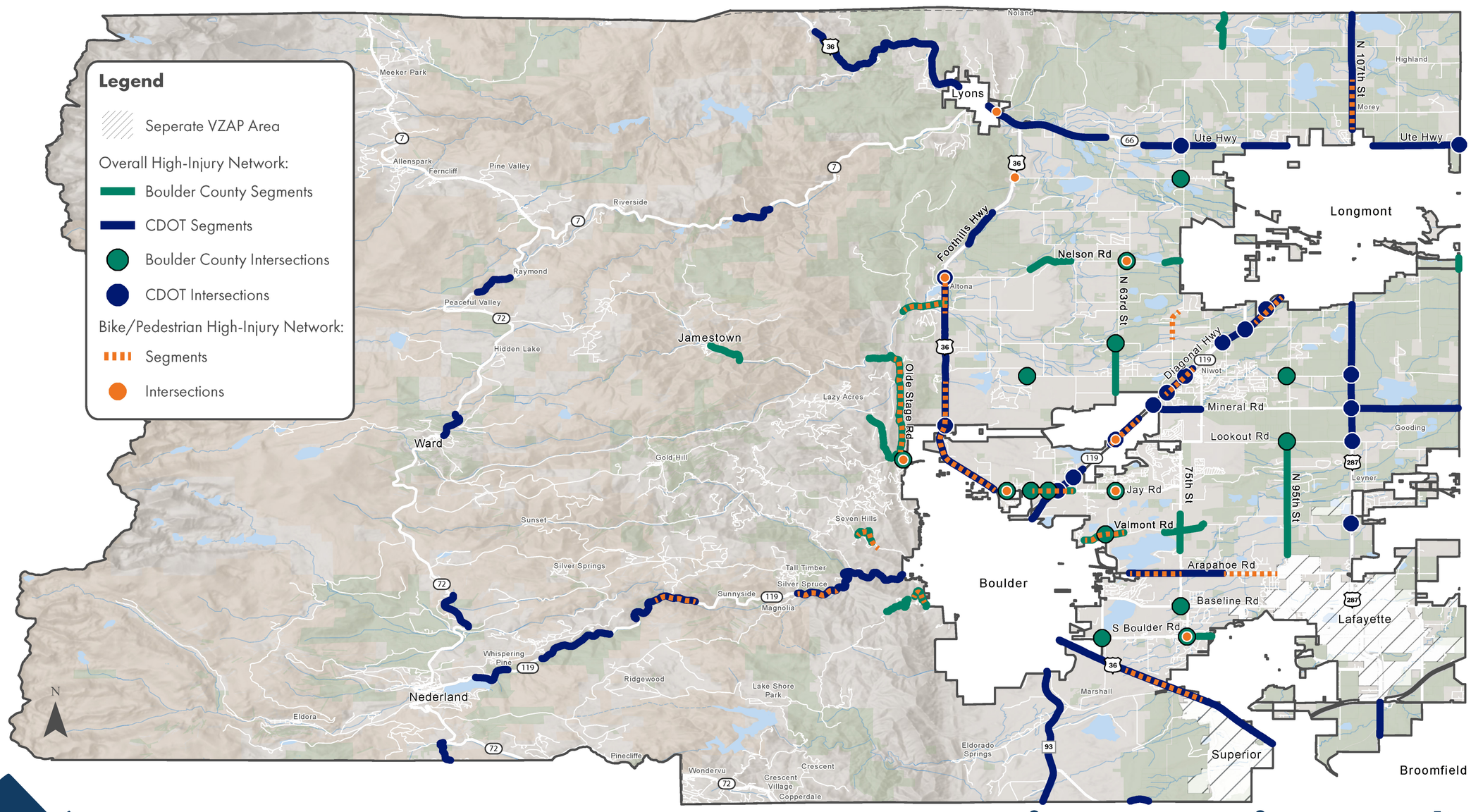
Accidente con ciclistas: Este tipo de accidente involucra un vehículo motorizado y al menos una persona que va en bicicleta.

Choque frontal: Este tipo de accidente ocurre cuando dos vehículos que viajan en direcciones opuestas chocan entre sí con los extremos delanteros de cada vehículo.

Choque en forma de T: También conocido como choque lateral o colisión en ángulo, este tipo de choque ocurre cuando la parte delantera de un automóvil choca contra el costado de otro automóvil.

Choque por giro a la izquierda: Este tipo de accidente ocurre cuando alguien gira a la izquierda frente al tráfico que se aproxima sin ceder el derecho de paso.

Una red de carreteras con una alta incidencia de accidentes con lesiones Una red de carreteras con una alta incidencia de accidentes con lesiones (High-Injury Network, HIN) identifica las ubicaciones donde ocurren la mayor cantidad de accidentes con lesiones, basándose en datos históricos de accidentes. Las mejoras del proyecto en el plan se centrarán principalmente en la HIN.



Boulder County, Lafayette, y Superior

PLANES DE ACCIÓN DE *VISION ZERO*

Boulder County Safety Countermeasures: We Want Your Input!

Input Key:

- Very Supportive
- Supportive with some concerns
- Not Supportive

The proposed safety solutions directly address the top five crash types, reducing the frequency and/or severity of traffic crashes. Please review these preliminary safety solutions and indicate your level of support. Based on technical analysis and public input others will also be identified in the plan.

Rumble Strips on the Shoulder/Centerline

Alert drivers when they are departing a travel lane. Rumble strips can be placed at the shoulder/ edgeline to minimize run-off-the-road crashes or in the centerline to reduce crossover/ head-on crashes. If implemented, to minminimize noise impacts, rumble strips would not be installed within 300 feet of residences or businesses.

Shoulder:

Centerline:

Crash Type(s) Addressed:
Single-Vehicle crashes
Head-On crashes

Crash Reduction Potential: 25%

Bicycle Safety Improvements

Photo: Doug Ryan, Adventure Cycling Association

Bicycle improvements could include, but are not limited to, formalizing bicycle facilities and providing physical separation between bicycles and vehicles, widening shoulders to accommodate more space for bicycles, and signing and striping treatments to enhance the visibility of bicycles crossing an intersection.

On-Street Bicycle Facilities:

Separate Bicycle Facilities:

Crash Type(s) Addressed:
Crashes involving bicyclists

Crash Reduction Potential:
Varies depending on treatment/facility

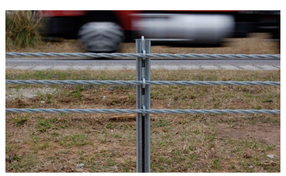
Protected Left-turns

"Protected-only" phasing provides a separate phase for left-turning traffic and allowing left-turns to be made only on a green left arrow signal indication. Separate left-turn motor vehicle movements prevent turning vehicles from overlapping with the pedestrian walk phase or conflicting with oncoming vehicles.

Crash Type(s) Addressed:
Pedestrian and bicycle crashes
Left-turn crashes

Crash Reduction Potential: 99%

Median Barriers



Provides a physical barrier to restrict vehicles from traveling outside of the travel lane for crash types such as head-on crashes with vehicles in the opposing direction and off-road crashes. Median barriers sometimes restrict turning access in some locations.

Crash Type(s) Addressed:
Head-on crashes
Sideswipe (opposite direction) crashes

Crash Reduction Potential: 97%
(on rural 4-lane roads)

Roundabouts

A roundabout is a circular intersection designed to improve traffic flow and safety by reducing conflict points, lowering vehicle speeds, and minimizing the severity of crashes. Roundabouts decrease the likelihood of high-speed collisions and improve overall roadway efficiency.

At Signalized Intersections:

At Stop-Controlled Intersections:

Crash Type(s) Addressed:
Head-on crashes | T-bone crashes
Left-turn crashes

Crash Reduction Potential:
78% (conversion from a signalized intersection)
82% (conversion from an intersection with 2 stop signs)

Red Light Cameras & Speed Cameras

Red light cameras and speed cameras are an automated system that photograph drivers and vehicles that run red lights and that are traveling faster than the legal speed limit on the roadway. Drivers are ticketed for the violation, holding them accountable for dangerous behavior

Red Light Cameras:

Speed Cameras:

Crash Type(s) Addressed:
T-bone crashes (at traffic signal)
Speed-related crashes
Rear End crashes

Crash Reduction Potential:
Red light camera – 25%
Speed camera – 54%

Soluciones de seguridad del condado de Boulder: ¡Queremos su opinión!

Clave de opinión:

- Muy a favor
- A favor, con algunas inquietudes
- No estoy a favor

Las soluciones de seguridad propuestas abordan directamente los cinco tipos principales de accidentes, reduciendo la frecuencia y/o la gravedad de los accidentes de tráfico. Por favor, revise las soluciones de seguridad e indique su nivel de apoyo. Con base en el análisis técnico y el aporte del público, también se identificarán otras en el plan.

Bandas sonoras o franjas de vibración en el arcén (zona lateral de la carretera), línea de borde o línea central

Alertan a los conductores cuando se están saliendo de un carril de circulación. Las bandas sonoras o franjas de vibración se pueden colocar en el arcén o en la línea de borde para minimizar los accidentes ocasionados por salirse de la carretera, o en la línea central para reducir los choques cruzados o frontales. Si se implementan, para minimizar los impactos del ruido, las bandas sonoras no se instalarían a menos de 300 pies de residencias o negocios.

En los arcenes y en las líneas de borde:

En la línea central:

Tipo de accidente que aborda:
Accidentes de un solo vehículo
Choques frontales

Potencial de reducción de accidentes:
25%

Mejoras en la seguridad para las bicicletas

Las mejoras para las bicicletas podrían incluir, entre otras, la formalización de las instalaciones para bicicletas y la provisión de separación física entre bicicletas y vehículos, el ensanchamiento de los arcenes para ofrecer más espacio a las bicicletas, y los tratamientos de señalización y rayado para mejorar la visibilidad de las bicicletas que cruzan una intersección.

Instalaciones para bicicletas en la calle:

Instalaciones para bicicletas separadas:

Tipo de accidente que aborda:
Accidentes que involucran a ciclistas

Potencial de reducción de accidentes:
Varía según el tratamiento o la instalación

Giros a la izquierda protegidos

La fase de los semáforos de 'solo protección' proporciona una fase separada para el tráfico que gira a la izquierda, permitiendo que los giros a la izquierda se realicen únicamente con una indicación de la señal de flecha verde. Los movimientos separados de vehículos motorizados que giran a la izquierda evitan que los vehículos que giran se superpongan con la fase de cruce peatonal, o entren en conflicto con los vehículos que vienen en sentido contrario.

Tipo de accidente que aborda:
Accidentes de peatones y bicicletas
Accidentes de giro a la izquierda

Potencial de reducción de accidentes:
99%

Barreras centrales

Proporcionan una barrera física para restringir que los vehículos transiten fuera del carril de circulación en casos de accidentes como choques frontales con vehículos en sentido contrario y colisiones fuera de la carretera. Las barreras centrales a veces restringen el acceso a los giros en algunos lugares.

Tipo de accidente que aborda:
Choques frontales
Choques laterales (en los que los vehículos involucrados viajan en direcciones opuestas)

Potencial de reducción de accidentes:
97% (en autopistas rurales de 4 carriles)

Rotondas

Una rotonda es una intersección circular diseñada para mejorar el flujo del tráfico y la seguridad al reducir los puntos de conflicto, disminuir la velocidad de los vehículos y minimizar la gravedad de los accidentes. Al eliminar los giros a la izquierda y las paradas controladas por señales, las rotondas disminuyen la probabilidad de colisiones a alta velocidad y mejoran la eficiencia general de la carretera.

En las intersecciones señalizadas:

En las intersecciones controladas por señales de alto:

Tipo de accidente que aborda:
Choques frontales | Choques en forma de T
Accidentes de giro a la izquierda

Potencial de reducción de accidentes:
78% (conversión a partir de una intersección señalizada)
82% (conversión a partir de una intersección con 2 señales de alto)

Cámaras de semáforo en rojo y radares de velocidad

Las cámaras de semáforo en rojo y los radares de velocidad son un sistema automatizado que fotografía a los conductores y vehículos que se saltan los semáforos en rojo y que viajan más rápido que el límite de velocidad legal en la carretera. Los conductores reciben una multa por la infracción, lo que los hace responsables de su comportamiento peligroso.

Cámaras de luz roja:

Radares de velocidad:

Tipo de accidente que aborda:
Choques en forma de T (en un semáforo)
Choques relacionados con la velocidad
Choques por detrás

Potencial de reducción de accidentes:
Cámara de luz roja: 25%
Radar de velocidad: 54%

Boulder County
Vision Zero Action Plan

Boulder County will consider several factors when deciding how to prioritize implementation of recommended projects on the High Injury Network in the Action Plan.

How important is each of these factors to you when it comes to prioritizing safety projects? Please drop in your tokens.

(more tokens = higher priority)

Condado de Boulder
Plan de Acción de *Vision Zero*

El condado de Boulder considerará varios factores al decidir cómo priorizar la implementación de los proyectos recomendados en el Plan de Acción.

¿Cuál de los siguientes factores cree que debería tener más peso? Por favor, ingrese sus fichas.

(más fichas = mayor prioridad)

VULNERABLE POPULATIONS

(for example: elderly, young children, low income)

MORE KNOWN / HISTORICAL CRASHES

SAFER FOR WALKING / BIKING

WHERE PEOPLE FEEL UNSAFE

(based on Summer 2024 community feedback)

LAS POBLACIONES VULNERABLES

(por ejemplo: personas ancianas, niños pequeños, de bajos ingresos, etc.)

LUGARES DONDE HAY MÁS ACCIDENTES CONOCIDOS O HISTÓRICOS

LUGARES QUE HACEN QUE SEA MÁS SEGURO CAMINAR Y ANDAR EN BICICLETA

DONDE LAS PERSONAS SE SIENTEN INSEGURAS

(según los comentarios de la comunidad en el verano de 2024)

Appendix C: Survey Questions

Overview

Vision Zero Action Plans (VZAPs) identify specific, prioritized strategies to comprehensively improve transportation safety for all roadway users with the goal of eliminating serious and fatal traffic crashes. The vision is zero traffic deaths.

Boulder County, along with the City of Lafayette, and the Town of Superior are all working on VZAPs funded through a single federal grant. The project started in spring 2024 and is expected to wrap up in summer 2025. The first step was to analyze historic and potential crash activity on roadways and to gather community input about perceptions of roadway safety.

This survey presents a summary of the safety analysis for unincorporated Boulder County and the mountain towns of Jamestown, Nederland, and Ward, and asks for your input on proposed solutions to address the top crash types, as well as on factors to use in the process to prioritize projects.

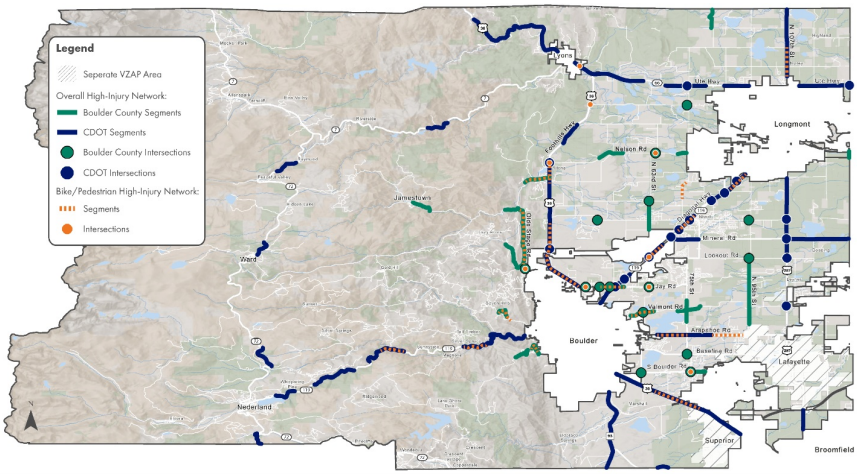
Your feedback is extremely important and will influence the recommendations that will be included in the final safety action plan.

High-Injury Network

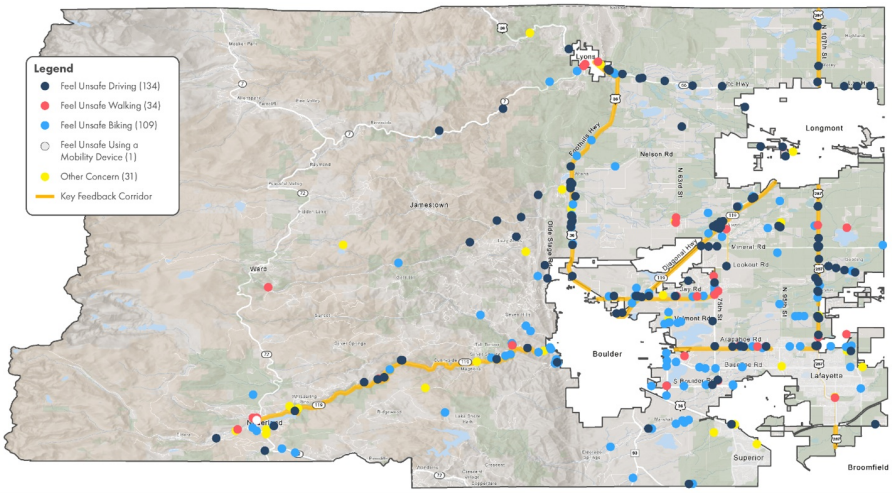
A high-injury network (HIN) identifies locations where the highest number of injury crashes are occurring based on historical crash data. The project improvements in the plan will largely focus on the HIN.

The maps below show the HIN for Boulder County along with the locations where community members indicated having safety-related concerns. Community input displayed on the map below was collected over the summer of 2024 through an online survey and interactive map, virtual public meeting, and through tabling at the Nederland Farmers Market. Sixty-two percent of the public input aligned with the HIN.

Boulder County High Injury Network (HIN)



Boulder County Community Input (Summer 2024)



Crash Trends

Five crash types account for 77% of all serious injury and fatal crashes in Boulder County: single-vehicle crashes, crashes involving bicyclists, head-on crashes, T-bone crashes, or left-turn crashes. Each type is described in more detail below.

Single-Vehicle Crash: This crash type includes only one vehicle and can involve vehicles departing from the road, colliding with a fixed object or animal, and overturning vehicles.

Bicycle Involved: This crash type involves a motor vehicle and at least one person who is biking.

Head-on Crash: This crash type occurs when two vehicles traveling in opposite directions hit each other with the front ends of each vehicle.

T-Bone Crash: Also known as a broadside crash or an angle collision, this crash type occurs when the front end of one car crashes into the side of another car.

Left-Turn Crash: This crash type occurs when someone turns left in front of oncoming traffic without yielding the right-of-way.

Safety Solutions

The proposed safety solutions directly address the top five crash types, reducing the frequency and/or severity of traffic crashes. The crash reduction potential of each solution is the expected reduction in crashes if that treatment is implemented, based on the Federal Highway Administration's (FHWA) Crash Modification Factors Clearinghouse.

Below is a preliminary list of safety solutions, and based on technical analysis and public input others will also be identified in the plan. Please review the safety solutions and indicate your level of support.

Rumble Strips on the Shoulder/ Edgeline or Centerline

Alert drivers when they are departing a travel lane. Rumble strips can be placed at the shoulder/ edgeline to minimize run-off-the-road crashes or in the centerline to reduce crossover/head-on crashes. If implemented, to minimize noise impacts, rumble strips would not be installed within 300 feet of residences or businesses.

Crash Types it Addresses:

- Single-vehicle crashes
- Head-on crashes

Crash Reduction Potential

- 25%

* 1. How supportive are you of implementing **shoulder/ edgeline** rumble strips?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

* 2. How supportive are you of implementing **centerline** rumble strips?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

3. Do you have any other comments or feedback on rumble strips? If you have concerns or are not supportive of rumble strips, please share why.

Safety Solutions (continued)

Bicycle Safety Improvements

Bicycle improvements could include, but are not limited to, formalizing bicycle facilities and providing physical separation between bicycles and vehicles, widening shoulders to accommodate more space for bicycles, and signing and striping treatments to enhance the visibility of bicycles crossing an intersection.

Crash Type it Addresses:
- Crashes involving bicyclists

Crash Reduction Potential:
- Varies depending on treatment/facility

* 4. How supportive are you of implementing **On-Street Bicycle Facilities** such as shoulders and/or bike lanes?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

* 5. How supportive are you of implementing **Separate Bicycle Facilities** such as multi-use paths and/or commuter bikeways?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

6. Do you have any other comments or feedback on bicycle safety improvements? If you have concerns or are not supportive of bicycle safety improvements, please share why.

Safety Solutions (continued)

Protected Left-Turns

“Protected-only” phasing provides a separate phase for left-turning traffic and allowing left turns to be made only on a green arrow signal indication. Separate left-turn motor vehicle movements prevent turning vehicles from overlapping with the pedestrian walk phase or conflicting with oncoming vehicles.

Crash Type it Addresses:
- Pedestrian and bicycle crashes
- Left-turn crashes

Crash Reduction Potential:
- 99%

* 7. How supportive are you of implementing protected left-turns?

◯ Very supportive

◯ Supportive with some concerns

◯ Not supportive

8. Do you have any other comments or feedback on protected left-turns? If you have concerns or are not supportive of protected left-turns, please share why.

Safety Solutions (continued)

Median Barriers

Provides a physical barrier to restrict vehicles from traveling outside of the travel lane for crash types such as head-on crashes with vehicles in the opposing direction and off-road crashes. Median barriers sometimes restrict turning access in some locations.

Crash Type it Addresses:
- Head-on crashes
- Sideswipe (opposite direction) crashes

Crash Reduction Potential:
- 97% (on rural 4-lane roads)

* 9. How supportive are you of implementing median barriers?

◯ Very supportive

◯ Supportive with some concerns

◯ Not supportive

10. Do you have any other comments or feedback on median barriers? If you have concerns or are not supportive of median barriers, please share why.

Safety Solutions (continued)

Roundabouts

A roundabout is a circular intersection designed to improve traffic flow and safety by reducing conflict points, lowering vehicle speeds, and minimizing the severity of crashes. By eliminating left-turns and signal-controlled stops, roundabouts decrease the likelihood of high-speed collisions and improve overall roadway efficiency.

Crash Types it Addresses:
- Head-on crashes
- T-bone crashes
- Left-turn crashes

Crash Reduction Potential:
- 78% (conversion from a signalized intersection)
- 82% (conversion from an intersection with 2 stop signs)

* 11. How supportive are you of implementing roundabouts at **signalized intersections**?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

* 12. How supportive are you of implementing roundabouts at **intersections controlled by stop signs**?

- ◯ Very supportive
- ◯ Supportive with some concerns
- ◯ Not supportive

13. Do you have any other comments or feedback on roundabouts? If you have concerns or are not supportive of roundabouts, please share why.

Safety Solutions (continued)

Red Light Cameras and Speed Cameras

Red light cameras and speed cameras are an automated system that photograph drivers and vehicles that run red lights and that are traveling faster than the legal speed limit on the roadway. Drivers are ticketed for the violation, holding them accountable for dangerous behavior.

Crash Types it Addresses:
- T-bone crashes (at traffic signal)
- Speed-related crashes
- Rear end

Crash Reduction Potential:
- 25% (red light camera)
- 54% (speed camera)

* 14. How supportive are you of implementing **red light cameras**?

◯ Very supportive

◯ Supportive with some concerns Not

◯ supportive

* 15. How supportive are you of implementing **speed cameras**?

◯ Very supportive

◯ Supportive with some concerns Not

◯ supportive

16. Do you have any other comments or feedback on red light cameras or speed cameras? If you have concerns or are not supportive of red light or speed cameras, please share why.

Project Prioritization

Boulder County will consider several factors when deciding how to prioritize implementation of recommended projects in the Action Plan.

* 17. How important is each of these factors to you when it comes prioritizing safety projects?

	Not important	Somewhat not important	Neutral	Somewhat important	Very important
Places where there are more known/historical crashes	◯	◯	◯	◯	◯
Prioritizing vulnerable populations (for example: elderly, young children, low income, etc.)	◯	◯	◯	◯	◯
Locations that make it safer for walking and biking	◯	◯	◯	◯	◯
Locations where people feel unsafe based on Summer 2024 community feedback	◯	◯	◯	◯	◯

Safety Solutions Wrap-Up

18. Do you have any other comments or feedback on safety solutions or prioritization?

Demographic Questions (optional)

19. Please identify your gender:

- ◯ Male
- ◯ Female
- ◯ Nonbinary
- ◯ Transgender
- ◯ Prefer not to answer

20. Please select one (or more) of the following to describe your race/ethnicity. Please select all that apply.

- ☐ African American or Black
- ☐ American Indian or Alaskan Native
- ☐ Asian American
- ☐ Cuban
- ☐ Puerto Rican
- ☐ White
- ☐ Native Hawaiian or Pacific Islander
- ☐ Latino/Latina/Latinx, Mexican, Mexican American, Chicana
- ☐ Other, please specify:

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