Gallatin County

Safe Streets For All

Action Plan

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Prepared for:
Gallatin County

May 12, 2025

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Acknowledgments

Numerous individuals contributed to the successful completion of this study. The following people offered guidance, support, and technical expertise throughout its duration.

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Abbreviations and Acronyms

ADAS......Advanced Driver Assistance System
DUI......Driving Under the Influence
EMS......Emergency Management Systems
EMS......Emergency Medical Services
HIN......High Injury Network
ITS......Intelligent Transportation Systems
MDT......Montana Department of Transportation
MHP......Montana Highway Patrol
mph......Miles Per Hour
MPO......Metropolitan Planning Organization
MUTCD......Manual on Uniform Traffic Control Devices
NOFO......Notice of Funding Opportunity
OPI......Office of Public Instruction
RPA......Robert Peccia and Associates
SSA......Safe System Approach
SS4A......Safe Streets for All
USDOT......US Department of Transportation
VMS......Variable Messaging Sign
VSL......Variable Speed Limit

Executive Summary

ES 1. Introduction

Gallatin County was awarded funds from the Safe Streets and Roads for All (SS4A) discretionary grant program to develop an Action Plan aimed at addressing significant safety concerns within the community. This plan outlines specific strategies, projects, programs, and policies to reduce fatalities and serious injuries across the county, with a focus on the rural areas outside of Bozeman and Belgrade, which are conducting their own SS4A planning efforts. While efforts to improve safety in the county have been ongoing for years, the SS4A Action Plan presents an opportunity to closely analyze crash trends and further explore current safety issues to enhance road safety in Gallatin County.

ES 2. Outreach and Engagement

Development of the Action Plan involved comprehensive outreach to understand community concerns, share updates on progress, and involve the community in actively creating safer streets for all users.

Task Force

A Task Force was assembled to lead the development of the Action Plan. The Task Force included representatives from various county departments, Montana Department of Transportation (MDT), community leaders, and local safety partners. Members were selected for their expertise, resources, and commitment to promoting transportation safety improvements in the community.

Safety Summit

On March 12, 2025, Gallatin County hosted a Safety Summit to bring together community leaders from various disciplines to collaborate on strategies, projects, and policies aimed at addressing Gallatin County's key safety concerns.

Public Outreach

Throughout the study, multiple public outreach events were organized to update the community on the Action Plan's progress and gather feedback regarding safety needs and concerns. This included two 30-day virtual open houses, a public priorities survey, and a formal review period for the draft Action Plan.

ES 3. Baseline Data and Focus Areas

For this effort, the MDT Traffic and Safety Engineering Bureau provided crash data for the **5-year period** from January 1, 2019, to December 31, 2023. MDT's crash records included a total of **6,739 crashes** reported within Gallatin County but outside the city limits of Bozeman and Belgrade over the 5-year analysis period. Analysis of the crash records helped identify the most pressing safety concerns within the county.

Identifying the types of crashes predominantly contributing to community safety problems can help in effectively expending limited resources. For the *Gallatin County SS4A Action Plan*, four focus areas were identified:

- **Run-off-the-Road Crashes**
- **Intersection Crashes**
- **Driver Age** *(Younger and Older Drivers)*
- **High Risk Behaviors** *(Speed, Impairment, Seatbelt Use, Distractions)*

ES 4. Leadership Commitment and Goals

The overarching goal of the SS4A program is to eliminate roadway fatalities and serious injuries. Accordingly, Gallatin County has committed to the **eventual goal of zero fatalities and serious injuries** on its roadways. As a reflection of this commitment, Gallatin County has adopted the following interim goal (**Figure ES.1**):

Reduce the number of combined fatalities and suspected serious injuries on roadways in the Gallatin County SS4A planning area by half, from 46 in 2025 to 23 in 2034, through implementation of the SS4A Action Plan.

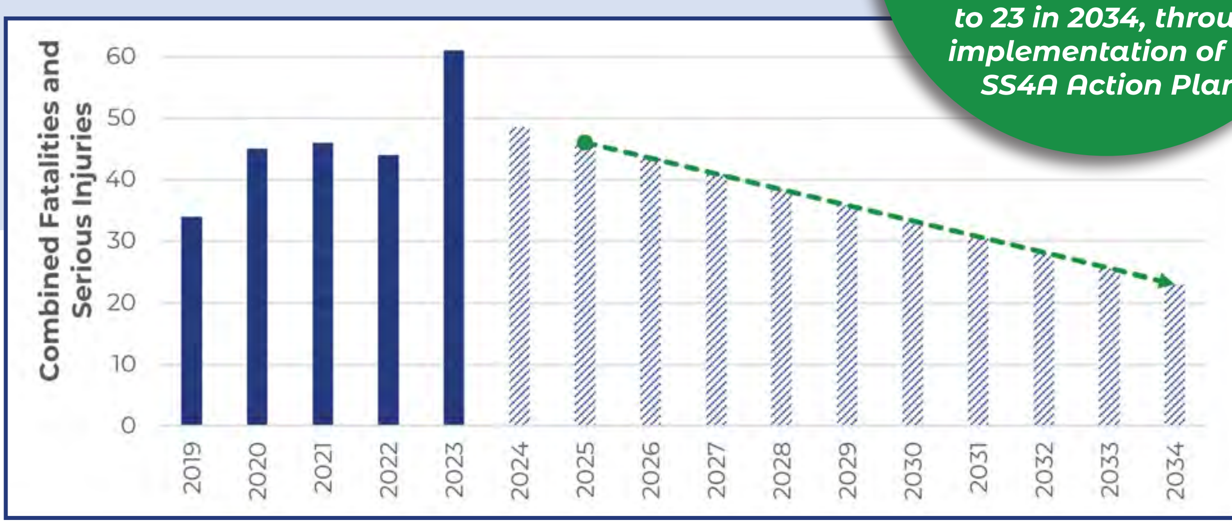


Figure ES.1: Gallatin County Interim Safety Goal

ES 5. Strategy Identification

Individual strategies were identified with the intention of reducing fatalities and serious injuries in Gallatin County and generally improving transportation safety. The strategies provide example projects, programs, and policies for reference as Gallatin County and its partners work towards safer streets for all users. These strategies can be used to assist in the future identification, development, and implementation of specific projects in the county.

Run-Off-The-Road Strategies

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing

Intersection Strategies

- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Install or Enhance Signalized Intersections

Driver Age Strategies

- Educate Young Drivers on Safe Driving Practices
- Ensure Older Drivers are Fit to Drive
- Design the Transportation System to Ensure Accessibility for Users of All Ages

High Risk Behavior Strategies

- Promote Safe Driving Behaviors
- Eliminate Impaired Driving
- Manage Vehicular Travel Speeds
- Decrease Distracted Driving
- Increase Occupant Protection

ES 6. Project, Policy, and Program Identification

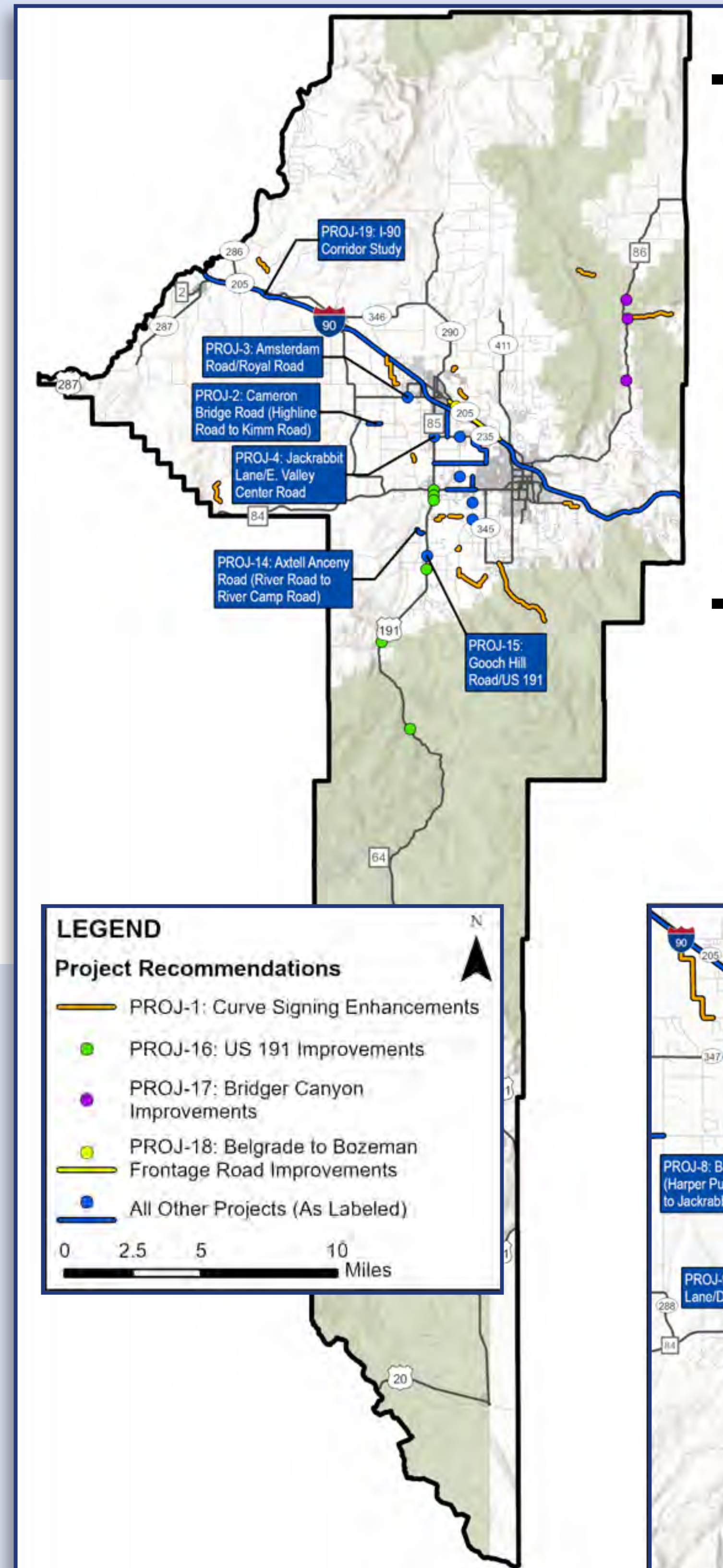
Several projects, programs, and policies are recommended to proactively address identified safety concerns from all angles, including infrastructure improvements, programs targeted at safe behaviors, and policy-based changes. The **19 recommended projects** are illustrated in **Figure ES.2**, while the recommended programs and policies are listed below.

Programs

- PROG-1: Curve Signing Program
- PROG-2: Shoulder Widening Program
- PROG-3: Passing Zone Review Program
- PROG-4: Roadside Management and Vegetation Control Program
- PROG-5: Systemic Safety Program
- PROG-6: Annual Crash Data Review Program
- PROG-7: Driver Age Programs
- PROG-8: High Risk Behavior Programs

Policies

- POL-1: Snow Removal Priority Routes
- POL-2: Street Lighting Standards
- POL-3: Cell Phone Policy
- POL-4: Corridor Access Management



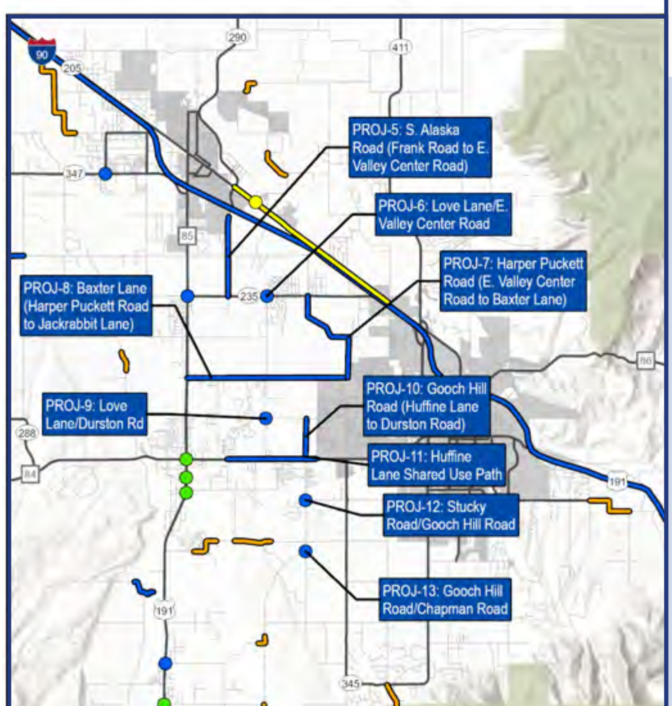


Figure ES.2 Recommended Safety Projects

ES 7. Project Prioritization and Implementation

A key requirement of the SS4A program is to prioritize identified projects into specific time ranges for the deployment of safety countermeasures within the community. The **prioritization process involved evaluating projects based on criteria such as crash history, past planning efforts, estimated cost, and community and agency support**. Projects were scored and categorized into high, medium, and low priority levels to ensure that resources are focused on the most impactful safety improvements.

The *Gallatin County SS4A Action Plan* aims to improve transportation safety within the county, with the goal of reducing combined fatalities and suspected serious injuries through the implementation of the Action Plan. Gallatin County aims to secure additional SS4A grants to fund implementation of the projects and strategies contained in the Action Plan.

Future demonstration grant applications could be considered for the following list of potential programs or pilot projects to **help inform future implementation activities or systematic project implementation**.

1. **PROG-1: Curve Signing Program –** Pilot the use of the tiered curve signing techniques at high-risk curves.
2. **PROG-3: Passing Zone Review Program –** Conduct a county-wide evaluation of passing zones to ensure compliance with current MUTCD standards.
3. **POL-2: Street Lighting Standards –** Pilot the implementation of temporary street lighting at a high-risk intersection.

Future implementation grant funding applications could be considered for the following list of **High Priority projects** that would be outside the ability of Gallatin County or MDT to fund in the short-term.

1. **PROJ-5: Alaska Road (Frank Road to E. Valley Center Road)**
2. **PROJ-9: Love Lane/Durston Road**
3. **PROJ-11: Huffine Lane Shared Use Path**

As the Action Plan is implemented, Gallatin County will prioritize executing the identified projects while maintaining a proactive approach to addressing emerging safety concerns. The strategies outlined in the plan serve as a toolbox for developing new initiatives as needed to respond to changing trends. In addition, the county will implement programs and policies that foster continuous safety improvements, ensuring ongoing progress. Through regular evaluation and adjustments, the county will remain responsive to evolving transportation safety needs. To support this commitment, an *Annual Safety Report* will be prepared each year, offering an opportunity to reassess project priorities, evaluate community needs, and identify new projects. Achieving meaningful improvements in transportation safety will require collaboration across the **4 E's of Safety: Education, Enforcement, Engineering, and EMS.**

Chapter One

1. Introduction

Gallatin County was awarded funds from the Safe Streets and Roads for All (SS4A) discretionary grant program to complete an Action Plan identifying the most significant safety concerns in the community with implementation steps for projects and strategies to address those issues and **reduce fatalities and serious injuries** within the county. Completion of the *Gallatin County SS4A Action Plan* will enable the county to apply for other grant funds under the SS4A program to complete supplemental planning, future demonstration activities, or project implementation as needed to fulfill the identified needs of the Action Plan.

1.1. National Guidance

The SS4A discretionary grant program was established by the Bipartisan Infrastructure Law/Infrastructure Investment and Jobs Act in 2021. The program was established to fund regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries through planning and implementation efforts. The SS4A program supports the US Department of Transportation's (USDOT) Vision Zero – a goal of zero roadway deaths – using the Safe System Approach (SSA) (illustrated in **Figure 1**) which aims to address the safety of all road users, with specific focus on improving safety culture, increasing stakeholder collaboration, and considering the human element in crash severity reduction.

In alignment with the Vision Zero and SSA initiatives, the SS4A program provides funding to localities to help develop tools to strengthen the community's approach to roadway **safety for all roadway users** including vulnerable road users (pedestrians, bicyclists, other cyclists, and personal conveyance and micromobility users), public transportation users, motorcyclists and motor vehicle users, and commercial vehicle operators. Top priorities for the SS4A program include the following:

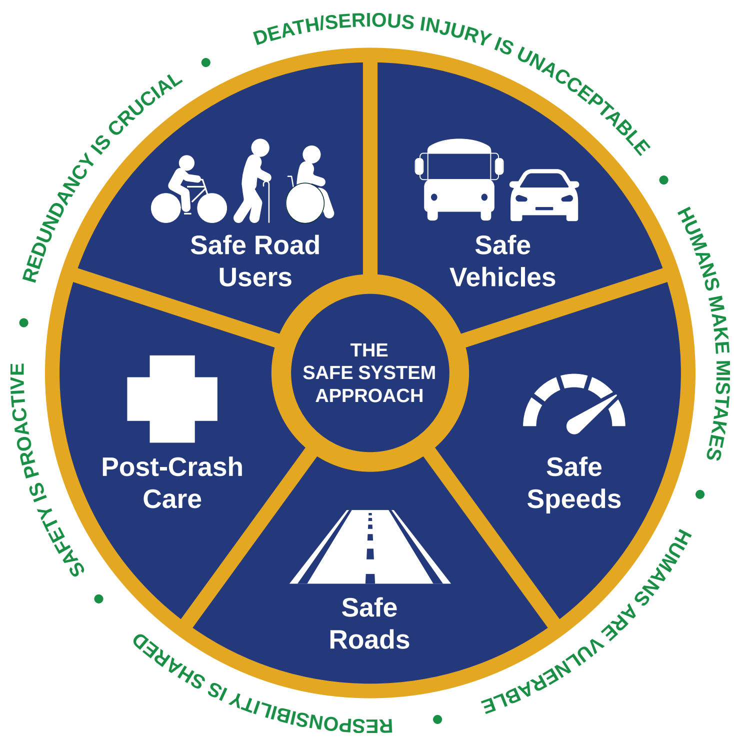


Figure 1: USDOT Safe System Approach

- Safety promotion to reduce roadway fatalities and serious injuries
- Low-cost, high-impact strategies
- Equitable investment in underserved communities
- Evidence-based and innovative projects and strategies
- Public and stakeholder engagement
- Alignment with the USDOT mission and priorities

1.2. Planning Area

The planning area focuses on **Gallatin County boundaries, excluding the Cities of Bozeman and Belgrade**, based on boundaries as of August 27, 2024, and April 3, 2024, respectively. These cities are conducting their own SS4A planning efforts within their city limits, so the *Gallatin County SS4A Action Plan* excludes these areas. This approach avoids overlap and allows for a focused effort on rural areas. Ongoing coordination between Gallatin County and the cities will ensure alignment across all SS4A planning efforts. **Figure 2** provides a map of the planning area.

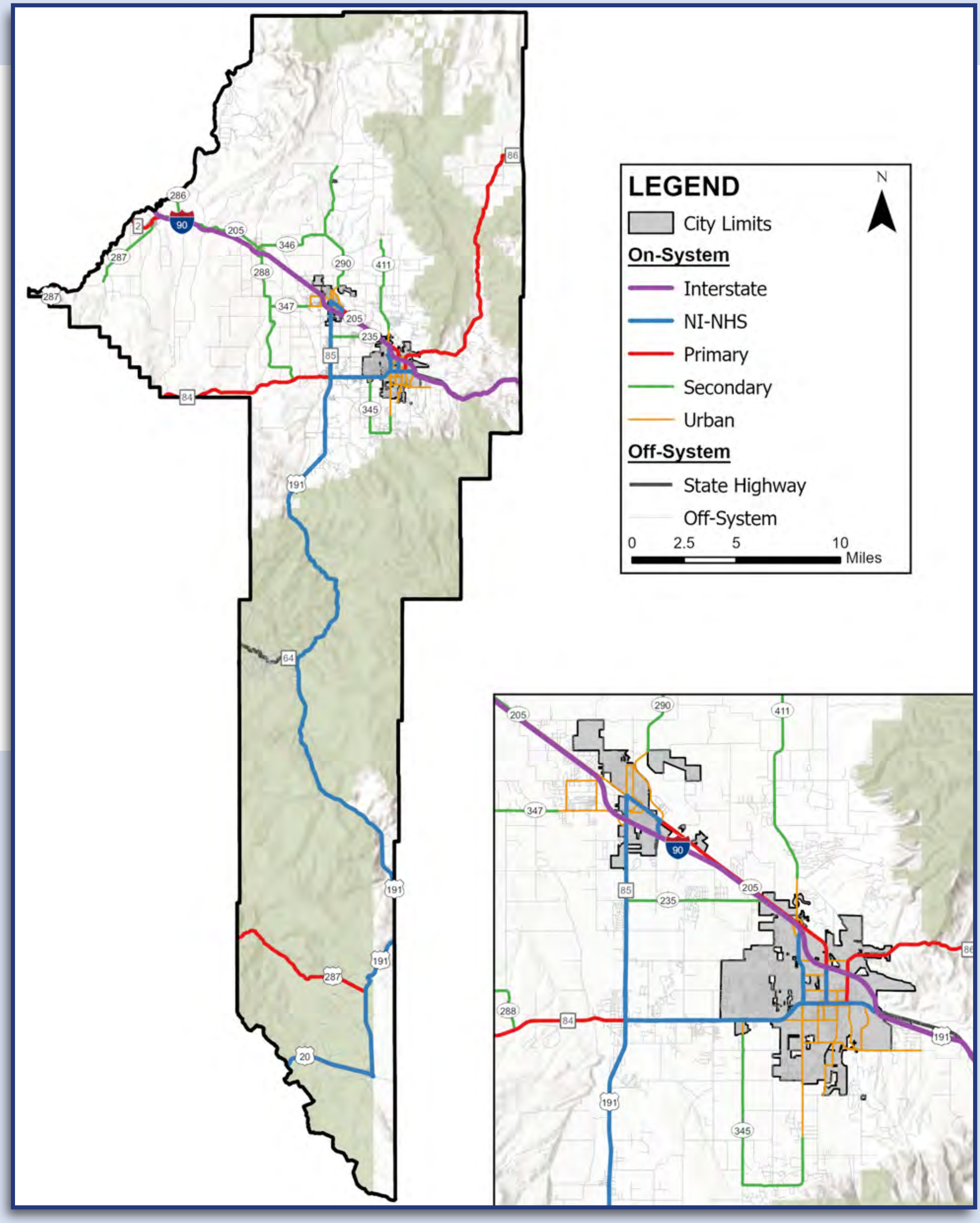
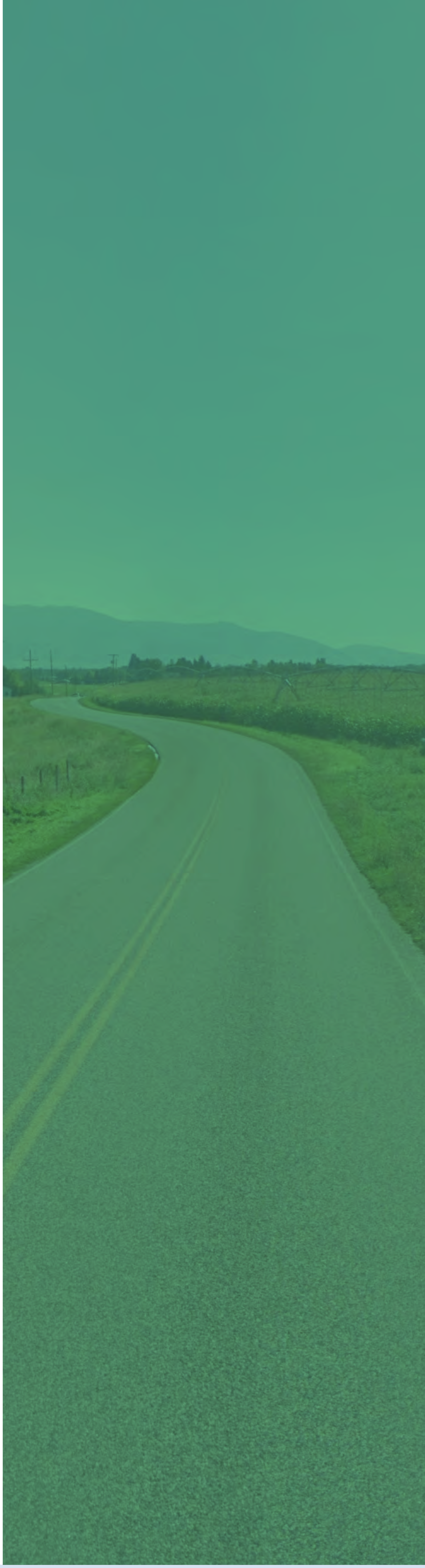


Figure 2: Gallatin County SS4A Planning Area

1.3. Relevant Plans, Programs, Policies, and Procedures

Efforts to improve safety in Gallatin County have been ongoing for many years and are reflected in past and ongoing initiatives. The *Gallatin County SS4A Action Plan* provides an opportunity to closely examine crash trends and explore current safety concerns in greater detail. This Action Plan is designed to complement and integrate with previous planning efforts, current programs and policies, and other relevant procedures established by the county, Montana Department of Transportation (MDT), and other partner agencies.

As an initial step in the process, a review of the county's past planning efforts was conducted to ensure the Action Plan aligns with the community's overall safety goals and priorities and addresses any previously identified safety concerns. Another key component of SS4A Action Plan is an assessment of the county's current programs, policies, procedures, plans, guidelines, and standards to identify opportunities to improve how established processes prioritize transportation safety. The following documents, programs, policies, and standard procedures were reviewed.



Past Plans

- Greater Triangle Area Transportation Plan (2022)
- Triangle Area Trails Plan (2021)
- Gallatin County Growth Policy (2021)
- Triangle Community Plan (2020)
- US 191 Corridor Study - Four Corners to Beaver Creek (2020)
- Belgrade to Bozeman Frontage Road Corridor Study (2017)
- Bridger Canyon Corridor Planning Study (2015)

Current Standards and Procedures

- Gallatin County Transportation Design and Construction Standards
- Gallatin County Subdivision Regulations
- Gallatin County Zoning Regulations
- Gallatin County Code of the West

Relevant Safety Programs

- Gallatin County DUI Task Force
- Gallatin County Court Services
- Gallatin County Community Notification System
- Car Seat Safety Checks

Chapter Two

2. Outreach and Engagement

Development of the Action Plan involved comprehensive outreach to understand community concerns, share updates on progress, and involve the community in actively creating safer streets for all users. Engaging with community members not only provided valuable insights but also fostered a sense of ownership and collaboration in the planning process. Additional information is provided in **Appendix A**.

2.1. Task Force

To guide the development of the Action Plan, a multidisciplinary group of stakeholders comprising representatives from various county departments, MDT, community leaders, and local safety partners formed the SS4A Task Force. Since this Task Force is expected to assist county staff in implementing the *Gallatin County SS4A Action Plan*, members were selected for their expertise, resources, and commitment to promoting transportation safety improvements in the community. Throughout the planning study, multiple Task Force meetings were held to engage these key partners at critical stages of the plan's development, ensuring their insights and feedback were integrated throughout the process.

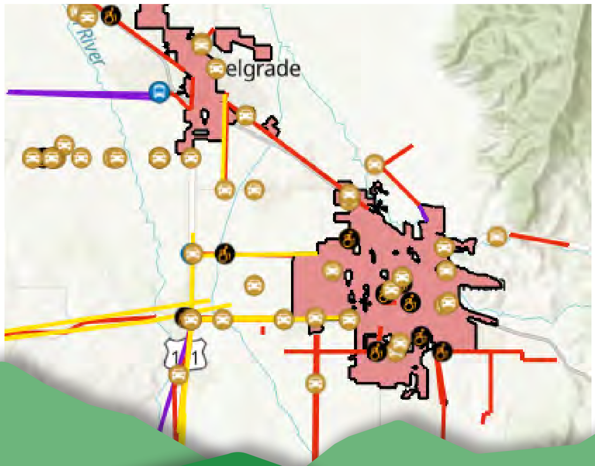
2.2. Website

A dedicated website was created to support ongoing public engagement and provide information throughout the planning process. It included contact details, an overview of the process, meeting announcements, frequently asked questions, finalized documents, and a link to an online commenting map for public input. The website also hosted two virtual public meetings, as described in **Section 2.4**.

www.GallatinCountySS4A.com

Commenting Map

An interactive commenting map hosted on the ArcGIS platform allowed the public to share feedback throughout the planning process. Community members could leave notes, highlight areas of concern, and engage with others' comments. During the study, **174 unique comments and 38 replies were posted**. This platform facilitated valuable community input and helped effectively shape the Action Plan.



Survey

A survey was developed to **collect feedback from the public on priorities and key safety concerns**. Its purpose was to engage the community in the planning process and ensure that residents' voices were heard. The survey results were also used to tailor recommendations and ensure the Action Plan reflected the community's needs and concerns.

The survey was active throughout the month of December, coinciding with Virtual Open House #1. A total of **96 responses** were collected. The following takeaways were observed:

- The majority of respondents use a personal vehicle as their primary mode of transportation, though many also walk, bike, or carpool. Public transportation is used by fewer residents.
- Residents believe Gallatin County's roadways are safest for drivers, freight operators, and public transportation users, but most unsafe for non-motorists and motorcyclists.
- The community generally feels that drivers in the county are distracted, impatient, aggressive, and fast. Top perceived causes of crashes include distractions, excessive speeding, driving under the influence, congestion, and lack of enforcement.
- The community believes that infrastructure improvements, roadside enhancements, and traffic calming are the most effective strategies to improve safety in Gallatin County.

The community's top focus areas for addressing fatal and serious injury crashes include inattentive drivers, speed, impairment, and intersection crashes as shown in **Figure 3**.

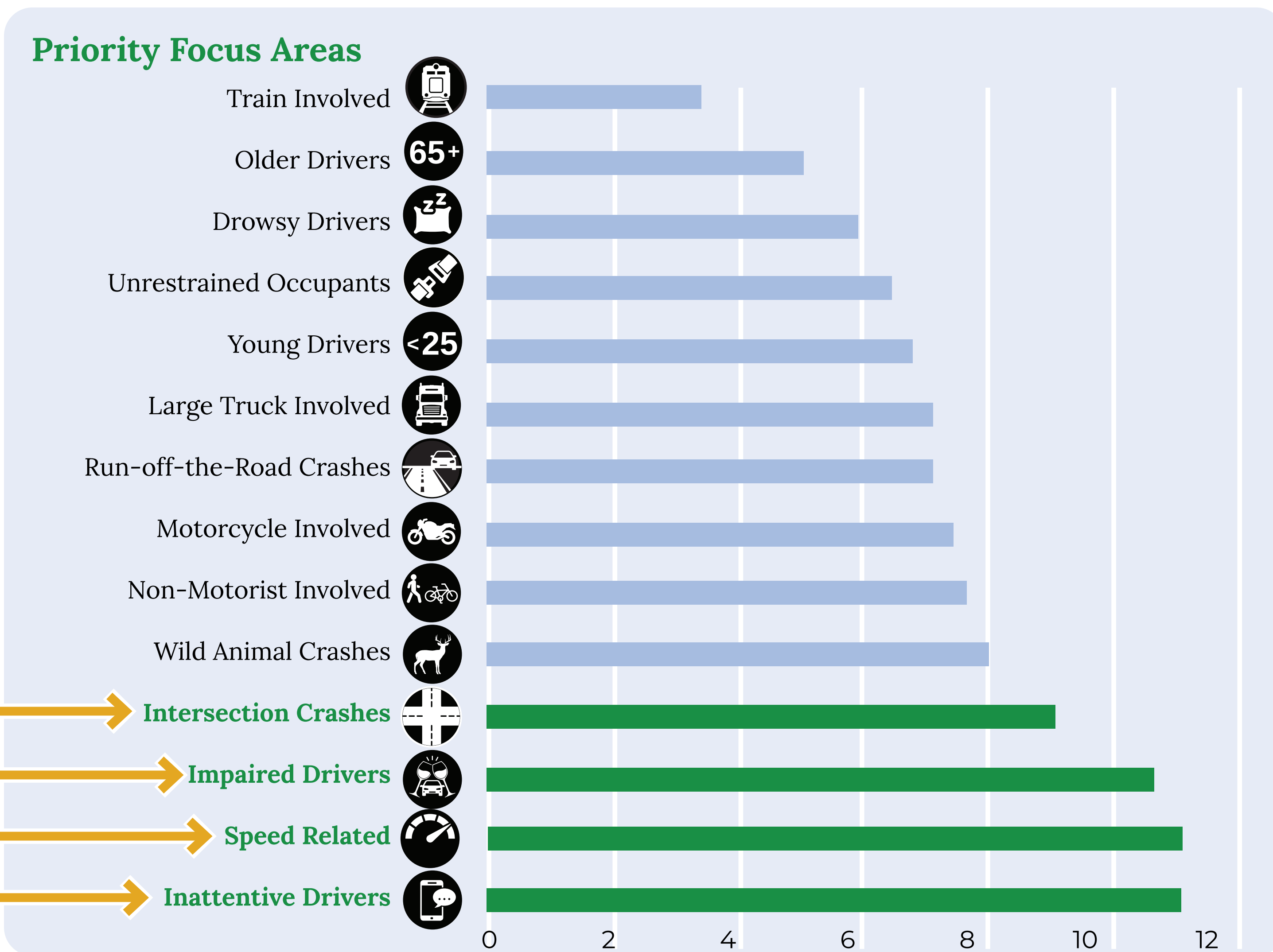


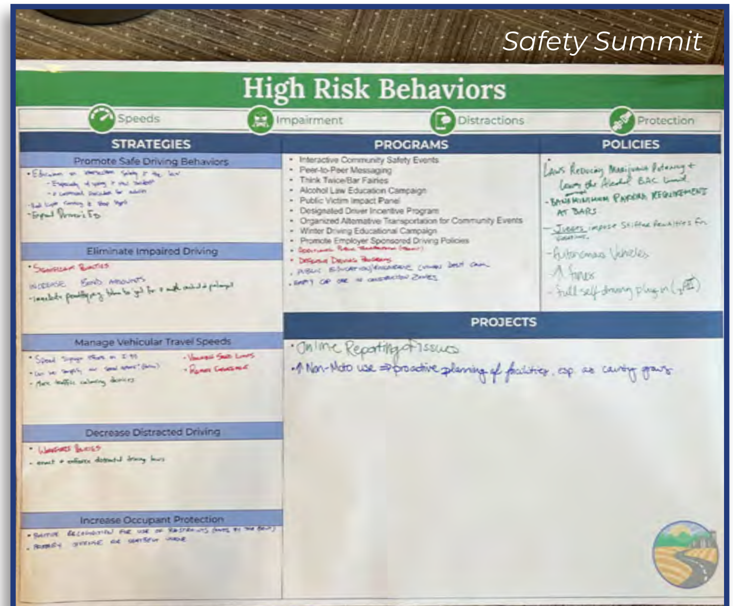
Figure 3: Public Priority Focus Areas (Survey)

2.3. Safety Summit

On March 12, 2025, Gallatin County hosted a Safety Summit at the Gallatin County Detention Center Community Room. The purpose of the summit was to **bring together community leaders from a variety of disciplines**, including engineering, law enforcement, public health, education, emergency response, and multimodal advocacy, to collaborate on strategies, projects, and policies aimed at addressing Gallatin County's key safety concerns. The event also provided an opportunity to **build support for the implementation of the Action Plan**, ensuring a coordinated effort to improve road safety across the county.

Formatted as an in-person workshop, the summit began with an overview of the SS4A program and a discussion of the planning process. This was followed by roundtable discussions on the four focus areas: intersection crashes, run-off-the-road crashes, driver age, and high-risk behaviors. A total of **27 stakeholders participated**, contributing their insights and expertise related to transportation safety. The event concluded with a group report-out, where participants identified opportunities and strategies to improve safety and reduce traffic fatalities and serious injuries in Gallatin County. Members of the planning team facilitated the event, answering questions and guiding the dialogue, ensuring a collaborative and productive session.

Safety Summit



Safety Summit

Safety Summit

KEY TAKEAWAYS

- **Improve Roadside Design** *(Shoulders, Ditches, Slopes, etc.)*
- **Improve Intersection and Roadway Lighting**
- **Increase Driver's Education Opportunities**
- **Increase Fines & Penalties for High Risk Driving**

2.4. Public Outreach

Throughout the study, multiple public outreach events were organized to update the community on the Action Plan's progress and gather feedback regarding safety needs and concerns. Advance notice for each informational meeting was provided through various channels, including news releases sent to local newspapers and news stations, announcements shared via social media, emails to study contacts, and updates on the study website.

Virtual Public Meeting #1

The first Virtual Open House for the SS4A program was hosted on the project website from **Friday, December 6, 2024, to Sunday, January 5, 2025**. The purpose of the open house was to explain the SS4A program and planning process, share initial findings, gather feedback on preliminary issues and concerns within the study area, and identify community priorities for the effort.

A video was created to provide a high-level overview of the SS4A program, the development of the Action Plan, and its intended outcomes. Informational sheets summarizing key takeaways from the baseline data review were also provided to disseminate initial findings and supplement the online engagement tools.

To facilitate public participation, several engagement tools were made available. The survey, noted previously, was heavily advertised during the virtual public meeting to ensure a broad representation of community priorities and safety concerns, ensuring that participants had the opportunity to voice their opinions. An online commenting map was promoted to gather feedback on problem areas within the transportation network. A Mentimeter poll featuring open-ended questions such as **"What can YOU do to improve transportation safety in Gallatin County?"** encouraged self-reflection on safety behaviors. Participants were invited to submit feedback through these interactive platforms or by providing written responses directly to the planning team.

This virtual open house successfully engaged the community, allowing for a wide range of input to inform the SS4A planning process. Over the month-long engagement period, the survey gathered 96 responses, the comment map collected 175 comments, 9 responses were submitted via the Mentimeter poll, and 19 written comments were also received. **Figure 4** shows the website engagement over the virtual open house period.

" Look out for pedestrians and bicycles on the roadway and at crosswalks. "

" Better maintain roadway surfaces, fill pot holes and broken pavement at intersections. "

" Discourage tailgating and speeding (with low law enforcement leading by example!) Create more signage for speed and control dangerous intersections. "

Figure 4: Website Engagement – Virtual Open House #1

Virtual Public Meeting #2

A second virtual open house was hosted on the project website from **Friday, April 4, 2025, to Sunday, May 4, 2025**. The open house provided an overview of the study's progress, summarized the proposed strategies, projects, programs, and policies, and offered access to the draft Action Plan. The virtual open house was held over a 30-day period, coinciding with a formal public review period for the draft plan.

The open house included a variety of interactive content to share information about the Action Plan. A short video provided the public with a high-level overview of the draft plan and proposed recommendations. More detailed information on the proposed strategies, recommendations, and prioritization process was presented through graphical exhibits. An interactive survey was also included to help the project team confirm the proposed project recommendations and prioritization approach.

The survey asked participants to rank each proposed project recommendation by priority (Highest Priority, High Priority, Medium Priority, Low Priority, Lowest Priority) and to indicate if any key project locations were missing. A total of 18 people participated in the survey.

Figure 5 summarizes the prioritization results, including a composite score for each project. The composite score was calculated by assigning 5 points to "Highest Priority" responses and 1 point to "Lowest Priority" responses, then dividing by the total number of responses. The maximum possible score was 5.

PROJ-11: Huffine Shared Use Path received both the highest number of total responses and the most "Highest Priority" selections. **PROJ-16: US 191 Improvements** received fewer responses but achieved the highest composite score. The lowest-priority projects were PROJ-14: Axtell Anceny Road, PROJ-3: Cameron Bridge Road, and PROJ-1: Curve Signing Enhancements.

Overall, the survey results generally aligned with earlier community feedback, with the exception of PROJ-3, which received several comments on the interactive map but was ranked lower in the survey.

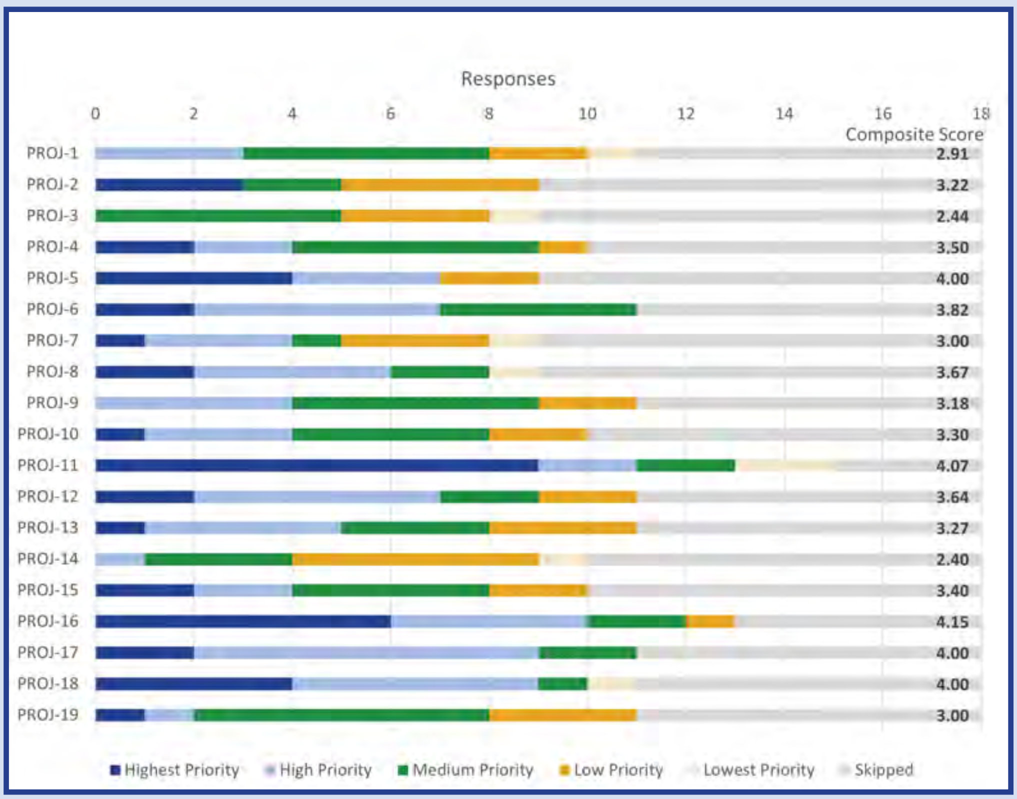


Figure 5: Virtual Open House #2 Prioritization Results

2.5. Public Comments

Throughout the planning process, a variety of public comments were collected through multiple channels, including the plan website, direct communication with study representatives, the online commenting map, and interactive exercises during virtual public meetings. This diverse feedback allowed community members to express their concerns and suggestions regarding transportation safety. Below is a summary of the key themes.

- **Increased bicycle/pedestrian infrastructure:** Many respondents emphasized the need for safer, more accessible facilities for cyclists and pedestrians. There was a strong call for expanding and improving shared-use paths, bike lanes, and widened shoulders in rural areas.
- **Lack of shoulders on county roads:** A common concern was the absence of shoulders on many county roads, which leaves little recovery space for vehicles, especially in adverse weather and road conditions. The lack of shoulders also poses a danger for cyclists and pedestrians who must share the roadway with vehicles. Residents suggested adding wider shoulders to heavily trafficked county roads.
- **Increased transit options:** Public transportation was identified as an area in need of improvement. Many respondents expressed interest in expanding bus routes to areas like Four Corners, increasing service frequency, and providing more accessible transit options, particularly for residents in rural areas without personal vehicles.
- **Slower traffic speeds:** Many community members felt that speeding was a major factor contributing to crashes and felt that lowering speed limits in certain areas could help reduce crashes and improve overall safety.
- **Driver distraction:** Many respondents identified distracted driving, such as texting or using a phone while driving, as a significant concern. Some acknowledged their own susceptibility to distractions.
- **Increased connectivity:** There was a strong desire for better connectivity between rural areas and larger communities like Bozeman and Belgrade. This includes improving road access, developing new routes, and better integrating different transportation modes to create a more seamless travel experience for residents.
- **Increased enforcement:** Several comments highlighted the need for more law enforcement to ensure traffic laws are followed, particularly in areas prone to speeding, impaired driving, and distracted driving.
- **Improved roadway maintenance:** Many residents noted that poorly maintained roads—such as those with potholes, faded striping, inadequate signage, or overgrown vegetation—contribute to crashes and hazardous driving conditions. Public input called for more consistent maintenance to improve road conditions and ensure safety for all users.
- **Accommodations for wildlife:** Wildlife collisions were frequently mentioned as a concern, especially in rural areas of the county. Respondents recommended the installation of wildlife crossing signs, underpasses, or overpasses to reduce the risk of wildlife-related incidents and protect both animals and drivers.
- **Difficulty turning from minor streets:** Residents expressed frustration with the difficulty of turning onto major roads from minor streets or driveways, particularly in areas with high traffic volumes. Suggestions included adding turning lanes, improving visibility, or creating better traffic control measures to ease these maneuvers and reduce crashes.

Chapter Three

3. Baseline Data Summary

For this effort, the MDT Traffic and Safety Engineering Bureau provided crash data for the 5-year period from **January 1, 2019, to December 31, 2023**. The data included all crashes that occurred within Gallatin County but outside the city limits of Bozeman and Belgrade. This information includes data from crash reports submitted by Montana Highway Patrol (MHP) officers and local city, county, and federal law enforcement officials. The crash reports are a summation of information from the scene of the crash provided by the responding officer. Some of the information contained in the crash reports may be subjective.

Crash records were analyzed to determine contributing factors, high-risk areas, and behavioral characteristics. User behavior, such as the use of proper safety equipment (i.e., seatbelts or helmets), impairment, and adherence to traffic laws, is analyzed only when a crash is reported. There are likely many other instances in which these and other improper behaviors occur without resulting in a reported crash. The purpose of this analysis is only to analyze the circumstances of reported crashes to identify trends and contributing factors so that the county, in coordination with local stakeholders, can address these issues and improve safety on the community's roadways.

3.1. Data Challenges and Limitations

Although historic crash data can help identify trends in behavioral and circumstantial contributors to crashes within Gallatin County, there are several challenges and limitations that should be acknowledged and considered when drawing conclusions from the data.

- **Underreported Data:** Many crashes, especially those where individuals and vehicles are unharmed, do not get reported to the police. Underreporting can limit the ability to properly and effectively manage road safety, since crash analyses can only be based on reported crash data. Similarly, near-miss occurrences often are not reported due to lack of property damage or injury. Although near-misses do not result in a reportable crash, these experiences can indicate significant safety issues that should be proactively addressed so a crash does not occur in the future.
- **Unknown Data:** For many crash records, various fields are left blank by the reporting officer. Without this information, it may be difficult to capture a complete understanding of what happened before, during, and after a crash.
- **Inconsistent Data:** Inconsistencies in reporting, either by the reporting officer or by the individual entering data into the MHP or state database, can also lead to misrepresentation of crash details.
- **Abbreviated Data:** Often times the abbreviated crash data provided by MDT does not provide a full account of the crash circumstances.

3.2. Crash Characteristics

MDT's crash records included a total of **6,739 crashes** reported within Gallatin County but outside the city limits of Bozeman and Belgrade over the 5-year analysis period. The following sections summarize crash details and other characteristics associated with these crashes. The characteristics summarized in this section were evaluated as reported by the responding officer, and no efforts have been made to correct inconsistencies or fill in missing fields.

Severity

Crash severity is categorized based on the most severe injury resulting from the crash. For example, if a crash results in a possible injury and a suspected serious injury, the crash is reported as a suspected serious injury crash. A suspected serious injury is defined as an observed injury, other than a fatality, which would prevent the injured individual from walking, driving, or normally continuing the activities they were capable of performing before the injury. The term "suspected" references an officer's observation at the time of the crash without follow-up confirmation of the nature of the person's injury. **The term "severe injuries" is used to refer to the combined total of fatal and suspected serious injuries.**

During the 5-year analysis period (2019-2023), a total of 6,739 crashes occurred involving 13,116 individuals. As shown in **Figure 6**, about 20 percent of those crashes resulted in some level of injury, and less than 3 percent were severe. There were 33 fatal crashes, resulting in 38 total fatalities, and 168 suspected serious injury crashes, with 192 total suspected serious injuries. About 14 percent of individuals involved in crashes, were injured to some degree (suspected minor or possible injury) as a result of a crash. Approximately 80 percent of crashes were reported as causing property damage only or as unknown severity.

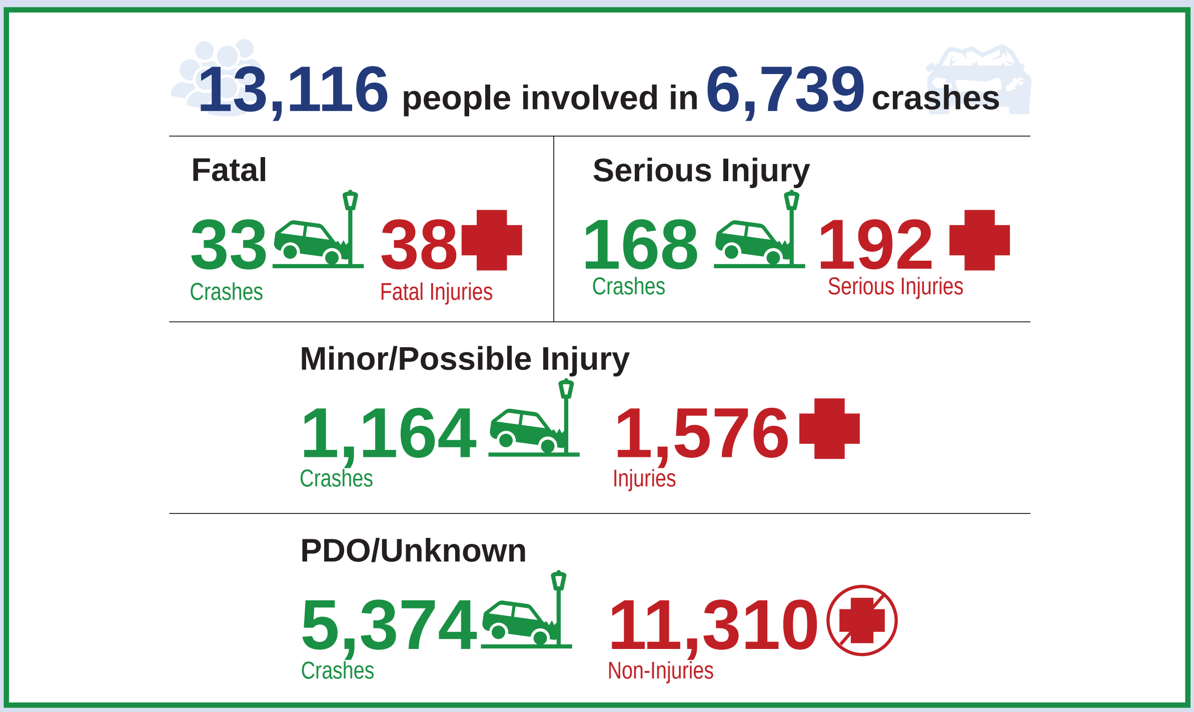


Figure 6: Total Crashes and Injuries

Evaluating crash location can help identify concentrations or area characteristics corresponding to a higher risk of occurrence. **Figure 7** shows the density of crashes across Gallatin County as well as the location of severe crashes within the study area. This map generally shows higher concentrations of crashes in areas with higher traffic volumes which are typically more congested than other areas of the county, leading to greater traffic exposure and a higher risk of conflicts. However, there are several severe injuries on low-volume county roads, which may indicate an area of concern.

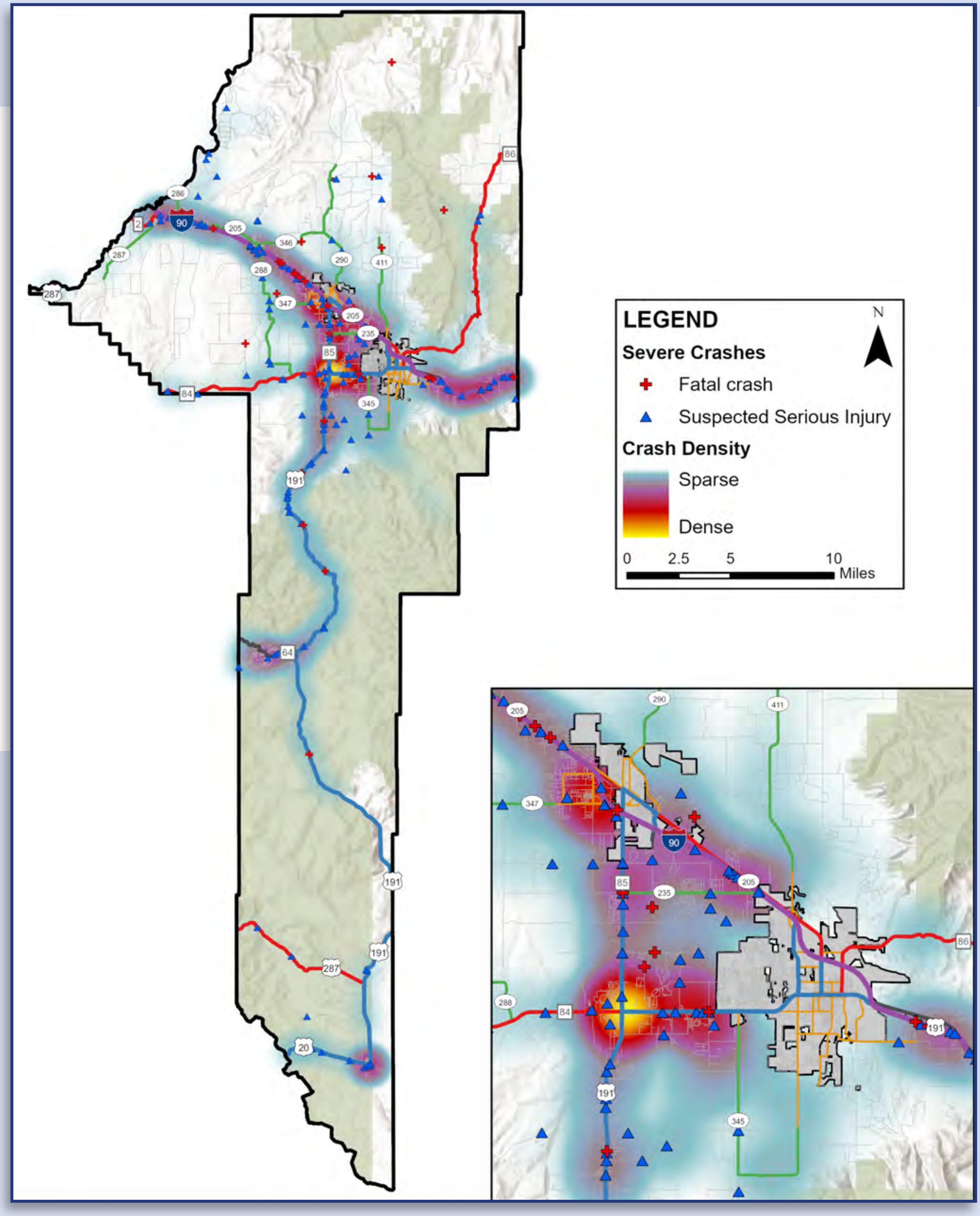


Figure 7: Crash Density and Severe Injury Locations

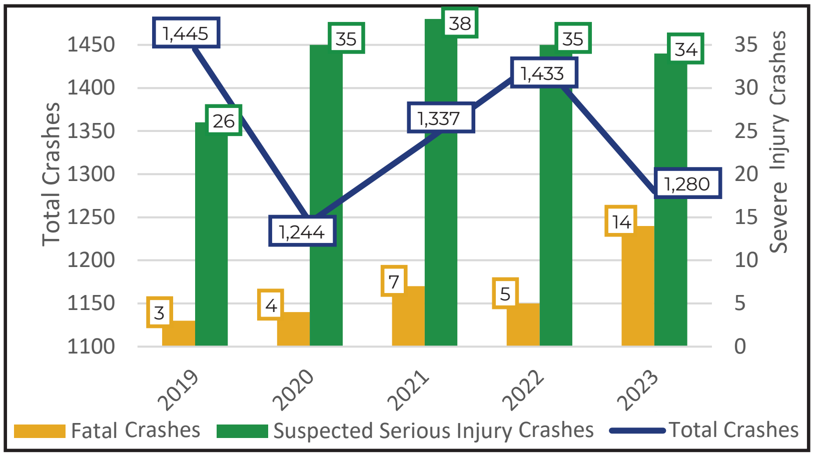


Figure 8: Total Severe Crashes by Year

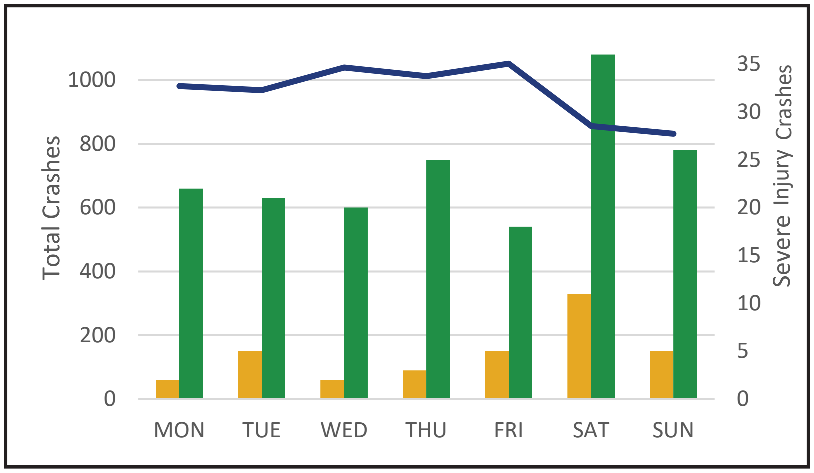


Figure 9: Total Severe Crashes by Weekday

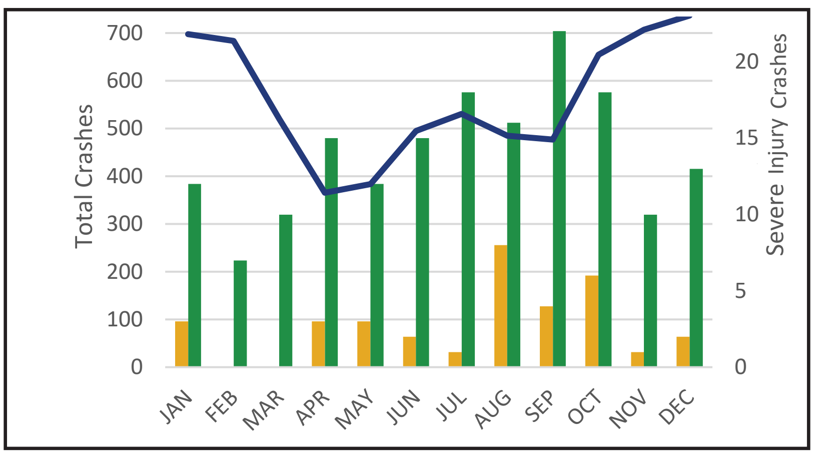


Figure 10: Total Severe Crashes by Month

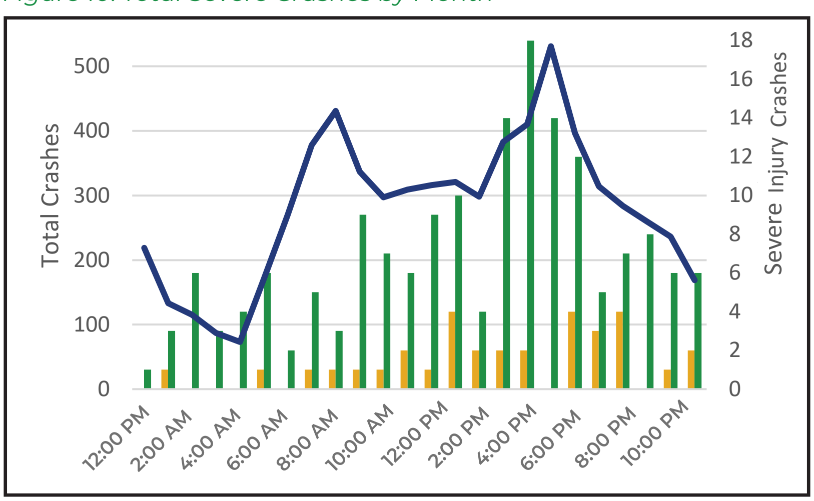


Figure 11: Total Severe Crashes by Hour

Crash Period

The number of total and severe injury crashes reported per year is presented in **Figure 8**. Crash records indicate a dip in total crashes in 2020, likely attributed to decreased driving activity during the COVID-19 pandemic, with an increase back to 2019 levels over 2021 and 2022. The number of reported crashes then decreased back to 2020 levels in 2023. The number of fatal crashes steadily increased over the 5-year period, with a small decrease in 2022. Meanwhile, serious injury crashes rose from 2019 to 2021, then decreased from 2021 to 2023.

The distribution of crashes based on the day of the week on which the crash occurred is presented in **Figure 9**. When evaluating all crashes, a higher number of crashes occurred on weekdays (75 percent) compared to weekends with the most crashes occurring on Friday. This suggests a possible trend with regular commuting patterns and generally higher traffic exposure on weekdays. However, severe crashes occurred more often on weekends.

Figure 10 shows the distribution of reported crashes based on the month in which the crash occurred. Approximately 27 percent of crashes occurred in the fall months (September through November), while 31 percent occurred in the winter months (December through February). Although crashes were lowest in the spring and summer, more severe crashes occurred in fall (30 percent) and summer (30 percent) over the 5 years.

The time-of-day distribution for crashes is presented in **Figure 11**. Prominent peaks can be seen at two points throughout the day, around 8:00 AM and 5:00 PM. Severe crashes generally follow the same pattern with a more distinct peak occurring between 3:00 PM and 6:00 PM. These timeframes likely correspond to morning and evening commutes, and school start and release times when traffic volumes are typically higher, and roadways are generally more congested. Crashes that occur during the evening, late night, and early morning hours (between 7:00 PM and 7:00 AM) make up about 25 percent of all reported crashes. However, these time periods are disproportionately represented in severe crashes (34 percent).

Intersection Relation

As shown in **Figure 12**, approximately 22 percent of all crashes occurred at an intersection or were related to an intersection (i.e., rear-end crashes related to congestion at an intersection). About 4 percent of crashes occurred at a driveway or other access type, while 73 percent occurred at a non-junction location.

In terms of severity, 76 percent of severe crashes occurred at non-junction locations. The distribution of total versus severe crashes occurring at non-junctions is very similar. This indicates that intersections do not appear to significantly influence the occurrence of crashes within the county.

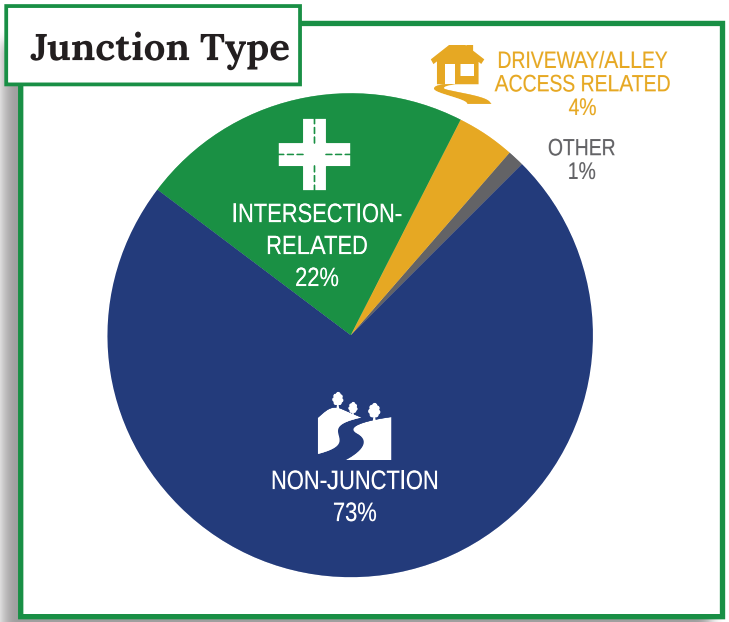


Figure 12: Crash Location

Crash Type

Multi-vehicle crashes accounted for 41 percent of all reported crashes with a total of 2,749 crashes. The most common multi-vehicle crashes were rear-end (14 percent), right-angle (9 percent), and sideswipe crashes (7 percent). Rear-end collisions contributed to 12 percent of severe crashes while right-angle collisions made up 9 percent.

Single-vehicle crashes represented 59 percent of crashes with 3,990 total crashes. Fixed-object crashes were the most common single-vehicle crash type (47 percent) but were responsible for only 15 percent of severe crashes. Fixed objects involved in crashes included utility poles/sign supports, guardrails and bridge rails, curbs, ditches, trees, and fences. Rollover crashes were the next most frequent single-vehicle incidents, (24 percent) and the most common severe crash type (35 percent). Collisions with wild animals accounted for 21 percent of single vehicle crashes.

Figure 13 presents the distribution of multiple- and single-vehicle crashes within the study area.

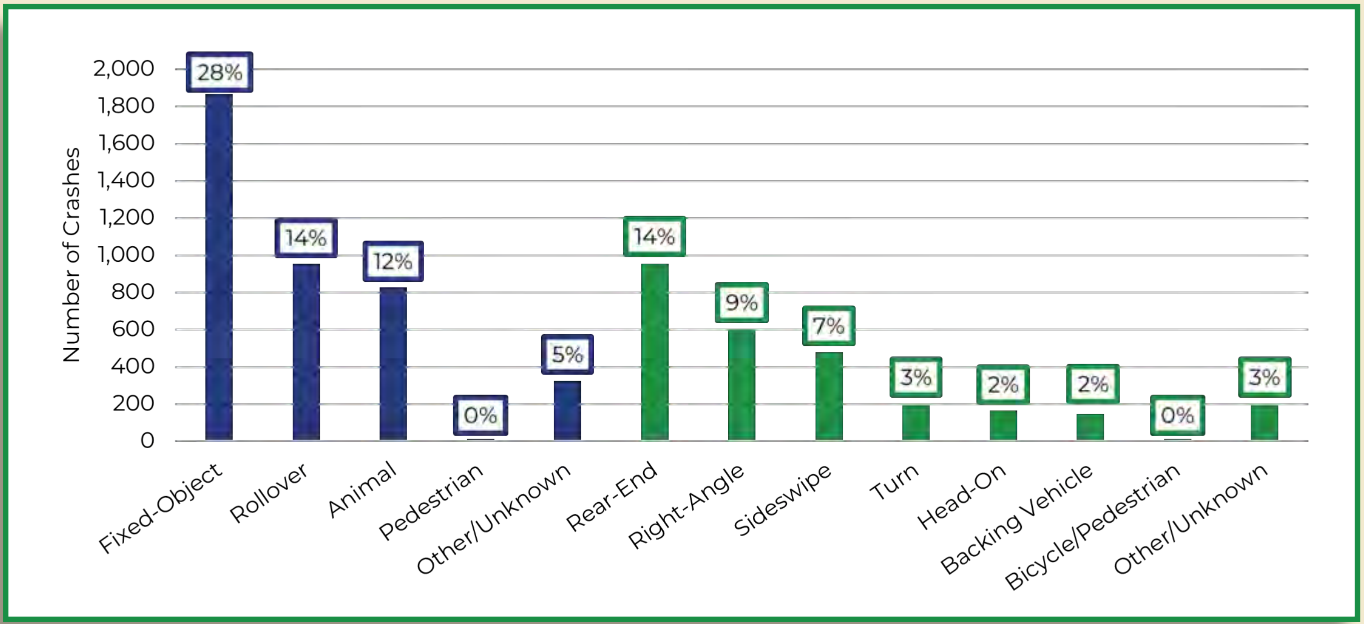


Figure 13: Crash Type

Vulnerable Road User Crashes

Of the 6,739 crashes that occurred during the 5-year analysis period, just under 0.5 percent involved vulnerable road users. A total of **11 bicycle and 13 pedestrian related crashes** occurred within the analysis period. About 27 percent of pedestrian and bicycle crashes were severe. Non-motorists were also reportedly involved in other crash types such as railway vehicle, rear-end, and fixed-object crashes. This indicates that a non-motorist may have been the cause of a crash but not directly involved in the collision. For example, a rear-end crash may occur when a vehicle stops for a pedestrian in a crosswalk, but the following vehicle does not see the pedestrian and does not expect the vehicle in front to stop.

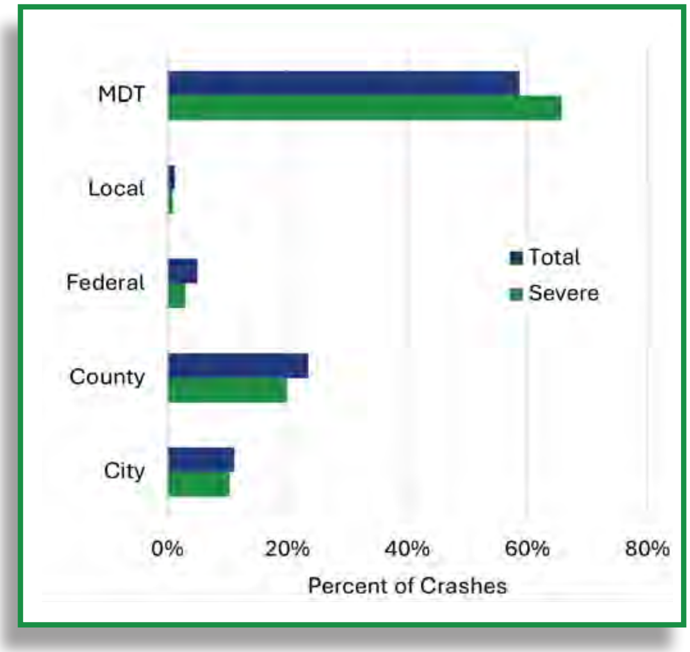


Figure 14: Crashes by Roadway Owner

Roadway Ownership

As shown in **Figure 14**, approximately 59 percent of crashes occurred on MDT routes, while 23 percent of crashes occurred on Gallatin County roads. City-owned routes accounted for 11 percent of crashes, while federally-owned routes (i.e., Forest Service or National Park Service) accounted for 3 percent. Of the severe crashes, 66 percent occurred on MDT routes and 31 percent occurred on locally owned routes. These findings point out the **importance of interagency coordination** since it is not just a single agency that is responsible for the roadways where crashes occur.

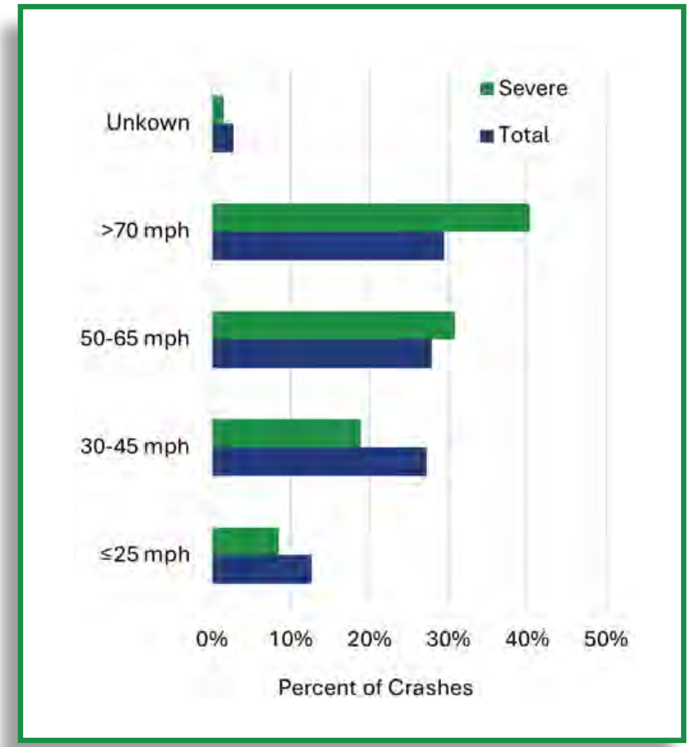


Figure 15: Crashes by Speed Limit

Speed

Figure 15 shows the number of crashes occurring on roadways with various speed limits. While the posted speed limit doesn't necessarily indicate the speed at which a vehicle was traveling at the time of the crash, it is generally a good indication. Approximately 15 percent of crashes occurred on roadways with a posted speed limit of 25 miles per hour (mph) or less, which is typical for local, neighborhood streets. Around 27 percent of crashes took place on roads with speed limits between 30 and 45 mph, while about 28 percent occurred on roadways with speed limits ranging from 50 to 65 mph. The highest percentage of crashes, 29 percent, occurred on routes with speed limits of 70 mph or above.

Crashes occurring at 70 mph or more were much more likely to be severe than crashes occurring at any other speed. Crashes on roads with a speed limit of 70 mph or above were found to be more than twice as likely to result in a serious injury compared to crashes on roads with a speed limit of 25 mph or below.

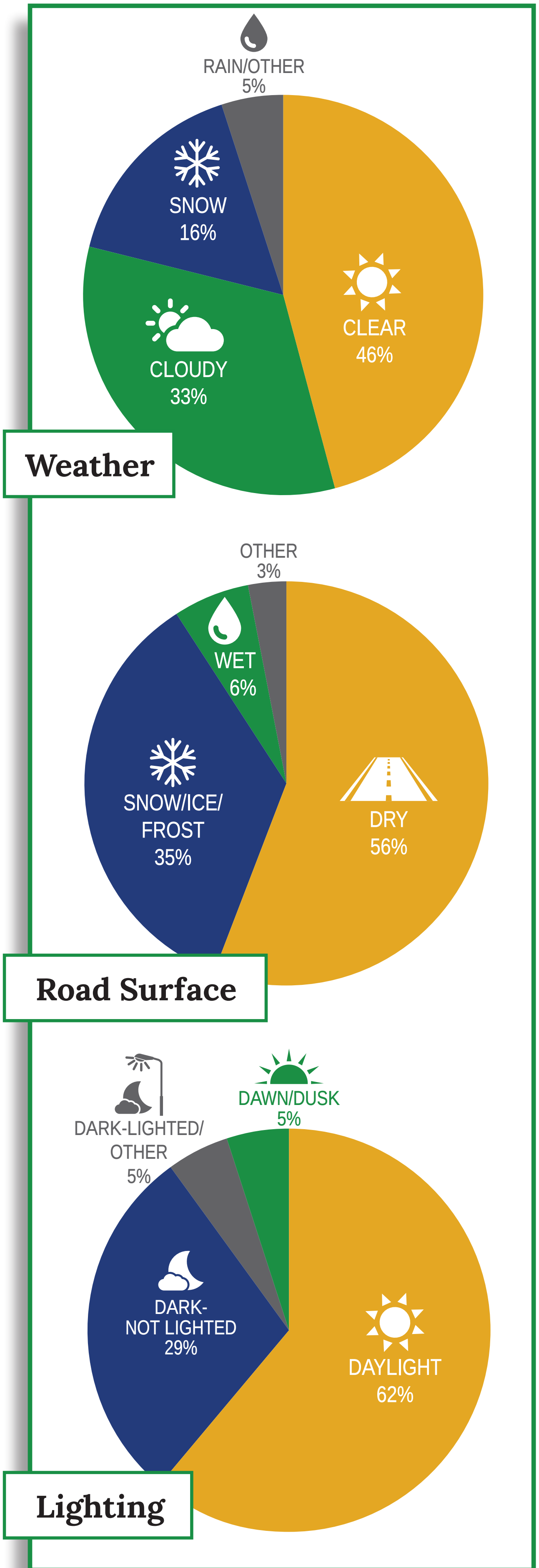


Figure 16: Weather, Road, and Lighting Conditions

Environmental Conditions

Figure 16 illustrates the percentages of crashes that occurred under various weather, road surface, and lighting conditions over the 5-year crash period. **The majority of crashes occurred when the weather was clear or cloudy** (46 and 33 percent, respectively). Approximately 16 percent of crashes occurred when it was snowing, and 3 percent occurred when it was raining. Severe crashes were most likely to occur under clear weather conditions (54 percent) and less likely to happen in adverse weather, with only 8 percent occurring in snow and 3 percent in rain.

While the majority of crashes occurred when the road surface was dry (56 percent), **about 41 percent occurred under adverse road conditions**, including snow-covered (13 percent), icy/frost-covered (22 percent), and wet (6 percent) roads. Of the severe crashes, 73 percent occurred on clear roads, while only 24 percent took place on wet, snowy, or ice- and frost-covered roads. Crashes occurring under adverse road or weather conditions could indicate a lack of maintenance of roadway facilities or a lack of skill, experience, or care driving in adverse conditions, however, this finding is inconclusive.

Overall, 62 percent of crashes in Gallatin County occurred during daylight conditions. About 34 percent of crashes occurred when it was dark outside, with about 85 percent of those **crashes occurring in locations where street lighting was not present**. The remaining 5 percent of crashes occurred at dusk or dawn. Of the severe crashes, 64 percent occurred under daylight conditions. Dark lighting conditions accounted for 28 percent of severe crashes, with 24 percent occurring on unlit roads and 4 percent on lighted roads.

Contributing Factors

In the majority of cases, contributing circumstances are not reported by local enforcement officers, however, when reported may indicate whether the crash was due to driver error or a circumstance outside the driver's control. A summary of top contributing factors is shown in **Figure 17**.

In terms of environmental circumstances, weather or lighting (glare) conditions were a contributing factor in 7 percent of crashes while animals in the roadway or physical obstructions were noted as factors in 13 percent of crashes. In terms of roadway circumstances, road surface conditions, such as wet, icy, or snow-covered surfaces, were a factor in 34 percent of crashes. Debris and obstructions in the roadway were listed as a contributing circumstance in 1 percent of crashes. Uneven road surfaces, poor shoulders, work zones, and missing or inoperative traffic control devices were each recorded as contributing circumstances in less than 1 percent of crashes.

The most common driver contributing action was driving too fast for conditions, accounting for 20 percent of drivers involved in crashes. This does not necessarily indicate the driver was speeding, rather it could mean the driver was driving too fast for the road conditions, such as snow-covered roads, work zones, or congestion. About 20 percent drivers were driving in a distracted, inattentive or careless manner at the time of the crash. Failure to keep in the proper lane (13 percent), over-correcting (10 percent), and failure to yield right-of-way (7 percent) were the next most common contributing factors. About 39 percent of drivers were found to have no contributing action in the crash.

In the study area, approximately 12 percent of all crashes involved an impaired driver, compared to 42 percent of severe crashes. Within the study area, **crashes with impaired drivers were over five times more likely to be severe**.

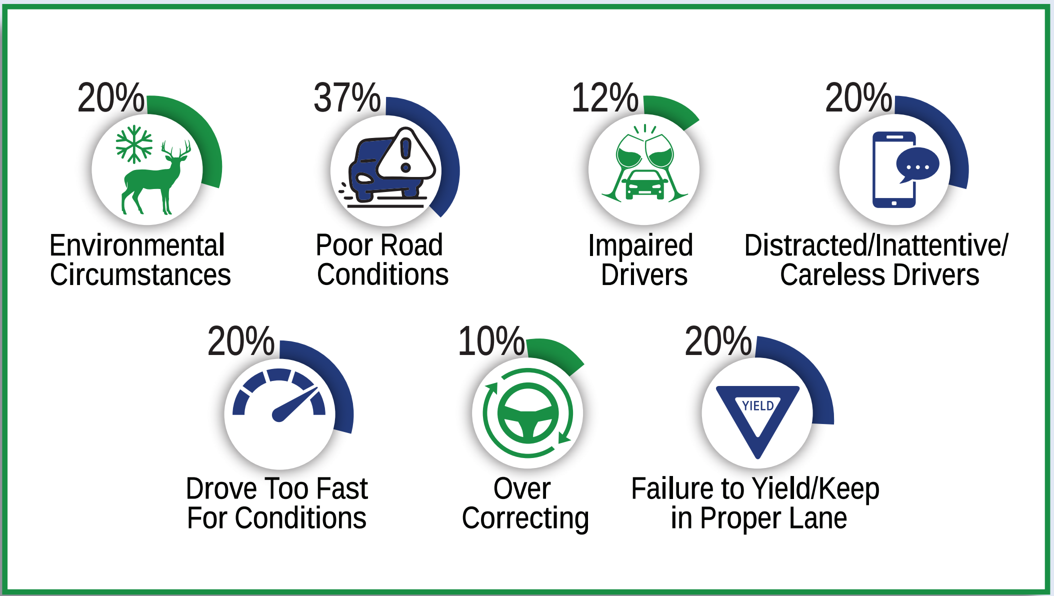
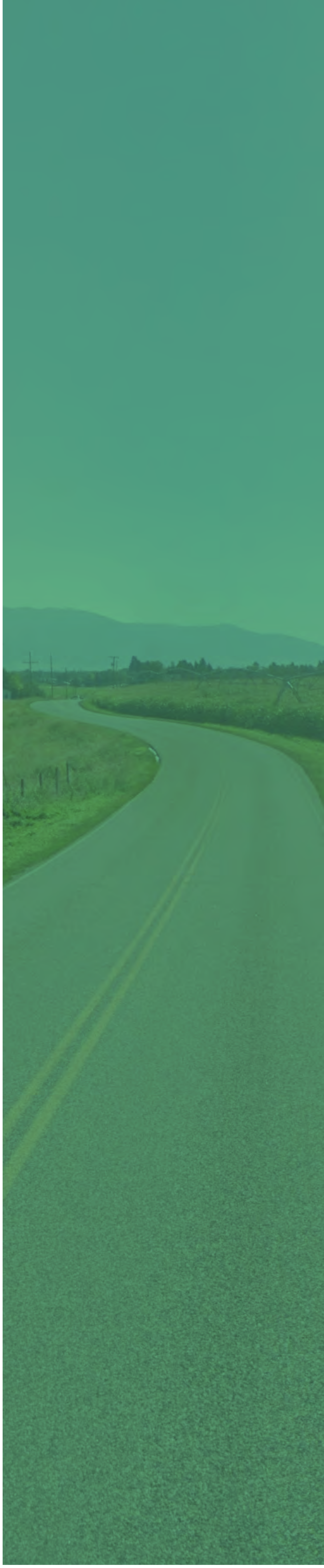


Figure 17: Top Contributing Factors in Crashes



3.3. Demographics

An important component of the crash data analysis includes consideration of demographics in terms of both the demographics of the individuals involved in crashes as well as the demographic characteristics of Gallatin County as a whole. A demographic analysis was conducted to help identify disparities of people involved in crashes as well as potential populations disproportionately affected by crashes or at a higher risk of involvement in crashes due to economic or social circumstances.

Overall, about 33 percent of drivers involved in crashes were female and 67 percent were male. About 69 percent of drivers involved in severe crashes were male, while the remaining 31 percent were female drivers. In Gallatin County, females comprise 48 percent of the population and males make up 52 percent.

The age distribution for drivers involved in crashes generally follows a typical bell curve, but skews slightly older, as shown in **Figure 18.** Drivers aged 22 through 34 make up 35 percent of drivers involved in crashes in the study area, despite composing only 16 percent of the population. The legal driving age in Montana is 14.5, and 10 drivers involved in crashes were under that age. People aged 65 and over make up 17 percent of the population but only 9 percent of drivers involved in crashes.

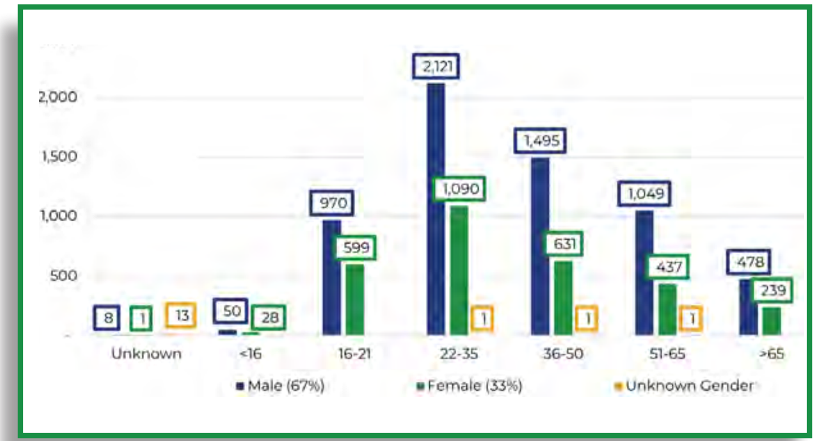
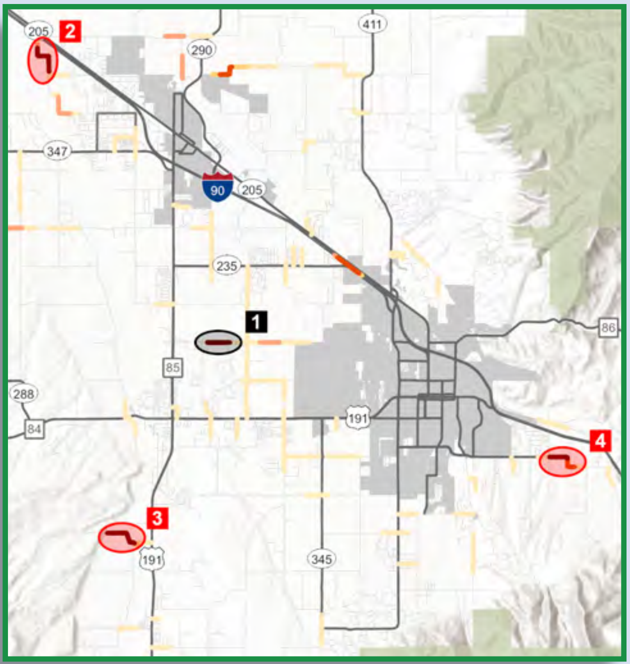


Figure 18: Driver Age and Gender

3.4. High Injury Network

A high injury network (HIN) is a screening methodology that identifies areas within the transportation system with the greatest safety concerns. Jurisdictions across the country use various methodologies to develop local HINs depending on the availability of data in their jurisdiction. A HIN was created for Gallatin County by weighing the frequency of crashes and severity of injuries resulting from crashes. This method helps identify and prioritize locations with high crash occurrences or especially severe crashes.

The HIN was calculated on an intersection and corridor basis. Both HINs were calculated in four different ways to analyze a combination of all roads compared to off-system roads both with and without crash rates. The off-system network analysis was conducted to place added emphasis on roads within the county's primary jurisdiction. The analyses that included a crash rate calculation were conducted only for parts of the network where traffic data was available. By using four different methods to visualize the HIN, areas that show up multiple times can be identified as possible problems. The HIN was the basis for the development of many of the project recommendations. Detailed HIN mapping and results can be found in **Appendix B**.



Chapter Four

4. Focus Areas

Identifying the types of crashes predominantly contributing to community safety problems can help in effectively expending limited resources. The development of focus areas represents a standard approach to roadway safety by evaluating high-risk populations, crash types, infrastructure/hazards, behaviors, and transportation modes.

In order to determine which of the focus areas are the most prevalent in Gallatin County, the number of total and severe injury crashes occurring within each focus area over the 5-year analysis period from 2019 to 2023 were totaled, as shown in **Figure 19** on the following page. It is important to consider the number of severe crashes compared to the total number of crash occurrences within each focus area. For example, although fewer crashes involved impaired drivers, a high number of severe injuries resulted from crashes involving impaired drivers. Although it is desirable to reduce the total number of crashes, the SS4A program highlights the importance of decreasing the number of severe injuries resulting from crashes.

Based on the baseline data analysis, it was determined that 4 focus areas would be selected to investigate in further detail. Due to similarities in the strategies to address certain focus areas, some of the focus areas were combined into broader categories. **The focus areas aligning with the total number of crashes and the highest severities were selected** as the focus areas that could have the greatest impact on safety within the community. These focus areas also aligned with public priorities gather through the survey discussed in **Section 2.2**. The selected focus areas are listed to the right:

- **Run-off-the-Road Crashes**
- **Intersection Crashes**
- **Driver Age** *(Younger and Older Driver Involved)*
  - AGE: <25, 65+
- **High Risk Behaviors** *(Speed Related, Unrestrained Occupants, Impaired Drivers, Inattentive Drivers)*

Note that there may be overlap between the focus areas. For example, a young, impaired driver crashing at an intersection would fall into at least three focus areas. Strategies addressing the selected focus areas will likely help address crash trends identified in other focus areas. The following sections describe the key focus areas, with additional detail provided in **Appendix B**.

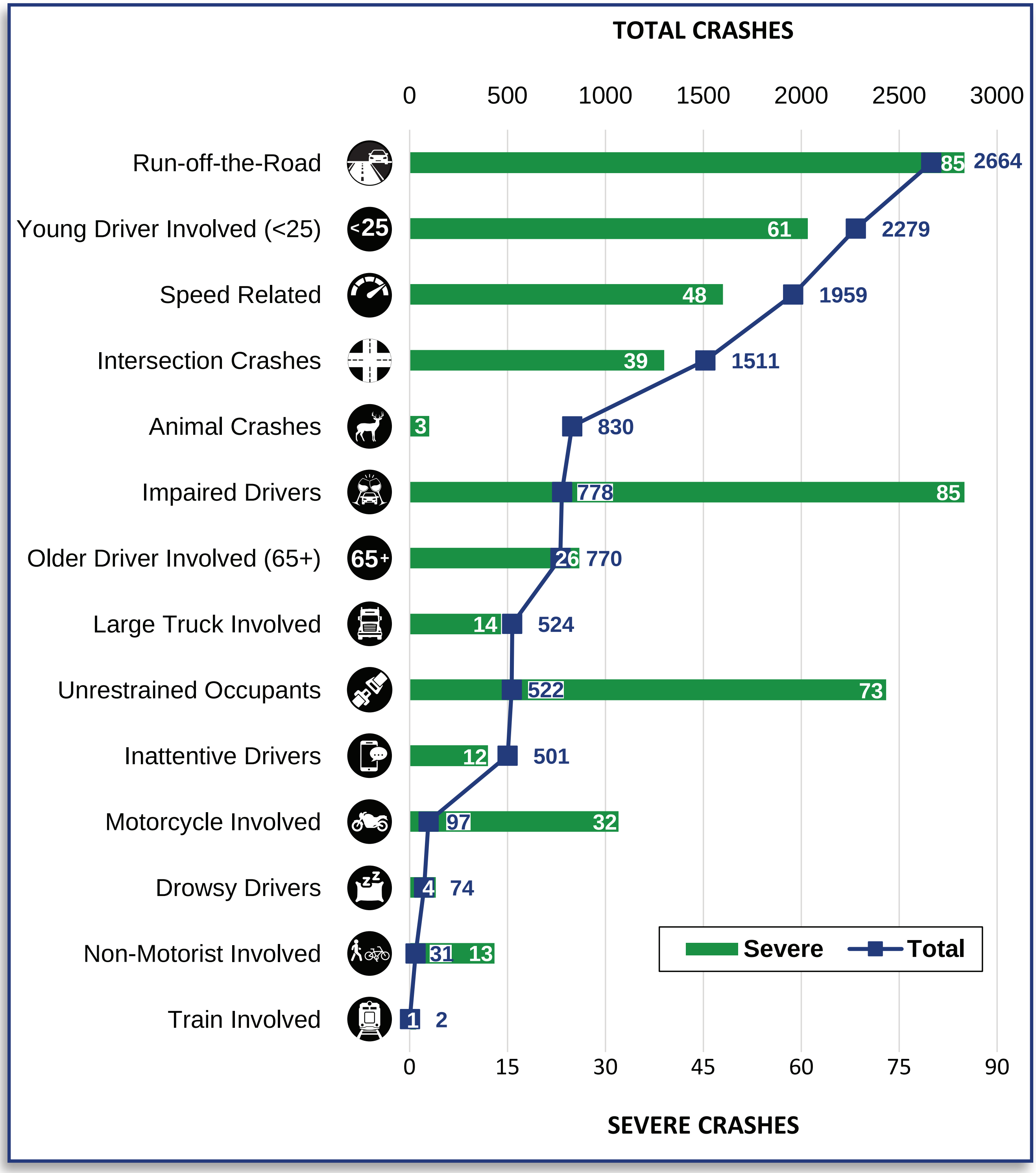


Figure 19: Total and Severe Crashes by Focus Area

4.1. Run-off-the-Road Crashes

A run-off-the-road crash is defined as a crash which occurs after a vehicle crosses an edge line or a center line or otherwise leaves the traveled way. Other terms used to describe these crashes include roadway departure or lane departure. A total of 2,745 run-off-the-road crashes were reported in the study area.

The analysis indicates that **weather conditions and driver behavior are the primary contributing factors** to run-off-the-road crashes in the study area. Winter weather, including icy, snowy, and wet road conditions, was found to significantly increase crash risk, particularly when vehicles failed to adjust speed in response to environmental conditions. Distracted and inattentive driving was also identified as a contributing factor to many of these crashes, as distractions can delay the driver's response to hazards or changing road conditions.

Further data analysis revealed that crashes were more frequent during commuting hours. **Nighttime run-off-the-road crashes occurred with higher frequency**, potentially attributed to reduced visibility, particularly in areas with inadequate lighting. Additionally, alcohol impairment was identified as a contributing factor to a significant number of run-off-the-road crashes.

Number & Severity

2,745 Crashes

27 Fatalities

108 Suspected Serious Injuries

Environmental Factors

23% of crashes occurred when it was raining or snowing

55% of crashes occurred on wet, icy, snowy, or frost-covered roads

35% of the crashes occurred when it was dark outside with no street lighting

4.2. Intersection Crashes

About a quarter of all crashes that occurred within the study area over the 5-year analysis period occurred at an intersection (876) or were related to an intersection (635).

Rear-end, right-angle, and fixed-object crashes were the most common intersection crash types. Weather conditions had a limited impact on the occurrence of intersection crashes, with fewer occurring in snow, rain, or on icy roads. Crashes were most frequent during daylight, and the majority of those that occurred at night, were on roads without street lighting. Winter months and the afternoon/evening were peak times for intersection crashes. Impaired driving, distracted driving, and failure to yield were the main contributing factors.

Intersection-related crashes had more rear-end collisions, while crashes directly at intersections involved more right-angle crashes with higher severities. Busy intersections with high traffic volumes were identified as crash hot spots, due to higher exposure rates.

Crash Type

30% Rear-End

29% Right-Angle

16% Fixed-Object

8% Left Turn

4.3. Driver Age

Crashes involving younger drivers (under 25) and older drivers (65 and older) show distinct trends in the study area.

Younger drivers accounted for a third of all crashes, totaling 2,279 incidents. **Inexperience and risky behaviors** contributed to crashes such as running off the road, distracted driving, impairment, and speeding. Most crashes involving younger drivers occurred at non-junction locations, with a notable number happening during school release and evening commuting hours. Environmental factors played a role, with nearly half the crashes occurring in rainy, snowy, or icy conditions and about a third occurring at night. The most common crash types among younger drivers included fixed-object, rear-end, rollover, and right-angle crashes.

Older drivers, who accounted for 770 crashes, were most often involved in rear-end and right-angle collisions. These drivers, often facing **age-related declines in driving abilities**, experienced fewer weather-related incidents compared to younger drivers, though they still experienced crashes most frequently during the winter months. Crashes involving older drivers were predominantly during daylight hours, between 10 AM and 4 PM. While distracted driving was the most common contributing factor, older drivers were less likely to be impaired or driving too fast for conditions.

AGE

<25

Number & Severity

2,279 Crashes

2,438 are <25

65 Suspected Serious Injuries

7 Fatalities

Location

27% Non-Junction

68% Intersections

Crash Type

26% Fixed-Object

18% Rear-End

16% Roll Over

12% Right-Angle

65+

Number & Severity

770 Crashes

801 are 65+

26 Suspected Serious Injuries

3 Fatalities

Location

56%

36%

4.4. High Risk Behaviors

High-risk driving behaviors are significant contributors to crashes and severe injuries within the county. Behaviors such as speeding, failure to wear a seatbelt, driving under the influence of alcohol or drugs, and distracted or inattentive driving all **increase the likelihood of severe injuries during a crash**. Speeding reduces reaction time and vehicle control, while impairment affects judgment and coordination. Distracted driving, such as using a phone or eating, diverts attention from the road, and not wearing a seatbelt increases the risk of injury in the event of a crash. Research shows that **individuals who engage in one risky driving behavior are more likely to engage in others**, a phenomenon known as "clustering" of risky behaviors.

Speed-related crashes typically occurred at non-junction locations on high-speed, major roads, often resulting in fixed-object collisions and rollovers, with winter weather conditions, such as snow, ice, and frost, frequently playing a role. These crashes were more common in winter and during daylight hours, with younger drivers frequently involved. Contributing factors included running off the road, over-correcting, and distraction.

Crashes involving unrestrained occupants were more likely to occur with impaired drivers, a trend that is associated with clustered high-risk behaviors. These crashes often involved younger male drivers, with distractions and reckless driving being common factors. Interestingly, crashes involving unrestrained occupants were less likely to occur in adverse weather conditions, suggesting that occupants are more likely to buckle up when they perceive greater danger.

Impaired driving was notably prevalent among young males aged 22 to 35 and was overrepresented in severe crashes. Most impaired driving crashes occurred at night, typically under ideal weather and road conditions, suggesting, perhaps, that the decision to drive impaired may be deterred by adverse environmental conditions.

Distracted driving crashes often resulted in rear-end and fixed-object collisions, with some involving rollovers or right-angle crashes. These crashes were predominantly caused by younger drivers, many of whom were under 35. Most distracted driving crashes occurred in clear weather and road conditions, with impaired driving also being a factor in some cases of inattentive driving.

Number & Severity

Speed

1,959 Crashes

40 Suspected Serious Injuries

13 Fatalities

Occupant Protection

522 Crashes

537 Occupants

65 Suspected Serious Injuries

23 Fatalities

Impaired Drivers

778 Crashes

77 Suspected Serious Injuries

22 Fatalities

Distracted Drivers

1,817 Crashes

56 Suspected Serious Injuries

7 Fatalities

4.5. Leadership Commitment and Goals

The overarching goal of the SS4A program is to eliminate roadway fatalities and serious injuries. Accordingly, a requirement of the grant program is for the entity receiving funding to make an official public commitment to an eventual goal of zero roadway fatalities and serious injuries. The commitment must include a goal and timeline for eliminating roadway fatalities and serious injuries achieved through one, or both, of the following:

1. the target date for achieving zero roadway fatalities and serious injuries, OR
2. an ambitious percentage reduction of roadway fatalities and serious injuries by a specific date with an eventual goal of eliminating roadway fatalities and serious injuries.

It is common practice in safety performance tracking to set goals, or targets, based on multi-year rolling averages. The rolling average provides a better understanding of the overall data over time without eliminating outlier years with significant increases or decreases. Standard practice recommends using the average of the most recent 5 years of data. The analysis period for the plan spans the 2019 to 2023 time period and, at the time of writing, 2024 data is not available. Accordingly, the 5-year average number of combined fatalities and serious injuries from the 2019 to 2023 period was used as a starting point for goal setting. A target of 46 combined fatalities and suspected serious injuries will be set for 2025.

Gallatin County is committed to the eventual goal of zero fatalities and serious injuries on its roadways. This commitment aligns directly with Montana's Vision Zero, a statewide initiative outlined in the *Comprehensive Highway Safety Plan*, which commits to "zero fatalities and serious injuries on Montana's roads." As a reflection of this shared vision, Gallatin County has adopted the following interim goal (**Figure 20**):

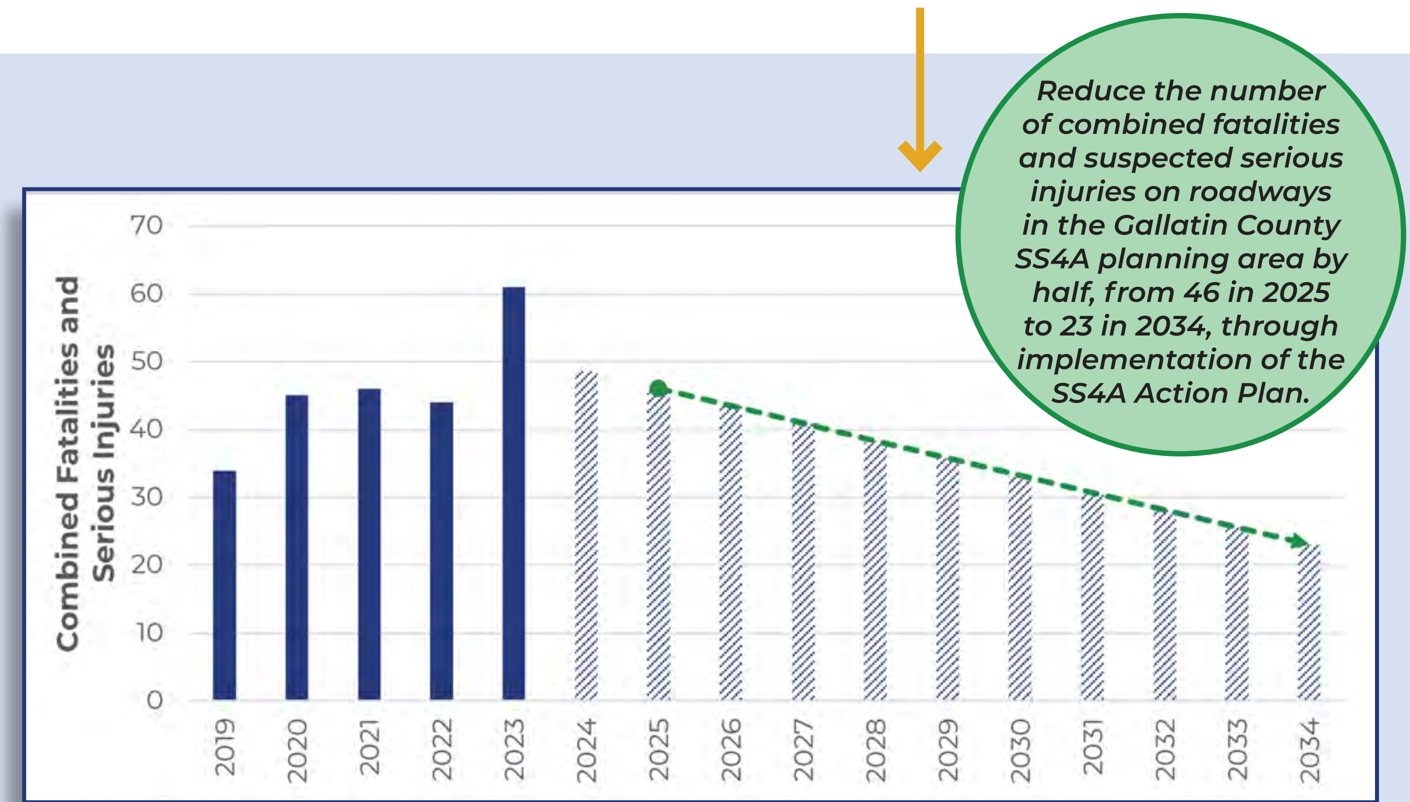


Figure 20: Gallatin County Interim Safety Goal

Chapter Five

5. Strategy Identification

Individual strategies were identified with the intention of reducing fatalities and serious injuries in Gallatin County and generally improving transportation safety. The descriptions and attributes associated with each strategy can be used by local authorities to inform investment decisions as available funding is applied to achieve community goals. The strategies are not intended to provide specific implementation actions, but rather to provide example projects, programs, and policies for reference as Gallatin County and its partners work towards safer streets for all users. These strategies can be used to assist in the future identification, development, and implementation of specific projects in the county, including those listed in **Chapter 7**.

5.1. Overview of Strategy Attributes

Strategies are broad action categories intended to help achieve community transportation safety goals. Strategies are organized according to the plan's four focus areas (Run-Off-The-Road Crashes, Intersection Crashes, Driver Age, and High Risk Behaviors). The strategies have been classified according to multiple attributes, which are intended to help agencies select appropriate strategies to address identified needs. The following attributes are included in the strategy summaries, with more details provided in **Appendix C**.

E's of Safety

Improving transportation safety requires a comprehensive approach that employs multiple approaches. A common framework is referred to as the "E's of Safety" which includes Education, Enforcement, Engineering, and Emergency Medical Services (EMS). For each strategy, the relevant E's of Safety are identified to indicate the field of technical expertise, related program of example actions, and the coordinated approach necessary to effectively implement the strategy.

- **Education**
- **Enforcement**
- **Engineering**
- **EMS**

Example Actions

A variety of example projects, programs, policies, actions, and other efforts that may relate to the proposed strategy were provided to indicate how the strategy could be applied to achieve safety goals. Ranging from educational campaigns to investments in infrastructure projects, new technologies, maintenance practices, policies, enforcement, and training, strategies are intended to address safety from numerous angles. **The list of examples is meant to be illustrative as opposed to exhaustive.** Other projects or actions not listed in the examples could be applicable to the strategy. Not all example actions will be suitable in all cases or at all locations. **Additional studies may be necessary to determine the most appropriate solution for each individual project location**.

5.2. Run-Off-The-Road Strategies

Run-off-the-road crashes are a significant safety concern, often resulting in serious injuries and fatalities. These crashes occur when a vehicle unintentionally leaves its lane, either crossing the centerline or veering off the roadway, due to a range of factors such as poor weather conditions, low visibility, or the presence of an animal on the road. Additionally, issues like road design flaws or high-risk driving behaviors—such as distraction, speeding, or impairment—can further increase the likelihood of a vehicle leaving the roadway. Given the complex nature of these incidents, reducing the occurrence of run-off-the-road crashes requires a multifaceted approach that addresses both human and environmental factors. Key strategies include enhancing road infrastructure, improving road design, and incorporating safety technologies that help prevent these crashes. In addition, addressing high-risk driving behaviors, such as those discussed in **Section 6.5**, is crucial in reducing the likelihood of vehicles departing the travel lane. Together, these strategies form a comprehensive framework for improving road safety and minimizing the severity of run-off-the-road crashes.

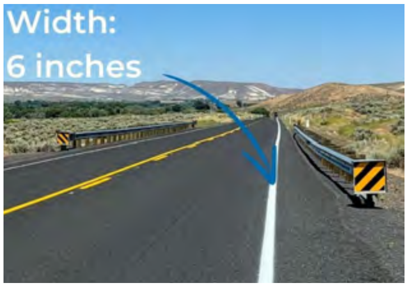
Improve Curve Design

Example Actions

- **Enhanced Visibility**
  - In-Lane Curve Warning Pavement Markings
  - Transverse Rumble Strips
  - Roadside Delineators
  - Retroreflective Strips on Sign Posts
  - Enhanced Sign Conspicuity (Retroreflectivity, Size, etc.)
  - Slow Speed Zones Near Curves
- **Intelligent Transportation Systems (ITS)**
  - Dynamic Curve Warning Signs
  - Speed Radar Feedback Signs
  - Sequential Dynamic Chevrons
- **Roadside Design Improvements**
  - Increase and Maintain Clear Zones
  - Slope Flattening
  - Add or Widen Shoulders
  - Roadside Barriers (Cable Rail, Guardrail, Concrete Barriers)

Improve Roadside Design

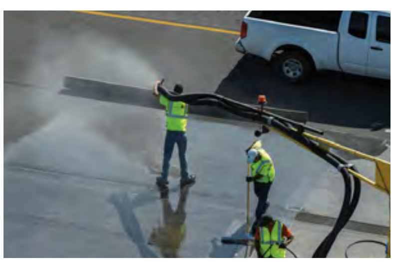
Example Actions

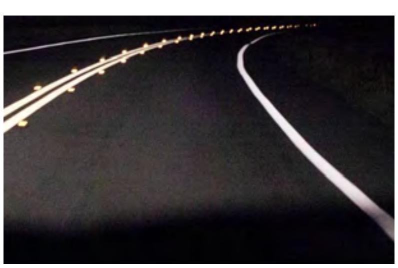


- **Wider Edge Lines**
- **Widen Shoulders**
- **Improve Shoulders**
  - SafetyEdge Shoulder Design
  - Traversable Roadside Slopes
- **Edge Line, Shoulder, and Centerline Rumble Strips**
- **Roadside and Median Barriers**
  - Cable Rail
  - Guardrail
  - Concrete Barriers
  - Increase and Maintain Clear Zones
  - Breakaway Signs and Poles

Improve Roadside Visibility and Surfacing

Example Actions





- **Roadway Lighting**
- **High-Visibility/High Durability Pavement Markings/ Signage**
- **High Friction Surface Treatment**
- **Regular Roadway Maintenance**
- **Vegetation Management**
- **Timely Snow and Ice Removal**
- **Variable Speed Limits (VSL) / Variable Messaging Signs (VMS)**
- **Wrong Way Warning Signs**
- **Emergency Weather Alert Systems**
- **Vehicle Safety Features (Lane Departure Warning, Lane Keep Assist, Electronic Stability Control, Automatic Emergency Braking)**

5.3. Intersection Strategies

Improving safety at intersections is crucial for reducing crashes and ensuring efficient traffic flow, particularly in rural and suburban areas where road conditions and traffic patterns differ significantly from urban environments. Rural intersections can be more hazardous than their urban counterparts due to higher speeds, limited visibility, and a lack of traffic control measures. The absence of urban infrastructure such as traffic signals, pedestrian crossings, and bike lanes, combined with long stretches of open road, can lead to unsafe driving behaviors and heightened crash risks. Drivers may be less prepared for sudden changes in road conditions, such as unexpected intersections, especially at night or during inclement weather. Furthermore, many rural intersections suffer from inadequate lighting, insufficient signage, or designs that do not account for the diverse mix of road users, including agricultural vehicles, heavy trucks, bicyclists, and pedestrians. Given the cost constraints and the fact that rural areas often do not require the same level of infrastructure as urban centers, addressing intersection safety issues in these regions requires tailored strategies to improve safety, reduce conflicts, and maintain smooth traffic flow without over-engineering the roadway system.

Improve Intersection Visibility

Example Actions

- **Vegetation Management**
- **Snow Removal Management**
- **No Parking Zones Near Intersections**
- **High-Visibility/High Durability Pavement Markings/Signage**
- **Intersection Lighting**
- **Curb Extensions**
- **Daylighting Intersections**
- **Sight Line Enforcement**
- **Increased Education/Enforcement - (Red Light Running, Stop for Pedestrians, Look Both Ways, etc.)**

Enhance Unsignalized Intersections

Example Actions

- **Intersection Geometry/Layout**
  - Improve Sight Lines, Turning Radii, and Skew
  - Dedicated Left/Right Turn Lanes
  - Turn Lane Offsets/Channelization
  - Bicycle/Pedestrian Accommodations
  - Bypass Lanes on Shoulder at T-Intersections
  - Left/Right Turn Acceleration Lanes
- **Restrict/Eliminate Turning Maneuvers**
  - Access Control Improvements
  - Reduce Driveways Near Key Intersections
  - Splitter Islands
  - Install Median Barriers
- **Increase Driver Awareness**
  - High-Visibility Pavement Markings
  - Stop Bar on Minor Approaches
  - Retroreflective Strips on Sign Posts
  - Larger Regulatory/Warning Signs
  - Supplementary Signs (Double Stop Signs, Overhead Signs, etc.)
  - Flashing Stop Signs
  - Flashing Overhead Beacons
- **Advanced Warning**
  - Transverse Rumble Strips
  - Advance Warning Signs
  - Dynamic Warning Signs
  - Pavement Markings (Stop Ahead)
- **Increased Traffic Control**
  - Stop Control (Two-Way/All-Way)
  - Roundabout
  - Signalization (If Warranted)
  - Continuous T
  - Reduced Conflict U-Turn (RCUT)

Install or Enhance Signalized Intersections

Example Actions

- **Intersection Geometry/Layout**
  - Improve Sight Lines and Turning Angles
  - Dedicated Turn Lanes
  - Turn Lane Channelization
  - Bicycle/Pedestrian Accommodations
- **Signal Phasing**
  - Signal Optimization/Coordination
  - Adaptive Signal Control
  - Increase Yellow Change Intervals
  - Increase All Red Intervals
  - Dedicated Turn Phasing
  - Pedestrian Phasing
- **Increase Driver Awareness**
  - High-Visibility Pavement Markings
  - Turn Path Markings
  - Overhead Lane Use Signs
  - Retroreflective Backplates
  - Advance Warning Signs/Signals

5.4. Driver Age Strategies

Addressing crashes involving younger and older drivers requires a multifaceted approach that considers their unique challenges and needs. For younger drivers, who often struggle with inexperience, cognitive overload, and social influences, strategies focus on education, training, and enforcement to build their skills and encourage safe behaviors. For older drivers, whose abilities might be affected by age-related declines in vision, flexibility, and reaction times, the emphasis is on assessing fitness to drive, providing educational resources, and adapting vehicles and road designs to support their continued mobility. By implementing these strategies, Gallatin County can create a safer driving environment that accommodates the diverse needs of drivers across all age groups.

Educate Young Drivers on Safe Driving Practices

Example Actions

- **Enforcement of Graduated Driver's Licensing laws**
- **Increase Access to and Encourage Teen Driver Education Courses**
- **Other Driver Education Programs**
  - Alive at 25
  - Share the Keys
  - What Do You Consider Lethal?
  - Checkpoints
  - Hazard Perception Training (RAPT, ACCEL, SAFE-T)
  - Montana DRIVE Workshops
- **Montana Keep Encouraging Young driver Safety (KEYS)**
  - Parent/Teen Agreement for Safe Driving Expectations
  - Parent-Teen Homework Assignments to Increase Driver Safety
  - KEYS Teen Driver Rating Form
- **Educate New Drivers on Crash Avoidance Advanced Driver Assist Systems (ADAS) Features**
  - My Car Does What?
- **Multilingual Teen Driver Educational Materials**
- **University Driver's Education – Montana Driving Laws, Winter Driving, Etc.**
- **Written Exam for State-to-State Driver's License Transfers**
- **Share the Road Training**

Ensure Older Drivers are Fit to Drive

Example Actions

- **Licensing Agency Referrals**
  - Education of Referral Procedures
  - Improved Tracking and Follow Up on Referrals
- **Formal Courses for Older Drivers**
  - Smart DriverTEK
  - AAA RoadWise Driver
  - AARP Smart Driver Course
  - NSC Defensive Driving for Mature Drivers
  - On-Road Instruction
- **Educate Caregivers/Family Members**
  - How to Evaluate Driving Ability
  - How to Approach Driver's License Restrictions
- **Promote Vehicle Adaptive Devices (Seat Belt Extenders, Leg Lifter, Swivel Seats, Adapted Key Holders, etc.)**

Design the Transportation Systems to Ensure Accessibility for Users of All Ages

Example Actions

GALAVAN
A PROGRAM OF HRDC

- **Intersection Geometry and Layout**
  - Reduce Intersection Skew
  - Increase Intersection Sight Distance
  - Widen Roadway Lanes
  - Left and Right Turn Lane Offset and Channelization
  - Delineation (Edgelines, Curblines, Centerlines)
- **Roadway and Roadside Enhancements**
  - High Visibility/Contrasting Pavement Markings
  - Clearly Legible and Visible Signage and Signals
  - Advance Warning Signs / Pavement Markings
  - Directional Signs
  - Intersection / Street Lighting
  - High Friction Surface Treatments
  - Work Zone Visibility
- **Educate Drivers on Crash Avoidance ADAS Features**
- **Promote Ride Share and Transit Options**
- **Promote Accessibility for Walking and Biking**
  - Adjust Pedestrian Signal Walking Speeds to Demographics
  - Accessible Pedestrian Signals
  - Leading Pedestrian Intervals
  - Dedicated / Separated Non-Motorized Facilities

5.5 High Risk Behavior Strategies

Addressing high-risk driving behaviors is crucial for improving road safety and reducing crashes, injuries, and fatalities. Unsafe behaviors such as impaired driving, speeding, distracted driving, and not using seatbelts or helmets contribute to nearly 70% of severe injury crashes in Gallatin County. By promoting responsible driving through education, enforcement, and legislation, the county can create a culture of safety that encourages safer choices. This protects individuals, reduces traffic incidents, lowers healthcare costs, and boosts public confidence in road safety.

Promote Safe Driving Behaviors

Example Actions

MONTANA LEGISLATURE

- **Conduct High Visibility Enforcement Campaigns**
- **Multilingual Safe Driver Educational Materials**
- **Teen & Adult Defensive Driving Courses**
- **Civilian Dash Cams**
- **Encourage Safe Driving Behaviors**
  - Outreach/Education at Community Events
  - Employer Safety Policies for Company Vehicles
  - Engage School Students in Peer-to-Peer Safety Messaging
  - Incentive Programs
- **Lobby State Legislation for Law Changes**
  - Increased Penalties for Driving Under the Influence (DUI) & Speeding
  - Lower Blood Alcohol Concentration / Drug Potency Limits
  - Primary Seatbelt Laws
  - Universal Helmet Laws
  - Statewide Cell Phone Laws
  - Red Light / Speed Enforcement Cameras

Decrease Distracted Driving

Example Actions

PUT THE PHONE AWAY OR PAY

MyCarDoesWhat.org Know More. Drive Safer.

TASL THIS APP SAVES LIVES

- **Educational Campaigns**
  - #IDontDUIT (I Don't Drive Under the Influence of Technology!)
  - Talk, Text, Crash
  - Every Second Matters
  - Put the Phone Away or Pay
  - Eyes Up, Phone Down
  - EyesDrive
- **Promote Technology Solutions**
  - Smart Phone Apps/Cell Phone Blocking Technology
  - ADAS in Vehicles
- **Promote Teen Traffic Safety**
  - Increase Education on the Graduated Driver Licensing Law in Montana
  - Encourage Parents/Teens to Sign Teen Driver Contracts
- **Enforcement**
  - Cell Phone Ordinances
  - Employer-Based Distracted Driving Policies
  - Law Enforcement Training to Identify & Document Distracted Driving

Eliminate Impaired Driving

Example Actions

- **Enforcement**
  - Sobriety Checkpoints
  - Saturation Patrols
  - Alcohol Measuring Devices
  - Alcohol Vendor Compliance Checks
  - Treatment Court
  - Court Monitoring Programs
  - Drug Recognition Experts / Drug Evaluation and Classification program
  - Standardized Field Sobriety Testing Training
  - Advanced Roadside Impaired Driving Enforcement program
- **Education Campaigns**
  - Mass Education on Montana Alcohol Laws (Social Host Responsibility, Zero Tolerance, Refusing Field Sobriety Tests, DUI Limits, DUI Penalties, etc.)
  - Think Twice (Expand to County Establishments)
  - Youth Education Programs (Fatal Vision Goggles, Peer-To-Peer Programs, Role Plays, Drunk-Driving Crash Reenactments [e.g., “Every 15 Minutes”]
  - Victim Impact Panels
  - If you feel different, you drive different
  - Drive High, Get a DUI
- **Promote Sober Rides Home**
  - NHTSA SaferRide App
  - Designated Driver Incentive Programs
  - Bar Fairies Program (Expand to County Establishments)
  - Safe Rides Home Program
  - Organized Transportation for Large Community Events
  - Promote & Expand Transit Options

Manage Vehicular Travel Speeds

Example Actions

- **Review Posted Speed Limits**
  - Speed Studies
  - Special Speed Zones
  - Context Sensitive Speeds
- **Traffic Calming**
  - Speed Bumps/Humps/Speed Tables/Raised Crosswalks
  - Visual Friction (Paint, Art, Vegetation, Objects)
  - Narrowed Roadways/Curb Extensions
  - Roundabouts/Traffic Circles
  - Horizontal Roadway Shifts (Chicanes)
  - ITS/Dynamic Speed Feedback Signage
  - Variable Speed Limits (Stationary or Trailers)
  - Warning Signage (Reduce Speed, Curve Ahead)
  - Refuge Islands, Reallocated Roadway Width to Bike Accommodations)

Manage Vehicular Travel Speeds (Continued)

Example Actions

- **Speed Enforcement**
- **Education Campaigns**
  - Slow Down for School Zones
  - Ice and Snow...Take It Slow
  - Drive Like Your Kids Live Here
- **Intelligent Speed Assistance Technologies in Vehicles**

Increase Occupant Protection

Example Actions

- **Educational Campaigns**
  - Seat Belts Save Lives
  - Buckle Up. Every Trip. Every Time.
  - "Walk Under the Bar – Booster Seat in the Car"
  - Respect-A-Cage Exhibit / Room to Live
  - Buckle up Battles
- **Enforcement**
  - Click It or Ticket
  - Primary Enforcement Laws
  - Universal Motorcycle Helmet Laws
- **Buckle Up Montana Coalition**
- **Seatbelt Surveys**
- **Child Passenger Safety Training**
- **Child Restraint Inspection Stations**
- **Saved by the Belt Program**
- **Motorcyclist Protection and Conspicuity**
  - Impact-Resistant Clothing
  - Continuous Headlight Use
  - Brightly Colored Clothing
  - Retroreflective Devices
  - Free/Discounted Helmet Distribution through Partnerships with Local Organizations

Chapter Six

6. Project, Policy, and Program Identification

This chapter outlines recommended projects, programs, and policies intended to proactively address identified safety concerns from all angles, including infrastructure improvements, programs targeted at safe behaviors, and operational improvements. The recommendations can be developed as stand-alone efforts, or, in some cases, combined with other efforts as appropriate. There may be cost savings and efficiencies gained by packaging improvements together.

6.1. Recommendation Attributes

All recommendations are categorized according to the implementation type, including projects, programs, and policies. **Projects** include physical implementation actions which result in changed infrastructure and can range from simple signing or striping to larger-scale reconstruction. **Programs** include activities meant to incrementally inform or improve transportation safety conditions. Programs are typically the basis for future policy decisions but could also be the outcome of implementing specific policies. **Policies** are most often established through laws and ordinances but could also take the form of planning documents or procedures adopted by government agencies. Institutionalizing a policy typically requires dedicated funding and comprehensive technical guidance as well as enforcement mechanisms to ensure that there are consequences if the policy is not implemented as intended. Policy changes take time and diligence but can be a powerful way to ensure that adequate staff and resources are being directed toward processes and procedures that will support a safe and healthy community.

Some supporting information is provided, with additional details provided in **Appendix C** to assist with future implementation efforts. The following sections provide an overview of the attribute categories outlined for each recommendation to help inform and guide future project, program, and policy development.

Recommendation

Planning-level recommendations are defined broadly to provide flexibility during future implementation phases as additional coordination and investigations occur.

Implementation Partners

Although Gallatin County is serving as the lead agency for implementation of recommendations contained in the Action Plan, implementation of the identified safety strategies, projects, programs, and policies will require cooperation and support from multiple partners. In addition to the county, supportive efforts from partners including MDT, the cities of Bozeman and Belgrade, the towns of Manhattan, Three Forks, Big Sky, and West Yellowstone, law enforcement, school districts, local advocacy groups and organizations, emergency service providers, and individuals/businesses will be needed to successfully improve safety in Gallatin County.

Estimated Cost

Planning-level cost estimates were developed for each of the project recommendations. The estimates include costs for design engineering, mobilization, construction, drainage, utility adjustments, and anticipated easements. Contingencies are provided to account for unknown factors at this planning-level stage. All costs are provided in 2025 dollars since the date of implementation is unknown at this time. **Appendix C** contains additional planning-level cost estimate information with unit pricing for each option. Estimated costs for program and policy recommendations are not included due to the highly variable nature of these recommendations.

Timeframe

The timing and feasibility of implementing projects depends on several factors, including funding availability, project complexity, right-of-way requirements, and other project delivery considerations. Estimated implementation timeframes were assigned to each of the project recommendations based on expected project delivery timelines and current funding availability. These timeframes are not commitments but are intended to reflect the relative need, complexity, and potential funding sources for each project. The timeframes are defined as follows:

- **Short-term:** Implementation is feasible within a 0- to 5-year period.
- **Mid-term:** Implementation is feasible within a 5- to 10-year period.
- **Long-term:** Implementation is feasible within a 10- to 20-year period.

6.2 Project Recommendations

The following project recommendations are designed to address site-specific safety concerns identified through an analysis of historic crash trends and feedback from public and stakeholder outreach. These projects align with previously established planning recommendations and **focus on high-benefit, low-cost solutions** that maximize safety improvements while also being mindful of funding constraints. There is a targeted **emphasis on improving safety on low-volume county roads**. It is recognized that safety concerns also exist on higher-volume routes under the jurisdiction of MDT or city governments, though there are alternate project nomination processes and funding sources for improvements on these routes that are outside the purview of Gallatin County's jurisdiction. The following recommendations reflect a thoughtful, strategic approach to road safety that prioritizes both immediate needs and long-term, sustainable improvements. **Figure 21** illustrates the location of recommended projects within the planning area. Note, **project numbering is not indicative of priority or need**.

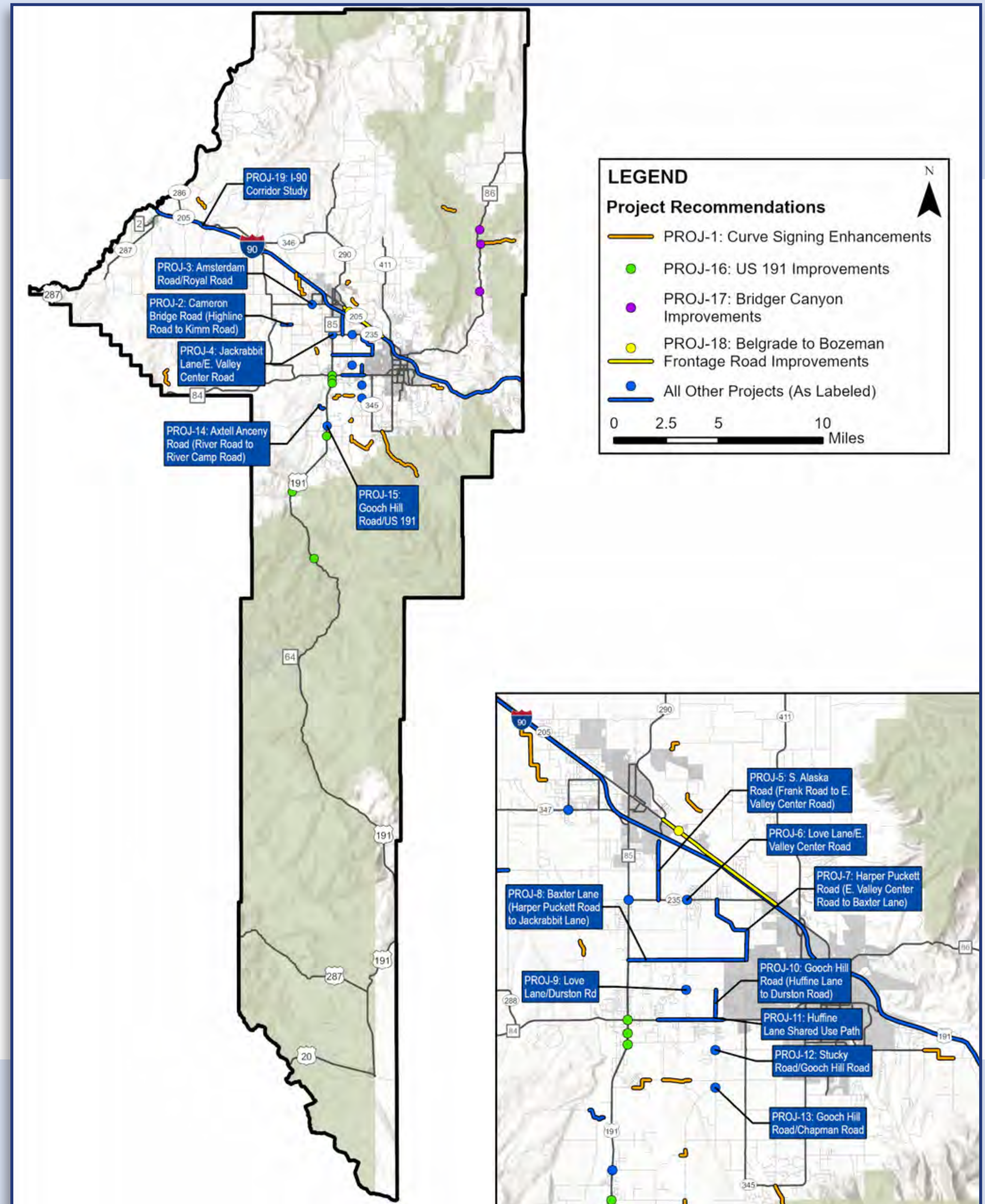


Figure 21: Recommended Projects

PROJ-1: Curve Signing Enhancements

Recommendation: Implement the tired curve signing system from the *Greater Triangle Area Transportation Plan* at spot locations identified on the HIN.

- Thorpe Road (Rottweiler Lane to Frontage Road) – Tiers 2 & 3, possible reconstruction
- Cottonwood Road (Derek Way to Enders Road) – Tier 2
- Blackwood Road (Beatty Road to Quentin Way) – Tier 2, possible shoulder widening
- Blackwood Road (Elk Grove Lane to Kimber Court) – Tier 2, possible reconstruction
- Bozeman Trail Road (Mount Ellis Lane to Fort Ellis Road) – Tiers 2 & 3, possible reconstruction
- Gooch Hill Road/Enders Road – Tier 2
- Brackett Creek Road (Bridger Canyon Road to Horse Creek Road) – Tier 2
- Madison Road (North of Norris Road) – Tier 1
- Penwell Bridge Road (Roundup Boulevard to Thompson Field Lane) – Tier 2
- Tubb Road (Airport Road to Jetway Drive) – Tier 2
- Logan Trident Road (RP 2.6 to 4.2) – Tiers 1 & 2
- River Road (North of Bryan Road) - Tier 1
- Fairy Lake Road (RP 4.3 to 4.9) – Tier 1
- Hyalite Road (19th Ave to Hyalite Reservoir) – Tier 1

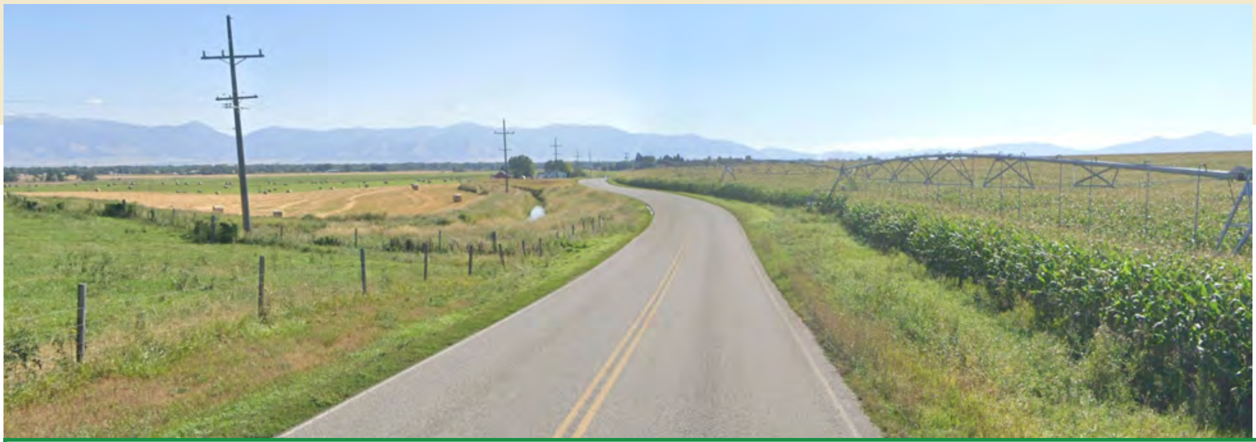
Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, MDT, Forest Service, Cities, Towns	\$1,500 - \$3,000 per curve	Short-Term

PROJ-2: Amsterdam Road/Royal Road

Recommendation: Install enhanced traffic control at the intersection, either a traffic signal or roundabout, depending on warrants. Consider intersection lighting in the short-term.

Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, MDT, Utility Providers, Adjacent Landowners	\$1.1M (signal), \$2.2M (roundabout)	Mid-Term

PROJ-3: Cameron Bridge Road (Highline Road to Kimm Road)



Recommendation: Enhance visibility in this section through low-cost countermeasures and possible long-term reconstruction.

Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $46,000 (low cost improvements), $2.2M (reconstruction)

Timeframe: Short- to Long-Term

PROJ-4: Jackrabbit Lane/E. Valley Center Road

Recommendation: Monitor to see how safety conditions change with improvements. Consider protected left-turn phasing.

Implementation Partners: MDT, Gallatin County, Adjacent Landowners

Estimated Cost: $77,000

Timeframe: Short-Term

PROJ-5: S. Alaska Road (Frank Road to E. Valley Center Road)

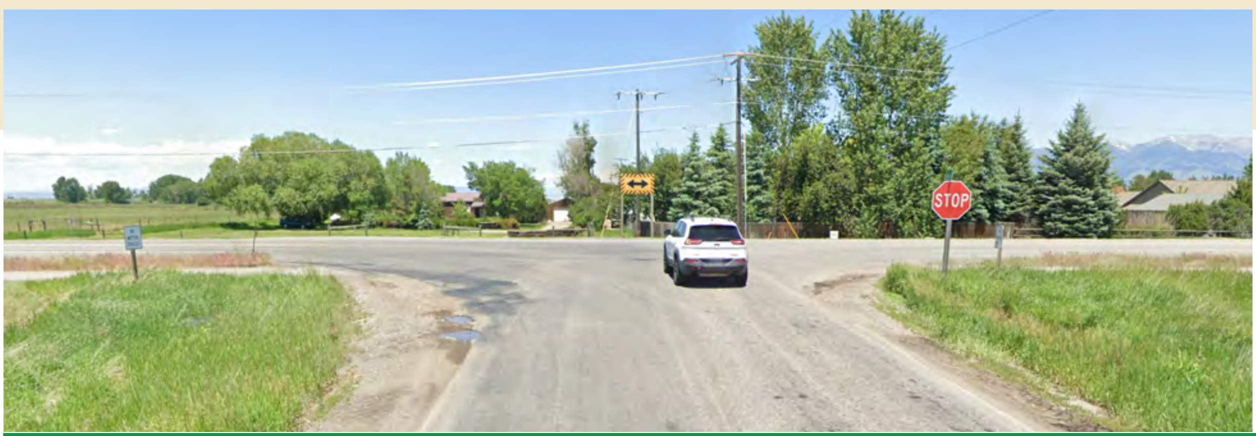
Recommendation: Reconstruct roadway to meet current standards, incorporate roundabouts at Cameron Bridge Road and E. Valley Center Road intersections, and install non-motorized accommodations.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $36.7M

Timeframe: Long-Term

PROJ-6: Love Lane/E. Valley Center Road



Recommendation: Install enhanced traffic control at the intersection, with the type and configuration determined based on an intersection control evaluation.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $2.7M - $6.6M

Timeframe: Mid-Term

PROJ-7: Harper Puckett Road (E. Valley Center Road to Baxter Lane)

Recommendation: Install curve signing enhancements and consider widening shoulders.

Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, Adjacent Landowners, Utility Providers	$40,000 (curve signing), $2.1M (shoulder widening)	Short- to Long-Term

PROJ-8: Baxter Lane (Harper Puckett Road to Jackrabbit Lane)

Recommendation: Reconstruct the corridor to meet current standards including wider shoulders, potential turn lanes, and non-motorized accommodations. Consider enhanced delineation as a short-term improvement.

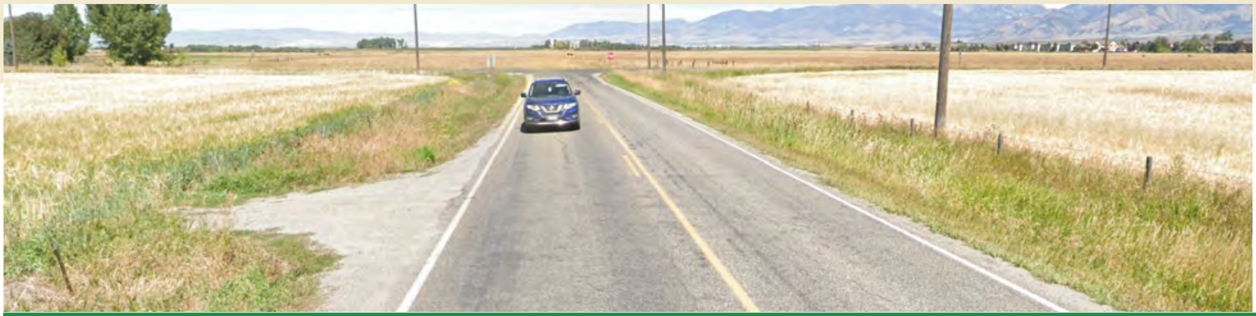
Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, City of Bozeman, MDT, Adjacent Landowners, Utility Providers	$130,000 (delineation), $27.6M (reconstruction)	Short-to Long-Term

PROJ-9: Love Lane/Durston Rd

Recommendation: Reconfigure intersection as a roundabout.

Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, Utility Providers, Adjacent Landowners	$7.3M	Mid-Term

PROJ-10: Gooch Hill Road (Huffine Lane to Durston Road)



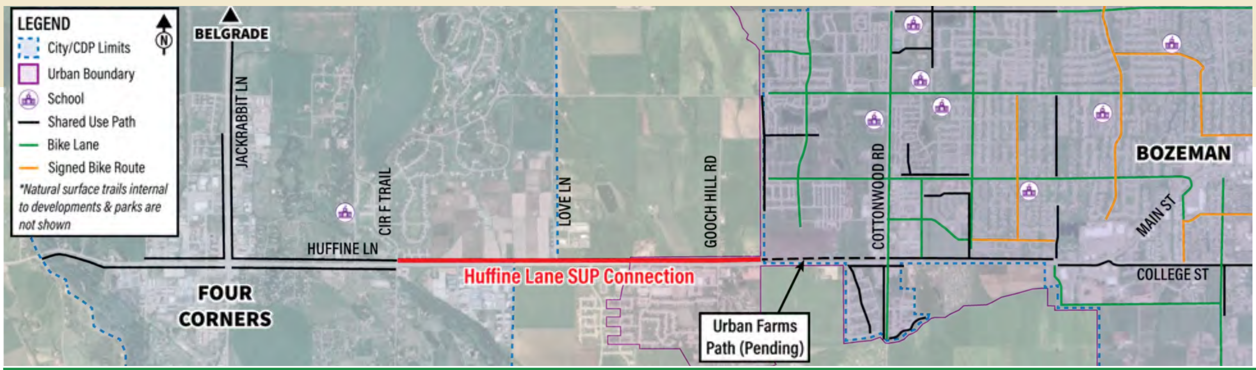
Recommendation: Enhance visibility and reduce conflicts in this section through low-cost intersection safety countermeasures and eventual long-term reconstruction.

Implementation Partners: Gallatin County, MDT, Adjacent Landowners, Utility Providers

Estimated Cost: $5,000 (Durston Road), $910,000 (Huffine Lane), $13.8M (reconstruction)

Timeframe: Short-to Long-Term

PROJ-11: Huffine Lane Shared Use Path



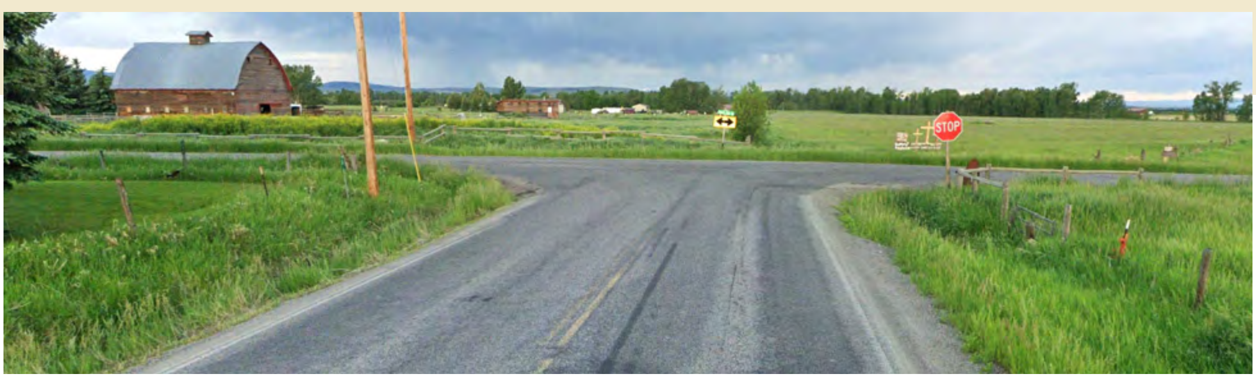
Recommendation: Complete the shared use path between Circle F Trail and Bozeman City Limits to create a continuous non-motorized route between Four Corners and Bozeman.

Implementation Partners: Gallatin County, MDT, Gallatin Valley Land Trust, Adjacent Landowners, Utility Providers

Estimated Cost: $3.5M

Timeframe: Mid-Term

PROJ-12: Stucky Road/Gooch Hill Road



Recommendation: Install low-cost countermeasures to improve visibility of the intersection.

Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $8,000

Timeframe: Short-Term

PROJ-13: Gooch Hill Road/Chapman Road

Recommendation: Install low-cost countermeasures to improve visibility, traction, and driver understanding of the intersection.

Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, Adjacent Landowners, Utility Providers	$7,000	Short-Term

PROJ-14: Axtell Anceny Road (River Road to River Camp Road)

Recommendation: Install signage to better clarify the roadway configuration and consider intersection realignment.

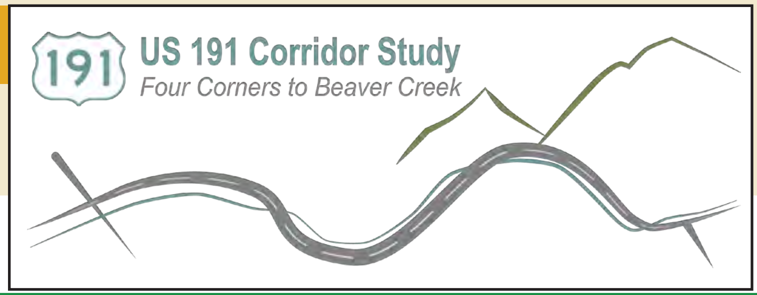
Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, MDT, Adjacent Property Owners	$19,000 (curve signing), $50,000 (realignment)	Short- to Mid-Term

PROJ-15: Gooch Hill Road/US 191

Recommendation: Install enhanced traffic control at the intersection, with the type and configuration determined based on an intersection control evaluation. Consider intersection lighting or other visibility enhancements in the short-term.

Implementation Partners:	Estimated Cost:	Timeframe:
Gallatin County, MDT, Utility Providers, Adjacent Landowners	$15,000 (visibility enhancements), $1.7M - $3.1M (traffic control)	Short- to Long-Term

PROJ-16: US 191 Improvements



Recommendation: Complete the following recommendations from MDT's 2020 *US 191 Corridor Study (Four Corners to Beaver Creek Road).*

- Four Corners Intersection (S1) - Modify business access; install second westbound left-turn lane; add pedestrian crossing treatments
- 3rd Street to 2nd Street (S2) - Replace or widen bridge based on future needs of the highway
- Bozeman Hot Springs/Cobb Hill/Lower Rainbow Road (S3) - Consolidate approaches and realign intersection; improve intersection/roadway lighting
- Cottonwood Road (S7) - Install additional traffic control and realign intersection as warranted.
- Advance Warning Signs (S-16) – Install curve warning signs for substandard roadway elements, (RP 61.2 is specifically on the HIN)
- Substandard Curve Modification (S17-a) - Reconstruct horizontal and vertical curves North of Spanish Creek (RP 69.2 to 68.5)

Implementation Partners:
MDT, Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost:
$3.9M (S1), $3.5M (S2), $1.3M (S3), $1.5M - $3.8M (S7), $310,000 (S16), $4.9M (S17-a)

Timeframe:
Short- to Long-Term

PROJ-17: Bridger Canyon Improvements

Recommendation: Complete the following recommendations from MDT's 2015 *Bridger Canyon Corridor Planning Study*.

- 2.b: Horizontal and Vertical Curve Improvements with Shoulder Widening – RP 20.8 to 22.0
- 4.a: Approach Sight Distance Mitigation/Intersection Realignment - RP 18.8 (Brackett Creek)
- 4.b: Intersection Realignment - RP 18.8 (Brackett Creek)
- RP 13.5 – RP 14.2 – High friction surfacing or advance warning signs with advisory speeds

Implementation Partners:
MDT, Gallatin County, Bozeman-Yellowstone International Airport, Adjacent Landowners, Utility Providers

Estimated Cost:
$770,000 (2.b), $70,000 (4.a), $610,000 (4.b), $380,000 (RP 13.5)

Timeframe:
Short- to Mid-Term

PROJ-18: Belgrade to Bozeman Frontage Road Improvements

BELGRADE to BOZEMAN corridor
FRONTAGE ROAD study

Recommendation: Complete the following recommendations from MDT's 2017 *Belgrade to Bozeman Frontage Road Corridor Study*.

- 3: Airport Road Intersection Improvements - Install an eastbound left-turn lane and/or traffic signal when warranted.
- 8: Passing Zone Modifications - Evaluate and modify existing passing and no-passing signing and striping to meet current standards.
- 9: Install Centerline Rumble Strips - Construct centerline rumble strips along the rural portions of the corridor as appropriate.
- 10: Develop Separated Shared Use Path - Investigate opportunities to develop a path between Bozeman and Belgrade.
- 11: Roadway Reconstruction - Reconstruct the corridor to include one travel lane in each direction, center left-turn lane (where appropriate), and eight-foot shoulders.

Implementation Partners:
MDT, Gallatin County, City of Bozeman, City of Belgrade, Adjacent Landowners, Utility Providers

Estimated Cost:
$1.7M - $2.4M (3), $40,000 (8), $50,000 (9), $2.0M per mile (10), $15.1M (11)

Timeframe:
Short- to Long-Term

PROJ-19: I-90 Corridor Study

Recommendation: Conduct a corridor study in coordination with MDT to evaluate safety concerns on I-90 through Gallatin County.

Implementation Partners:
MDT, Gallatin County, Cities, Towns

Estimated Cost:
$250,000 - $300,000

Timeframe:
Short-Term

6.2. Program Recommendations

Several programs have been identified to support project recommendations and improve safety within the focus areas. These programs take a dual approach, addressing safety through engineering solutions and behavioral strategies. Engineering initiatives focus on infrastructure improvements through roadway design and maintenance, while behavioral programs emphasize education, enforcement, and public awareness to encourage safer behaviors. Together, these strategies aim to reduce crashes and injuries, enhancing community safety.

PROG-1: Curve Signing Program

Tier	Description/Applicability	Strategies
Tier 1 – Horizontal Alignment Warning Signs	Used in advance of horizontal curves on roadways that are functionally classified as either arterials or collectors and have more than 1,000 AADT when the difference between the speed limit and the advisory speed meets standards given by MUTCD. Should be used in most cases.	• Horizontal Alignment Warning Signs • Speed Advisory Plaques
Tier 2 – Supplemental Curve Warning Signs	Use additional traffic control devices within the curve to help guide motorists through curves that violate driver expectancy. Should be used in addition to, and sometimes in place of, Tier 1 signs.	• Combination Curve/Intersection Signs • Combination Horizontal Alignment/Advisory Speed Sign • Chevron Alignment Sign • One-Direction Large Arrow Sign
Tier 3 – Enhanced Signing Countermeasures	Enhanced signage countermeasures used increase the number of drivers who perceive and react to basic curve warning devices. Should be used in combination with Tier 1 and Tier 2 signage.	• Larger Devices • Retroreflective Strip on Sign Post • Highly Retroreflective and Fluorescent Sheeting • Doubling-Up Devices • Flashing Beacons • Dynamic Curve Warning System

Recommendation:
Develop a structured program to systematically sign curves on county roads.

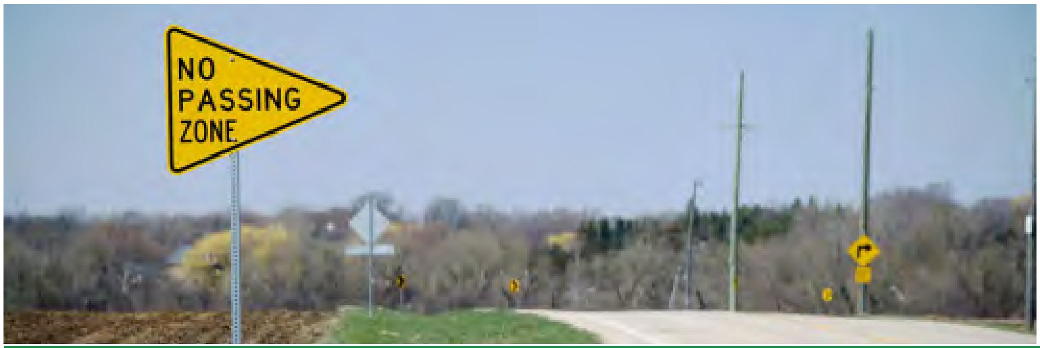
Implementation Partners:
Gallatin County, Cities, Towns, MDT

PROG-2: Shoulder Widening Program

Recommendation:
Develop a structured program to systematically widen shoulders on county roads.

Implementation Partners: Gallatin County, Cities, Towns, MDT, Private Developers, Adjacent Landowners

PROG-3: Passing Zone Review Program



Recommendation: Review passing zones for compliance with the Manual on Uniform Traffic Control Devices (MUTCD) and make necessary adjustments.

Implementation Partners:
Gallatin County, Cities, Towns, MDT

PROG-4: Roadside Management & Vegetation Control Program

Recommendation:
Develop a program to address roadside maintenance, vegetation control, and snow storage.

Implementation Partners:
Gallatin County, Cities, Towns, MDT, Adjacent Landowners

PROG-5: Systemic Safety Program

Recommendation:
Develop data collection procedures for inventorying and assessing the conditions of roadway elements (signs, striping, vegetation, etc.) during regular maintenance activities.

Implementation Partners:
Gallatin County, Cities, Towns, MDT

PROG-6: Annual Crash Data Review Program

Recommendation:
Develop a procedure for conducting annual crash data reviews to inform proactive safety improvements. Incorporate findings into the county's Annual Report **Appendix D**.

Implementation Partners:
Gallatin County, MDT, Consultants

PROG-7: Driver Age Programs

Recommendation:

- Develop a **Gallatin County Parent-Teen Driving Agreement** and promote it through local high schools. Accompany the contract with a list of teen driver educational courses that parents could consider enrolling their students, in addition to driver's ed offered by the state.
- Make **driver's education more accessible to students**, including low-income students/families and home-schooled students. This may involve offering classes as part of the school curriculum, allowing private driver's safety courses in Montana, or coordinating with local insurance agencies, businesses, and organizations to establish a **grant program for students/families** who cannot afford to enroll in state driver's ed courses.
- Develop a **defensive driving course for drivers of all ages**, similar to the Montana Office of Public Instruction's (OPI) D.R.I.V.E., an advanced driving course in Lewistown.
- Coordinate with the City-County Health Department to identify, develop, and distribute **educational pamphlets focused on older driver traffic safety** to physicians' offices, law enforcement agencies, and caregiver agencies. The pamphlets should describe the process for referring older drivers for licensing screening, discuss how to talk to older adults about driving limitations, and offer educational resources for older drivers to improve their driving abilities. (such as AARP's Improve Your Driving Skills and Save Program or Smart Driving Course).
- Similar to car seat safety checks, host **traffic safety events for older adults**, to include vehicle safety checks, fitting for vehicle adaptive devices, or a driving skills course.
- Work with the Montana Motor Vehicle Division to **improve license re-testing referral program**, including electronic reporting and follow-up to ensure re-testing is completed.

Implementation Partners:
Gallatin County, Physicians, Law Enforcement, Caregiver Agencies, Schools, Montana OPI (Driver's Education), Montana Department of Justice/Motor Vehicle Division, AARP, Council on Aging

PROG-8: High Risk Behavior Programs

Recommendation:

- Host an **interactive community event** to engage the public in road safety, featuring activities like Buckle Up Battles and Impaired Driving Goggle Obstacle Courses. These hands-on activities can raise awareness about seat belt use and the dangers of impaired driving in an engaging, memorable way.
- Partner with local schools, and school organizations like Future Community Career Leaders of America (FCCLA), Distributive Education Clubs of America (DECA), and Future Farmers of America (FFA), to create a **county-wide peer-to-peer messaging** campaign that encourages students to promote safe driving behaviors among their peers. Incentivize participation with prizes for schools or students who participate. Encourage students to consider action items listed in the Action Plan strategies.
- Expand the Bozeman-based **Think Twice** and **Bar Fairies** programs to county bars and establishments, educating patrons on the risks of impaired driving and promoting responsible drinking.
- Conduct an **alcohol focused educational campaign** centered around Montana's alcohol laws, including topics like Social Host Responsibility, DUI limits, and penalties. Focus on high schools, college campuses, and local bar establishments to reach a broad audience, ensuring these laws are understood by both young people and adults.
- Host a **Victim Impact Panel** to highlight the consequences of impaired, distracted, and other high-risk driving behaviors. Speakers could include victims, families, first responders, or treatment professionals. Schools and college campuses may serve as a powerful venue for these panels to reach new drivers and those at risk of engaging in such behaviors.
- Partner with local bars to create a **Designated Driver Incentive Program** that rewards those who commit to driving sober. This could include drink discounts or other incentives for designated drivers.
- Collaborate with local tow companies, AAA, and MDT to reinstate and expand **Operation Tipsy Tow** in Gallatin County during holiday periods, with potential for year-round implementation. Explore partnerships with **local DUI defense attorneys to sponsor free or discounted rideshare services** as an alternative to impaired driving.
- Develop and promote an organized **alternative transportation option for major community events** like concerts, football games, parades, and rodeos to prevent impaired driving. Options might include free shuttles, discounted ride services, or designated driving zones.
- Launch a **winter driving educational campaign** to raise awareness about the challenges of driving on snow and ice, including proper vehicle maintenance and safe driving techniques.
- Encourage citizens to use **insurance-sponsored safe driving apps/trackers** and/or to **install dash cams** to help raise awareness of high-risk behaviors and support law enforcement activities aimed at changing safety culture.
- Encourage local businesses, especially trucking companies and those with delivery operations, to develop and implement **employer-sponsored driving policies** that promote safe driving practices among employees. This could include guidelines on personal driving behavior and company vehicle use.

Implementation Partners:

Gallatin County, DUI Task Force, MDT, Bars/Restaurants, Schools/Colleges/Universities, Large Employers, Courts/Attorneys, Community Event Organizers/Venues, Tow Operators, AAA

6.3. Policy Recommendations

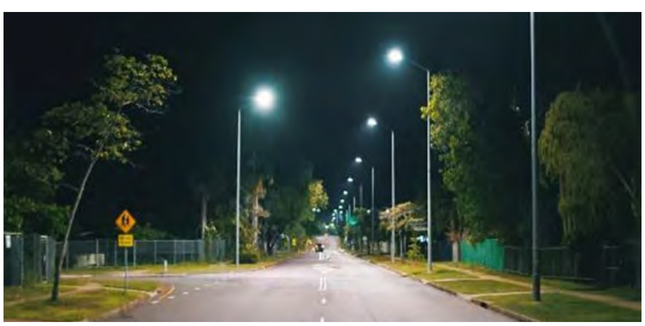
Based on a review of current regulations, policies, procedures, and planning documents, the following policy changes have been identified to help formalize and enhance Gallatin County's transportation safety efforts. Adopting formal policies helps create a framework for consistent implementation, increases the regulatory authority to enforce safety measures, and drives systemic change to reduce underlying safety risks within the county.

POL-1: Snow Removal Priority Routes

Recommendation:
Develop and publish priority routes for snow removal.

Implementation Partners:
Gallatin County, Cities, Towns, MDT

POL-2: Street Lighting Standards



Recommendation:
Establish street lighting standards for county roadways and intersections.

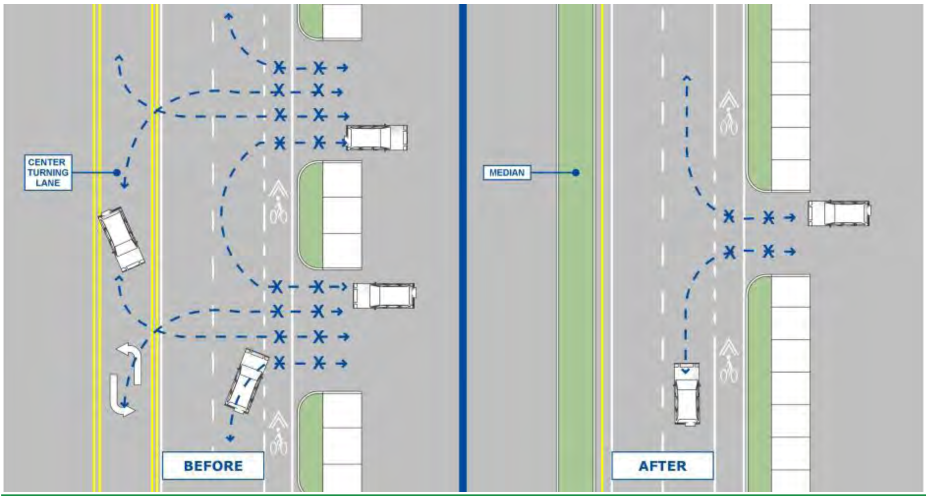
Implementation Partners:
Gallatin County, Cities, Towns, MDT, Private Developers

POL-3: Cell Phone Policy

Recommendation:
Implement a county-wide ordinance prohibiting the use of handheld devices while driving.

Implementation Partners:
Gallatin County,
Law Enforcement

POL-4: Corridor Access Management



Recommendation:
Develop access control plans/resolutions for all routes under the jurisdiction of the Montana Transportation Commission and other high-volume arterials.

Implementation Partners:
Gallatin County, Cities,
Towns, MDT,
Private Developers

Chapter Seven

Project Prioritization and Implementation

A key requirement of the SS4A program is to prioritize identified projects into specific time ranges for the deployment of safety countermeasures within the community. This section outlines the prioritization process developed for the Action Plan and details the steps necessary for future implementation efforts. By establishing clear timelines for project execution, the county can effectively address safety concerns while ensuring a systematic approach to enhancing roadway safety.

6.4. Prioritization

Through public outreach, stakeholder engagement, and coordination with partner agencies, a project prioritization process was developed to determine which recommended projects should be prioritized for funding and implementation. Each project was scored using a comprehensive set of criteria, considering past planning efforts, safety needs, community and agency support, overall cost, and anticipated benefits. This structured **approach enables the county to focus resources on the most impactful safety improvements, while accounting for funding limitations** and available funding opportunities. Below is a description of the prioritization criteria, with each criterion scored low, medium, or high as outlined in **Table 1** on the following page.

- **Crash History:** Projects addressing areas with a history of safety issues, particularly those involving severe injuries, were prioritized. This criterion was based on crash data from 2019 to 2023, with particular focus on the HIN. Since the HIN takes into account factors like crash frequency, severity, and rates, areas with many low-severity crashes on low-volume roads could be overrepresented. To address this, projects were also evaluated based on the frequency of severe injuries in those areas. Locations with recent severe injuries, even if outside the five-year analysis period, were also considered.

- **Past Planning:** Projects identified in previous planning efforts were prioritized to ensure continuity and alignment with long-term community safety and transportation goals. Relevant plans include the *Greater Triangle Area Transportation Plan*, *Gallatin County Intersections Project,* and *Triangle Trails Plan*, among others developed by partner agencies.

- **Estimated Cost:** Projects were evaluated based on their present planning-level cost estimates and the anticipated benefits relative to implementation costs. Lower-cost projects were prioritized to make the most of available funding. However, projects offering significant benefits or those likely to be competitive for discretionary funding received higher scores, even if their costs were higher. The evaluation considered both safety and operational improvements as benefits, while construction costs and potential environmental impacts were assessed as costs. It's important to note that the evaluation focused on current benefits and costs, but the benefit/cost ratio may change over time due to factors such as travel trends, economic conditions, or shifts in community needs.

- **Project Support:** Community and partner support is crucial for project success. Therefore, projects reflecting the needs and preferences of residents and stakeholders were prioritized. This criterion was evaluated based on feedback gathered from the public and stakeholders through various channels, including the online commenting map, surveys, written comments, the Safety Summit, and Task Force meetings. The assessment was qualitative in nature.

CRITERION			SCORE		
			Low	**Medium**	**High**
1	**Crash History**	**HIN**	No Crashes	Bottom 90% on HIN	Top 10% or Higher on HIN
		Severe Injuries	No Severe Injuries	1+ Serious Injuries	1+ Fatalities
2	**Past Planning**		Not Identified	Identified in 1 Past Planning Effort	Identified in 2+ Past Planning Efforts
3	**Estimated Cost**	**Cost-Basis**	High Cost ($1M+)	Mid Cost ($100k - $1M)	Low Cost (<$100k)
		Benefit/Cost	Costs Likely Exceed Benefits	Costs Likely Equal to Benefits	Benefits Likely Exceed Costs
4	**Project Support**	**Community**	No comments	Some comments	Many comments
		Partners	Low Support	Medium Support	High Support

Table 1: Prioritization Criteria

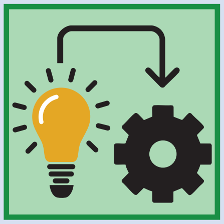
Based on the combined scores from all prioritization criteria, projects were categorized into high (⌃), medium (—), and low (⌄),priority levels. This prioritization scheme is designed to identify projects that are expected to be highly beneficial and supported by the community and thus should be prioritized for available funds. Note that **projects that are realistically expected to be implemented only in the long term may still be classified as high priority. This designation signals that the project should be considered for discretionary grants or other non-traditional funding sources.** The results of the prioritization process are summarized in **Table 2**.

ID	Project Name	Estimated Cost	Timeframe	Priority
PROJ-1	**Curve Signing Enhancements**	$1,500 - $3,000 per curve	Short-Term	⌃
PROJ-2	**Amsterdam Rd/Royal Rd**	$1.1M (signal) $2.2M (roundabout)	Mid-Term	⌄
PROJ-3	**Cameron Bridge Rd (Highline Rd to Kimm Rd)**			
	Low Cost Improvements	$46,000	Short-Term	⌃
	Reconstruction	$2.2M	Long-Term	—
PROJ-4	**Jackrabbit Ln/E. Valley Center Rd**	$77,000	Short-Term	⌃
PROJ-5	**S. Alaska Rd (Frank Rd to E. Valley Center Rd)**	$36.7M	Long-Term	⌃
PROJ-6	**Love Ln/E. Valley Center Rd**	$2.7M -$6.6M	Mid-Term	—
PROJ-7	**Harper Puckett Rd (E. Valley Center Rd to Baxter Ln)**			
	Curve Signing Enhancements	$40,000	Short-Term	⌃
	Shoulder Widening	$2.1M	Long-Term	—
PROJ-8	**Baxter Ln (Harper Puckett Rd to Jackrabbit Ln)**			
	Delineation	$130,000	Short-Term	⌃
	Reconstruction	$27.6M	Long-Term	⌃
PROJ-9	**Love Ln/Durston Rd**	$7.3M	Mid-Term	⌃
PROJ-10	**Gooch Hill Rd (Huffine Ln to Durston Rd)**			
	Intersection Signing Enhancements (Durston Rd)	$5,000	Short-Term	—
	Right-Turn Lane, Lighting, Non-Moto Upgrades(Huffine Ln)	$910,000	Mid-Term	—
	Corridor Reconstruction	$13.8M	Long-Term	⌄
PROJ-11	**Huffine Ln Shared Use Path**	$3.5M	Mid-Term	⌃
PROJ-12	**Stucky Rd/Gooch Hill Rd**	$8,000	Short-Term	—
PROJ-13	**Gooch Hill Rd/Chapman Rd**	$7,000	Short-Term	—

Table 2: Project Prioritization Results

ID	Project Name	Estimated Cost	Timeframe	Priority
PROJ-14	**Axtell Anceny Rd (River Rd to River Camp Rd)**			
	Curve Signing Enhancements	$19,000	Short-Term	
	Intersection Realignment	$50,000	Mid-Term	
PROJ-15	**Gooch Hill Rd/US 191**			
	Intersection Visibility Enhancements	$15,000	Short-Term	
	Traffic Control Improvements	$1.7 M - $3.1M	Long-Term	
PROJ-16	**US 191 Improvements**			
	Four Corners Intersection (S1)	$3.9M	Mid-Term	
	3rd St to 2nd St (S2)	$3.5M	Mid-Term	
	Bozeman Hot Springs/Cobb Hill/Lower Rainbow Rd (S3)	$1.3M	Mid-Term	
	Cottonwood Rd (S7)	$1.5M - $3.8M	Mid-Term	
	Advance Warning Signs (S-16)	$310,000	Short-Term	
	Substandard Curve Modification (S17-a)	$4.9M	Long-Term	
PROJ-17	**Bridger Canyon Improvements**			
	Curve Improvements with Shoulder Widening (2.b)	$770,000	Mid-Term	
	Sight Distance Mitigation/Intersection Realignment (4.a)	$70,000	Short-Term	
	Intersection Realignment (4.b)	$610,000	Mid-Term	
	RP 13.5 – RP 14.2	$380,000	Short-Term	
PROJ-18	**Belgrade to Bozeman Frontage Rd Improvements**			
	Airport Rd Intersection Improvements (3)	$1.7M - $2.4M	Mid-Term	
	Passing Zone Modifications (8)	$40,000	Short-Term	
	Install Centerline Rumble Strips (9)	$50,000	Short-Term	
	Develop Separated Shared Use Path (10)	$2.0M per mile	Mid-Term	
	Roadway Reconstruction (11)	$15.1M	Long-Term	
PROJ-19	**I-90 Corridor Study**	$250,000 - $300,000	Short-Term	

Table 2: Project Prioritization Results (Continued)



6.5. Implementation and Next Steps

The *Gallatin County SS4A Action Plan* aims to improve transportation safety within the county, with the goal of reducing combined fatalities and suspected serious injuries on roadways in the planning area by half— from 46 in 2025 to 23 by 2034—through the implementation of the Action Plan. While **specific funding for the proposed improvements has not yet been secured**, the county is committed to advancing the recommended safety projects as funding becomes available.

To help the county identify the most cost-effective projects with the greatest potential to address safety concerns, the recommended projects have been prioritized into high, medium, and low categories. Additionally, implementation timeframes (short-term, mid-term, and long-term) have been established to provide a reasonable expectation for when projects may be implemented, based on current funding availability. These **prioritization and implementation timeframes are intended as an initial guide but will remain flexible to adapt to changes in funding, crash trends, or community priorities**.

To support the county's ongoing commitment to safety improvements, an Annual Safety Report will be prepared each year **Appendix D**. This report provides the opportunity to adjust project priorities, assess current community needs, and identify new projects as necessary. It will offer greater transparency and help track progress in addressing safety issues throughout Gallatin County and will be made available on the county's website for public viewing.

As the Action Plan is implemented, the county will focus on executing the identified projects while staying proactive in addressing developing safety concerns. The strategies outlined in the plan provide a toolbox for developing new projects and initiatives as needed to respond to emerging trends. Additionally, the county will implement programs and policies that support proactive safety improvements, ensuring continuous progress. Through regular evaluation and adjustments, the county will remain responsive to changes in transportation safety needs.

Supplemental Planning

In addition to securing planning funds to complete the SS4A Action Plan, Gallatin County was awarded funds for supplemental planning to further enhance the plan. The goal of this supplemental planning effort is to make the plan more actionable and effective for implementation. Up to five supplemental planning efforts may be identified through stakeholder coordination, public input, and county needs. These activities may include detailed crash analyses for specific locations, field investigations, preliminary designs, initial program development, or enhanced public engagement. The findings and recommendations from these efforts will inform the development of a complementary safety plan, which will be produced as an amendment to this Action Plan.

Future SS4A Funding Opportunities

This Action Plan was developed by funding from the USDOT SS4A grant program. The program funds two grant types, (1) planning and demonstration grants and (2) implementation grants. The Action Plan was developed using a planning and demonstration grant. Future opportunities to apply for additional grants are expected to be available under the SS4A program to fund the demonstration and implementation of the projects and strategies contained in this plan.

Once the Action Plan is adopted, Gallatin County could pursue a grant to conduct demonstration activities to inform future project development activities for projects and programs recommended in the Action Plan. The county could also apply for implementation grant funds to implement projects and strategies identified in the Action Plan to address a specific roadway safety problem. Eligible projects and strategies can be infrastructural, behavioral, and/or operational activities.

For **demonstration grants**, USDOT seeks to fund temporary safety improvements that inform Action Plans by testing proposed project and strategy approaches to determine future benefits and future scope. Activities must measure potential benefits through data collection and evaluation to inform future implementation at a systematic level. Eligible demonstration activities include feasibility studies, MUTCD engineering studies, or pilot programs related to behavioral activities or new technologies. Demonstration activities may not involve permanent roadway reconstruction.

For **implementation grants**, USDOT has historically sought to award funds to projects and strategies that reduce roadway fatalities and serious injuries; align with and comprehensively address identified safety problems; employ low-cost, high-impact strategies over a wide geographical area; incorporate engagement and collaboration into how projects and strategies are executed; and will be able to complete the full scope of funded projects and strategies within 5 years after the establishment of a grant agreement. As an additional consideration, the USDOT may factor in elements such as community characteristics, geographic diversity, and alignment with broader federal priorities when comparing highly rated applications and selecting awards.

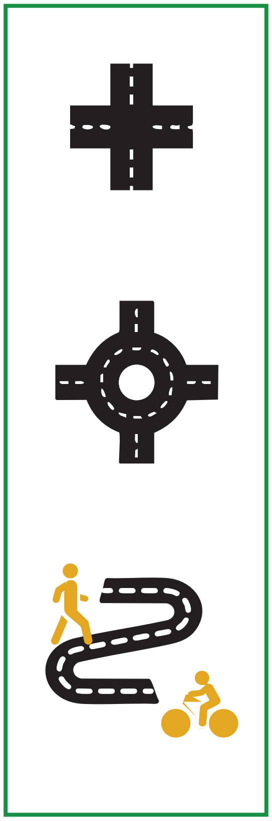
Implementation grants provide Federal funds to implement projects and strategies identified in a Comprehensive Safety Action Plan. The proposed action should include specific intervention types, address common safety risk characteristics, and be located on the Action Plan's high-injury network to the extent practicable.

The SS4A program was established in 2021, with funding authorized through 2026. Gallatin County received funds from the 2023 grant cycle, and the 2024 grant cycle closed on August 29, 2024. Future grant funding is anticipated to be available in Federal fiscal years 2025 and 2026, subject to review and modification by the current Federal Administration. To be competitive for implementation grant funds under the SS4A program, Gallatin County may start with High Priority projects identified in **Section 7.1**. The county should also initiate the project development process for the priority project(s) to ensure adequate project readiness. This means demonstrating the ability to execute and complete the full scope of work in the application proposal within 5 years of when the grant agreement is executed, with a particular focus on design and construction, as well as environmental, permitting, and approval processes. The Notices of Funding Opportunity (NOFOs) from past funding cycles provide additional information about SS4A application requirements for reference in preparing for upcoming opportunities, and updated information about the program is expected to be provided by the current Federal Administration.

Future demonstration grant applications could be considered for the following list of potential programs or pilot projects to **help inform future implementation activities or systematic project implementation**. Additional research should be conducted to ensure the proposed activities fully align with grant criteria outlined in the applicable NOFO.

- **PROG-1: Curve Signing Program** – Pilot the use of the tiered curve signing techniques at high-risk curves, such as Thorpe Road or Bozeman Trail Road. Conduct a before/after study to evaluate the impacts of various signing techniques.
- **PROG-3: Passing Zone Review Program -** Conduct a county-wide evaluation of passing zones to ensure compliance with current MUTCD standards. Consider including an evaluation of the safety impacts of removing passing zones on higher-speed county roads, such as Gooch Hill Road or Baxter Lane.
- **POL-2: Street Lighting Standards –** Pilot the implementation of temporary street lighting at a high-risk intersection, such as Stucky Road/ Gooch Hill Road or S. Alaska Road/E. Valley Center Road, and conduct a before/after study to evaluate the safety impacts.

Future implementation grant funding applications could be considered for the **following list of High Priority projects** that would be outside the ability of Gallatin County or MDT to fund in the short-term. Careful consideration of USDOT funding criteria would be needed to determine relative competitiveness in seeking Federal grant funding. Furthermore, if the county intends to pursue funds during the 2025 or 2026 grant cycles, it would be beneficial to begin preliminary engineering for the project(s) to ensure the county can meet project readiness criteria.



- **PROJ-5: Alaska Road (Frank Road to E. Valley Center Road) –** This corridor, as well as the adjoining intersections were identified on the HIN and have been the subject of past county planning efforts. Beyond identified crash trends, and county capacity and safety concerns, the public was highly vocal about the need for improvements to this stretch of roadway.
- **PROJ-9: Love Lane/Durston Road –** This intersection was identified as the second highest scoring intersection on the off-system only HIN, and the fifth highest scoring intersection on the full system HIN. Short-term improvements have been made to improve safety at the intersection but are not anticipated to be sustainable over the long-term given increasing traffic volumes in the area. The county has already identified a roundabout as the preferred long-term solution through a comprehensive intersection control evaluation process.
- **PROJ-11: Huffine Lane Shared Use Path –** A shared use path has long been a priority for Gallatin County and its residents to enhance safety, mobility, and connectivity between urban and rural regions of the county. Huffine Lane is a high-speed, high-volume roadway but provides a direct route into Bozeman with multiple segments of the roadway appearing on the HIN. The Huffine Lane/Gooch Hill Road intersection also appears as the third highest scoring intersection on the HIN, primarily due to a bicyclist fatality in 2022. Accordingly, consider combining the path with non-motorized accommodations and intersection visibility improvements recommended under **PROJ-10**.

Implementation Process

Figure 22 illustrates the project implementation process. As the Action Plan progresses, projects will move from the planning stage to development and, eventually, construction. Public involvement will be a key part of all phases. The general next steps for project implementation are as follows:

1. A funding source(s) is identified and secured.
2. The project is nominated for implementation by the county or other partner agency (such as MDT).
3. Feasibility studies, environmental investigations, and other development processes are completed as applicable.
4. A design is completed for the project and approved by responsible agency(ies) as needed.
5. Right-of-way or easements are acquired for the project, if necessary.
6. The project is constructed.

The recommended projects are designed with the flexibility to be completed individually or combined with other projects into larger efforts, depending on funding availability and other considerations. Cost savings may be achieved by grouping similar projects together.

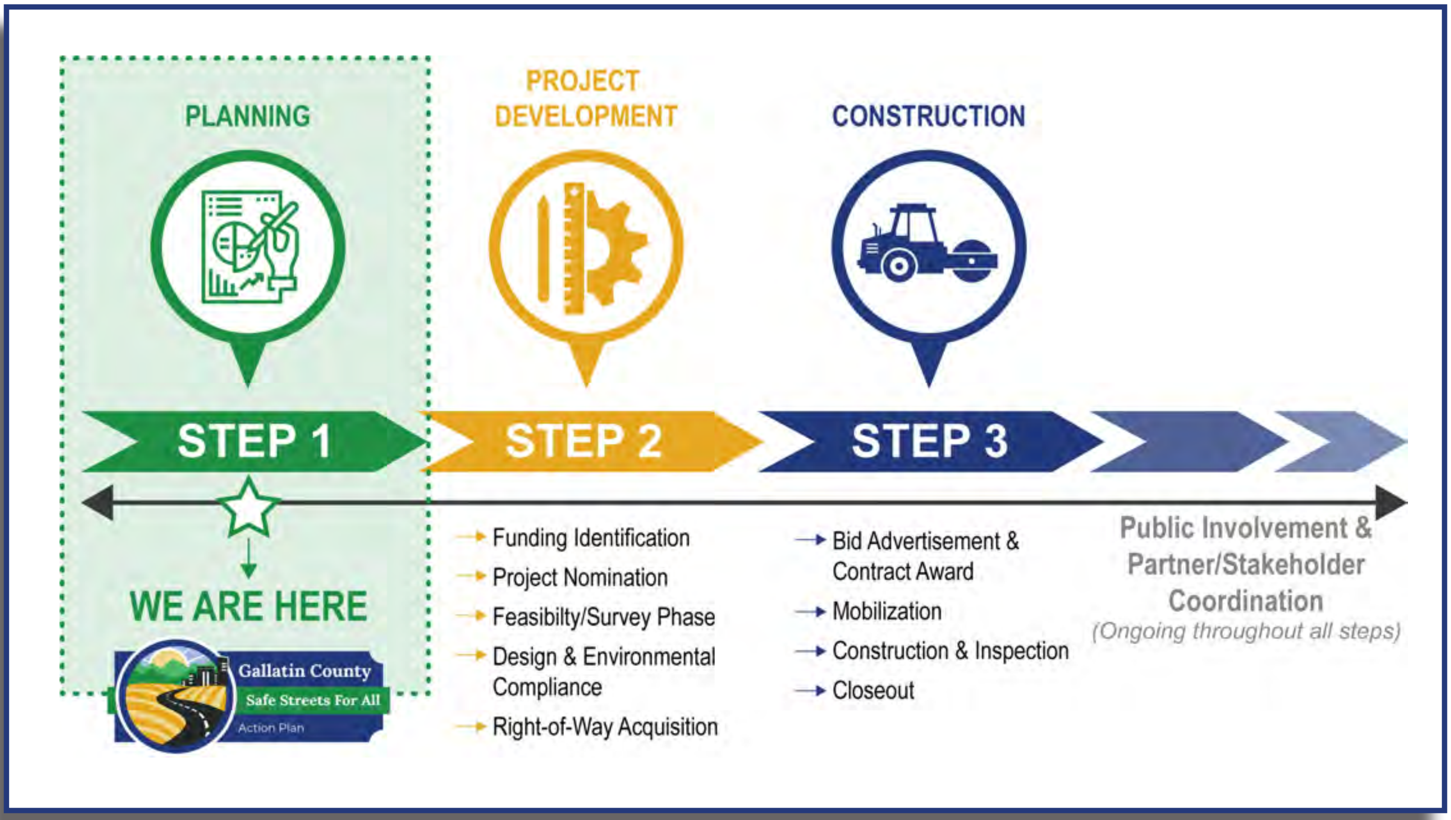


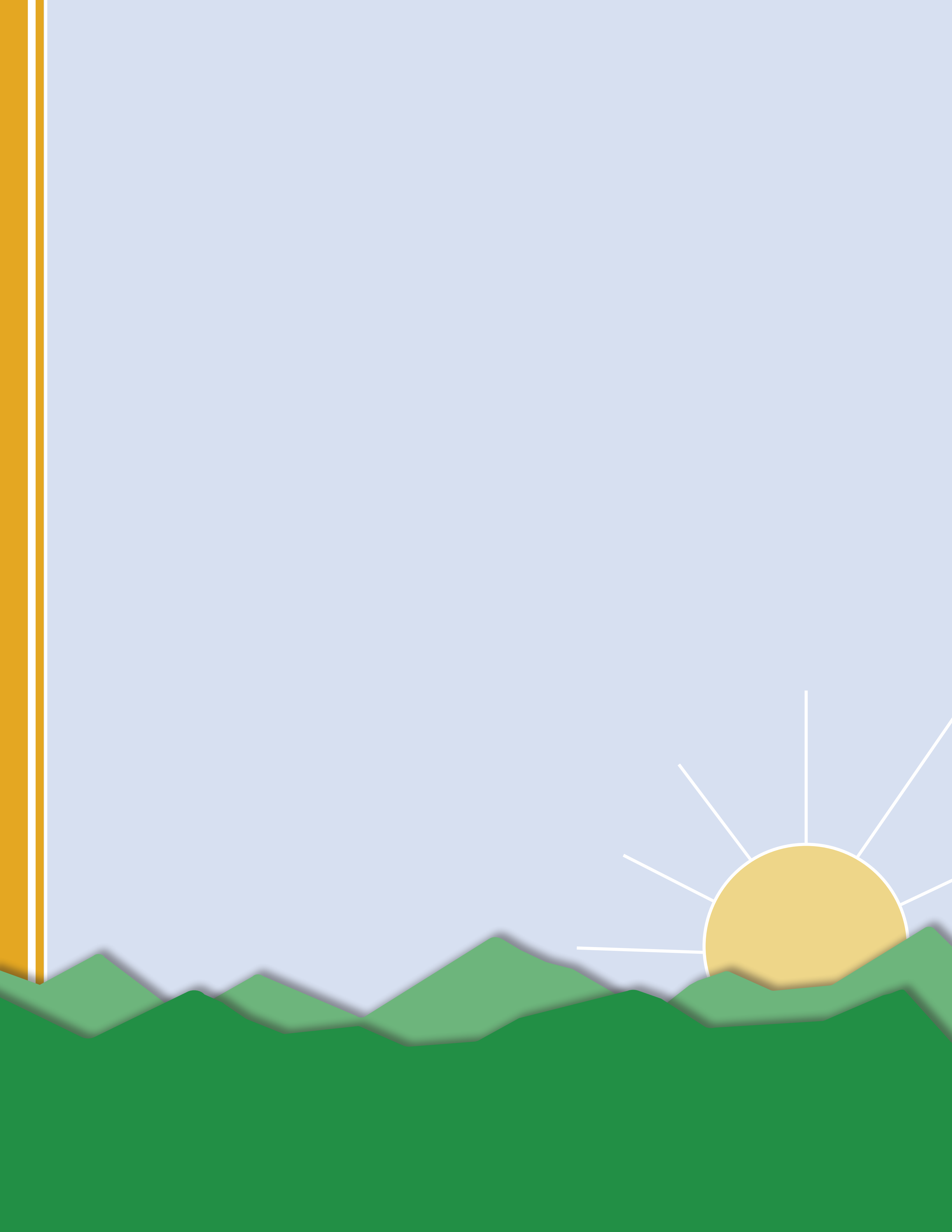
Figure 22: Project Development Process

6.6. Additional Considerations

Achieving meaningful improvements in transportation safety requires cooperation across the 4 E's of Safety—Education, Enforcement, Engineering, and EMS. Partners representing these elements must work together in a coordinated effort to address the diverse factors that contribute to road safety. While engineering solutions such as road design improvements and infrastructure enhancements are important, they can fall short if not reinforced through education and enforcement. For instance, changes to speed limits or cell phone ordinances may be well-intentioned but will not have the desired impact unless drivers are educated about the changes and enforcement is consistent. Public awareness campaigns and law enforcement efforts must be ongoing to ensure that safety measures are respected and effective. Safety is not a one-time effort—it requires continuous monitoring, education, and enforcement to maintain its momentum and effectiveness.

In addition to collaboration within the 4 E's, effective multiagency coordination is crucial for the successful implementation of safety improvements across Gallatin County. The Action Plan primarily focuses on the rural regions of the county and the urban-rural interface with the Cities of Bozeman and Belgrade, each of which is working on its own transportation safety initiatives. **To ensure a cohesive and consistent approach, all plans must align in their messaging and objectives.** This alignment is particularly important as the City of Bozeman was recently established as a Metropolitan Planning Organization (MPO) and is embarking on its first MPO transportation planning effort. The MPO boundary extends beyond the city limits, with both Belgrade and Gallatin County as partners. As such, future transportation efforts should align with the safety priorities outlined in this Action Plan, as well as those in the respective Action Plans of Bozeman and Belgrade, to ensure county-wide consistency in addressing safety issues.

Furthermore, many of the highest-volume roadways in Gallatin County are MDT highways, and much of the densest development occurs on roadways within cities and towns. While this Action Plan primarily focuses on routes under county jurisdiction, improving safety across the entire region will require coordination with MDT, local jurisdictions, and other partner agencies. **Multiagency collaboration will be essential to ensure that safety improvements are implemented effectively across all jurisdictions**, fostering a unified effort to reduce traffic-related incidents and improve overall safety throughout Gallatin County.



Appendix A:

Public Involvement

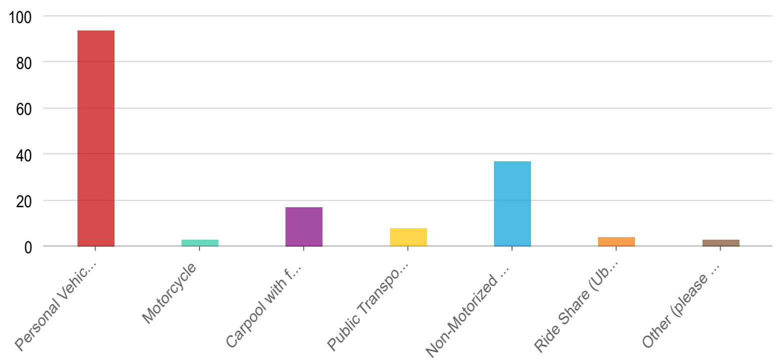
A-1: Community Safety Priorities Survey Results
A-2: Interactive Mapping Comments
A-3: Comments Outside Review
A-4: Comments During Review
A-5: Project Prioritization Survey Results

A-1: Community Safety Priorities Survey Results

Gallatin SS4A Survey

Safety Concerns

When traveling in Gallatin County, what are the primary ways that you travel? (select up to 3)

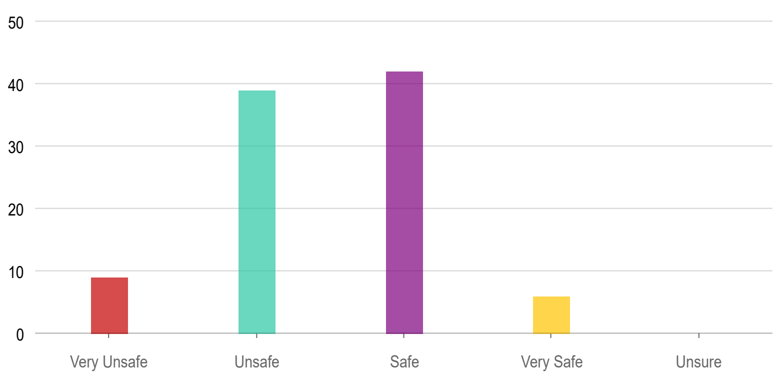


Answers	Count	Percentage
Personal Vehicle	94	97.92%
Motorcycle	3	3.13%
Carpool with family/friends/coworkers	17	17.71%
Public Transportation (Skyline, Streamline, Galavan, etc.)	8	8.33%
Non-Motorized Transportation (walking, biking, wheelchair, etc.)	37	38.54%
Ride Share (Uber, Lyft, etc.)	4	4.17%
Other (please specify)	3	3.13%

Answered: 96 Skipped: 0

Safety Concerns > 2.How safe do you feel Gallatin County roadways are for the following user groups?

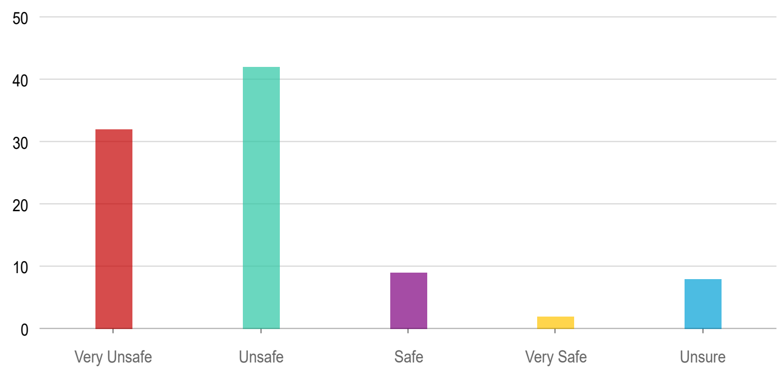
Drivers



Answers	Count	Percentage
Very Unsafe	9	9.38%
Unsafe	39	40.63%
Safe	42	43.75%
Very Safe	6	6.25%
Unsure	0	0%

Answered: 96 Skipped: 0

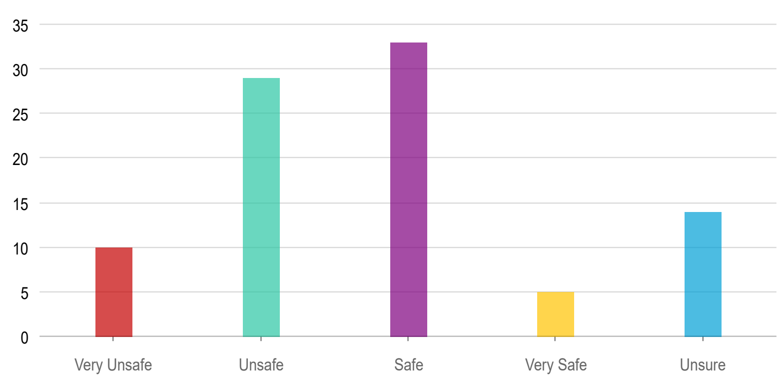
Motorcyclists



Answers	Count	Percentage
Very Unsafe	32	33.33%
Unsafe	42	43.75%
Safe	9	9.38%
Very Safe	2	2.08%
Unsure	8	8.33%

Answered: 93 Skipped: 3

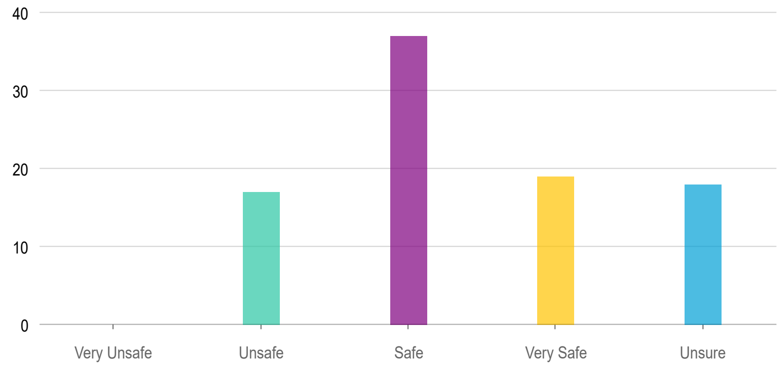
Freight/Truck Operators



Answers	Count	Percentage
Very Unsafe	10	10.42%
Unsafe	29	30.21%
Safe	33	34.38%
Very Safe	5	5.21%
Unsure	14	14.58%

Answered: 91 Skipped: 5

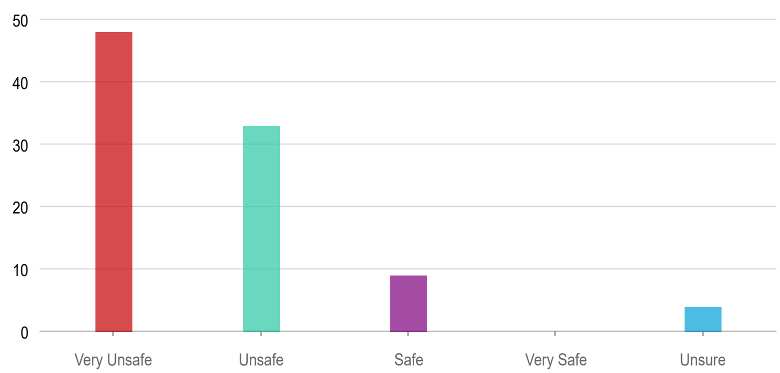
Public Transit Riders



Answers	Count	Percentage
Very Unsafe	0	0%
Unsafe	17	17.71%
Safe	37	38.54%
Very Safe	19	19.79%
Unsure	18	18.75%

Answered: 91 Skipped: 5

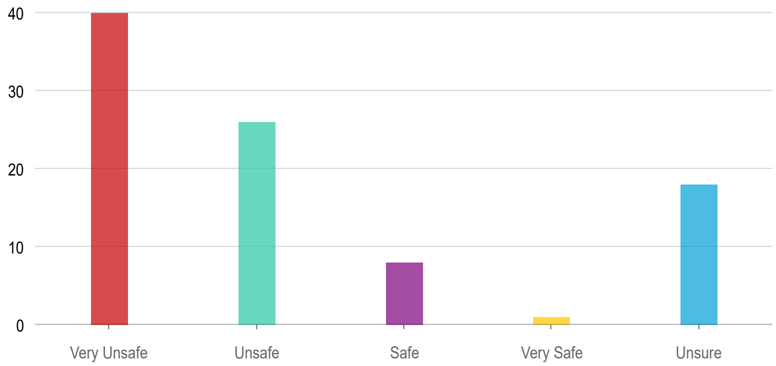
Non-Motorists



Answers	Count	Percentage
Very Unsafe	48	50%
Unsafe	33	34.38%
Safe	9	9.38%
Very Safe	0	0%
Unsure	4	4.17%

Answered: 94 Skipped: 2

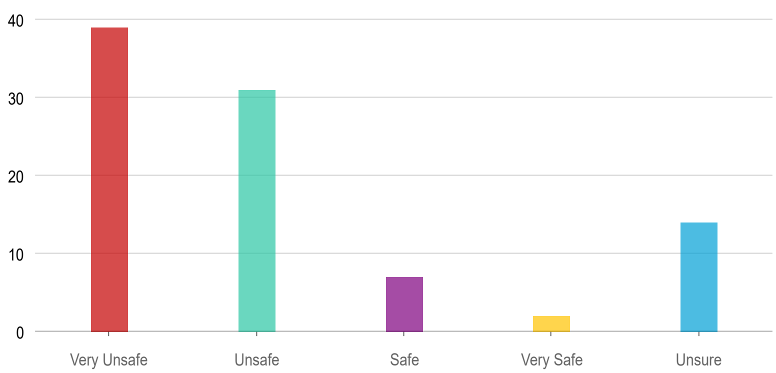
Disabled Persons



Answers	Count	Percentage
Very Unsafe	40	41.67%
Unsafe	26	27.08%
Safe	8	8.33%
Very Safe	1	1.04%
Unsure	18	18.75%

Answered: 93 Skipped: 3

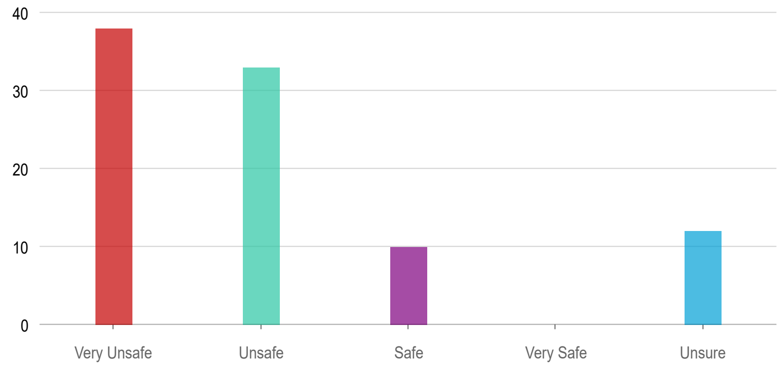
Elderly



Answers	Count	Percentage
Very Unsafe	39	40.63%
Unsafe	31	32.29%
Safe	7	7.29%
Very Safe	2	2.08%
Unsure	14	14.58%

Answered: 93 Skipped: 3

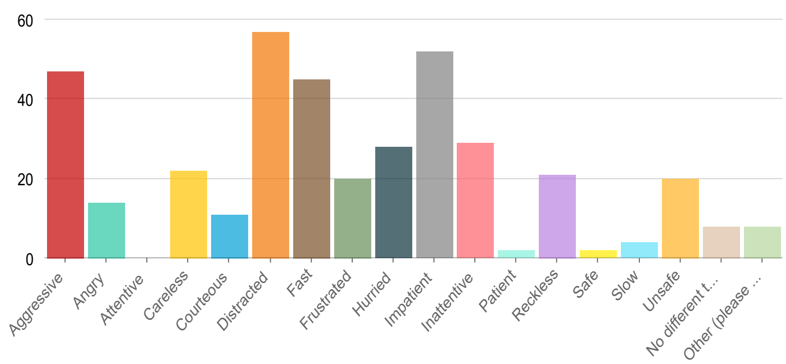
Youth



Answers	Count	Percentage
Very Unsafe	38	39.58%
Unsafe	33	34.38%
Safe	10	10.42%
Very Safe	0	0%
Unsure	12	12.5%

Answered: 93 Skipped: 3

- **3.What words do you feel best describe the behavior of drivers in Gallatin County? (select …**

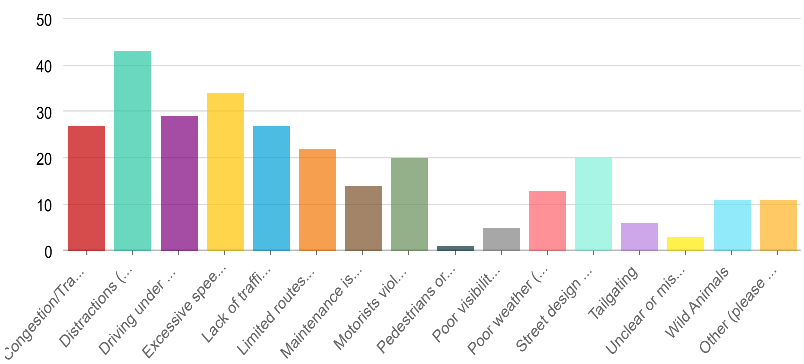


Answers	Count	Percentage
Aggressive	47	48.96%
Angry	14	14.58%
Attentive	0	0%
Careless	22	22.92%
Courteous	11	11.46%
Distracted	57	59.38%
Fast	45	46.88%
Frustrated	20	20.83%
Hurried	28	29.17%
Impatient	52	54.17%
Inattentive	29	30.21%
Patient	2	2.08%
Reckless	21	21.88%

Safe	2	2.08%
Slow	4	4.17%
Unsafe	20	20.83%
No different than anywhere else	8	8.33%
Other (please specify)	8	8.33%

Answered: 96 Skipped: 0

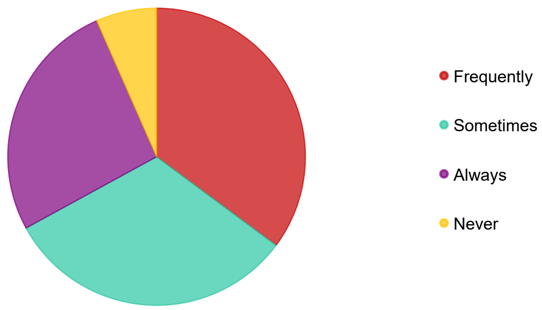
Thinking about your experience traveling within Gallatin County, what do you think are the…



Answers	Count	Percentage
Congestion/Traffic	27	28.13%
Distractions (electronic devices, passengers, etc.)	43	44.79%
Driving under the influence	29	30.21%
Excessive speeding	34	35.42%
Lack of traffic enforcement	27	28.13%
Limited routes/facilities for non-motorists (bicycles, pedestrians, etc.)	22	22.92%
Maintenance issues (potholes, debris, snow removal, etc.)	14	14.58%
Motorists violating traffic laws	20	20.83%
Pedestrians or bicyclists violating traffic laws	1	1.04%
Poor visibility/lack of lighting	5	5.21%
Poor weather (rain, snow, fog, etc.)	13	13.54%
Street design issues	20	20.83%
Tailgating	6	6.25%
Unclear or missing signage/striping	3	3.13%
Wild Animals	11	11.46%
Other (please specify)	11	11.46%

Answered: 96 Skipped: 0

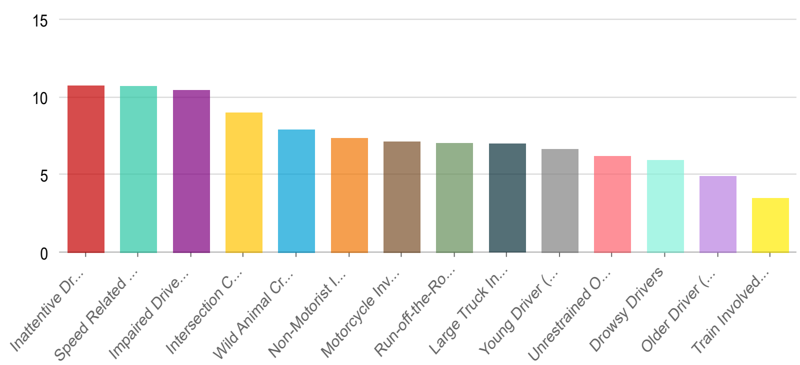
How often does safety affect your decision of how or when you travel?



Answers	Count	Percentage
Frequently	32	33.33%
Sometimes	29	30.21%
Always	24	25%
Never	6	6.25%

Answered: 91 Skipped: 5

- **Please rank the following focus areas in order of priority to address FATAL AND…**

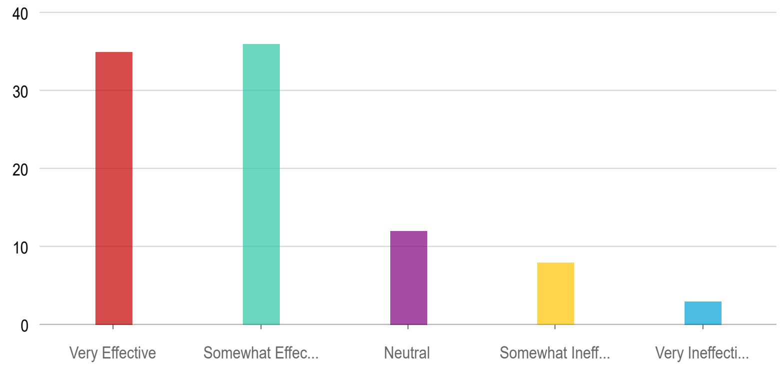


Rank	Answers	1	2	3	4	5	6	Average score
1	Inattentive Drivers	17.2% 16	13.98% 13	15.05% 14	12.9% 12	16.13% 15	10.75% 10	3.23% 10.77 3
2	Speed Related Crashes	16.13% 15	21.51% 20	18.28% 17	15.05% 14	4.3% 4	5.38% 5	10.74
3	Impaired Drivers	20.43% 19	20.43% 19	11.83% 11	9.68% 9	7.53% 7	8.6% 8	4.3% 10.49 4
4	Intersection Crashes	10.75% 10	7.53% 7	16.13% 15	11.83% 11	8.6% 8	5.38% 5	9.04
5	Wild Animal Crashes	10.75% 10	3.23% 3	7.53% 7	7.53% 7	4.3% 4	10.75% 10	10.75% 7.95 10
6	Non-Motorist Involved Crashes	9.68% 9	10.75% 10	3.23% 3	3.23% 3	5.38% 5	5.38% 5	7.38

Answered: 93 Skipped: 3

Safety Concerns > Please indicate how effective you believe the following safety strategies are at reducing FATALITIES AND SERIOUS INJURIES in Gallatin County.

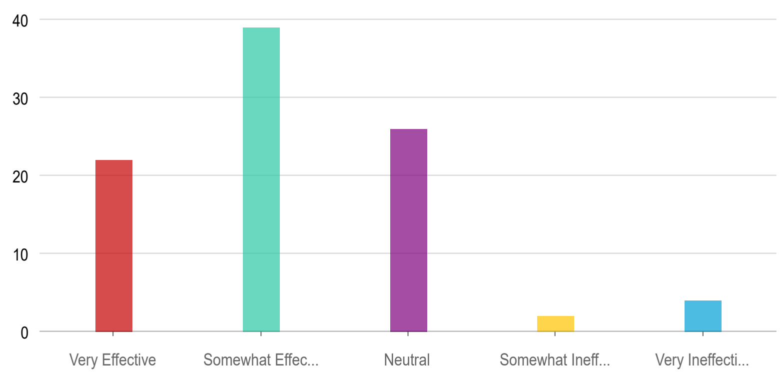
- **Roadside Enhancements/ Amenities – Addition of enhanced roadway feature…**



Answers	Count	Percentage
Very Effective	35	36.46%
Somewhat Effective	36	37.5%
Neutral	12	12.5%
Somewhat Ineffective	8	8.33%
Very Ineffective	3	3.13%

Answered: 94 Skipped: 2

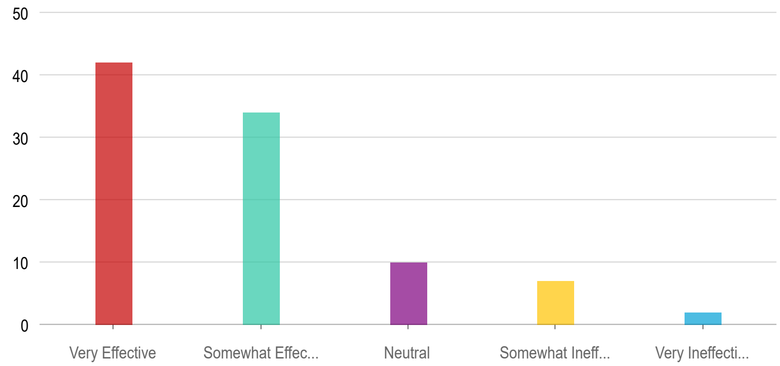
Improved Emergency Services – Decrease emergency response times,…



Answers	Count	Percentage
Very Effective	22	22.92%
Somewhat Effective	39	40.63%
Neutral	26	27.08%
Somewhat Ineffective	2	2.08%
Very Ineffective	4	4.17%

Answered: 93 Skipped: 3

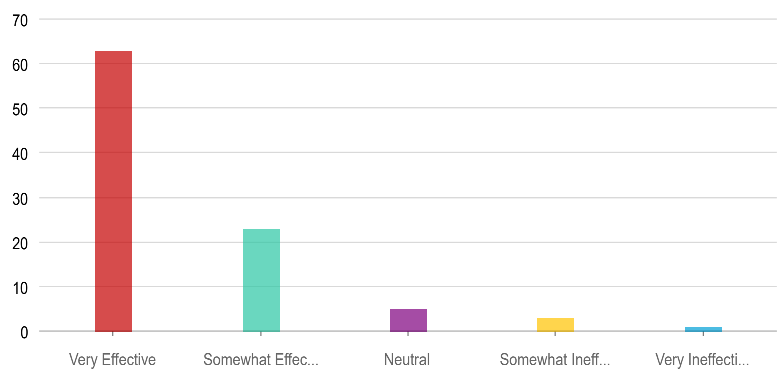
Increased Enforcement – Increase enforcement and citations of illegal and…



Answers	Count	Percentage
Very Effective	42	43.75%
Somewhat Effective	34	35.42%
Neutral	10	10.42%
Somewhat Ineffective	7	7.29%
Very Ineffective	2	2.08%

Answered: 95 Skipped: 1

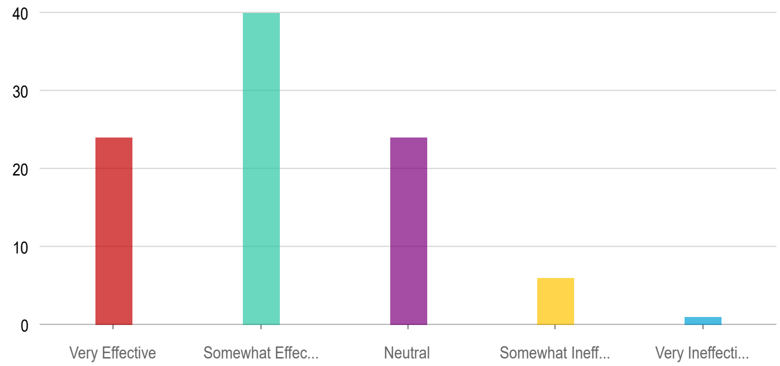
Infrastructure Improvements – Improve existing infrastructure to reduce…



Answers	Count	Percentage
Very Effective	63	65.63%
Somewhat Effective	23	23.96%
Neutral	5	5.21%
Somewhat Ineffective	3	3.13%
Very Ineffective	1	1.04%

Answered: 95 Skipped: 1

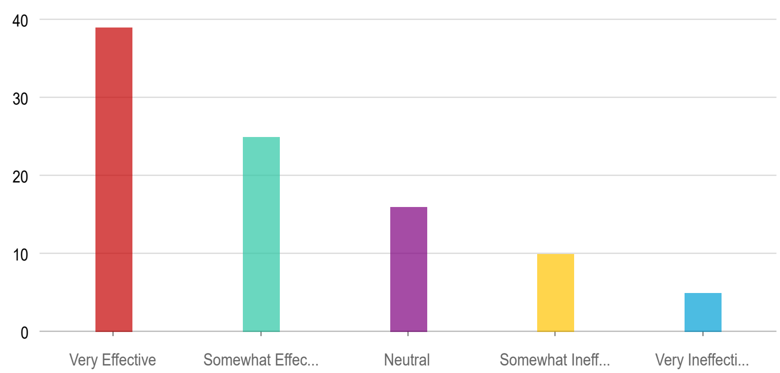
Safety Management – Improve coordination between safety stakeholders,…



Answers	Count	Percentage
Very Effective	24	25%
Somewhat Effective	40	41.67%
Neutral	24	25%
Somewhat Ineffective	6	6.25%
Very Ineffective	1	1.04%

Answered: 95 Skipped: 1

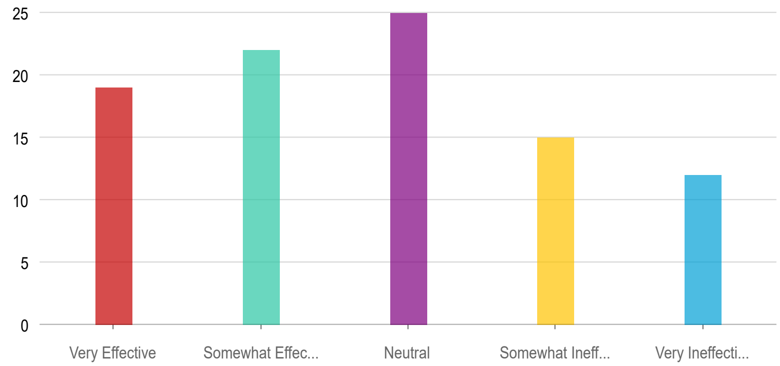
Traffic Calming – Consider reduced design speeds, reduced speed limits, an…



Answers	Count	Percentage
Very Effective	39	40.63%
Somewhat Effective	25	26.04%
Neutral	16	16.67%
Somewhat Ineffective	10	10.42%
Very Ineffective	5	5.21%

Answered: 95 Skipped: 1

Training and Education – Implement public awareness campaigns and…

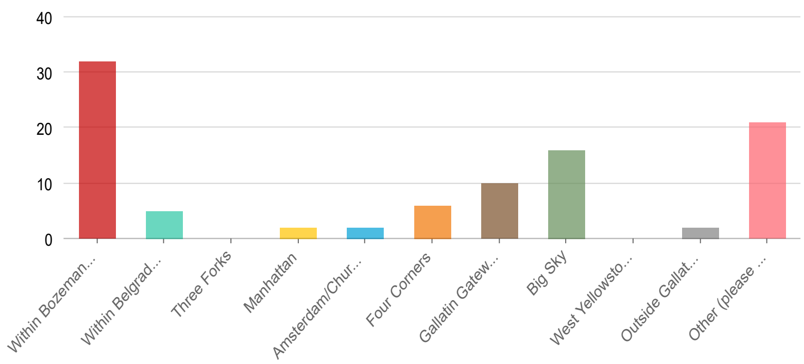


Answers	Count	Percentage
Very Effective	19	19.79%
Somewhat Effective	22	22.92%
Neutral	25	26.04%
Somewhat Ineffective	15	15.63%
Very Ineffective	12	12.5%

Answered: 93 Skipped: 3

Demographics

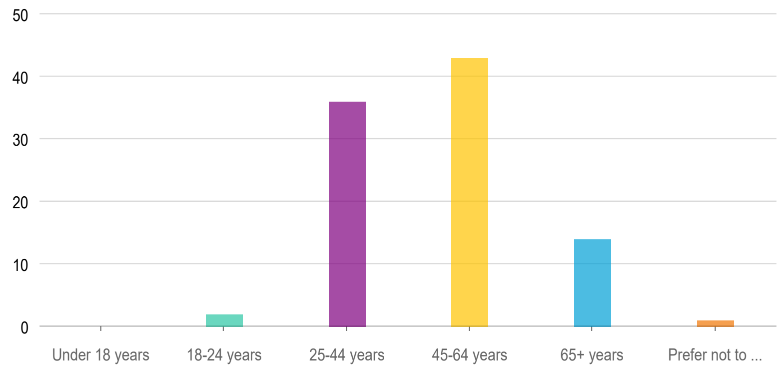
- **Where do you live within Gallatin County?**



Answers	Count	Percentage
Within Bozeman City Limits	32	33.33%
Within Belgrade City Limits	5	5.21%
Three Forks	0	0%
Manhattan	2	2.08%
Amsterdam/Churchill	2	2.08%
Four Corners	6	6.25%
Gallatin Gateway	10	10.42%
Big Sky	16	16.67%
West Yellowstone	0	0%
Outside Gallatin County	2	2.08%
Other (please specify)	21	21.88%

Answered: 96 Skipped: 0

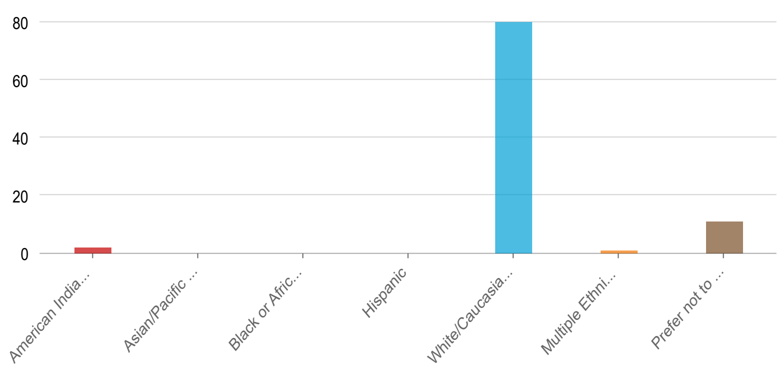
What is your age?



Answers	Count	Percentage
Under 18 years	0	0%
18-24 years	2	2.08%
25-44 years	36	37.5%
45-64 years	43	44.79%
65+ years	14	14.58%
Prefer not to answer	1	1.04%

Answered: 96 Skipped: 0

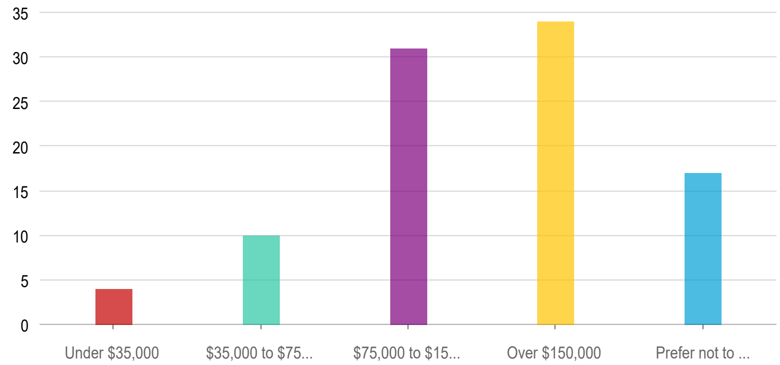
Which race/ethnicity do you most identify with?



Answers	Count	Percentage
American Indian or Alaskan Native	2	2.08%
Asian/Pacific Islander	0	0%
Black or African American	0	0%
Hispanic	0	0%
White/Caucasian	80	83.33%
Multiple Ethnicities/Not listed	1	1.04%
Prefer not to answer	11	11.46%

Answered: 94 Skipped: 2

What is your annual household income?



Answers	Count	Percentage
Under $35,000	4	4.17%
$35,000 to $75,000	10	10.42%
$75,000 to $150,000	31	32.29%
Over $150,000	34	35.42%
Prefer not to answer	17	17.71%

Answered: 96 Skipped: 0

Stay Involved!

A-2: Interactive Mapping Comments

ID	Draw Type	Comment Type	Safety Concern
1	Point	Vehicle Comment	This intersection is a safety concern with high speeds and a hot spot for crashes
2	Point	Vehicle Comment	Speed limit is way too high on Bridger Canyon Road and people far surpass it as if it is a suggestion. An off-road bike lane would be ideal here for, but absence of that lowering the speed limit would help with bike safety and wildlife-vehicle collisions
3	Point	Transit Comment	No turn arrow turning West onto baxter. Just yellow flashing arrow
4	Point	Vehicle Comment	Poor visibility at intersection. Please use daylighting at this intersection.
5	Point	Vehicle Comment	Due to increased traffic on 191 to/from Bozeman and the increased population serviced by this intersection it has become extremely dangerous to enter or exit multiple times per day, leading to many crashes that are increasing in occurrence.
6	Point	Vehicle Comment	Lack of a stoplight leads to dangerous access, leading to multiple accidents and fatalities
7	Point	Vehicle Comment	Getting on and off of 191 during rush hour needs a traffic light for safety. When school kids are getting dropped off in the morning, the line to get onto 191 is to the bottom of the hill in front of the school in Gallatin Gateway
8	Point	Vehicle Comment	One roundabout from 19th to cottonwood, very difficult and unsafe to take a left out of any neighborhoods.
9	Point	Non-Motorist Comment	no crosswalk
10	Point	Non-Motorist Comment	narrow bridge
11	Point	Vehicle Comment	heavy traffic on 191 and Cottonwood, intersection needs a traffic light or traffic circle
12	Point	Vehicle Comment	This is intersection is very poorly lit yet highly used. Better lighting, and potentially a traffic light or roundabout, could help drivers stay safe especially at night.
13	Point	Vehicle Comment	The approach to this intersection from east to west on Durston is steep and poorly lit.
14	Point	Vehicle Comment	Very poorly lit intersection and the site of a recent fatal crash.
15	Point	Vehicle Comment	Very poorly lit intersection
16	Point	Vehicle Comment	A VERY busy intersection that intersects with a highway. It seems to have the potential for serious/fatal crashes with how many people access this intersection due to Elk Grove.
17	Point	Vehicle Comment	Lack of traffic enforcement by either the sheriffs department or highway patrol. Definitive research demonstrates that assertive enforcement of traffic law reduces crashes. Of course the Three E’s of traffic safety apply.
18	Point	Vehicle Comment	No right-hand turn lane from Huffine westbound onto Cottonwood northbound. Vehicles frequently “improvise” a right-hand turn lane by cutting onto the shoulder of Huffine to turn right at the Huffine/Cottonwood traffic light. Especially after snow.
19	Point	Vehicle Comment	Need a traffic light. Cars are always going 60+ mph down this road which makes it difficult to turn into traffic. Have almost been hit from behind pulling out here multiple times.
20	Point	Non-Motorist Comment	There needs to be a stop sign here. This is such a dangerous intersection for cars and for peds.
21	Point	Vehicle Comment	A green left turn arrow is needed here. There is almost always a line of cars turning left here (onto Huffine), and there are many near-accidents due to people trying to make it through before the light turns red.
22	Point	Vehicle Comment	Many drivers in the right turn lane (that turns onto Jackrabbit) are unaware that there is only one lane past the light. As a result, there are many near-accidents caused by drivers in the right turn lane trying to drive straight down Norris.
23	Point	Non-Motorist Comment	Pedestrian Crossing Should have Constant Flashing Amber Lights and push button LED Strobes for pedestrians because it is a 70 mph road
24	Point	Vehicle Comment	awful design that invites wrecks
25	Point	Vehicle Comment	scary intersection that needs a traffic circle
26	Point	Vehicle Comment	Heavily congested traffic, no traffic controls to mitigate entry on to 191.
27	Point	Vehicle Comment	No traffic controls, dangerous entry and exit. Very dangerous to turn South for long periods of time. People get frustrated and make poor choices. Tourist traffic cannot be trained to let people into traffic and locals suffer accidents.
28	Point	Vehicle Comment	Cell phone use. Cars park in the entry to Ruby Mt. Way. They don't respect the signs not to park in turn lane. Dangerous approach for residents and no way to get around the parked cars.
29	Point	Vehicle Comment	Need traffic control. Dangerous for locals and people cutting across to Bozeman.
30	Point	Non-Motorist Comment	No shoulder on road, or bike lane. Extremely dangerous for bikers
31	Point	Vehicle Comment	Speed limit is too fast!
32	Point	Vehicle Comment	Fire Department needs traffic light for emergency access to 191
33	Point	Transit Comment	Lack of protected lefts from any direction. Traffic gets backed up making people take risks. Accidents are caused by cars that finally get to the light and cut left to get through the intersection when oncoming traffic is too close to break in time.
34	Point	Vehicle Comment	This is intersection is very poorly lit yet highly used. Better lighting, and potentially a traffic light or roundabout, could help drivers stay safe especially at night.

ID	Draw Type	Comment Type	Safety Concern
35	Point	Vehicle Comment	Cobb Hill Death Trap. Remove the light that was put up at the BOTTOM of the hill. In the Winter there is no stopping, cars just slide right through.
36	Point	Vehicle Comment	The left turn traffic light(coming from South, turning West) doesn't turn on each cycle of the traffic lights. Please change it.
37	Point	Non-Motorist Comment	Dangerous Intersection for anyone who encounters it it peak school times.
38	Point	Vehicle Comment	Cars and peds do not know how to use this new light. Please provide better signage/education/enforcement here
39	Point	Vehicle Comment	Mill Street and 191 needs a four way, stop light….. only about a decade over due….
40	Point	Vehicle Comment	Traffic light left turn arrow from SR86 to NB Story Mill Road is not activated. Only flashes yellow. Have to compete with returning traffic from Bridger bowl and pedestrians. Multiple crashes and 1 pedestrian death (prior to light installation).
41	Point	Transit Comment	Poorly defined signage dangerous passing road rage area
42	Point	Vehicle Comment	Safety issue accessing 191 with increased traffic traveling at high rate of speed
43	Point	Vehicle Comment	Safety issue accessing 191 for Gallatin Gateway school traffic
44	Point	Transit Comment	Need a light at 191 and Mill street
45	Point	Vehicle Comment	Dangerous Intersection!!
46	Point	Vehicle Comment	191 and Mill St Gallatin Gateway
47	Point	Non-Motorist Comment	people crossing 191 at Mill St 191 intersection in Gateway
48	Point	Vehicle Comment	Traffic light needed
49	Point	Vehicle Comment	This intersection desperately needs a stoplight . The majority of traffic trying to get on and off the highway here are families with children going to and from the school. It needs to be made SAFE.
50	Point	Vehicle Comment	The speed limit is 70 here. Trying to get out during rush hour is dangerous. My longest wait was 12 minutes. Just to leave my own development.
51	Point	Transit Comment	Stop light needed
52	Point	Vehicle Comment	No right hand turn lane at huffine and gooch hill
53	Point	Vehicle Comment	Much needed light for Mill St and 191
54	Point	Vehicle Comment	Visibility is low, blind hill driving onto Cameron Bridge road, dificult to see on coming trafic the way the River Rd conects to Cameron Bridge road.
55	Point	Non-Motorist Comment	Crosswalk needs repainted again- It was repainted recently but the crosswalk is already fading away. Maybe a crosswalk light will help. This intersection has become very busy and people already have a difficult time crossing here on foot.
56	Point	Vehicle Comment	No traffic management at dangerous intersection. Used by local school, gas station and residential traffic. Big Sky construction train is non-stop from 6a to 7p making egress a life event. area.
57	Point	Vehicle Comment	There needs to be a 4-way traffic light here. WIth the increased vehicle travel between Bozeman and Big Sky, every time you try to cross or enter 191 becomes a life or death matter. We need to protect our children and local residents.
58	Point	Vehicle Comment	Dangerous intersection needs stoplight and dedicated trun lanes.
59	Point	Vehicle Comment	Intersection Mill St and 191 is extremely dangerous. Entrance to 191 significantly impaired by constant flow of traffic on 191
60	Point	Vehicle Comment	dangerous intersection
61	Point	Vehicle Comment	dangerous intersection
62	Point	Vehicle Comment	Blind approach to Cameron Bridge off of Thorpe. Low visibility of stop signs and multiple accidents occurring here. Need rumble strips or a roundabout.
63	Point	Vehicle Comment	Dangerous intersection
64	Point	Vehicle Comment	Poorly designed intersection
65	Point	Vehicle Comment	Manhattan has many uncontrolled intersections. Even on roads that have a decent amount of traffic. I've seen multiple near misses.
66	Point	Vehicle Comment	Traffic from Cruiser only sometimes stops before turning into or across 55-60 MPH traffic on angled corner leading to wreaks and sli. Traffic turning from Dry Creek onto Cruiser lead to backups in 55-60 MPH traffic causing rear end accidents all the time.
67	Point	Non-Motorist Comment	No shoulder. Not safe for pedestrians.
68	Point	Vehicle Comment	Please add signage, reflectors, and guardrails. Multiple cars in the ditch each year and a fatality this morning.
69	Point	Vehicle Comment	The ditch was moved over in the past couple of years which has helped with vehicles in the ditch, however, the reflectors were not placed again after the project was completed. Reflectors and a slow curve sign would sure help.
70	Point	Vehicle Comment	Hard to see corners and easy to slide into ditch
71	Point	Vehicle Comment	Stop signs on Thorpe are very difficult to see. Should have rumble strips for traffic on Thorpe to be notified oh stop signs
72	Point	Vehicle Comment	The curve in road due to the ditch is not marked. There should be reflectors and guard rail installed

ID	Draw Type	Comment Type	Safety Concern
73	Point	Vehicle Comment	Poor visibility for this intersection at night. It would be great to have better signage for this well-used intersection.
74	Point	Vehicle Comment	There is no speed limit on Highline Rd, with soon to be two gravel pits on this road and given its heavy traffic with no shoulder and lots of farm equipment that utilizes it, the speed limit should be set at 45mph like ALL other surrounding county roads.
75	Point	Vehicle Comment	Access to half of Manhattan is blocked when the train stops, blocking both north/south roads.
76	Point	Vehicle Comment	There have been too many accidents at this curve in the road caused by the ditch curve…latest was a fatality where driver over corrected and caught edge and rolled, either guard rails with proper signage needs to be installed, or road straightened.
77	Point	Vehicle Comment	Needs a street light
78	Point	Non-Motorist Comment	Lack of a cross walk. The park trail begins on one side of the street but to get to it from the other side you have to cross a very busy section of the street. The side walks converge here and on one side it slopes to the street, it needs a crosswalk.
79	Point	Vehicle Comment	Curves not marked, shoulder is blunt and steep, no reflectors or guard rails. Too many people miss this corner each year. Road could be straightened or a pipeline could be put in for the ditch to help eliminate the chance of going into the ditch.
80	Point	Vehicle Comment	Low visibility coming off of Kimm Road to the west. Hill could be taken down or the draw raised up to increase visibility.
81	Point	Non-Motorist Comment	No shoulder for bikes/pedestrians. No place for large equipment to safely pull over when there is a biker or pedestrian on the road, or for them to give equipment room. Consider a bike/pedestrian path or widening the road to give more of a shoulder
82	Point	Vehicle Comment	Light turnes red quickly, no flasher to warn large trucks of changing light. too many red lights run here. Also no green turn arrow left or east on to cameron bridge.
83	Point	Vehicle Comment	S curves are dangerous and have no shoulder
84	Point	Vehicle Comment	Blind intersection
85	Point	Vehicle Comment	Quick s-curve with deep ditch, very slick in winter; recent death to community member on this curve
86	Point	Vehicle Comment	Should be a left turning lane to get onto cruiser and a thru traffic lane to head north of airport
87	Point	Vehicle Comment	Cameron Bridge, River Rd & Churchill Rd have no shoulders which make it hard to pull over or maneuver around farm equipment. Bicyclists frequent these roads and it seems highly unsafe when trying to pass them.
88	Point	Transit Comment	We need a stoplight
89	Point	Transit Comment	Traffic light needed to slow and break-up north/Southbound traffic. Steady traffic in both directions without gaps create hazards to motorists both crossing/merging and those of through-traffic.
90	Point	Non-Motorist Comment	Baxter needs to be widened to include 3' shoulder for bike lanes
91	Point	Vehicle Comment	Widen Baxter to include turn lanes on major side roads
92	Point	Vehicle Comment	The left turn light from Fowler needs to be activated. Long waits to turn left make drivers impatient.
93	Point	Vehicle Comment	People routinely ignore the one way paths at the north side of the intersection. Please pave this area and add lane lines
94	Point	Vehicle Comment	Site of numerous slide ins before and after the curve. Whole side of car falls into deep barrow pit on west and south side. Ice or no ice. New signage helpful but goes unheeded. Tow truck drivers all know this location.
95	Point	Non-Motorist Comment	There are some criminally overgrown trees lining the bike path here that are going to render it unusable in a season or two.
96	Point	Vehicle Comment	Cars can't get out
97	Point	Vehicle Comment	left turn lane missing onto airport road causing rear ends
98	Point	Vehicle Comment	Several recent accidents in this area, one fatal. Usually from drivers turning right from Thorpe onto Frontage. One turned in front of an approaching motorcyclist & he rear ended the truck& was killed.
99	Point	Vehicle Comment	Site of numerous accidents from southbound vehicles sliding into deep barrow pits on the west and south side. Whole cars go in on their side under icy and dry conditions. Blind corner for northbound traffic. It has been this way since the 1940's.
100	Point	Vehicle Comment	Site of numerous accidents from north and south bound vehicles, mostly from people impaired or unfamiliar with the road, especially at night. Northbound vehicles just blow off into the field or hit the barrow pit and roll.
101	Point	Vehicle Comment	We have been here since 1986. windbreak along road Site of numerous wildlife collisions, mostly deer, some birds – turkey, pheasant, magpie - in winter and spring. No signage for wildlife crossing. Lost several of our cats to car collisions too.
102	Point	Vehicle Comment	Talk of an interstate exchange W of Belgrade possibly located here. This would have major impacts to the farm community in terms of leaseable land, ditch infrastructure, fisheries in the river, disruption of existing fiber optic & natural gas lines.
103	Point	Vehicle Comment	Dangerous intersection that needs better signage and reduced speed limit for safer access.
104	Point	Vehicle Comment	Many people miss stop signs -- rumble strips should be added before signs to alert drivers they are approaching a stop sign
105	Point	Vehicle Comment	S curves with deep canal running near road -- should either straighten curves, and/or add guard rail to keep cars from going into canal if they lose control

ID	Draw Type	Comment Type	Safety Concern
106	Point	Vehicle Comment	When turning onto Cameron Bridge Road from Kimm Road, you cannot see cars to the west because of a large dip (hill) in the road. This dip should somehow be softened to allow drivers to be able to see oncoming traffic.
107	Point	Non-Motorist Comment	I have a mobility disability and ride an e-bike to assist me. Please review https://www.ada.gov/resources/opdmds/ so the sheriffs know my rights to be of a sidewalk on my bike for safety.
108	Point	Non-Motorist Comment	Enforce snow removal on sidewalks
109	Point	Non-Motorist Comment	Enforce parking so trailers are not blocking the viewability of corners as well as snowplows.
110	Point	Vehicle Comment	Weed control at intersections to increase visibility while driving
111	Point	Vehicle Comment	Enforce handicapped parking spaces and site businesses that pile snow in the handicapped crosshatched areas so that people in wheelchairs can get out of their vehicles.
112	Point	Vehicle Comment	Turning left from Huffine 191 south- there are too many cars for the turn lane; too many cars trying to get in or through from gas station, burger place or Shedhorn drive
113	Point	Vehicle Comment	Almost gotten run off the road multiple times where two northbound lanes merge in to one. Road lines should be designed so that faster drivers are forced to merge into slower traffic, not the other way around.
114	Point	Vehicle Comment	Speed limit is too high for this area
115	Line	Non-Motorist Comment	This roadway does not have safe features for bicyclists and pedestrians. At 55 mph, safety of all road users is ignored.
116	Line	Non-Motorist Comment	The design of this road does not adequately accommodate pedestrian crossings incentivizing pedestrians to "jay walk" across 5 lanes of 45-55 mph traffic. Our community has already seen fatalities from this design.
117	Line	Vehicle Comment	The wide roadway design encourages high speeds in a densely populated area with high numbers of access points. Hot spot for crashes endangering all roadway users.
118	Line	Non-Motorist Comment	Access to runners/bikers pretty much impossible around this rock outcropping and to continue to access other trails. People do it, but its scary.
119	Line	Vehicle Comment	People drive fast /take risks - reasonable drivers are in danger here (see the many white crosses)
120	Line	Non-Motorist Comment	Taking your life in your hands on 191. Extremely aggressive drivers, large vehicles, unnecessarily high speeds
121	Line	Non-Motorist Comment	No sidewalk, limited street lights - dangerous stretch for bikes/pedestrians, wheelchairs.
122	Line	Non-Motorist Comment	Popular bike route with fast driving cars, would be nice to have a bike lane
123	Line	Non-Motorist Comment	Very unsafe - no shoulders and people speed and don't pay attention.
124	Line	Vehicle Comment	People drive recklessly on this stretch.
125	Line	Non-Motorist Comment	no bike lane, shoulder (where there is one) full of debris
126	Line	Non-Motorist Comment	nowhere to safely ride a bike or walk
127	Line	Non-Motorist Comment	nowhere to bike safely, heavy traffic congestion
128	Line	Vehicle Comment	S. Cottonwood is substandard: too narrow, no shoulders, uneven roadbed, pothole patches. Need a complete rebuild, as the traffci volume has increased markedly in the last two decades
129	Line	Non-Motorist Comment	The road is in poor condition and has very narrow shoulders, making it dangerous for bicyclists and pedestrians.
130	Line	Non-Motorist Comment	Sourdough Road is regularly used by non-motorist recreationalists that are sharing a very narrow road with drivers who are often speeding. A dedicated path along Sourdough Rd would help alleviate the safety concern while improving access to trails.
131	Line	Non-Motorist Comment	Narrow road with more traffic. Passing bikes is becoming harder with traffic. People get impatient. Bike lane or increased shoulder would be nice.
132	Line	Vehicle Comment	191 is unsafe due to cars driving well below the speed limit and not using proper turn outs with 4+ cars following. There should be multiple sign stating that slower vehicles MUST use turn outs.
133	Line	Vehicle Comment	Head on collisions/Rollovers - Add guard rails and lower speed limit substantially
134	Line	Vehicle Comment	speed limit needs to be lowered...all the way to 4 corners. Awful as it is not with speeding and running red lights
135	Line	Vehicle Comment	Speed too fast!!! Slow traffic approaching Gallatin Gateway. 18,500 cars a day and NO way to slow traffic.
136	Line	Non-Motorist Comment	Needs bike lane. Extremely dangerous for bikers with no shoulder. Lots of bike traffic going to Spire
137	Line	Non-Motorist Comment	No shoulder, bike lane, or sidewalk
138	Line	Non-Motorist Comment	Bike lane swings between lined bike lane on roadway and separate multi-use path. Biking on the multi-use path when it is available inevitably becomes biking on a narrow, congested sidewalk. Recommend improving entire length of sidewalk to multi-use path
139	Line	Vehicle Comment	No Enforcement For Slow moving Vehicles
140	Line	Vehicle Comment	Slow traffic keep right signs needed along Huffine. Drivers constantly blocking the passing lane.

ID	Draw Type	Comment Type	Safety Concern
141	Line	Vehicle Comment	the left turn lane to Big Sky gets extremely backed up and bleeds into straight lane. the traffic also blocks cars turning off of Shedhorn/nearby parking lots, especially those turning left onto Huffine
142	Line	Vehicle Comment	lack of adequate signs warning cars that the right lane becomes a right turn only at the intersection. there needs to be more signage and indicators painted on the road to let cars know before they get to the light. cars go straight from right lane daily
143	Line	Non-Motorist Comment	There is a high density of pedestrians and bikers along Sourdough, and no path or shoulder. It would be great to have something like a bike path!
144	Line	Vehicle Comment	high density of driveways + high speeds
145	Line	Non-Motorist Comment	lack of adequate shoulder or other safe facility for cyclists
146	Line	Vehicle Comment	access management needed
147	Line	Non-Motorist Comment	unsafe for pedestrians, cyclists and others on unmotorized forms of transportation
148	Line	Transit Comment	Complete making Highway a 2 lane highway to the mouth of Gallatin Canyon. With the increased traffic going to and from the Big Sky area can benefit from a two lane highway to allow an efficient flow of traffic.
149	Line	Vehicle Comment	This entire stretch needs to be evaluated for adjustments in speed limits, traffic signals or circles and extra lanes. It is a very dangerous section between the high speed limits, wildlife and unprecedented amount of traffic.
150	Line	Transit Comment	Can the last section of McIlhattan Rd get paved?
151	Line	Non-Motorist Comment	Unsafe school zone without sidewalks
152	Line	Vehicle Comment	Venison Alley - needs a wildlife overpass, or lower speed limit at dusk through dawn
153	Line	Vehicle Comment	Road too narrow for all the traffic and new development. Needs to be widened and turn lanes into developments and Monforton School Road installed. Shoulder is nonexistent, sections get icy and no room for error with deep ditches in some places.
154	Line	Vehicle Comment	unsafe passing zone with a blind hill and a lot of driveways
155	Line	Non-Motorist Comment	speeding through residential/parks, too many close calls with children and pets
156	Line	Non-Motorist Comment	No path or sidewalk south of roundabout.
157	Line	Non-Motorist Comment	No bike/walking path to connect Penwell to Cruiser. Very narrow shoulder.
158	Line	Non-Motorist Comment	Narrow road, drivers speed. Non-motorized traffic will increase due to new apartments/homes being built.
159	Line	Non-Motorist Comment	High speed traffic, numerous intersections and lack of connected bike and pedestrian infrastrucuture on Huffine lane between 4-corners and Bozeman leads to high stress and danger for anyone trying to navigate this corrider outside of a motor vehicle..
160	Line	Transit Comment	There’s no shoulder on the road just the line and then the ditch
161	Line	Non-Motorist Comment	Bicycles on narrow roads with blind hills and corners are a serious hazard to the safety of motorists and bicyclists. Bicycles should not be on this road, or others like it, including Gooch Hill rd.
162	Line	Non-Motorist Comment	There are too many bicycles on this route. No shoulder on the road. 40 mph on Kagy/Bozeman Trail. No marked speed limit on Tayabeshockup with multilple sight restricted dips and curves. Bicycle traffic is dangerous to both bicyclists and automobile driver
163	Line	Non-Motorist Comment	There is no non-motorized access through Bozeman Pass. Cyclists must detour several miles and hundreds of feet of gain over Jackson Creek Road to access Livingston/Park County
164	Line	Non-Motorist Comment	This stretch of Bridger Canyon is commonly ridden by mountain bikers who've done the Bangtail Divide trail. High speeds and ungenerous shoulder make this a hair-raising experience. An accommodation for cyclists along Bridger Canyon would help greatly.
165	Line	Non-Motorist Comment	For paved-road cyclists seeking to access Hyalite, this section of 19th from Nash Rd to Balsam Dr is an unavoidable sketch-fest.
166	Line	Non-Motorist Comment	U.S. 191 from Four Corners to Big Sky is a literal death sentence for cyclists and there is no alternative path for non-motorists. Same for the stretch to W. Yellowstone.
167	Line	Non-Motorist Comment	Shoulder here is suboptimal for cyclists. For recumbents or cyclists pulling a touring trailer full of fishing/camping equipment, the rumble strips are unavoidable with at least one wheel the whole way. Cars also go fast.
168	Line	Non-Motorist Comment	Trying to cycle this stretch from town to Bear Canyon Rd with a backpack full of climbing gear is spooky-dookie to say the least. A more generous shoulder would do much to rectify this.
169	Line	Vehicle Comment	Heavy wildlife use by animals coming across from the river to feed on fields mostly in winter and spring. Deep barrow pits, narrow road, no shoulders - paving only made the cars go faster.
170	Line	Non-Motorist Comment	There is walking and biking traffic, but not in large quantities. Not safe for either.
171	Line	Transit Comment	Heavy traffic–school buses, trucks with trailers–construction, horse & equipment trailers, belly dumpers &dump trucks, commuter traffic, slow moving ag equipment–tractors, manure spreaders, hay haulers, pipe trailers.

ID	Draw Type	Comment Type	Safety Concern
172	Line	Vehicle Comment	Youthful Drivers-speeding on motorbikes & ATV's. Latest craze is to accelerate & lock up the brakes to leave deep skid marks. 1 kid lost his life north of Arnesons when the truck rolled. Most of this is at night. More patrols needed.
173	Line	Vehicle Comment	Need to reduce speed limit. People regularly speed over 70 mph which has caused multiple fatal accidents. Speed should be reduced to 50 mph from the mouth of the canyon to 4 corners.
174	Line	Vehicle Comment	Highway 191 needs to be a four lane road from Gateway to the mouth of the canyon . The traffic also needs to have reduced speeds and turning lanes . The amount of traffic has increased significantly over the past few years and will continue to increase.
1	Reply		This intersection continues to be DANGEROUS and the source of accidents and near misses continually. 1975 when I moved to Gallatin Gateway there was a caution light at that intersection. Where did it go and why!!!?
2	Reply		60 mph speed in canyon, then 70 mph in widenedway zone, then 50 mph at Gateway intersection is absurd, as traffic often exceeds 70 mph passing through the Gateway 50 mph zone. One speed zone
3	Reply		One speed zone 55 mph from canyon thru Gateway north to Four Corners makes much more sense. Of course with a traffic light at Gateway.
4	Reply		is there not already a multi use path from story mill to the M?
5	Reply		Agreed, very dangerous
6	Reply		School busses, pedestrians (including young students) and traffic all meet here during peak hours. The two stop signs encourage people to take chances with variable speed traffic on Davis. Very sketchy, very unpredictable.
7	Reply		Agree with this concern - despite the solid white line noting the lane and shoulder, I have seen many vehicles use the shoulder as a turn lane in this intersection.
8	Reply		This intersection is heavily used and creates dangerous conditions to try to pull out during high traffic times. It desperately needs to be controlled. I have personally seen at least 3 accidents here this year alone.
9	Reply		This intersection is severely backed up during high traffic times and encourages dangerous pullouts during that time.
10	Reply		With increased traffic and with the projected increase of urban sprawl in the community a stop light is needed at this junction. Increased accidents have raised concerns for all that live in the area.
11	Reply		Need a stop light here. Heavy traffic to and from Big Sky is making entering the highway very dangerous.
12	Reply		Need a stop light at this junction. High traffic going to and from Big Sky is making it hard to enter onto the highway safely.
13	Reply		Agreed!
14	Reply		Yes!
15	Reply		191 and Mill St need a stop light. The unyielding flow of commuter traffic makes it very dangerous to try to get on 191 from any side street. A stop light at Mill st will improve safe access and create breaks in the flow of traffic .
16	Reply		Someone from the yellowstone club's employee housing is going to be killed on 191. There is an underpass walkway but no paved access to the underpass so the Yellowstone Club employees run across 191. Someone is going to get hit.
17	Reply		A stoplight at 191 would improve safety at that intersection and at all the intersections between 4 corners and the mouth of the canyon by creating breaks in the flow of traffic.
18	Reply		A light or slower speed. VERY dangerous intersection
19	Reply		This intersection needs a stoplight, especially with the proximity of the school and the yearly increase in traffic to/from Big Sky.
20	Reply		191 is no longer a country road with minimal traffic. Big Sky development will continue for the next decade
21	Reply		Road with excessive, cars way too far back from intersection.
22	Reply		This road should have guard rails or straightened to reduce chance of accidents, too mang vehicles have gone off the road into ditch.
23	Reply		The canal here has been moved much further off the road. I drive it most days. You have to be speeding and driving like a moron to "slide" into the canal there
24	Reply		Curve has been site of several MVA's over the last several years, fire district has suggested guard rails to no avail. Poor markings and angles make this a problematic road, especially when plows are infrequent
25	Reply		A traffic light is desperately needed. We've been told one is being installed year after year yet never done. Excuses range from no money to surveys needed. Ridiculous! The traffic to and from Big Sky has increased exponentially. Just put one in!
26	Reply		as a farmer- guard rails could make it difficult to move equipment- but reflectors should be installed
27	Reply		guard rails will make it difficult for farmers to move equipment. road should be straightened
28	Reply		guard rails will make it difficult for farmers to move equipment. road should be straightened
29	Reply		One turned the corner, accelerated and lost it to wind up in the ditch on the north side of the road. I was rear-ended at this location while waiting for traffic to clear so I could make a left turn onto Thorpe.

ID	Draw Type	Comment Type	Safety Concern
30		Reply	Need turning lanes added to frontage for this location, i see drivers passing cars waiting to turn on the right side in the shoulder.
31		Reply	New warning signage helps, but not if the driver’s ignore it and the speed limits. Need for reflective arrow signage at all 90 degree turns.
32		Reply	Soutbound vehicles go straight into our north field. One took out a wire gate, letting our cows out on the road. You could see where he turned around in the field and drove out, and took the wire gate with him!
33		Reply	New warning signage helps, but not if the driver’s ignore it and the speed limits. Reflective arrows on all 90 degree turns could help.
34		Reply	New warning signage helps, but not if the driver’s ignore it and the speed limits. Reflective arrows on all 90 degree turns could help.
35		Reply	New warning signage helps, but not if the driver’s ignore it and the speed limits. Reflective arrows on all 90 degree turns could help.
36		Reply	New warning signage helps, but not if the driver’s ignore it and the speed limits. Reflective arrows on all 90 degree turns could help.
37		Reply	Soutbound vehicles go straight into our north field. One took out a wire gate, letting our cows out on the road. You could see where he turned around in the field and drove out, and took the wire gate with him!
38		Reply	An area not served by municipal water and sewer. Development in this area needs deep thoughtful planning by multiple entities – State, County, Belgrade-Manhattan Cities – before high density commercial development occurs and further impacts our roads.

A-3: Comments Outside Review

ID	Comment Name/Date	Comment
01	Meghan Hazer Alvarez 12/6/2024	1) Is there additional information to shed some light on injuries/fatalities by road user group (i.e. which of these injuries/fatalities are pedestrians or cyclists versus motorist, or motorcycle versus vehicle) 2) Is there more detailed information on contributing factors (for instance, is it left hand turns at intersections - or what is the difference between over correcting, environmental circumstances (which includes weather), road conditions, and drove too fast for conditions in this graphic? https://rpa-hln.com/wp-content/uploads/2024/12/GallatinSS4A_InfoSheets_BeslineData.pdf 3) How are vulnerable road users considered versus public opinion in the use of survey data? For instance, "most people" could report that pedestrians/cyclist breaking rules is an issue - but maybe "most people" think bicycles are supposed to be on the sidewalk. In that (pretty reasonable) case - basing recommendations on the survey could result in proposed solutions that might not address the underlying problem (drivers not understanding rules related to pedestrians/cyclists). It seems like greater focus on contributing factors - and ... perhaps asking people who have had close calls or been involved in accidents what their experience is - may be important.
02	Sean Allen 12/14/2024	I am the Advocacy Director for the Gallatin Valley Bicycle Club and I would love to be involved in SS4A in any way that I can. Please feel free to contact me.
03	Richard Wolff 12/15/2024	S. Cottonwood Rd, from Stucky o 19th Ave and further south, is sub standard and needs immediate improvement,. In addtion to rebuilding the road bed, widening the lanes, adding shoulders and filling in the ditches, the county should add a bike lane We need a bike lane along S. 19th ave from Patterson to the S. Cottonwood intersection
04	Paul Boylan 12/16/2024	as a driver in Bozeman for 65 years i have some thoughts on what would improve safety. Slower speed limits add to the traffic problem and are not usually the answer. I would like to know how many deaths can be attributed to speed alone without alcohol or drugs being involved.
05	Daryl Monroe-Bilotti 12/18/2024	We have lived off Highway 191 (first home Bear Creek Properties West) for 27 years. Years ago the speed limit from 4 Corners to Cottonwood Road was reduced to 55 mph. However, the speed limit from Cottonwood Rd to the mouth of the Gallatin Canyon remains 70 mph. This entire stretch is Elk and Deer crossing with an occasional Moose. The traffic on this only direct route to Big Sky and West Yellowstone has increased ten fold. Approximately 7 to 8 thousand vehicles per day! The 70mph speed limit needs to be reduced to a maximum of 50 mph. We have solicited the County and MT DOT for decades about this need, falling on deaf ears. We continue to witness crashes, animal slaughters, deaths along this corridor. A reduction in speed would allow a more efficient response time for vehicle safety! It's simple and doesn't require spending money unnecessarily for overpasses, etc. There should also be a signal installed at Gateway near Mill Street. Accidents and deaths could/would be prevented. There is also Gallatin Gateway School on Mill Street off 191. Perhaps less focus on Big Sky at 191 and 64 is in order to focus on those of us in Gallatin Gateway area!
06	Meagan Dailey 12/18/2024	I am writing again to continue my effort to convince MDT to consider revisions to the design of the intersection Kagy Boulevard a Sourdough Road in Bozeman. With the announcement that Senator Tester (despite active effort by Mr. Gianforte to sabotage the funding) was successful to securing funds for Kagy infrastructure improvements ($24 M), it seems prudent to reconsider prior decisions not to evaluate design improvements. It would be a catastrophic failure of the Department not construct a more functional intersection.
07	Janet Kraft 12/18/2024	Hi. I think Gallatin Gateway needs a traffic signal at Mill Street & 191. That is such a dangerous intersection.
08	Beth Pfaff 12/18/2024	Please secure safe speed limits and bike, walk lanes on the loop from south third - goldenstein to sourdough and back Nash to 3rd. SO many people, walk bike and access the Gallatin front including Leverich canyon on thesis roads. SLOW down (speed limits reduced and signed), create access for non-vehicular traffic, esp. bikes. Work with Bridger ski foundation to limit their access to these rural areas with their mass use! its obnoxious and dangerous when their groups take up these roads as their personal training devices! Especially. Triple tree, 3rd and Leverich access roads
09	Tom Conophy 12/19/2024	My main concern for safer roads in Gallatin County centers on the Four Corners to Big Sky corridor and in particular the intersection of:

ID	Comment Name/Date	Comment
		Mill Road and 191 in Gallatin Gateway This intersection needed a stoplight yesterday. The growth of the Gallatin Gateway area and Big Sky employee housing has created a russian roulette style driving condition to make a right or left onto the 191 highway. No question that the traffic from Four Corners/Big Sky has grown exponentially and is a dicey drive Summer or Winter. This is due to the very heavy construction vehicles driven by ex-Formula 1 drivers that think the multi-ton dump trucks are agile race cars. Of course the vacationers into Yellowstone and beyond add to the dangerous conditions.
10	Rae English 12/27/2024	1) The bridge that was on Dyk Rd in the 1960's must be replaced as the culverts that replaced it are not adequate for spring runoff and not maintained by the county. Residents along the east section of the road are flooded in the spring. Residents have no protection from what the County has neglected. 2) Camp Creek Road has an increasing population but the road doesn't allow for pedestrian traffic. Speed needs be monitored.
11	Ruth Angeletti 12/28/2024	The speed limit on 191 increases to 70mph just S of Cottonwood. There are extra relief lanes from the mouth of the Canyon to about Little Bear. This results in untenable speeds, reckless driving, passing without concern. Residents emerging from Ruby Mtn Way or Hawk Hill or others to the S must often wait 10 minutes to make ANY type of turn. Returning home from either direction is perilous with high speed drivers not paying attention. Lower the speed limit. Put up a speed sign. We've visited dozens of towns in MT, and most small towns slow drivers near residential areas. Why not for us???!!!
12	Ruth Angeletti 12/28/2024	What about a bus from Gallatin Gateway to Bozeman/Belgrade and to Big Sky. It would be safer for all. This request is for residents, not for workers. The county and DOT seem to have abandoned those of us in the south end of the valley. Thank you
13	Sharon Bohrer 12/31/2024	I live alone and I don't have a running vehicle my granddaughter tries to help me get to my DR appointments on Wednesdays but that is usually the only time I can go anywhere and alot of times I run out of things like bread or Dog Food and I cant get into town to buy those things It would be nice to be able to maybe have someone give me a call if they are headed into Three Forks maybe I ride in there and get a ride back home. I can help you out with a little gas. In case you can my number is wrong in the phone book (406) 506-8600. Thank You in advance I am trying to either find a new home for one of my dogs or get a collar and a tie out to keep her out of the streets the little fogs I could control a lot better to try to keep them in the yard without her running free. Sorry for them running out in front of you. You can yell at them and tell them to get on the porch sometimes that works. Bear Bear and Boo Boo are the 2 little ones.
14	Luke Petrus 1/2/2025	I'm a student at MSU and a full-time cyclist with limited financial resources. Would love to see wider shoulders and lower speed limits become the norm in Gallatin County. Would be a waste of my education to end up a smear on the asphalt. :)
15	Susan Duncan 1/2/2025	North End of Thorpe Road from Frontage Road to Arnesons Meat Processing (last 90 degree corner before a long straight stretch east along the baseline between Township 1 North and Township 1 South. Intersection of Thorpe Road and Frontage Road - several recent accidents in this area, one fatal. Usually from drivers turning right from Thorpe onto Frontage. One turned in front of an approaching motorcyclist and he rear ended the truck and was killed. One turned the corner, accelerated and lost it to wind up in the ditch on the north side of the road. I was rear-ended at this location while waiting for traffic to clear so I could make a left turn onto Thorpe. First 90 degree corner south on Thorpe from Frontage Road (Allsop's Corner) Site of numerous accidents from southbound vehicles sliding into deep barrow pits on the west and south side. Whole cars go in on their side under icy and dry conditions. Blind corner for northbound traffic. It has been this way since the 1940's. New warning signage helps, but not if the driver's ignore it and the speed limits. Second 90 degree corner south on Thorpe from Frontage Road near 921 Thorpe Road Site of numerous accidents from north and south bound vehicles, mostly from people impaired or unfamiliar with the road, especially at night. Northbound vehicles just blow off into the field or hit the barrow pit and roll. Soutbound vehicles go straight into our north field. One took out a wire gate, letting our cows out on the road. You could see where he turned around in the field and drove out, and took the wire gate with him! New warning signage helps, but not if driver's ignore it and the speed limits. 1050 Thorpe Road – my property – We have been here since 1986. windbreak along road Site of numerous wildlife collisions, mostly deer, some birds – turkey, pheasant, magpie - in winter and spring. No signage for wildlife crossing. Lost several of our cats to car collisions too.

ID	Comment Name/Date	Comment
		Stretch of north Thorpe Road from Frontage to Arnesons (about 3 miles) Heavy wildlife use by animals coming across from the river to feed on fields mostly in winter and spring. Deep barrow pits, narrow road, no shoulders - paving only made the cars go faster. There is walking and biking traffic, but not in large quantities. Not safe for either. Heavy traffic – school buses, trucks with trailers – construction, horse, and equipment trailers, belly dumpers and dump trucks, commuter traffic, slow moving ag equipment – tractors, manure spreaders, hay haulers, pipe trailers. It's hazardous for me to cross the road to get mail from my mailbox. This is an important north/south route between Amsterdam Road and Frontage Road for all kinds of traffic. Kind of in a class with Alaska Road South. There is talk of an Interchange on the Interstate west of Belgrade and this would be a likely location with major impacts to the farm community here in terms of leaseable land, ditch infrastructure, fisheries in the river, disruption of existing fiber optic and natural gas lines – and in an area not served by municipal water and sewer. Development in this area needs deep thoughtful planning by multiple entities – State, County, Belgrade-Manhattan Cities – before high density commercial development occurs. Youthful Drivers - speeding on motorbikes and ATV's. Skid marks on the road. Latest craze is to accelerate and lock up the brakes to leave deep skid marks. One kid lost his life north of Arnesons when the truck rolled. Most of this is at night. More patrols needed.
16	David Kack 1/3/2025	Although U.S. 191 is not controlled by Gallatin County, it is the only road within the County that allows County residents in West Yellowstone and Big Sky to get elsewhere within the County (such as the County Seat, Bozeman). Therefore, U.S. 191 has to be noted in the Action Plan, as the County could get implementation funding for safety enhancements on U.S. 191 (they would, of course, have to work with MDT on any such enhancements, however).
17	Marilee Brown 1/3/2025	This was difficult to use and blocked comments at specific points. In general, lack of turn lanes on busy highways and lack of shoulders causes many injuries and crashes.
18	Amy Katz 1/3/2025	South 3rd from Kagy heading South does not have a safe bike lane. This is the route for children who might want to bike to Sacajawea Middle school. The bike lane is narrow and often has debris. Cars exceed the 25 mph speed limit.
19	Jeffrey Bennett 1/4/2025	I'd like to see another major north/south Thorofare through Gallatin County between 19th & Jackrabbit to improve traffic flow, perhaps Love Ln to connect from Huffine all the way to another interchange on I90. There are a lot of huge drop offs on the sides of many country paved roads that are horrible for minor slide off, making them serious roll overs. The railroad crossing at Belgrade's Jackrabbit crossing really needs an underpass- should have been done years ago. It will be obsolete before it's finished.
20	Doug Rand 1/5/2025	I live 1 1/2 miles south of Gallatin Gateway on the west side of 191 and have had life threatening incidents while driving in the immediate area the last few years. Traffic moves very fast here and is very crowded with lots of heavy trucking most of the day. The body count of the last two years from the intersection of Gooch Hill Road (just north of Gateway) and the mouth of Gallatin Canyon bears this out. I think 7 (?) people have been killed on this stretch in two years. The speed limit has to lowered and enforced. The only enforcement that I think would work is speed cameras and automatic billing of fines by mail. That probably impinges on our "freedom" and will not happen. I am not hopeful that this situation will be improved. I look forward to hearing some ideas about this and appreciate the opportunity to comment.
21	Liz Ann Kudrna 1/5/2025	I could not figure out how the interactive map worked. But I have a strong belief that county roads need bike lanes and bike awareness signs. . I have nearly been killed riding cottonwood or Gooch and others. Hoping some attention can go to this!
22	Lindsey Charlton 1/22/2025	I am the Administrative Assistant for Hebgen Basin Fire District and I was wondering if you are aware of any LEO programs, groups , nonprofits , organizations that may fund drivers ed for low income students? My sons class is eligible for drivers ed this next semester and some of the students were not at the meeting. One of his classmates was in tears when the teacher said it would cost $300.00. She said her dad could never afford that for her and her brother and she almost left the meeting . She is one of the kids in our community that is low income and started workings summers at age 12. A 14 year old kid that wants to take a course to be a safe driver should have access to this class regardless of their tax bracket. I was hoping you may know of some organization that may offer to help cover the cost or some of the cost. I feel like this course is very important for kids and all of them should take it. I reached out to the instructor to see how many every year do not take it just to see if there is a small group of lower

ID	Comment Name/Date	Comment
		income kids missing this opportunity. I am a single parent but I work 3 jobs right now so my son can do all the sports (paying fees, buying all the needed gear ...ect) and take extra classes like drivers Ed. I know not many families here have that option so despite working 60+ hours a week I do feel lucky. I am reaching out to different organizations across the state to try to find some kind of funding , any feedback would be a appreciated.
23	David Kack 3/13/2025	Good to see you yesterday. Regarding "remote enforcement" or using red light and/or speed cameras, in 2009 the Montana Legislature amended MCA 61-8-206, largely due to the fact that Billings and Bozeman were going to install red light cameras. However, how I read the law/rule (see 61-8-206. Local traffic control devices, MCA) to say that "local authorities" cannot use an automated enforcement system. So, if I read it correctly, the State of Montana, including the Montana Highway Patrol, could use automated enforcement systems. While it would probably be good to have a lawyer review the section to see if they agree that it is applicable to only "local authorities," I don't see anyone jumping on this issue any time soon. However, given the enforcement issues on U.S. 191, perhaps the Highway Patrol may be intersted in using speed cameras in that area.
24	Sean Allen 3/17/2025	I meant to ask you at the meeting last week and forgot, but what is your opinion on the status of federal funding for the project? A lot of programs and projects seem to be getting axed all together on the chopping block. I’ve had a few people ask me if there will be any funds available to actually implement changes in the infrastructure around Gallatin County.

A-4: Comments During Review

[April 4, 2025 through May 4, 2025]

Gallatin County Safe Streets For All Action Plan

Comments Outside Review
April 4, 2025 – May 4, 2025

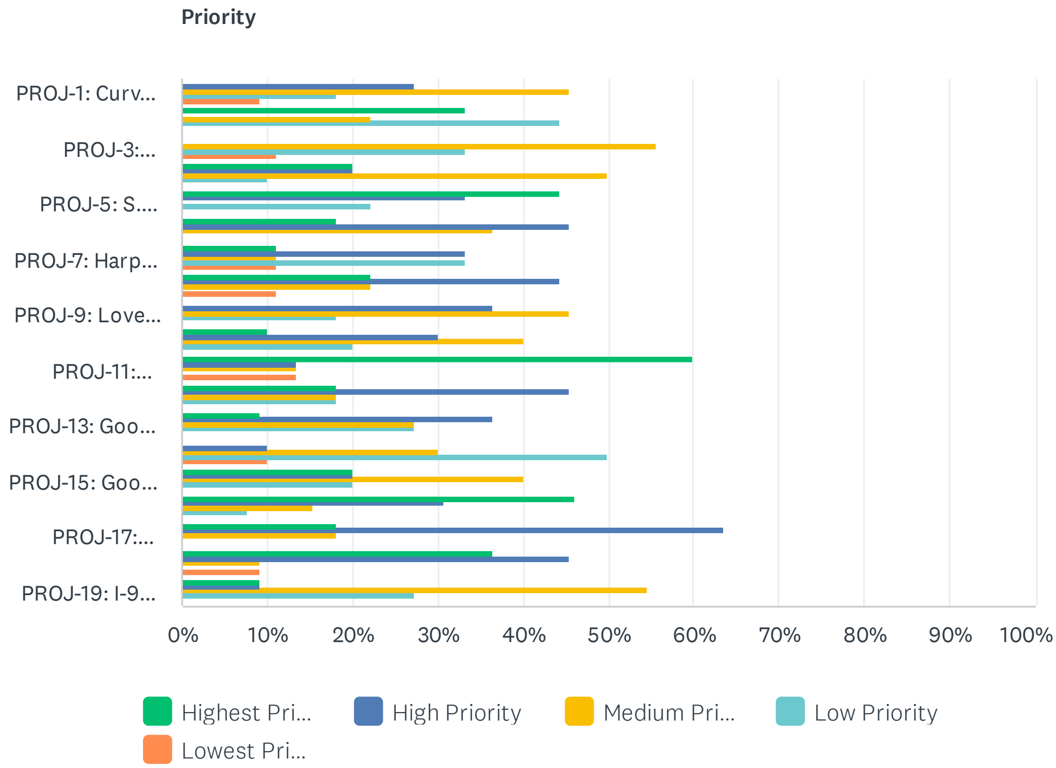
ID	Comment Name/Date	Comment
01	Riley Logan 4/4/2025	I see that your plan includes a statement about what residents of Gallatin County most commonly requested in regard to transportation safety. In this section, I see a request for more facilities for cyclists and pedestrians, but your proposed projects seem to include almost no improvements in this area. I live along a fairly busy county road that suffers from a lack of shoulders, paths, and bike lanes, yet many folks still use the road for recreational purposes. I understand that funds must be used for high-risk areas; however, I would have liked to see a greater focus on county roads that have high recreational usage and the associated risks - an area which seems to be missing in your analysis and an area I see the great risks of every day. I hope this open house illuminates these shortcomings in the proposed plan and a greater focus on accessible paths for recreational users can be implemented. Thank you!
02	Paul Boylan 4/4/2025	Need to raise speed limits on major roads such as valley center, oak,durston, and the frontage road to airport. bicycle traffic should be reduced or eliminated Riders do not observe traffic rules. only have roundabouts or traffic lights at intersections.Dont need both.
03	Kelli Coligan 4/4/2025	As a Gallatin County resident and tax payer for over 20 years we are well aware of the impending safety issues on our streets and public roadways. We have seen the increase of homelessness, pan-handfling along roads. car camping along once our litter-free streets. And yet for some reason this was not even addressed in your project proposal. Unless I missed it... Until Gallatin county addresses the homelessness and car camping problems that have imposed very real safety issues to drivers and pedestrians alike monies should not be allocated to any further projects . As a matter of fact Gallatin County is aiding these situations by actually providing garbage cans at tax payers expense to those who camp along our public roadways. People are getting fed up of seeing once was a beautiful area being destroyed by these issues. Not sure what you were paid as project manager bynour hard earned tax dollars but believe this is simply ideologically driven to ignore the real public safety issues that homelessness, drug abuse, panhandling and car camping impose upon Gallatin County public roadways.
04	Gary Bilotti 4//8/2025	The speed limit on Highway 191 between Gallatin Gateway and the mouth of the Gallatin Canyon needs to be reduced to a maximum of 55 mph. 70 mph is high speed for a two lane road that carries thousands of trucks and vehicles to and from Big Sky each day! It is also a wildlife corridor (Deer, Elk, Moose, etc.).
05	Dan Foley 4/11/2025	I would like to provide feedback on "POL-2: Street Lighting Standards. Pilot the implementation of temporary street lighting at a high-risk intersection, such as Stuck'y' Road/Gooch Hill Road or S. Alaska Road/E. Valley Center Road, and evaluate the safety impacts." I think this will do very little for safety but will definitely serve to increase light pollution and further diminish the view of our night sky. Additionally i feel when traveling on a road (w/ no street lights) then entering a lit intersection and then looking back out of the light into the dark section of the road for cross traffic will make it more difficult to see for drivers. Basically you're just lighting up the intersection and not actually where a driver looking to make sure the road is clear. Street lights are a waste of money and energy and actively diminish the natural environment we are lucky enough to live in. Please remove street lighting as a "safety measure" because it is simply not and especially not in rural areas.
06	Steve White 4/11/2025	Regarding Proj-13, the cover photo [with the rolled auto] of your Safe Streets plan is my property. That summer, there were 1-2 accidents most weeks. We replaced our fences often. The Gooch Hill - Chapman intersection is well marked - including reduced speed and a lot of turn warnings preceding the turn. 99% of the accidents are vehicles east bound, turning north on Gooch. Rarely are there issues with autos south bound, making the turn near Chapman Road. I have never seen an accident where a south bound vehicle, exiting straight on Chapman, collided with any oncoming traffic at the corner. The major reason for vehicle (typically single car) accidents involve impaired drivers. That summer, I was shocked to see how many were non-English speaking drivers, who were not familiar with the road. Too often impaired drivers use Gooch Hill to avoid 191, and try to sneak back to Bozeman away from the major highways (where someone may report them, or the MHP are patrolling). The other factors include distracted drivers (cell phones, etc) and icy roads. We have even had drivers simply ignore the curve warnings (generally at night) and drive STRAIGHT off the highway, jumping the borrow pit, taking out our fence, dodging cows and continue driving around the field looking for a gate to get back on the road. The bottomline is I am not sure what the county will spend $7K on, since nearly every accident is due to driver ignorance on a highway that has great signage, and is in good shape. The county has done their best to make it a safe road to drive. That said, when I was a county commissioner, I tried to convince the

ID	Comment Name/Date	Comment
		road dept to replace the stop sign on Chapman with a Yield sign. No one stops when entering Gooch (straight), and the visibility is very very good. There is simply too many drivers who are not paying attention, or are clueless on how to drive winter roads IMHO..... Steve White
07	Jen MacFarlane 4/17/2025	3.4.3 states that widening roadways will decrease accessibility and safety for younger and older people, but then goes on to recommend widening lanes. We know, from research, that widening lanes increases motorists speed. It also decreases accessibility for all road users other than automobile drivers. Speed is what injures and kill's people on our roadways. Our community has continually asked for safer facilities for people walking and biking. Writing a safety action plan that is automobile centric and does not clearly recommend slowing traffic (and design standards for slowing traffic), will not result in the accessibility and active transportation outcomes that the community has asked for in previous planning documents. Its the same old thing" that will get us the same results.
08	Neil Cardwell 4/17/2025	The Bozeman to Belgrade frontage road improvements. Coordinating with the trail plans for both communities would rank high on my list, along with Cameron Bridge.
09	Jill Logan 4/20/2025	Hi, Thank you for working to make Bozeman's streets safer. I love Sourdough Road, along with many, many other users. If it only had a bike/walking path, it would be so much more fun (and so much safer). Thank you for your time.
10	Abigail Breuer 4/23/2025	I was in touch with you at the end of last year. I believe I provided you with the information below on areas in Gallatin County with the highest risk of wildlife-vehicle collisions at that time, but cannot find the email to confirm that I did so. If it would be helpful to have a spatial layer with our wildlife-vehicle collision risk index for all road segments in Gallatin County at this point, please know it is available. I am part of a team, together with MSU-Western Transportation Institute, working on a Gallatin County Wildlife and Transportation Assessment (nearly published—awaiting final agency review). The road segments below have high risk of wildlife-vehicle collisions based on examination of data sources that relate both to direct human and wildlife safety (crashes, carcass records, salvage permits, and wildlife conflict reports) and ecological connectivity (wildlife movement, wildlife observation, and habitat suitability and connectivity). Frontage Road (County Route 205): (1) RM 12.8 - 15.0 (where it crosses the Gallatin River, Baker Creek, and Camp Creek (2) RM 24.2 - 24.8 (near intersections with Coulee Dr., Arete Dr., and Sacajawea Peak Dr.) (3) RM 25.8 - 26.9 (between intersections with E Valley Center Rd. and Springhill Rd.) E Valley Center Road (Country Route 235): (1) RM 4.8 - 6.0 (between intersections with E Valley Center Spur and Catamount St.) Thanks. I appreciate your work on behalf of Gallatin County.
11	Marilee Brown 5/4/2025	I have been thinking about this for a couple of months. We need to change the laws on what can be sold in gas stations. Stop making it so easy to load up with small containers that can be easily drunk from on the road.

A-5: Project Prioritization Survey

Q1 Please indicate how you would prioritize each of the proposed project recommendations. See map for project locations. Note: you do not have to provide a response for all projects.

Answered: 17 Skipped: 1



Gallatin County SS4A Project Prioritization

Priority

	HIGHEST PRIORITY	HIGH PRIORITY	MEDIUM PRIORITY	LOW PRIORITY	LOWEST PRIORITY	TOTAL
PROJ-1: Curve Signing Enhancements	0.00% 0	27.27% 3	45.45% 5	18.18% 2	9.09% 1	11
PROJ-2: Amsterdam Road/Royal Road	33.33% 3	0.00% 0	22.22% 2	44.44% 4	0.00% 0	9
PROJ-3: Cameron Bridge Road (Highline Road to Kimm Road)	0.00% 0	0.00% 0	55.56% 5	33.33% 3	11.11% 1	9
PROJ-4: Jackrabbit Lane/E. Valley Center Road	20.00% 2	20.00% 2	50.00% 5	10.00% 1	0.00% 0	10
PROJ-5: S. Alaska Road (Frank Road to E. Valley Center Road)	44.44% 4	33.33% 3	0.00% 0	22.22% 2	0.00% 0	9
PROJ-6: Love Lane/E. Valley Center Road	18.18% 2	45.45% 5	36.36% 4	0.00% 0	0.00% 0	11
PROJ-7: Harper Puckett Road (E. Valley Center Road to Baxter Lane)	11.11% 1	33.33% 3	11.11% 1	33.33% 3	11.11% 1	9
PROJ-8: Baxter Lane (Harper Puckett Road to Jackrabbit Lane)	22.22% 2	44.44% 4	22.22% 2	0.00% 0	11.11% 1	9
PROJ-9: Love Lane/Durston Rd	0.00% 0	36.36% 4	45.45% 5	18.18% 2	0.00% 0	11
PROJ-10: Gooch Hill Road (Huffine Lane to Durston Road)	10.00% 1	30.00% 3	40.00% 4	20.00% 2	0.00% 0	10
PROJ-11: Huffine Lane Shared Use Path	60.00% 9	13.33% 2	13.33% 2	0.00% 0	13.33% 2	15
PROJ-12: Stucky Road/Gooch Hill Road	18.18% 2	45.45% 5	18.18% 2	18.18% 2	0.00% 0	11
PROJ-13: Gooch Hill Road/Chapman Road	9.09% 1	36.36% 4	27.27% 3	27.27% 3	0.00% 0	11
PROJ-14: Axtell Anceny Road (River Road to River Camp Road)	0.00% 0	10.00% 1	30.00% 3	50.00% 5	10.00% 1	10
PROJ-15: Gooch Hill Road/US 191	20.00% 2	20.00% 2	40.00% 4	20.00% 2	0.00% 0	10
PROJ-16: US 191 Improvements	46.15% 6	30.77% 4	15.38% 2	7.69% 1	0.00% 0	13
PROJ-17: Bridger Canyon Improvements	18.18% 2	63.64% 7	18.18% 2	0.00% 0	0.00% 0	11
PROJ-18: Belgrade to Bozeman Frontage Road Improvements	36.36% 4	45.45% 5	9.09% 1	0.00% 0	9.09% 1	11
PROJ-19: I-90 Corridor Study	9.09% 1	9.09% 1	54.55% 6	27.27% 3	0.00% 0	11

Q2 Are there any specific project locations that we missed? Please indicate in the comment box below.

Answered: 6 Skipped: 12

#	RESPONSES	DATE
1	Sourdough/Kagy intersection - Is this DOT/City/county responsibility? it is rare when people stop for pedestrians- and there is a crosswalk! Sourdough Road, no shoulders I have been a target while running from my home to the GVLT trail systems - This is attempted vehicular homicide and if needed I will start packing while on my runs to protect myself. I am not joking. Unfortunately, this has happened far too many times, my partner has been driven at and feared for his life as well. We have called the sheriff department and if they go back to recorded conversations you will hear the fear- No one came out or called to have a conversation with us regarding our concerns.	5/2/2025 9:50 AM
2	Emphasize previous comments - road lines are non existent in some areas on 191 - speed limits must be lowered with the amount of daily traffic on 191 - too many animals are being killed on 191 - way too many accidents - mostly truck turnovers south of Big Sky on 191 - lowering speed would help as would rerouting semis -not allowing them on 191 and stricter speed limits and enforcement of limits would help	5/2/2025 12:08 AM
3	191 wildlife crossings, lane additions, off-ramps and on-ramps at Gooch and Cottonwood instead of level crossings	4/21/2025 12:56 PM
4	Amsterdam Road from Jackrabbit to Royal	4/16/2025 7:58 PM
5	This whole project appears to be a misnomer in name. The majority of these projects appear to support high-speed high-throughput car traffic to the expense of any other form of transportation. In addition, many of the changes will make the roads more dangerous by accommodating higher speed, less conscientious driving (i.e. allowing for increased driver inattentiveness through wider lanes, larger radius turns etc).	4/4/2025 4:11 PM
6	Sourdough Road is still in desperate need of a shared use path and wider shoulders (it basically has no shoulder). I am very disappointed to see that the first summarized point in your "what we heard" section was "more accessible facilities for cyclists and pedestrians are needed," yet I see only one project that even mentions a shared use path. There are so many roads and intersections north, south, and southeast of town that would greatly benefit from "more accessible facilities for cyclists and pedestrians," ranging from paths to bike lanes, that seem to be far from being heard. I hope the planning committee can adjust the suggested projects to include more regions than those west of Bozeman and include "more accessible facilities for cyclists and pedestrians."	4/4/2025 11:42 AM

Appendix C:

Recommendations and Implementation

C-1: Planning-Level Cost Estimates

Gallatin County

Safe Streets For All

Action Plan

RECOMMENDATIONS AND IMPLEMENTATION

May 6, 2025

THE SEAL OF GALLATIN COUNTY STATE OF MONTANA

RPA

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Recommendations and Implementation

1. Introduction

Gallatin County was awarded funds from the Safe Streets and Roads for All (SS4A) discretionary grant program to complete an Action Plan identifying the most significant safety concerns in the community with implementation steps for projects and strategies to address those issues and reduce fatalities and serious injuries within the county. Completion of the *Gallatin County SS4A Action Plan* will enable the county to apply for other grant funds under the SS4A program to complete supplemental planning, future demonstration activities, or project implementation as needed to fulfill the identified needs of the Action Plan.

The purpose of this *Recommendation and Implementation* memorandum is to identify and recommend strategies, projects, programs, and policies to address historic crash trends and proactively address other potential safety risks in the transportation system. The identified actions consider and include recommendations and ideas included in past planning documents, stakeholder input, as well as best practices from a variety of industry-accepted sources.

1.1. Crash Analysis Background

For this effort, the Montana Department of Transportation (MDT) Traffic and Safety Engineering Bureau provided crash records for all crashes occurring within Gallatin County SS4A planning area over the 5-year period from January 1, 2019, to December 31, 2023. The data included a total of 6,739 crashes involving 13,116 people. About 20 percent of crashes resulted in some level of injury and about 3 percent were severe (38 total fatalities and 192 total serious injuries). Crash records were analyzed to identify trends contributing to crashes including temporal trends, behavioral characteristics, roadway and environmental characteristics, demographics, and other circumstances to determine commonalities between crashes. This review helped the County understand how and why crashes occurred in the past and predict where crashes are likely to occur in the future so conditions can be proactively addressed. A detailed analysis of crash data is provided in the *Baseline Data Summary*. An abbreviated summary of key findings is provided below.

- Temporal trends appear to indicate a possible trend with regular commuting patterns and generally higher traffic exposure on weekdays. However, more severe crashes occurred on weekend days. Approximately 27 percent of crashes occurred in the fall months (September through November) while 31 percent occurred in the winter months (December through February).
- Geospatial mapping shows higher concentrations of crashes in the triangle area between Bozeman, Belgrade, and Four Corners. This area has greater traffic volumes and is typically more congested than other areas of the county, leading to greater traffic exposure and a higher risk of conflicts. Similarly, about a quarter of severe crashes occurred on I-90 which carries the highest traffic volumes and has the highest speed

limits which contribute to both higher risks of conflicts as well as higher risks of injury when a crash occurs.

- Single-vehicle crashes accounted for 59 percent of all reported crashes, while multi-vehicle crashes made up the remaining 41 percent. The most common types of crashes were fixed-object collisions, rollovers, and rear-end collisions.
- Approximately 59 percent of crashes occurred on routes owned and maintained by MDT, while 23 percent occurred on routes owned by Gallatin County. Of the severe crashes, 66 percent occurred on MDT routes while 20 percent occurred on locally owned routes. These findings point out the importance of interagency coordination.
- About 41 percent of crashes occurred under adverse road conditions (snowy, icy, frost-covered, or wet roads) and 17 under adverse weather conditions (snow or rain). Crashes occurring under adverse road or weather conditions could potentially indicate a lack of maintenance of roadway facilities or a lack of skill, experience, or care driving in adverse conditions. About 34 percent of crashes occurred when it was dark outside, with only 14 percent of those crashes occurring in locations where street lighting was present.

Based on the baseline data analysis, it was determined that 4 focus areas would be selected to investigate in further detail. Due to similarities in the strategies to address certain focus areas, some of the focus areas were combined into broader categories. The focus areas aligning with the total number of crashes and the highest severities were selected as the focus areas that could have the greatest impact on safety within the community. The selected focus areas include: Run-off-the-road Crashes, Intersection Crashes, Driver Age (Younger and Older Drivers), and High Risk Behaviors (Speed Related Crashes, Unrestrained Occupants, Impaired Drivers, and Inattentive Drivers).

- **Run-off-the-road:** Run-off-the-road crashes in the study area are mainly driven by weather conditions and driver behavior. Winter weather, including icy and wet roads, increases crash risk, especially when drivers don't adjust their speed. Distractions and inattentiveness worsen the problem, as do speeding and rushing during commuting hours. Nighttime crashes are more common due to reduced visibility, particularly in poorly lit areas. Alcohol impairment also contributes significantly.
- **Intersection Crashes:** Crashes at intersections and intersection-related crashes are a significant concern, particularly at high-traffic locations with heavy turning movements. These crashes often involved a higher proportion of right-angle collisions, which tend to be more severe. Distracted and impaired driving were also prevalent in intersection crashes.
- **Driver Age:**
    - **Younger Drivers:** Crashes involving younger drivers often involved risky driving behaviors and environmental factors. Most result in property damage, with fewer leading to serious injuries or fatalities compared to other focus areas. These crashes were more common at non-junction locations, in poor weather conditions, and at night. Spikes in crashes occurred during winter months and commuting hours. Male drivers were more frequently involved, and key contributing factors included impairment, distraction, and speeding.
    - **Older Drivers:** Crashes involving older drivers were mostly rear-end, right-angle, or fixed-object collisions, with most resulting in property damage only. These incidents often occurred at non-junction locations, during daylight hours, and between 10 AM and 4 PM. Weather played a smaller role in these crashes

compared to other focus areas, with fewer occurring in snow or rain. Impairment was a minor factor.

- **High Risk Behaviors:**
    - **Speed Related:** Speed related crashes in Gallatin County were mostly non-junction incidents, often occurring on high-speed roads like I-90. These crashes frequently resulted in fixed-object collisions and rollovers, with winter weather, especially snow, ice, and frost, often playing a key role. Speed related crashes were more common in winter and during daylight hours. Younger drivers, particularly those aged 16 to 35, were most often involved, with contributing factors like running off the road, over-correcting, and distraction being common.
    - **Unrestrained Occupants:** Unrestrained occupants were more likely to be involved in crashes with impaired drivers, a trend linked to clustered high risk behaviors. These crashes often involved male and younger adult occupants, with distraction and reckless driving as common contributing factors. The severity of these crashes is notably higher, with a greater chance of fatal or serious injuries.
    - **Impaired Drivers:** Impaired drivers, especially young males aged 22 to 35, were over-represented in severe crashes, often resulting in fatal or serious injuries. These crashes were more common under ideal weather and road conditions, suggesting, perhaps, that the decision to drive impaired may be deterred by adverse environmental conditions.
    - **Inattentive Drivers:** Distracted driving crashes often resulted in rear-end and fixed-object collisions, with some resulting in rollovers or right-angle crashes. Drivers in these crashes were typically younger, with many under 35. Most crashes resulted in property damage only, though a few lead to serious or fatal injuries. Impaired driving was a factor in some inattentive driver crashes.

1.2. Planning Area

The planning area for this effort is coincident with the Gallatin County Limits excluding the areas within the city limits of Bozeman and Belgrade. Each of these municipalities are conducting their own city-specific SS4A efforts, so they were excluded from the County's SS4A planning area. This will help avoid overlap and allow for a more focused approach on the rural areas of the county. However, ongoing coordination will occur with Bozeman and Belgrade's SS4A planning teams to ensure consistency across the broader regional goals.

A geospatial exercise was conducted to select all crashes occurring within the planning area. The crash locations are based on the reports filed by the responding officer and crash reports were not reviewed to verify crash location. **Figure 1.1** provides a map of the planning area.

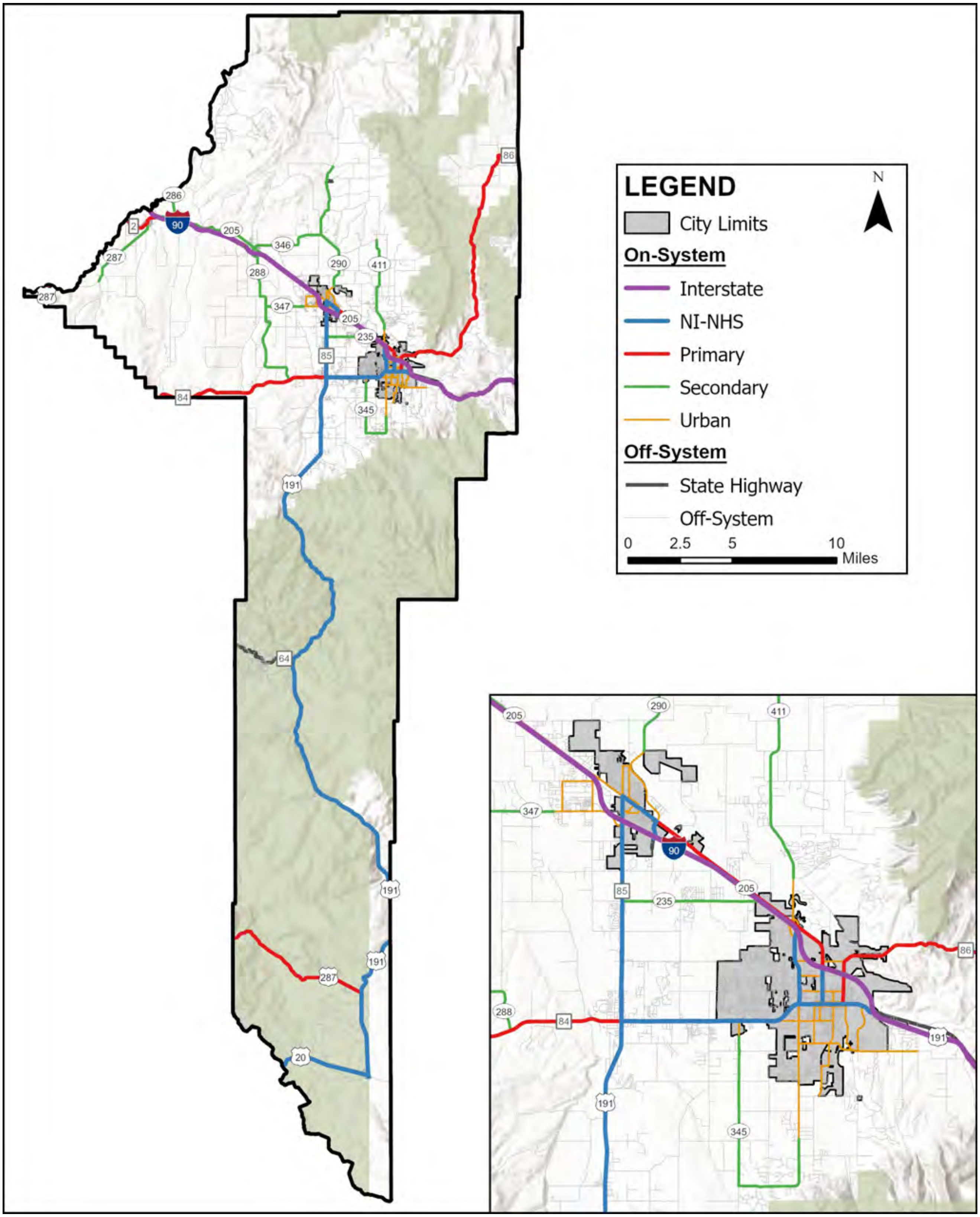


Figure 1.1: SS4A Planning Area

1.3. County Safety Goal

The overarching goal of the SS4A program is to zero out roadway fatalities and serious injuries. Accordingly, a requirement of the grant program is for the entity receiving funding to make an official public commitment to an eventual goal of zero roadway fatalities and serious injuries. The commitment must include a goal and timeline for eliminating roadway fatalities and serious injuries achieved through one, or both, of the following:

(1) the target date for achieving zero roadway fatalities and serious injuries, OR
(2) an ambitious percentage reduction of roadway fatalities and serious injuries by a specific date with an eventual goal of eliminating roadway fatalities and serious injuries.

It is common practice in safety performance tracking to set goals, or targets, based on multi-year rolling averages. The rolling average provides a better understanding of the overall data over time without eliminating outlier years with significant increases or decreases and provides a mechanism for accounting for regression to the mean or moving closer to an average value. FHWA recommends using the average of the most recent 5 years of data. The analysis period for the plan spans the 2019 to 2023 time period and, at the time of writing, 2024 data is not available. Accordingly, the 5-year average number of combined fatalities and serious injuries from the 2019 to 2023 period was used as a starting point for goal setting. A target of 46 combined fatalities and suspected serious injuries will be set for 2025.

Gallatin County is committed to zero fatalities and serious injuries on its roadways. As a reflection of this commitment, Gallatin County has adopted the following interim goal (**Figure 1.2**):

Reduce the number of combined fatalities and suspected serious injuries on roadways in the Gallatin County SS4A planning area by half, from 46 in 2025 to 23 in 2034, through implementation of the SS4A Action Plan.

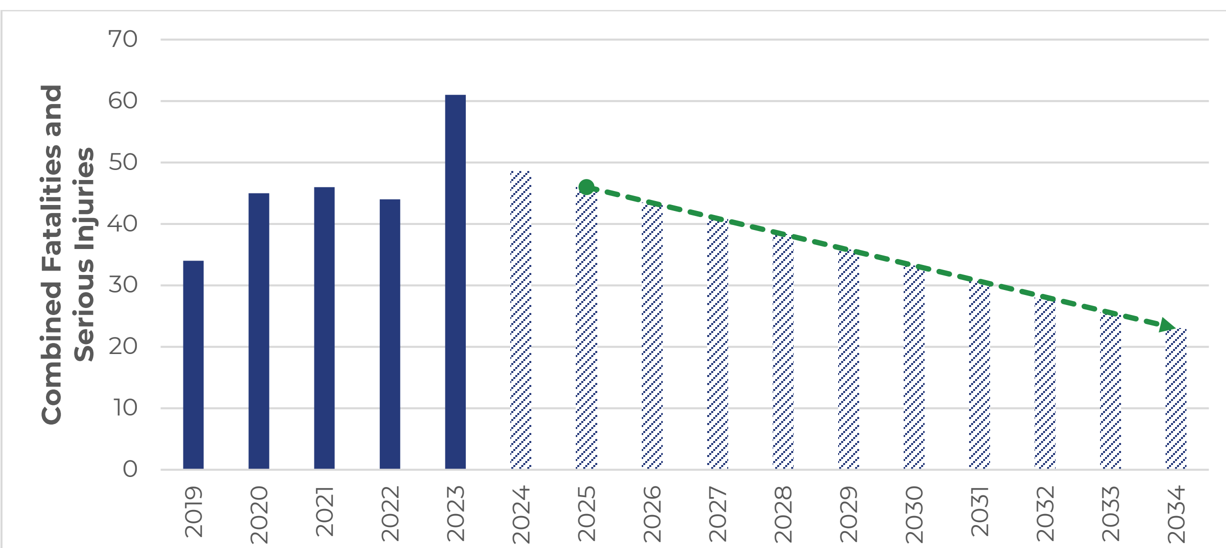


Figure 1.2: Interim Safety Goal

2. Relevant Programs, Policies, and Procedures

A key component of SS4A Action Plan is an assessment of the County's current programs, policies, procedures, plans, guidelines, and standards to identify opportunities to improve how established processes prioritize transportation safety. A review of the County's past planning efforts was included in the *Baseline Data Summary*. The following sections provide a summary of additional County programs, policies and standard procedures as they pertain to transportation safety, and more specifically, the identified focus areas.

2.1. Relevant Supporting Documents

The following sections provide a review of Gallatin County's various development standards and regulations which guide the design, placement, and operation of new developments. Only relevant information related to transportation safety is discussed.

2.1.1. Gallatin County Transportation Design and Construction Standards

The *Gallatin County Transportation Design and Construction Standards*[1] (GCTDCS) establish a comprehensive framework for transportation design and construction within the County, aiming to promote orderly development and ensure the public health, safety, and general welfare of County residents. These standards are designed to provide for a safe and efficient transportation system, ensure that infrastructure meets the needs of all users, ensure the acquisition of necessary right-of-way for future development, and ensure adequate improvement of the transportation system as development occurs. The following sections of the GCTDCS directly relate to how the County promotes safety in its standard roadway development procedures.

Chapter 2: Transportation System Administration

This chapter outlines the steps and procedures for establishing new county roads, as well as other related administrative requirements. It provides a detailed process for developers, landowners, and local authorities to follow when proposing new roads to be included in the County's transportation system.

Section 2.7: Design Exceptions

Designs that deviate from the Gallatin County Transportation Design and Construction Standards are considered on a case-by-case basis by the County Road/Bridge/Engineering Department. Deviations from the standards will only be approved where expressly noted as allowable design exceptions. To be considered, alternative designs must demonstrate that no reasonable, feasible, and practical solution can be found to meet the standard values and granting the exception will not be detrimental to public health, safety, or general welfare.

Section 2.8: Variances

The County Commission may grant reasonable variances from the Gallatin County Transportation Design and Construction Standards when it is determined that strict adherence to the standards would result in undue hardship. In making this determination, the Commission will assess whether the proposed variance still ensures that the overall objectives of the transportation system—such as safety, efficiency, and community welfare—are met, even if the design deviates from the established standards. This allows for flexibility in situations where rigid application of the standards may cause unnecessary burdens without compromising the broader goals of the County.

Chapter 3. Traffic Impact Analysis

Any commercial or industrial development, or any development expected to generate more than five (5) trips per peak hour, is required to complete a traffic impact analysis to assess its potential effects on the surrounding transportation network. The County Commission or the Road/Bridge/Engineering Department may also require an analysis for developments generating fewer trips if the development is located in areas with specific traffic safety concerns or congestion issues. All analyses must include a safety analysis of the site access, evaluating factors such as sight distance and the operational characteristics of the proposed access points. This ensures that the development does not create safety hazards for vehicles or pedestrians, and that the transportation infrastructure remains safe and efficient. The goal of the traffic impact analysis is to identify and mitigate any negative impacts on traffic flow or safety and ensure that developments are compatible with the existing transportation system and anticipated future traffic conditions.

Chapter 4. Access Standards

The purpose of this chapter is to provide a framework for effective access management, with the primary goals of reducing the number of vehicle and pedestrian conflict points, thereby minimizing both the number and severity of collisions, and ensuring that the types and volumes of traffic can be safely and adequately accommodated. This includes managing current traffic volumes as well as any future increases resulting from permitted uses. The location, number, and configuration of all access points to County roads must be approved by the County Road/Bridge/Engineering Department. At a minimum, each development is entitled to one means of physical access for motorized vehicles to County roads. While dead-end roads should be avoided where possible, they may be permitted on local roads if unavoidable, provided they include an approved turnaround that accommodates emergency service vehicles. A dead-end road will not be allowed if it serves twenty-six (26) or more units. These standards are designed to maintain safety, functionality, and efficient traffic flow across the County's transportation network.

Chapter 5: Transportation Design Standards

All new roads, and improvements to existing roads, within the County must be designed in accordance with established standards, such as American Association of State Highway and Transportation Officials (AASHTO) and federal accessibility standards, while also meeting the County's minimum design criteria. Designs must ensure safe and adequate passage for both vehicular and non-motorized traffic. Developments located within the Growth Policy area of an incorporated city or town must comply with the city or town's road design standards, as well as all applicable requirements in the adopted Transportation Plans, Trails Plans, Growth Policies, and Capital Improvements Plans. For developments that impact a State highway, MDT's minimum road design standards must be followed.

Roadways within the County should be designed to either urban or rural standards, as defined in adopted Transportation Plans. Furthermore, roadways within recognized urbanized areas, must always be designed to urban standards while roadways located in the urban fringe or areas with expected high-density growth should also be designed to urban standards. In all other areas, roadways may be constructed to rural design standards, though the County Road/Bridge/Engineering Department reserves the right to amend the rural designation if increased traffic due to development necessitates a shift to urban standards to accommodate the higher traffic volumes. These design criteria ensure roads are appropriately planned to meet current and future transportation needs, maintaining safety, functionality, and compatibility with long-term growth projections.

Section 5.5: Parking

Generally, developments are required to provide off-street parking. If on-street parking is required, it is only permitted on Interior Development or Access Roads and must be designed to ensure that parked vehicles do not obstruct adjacent roads, access points, non-motorized facilities, or circulation within the development. Adequate space must be provided to allow for safe and efficient movement of both vehicles and pedestrians. Angle parking is generally not allowed unless it is determined that the roadway is sufficiently wide to accommodate angle parking without hindering the free flow of traffic. The County has the authority to prohibit or restrict the stopping, standing, or parking of vehicles on highways if such activity is deemed dangerous to road users or interferes with the free movement of traffic.

Section 5.8: Pedestrian, Bicycle and Transit Facilities

Non-motorized facilities constructed within public Rights-of-Way must adhere to the standards outlined in the US Access Board's Public Right-of-Way Accessibility Guidelines (PROWAG) and applicable AASHTO pedestrian and bicycle guidelines. These facilities include sidewalks, on-street bicycle facilities, shared use paths, trails, and transit facilities, ensuring that roadway infrastructure supports safe and accessible movement for all users.

In urban areas where curb and gutter are provided, sidewalks are required on both sides of interior development roads, while in rural areas, pedestrian facilities are determined by the development type and density. Bicycle facilities, such as bike lanes or widened shoulders, may be required to align with adopted Transportation Plans, Trails Plans, Growth Policies, or County Capital Improvements Plans. Shared use paths and trails, which are also governed by these plans, must be constructed with a minimum width of ten (10') feet with varying degrees of separation from the roadway based on the adjacent roadway's functional classification. Developers are also required to ensure ongoing maintenance commitments for these facilities. In areas within designated Urban Transportation Districts (UTDs), additional transit facility requirements may apply, and developers must collaborate with transit providers to determine whether improvements are necessary.

Chapter 6: Drainage, Snow Storage, and Water Crossings

All developments, except for single-family residential lots, that include areas to be plowed for vehicle access, such as parking lots and driveways, are required to provide designated snow storage areas. It is essential to ensure that snow removal does not obstruct pedestrian or vehicle access or compromise visibility. Snow storage areas must be strategically located to avoid interference with traffic flow, sightlines, and access to the development during winter months.

2.1.2. Gallatin County Subdivision Regulations

The *Gallatin County Subdivision Regulations*[2], authorized by the Montana Subdivision and Platting Act (MSPA), provide a comprehensive framework for land development and the creation of subdivisions, ensuring that County growth aligns with public health, safety, and general welfare objectives. These regulations mandate that subdivisions conform to adopted growth policies, comprehensive plans, and zoning requirements. Additionally, all roads, bridges, and pedestrian, bicycle, trail, or transit facilities within a subdivision must adhere to the *Gallatin County Transportation Design and Construction Standards*, ensuring that transportation infrastructure within the subdivision supports both safety and accessibility. For certain developments, a summary of probable impacts, environmental assessment, community impact report, and/or traffic impact study, may be required to evaluate the effects of the subdivision on the surrounding environment and community infrastructure.

2.1.3. Gallatin County Zoning Regulations

The established *Gallatin County Zoning Regulations*[3] are minimum requirements that apply uniformly to structures and land throughout a designated Zoning District to protect and promote public health, safety and general welfare. Land Use and Conditional Use Permits require conformity with applicable requirements of the Zoning Regulations in addition to necessary approvals and permits from other authorities, including approved encroachment permit for any access coming off a road under County or MDT jurisdiction. There are 22 distinct Zoning Districts within Gallatin County.

2.1.4. Gallatin County Code of the West

The *Gallatin County Code of the West*[4] aims to help preserve the land and Old West values of integrity, self-reliance and accountability. The code warns that newcomers should be prepared for rural living encouraging consideration of transportation, communication, education, health care, employment and public services, recognizing that county and small-town governments are often unable to provide the same level of service that large city governments provide. The code emphasizes road conditions and accessibility considerations, especially during winter months or flood events. Overall, the principles outlined in the *Code of the West* can be translated to a culture of road safety through responsible driving, vigilant maintenance, and consideration for others in the community.

2.2. Relevant Safety Programs

Gallatin County is already committed to improving transportation safety and has developed various programs aimed at reducing crashes and severe injuries. While there may be room for improvement or expansion of these programs, it is important to understand what efforts are already being implemented. The following sections describe existing safety programs within the County. Many other programs are conducted at the state level by MDT and local partners.

2.2.1. Gallatin County DUI Task Force

The Gallatin County DUI Task Force was established as a result of a mother's effort to raise awareness about the dangers of driving under the influence after her daughter was killed in a drunk-driving incident in 1978. The task force was initially called Montanans Against Drunk Driving. In 1983, the task force was successful in encouraging the state legislature to pass a law authorizing county governments to create local DUI task forces funded by license reinstatement fees. The Gallatin County DUI Task Force was officially created on March 1, 1984, by the Gallatin County Commission to develop and/or fund public education, awareness, and enforcement projects to reduce the number of alcohol and/or drug related crashes and deaths in Gallatin County.

The Gallatin County DUI Task Force receives funds from Driver's License Reinstatement Fees collected in Gallatin County pursuant to Montana Code Annotated (MCA) § 61-2-107 & 108. Individuals convicted of a DUI and other traffic violations pay a $200 Reinstatement Fee to the State of Montana to get their Driver's License back. Half of the fees are deposited into the State's General Fund and the other half is disbursed on a quarterly basis to DUI Task Forces throughout the State.

Political and community support for the task force has waxed and waned over the years, prompting fluctuations in both funding and leadership. In 2022, the Task Force Coordinator departed and shortly thereafter all leadership positions were vacated and new leaders were voted into office. Membership has continued to decline since COVID, resulting in a loss of momentum. The current coordinator is attempting to reinvigorate the Task Force though progress appears to be slow moving.

CEASE Awards

The DUI Task Force grants funds ranging from $100 to $3,000 to projects that support the character and mission of the DUI Task Force through the Community Education Activity Support & Enforcement (CEASE) Award program. The grant awards can be used to fund for DUI overtime patrols, officer trainings, safety and compliance checks, educational programs, DUI-related equipment purchases, and other projects aimed at decreasing DUIs in Gallatin County.

Education and Outreach

The Task Force has historically, and continues to, conduct prevention and outreach at various community events including Music on Main, Three Forks Rodeo, Run to the Pub, National Night Out Against Crime, Big Sky Pond Skim, BZN Film Celebration, West Yellowstone Rod Run, Manhattan Potato Festival, MSU's Catapalooza, Gallatin Speedway, MSU Football, and Bozeman's Christmas Stroll. The Task Force also sets up the annual Holiday Empty Dinner Table Campaign at the Bozeman Public Library and the Gallatin Valley Mall. Numerous interactive presentations have also been presented to the Bozeman and Belgrade High School's Drivers Education programs in conjunction with the Bozeman and Belgrade Police Departments. The Task Force also maintains coordination with various other area organizations such as the Bridger Canyon Fire Station, the Rock Youth Center, the Elks Drug Awareness Program, C-CODA, MSU's Office of Health Advancement, Bozeman's SAFE Coalition, and others.

Think Twice

Think Twice is a breathalyzer education program funded by the Gallatin County DUI Task Force to help patrons who are not visibly impaired understand their risk before driving. The program provides single-use breathalyzers that inform the user if they are within a range between 0.00% - 0.08% breath-alcohol-content (BAC). This allows patrons who are not apparently intoxicated to know when they should not drive. The Task Force makes it free for alcohol serving establishments in the County to provide breathalyzers. The breathalyzers can also be accompanied by signage approved by management like posters in restrooms, table tents, checkbook inserts, and bar coasters with the objective to be a long-term Drink Responsibly campaign. There are about 25 participating bars and restaurants in Gallatin County, according to the Task Force website.

2.2.2. Gallatin County Court Services

Gallatin County Court Services was created from three existing departments – Pretrial Services, Community Corrections and Treatment Court – to jointly assist the criminal justice system in both the pre-trial and post-adjudication phases of criminal cases. Court Services' programs provide the courts an array of options with regard to bail conditions, alcohol and drug testing and sentencing options. The mission of Court Services includes the implementation of evidence-based programs including diversion, pre-sentence and post-sentence programs, specialty courts, and community-based solutions such as the DUI Task Force.

Treatment Court

The Gallatin County Treatment Court is a voluntary post-conviction adult treatment that provides an alternative to traditional sentencing. The 18-month program requires participants to attend addictions counseling, mental health therapy and support group meetings, undergo frequent drug and alcohol testing, participate in community service, and report weekly to a case manager. The Treatment Court uses the Ohio Risk Assessment System (ORAS) to identify dynamic factors that drive a person toward negative or criminal behaviors. The evidence-based tool helps staff assess offenders, target interventions and inform responses to behavior.

Electronic Monitoring

Electronic Monitoring (EM) is a pretrial and a post-trial program. EM offers the courts the option of allowing the defendant to be in the community, be able to work, and to be responsible for themselves and their families while providing a level of public safety to the community. Continuous Alcohol Monitoring (CAM) allows for the monitoring of a defendant's compliance with conditions restricting alcohol consumption. In response to the COVID 19 pandemic, Gallatin County increased its use of SCRAM CAM bracelets which provide 24/7 transdermal alcohol testing and allow completely remote data downloads for case supervisors. The County also deployed over 150 CheckBAC breath testing devices to allow remote management of probation compliance.

Community Corrections

Community Corrections offers the courts evidence based alternative sentencing programs. The program provides the defendants the opportunity to give back to our community by performing work hours at non-profit organizations, governmental agencies, and other community events. Defendants must be 18 years of age or over and have entered a guilty plea before a judge or have been found guilty at trial. To reduce the risk to the community, many pretrial and post-trial defendants are ordered to participate in the random alcohol and drug testing program. Defendants may also be subject to electronic monitoring, including CAM.

Misdemeanor Probation

The purpose of the Misdemeanor Probation Program is to promote the safety and well-being of the citizens of Gallatin County through case management, sentencing compliance and the referral of defendants to appropriate programs to address the root cause of their criminality. DUI cases are eligible for the misdemeanor probation program. While on misdemeanor probation, offenders may be required to submit to drug and other alcohol tests, maintain employment, attend counseling and/or classes, perform community service, and pay fines, fees and restitution.

Victim Impact Panel

The panel, presented by Mothers Against Drunk Driving (M.A.D.D.), offers defendants an opportunity to listen to a panel of speakers to become aware of the impaired driving's ripple effect on families, friends and members of the community. Some defendants come to "own" the potential tragedy their actions may have caused and reinforce better judgments in the future with regard to impaired driving.

2.2.3. Montana Bar Fairies

Montana Bar Fairies is a local nonprofit which began as a grassroots effort to decrease DUI-related incidents in Kalispell in 2023. In November 2024, a Bar Fairies chapter was started in Bozeman. Early in the morning, volunteers patrol the parking lots of local gathering spots and bars, searching for cars that have been left overnight. The volunteers leave $5 gift cards to local coffee shops on cars that have been left overnight as a token of gratitude for choosing not to drive home under the influence. The program is currently in the beginning stages of implementation and is focused only on the Bozeman area to start. In the future, there could be opportunities to expand the program into other areas of the County.

2.2.4. Gallatin County Community Notification System

Gallatin County Emergency Management operates a Community Notification System to effectively communicate with the community in both emergency and non-emergent situations. The system uses a variety of methods to distribute messages, including over the phone by voice, to phones and email by text, utilizing downloaded apps, and to a variety of social media tools. Users must register for the system and input information about how they wish to receive communications and for which areas they want alerts. Opting into the system automatically enrolls users in emergency alerts and users can voluntarily choose to receive information about other events such as on-going incidents, road closures, and weather-related hazards in their area. Although this system encompasses a large range of emergency situations, it can be helpful to notify drivers of adverse driving conditions or crashes to promote roadway safety.

2.2.5. Car Seat Safety Checks

The Gallatin City-County Health Department offers free car seat safety checks to community members. Certified technicians will inspect car seats free of charge and show users how to correctly install and use the car seats. Spanish speaking technicians are also available. Safety checks are performed on certain days each month, but appointments outside these days are also available. Funding is available to provide families in need with free car seats.

2.3. Relevant Montana Laws

In the United States, roadway safety laws are primarily set at the state level, meaning each individual state legislature creates and enforces traffic laws within their jurisdiction, including regulations regarding speed limits, distracted driving, impaired driving, seatbelt usage, and more. The following summarizes Montana laws relevant to the County's focus areas.

2.3.1. Driving Age

Montana uses a Graduated Driver Licensing (GDL) program to reduce the risk for new drivers. The legal driving age is 16 years old, however, drivers can get a learner's permit at age 14.5 if enrolled in a state-approved driver education program, or at age 15 without a driver's education class. Drivers must hold a learner's permit for at least 6 months and must complete 50 hours of supervised driving, including at least 10 hours at night, before attempting the driving test for a First-Year Restricted License. Within the first 6 months of obtaining a license, a teenage driver may have only one unrelated passenger under age 18 in the vehicle, and for the second 6 months may have no more than three unrelated passengers under age 18 in the vehicle. Teenage drivers may not drive between 11:00 PM and 5:00 AM, with some exceptions.

People aged 18 and over must pass written, vision, and road tests to obtain a license. A Montana Commercial Driver License is based on where the vehicle is driven, Interstate or Intrastate, and is classified by the size of the vehicle driven. Additional endorsements may be required.

In Montana, the standard renewal period for a driver's license is 8 years, but for drivers aged 75 and older, the renewal period is 4 years. Drivers between the ages of 21 and 63 can renew their license online if they are within the renewal timeframe, the license has not been revoked or suspended, and the driver did not renew online or by mail the last time. When renewing in person, drivers must pass a visual acuity test, visual fields test, and contrast sensitivity test.

Referrals to licensing agencies are essential for ensuring that drivers at risk to public safety undergo necessary evaluations. Establishing clear referral procedures can help increase these referrals. Physicians in Montana have the option to report medically at-risk drivers to the drivers licensing agency for evaluation if they feel the driver is not fully capable of driving. However, physicians are not required to report at-risk drivers. Law enforcement officers can identify drivers who may need further evaluation through direct observation at traffic stops or crashes. It is unclear if Montana physicians and law enforcement officers receive specific training to identify and report medically at-risk drivers. Friends and family members can also report concerning drivers by completing a form available at local driver's licensing offices. Montana law mandates reexamination or medical evaluation if there is reliable evidence that a licensed driver lacks the ability to safely operate a vehicle (MCA 61-5-207). Based on the evaluation or testing, the department may impose restrictions, suspend the license, or take no action.

2.3.2. Impaired Driving

A DUI in Montana means that the individual's ability to operate a motor vehicle was diminished due to alcohol and/or drugs. DUI can be established through driving behavior, field sobriety testing, blood testing, and breathalyzer results. A DUI results if the concentration of alcohol in a driver's blood, breath, or other bodily substance is greater than 0.08%, or 0.04% for commercial drivers. For drivers under the age of 21, the limit is 0.02%. A BAC of 0.16 or higher is considered an aggravated DUI. Impairment of marijuana is defined as exceeding a 5 nanogram (ng)/ml threshold for tetrahydrocannabinol (THC) in blood for anyone operating a motor vehicle.

If there is probable cause to believe a driver is driving under the influence, law enforcement officers can require a breath or blood test. Refusal of a test will result in a suspension of the driver's license for 6 months to 1 year and ineligibility for a probationary license. Repeat offenders will pay more fines, serve longer incarceration time, undergo court ordered treatment, enroll in drug/alcohol monitoring programs, and be supervised by the court. Fourth and subsequent DUI Convictions are felonies.

In Montana, social hosts can be held liable under the state's Dram Shop law, which applies to both entities and individuals. This means that social hosts can be personally liable for the consequences of their actions, such as if a guest causes a crash or injury after consuming alcohol. Liability applies if the host continues to serve a visibly intoxicated person, serves alcohol to a person under the age of 21, and allows a visibly intoxicated person to drive.

2.3.3. Speed Limits

In Montana, speed limits are set by the Montana Transportation Commission. Standard speed limits are outlined in MCA § 61-8-303. For interstates, the speed limit is 80 miles per hour (mph) outside an urban area of 50,000 people or more and 65 mph within an urban area of 50,000 people or more. All other public highways have a speed limit of 70 mph during the daytime and 65 mph at night. Slower speed limits are applicable for heavy trucks on Montana highways.

Concerns about posted speed limits are handled either by MDT or local governments. MDT handles requests when the roadway is state- or federally funded. Speed limit changes for MDT routes are posted only after a traffic and safety engineering study has been conducted and (where applicable) approved by the Transportation Commission.

County Commissions have the authority to set or change speed limits on roads under their jurisdiction but may not decrease the limit outside an urban area to less than 35 mph on a paved road or 25 mph on an unpaved road. Speed limits in school zones or senior citizen centers may also be reduced to no less than 15 mph. If warranted by an engineering and traffic investigation, a local authority may also adopt variable speed limits for local roads to adapt to traffic conditions by time of day.

2.3.4. Distracted Driving

Montana is the only state in the U.S. without a statewide ban on texting and driving but several municipalities in the state do have local bans. Bozeman is one of those municipalities whose ordinance prohibits the use of handheld cell phones while operating a motor vehicle, motorcycle, quadricycle, or a bicycle on a public highway. Silver Bow and Deer Lodge Counties are the only Montana Counties with county-wide bans on handheld cell phone use while driving.

2.3.5. Seatbelts and Helmets

Montana law (MCA § 61-13-103) requires that all occupants of a vehicle wear a seatbelt or be in a child safety restraint. Montana law requires all children under age six and weighing less than 60 lbs. to be in an appropriate child safety seat or booster seat. The law places the responsibility on the driver to ensure that everyone is properly buckled up. Law enforcement can only stop a vehicle to ticket a driver for not wearing a seatbelt if they have already been stopped for another traffic violation. A driver in violation of this law can be fined, but the violation may not be recorded or charged against the driver's record.

Seatbelt laws do not apply to motorcyclists, however, Montana's helmet law requires that motorcycle operators and passengers under 18 years old wear a helmet that meets standards set by the Department of Justice and the Department of Transportation. Violation of the helmet law results in a fine of $5. Montana previously had a universal helmet law, which applied to all motorcyclists regardless of age, but it was repealed in 1977. Additionally, motorcyclists in Montana are permitted to filter, or lane split, between stopped or slow-moving vehicles at speeds of no more than 20 miles per hour.

3. Strategy Identification

Individual strategies outlined in this memorandum were identified with the intention of reducing fatalities and serious injuries in Gallatin County and generally improving transportation safety. The descriptions and attributes associated with each strategy can be used by local authorities to inform investment decisions as available funding is applied to achieve community goals. The strategies are not intended to provide specific implementation actions, but rather to provide example projects, programs, and policies for reference as Galatin County and its partners work towards safer streets for all users. These strategies can be used to assist in the future identification, development, and implementation of specific projects in the County, including those listed in **Section 4.2**.

3.1. Overview of Strategy Attributes

Strategies are broad action categories intended to help achieve community transportation safety goals. Strategies are organized according to the key focus areas identified in the *Baseline Data Summary Memorandum* (Run-Off-The-Road Crashes, Intersection Crashes, Driver Age, and High Risk Behaviors). Strategies are also classified according to multiple attributes, which are intended to help agencies select appropriate strategies to address identified needs. The attributes indicate relevant safety framework elements, implementation examples, and supporting references to guide and inform future project identification and development.

E's of Safety

Improving transportation safety requires a comprehensive approach that employs multiple approaches. A common framework is referred to as the "E's of Safety" which includes Education, Enforcement, Engineering, and Emergency Medical Services (EMS). For each strategy, the relevant E's of Safety are identified to indicate the field of technical expertise, related program of example actions, and the coordinated approach necessary to effectively implement the strategy.

Safe Systems Approach

The strategies were selected based on the Safe Systems Approach (SSA), a national framework that aims to improve transportation safety by reinforcing multiple layers of protection to both prevent crashes from happening and minimize the harm caused to those involved when crashes do occur.[5] It is a holistic and comprehensive approach that prioritizes the elimination of crashes that result in death and serious injuries. The approach recognizes that humans are vulnerable and make mistakes, the responsibility for roadway safety is shared, safety partners should be proactive and address deficiencies before crashes occur, and redundancy in the transportation system is crucial. To support these objectives, the SSA is categorized according to the five elements below.

- **Safe Road Users**: Encourage safe, responsible behavior by people who use Montana's roads and create conditions that prioritize their ability to reach their destination unharmed. This element focuses on the behaviors of both drivers and non-motorists.
- **Safe Vehicles**: Expand the availability of vehicle systems and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants.
- **Safe Roads**: Design roadway environments to mitigate human mistakes and account for injury tolerances, to encourage safer behaviors, and to facilitate safe travel by the most vulnerable users.

- **Safe Speeds**: Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, appropriate speed-limit setting, targeted education, outreach campaigns, and enforcement.
- **Post-Crash Care**: Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for vital first responders and preventing secondary crashes through robust traffic incident management practices.

Given Gallatin County's jurisdictional capacity and the identified focus areas for this effort, emphasis was placed on the Safe Road Users, Safe Roads, and Safe Speeds elements of the SSA. Post-crash care is a vital component of roadway safety but outside of the County's direct control. The County will continue to work with health care providers and first responders to further the community's goals while also ensuring timely emergency response and care. The Safe Vehicles element is also outside the purview of the County. In the *National Road Safety Strategy*, this element is mainly targeted at vehicle manufacturers and rulemaking at the Federal level.[6] For the SS4A Action Plan, efforts to address this element focus primarily on educating the public about available vehicle technologies that can help improve safety.

Example Actions

A variety of example projects, programs, policies, actions, and other efforts that may relate to the proposed strategy were provided to indicate how the strategy could be applied to achieve safety goals. Ranging from educational campaigns to investments in infrastructure projects, new technologies, maintenance practices, policies, enforcement, and training, strategies are intended to address safety from numerous angles. The list of examples is meant to be illustrative as opposed to exhaustive. Other projects or actions not listed in the examples could be applicable to the strategy. Not all example actions will be suitable in all cases or at all locations. Additional studies may be necessary to determine the most appropriate solution for each individual project location.

Resources and Guidance

Several of the proposed strategies were developed based on national guidance and proven safety countermeasures. Where applicable, references to the Federal Highway Administration's (FHWA) *Proven Safety Countermeasures*[7] and the NHTSA *Countermeasures that Work*[8] are provided. Additionally, various resources are provided to assist partners with implementation efforts.

3.2. Run-Off-The-Road Strategies

Run-off-the-road crashes are a significant safety concern, often resulting in serious injuries and fatalities. These crashes occur when a vehicle unintentionally leaves its lane, either crossing the centerline or veering off the roadway, due to a range of factors such as poor weather conditions, low visibility, or the presence of an animal on the road. Additionally, issues like road design flaws or high-risk driving behaviors—such as distraction, speeding, or impairment—can further increase the likelihood of a vehicle leaving the roadway. Given the complex nature of these incidents, reducing the occurrence of run-off-the-road crashes requires a multifaceted approach that addresses both human and environmental factors. Key strategies include enhancing road infrastructure, improving road design, and incorporating safety technologies that help prevent these crashes. In addition, addressing high-risk driving behaviors, such as those discussed in **Section 3.5**, is crucial in reducing the likelihood of vehicles departing from the roadway. Together, these strategies form a comprehensive framework for improving road safety and minimizing the impact of run-off-the-road crashes.

3.2.1. Improve Curve Design

Improving curve design is an essential strategy in reducing run-off-the-road crashes, particularly in areas with sharp or poorly delineated curves. A range of potential curve delineation treatments that can be applied in advance of or within horizontal curves to improve driver awareness and safety. These treatments aim to alert drivers to the presence of an upcoming curve, indicate the direction and sharpness of the curve, and recommend the appropriate operating speed to safely navigate the turn. By providing clearer, more consistent guidance, enhanced curve delineation can help prevent drivers from losing control or veering off the road. A systemic approach can be used to identify high-risk curves and implement these treatments where they are most needed.

- **E's of Safety**: Engineering
- **Safe Systems Approach**: Safe Roads
- **Example Actions:**
  - Enhanced Visibility
    - In-Lane Curve Warning Pavement Markings
    - Transverse Rumble Strips
    - Roadside Delineators
    - Retroreflective Strips on Sign Posts
    - Enhanced Sign Conspicuity (Retroreflectivity, Size, etc.)
    - Slow Speed Zones Near Curves
  - Intelligent Transportation Systems (ITS)
    - Dynamic Curve Warning Signs
    - Speed Radar Feedback Signs
    - Sequential Dynamic Chevrons
  - Roadside Design Improvements
    - Increase and Maintain Clear Zones
    - Slope Flattening
    - Add or Widen Shoulders
    - Roadside Barriers (Cable Rail, Guardrail, Concrete Barriers)
- **Resources and Guidance:**
  - *Proven Safety Countermeasures*: *Enhanced Delineation for Horizontal Curves*[9], *Roadside Design Improvements at Curves*[10] (FHWA)
  - *Reducing Roadway Departure Crashes at Horizontal Curve Sections on Two-lane Rural Highways*[11] (FHWA)
  - *Low-Cost Treatments for Horizontal Curve Safety*[12] (FHWA)

3.2.2. Improve Roadside Design

Implementing effective roadside design strategies is crucial in reducing the occurrence and severity of run-off-the-road crashes. When a vehicle leaves the roadway, strategically designed roadside elements can provide drivers with an opportunity to regain control and safely re-enter the roadway or come to a stop before encountering a fixed object or rolling over. Features such as an added or widened shoulder, flattened sideslopes, and a widened clear zone can significantly improve the likelihood of a safe recovery. Since not all roadside hazards can be removed or relocated, installing roadside barriers to shield unmovable objects or steep embankments is another important measure. Additionally, rumble strips, both on the centerline and along the shoulder, serve as an effective countermeasure by providing audible and tactile warnings to drivers who drift out of their lane, alerting them to the potential danger and giving them a chance to correct their course. By incorporating these design improvements, the risk of severe crashes can be reduced when drivers depart from the roadway.

- **E's of Safety**: Engineering
- **Safe Systems Approach**: Safe Roads
- **Example Actions:**
    - Wider Edge Lines
    - Widen Shoulders
    - Improve Shoulders
        - SafetyEdge Shoulder Design
        - Traversable Roadside Slopes
    - Edge Line, Shoulder, and Centerline Rumble Strips
    - Roadside and Median Barriers
        - Cable Rail
        - Guardrail
        - Concrete Barriers
    - Increase and Maintain Clear Zones
    - Breakaway Signs and Poles
- **Resources and Guidance:**
    - *Proven Safety Countermeasures*: *Longitudinal Rumble Strips and Stripes on Two-Lane Roads*[13], *Wider Edge Lines*[14], *SafetyEdge℠*[15], *Median Barriers*[16] (FHWA)
    - *Guidance for the Design and Application of Shoulder and Centerline Rumble Strips*[17] (NCHRP)
    - *Pavement Markings – Implementation Tools*[18] (FHWA)
    - *Roadside Design Guide*[19] (AASHTO)

3.2.3. Improve Roadway Visibility and Surfacing

Improving roadway visibility and surfacing is a critical strategy in reducing run-off-the-road crashes, particularly in areas prone to high travel speeds and challenging road conditions. At nighttime, drivers may struggle to stop in time when encountering a hazard or a sudden change in the road ahead, especially at higher speeds where visibility is limited by headlights. To address this, continuous lighting along road segments and targeted illumination at key locations, such as curves, can significantly enhance visibility and reduce the likelihood of crashes. In addition, measuring, monitoring, and maintaining pavement friction—particularly at intersections, curves, and areas where vehicles frequently slow, turn, or stop—can help prevent many roadway departure incidents. By improving both visibility and road surface conditions, these strategies work together to enhance driver awareness and vehicle control, ultimately reducing the risk of run-off-the-road crashes.

- **E's of Safety**: Engineering
- **Safe Systems Approach**: Safe Roads
- **Example Actions:**
    - Roadway Lighting
    - High-Visibility/High Durability Pavement Markings/Signage
    - High Friction Surface Treatment
    - Regular Roadway Maintenance
    - Vegetation Management

  - Timely Snow and Ice Removal
  - Variable Speed Limits (VSL) / Variable Messaging Signs (VMS)
  - Wrong Way Warning Signs
  - Emergency Weather Alert Systems
  - Vehicle Safety Features (Lane Departure Warning, Lane Keep Assist, Electronic Stability Control, Automatic Emergency Braking)
- **Resources and Guidance:**
  - *Proven Safety Countermeasures: Pavement Friction Management*[20], *Lighting*[21] (FHWA)
  - *Lighting Handbook*[22] (FHWA)
  - Focus on Reducing Rural Roadway Departures (FoRRRwD)[23] (FHWA)

3.3. Intersection Strategies

Improving safety at intersections is crucial for reducing crashes and ensuring efficient traffic flow, particularly in rural and suburban areas where road conditions and traffic patterns differ significantly from urban environments. Rural intersections can be more hazardous than their urban counterparts due to higher speeds, limited visibility, and a lack of traffic control measures. The absence of urban infrastructure such as traffic signals, pedestrian crossings, and bike lanes, combined with long stretches of open road, can lead to unsafe driving behaviors and heightened crash risks. Drivers may be less prepared for sudden changes in road conditions, such as unexpected intersections, especially at night or during inclement weather. Furthermore, many rural intersections suffer from inadequate lighting, insufficient signage, or designs that do not account for the diverse mix of road users, including agricultural vehicles, heavy trucks, bicyclists, and pedestrians. Given the cost constraints and the fact that rural areas often do not require the same level of infrastructure as urban centers, addressing intersection safety issues in these regions requires tailored strategies to improve safety, reduce conflicts, and maintain smooth traffic flow without over-engineering the roadway system.

3.3.1. Improve Intersection Visibility

Improving safety and visibility at both signalized and unsignalized intersections involves several targeted strategies to enhance sight distance for both motorized and non-motorized traffic. Clearing obstructions, such as trimming trees, removing on-street parking, and clearing snow, ensures that sightlines are not blocked. Enhancing lighting with well-placed intersection- and pedestrian-scale lights improves visibility in low-light conditions. Design adjustments like curb extensions and maintaining clear sight distance triangles help improve visibility and reduce conflicts between users. Reflective materials, such as high-visibility signage and pavement markings, make critical information more noticeable. Complementing these physical improvements with public education and enforcement efforts also helps reinforce the importance of these measures and ensures compliance. By combining these strategies, intersections become safer and more navigable, ensuring all road users can see and react to potential risks effectively.

- **E's of Safety**: Engineering, Education, Enforcement
- **Safe Systems Approach**: Safe Roads
- **Example Actions:**
  - Vegetation Management
  - Snow Removal Management
  - No Parking Zones Near Intersections
  - High-Visibility/High Durability Pavement Markings/Signage

  - Intersection Lighting
  - Curb Extensions
  - Daylighting Intersections
  - Sight Line Enforcement
  - Increased Education/Enforcement (Red Light Running, Stop for Pedestrians, Look Both Ways, etc.)
- **Resources and Guidance:**
  - *Proven Safety Countermeasure*: *Lighting*[21] (FHWA)
  - *Lighting Handbook*[22] (FHWA)
  - *Improving Intersections for Pedestrians and Bicyclists Informational Guide*[24] and *Fact Sheets*[25] (FHWA)
  - *Guidance to Improve Pedestrian and Bicyclist Safety at Intersections*[26] (NCHRP)
  - *Research Report: Street Lighting for Pedestrian Safety*[27] (FHWA)
  - *Pedestrian Lighting Primer*[28] (FHWA)
  - Montana Operation Lifesaver[29]

3.3.2. Enhance Unsignalized Intersections

Most of the intersections in Gallatin County, particularly those solely under County jurisdiction, are unsignalized. While the traffic volumes at these intersections are often lower, safety concerns remain significant. Enhancing safety at unsignalized rural intersections requires targeted strategies that address traffic flow and consider the needs of all road users, including drivers, pedestrians, and bicyclists. By implementing infrastructure improvements and traffic control measures designed specifically for rural settings, such as advanced warning signs, flashing beacons, transverse rumble strips, and enhanced delineation, the County can reduce conflict, improve visibility, and create safer, more predictable intersections. Additionally, increased levels of traffic control, such as two-way or all-way stop control, roundabouts, continuous T, reduced conflict U-turn (RCUT), and signalization (if warranted) can help improve safety at intersections experiencing increasing growth or higher congestion.

- **E's of Safety**: Engineering
- **Safe Systems Approach**: Safe Roads
- **Example Actions:**
  - Intersection Geometry/Layout
    - Improve Sight Lines, Turning Radii, and Skew
    - Dedicated Left/Right Turn Lanes
    - Turn Lane Offsets/Channelization
    - Bicycle/Pedestrian Accommodations
    - Bypass Lanes on Shoulder at T-Intersections
    - Left/Right Turn Acceleration Lanes
  - Restrict/Eliminate Turning Maneuvers
    - Access Control Improvements
    - Reduce Driveways Near Key Intersections
    - Splitter Islands
    - Install Median Barriers
  - Increase Driver Awareness
    - High-Visibility Pavement Markings
    - Stop Bar on Minor Approaches
    - Retroreflective Strips on Sign Posts

- Larger Regulatory/Warning Signs
- Supplementary Signs (Double Stop Signs, Overhead Signs, etc.)
- Flashing Stop Signs
- Flashing Overhead Beacons

- Advanced Warning
    - Transverse Rumble Strips
    - Advance Warning Signs
    - Dynamic Warning Signs
    - Pavement Markings (Stop Ahead)
- Increased Traffic Control
    - Stop Control (Two-Way/All-Way)
    - Roundabout
    - Continuous T
    - RCUT
    - Signalization (If Warranted)

- **Resources and Guidance:**
    - *Proven Safety Countermeasure*: *Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections*[30] and *Roundabouts*[31] (FHWA)
    - *Unsignalized Intersection Improvement Guide*[32] (ITE)
    - *Low-Cost Safety Improvements for Rural Intersections*[33] (FHWA)
    - *Low-Cost Safety Enhancements for Stop-Controlled and Signalized Intersections*[34] (FHWA)
    - *Guide for Addressing Unsignalized Intersection Collisions*[35] (NCHRP)
    - *Intersection Safety: A Manual for Local Rural Road Owners*[36] (FHWA)

3.3.3. Install or Enhance Signalized Intersections

In Gallatin County, outside of MDT routes like Huffine Lane and Jackrabbit Lane, and developed areas such as West Yellowstone and Big Sky, signalized intersections are relatively few. However, with the ongoing growth and development, particularly in the urban fringe areas near Bozeman and Belgrade, the need for additional traffic signals is likely to increase in order to improve traffic flow and ensure safety. As the County encounters existing signalized intersections in need of improvement, or considers new locations for signalization, the following strategies can be implemented to enhance safety and efficiency at these intersections.

- **E's of Safety:** Engineering
- **Safe Systems Approach:** Safe Roads
- **Example Actions:**
    - Intersection Geometry/Layout
        - Improve Sight Lines and Turning Angles
        - Dedicated Turn Lanes
        - Turn Lane Channelization
        - Bicycle/Pedestrian Accommodations
    - Signal Phasing
        - Signal Optimization/Coordination
        - Adaptive Signal Control
        - Increase Yellow Change Intervals

        - Increase All Red Intervals
        - Dedicated Turn Phasing
        - Pedestrian Phasing
    - Increase Driver Awareness
        - High-Visibility Pavement Markings
        - Turn Path Markings
        - Overhead Lane Use Signs
        - Retroreflective Backplates
        - Advance Warning Signs/Signals
- **Resources and Guidance:**
    - *Proven Safety Countermeasure*: *Backplates with Retroreflective Borders*[37], *Dedicated Left- and Right-Turn Lanes at Intersections*[38], *Yellow Change Intervals*[39], *and Leading Pedestrian Intervals*[40] (FHWA)
    - *Intersection Safety Strategies*[41] (FHWA)
    - *Guide for Reducing Collisions at Signalized Intersections*[42] (NCHRP)

3.4. Driver Age Strategies

Addressing crashes involving younger and older drivers requires a multifaceted approach that considers their unique challenges and needs. For younger drivers, who often struggle with inexperience, cognitive overload, and social influences, strategies focus on education, training, and enforcement to build their skills and encourage safe behaviors. For older drivers, whose abilities might be affected by age-related declines in vision, flexibility, and reaction times, the emphasis is on assessing fitness to drive, providing educational resources, and adapting vehicles and road designs to support their continued mobility. By implementing these strategies, we can create a safer driving environment that accommodates the diverse needs of drivers across all age groups.

3.4.1. Educate Young Drivers on Safe Driving Practices

Young, novice drivers are particularly vulnerable to crashes due to a combination of inexperience, physical and emotional immaturity, and external influences such as peer pressure. While learning to drive, young drivers must practice a complex set of skills—such as checking mirrors, steering, and reacting to road conditions—which initially require a great deal of mental focus and attention. This cognitive overload increases the likelihood of errors and distractions. Additionally, young drivers are often motivated by a desire to reach their destination quickly or to impress peers, which can lead to risky behaviors like speeding or reckless driving. Gender differences also contribute to the risk, as young males tend to engage in more sensation-seeking and risk-taking behaviors than females and tend to overestimate their driving abilities. Though gender and age-related factors play a role in crash risk, research consistently shows that increased experience has a greater impact on reducing crashes among youth. As novice drivers gain more experience, they become more competent, automating driving tasks and improving their ability to assess and respond to potential hazards. To reduce severe crashes among young drivers, a multi-faceted approach incorporating education, training, enforcement, and the use of technology is needed to address both the cognitive and social factors influencing safe driving behavior.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users, Safe Vehicles
- **Example Actions:**
    - Enforcement of GDL laws

  - Increase Access to and Encourage Teen Driver Education Courses
  - Other Driver Education Programs
    - Alive at 25[43]
    - Share the Keys[44]
    - What Do You Consider Lethal?[45]
    - Checkpoints[46]
    - Hazard Perception Training (RAPT, ACCEL, SAFE-T)
    - Montana DRIVE Workshops[47]
  - Montana Keep Encouraging Young driver Safety (KEYS)
    - Parent/Teen Agreement for Safe Driving Expectations
    - Parent-Teen Homework Assignments to Increase Driver Safety
    - KEYS Teen Driver Rating Form
  - Educate New Drivers on Crash Avoidance Advanced Driver Assist Systems (ADAS) Features
    - My Car Does What?
  - Multilingual Teen Driver Educational Materials
  - University Driver's Education – Montana Driving Laws, Winter Driving, Etc.
  - Written Exam for State-to-State Driver's License Transfers
  - Share the Road Training
- **Resources and Guidance:**
  - Montana Driver Education[48] (OPI)
  - Impact Teen Drivers[49]
  - TeenDrivingPlan[50]
  - DriveitHOME[51] (NSC)

3.4.2. Ensure Older Drivers are Fit to Drive

The shifting demographics of our population have significant implications, particularly for older individuals whose quality of life is highly dependent on maintaining independence. Mobility is essential for independence, and in our society, the primary mode of mobility is the personal vehicle. This reliance is especially pronounced in rural areas like Gallatin County, where alternatives such as public transit, walking, and biking are limited. Consequently, there will be an increasing number of drivers with declining vision, slower decision-making and reaction times, greater difficulty in dividing attention between traffic demands and other critical information, and reductions in strength, flexibility, and overall fitness. The actions outlined in this strategy help assess whether older adults experiencing these declines are still capable of driving safely. There are also various educational resources and vehicle adaptations available for older drivers who have the ability to drive but may require additional support to know and understand how to adjust for slower reflexes, weaker vision and other changes.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users, Safe Vehicles
- **Example Actions:**
  - Licensing Agency Referrals
    - Educate Physicians, Law Enforcement, Caregivers, and the General Public on Referral Procedures
  - Formal Courses for Older Drivers
    - Smart DriverTEK
    - AAA RoadWise Driver
    - AARP Smart Driver Course

        - NSC Defensive Driving for Mature Drivers
        - On-Road Instruction
    - Educate Caregivers/Family Members
        - How to Evaluate Driving Ability
        - How to Approach Driver's License Restrictions
    - Promote Vehicle Adaptive Devices (Seat Belt Extenders, Leg Lifter, Swivel Seats, Adapted Key Holders, etc.)
- **Resources and Guidance:**
    - Model Driver Screening and Evaluation Program Guidelines for Motor Vehicle Administrators[52]
    - Fitness-to-Drive Screening Measure[53]
    - Driver Fitness Medical Guidelines[54]
    - Clinician's Guide to Counseling Older Drivers[55]
    - Understanding Older Drivers[56]
    - Safe Driving for Older Adults[57]
    - CarFit[58]

3.4.3. Design the Transportation System to Ensure Accessibility for Users of All Ages

In the realm of roadway engineering and design, research and guidebooks on addressing the needs of older drivers reveal conflicts between strategies that address the needs of older drivers and those that meet the needs of pedestrians and other road users. For example, some recommendations to improve older driver safety involve widening roadway lanes to allow more room for driving maneuvers. However, wider roads can present a challenge for pedestrians trying to cross the broader streets and may encourage faster driving which can be hazardous for vulnerable road users. As older drivers become unable to drive, and for younger people who may not yet be able to drive, walking and cycling are common alternatives to driving. Balancing the needs of all users across various age groups requires thoughtful design practices that recognize the physical, cognitive, and psychomotor limitations of both younger and older populations. The example actions under this strategy aim to supplement existing standards and guidelines for roadway geometry, operations, and traffic control devices.

- **E's of Safety**: Engineering, Education
- **Safe Systems Approach**: Safe Roads, Safe Road Users, Safe Vehicles
- **Example Actions:**
    - Intersection Geometry and Layout
        - Reduce Intersection Skew
        - Increase Intersection Sight Distance
        - Widen Roadway Lanes
        - Left and Right Turn Lane Offsets
        - Channelization of Travel Lanes
        - Delineation (Edgelines, curblines, centerlines)
    - High Visibility/Contrasting Pavement Markings
    - Clearly Legible and Visible Signage and Signals
    - Advance Warning Signs / Pavement Markings
    - Directional Signs
    - Intersection / Street Lighting
    - High Friction Surface Treatments

- Work Zone Visibility
- Educate Drivers on Crash Avoidance ADAS Features
  - My Car Does What?
- Promote Ride Share and Transit Options for Those Who Can't Drive
- Promote Accessibility for Walking and Biking
  - Adjust Pedestrian Signal Walking Speeds to Demographics
  - Accessible Pedestrian Signals
  - Leading Pedestrian Intervals
  - Dedicated / Separated Non-Motorized Facilities

- **Resources and Guidance:**
  - Handbook for Designing Roadways for the Aging Population[59] (FHWA)
  - Planning Complete Streets for an Aging America[60] (AARP)
  - Young Drivers – The Road to Safety[61] (Organisation for Economic Co-Operation and Development)
  - Designing Streets for Kids[62] (NACTO / Global Designing Cities Initiative)

3.5. High Risk Behavior Strategies

Addressing high risk driving behaviors is essential to improving roadway safety and reducing the risks associated with road use. Unsafe driving behaviors such as impaired driving, speeding, distracted driving, and failure to use seatbelts or helmets contribute to a significant number of crashes, injuries, and fatalities in Gallatin County. In fact, nearly 70 percent of the severe injury crashes in Gallatin County involved one or more high risk driving behaviors. By promoting responsible driving habits through targeted education, high-visibility enforcement, and legislative measures, the County and its partners can create a culture of safety that encourages drivers to make safer choices. Improving driving behavior not only protects individuals but also contributes to the well-being of entire communities by reducing the overall burden of traffic incidents, lowering healthcare costs, and enhancing public confidence in road safety.

3.5.1. Promote Safe Driving Behaviors

Promoting safe driving behaviors is essential for reducing traffic-related injuries and fatalities, and a multi-faceted approach is often the most effective way to achieve meaningful, long-term results. Strategies such as high-visibility enforcement campaigns, community outreach programs, employer safety policies, and peer-to-peer education play a critical role in raising awareness and instilling responsible driving habits. Additionally, engaging young people in safety messaging and offering incentives for safe driving can encourage positive behavior across various demographics. These strategies can be effective at addressing multiple high-risk driving behaviors such as impaired driving, speeding, seatbelt and helmet use, and distracted driving. Equally important, lobbying for stronger legislative measures at the state level—such as stricter penalties for DUIs, lower BAC limits, and universal helmet laws—provides a legal framework to deter unsafe practices and reinforce the message of safety. By combining education, enforcement, incentives, and legislative advocacy, these strategies work in tandem to create a safer driving environment and ultimately reduce the risks associated with road use.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users
- **Example Actions:**
  - Conduct High Visibility Enforcement Campaigns
  - Multilingual Safe Driver Educational Materials
  - Teen & Adult Defensive Driving Courses

- Civilian Dash Cams
- Encourage Safe Driving Behaviors
  - Outreach/Education at Community Events
  - Employer Safety Policies for Company Vehicles
  - Engage School Students in Peer-to-Peer Safety Messaging
  - Incentive Programs
- Lobby State Legislation for Law Changes
  - Increased Penalties for DUIs and Speeding
  - Lower BAC / Drug Potency Limits
  - Primary Seatbelt Laws
  - Universal Helmet Laws
  - Statewide Cell Phone Laws
  - Red Light / Speed Enforcement Cameras

- **Resources:**
  - High Visibility Enforcement Toolkit[63] (NHTSA)
  - How to Write a Company Vehicle Use Policy[64] (US Chamber of Commerce)
  - Peer-to-Peer Teen Traffic Safety Program Guide[65] (NHTSA)
  - Peer-to-Peer Traffic Safety Campaign Program[66] (MDT)
  - Countermeasures That Work, Impaired Driving: Legislation and Licensing[67] (NHTSA)
  - Primary Seat Belt Law in Montana?[68] (MDT)
  - Countermeasures That Work, Universal Helmet Laws[69] (NHTSA)
  - Gallatin County Sheriff's Office Non-English Speaker PSAs[70]

3.5.2. Eliminate Impaired Driving

The Gallatin County DUI Task Force has been a proactive force in addressing impaired driving in the area for decades, working diligently to reduce incidents of driving under the influence of alcohol and drugs. Despite these ongoing efforts, Gallatin County consistently ranks among the top 5 most dangerous counties in the state for impaired driving, with youth DUI also perceived as a significant issue. In response, the Task Force continues to engage in education, prevention, and outreach activities, while constantly seeking innovative strategies to improve their impact. The following strategy outlines a variety of effective countermeasures that could be implemented to further reduce impaired driving in the County. Many of these countermeasures are already in place, particularly in the urban areas, but expanding their reach to rural communities could further enhance efforts to curb impaired driving across Gallatin County.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users
- **Example Actions:**
  - Enforcement
    - Sobriety Checkpoints – *Note: In general, sobriety checkpoints are not used in Montana, however, state statute (MCA 46-5-502) allows law enforcement to establish temporary safety roadblocks in areas where a "significant number of known casual factors of motor vehicle accidents involving fatalities, injuries, or other serious legal violations are known to have occurred," but "may not issue a ticket, citation, or summons for a secondary offense" when conducting a roadblock.*

- Saturation Patrols
- Alcohol Measuring Devices
- Alcohol Vendor Compliance Checks
- Treatment Court
- Court Monitoring Programs
- Drug Recognition Experts / Drug Evaluation and Classification (DEC) program
- Standardized Field Sobriety Testing (SFST) Training
- Advanced Roadside Impaired Driving Enforcement (ARIDE) program
- Education Campaigns
    - Mass Education on Montana Alcohol Laws (Social Host Responsibility, Zero Tolerance, Refusing Field Sobriety Tests, DUI Limits, DUI Penalties, etc.)
    - Think Twice (Expand to County Establishments)
    - Youth Education Programs (Fatal Vision Goggles, Peer-To-Peer Programs, Role Plays, Drunk-Driving Crash Reenactments [e.g., “Every 15 Minutes”], etc.)
    - Victim Impact Panels
    - If you feel different, you drive different
    - Drive High, Get a DUI
- Promote Sober Rides Home
    - NHTSA SaferRide App
    - Designated Driver Incentive Programs
    - Bar Fairies Program (Expand to County Establishments)
    - Safe Rides Home Program
    - Organized Transportation for Large Community Events
    - Promote & Expand Transit Options

- **Resources:**
    - Visual Detection of DWI Motorists[71] (NHTSA)
    - Countermeasures That Work[72] (NHTSA)
    - *Drug Impaired Driving: Understanding the Problem and Ways to Reduce It: A Report to Congress*[73] (NHTSA)

3.5.3. Manage Vehicular Travel Speeds

Motorists often drive at the speed they feel comfortable, taking into account factors like weather conditions, the surrounding environment, and the complexity of the roadway. In some cases, the posted speed limit or the natural flow of traffic may be higher than what is considered safe for the area, given the surrounding context and usage of the roadway. Lowering speed limits in areas with high pedestrian activity, such as school zones, downtown areas, and residential neighborhoods, can help reduce both the frequency and severity of crashes. However, changing a posted speed limit alone does not automatically lead to slower travel speeds. To ensure that the roadway context aligns with the desired speed, desired speed limits should be paired with education and enforcement efforts in addition to physical improvements that reinforce the intended speed. In situations where simply lowering the speed limit is not feasible or effective, traffic calming measures can be employed. These strategies alter the roadway environment to influence driver behavior and encourage voluntary speed reduction. Measures such as chicanes, speed bumps, roundabouts, and curb extensions can all help achieve this goal. However, it’s important to apply these strategies carefully, especially in rural settings. For example, while narrowing travel lanes may work well in urban areas with curb and gutter infrastructure, it can reduce recovery space and increase the risk of run-off-the-road crashes in rural areas. Similarly, speed bumps can be effective in residential neighborhoods but may be unsuitable for higher-speed county roads. Therefore, the use of these measures must be tailored to the specific context to ensure they are both effective and safe.

- **E's of Safety**: Engineering, Education, Enforcement
- **Safe Systems Approach**: Safe Roads, Safe Speeds
- **Example Actions:**
  - Review Posted Speed Limits
    - Speed Studies
    - Special Speed Zones
    - Context Sensitive Speeds
  - Traffic Calming
    - Speed Bumps/Humps/Speed Tables/Raised Crosswalks
    - Visual Friction (Paint, Art, Vegetation, Objects)
    - Narrowed Roadways/Curb Extensions
    - Roundabouts/Traffic Circles
    - Horizontal Roadway Shifts (Chicanes)
    - ITS/Dynamic Speed Feedback Signage
    - Variable Speed Limits (Stationary or Trailers)
    - Warning Signage (Reduce Speed, Curve Ahead)
    - Enhanced Multimodal Environment (Bulb-outs, Pedestrian Refuge Islands, Reallocated Roadway Width to Bike Accommodations)
  - Speed Enforcement
  - Education Campaigns
    - Slow Down for School Zones
    - Ice and Snow…Take It Slow
    - Drive Like Your Kids Live Here
  - Intelligent Speed Assistance Technologies in Vehicles
- **Resources and Guidance:**
  - *Measures for Managing Speed*[74] (ITE)
  - *Traffic Calming to Slow Vehicle Speeds*[75] (USDOT)
  - *Traffic Calming ePrimer*[76] (FHWA)
  - *Winter Driving Safety Brochure*[77] (IDOT)
  - Social Media Campaigns for Winter Driving[78] (National Weather Service)
  - School Area Speed Limit and Signing[79] (SRTS Guide)
  - 24/7/365 School Area Speed Limits[80] (City of Bozeman)
  - *Pop-Up Traffic Calming & Placemaking*[81] (WTI)

3.5.4. Decrease Distracted Driving

In recent years, distracted driving has been the focus of many national campaigns due to its increasing prevalence in crashes. These campaigns aim to reduce distracted driving by raising awareness of the issue and consequences, encouraging behavioral changes, and promoting safer driving practices overall. Integrating distracted driving education into school curricula and driver's education programs can be an effective way to target teen drivers. Using simulations, interactive activities, and personal testimonials can make the campaigns and lessons engaging and impactful. There are also many apps and in-vehicle technologies available that help drivers stay focused by blocking notifications or providing alerts if they're veering off course. Publicizing these tools through educational campaigns can be a good way to promote increased use. Encouraging the community to hold their children, spouses, family members, and friends accountable for distracted driving can also be an effective way to promote safe driving practices.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users, Safe Vehicles
- **Example Actions:**
    - Educational Campaigns
        - #IDontDUIT (I Don't Drive Under the Influence of Technology!)
        - Talk, Text, Crash
        - Every Second Matters
        - Put the Phone Away or Pay
        - Eyes Up, Phone Down
        - EyesDrive
    - Promote Technology Solutions
        - Smart Phone Apps/Cell Phone Blocking Technology
        - Advanced Driver Assistance Systems (ADAS) in Vehicles
    - Promote Teen Traffic Safety
        - Increase Education on the Graduated Driver Licensing Law in Montana
        - Encourage Parents/Teens to Sign Teen Driver Contracts
    - Enforcement
        - Cell Phone Ordinances
        - Employer-Based Distracted Driving Policies
        - Law Enforcement Training to Identify and Document Distracted Driving
- **Resources and Guidance:**
    - *Traffic Safety Marketing: Distracted Driving* (NHTSA)[82]
    - *Everything You Need for Distracted Driving Awareness Month* (National Safety Council)[83]
    - *Every Second Matters* (Travelers Institute)[84]
    - *Put the Phone Away or Pay* (NHSTA)[85]
    - *EyesDrive – Awareness Behind the Wheel*[86]
    - *AAA Parent-Teen Driving Agreement*[87]
    - *Employer Distracted Driving Policy*[88,89] (NSC)
    - *Countermeasures That Work – Distracted Driving*[90] (NHTSA)
    - *High Visibility Enforcement (HVE) Toolkit*[91] (NHTSA)
    - Impact Teen Drivers[49]
    - DecideToDrive.org[92]
    - EndDD.org[93]
    - Montana Trucking Association - Safety[94]

3.5.5. Increase Occupant Protection

For this planning effort, the unrestrained occupants focus area was selected as one of the high-risk behaviors to explore in greater detail. The term "unrestrained" typically refers to the lack of or improper use of seat belts and car seats, but this focus area is often expanded to include protections for all vehicle occupants, including motorcyclists, whose vehicles do not offer seat belts. Motorcyclists, in particular, have been found to be overly represented in severe crash data, highlighting the need for increased attention on this group. Protective measures for motorcyclists include helmets, protective clothing, and reflective devices to enhance both protection and visibility to other road users. Education and enforcement are the most common and most effective tools to change behavior, and there are already many successful programs currently in use across the state. To improve the effectiveness of these efforts, it is helpful to identify and partner with unique organizations that represent low-use groups. These partnerships can help promote the use of seat belts, car seats, and helmets, ultimately improving occupant protection across a variety of high-risk populations.

- **E's of Safety**: Education, Enforcement
- **Safe Systems Approach**: Safe Road Users, Safe Vehicles
- **Example Actions:**
    - Educational Campaigns
        - Seat Belts Save Lives
        - Buckle Up. Every Trip. Every Time.
        - "Walk Under the Bar – Booster Seat in the Car"
        - Respect-A-Cage Exhibit / Room to Live
        - Buckle up Battles
    - Enforcement
        - Click It or Ticket
        - Primary Enforcement Laws
        - Universal Motorcycle Helmet Laws
    - Buckle Up Montana Coalition
    - Seatbelt Surveys
    - Child Passenger Safety Training
    - Child Restraint Inspection Stations
    - Saved by the Belt Program
    - Motorcyclist Protection and Conspicuity
        - Impact-Resistant Clothing
        - Continuous Headlight Use
        - Brightly Colored Clothing
        - Retroreflective Devices
        - Free/Discounted Helmet Distribution through Partnerships with Local Organizations
- **Resources and Guidance:**
    - Buckle Up Montana[95,96] (MDT)
    - National Child Passenger Safety Certification[97] (Safe Kids)
    - Virtual Car Seat Checks for Caregivers[98] (NSC)
    - Traffic Safety Marketing: Seat Belt Safety[99] (NHTSA)
    - Facts About Seat Belt Use[100] (CDC)
    - Choose the Right Motorcycle Helmet[101] (NHTSA)

4. Project, Policy, and Program Identification

This section outlines recommended projects, programs, and policies intended to proactively address identified safety concerns from all angles, including infrastructure improvements, programs targeted at safe behaviors, and operational improvements. The recommendations can be developed as stand-alone efforts, or, in some cases, combined with other efforts as appropriate. There may be cost savings and efficiencies gained by packaging improvements together.

4.1. Recommendation Attributes

All recommendations are categorized according to the implementation type, including projects, programs, and policies. Projects include physical implementation actions which result in changed infrastructure and can range from simple signing or striping to larger-scale reconstruction. Programs include activities meant to incrementally inform or improve transportation safety conditions. Programs are typically the basis for future policy decisions but could also be the outcome of implementing specific policies. Policies are most often established through laws and ordinances but could also take the form of planning documents or procedures adopted by government agencies. Institutionalizing a policy typically requires dedicated funding and comprehensive technical guidance as well as enforcement mechanisms to ensure that there are consequences if the policy is not implemented as intended. Policy changes take time and diligence but can be a powerful way to ensure that adequate staff and resources are being directed toward processes and procedures that will support a safe and healthy community.

A variety of additional information is also provided to assist with future implementation efforts. The following sections provide an overview of the attribute categories outlined for each recommendation to help inform and guide future project, program, and policy development.

Background

The description provides an overview of the identified safety concern(s) that the recommendation is intended to address. In some cases, the safety concern was identified through historic crash data or the HIN, while others were identified through field reviews and public or stakeholder input. Additional background information to give context to the recommendation is also provided where applicable.

Recommendation

Planning-level recommendations are defined broadly to provide flexibility during future implementation phases as additional coordination and investigations occur.

Related Strategies

Recommended projects, programs, and policies employ the focus area strategies outlined in **Section 3**. Relevant strategies are listed for each recommendation. It is intended that the implementing agency can reference the general strategy description for more implementation ideas and guidance.

Past Planning Relation

In many cases, the project, program, or policy recommendations have been identified in past planning efforts. References to past documents and recommendations are provided where applicable to supply additional context and support for the SS4A Action Plan recommendations.

Other Considerations
Project recommendations forwarded from the Action Plan will be subject to the County's standard project development processes. This typically includes project-specific design activities such as stakeholder coordination, environmental impact analysis and permitting, utility conflict mitigation, traffic and safety analysis, hydraulic and geotechnical investigations, and right-of-way acquisition based on project location and design features. For projects that may substantially and permanently impact MDT routes, the MDT System Impact Action Process may apply and additional coordination with MDT may also be necessary. Notable project development considerations are listed for each recommendation such as potential stakeholder interests, possible coordination needs, resources and site features, indirect effects, and other factors to be addressed during project development.

Implementation Partners
Although Gallatin County is serving as the lead agency for implementation of recommendations contained in the Action Plan, implementation of the identified safety strategies, projects, programs, and policies will require cooperation and support from multiple partners. In addition to the County, supportive efforts from partners including MDT, the cities of Bozeman and Belgrade, the towns of Manhattan, Three Forks, Big Sky, and West Yellowstone, law enforcement, school districts, local advocacy groups and organizations, emergency service providers, and individuals/businesses will be needed to successfully improve safety in Gallatin County.

Estimated Cost
Planning-level cost estimates were developed for each of the project recommendations. The estimates include costs for design engineering, mobilization, construction, drainage, utility adjustments, and anticipated easements. Contingencies are provided to account for unknown factors at this planning-level stage. All costs are provided in 2025 dollars since the date of implementation is unknown at this time. **Appendix 1** contains additional planning-level cost estimate information with unit pricing for each option. Estimated costs for program and policy recommendations are not included due to the highly variable nature of these recommendations.

4.2. Project Recommendations
The following project recommendations are designed to address site-specific safety concerns identified through an analysis of historic crash trends and feedback from public and stakeholder outreach. These projects align with previously established planning recommendations and focus on high-benefit, low-cost solutions that maximize safety improvements while also being mindful of funding constraints. There is a targeted emphasis on improving safety on low-volume county roads. It is recognized that safety concerns also exist on higher-volume routes under the jurisdiction of MDT, though there are alternate project nomination processes and funding sources for improvements on these routes that are outside the purview of Gallatin County's jurisdiction. The following recommendations reflect a thoughtful, strategic approach to road safety that prioritizes both immediate needs and long-term, sustainable improvements. **Figure 4.1** illustrates the location of recommended projects within the planning area. Note, project numbering is not indicative of priority or need.

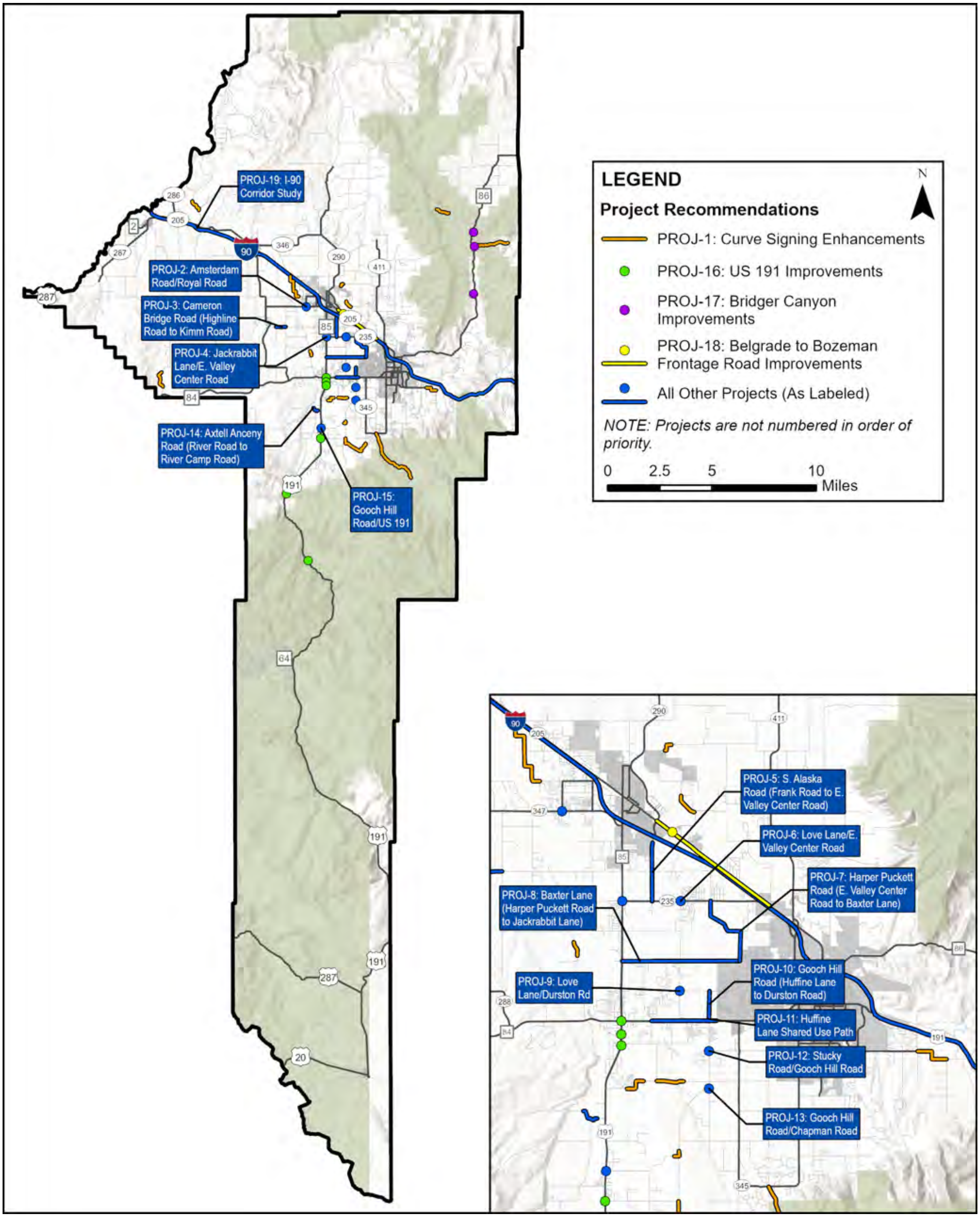


Figure 4.1: Project Recommendations

PROJ-1: Curve Signing Enhancements

Background: Warning signs are used to call attention to unexpected conditions on a roadway that might not be readily apparent to roadway users. Of particular interest is signage for horizontal curves, especially those with crash histories or substandard designs. There are several signing options to consider installing at a horizontal curve, but it is important to sign curves uniformly to provide drivers with a consistent message on which to base expectations.

To provide consistent and uniform signing, and to assist the county in selecting appropriate countermeasures for problematic curves, the GTATP defined a three-tier system for curve signing enhancements. Tier 1 guidance should be used in most cases. If a safety issue is identified at a particular site, supplemental signage (Tier 2) or enhanced countermeasures (Tier 3) may be appropriate. In extreme cases, when signing proves to be ineffective at addressing safety concerns, reconstruction of the roadway may be needed to flatten the curves.

Recommendation: Implement the tired curve signing recommendations at spot locations identified on the HIN.

- Thorpe Road (Rottweiler Lane to Frontage Road) – Tiers 2 & 3, possible reconstruction
- Cottonwood Road (Derek Way to Enders Road) – Tier 2
- Blackwood Road (Beatty Road to Quentin Way) – Tier 2, possible shoulder widening
- Blackwood Road (Elk Grove Lane to Kimber Court) – Tier 2, possible reconstruction
- Bozeman Trail Road (Mount Ellis Lane to Fort Ellis Road) – Tiers 2 & 3, possible reconstruction
- Gooch Hill Road/Enders Road – Tier 2
- Brackett Creek Road (Bridger Canyon Road to Horse Creek Road) – Tier 2
- Madison Road (North of Norris Road) – Tier 1
- Penwell Bridge Road (Roundup Boulevard to Thompson Field Lane) – Tier 2
- Tubb Road (Airport Road to Jetway Drive) – Tier 2
- Logan Trident Road (RP 2.6 to 4.2) – Tiers 1 & 2
- River Road (North of Bryan Road) - Tier 1
- Fairy Lake Road (RP 4.3 to 4.9) – Tier 1
- Hyalite Road (19th Ave to Hyalite Reservoir) – Tier 1

Related Strategies:

- Improve Curve Design
- Improve Roadside Design

Past Planning Relation:

- Many of the recommended curve signing locations were also identified in the GTATP, including **TSM-1**, **TSM-2**, **TSM-4**, **TSM-5**, **TSM-9**, and **TSM-10**.

Other Considerations:

- MDT is planning to install solar LED chevrons on the Bozeman Trail Road curves. The results of this installation may inform future use of this technology.
- Some of the identified curves are on Forest Service roads.

Implementation Partners: Gallatin County, MDT, Forest Service, Cities, Towns

Estimated Cost: $1,500 - $3,000 per curve

PROJ-2: Amsterdam Road/Royal Road

Background: This is a four-legged intersection with stop control on the northbound and southbound legs (Royal Road). Over the five-year analysis period, 10 crashes were reported, three of which resulted in injuries. Approximately half of the crashes occurred at night, under conditions without street lighting. Both the GTATP and the Belgrade LRTP identified a crash trend and operational concerns at the intersection. As the Belgrade area continues to develop and traffic volumes increase, it is recommended that the intersection be further evaluated for additional traffic control measures, such as signalization or the construction of a roundabout, to accommodate current and future traffic demand and improve safety. As a short-term improvement, street lighting could be installed at the intersection to enhance visibility.

Recommendation: Install enhanced traffic control at the intersection, either a traffic signal or roundabout, depending on warrants. Consider intersection lighting in the short-term.

Related Strategies:

- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Install or Enhance Signalized Intersections

Past Planning Relation:

- This location is identified in the GTATP as **TSM-22**.
- The GTATP also recommends reconstructing Amsterdam Road between Royal Road and Thorpe Road to urban minor arterial standards (**MSN-19**).

- MDT and Gallatin County recently completed safety improvements and intersection upgrades on Amsterdam Road at the Green Belt Drive & River Rock Road intersections. These improvements may impact traffic flow through the Royal Road intersection.

Other Considerations:

- An alternatives analysis should be performed to determine the best traffic control improvements for the intersection. A signal warrant study would be required.
- Right-of-way may be needed to install improvements. Coordination with utility providers and adjacent landowners will be necessary.
- Coordination with MDT will be required.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $1.1M (signal), $2.2M (roundabout)

PROJ-3: Cameron Bridge Road (Highline Road to Kimm Road)

Background: The stretch of Cameron Bridge Road between Highline Road and Kimm Road has been flagged by community members for several safety concerns. The road's curvature significantly impacts visibility, particularly during icy winter conditions. A major issue is the dip at the Kimm Road intersection, which obstructs drivers' ability to see oncoming traffic on Cameron Bridge Road. Additionally, there are slight S-curves near Valley Ditch, which are poorly marked, lack reflectors and guardrails, and feature steep slopes leading into the ditch. The road is narrow, and the lack of shoulders poses significant risks to bicyclists, pedestrians, and drivers, especially when large farm equipment is present. This segment, which has been identified on the HIN, has a history of multiple crashes, particularly in winter. A recent fatal crash involving a teen driver at the S-curves is not included in the official crash data, further highlighting the need for urgent safety improvements.

In the short-term, signage can be added at the intersection to indicate low visibility and signage, reflectors, and guardrail can be added along the unexpected S-curve at the ditch crossing to improve visibility of this feature. In the longer-term, consider flattening the hill and widening the shoulders or straightening the roadway at the ditch, possibly by piping the ditch under the roadway.

Recommendation: Enhance visibility in this section through low-cost countermeasures and possible long-term reconstruction.

Related Strategies:

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation: N/A

Other Considerations:

- Coordination with the owner of the irrigation ditch would be required. Consider piping the ditch to facilitate roadway straightening improvements.

Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $46,000 (low cost improvements), $2.2M (reconstruction)

PROJ-4: Jackrabbit Lane/E. Valley Center Road

Background: The Jackrabbit Lane/E. Valley Center Road intersection was identified on the HIN. However, the HIN results may be misleading due to significant changes at the intersection during the crash analysis period. Specifically, the Town Pump, located at the northeast corner, opened in late 2020, about two years into the analysis period. Around the same time, the speed limit on Jackrabbit Lane was reduced from 70 mph to 55 mph. While approximately half of the crashes occurred before the traffic signal was installed, 3 of the 4 severe injuries occurred in left-turn opposite direction crashes after the signal was added. To better understand the impact of the signal on safety, further investigation using more recent crash data is needed.

Recommendation: Monitor to see how safety conditions change with improvements. Consider protected left-turn phasing.

Related Strategies:

- Improve Intersection Visibility
- Install or Enhance Signalized Intersections

Past Planning Relation: N/A

Other Considerations:

- The signal is presently equipped with four signal indicators (red, solid yellow, flashing yellow, and green arrows) though it does not appear that the protected left-turn phasing (solid green arrow) is actively in use.
- It may be necessary to meet warrants before modifying the signal.

Implementation Partners: MDT, Gallatin County, Adjacent Landowners

Estimated Cost: $77,000

PROJ-5: S. Alaska Road (Frank Road to E. Valley Center Road)

Background: S. Alaska Road consists of two travel lanes (one in each direction) with narrow and deteriorating shoulders. Adjacent land uses through this section include light industrial, commercial, residential, and farmland. S. Alaska Road ties into the recently constructed East Belgrade Interchange and provides access to several gravel pits as well as light industrial, commercial, residential, and farmland uses. The roadway carries over 8,000 vpd with up to 10 percent of the traffic being heavy vehicles. Traffic volumes on S. Alaska Road have more than doubled since construction of the Belgrade Airport Interchange, as a result of increasing numbers of commuters between Belgrade and Bozeman, and general growth in the area.

This corridor segment, as well as several of the adjoining intersections were identified on the HIN. Public concerns include speeding, reckless driving, lack of shoulders for cyclists, poor nighttime visibility, and the need for traffic control improvements to manage rising traffic volumes.

Recommendation: Reconstruct roadway to meet current standards, incorporate roundabouts at Cameron Bridge Road and E. Valley Center Road intersections, and install non-motorized accommodations.

Related Strategies:

- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:

- This location is identified in several of the GTATP recommendations including **MSN-3** (corridor reconstruction), **TSM-16** and **TSM-17** (intersection improvements at Cameron Bridge Road and East Valley Center Road), and **SUP-9** (shared use path).
- Preliminary engineering for this corridor has already been started through the *Gallatin County Intersections Project*.

Other Considerations:

- Right-of-way may be needed to install improvements. Coordination with utility providers and adjacent landowners will be necessary.
- Coordination with MDT at the E. Valley Center Road intersection will be required.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $36.7M

PROJ-6: Love Lane/E. Valley Center Road

Background: The intersection of Love Lane and E. Valley Center Road is a T-intersection with stop control on Love Lane. The intersection handles over 10,300 vehicles daily, leading to long delays as vehicles on Love Lane wait for gaps in traffic to enter E. Valley Center Road. Additionally, the intersection lacks street lighting, resulting in low visibility at night. A shared use path crosses the Love Lane approach, running adjacent to E. Valley Center Road. Due to crash trends, this intersection is ranked in the top five percent on the HIN, highlighting the need for safety improvements.

Recommendation: Install enhanced traffic control at the intersection, with the type and configuration determined based on an intersection control analysis. Consider intersection lighting in the short-term.

Related Strategies:

- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Install or Enhance Signalized Intersections

Past Planning Relation:

- This location is identified in the GTATP as **TSM-14**.
- The GTATP also recommends a future connection, extending Love Lane from E. Valley Center Road north to meet S. Alaska Road at Frank Road.

Other Considerations:

- An alternatives analysis should be performed to determine the best traffic control improvements for the intersection. A signal warrant study would be required.
- Right-of-way may be needed to install improvements. Coordination with utility providers and adjacent landowners will be necessary.
- Coordination with MDT will be required.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $2.7M - $6.6M

PROJ-7: Harper Puckett Road (E. Valley Center Road to Baxter Lane)

Background: Harper Puckett Road, a narrow two-lane roadway, extends south from E. Valley Center Road curving east through a series of S-curves to meet with Hidden Valley Road then continuing south until it meets with Baxter Lane. The road primarily serves single-family residences and agricultural lands, but with the growth of Bozeman and Belgrade, it could conceivably experience increased development. The curved section of the road has been identified on the HIN due to a trend of run-off-the-road crashes. Similar crashes have also been observed on the straight segments, especially in areas with narrow shoulders, highlighting the need for improvements to address safety concerns.

Recommendation: Install curve signing enhancements and consider widening shoulders.

Related Strategies:

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Manage Vehicular Travel Speeds

Past Planning Relation:

- Project **MSN-11** of the GTATP recommends completing the connection between Harper Puckett Road and Gooch Hill Road to provide and alternate north-south connection. **MSN-8** and **MSN-14** recommend reconstructing Harper Puckett Road as extensions of Hulbert Lane and Cottonwood Road, respectively.

Other Considerations:

- Consider reconstructing/extending the roadway in the long-term as recommended in the GTATP to enhance connectivity and reduce traffic on the curved section of roadway.
- Connections with MDT and City of Bozeman owned facilities exist at the ends of this segment.

Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $40,000 (curve signing), $2.1M (shoulder widening)

PROJ-8: Baxter Lane (Harper Puckett Road to Jackrabbit Lane)

Background: Baxter Lane is a vital route connecting Bozeman to surrounding areas, but it is becoming increasingly inadequate due to growing residential development along the corridor and nearby regions. Safety issues include the road's narrow width, lack of shoulders, insufficient non-motorized infrastructure, rising traffic volumes, and high speeds. In winter, the road's steep side slopes, deep ditches, and icy conditions further contribute to these concerns. The segment of Baxter Lane between Love Lane and Monforton School Road was identified on the HIN. A recent fatal DUI crash was also reported in the vicinity of the Baxter Lane and Monforton School Road intersection, which was not captured in the crash data used to develop the HIN.

Recommendation: Reconstruct the corridor to meet current standards including wider shoulders, potential turn lanes, and non-motorized accommodations. Consider enhanced delineation as a short-term improvement.

Related Strategies:
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:
- This location is identified in several of the GTATP recommendations including **MSN-4** (corridor reconstruction), and **SUP-5** and **SUP-6** (shared use path).

Other Considerations:
- There is one bridge on this segment that would need to be either widened or supplemented with a second bridge to accommodate non-motorized facilities.
- MDT coordination may be required at the Jackrabbit Lane intersection and City of Bozeman coordination may be required at the Harper Puckett Road intersection.

Implementation Partners: Gallatin County, City of Bozeman, MDT, Adjacent Landowners, Utility Providers

Estimated Cost: $130,000 (delineation), $27.6M (reconstruction)

PROJ-9: Love Lane/Durston Rd

Background: The intersection of Love Lane and Durston Road sees nearly 8,000 vehicles daily. The east leg of Durston Road comes into the intersection at a steep downgrade which gets icy during the winter. During the crash analysis period, the intersection was configured with stop control on the east and west legs of Durston Road. In summer 2023, an all-way stop was implemented to address increased traffic from construction activity and detours related to the Baxter Lane reconstruction project. The all-way stop received strong community support and was found to provide traffic and safety benefits. As a result, the county decided to maintain the all-way stop and install stop signs with LED borders for enhanced visibility and improved safety. However, with continued development in the area, an all-way stop is expected to experience poor levels of service in the near future, requiring a long-term solution for the intersection.

Recommendation: Reconfigure intersection as a roundabout.

Related Strategies:

- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:

- This location is identified in the GTATP as **TSM-15**.
- An alternatives analysis conducted the *Gallatin County Intersections Project* identified a roundabout as the best long-term solution for the intersection.

Other Considerations:

- Right-of-way may be needed to install improvements. Coordination with utility providers and adjacent landowners will be necessary.

Implementation Partners: Gallatin County, Utility Providers, Adjacent Landowners

Estimated Cost: $7.3M

PROJ-10: Gooch Hill Road (Huffine Lane to Durston Road)

Background: Gooch Hill Road, extending north of Huffine Lane, is a narrow two-lane road with one-foot shoulders and steep side slopes in certain areas. The road currently handles approximately 2,700 vehicles per day, with its current northern terminus at Durston Road. While the area is predominantly agricultural, it has high growth potential for residential and commercial development in the near future, especially given its proximity to Bozeman city limits. The segment, along with the intersections at Durston Road and Huffine Lane, have been identified on the HIN due to their crash histories.

To address traffic and safety concerns, the corridor should be reconstructed to meet current standards and provide non-motorized accommodations. In the near-term, advance warning signs and reflective tape and/or flashing lights to the stop sign could be considered at the Gooch Hill Road/Durston Road intersection to improve visibility of the three-legged intersection. The Gooch Hill Road/Huffine Lane intersection is already signalized, but several improvements could be installed to reduce conflicts and improve safety for all users, including an eastbound right-turn lane on Huffine Lane, improved intersection lighting, pedestrian signals, crosswalks, and sidewalk connecting to adjacent bus stops.

Recommendation: Enhance visibility and reduce conflicts in this section through low-cost intersection safety countermeasures and eventual long-term reconstruction.

Related Strategies:
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections

Past Planning Relation:
- Project **MSN-12** of the GTATP recommends reconstruction of this segment of Gooch Hill Road.

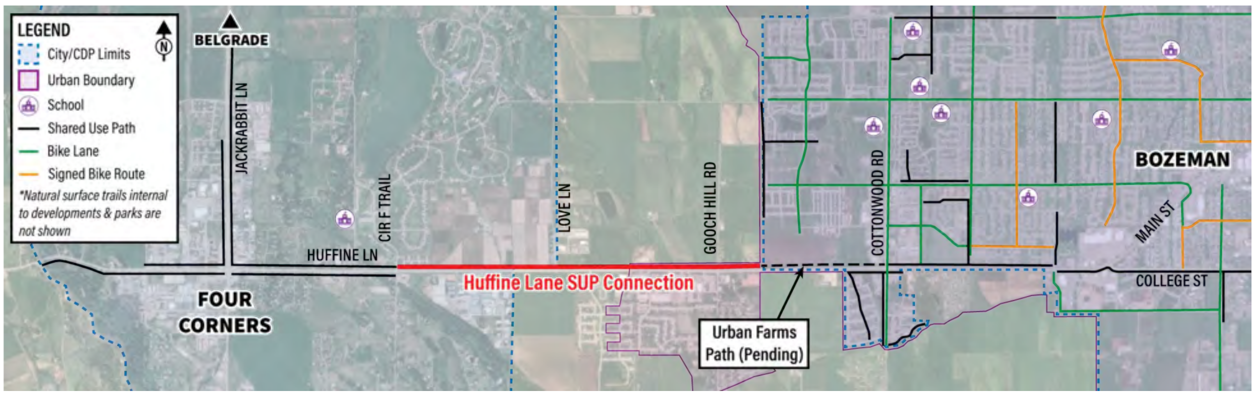
Other Considerations:
- MDT coordination will be required at the Huffine Lane intersection. A turn lane warrant study may be required.
- Consider intersection improvements in the near term with reconstruction in the longer term.

Implementation Partners: Gallatin County, MDT, Adjacent Landowners, Utility Providers

Estimated Cost: $5,000 (Durston Road), $910,000 (Huffine Lane), $13.8M (reconstruction)

PROJ-11: Huffine Lane Shared Use Path

Background: An existing shared use path runs along both sides of Huffine Lane from the Four Corners intersection to Circle F Trail, with a pedestrian underpass below Huffine Lane at Monforton School Road. To enhance connectivity and improve safety for non-motorists, it is recommended to extend the shared use path east to the Bozeman city limits, potentially on one or both sides of Huffine Lane, depending on funding and safety considerations. The high-speed traffic, numerous intersections, and lack of connected bike and pedestrian infrastructure on Huffine Lane create a high-stress environment for users trying to navigate the corridor without a vehicle, making this connection critical for safety and connectivity.



Recommendation: Complete the shared use path between Circle F Trail and Bozeman City Limits to create a continuous non-motorized route between Four Corners and Bozeman.

Related Strategies:

- Design the Transportation System to Ensure Accessibility for Users of All Ages

Past Planning Relation:

- The shared use path is identified in GTATP as **SUP-2** and **SUP-3**.
- Gallatin County has pursued preliminary engineering for the path to support the development of various grant applications.

Other Considerations:

- Preliminary engineering work indicates that the north side of Huffine Lane is the most logical location for a path due to topographic, right-of-way, and funding constraints.
- Coordination with MDT will be required, especially if the path is going to be constructed in MDT right-of-way.
- Adjacent landowners have committed to constructing segments of the path as conditional approval for development.
- Some of the adjacent land is encumbered by conservation easements to Gallatin Valley Land Trust (GVLT).

Implementation Partners: Gallatin County, MDT, GVLT, Adjacent Landowners, Utility Providers

Estimated Cost: $3.5M

PROJ-12: Stucky Road/Gooch Hill Road

Background: Stucky Road dead ends at Gooch Hill Road, forming a three-legged intersection with stop control on the Stucky Road approach. Over a five-year crash analysis period, 27 crashes were reported at the intersection, with dark lighting conditions and adverse road conditions seemingly contributing to the incidents. A collection of crosses at the intersection suggests a history of fatal crashes. Continuous safety improvements can be seen by reviewing past street-view imagery, showing that sometime between 2019 and 2024, 'intersection ahead' warning signs were added on Gooch Hill Road to alert drivers to the upcoming intersection. A road name placard was also placed atop the double arrow sign during the same timeframe.

Despite the installation of several low-cost countermeasures, the intersection remains on the HIN, although no severe injuries have been reported. To further improve safety, street lighting could be considered. Reflective tape could be applied to the poles for the stop sign and double arrow sign to increase visibility from a greater distance. Additionally, a placard could be installed below the stop sign to indicate that cross traffic does not stop. If these measures prove ineffective, a flashing beacon could be installed on the 'stop ahead' sign on Stucky Road, or the existing stop sign could be replaced with one featuring an LED border for better visibility.

Recommendation: Install low-cost countermeasures to improve visibility of the intersection.

Related Strategies:

- Improve Intersection Visibility
- Enhance Unsignalized Intersections

Past Planning Relation:

- The GTATP recommends extending Stucky Road between Gooch Hill Road and Elk Lane/Red Mountain Drive (**MSN-16**).

Other Considerations:

- Consider pairing infrastructure improvements with targeted maintenance during winter plowing efforts.
- Consider maintenance costs associated with increased sanding and lighting installation.

- Consider potential unintended consequences of lighting on the night sky and the surrounding environment.

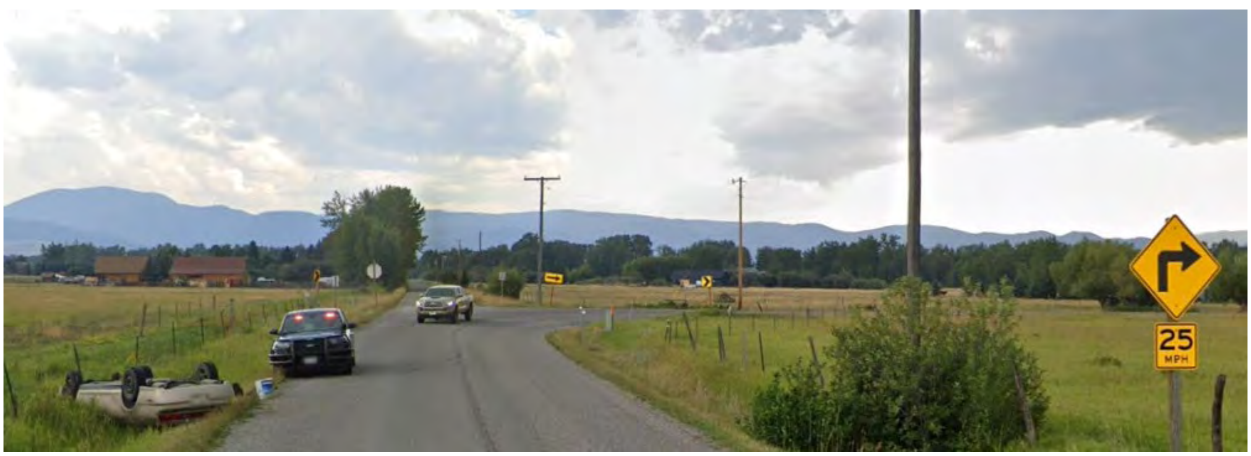
Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $8,000

PROJ-13: Gooch Hill Road/Chapman Road

Background: Chapman Road intersects Gooch Hill Road at a sharp, nearly 90-degree curve, creating a three-legged intersection. Priority is currently given to the through movement on Gooch Hill Road (west to north), while Chapman Road (south leg) is stop-controlled. Although the curve is well-signed, there has been a trend of run-off-the-road crashes, placing this intersection on the HIN. Approximately two-thirds of these crashes occurred in adverse weather conditions, and about one-third happened at night under poorly lit conditions. All nighttime crashes involved snow or icy road surfaces. These factors suggest that while the intersection layout may be confusing, it may not be the primary cause of the crashes.

Several low-cost countermeasures could be considered to improve safety. A combination curve/intersection sign with a road name placard and potential flashing beacons could help clarify the road layout and warn drivers of the upcoming intersection. Additionally, installing lighting at the intersection would improve nighttime visibility. Alternatively, the traffic control at the intersection could be modified to reduce potential conflicts. This would involve stopping eastbound traffic on Gooch Hill Road in order to prioritize the straight north/south movements. While this improvement may improve safety, it could impact traffic flow, and be initially confusing to nearby residents who drive through the intersection often. Additionally, increased sanding around the curve during winter maintenance activities could help reduce run-off-the-road crashes under snowy or icy road conditions.



Recommendation: Install low-cost countermeasures to improve visibility, traction, and driver understanding of the intersection.

Related Strategies:
- Improve Curve Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Install or Enhance Signalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation: N/A

Other Considerations:
- Consider maintenance costs associated with increased sanding and lighting installation.
- Consider potential unintended consequences of lighting on the night sky and the surrounding environment.
- Changing traffic control could cause confusion or delays for drivers already accustomed to the current configuration, so a well-publicized transition and proper signage would be crucial.

Implementation Partners: Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $7,000

PROJ-14: Axtell Anceny Road (River Road to River Camp Road)

Background: Axtell Gateway Road intersects Axtell Anceny Road at a significant skew, forming a triangular connection between the two gravel roadways. However, unclear signage makes it difficult to understand the desired traffic flow. The situation is further complicated by sharp, winding curves on Axtell Anceny Road beyond the intersection. Just east of the intersection, Axtell Anceny Road crosses the Gallatin River on a narrow, 104-year-old bridge that provides access to a small fishing site on the river's east side.

Although traffic volumes in the area are low, several crashes have occurred at the intersection and along the adjoining curves, placing both the intersection and corridor on the HIN. To improve safety, enhanced curve warning signage could be installed along the route. Additionally, introducing stop or yield control at the three-legged intersection could clarify priority movements. Ideally, the intersection could be realigned to a 90-degree angle, with stop control on Axtell Gateway Road, which would improve visibility and overall clarity for drivers.

Recommendation: Install signage to better clarify the roadway configuration and consider intersection realignment.

Related Strategies:

- Improve Curve Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation: N/A

Other Considerations:

- MDT is tentatively planning to replace the Axtell Bridge in 2028. Consider coordinating improvements with other ongoing efforts.
- If realignment of the intersection is pursued, ensure drivers on Axtell Gateway Road have adequate visibility to see oncoming traffic on Axtell Anceny Road.

Implementation Partners: Gallatin County, MDT, Adjacent Property Owners

Estimated Cost: $19,000 (curve signing), $50,000 (realignment)

PROJ-15: Gooch Hill Road/US 191

Background: Gooch Hill Road dead ends at US 191, where it is stop controlled, while priority is given to movements on the highway. The intersection also features a southbound left lane on US 191. Over the five-year crash analysis period, 17 crashes were reported at or near the intersection, with one resulting in suspected serious injuries, placing the intersection high on the HIN. Approximately 40 percent of these crashes involved vehicles turning onto or off of Gooch Hill Road. In addition to vehicle crashes, there were four wildlife collisions at the intersection, with all but one occurring at night with no street lighting. The intersection's safety concerns are further highlighted by a recent high-profile crash in 2024, in which two motorcyclists were killed and a third suffered severe injuries. This tragic incident, though not included in the crash analysis, underscores the ongoing safety risks at this location and adds urgency to addressing the intersection's design and safety features.

To enhance safety, a combination of countermeasures should be considered. These could include the installation of street lighting to improve nighttime visibility, better signage to warn drivers of the intersection ahead, and potentially adjusting traffic control or roadway geometry to improve driver awareness and reduce turning conflicts. Additionally, further evaluation of the intersection for signalization or the construction of a reduced conflict intersection (roundabout, continuous T, or RCUT) could help address both the existing safety concerns and future traffic increases as the area develops.

Recommendation: Install enhanced traffic control at the intersection, with the type and configuration determined based on an intersection control evaluation. Consider intersection lighting or other visibility enhancements in the short-term.

Related Strategies:
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Install or Enhance Signalized Intersections

Past Planning Relation: N/A

Other Considerations:
- MDT recently installed a TWLTL on US 191 between Zachariah Lane and Gooch Hill Road. While specific intersection improvements were not included at Gooch Hill Road, the new TWLTL may slightly alter traffic and safety patterns/needs at Gooch Hill Road.
- An alternatives analysis should be performed to determine the best traffic control improvements for the intersection. A signal warrant study would be required.
- Right-of-way may be needed to install improvements. Coordination with utility providers and adjacent landowners will be necessary.
- Coordination with MDT will be required.

Implementation Partners: Gallatin County, MDT, Utility Providers, Adjacent Landowners

Estimated Cost: $15,000 (visibility enhancements), $1.7M - $3.1M (traffic control)

PROJ-16: US 191 Improvements

Background: MDT completed a corridor study on US 191 between Four Corners and Beaver Creek Road in 2020.[102] These improvements were all identified in the corridor study to address traffic and safety concerns. The areas listed below all align with the HIN and/or public comments received throughout the development of the Action Plan. The list does not include projects which are already under development, including the Mill

Street/Rabel Lane intersection, Lava Lake area, wildlife accommodations, and the MT 64 intersection.

Recommendation:

- Four Corners Intersection (S1) - Modify business access; install second westbound left-turn lane; add pedestrian crossing treatments
- 3rd Street to 2nd Street (S2) - Replace or widen bridge based on future needs of the highway
- Bozeman Hot Springs/Cobb Hill/Lower Rainbow Road (S3) - Consolidate approaches and realign intersection; improve intersection/roadway lighting
- Cottonwood Road (S7) - Install additional traffic control and realign intersection as warranted.
- Advance Warning Signs (S-16) – Install curve warning signs for substandard roadway elements, (RP 61.2 is specifically on the HIN)
- Substandard Curve Modification (S17-a) - Reconstruct horizontal and vertical curves North of Spanish Creek (RP 69.2 to 68.5)

Related Strategies:

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Install or Enhance Signalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:

- All projects were identified in the *US 191 Corridor Study* led by MDT.
- The Cottonwood Road recommendation was also identified in the GTATP as **TSM-21**.

Other Considerations:

- The corridor study identifies several project development considerations for each recommendation.
- Most projects would be led by MDT but may be supported by other entities.

Implementation Partners: MDT, Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: \$3.9M (S1), \$3.5M (S2), \$1.3M (S3), \$1.5M - \$3.8M (S7), \$310,000 (S16), \$4.9M (S17-a)

PROJ-17: Bridger Canyon Improvements

Background: MDT completed a corridor planning study for MT 86/Bridger Canyon Road between Story Mill Road and US 89 in 2015.[103] Three of the following improvements were identified in the corridor study to address traffic and safety concerns. A fourth improvement was not identified in the corridor study but was identified as a high priority on the HIN based on a trend of rollover crashes in poor road and weather conditions. The areas listed below align with the HIN and/or public comments received throughout the development of the Action Plan.

Recommendation:

- 2.b: Horizontal and Vertical Curve Improvements with Shoulder Widening – RP 20.8 to 22.0
- 4.a: Approach Sight Distance Mitigation/Intersection Realignment - RP 18.8 (Brackett Creek)
- 4.b: Intersection Realignment - RP 18.8 (Brackett Creek)
- RP 13.5 – RP 14.2 – High friction surfacing or advance warning signs with advisory speeds

Related Strategies:

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:

- All projects were identified in the *Bridger Canyon Corridor Planning Study* led by MDT.

Other Considerations:

- The corridor study identifies several project development considerations for each recommendation.
- Most projects would be led by MDT but may be supported by other entities.
- MDT is completing an overlay project on Bridger Canyon Road near Brackett Creek in 2027, improvements to the intersection may be considered in coordination with the maintenance project.

Implementation Partners: MDT, Gallatin County, Adjacent Landowners, Utility Providers

Estimated Cost: $770,000 (2.b), $70,000 (4.a), $610,000 (4.b), $380,000 (RP 13.5)

PROJ-18: Belgrade to Bozeman Frontage Road Improvements

Background: MDT completed a corridor planning study for the frontage road between Bozeman and Belgrade in 2017.[104] The following improvements were identified in the corridor study to address traffic and safety concerns.

Although the Frontage Road scored very low on the HIN, the recommended improvements are still applicable and could benefit safety in the corridor.

Recommendation:

- 3: Airport Road Intersection Improvements - Install an eastbound left-turn lane and/or traffic signal when warranted.
- 8: Passing Zone Modifications - Evaluate and modify existing passing and no-passing signing and striping to meet current standards.
- 9: Install Centerline Rumble Strips - Construct centerline rumble strips along the rural portions of the corridor as appropriate.
- 10: Develop Separated Shared Use Path - Investigate opportunities to develop a path between Bozeman and Belgrade.
- 11: Roadway Reconstruction - Reconstruct the corridor to include one travel lane in each direction, center left-turn lane (where appropriate), and eight-foot shoulders.

Related Strategies:

- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility
- Enhance Unsignalized Intersections
- Manage Vehicular Travel Speeds

Past Planning Relation:

- All projects were identified in the *Belgrade to Bozeman Frontage Road Corridor Study* led by MDT.

Other Considerations:

- The corridor study identifies several project development considerations for each recommendation.
- Most projects would be led by MDT but may be supported by other entities.
- MDT has nominated a project (UPN 10293) to address the Airport Road intersection improvements. The project is currently paused due to major changes planned by the Airport at the intersection, including realignment of Airport Road. Most likely a left turn lane will be installed further south where the realigned roadway intersects the Frontage Road.

Implementation Partners: MDT, Gallatin County, City of Bozeman, City of Belgrade, Bozeman-Yellowstone International Airport, Adjacent Landowners, Utility Providers

Estimated Cost: $1.7M - $2.4M (3), $40,000 (8), $50,000 (9), $2.0M per mile (10), $15.1M (11)

PROJ-19: I-90 Corridor Study

Background: Many locations along I-90 show up on the HIN. In particular, the Bozeman pass and the section between Bozeman and Belgrade city limits ranked highly on the HIN. The traffic volume on this stretch of the interstate currently exceeds 30,000 vehicles per day, and projections indicate that this number could more than double in the next 20 years. To address current and future challenges, it is essential to conduct a comprehensive assessment of the Interstate System in Gallatin County. This will help identify potential issues, constraints, and opportunities to ensure the safe operation of the corridor as traffic volumes continue to increase.

Recommendation: Conduct a corridor study in coordination with MDT to evaluate safety concerns on I-90 through Gallatin County.

Related Strategies:

- All Identified Strategies

Past Planning Relation:

- A corridor study along I-90 has been recommended in the GTATP (TSM-24) and the Bozeman and Belgrade Transportation Plans.

Other Considerations: N/A

Implementation Partners: MDT, Gallatin County, Cities, Towns

Estimated Cost: $250,000 - $300,000

4.3. Program Recommendations

Several programs have been identified to help support project recommendations and generally make progress towards improving safety within the identified focus areas. These programs take a dual approach, addressing safety through both engineering-focused solutions and behavioral-focused strategies. Engineering initiatives involve systematic infrastructure improvements through roadway design and maintenance. On the other hand, behavioral programs focus on education, enforcement, and public awareness efforts to encourage safer behaviors. Together, these complementary strategies work to reduce crashes and injuries and improve overall safety in the community.

PROG-1: Curve Signing Program

Background: Warning signs are crucial for alerting drivers to unexpected conditions on a roadway that might not be readily apparent, such as substandard horizontal curves, intersecting roadways, or other hazards. For horizontal curves, the warning can range from basic horizontal alignment signs to more advanced enhanced warning devices. However, the use of elaborate signage and enhanced countermeasures should be approached with caution, as excessive signage can lead to driver disregard for all road signs.

To ensure consistent and uniform signage throughout the county, a three-tier curve signing system was developed in the GTATP. Tier 1 signage is the most basic and suitable for most situations. Tier 2 signage serves as a secondary measure for curves that violate basic driver expectations and where a safety concern has been identified. Tier 3 signage is more expensive to implement and maintain, and it should only be considered when Tier 1 and Tier 2 measures have not addressed the safety issue or in locations with high crash rates, particularly those involving severe injuries. In extreme cases where signage proves ineffective in resolving safety concerns, roadway reconstruction may be required to flatten the curves and improve overall safety.

While this guidance has proven helpful to county engineers, a structured curve signing program is recommended to identify high-risk locations, prioritize improvements, and develop a systematic approach for enhancing safety on horizontal curves. Such a program could also include a dedicated funding source to expedite the implementation of these safety measures.

Tier	Description/Applicability	Strategies
Tier 1 – Horizontal Alignment Warning Signs	Used in advance of horizontal curves on roadways that are functionally classified as either arterials or collectors and have more than 1,000 AADT when the difference between the speed limit and the advisory speed meets standards given by MUTCD. Should be used in most cases.	• Horizontal Alignment Warning Signs • Speed Advisory Plaques
Tier 2 – Supplemental Curve Warning Signs	Use additional traffic control devices within the curve to help guide motorists through curves that violate driver expectancy. Should be used in addition to, and sometimes in place of, Tier 1 signs.	• Combination Curve/Intersection Signs • Combination Horizontal Alignment/Advisory Speed Sign • Chevron Alignment Sign • One-Direction Large Arrow Sign
Tier 3 – Enhanced Signing Countermeasures	Enhanced signage countermeasures used increase the number of drivers who perceive and react to basic curve warning devices. Should be used in combination with Tier 1 and Tier 2 signage.	• Larger Devices • Retroreflective Strip on Sign Post • Highly Retroreflective and Fluorescent Sheeting • Doubling-Up Devices • Flashing Beacons • Dynamic Curve Warning System

Recommendation: Develop a structured curve signing program.

Related Strategies:
- Improve Curve Design
- Improve Roadway Visibility and Surfacing
- Manage Vehicular Speeds

Past Planning Relation:
- The tiered curve signing methodology was originally developed in the GTATP.

Other Considerations:
- A dedicated funding source could help expedite implementation.
- Improved curves should be periodically monitored to ensure effective implementation and evaluate whether a higher curve signing tier is needed.

Implementation Partners: Gallatin County, Cities, Towns, MDT

PROG-2: Shoulder Widening Program

Background: During public engagement for the SS4A, many community members voiced concerns about the lack of shoulders on County roadways, emphasizing the need for wider shoulders to improve safety. The GTATP also highlighted the lack of shoulders on county roads which historically carried very low volumes. As traffic volumes increase on these roads, implementing shoulder widening projects could provide significant safety benefits for the traveling public. Wider shoulders create additional recovery space for vehicles that may veer off the road, reducing the likelihood of serious crashes, such as rollovers or collisions with fixed objects. Additionally, wider shoulders provide a safer environment for cyclists, offering a designated bikeable space away from the vehicle travel lane and reducing the risk of conflicts with vehicles on the roadway.

The GTATP includes several recommendations for wider shoulders on popular recreational routes for bicyclists as well as wider shoulders on arterials to improve safety for vehicles. In implementing the GTATP, Gallatin County also undertook an effort to update its road design standards to include standard shoulder widths for newly constructed or reconstructed roads. For existing county roads that are not yet ready for full reconstruction, it could be beneficial to widen shoulders in areas with frequent run-off-the-road crash trends. A program could be developed to quantify the benefits versus the costs of widening the shoulders, along with a decision-making process for prioritizing and implementing improvements. Additionally, the County could consider establishing a dedicated funding program for shoulder widening projects to help ensure the timely completion of these safety enhancements.

Recommendation: Develop a structured shoulder widening program.

Related Strategies:

- Improve Roadside Design

Past Planning Relation:

- Many shoulder widening improvements were identified in the GTATP.

Other Considerations:

- A dedicated funding source could help expedite implementation.
- Shoulder widths should conform to the *Gallatin County Transportation Design and Construction Standards.*
- Right-of-way may be needed to widen shoulders in some locations, coordination with adjacent landowners may be required.

Implementation Partners: Gallatin County, Cities, Towns, MDT, Private Developers, Adjacent Landowners

PROG-3: Passing Zone Review Program

Background: Gallatin County has many rural two-lane highways with passing zones, some of which may not fully comply with updated Manual on Uniform Traffic Control Devices (MUTCD) standards. During the recommendations phase, it was noted that some passing zones may pose safety risks due to their non-compliance with these standards. Inadequately designed or poorly placed passing zones can encourage unsafe passing maneuvers, especially in areas with limited visibility or on curves. To improve safety and reduce the risk of head-on collisions or other crashes, it is recommended that the County review the existing passing zones for MUTCD compliance and make necessary adjustments. This review process could be conducted systematically across the entire county or integrated into routine maintenance and inspection procedures. By ensuring that passing zones meet current safety standards, the County can help prevent crashes caused by risky passing attempts and improve overall road safety for drivers, bicyclists, and pedestrians.

Recommendation: Review passing zones for MUTCD compliance and make necessary adjustments.

Related Strategies:

- Improve Curve Design
- Improve Roadside Design
- Improve Roadway Visibility and Surfacing

Past Planning Relation: N/A

Other Considerations:

- Review passing zones periodically in coordination with reconstruction efforts, speed limit changes, and MUTCD standard changes.
- Current MUTCD passing zone standards can be found in Section 3B.03(04).[105]

Implementation Partners: Gallatin County, Cities, Towns, MDT

PROG-4: Roadside Management and Vegetation Control Program

Background: A Roadside Management and Vegetation Control Program is essential for improving safety on roadways and preventing crashes. Overgrown trees, brush, and other vegetation can obstruct visibility for drivers, pedestrians, cyclists, and wildlife, making it difficult to see traffic signs, other roadway users, or potential hazards. Additionally, unmanaged vegetation along the right-of-way can limit space needed for critical roadway functions such as snow storage during winter months. Inadequate snow storage can lead to narrowed lanes, blocked sight lines, and reduced shoulder access, increasing risks for all users.

By identifying and addressing areas where vegetation control and snow storage capacity are needed, such a program would help reduce fixed-object hazards, improve sight distances, and support safe and efficient year-round road operations. The program could also offer clear guidance for County maintenance crews on safe and effective practices such as mowing, trimming, selective clearing, and managing vegetation near snowplow routes (see **POL-1**). These guidelines would ensure consistency across maintenance efforts and help prevent infrastructure damage caused by invasive roots or excessive overgrowth. Furthermore, the program would promote environmental stewardship by balancing safety needs with the protection of native vegetation and wildlife habitats. Overall, a well-executed vegetation control program would contribute to safer roads, reduce crash risks, and ensure efficient and cost-effective maintenance.

Recommendation: Develop a program to address roadside maintenance, vegetation control, and snow storage.

Related Strategies:

- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility

Past Planning Relation: N/A

Other Considerations:

- Helpful information can be found in the FHWA *Vegetation Control for Safety*[106] guide.
- Vegetation control guidance for adjacent landowners may be beneficial.

Implementation Partners: Gallatin County, Cities, Towns, MDT, Adjacent Landowners

PROG-5: Systemic Safety Program

Background: A Systemic Safety Program focuses on regularly assessing and improving roadway safety by identifying and addressing hazards across the entire road network. While most transportation agencies, including MDT, conduct regular inspections of infrastructure elements such as pavements and bridges to plan for preservation, rehabilitation, and reconstruction, Gallatin County could expand its data collection efforts to enhance safety. Currently, the Gallatin County Road and Bridge Department conducts annual visual surveys to assess pavement conditions on county roads. To increase the effectiveness of these surveys, the county could consider expanding its data collection methods to include an inventory of additional roadway elements, especially those related to safety. This might include inventorying and assessing roadway conditions (such as potholes and cracking), roadside features (like shoulders, slopes, sidewalks, guardrails), traffic services (such as signs, pavement markings, and rumble strips), drainage systems (including ditches and gutters), vegetation management (tree trimming, mowing, and landscaping), and other relevant factors.

A comprehensive data collection program could help the county not only in maintenance planning but also in identifying substandard roadway elements that may pose safety risks. These substandard elements could be cross-referenced with crash data to systematically address safety concerns. Alternatively, the county could adopt a more proactive approach by prioritizing critical safety concerns and implementing safety countermeasures—such as curve signage or high-visibility pavement markings—during routine maintenance activities. Streamlining and combining efforts in this way can be a cost-effective approach to improving overall roadway safety, ensuring that safety enhancements are implemented alongside necessary maintenance work.

Recommendation: Develop data collection procedures for inventorying and assessing comprehensive roadway element conditions during regular maintenance activities.

Related Strategies:

- Improve Roadside Design
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility

Past Planning Relation: N/A

Other Considerations:

- The Florida Department of Transportation *Maintenance Rating Program Standards*[107] contains comprehensive data collection procedures.
- A dedicated funding source could help expedite the implementation of improvements as needs are identified.

Implementation Partners: Gallatin County, Cities, Towns, MDT

PROG-6: Annual Crash Data Review Program

Background: A requirement of the SS4A program is for grant recipients to provide annual reports that track progress toward meeting the agency's goals for reducing fatalities and serious injuries. The annual report that Gallatin County will use as a starting point. In preparation of these reports, the County is not required to update crash analyses or review new crash data in detail as was done during the development of this Action Plan. Rather, the only requirement is to track fatalities and serious injuries. However, conducting an annual review of crash data could be valuable for tracking the performance of implemented safety countermeasures and identifying new or emerging crash trends. This review could be conducted internally by county staff or outsourced to consultants as needed. Additionally, the county might consider hiring a consultant for on-call safety analyses, allowing for timely investigation and response to crash trends on an as-needed basis. This approach would help the county maintain a proactive stance in addressing safety concerns and ensuring continued progress toward its safety goals.

Recommendation: Develop a procedure for conducting annual crash data reviews to inform proactive safety improvements.

Related Strategies:

- All Identified Strategies

Past Planning Relation:

- This effort would serve as a continuation of the SS4A planning effort.

Other Considerations:

- Work could be outsourced to consultants if needed. An On-Call contract for spot safety analysis may also be helpful.
- An accompanying project prioritization process could be helpful to prioritize improvements identified through annual safety analyses.
- This effort could be completed in conjunction with the County's Annual Safety Report.

Implementation Partners: Gallatin County, MDT, Consultants

PROG-7: Driver Age Programs

Background: To improve road safety in Gallatin County, there is a need to enhance programming for both younger and older drivers. For younger drivers, efforts should focus on making quality driver's education more accessible and promoting safe driving habits. For older drivers, developing resources that can help them adapt to changing abilities and driving limitations is essential for maintaining their safety and independence on the road. Implementing the various programs that address the unique needs of both age groups can help contribute to safer driving across the community.

Recommendation:

- Develop a **Gallatin County Parent-Teen Driving Agreement** and promote it through local high schools. Accompany the contract with a list of teen driver educational courses that parents could consider enrolling their students in, in addition to driver's ed offered by the state.
- Make **driver's education more accessible to students**, including low-income students/families and home-schooled students. This may involve offering classes as part of the school curriculum, allowing private driver's safety courses in Montana, or coordinating with local insurance agencies, businesses, and organizations to establish a **grant program for students/families** who cannot afford to enroll in state driver's ed courses.
- Develop a **defensive driving course for drivers of all ages**, similar to the Montana Office of Public Instruction's (OPI) D.R.I.V.E., an advanced driving course in Lewistown.
- Develop **educational pamphlets focused on older driver traffic safety** to distribute to physicians' offices, law enforcement agencies, and caregiver agencies. The pamphlets could describe the process for referring older drivers for licensing screening, discuss how to talk to older adults about driving limitations, and offer educational resources for older drivers to improve their driving abilities.
- Similar to car seat safety checks, host **traffic safety events for older adults**, to include vehicle safety checks, fitting for vehicle adaptive devices, or a driving skills course.
- Work with the Montana Motor Vehicle Division (MVD) to **improve license re-testing referral program**, including electronic reporting and follow-up to ensure re-testing is completed.

Related Strategies:

- Educate Young Drivers on Safe Driving Practices
- Ensure Older Drivers are Fit to Drive
- Promote Safe Driving Behaviors

Past Planning Relation: N/A

Other Considerations: N/A

Implementation Partners: Gallatin County, Physicians, Law Enforcement, Caregiver Agencies, Schools, Montana OPI (Driver's Education), Montana Department of Justice/MVD, AARP, Council on Aging

PROG-8: High Risk Behavior Programs

Background: In Gallatin County, there are several programming opportunities that could be implemented to address high risk driving behaviors. Potential initiatives focus on education, engagement, and incentivizing safer choices. From hosting community events that raise awareness about seat belt use and impaired driving to promoting peer-to-peer messaging in local schools, these programs are designed to directly target behaviors that contribute to crashes and fatalities. By prioritizing implementation of these targeted approaches, Gallatin County can reduce high-risk driving behaviors and foster a culture of safer, more responsible road use.

Recommendation:

- Host an **interactive community event** to engage the public in road safety, featuring activities like Buckle Up Battles and Impaired Driving Goggle Obstacle Courses. These hands-on activities can raise awareness about seat belt use and the dangers of impaired driving in an engaging, memorable way.
- Partner with local schools and school organizations like Future Community Career Leaders of America (FCCLA), Distributive Education Clubs of America (DECA), Future Farmers of America (FFA), to create a **county-wide peer-to-peer messaging** campaign that encourages students to promote safe driving behaviors among their peers. Incentivize participation with prizes for schools or students who participate. Encourage students to consider action items listed in the Action Plan strategies.
- Expand the Bozeman-based **Think Twice** and **Bar Fairies** programs to county bars and establishments, educating patrons on the risks of impaired driving and promoting responsible drinking.
- Conduct an **alcohol focused educational campaign** centered around Montana's alcohol laws, including topics like Social Host Responsibility, DUI limits, and penalties. Focus on high schools, college campuses, and local bar establishments to reach a broad audience, ensuring these laws are understood by both young people and adults.
- Host a **Victim Impact Panel** to highlight the consequences of impaired, distracted, and other high-risk driving behaviors. Speakers could include victims, families, first responders, or treatment professionals. Schools and college campuses may serve as a powerful venue for these panels to reach new drivers and those at risk of engaging in such behaviors.

- Collaborate with local tow companies, AAA, and MDT to reinstate and expand **Operation Tipsy Tow** in Gallatin County during holiday periods, with potential for year-round implementation. Explore partnerships with **local DUI defense attorneys to sponsor free or discounted rideshare services** as an alternative to impaired driving.
- Partner with local bars to create a **Designated Driver Incentive Program** that rewards those who commit to driving sober. This could include drink discounts or other incentives for designated drivers.
- Develop and promote an organized **alternative transportation option for major community events** like concerts, football games, parades, and rodeos to prevent impaired driving. Options might include free shuttles, discounted ride services, or designated driving zones.
- Launch a **winter driving educational campaign** to raise awareness about the challenges of driving on snow and ice, including proper vehicle maintenance and safe driving techniques.
- Encourage citizens to use **insurance-sponsored safe driving apps/trackers** and/or to **install dash cams** to help raise awareness of high-risk behaviors and support law enforcement activities aimed at changing safety culture.
- Encourage local businesses, especially trucking companies and those with delivery operations, to develop and implement **employer-sponsored driving policies** that promote safe driving practices among employees. This could include guidelines on personal driving behavior and company vehicle use.

Related Strategies:

- Promote Safe Driving Behaviors
- Eliminate Impaired Driving
- Manage Vehicular Travel Speeds
- Decrease Distracted Driving
- Increase Occupant Protection

Past Planning Relation: N/A

Other Considerations: N/A

Implementation Partners: Gallatin County, DUI Task Force, Bars/Restaurants, Schools/Colleges/Universities, Large Employers, Courts, Community Event Organizers/Venues

4.4. Policy Recommendations

Based on a review of current regulations, policies, procedures, and planning documents, the following policy changes have been identified to help formalize and enhance Gallatin County's transportation safety efforts. Adopting formal policies helps create a framework for consistent implementation, increases the regulatory authority to enforce safety measures, and drives systemic change to reduce underlying safety risks within the County.

POL-1: Snow Removal Priority Routes

Background: Currently, Gallatin County Snow Removal Procedures state that normal working hours for snow removal are Monday through Friday from 7:30 a.m. to 3:30 p.m., with exceptions at the discretion of the road supervisor. Higher traffic roads are typically addressed first. To improve safety and predictability for winter travelers, the County could establish designated priority routes for snow removal and make a map of these routes publicly available. These routes should be communicated through multiple channels, including signage along key corridors, interactive maps on the County's website, and informational mailers distributed to residents at the beginning of the winter season. By clearly identifying and communicating priority routes, the County can help ensure that critical roads are cleared first, enhancing the efficiency of snow removal efforts and providing travelers with more reliable information about road conditions during winter weather events. This proactive approach would contribute to safer travel and better preparedness for all road users.

Recommendation: Develop and publish priority routes for snow removal.

Related Strategies:

- Improve Roadway Visibility and Surfacing

Past Planning Relation: N/A

Other Considerations:

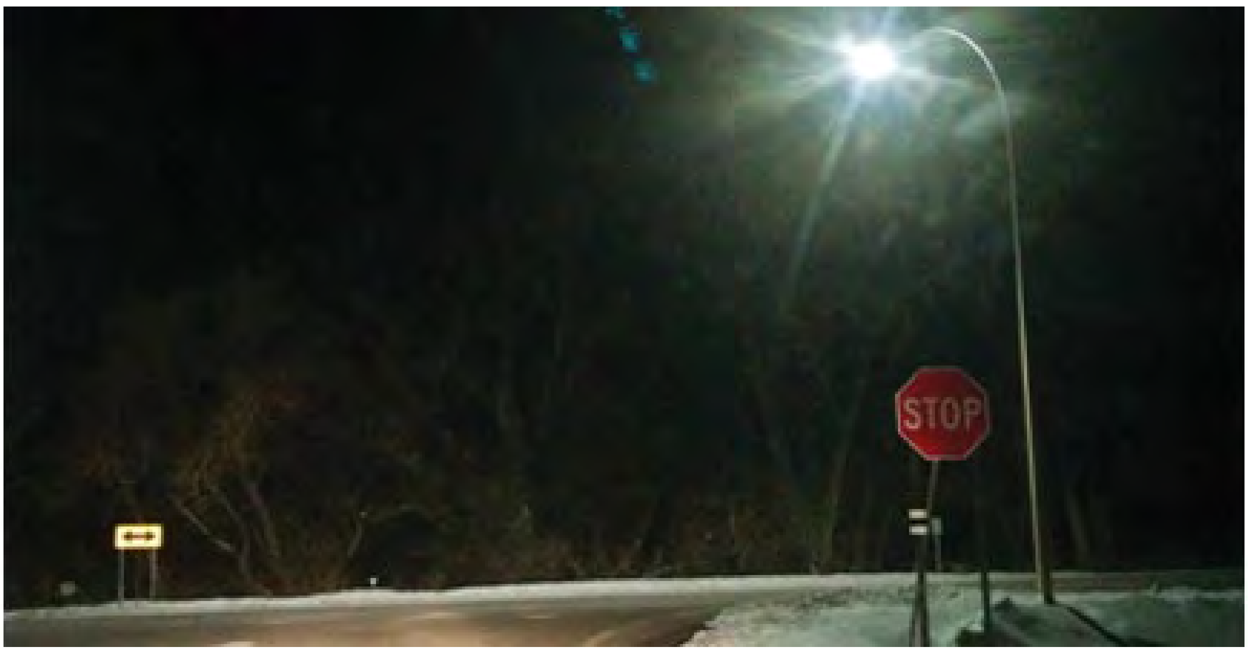
- Publicize a map or list of identified priority routes to help the public with trip planning during winter storm events.
- Consider installing signage to indicate snow removal routes.
- Coordinate with City, Town, and MDT snow removal routes as applicable to facilitate continuous routes.

Implementation Partners: Gallatin County, Cities, Towns, MDT

POL-2: Street Lighting Standards

Background: Historically, lighting improvements on rural roadways and intersections have not been a top priority for addressing safety due to the high installation costs and ongoing maintenance concerns. Adding new lighting fixtures can be expensive, and many jurisdictions face challenges with limited labor resources to maintain the systems. However, advancements in lighting technologies, such as LED fixtures, have reduced electricity costs and lowered maintenance needs, making lighting projects more feasible. Studies show that the nighttime fatality rate is three times higher than the daytime rate, and the general nighttime crash rate is about 1.6 times higher than during the day. Intersection lighting, in particular, has been proven to be an effective mitigation strategy for reducing nighttime crashes by providing additional visibility beyond vehicle headlamps. This extra illumination helps drivers better identify critical information, such as road and intersection geometry, as well as other important visual cues, improving navigation and safety in rural environments.

Gallatin County could consider establishing lighting standards for county roadways to ensure that new and reconstructed roads and intersections in rural areas are adequately lit. These standards should balance the safety benefits of improved visibility with the costs of installation and maintenance, while also considering the potential negative impacts of lighting in rural residential areas. To further enhance safety on existing roadways, Gallatin County could implement a program to identify higher-risk locations and prioritize them for lighting improvements. Intersections could be evaluated based on risk factors such as intersection skew, roadway curves, adjacent land uses, traffic volumes, and crash history. This approach would help target resources effectively and improve safety for nighttime travelers.



Recommendation: Establish street lighting standards for county roadways and intersections.

Related Strategies:
- Improve Roadway Visibility and Surfacing
- Improve Intersection Visibility

Past Planning Relation:
- Street lighting was a topic brought up by stakeholders involved in the development of the *Gallatin County Transportation Design and Construction Standards*.

Other Considerations:
- Consider developing a program to identify high-risk locations that could be benefit from street lighting. Refer to the Minnesota Department of Transportation's practices.[108]
- Consider maintenance needs and responsibilities associated with street lighting improvements.

Implementation Partners: Gallatin County, Cities, Towns, MDT, Private Developers

POL-3: Cell Phone Policy

Background: Bozeman's cell phone ordinance, implemented in 2012, prohibits the use of handheld cell phones while operating a motor vehicle, motorcycle, quadricycle, or bicycle on public highways. Similarly, two Montana counties, Silver Bow and Deer Lodge, have enacted county-wide bans on handheld cell phone use while driving. Given the significant role that distractions, particularly from cell phones, play in crashes and severe injuries, it could be beneficial for Gallatin County to consider implementing a county-wide cell phone ordinance. Such a policy could help reduce distracted driving-related incidents across the county. However, its success would depend on diligent enforcement by local law enforcement agencies to ensure compliance with the ordinance.

Recommendation: Implement a county-wide ordinance prohibiting the use of handheld devices while driving.

Related Strategies:
- Decrease Distracted Driving

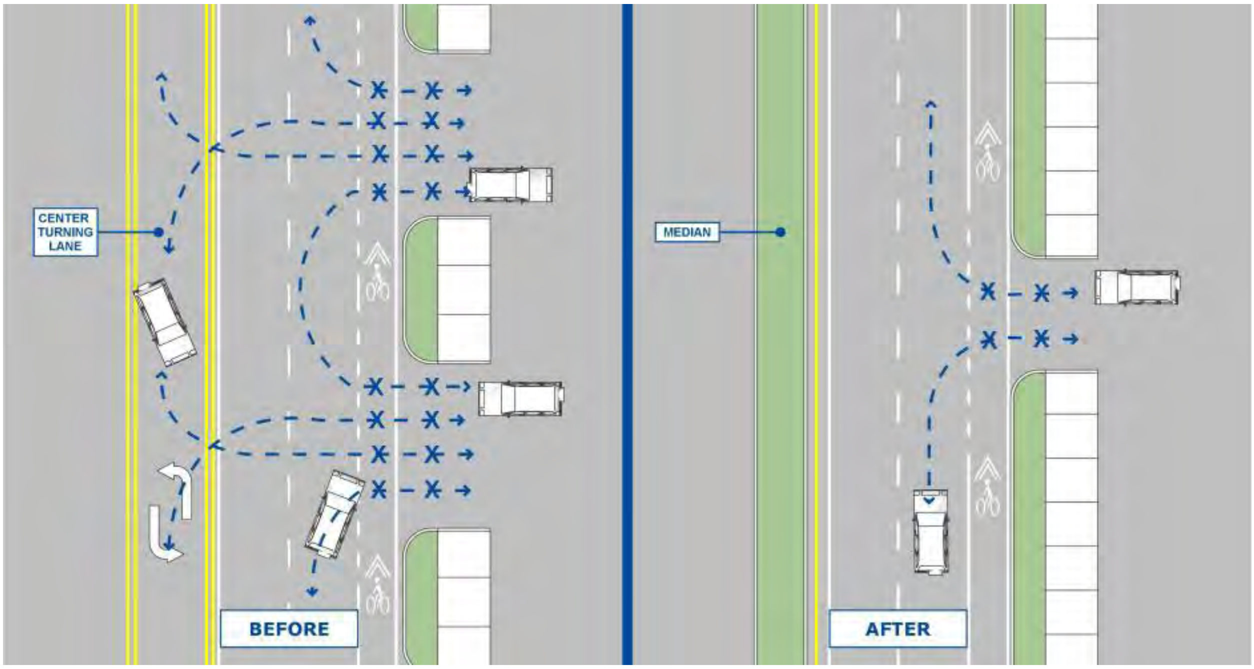
Past Planning Relation: N/A

Other Considerations:
- The success of the ordinance will be dependent on the level of enforcement.
- A statewide distracted driving law is currently under consideration in the legislative process.

Implementation Partners: Gallatin County, Law Enforcement

POL-4: Corridor Access Management

Background: Gallatin County is experiencing rapid population and economic growth, leading to accelerated land use changes and increased development along key transportation corridors. Without proper planning, this growth can result in unregulated curb cuts, uncontrolled commercial access, and inefficient traffic operations. As urban development expands into previously rural areas, the need for proactive, corridor-wide access management becomes increasingly urgent. Access management plans and ordinances offer a structured approach to mitigating these impacts by establishing clear guidelines for intersection spacing, driveway placement, median openings, and multimodal accommodations. Implementing these measures is essential for preserving the functional integrity, safety, and visual quality of high-volume roadways. Access control policies will help maintain roadway capacity, improve safety, and support the county's long-term mobility and land use objectives.



Recommendation: Develop access control plans/resolutions for all routes under the jurisdiction of the Montana Transportation Commission and other high-volume arterials.

Related Strategies:
- Improve Roadside Design
- Manage Vehicular Travel Speeds

Past Planning Relation:
- Within the study area, access control plans are already in place on Huffine Lane, Norris Road, Jackrabbit Lane, East Valley Center Road, and US 191 (Four Corners to mouth of Gallatin Canyon), Springhill Road (city limits to Penwell Bridge Road), and I-90.

Other Considerations:
- Strong coordination between MDT, Gallatin County, developers, and local municipalities will be needed to consistently apply access standards.
- Access management must be integrated with land use planning efforts to ensure long-term corridor functionality.

Implementation Partners: Gallatin County, Cities, Towns, MDT, Private Developers

5. Project Prioritization and Implementation

A key requirement of the SS4A program is to prioritize identified projects into specific time ranges for the deployment of safety countermeasures within the community. This section outlines the prioritization process developed for the Action Plan and details the steps necessary for future implementation efforts. By establishing clear timelines for project execution, the County can effectively address safety concerns while ensuring a systematic approach to enhancing roadway safety.

5.1. Prioritization

Through public outreach, stakeholder engagement, and coordination with partner agencies, a project prioritization process was developed to determine which recommended projects should be prioritized for funding and implementation. Each project was scored using a comprehensive set of criteria, considering past planning efforts, safety needs, community and agency support, overall cost, and anticipated benefits. This structured approach enables the County to focus resources on the most impactful safety improvements, while accounting for funding limitations and available funding opportunities. Below is a description of the prioritization criteria, with each criterion scored on a scale of 1 to 3, reflecting low, medium, and high alignment with the criteria outlined in **Table 5.1**.

1. **Crash History:** Projects addressing areas with a history of safety issues, particularly those involving severe injuries, were prioritized. This criterion was based on crash data from 2019 to 2023, with particular focus on the HIN. Since the HIN takes into account factors like crash frequency, severity, and rates, areas with many low-severity crashes on low-volume roads could be overrepresented. To address this, projects were also evaluated based on the frequency of severe injuries in those areas. Locations with recent severe injuries, even if outside the five-year analysis period, were also considered.
2. **Past Planning:** Projects identified in previous planning efforts were prioritized to ensure continuity and alignment with long-term community safety and transportation goals. Relevant plans include the *Greater Triangle Area Transportation Plan*, *Gallatin County Intersections Project,* and *Triangle Trails Plan*, among others developed by partner agencies.
3. **Estimated Cost:** Projects were evaluated based on their present planning-level cost estimates and the anticipated benefits relative to implementation costs. Lower-cost projects were prioritized to make the most of available funding. However, projects offering significant benefits or those likely to be competitive for discretionary funding received higher scores, even if their costs were higher. The evaluation considered both safety and operational improvements as benefits, while construction costs and potential environmental impacts were assessed as costs. It's important to note that the evaluation focused on current benefits and costs, but the benefit/cost ratio may change over time due to factors such as travel trends, economic conditions, or shifts in community needs.
4. **Project Support:** Community and partner support is crucial for project success. Therefore, projects reflecting the needs and preferences of residents and stakeholders were prioritized. This criterion was evaluated based on feedback gathered from the public and stakeholders through various channels, including the online commenting map, surveys, written comments, the Safety Summit, and Task Force meetings. The assessment was qualitative in nature.

Table 5.1: Prioritization Criteria

Criterion			Score		
			Low (1)	**Medium (2)**	**High (3)**
1	**Crash History**	**HIN**	No Crashes	Bottom 90% on HIN	Top 10% or Higher on HIN
		Severe Injuries	No Severe Injuries	1+ Serious Injuries	1+ Fatalities
2	**Past Planning**		Not Identified	Identified in 1 Past Planning Effort	Identified in 2+ Past Planning Efforts
3	**Estimated Cost**	**Cost-Basis**	High Cost ($1M+)	Mid Cost ($100k - $1M)	Low Cost (<$100k)
		Benefit/Cost	Costs Likely Exceed Benefits	Costs Likely Equal to Benefits	Benefits Likely Exceed Costs
4	**Project Support**	**Community**	No comments	Some comments	Many comments
		Imp. Partners	Low Support	Medium Support	High Support

The timing and feasibility of implementing these projects depend on several factors, including funding availability, project complexity, right-of-way requirements, and other project delivery considerations. In addition to prioritization, estimated implementation timeframes were assigned to each improvement based on expected project delivery timelines and current funding availability. These timeframes are not commitments but are intended to reflect the relative need, complexity, and potential funding sources for each project. The timeframes are defined as follows:

- **Short-term:** Implementation is feasible within a 0- to 5-year period.
- **Mid-term:** Implementation is feasible within a 5- to 10-year period.
- **Long-term:** Implementation is feasible within a 10- to 20-year period.

Based on the combined scores from all prioritization criteria, projects were categorized into high (17 to 21 points), medium (12 to 16 points), and low (0 to 11 points) priority levels. This prioritization scheme is designed to identify projects that are expected to be highly beneficial and supported by the community and thus should be prioritized for available funds. Note that projects that are realistically expected to be implemented only in the long term may still be classified as high priority. This designation signals that the project should be considered for discretionary grants or other non-traditional funding sources. The results of the prioritization process are summarized in **Table 5.2**.

Table 5.2: Project Prioritization Results

ID	Project Name	Crash History		Past Planning	Estimated Cost		Project Support		Time-frame	Total Score	Priority
		HIN	Severe Injury		Cost-Basis	Benefit/ Cost	Comm-unity	Imp. Partners			
PROJ-1	**Curve Signing Enhancements**	3	3	2	3	3	3	3	Short-Term	20	HIGH
PROJ-2	**Amsterdam Rd/Royal Rd**	3	1	2	1	2	1	1	Mid-Term	11	LOW
PROJ-3	**Cameron Bridge Rd (Highline Rd to Kimm Rd)**										
Low Cost Improvements		3	3	1	3	3	3	2	Short-Term	18	HIGH
Reconstruction		3	3	1	1	1	3	1	Long-Term	13	MEDIUM
PROJ-4	**Jackrabbit Ln/E. Valley Center Rd**	3	3	1	3	3	2	2	Short-Term	17	HIGH
PROJ-5	**S. Alaska Rd (Frank Rd to E. Valley Center Rd)**	3	2	3	1	2	3	3	Long-Term	17	HIGH
PROJ-6	**Love Ln/E. Valley Center Rd**	3	1	2	1	1	2	2	Mid-Term	12	MEDIUM

ID	Project Name	Crash History		Past Planning	Estimated Cost		Project Support		Time-frame	Total Score	Priority
		HIN	Severe Injury		Cost-Basis	Benefit/ Cost	Comm-unity	Imp. Partners			
PROJ-7	**Harper Puckett Rd (E. Valley Center Rd to Baxter Ln)**										
	Curve Signing Enhancements	3	2	2	3	3	1	2	Short-Term	16	HIGH
	Shoulder Widening	3	2	2	1	2	1	1	Long-Term	12	MEDIUM
PROJ-8	**Baxter Ln (Harper Puckett Rd to Jackrabbit Ln)**										
	Delineation	3	3	2	3	3	2	2	Short-Term	18	HIGH
	Reconstruction	3	3	2	1	2	3	2	Long-Term	16	HIGH
PROJ-9	**Love Ln/Durston Rd**	3	2	3	1	2	3	3	Mid-Term	17	HIGH
PROJ-10	**Gooch Hill Rd (Huffine Ln to Durston Rd)**										
	Intersection Signing (Durston Rd)	3	1	1	3	3	1	1	Short-Term	13	MEDIUM
	Turn Lane, Lights, Non-Moto (Huffine Ln)	3	3	1	2	2	2	1	Mid-Term	14	MEDIUM
	Corridor Reconstruction	3	1	2	1	1	1	1	Long-Term	10	LOW
PROJ-11	**Huffine Ln Shared Use Path**	2	3	3	1	2	3	3	Mid-Term	17	HIGH
PROJ-12	**Stucky Rd/Gooch Hill Rd**	3	1	1	3	3	1	1	Short-Term	13	MEDIUM
PROJ-13	**Gooch Hill Rd/Chapman Rd**	3	1	1	3	3	1	1	Short-Term	13	MEDIUM
PROJ-14	**Axtell Anceny Rd (River Rd to River Camp Rd)**										
	Curve Signing Enhancements	3	1	1	3	3	1	1	Short-Term	13	MEDIUM
	Intersection Realignment	3	1	1	3	2	1	1	Mid-Term	12	MEDIUM
PROJ-15	**Gooch Hill Rd/US 191**										
	Intersection Visibility Enhancements	3	3	1	3	3	3	2	Short-Term	18	HIGH
	Traffic Control Improvements	3	3	1	1	2	3	1	Long-Term	14	MEDIUM
PROJ-16	**US 191 Improvements**										
	Four Corners Intersection (S1)	3	1	2	1	2	3	2	Mid-Term	14	MEDIUM
	3rd St to 2nd St (S2)	3	1	2	1	2	1	1	Mid-Term	11	LOW
	Bozeman Hot Springs/Cobb Hill/Lower Rainbow Rd (S3)	3	1	2	1	2	1	1	Mid-Term	11	LOW
	Cottonwood Rd (S7)	2	1	2	1	1	3	1	Mid-Term	11	LOW
	Advance Warning Signs (S-16)	3	3	2	2	3	1	2	Short-Term	16	HIGH
	Substandard Curve Modification (S17-a)	3	2	2	1	1	1	1	Long-Term	11	LOW
PROJ-17	**Bridger Canyon Improvements**										
	Curve Imp. with Shoulder Widening (2.b)	3	1	2	2	1	1	1	Mid-Term	11	LOW
	Sight Distance Mitigation/Intersection Realignment (4.a)	3	1	2	3	2	1	1	Short-Term	13	MEDIUM
	Intersection Realignment (4.b)	3	1	2	2	1	1	1	Mid-Term	11	LOW
	RP 13.5 – RP 14.2	3	3	1	2	2	1	1	Short-Term	13	MEDIUM
PROJ-18	**Belgrade to Bozeman Frontage Rd Improvements**										
	Airport Rd Intersection Improvements (3)	2	1	3	1	1	1	1	Mid-Term	10	LOW
	Passing Zone Modifications (8)	2	1	3	3	2	1	1	Short-Term	13	MEDIUM
	Install Centerline Rumble Strips (9)	2	1	3	3	3	1	1	Short-Term	14	MEDIUM
	Develop Separated Shared Use Path (10)	2	1	3	1	2	2	1	Mid-Term	12	MEDIUM
	Roadway Reconstruction (11)	2	1	3	1	1	1	1	Long-Term	10	LOW
PROJ-19	**I-90 Corridor Study**	3	3	3	2	3	2	3	Short-Term	19	HIGH

5.2. Implementation and Next Steps

The *Gallatin County SS4A Action Plan* aims to improve transportation safety within the County, with the goal of reducing combined fatalities and suspected serious injuries on roadways in the planning area by half— from 46 in 2025 to 23 by 2034—through the implementation of the Action Plan. While specific funding for the proposed improvements has not yet been secured, the County is committed to advancing the recommended safety projects as funding becomes available.

To help the County identify the most cost-effective projects with the greatest potential to address safety concerns, the recommended projects have been prioritized into high, medium, and low categories. Additionally, implementation timeframes (short-term, mid-term, and long-term) have been established to provide a reasonable expectation for when projects may be implemented, based on current funding availability. These prioritization and implementation timeframes are intended as an initial guide but will remain flexible to adapt to changes in funding, crash trends, or community priorities.

To support the County's ongoing commitment to safety improvements, an Annual Safety Report will be prepared each year. This report provides the opportunity to adjust project priorities, assess current community needs, and identify new projects as necessary. It will offer greater transparency and help track progress in addressing safety issues throughout Gallatin County and will be made available on the County's website for public viewing.

As the Action Plan is implemented, the County will focus on executing the identified projects while staying proactive in addressing developing safety concerns. The strategies outlined in the plan provide a toolbox for developing new projects and initiatives as needed to respond to emerging trends. Additionally, the County will implement programs and policies that support proactive safety improvements, ensuring continuous progress. Through regular evaluation and adjustments, the County will remain responsive to changes in transportation safety needs.

5.2.1. Supplemental Planning

In addition to securing planning funds to complete the SS4A Action Plan, Gallatin County was awarded funds for supplemental planning to further enhance the plan. The goal of this supplemental planning effort is to make the plan more actionable and effective for implementation. Up to five supplemental planning efforts may be identified through stakeholder coordination, public input, and County needs. These activities may include detailed crash analyses for specific locations, field investigations, preliminary designs, initial program development, or enhanced public engagement. The findings and recommendations from these efforts will inform the development of a complementary safety plan, which will be produced as an amendment to the Action Plan.

5.2.2. Future SS4A Funding Opportunities

This Action Plan was developed, in part, by funding from the USDOT SS4A grant program. The program funds two grant types, (1) planning and demonstration grants and (2) implementation grants. The Action Plan was developed using a planning and demonstration grant. Future opportunities to apply for additional grants are expected to be available under the SS4A program to fund the demonstration and implementation of the projects and strategies contained in this plan.

Once the Action Plan is adopted, Gallatin County could pursue a grant to conduct demonstration activities to inform future project development activities for projects and programs recommended in the Action Plan. The County could also apply for implementation grant funds to implement projects and strategies identified in the Action Plan to address a specific roadway safety problem. Eligible projects and strategies can be infrastructural, behavioral, and/or operational activities.

For demonstration grants, USDOT seeks to fund temporary safety improvements that inform Action Plans by testing proposed project and strategy approaches to determine future benefits and future scope. Activities must measure potential benefits through data collection and evaluation to inform future implementation at a systematic level. Eligible demonstration activities include feasibility studies, MUTCD engineering studies, or pilot programs related to behavioral activities or new technologies. Demonstration activities may not involve permanent roadway reconstruction.

For implementation grants, USDOT has historically sought to award funds to projects and strategies that reduce roadway fatalities and serious injuries; align with and comprehensively address identified safety problems; employ low-cost, high-impact strategies over a wide geographical area; incorporate engagement and collaboration into how projects and strategies are executed; and will be able to complete the full scope of funded projects and strategies within 5 years after the establishment of a grant agreement. As an additional consideration, the USDOT may factor in elements such as community characteristics, geographic diversity, and alignment with broader federal priorities when comparing highly rated applications and selecting awards.

Implementation grants provide Federal funds to implement projects and strategies identified in a Comprehensive Safety Action Plan. The proposed action should include specific intervention types, address common safety risk characteristics, and be located on the Action Plan's high-injury network to the extent practicable.

The SS4A program was established by the Bipartisan Infrastructure Law in 2021, with funding authorized through 2026. Gallatin County received funds from the 2023 grant cycle, and the 2024 grant cycle closed on August 29, 2024. Future grant funding is anticipated to be available in Federal fiscal years 2025 and 2026, subject to review and modification by the current Federal administration. To be competitive for implementation grant funds under the SS4A program, Gallatin County may start with High Priority projects identified in **Section 5.1**. The County should also initiate the project development process for the priority project(s) to ensure adequate project readiness. This means demonstrating the ability to execute and complete the full scope of work in the application proposal within 5 years of when the grant agreement is executed, with a particular focus on design and construction, as well as environmental, permitting, and approval processes. The Notices of Funding Opportunity (NOFOs) from past funding cycles provide additional information about SS4A application requirements for reference in preparing for upcoming opportunities, and updated information about the program is expected to be provided by the current Federal administration.

Future demonstration grant applications could be considered for the following list of potential programs or pilot projects to **help inform future implementation activities or systematic project implementation**. Additional research should be conducted to ensure the proposed activities fully align with grant criteria outlined in the applicable NOFO.

1. **PROG-1: Curve Signing Program** – Pilot the use of the tiered curve signing techniques at high-risk curves, such as Thorpe Road or Bozeman Trail Road. Conduct a before/after study to evaluate the impacts of various signing techniques.

2. **PROG-3: Passing Zone Review Program -** Conduct a county-wide evaluation of passing zones to ensure compliance with current MUTCD standards. Consider including an evaluation of the safety impacts of removing passing zones on higher-speed county roads, such as Gooch Hill Road or Baxter Lane.
3. **POL-2: Street Lighting Standards –** Pilot the implementation of temporary street lighting at a high-risk intersection, such as Stuck Road/Gooch Hill Road or S. Alaska Road/E. Valley Center Road, and conduct a before/after study to evaluate the safety impacts.

Future implementation grant funding applications could be considered for the **following list of High Priority projects** that would be outside the ability of Gallatin County or MDT to fund in the short-term. Careful consideration of USDOT funding criteria would be needed to determine relative competitiveness in seeking Federal grant funding. Furthermore, if the County intends to pursue funds during the 2025 or 2026 grant cycles, it would be beneficial to begin preliminary engineering for the project(s) to ensure the County can meet project readiness criteria.

1. **PROJ-5: Alaska Road (Frank Road to E. Valley Center Road) –** This corridor, as well as the adjoining intersections were identified on the HIN and have been the subject of past County planning efforts. Beyond identified crash trends, and County capacity and safety concerns, the public was highly vocal about the need for improvements to this stretch of roadway.
2. **PROJ-9: Love Lane/Durston Road –** This intersection was identified as the second highest scoring intersection on the off-system only HIN, and the fifth highest scoring intersection on the full system HIN. Short-term improvements have been made to improve safety at the intersection but are not anticipated to be sustainable over the long-term given increasing traffic volumes in the area. The County has already identified a roundabout as the preferred long-term solution through a comprehensive intersection control evaluation process.
3. **PROJ-11: Huffine Lane Shared Use Path –** A shared use path has long been a priority for Gallatin County and its residents to enhance safety, mobility, and connectivity between urban and rural regions of the County. Huffine Lane is a high-speed, high-volume roadway but provides a direct route into Bozeman with multiple segments of the roadway appearing on the HIN. The Huffine Lane/Gooch Hill Road intersection also appears as the third highest scoring intersection on the HIN, primarily due to a bicyclist fatality in 2022. Accordingly, consider combining the path with non-motorized accommodations and intersection visibility improvements recommended under **PROJ-10**.

5.2.3. Implementation Process

Figure 5.1 illustrates the project implementation process. As the Action Plan progresses, projects will move from the planning stage to development and, eventually, construction. Public involvement will be a key part of all phases. The general next steps for project implementation are as follows:

1. A funding source(s) is identified and secured.
2. The project is nominated for implementation by the County or other partner agency (such as MDT).
3. Feasibility studies, environmental investigations, and other development processes are completed as applicable.

4. A design is completed for the project and approved by responsible agency(ies) as needed.
5. Right-of-way or easements are acquired for the project, if necessary.
6. The project is constructed.

The recommended projects are designed with the flexibility to be completed individually or combined with other projects into larger efforts, depending on funding availability and other considerations. Cost savings may be achieved by grouping similar projects together.

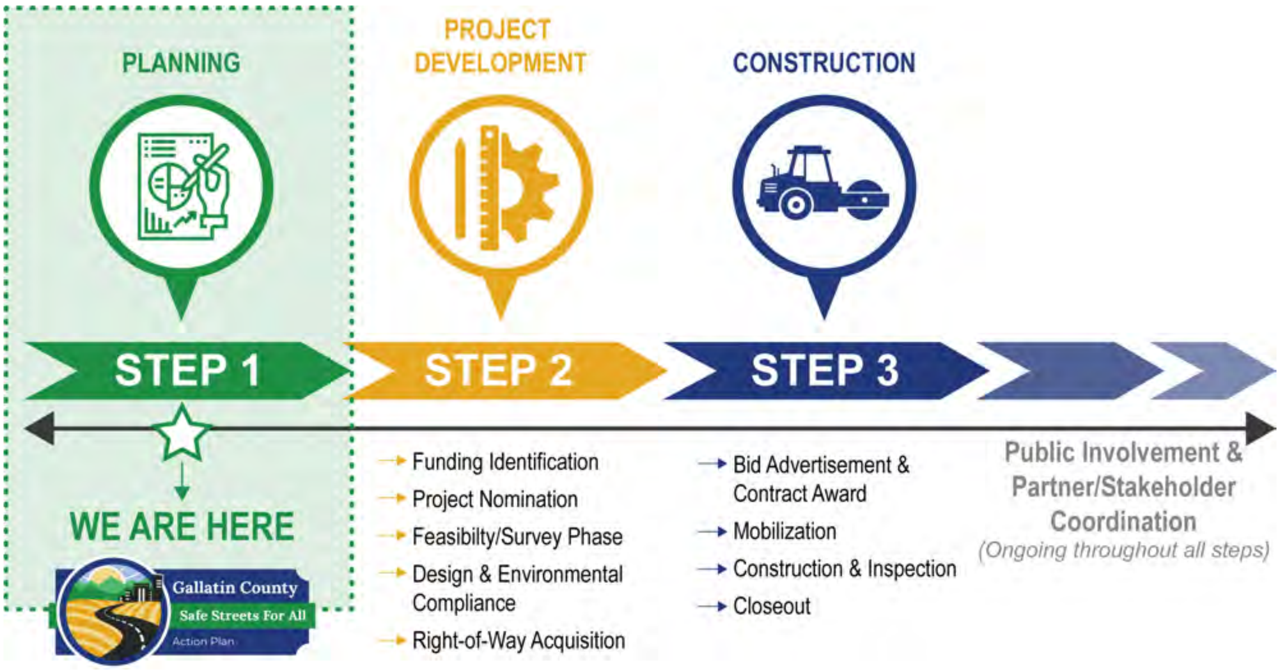


Figure 5.1: Project Development Process

5.3. Additional Considerations

Achieving meaningful improvements in transportation safety requires cooperation across the 4 E's of Safety—Education, Enforcement, Engineering, and EMS. Partners representing these elements must work together in a coordinated effort to address the diverse factors that contribute to road safety. While engineering solutions such as road design improvements and infrastructure enhancements are important, they can fall short if not reinforced through education and enforcement. For instance, changes to speed limits or cell phone ordinances may be well-intentioned but will not have the desired impact unless drivers are educated about the changes and enforcement is consistent. Public awareness campaigns and law enforcement efforts must be ongoing to ensure that safety measures are respected and effective. Safety is not a one-time effort—it requires continuous monitoring, education, and enforcement to maintain its momentum and effectiveness.

In addition to collaboration within the 4 E's, effective multiagency coordination is crucial for the successful implementation of safety improvements across Gallatin County. The Action Plan primarily focuses on the rural regions of the County and the urban-rural interface with the Cities of Bozeman and Belgrade, each of which is working on its own transportation safety initiatives. To ensure a cohesive and consistent approach, all plans must align in their messaging and objectives. This alignment is particularly important as the City of Bozeman was recently established as a Metropolitan Planning Organization (MPO) and is embarking on its first MPO transportation planning effort. The MPO boundary extends beyond the city limits, with both Belgrade and Gallatin County as partners. As such, future transportation efforts should align with the safety priorities outlined in this Action Plan, as well as those in the respective Action Plans of Bozeman and Belgrade, to ensure county-wide consistency in addressing safety issues.

Furthermore, many of the highest-volume roadways in Gallatin County are MDT highways, and much of the densest development occurs on roadways within cities and towns. While this Action Plan primarily focuses on routes under County jurisdiction, improving safety across the entire region will require coordination with MDT, local jurisdictions, and other partner agencies. Multiagency collaboration will be essential to ensure that safety improvements are implemented effectively across all jurisdictions, fostering a unified effort to reduce traffic-related incidents and improve overall safety throughout Gallatin County.

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C-1: Planning-Level Cost Estimates

APPENDIX 1

Planning Level Cost Estimates

Planning-level cost estimates were developed for each improvement option. The cost estimates include construction, engineering, and a general contingency to account for unknown factors and anticipated project development risk level. Estimates do not include costs for right-of-way as costs vary considerably with location and additional design details may be needed to determine the amount of right-of-way needed. Cost ranges are provided in some cases, indicating a range of options or other variables. The estimates are presented in 2025 dollars and can be expected to increase with inflation depending on the anticipated future year of expenditure.

PROJECT RECOMMENDATIONS

PROJ-1 Curve Signing Enhancements — $1,500 - $3,000 PER CURVE

TYPE	UNITS	COST (RANGE)
CURVE SIGNING ASSEMBLY (SIGNS + POLES)	LS (PER CURVE)	$1,500 - $3,000

PROJ-2 Amsterdam Road/Royal Road

a. Traffic Signal — $ 1,100,000 TOT

***Inflates cost estimates developed for the Belgrade LRTP at a rate of 5% per year**

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
TRAFFIC SIGNAL (2018 ESTIMATE)	EACH	1.0	$ 750,000.00	$ 750,000
Subtotal 1				$ 750,000
INFLATION	% PER YEAR	7.0	5%	$ 305,325
TOTAL				**$ 1,055,325**

b. Single-Lane Roundabout — $ 2,200,000 TOT

***Inflates cost estimates developed for the Belgrade LRTP at a rate of 5% per year**

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
ROUNDABOUT (2018 ESTIMATE)	EACH	1.0	$1,500,000.00	$ 1,500,000
Subtotal 1				$ 1,500,000
INFLATION	% PER YEAR	7.0	5%	$ 610,651
TOTAL				**$ 2,110,651**

PROJ-3 Cameron Bridge Road (Highline Road to Kimm Road)

a. Low Cost Improvements — $ 46,000 TOT

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
SIGNS-ALUM REFL SHEET XI	SQFT	23.0	$ 46.55	$ 1,071
POSTS-STEEL U SIGN	LB	210.0	$ 61.75	$ 12,967
DELINEATOR TYPE 1	EACH	3	$ 49.86	$ 150
GUARDRAIL-STEEL BOX BEAM	LNFT	200	$ 82.19	$ 16,439
MISCELLANEOUS ITEMS			25%	$ 7,657
Subtotal 1				$ 38,283
CONTINGENCY (LOW RISK)			20%	$ 7,657
TOTAL				**$ 45,939**

b. Reconstruction — $ 2,200,000 TOT

LENGTH (MI)	0.5
WIDTH (FT)	34
SURFACING (IN)	4
AGGREGATE (IN)	6
SUBBASE (IN)	12

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	6348.8	$ 24.45	$ 155,241.28
SPECIAL BORROW	CUYD	3463.0	$ 23.30	$ 80,682.19
CRUSHED AGGREGATE COURSE	CUYD	1731.5	$ 67.20	$ 116,350.71
COVER - TYPE 2	SQYD	10388.9	$ 1.15	$ 11,984.62
COMMERCIAL MIX PG 70-28	TON	2225.0	$ 147.70	$ 328,630.11
EMULSIFIED ASPHALT CHFRS-2P	TON	166.9	$ 925.83	$ 154,518.01
REMOVE BITUMINOUS PAVEMENT	SQYD	6111.1	$ 5.14	$ 31,385.55
REVEGETATION	SQYD	6111.1	$ 1.16	$ 7,078.44
SIGNS - RURAL	MILE	0.5	$ 9,000.00	$ 4,687.50
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.5	$ 18,000.00	$ 9,375.00
DRAINAGE PIPE - RURAL	MILE	0.5	$ 110,000.00	$ 57,291.67
MISCELLANEOUS ITEMS			25%	$ 239,306
Subtotal 1				$ 1,196,531
TRAFFIC CONTROL - RURAL			6%	$ 71,792
Subtotal 2				$ 1,268,323
MOBILIZATION			10%	$ 126,832
Subtotal 3				$ 1,395,156
CONTINGENCY (MEDIUM RISK)			30%	$ 418,547
Subtotal 4				$ 1,813,702
CONSTRUCTION ENGINEERING (CE)			10%	$ 181,370
PRELIMINARY ENGINEERING (PE)			10%	$ 181,370
TOTAL				**$ 2,176,443**

PROJ-4 Jackrabbit Lane/E. Valley Center Road $ 77,000 TOT

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
TRAFFIC SIGNAL TIMING STUDY	LS	1.0	$ 50,000.00	$ 50,000.00
MDT SIGNAL ADJUSTMENTS	LS	1.0	$ 1,000.00	$ 1,000.00
MISCELLANEOUS ITEMS			25%	$ 12,750
Subtotal 1				$ 63,750
CONTINGENCY (LOW RISK)			20%	$ 12,750
TOTAL				**$ 76,500**

PROJ-5 S. Alaska Road (Frank Road to E. Valley Center Road) $ 36,700,000 TOT

***Reflects MSN-3, TSM-16, TSM-17, and SUP-9 from GTATP, with design decisions from Gallatin County Intersections Project**

LENGTH (MI)	2
NEW WIDTH (FT)	71
EXISTING WIDTH (FT)	22
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST

EXCAVATION-UNCLASSIFIED	CUYD	72976.4	$ 24.45	$	1,784,434.61	
SPECIAL BORROW	CUYD	36731.9	$ 23.30	$	855,800.72	
CRUSHED AGGREGATE COURSE	CUYD	14692.7	$ 67.20	$	987,311.04	
COVER - TYPE 2	SQYD	66117.3	$ 1.15	$	76,272.96	
COMMERCIAL MIX PG 70-28	TON	25647.2	$ 147.70	$	3,788,138.63	
EMULSIFIED ASPHALT CHFRS-2P	TON	1539.1	$ 925.83	$	1,424,910.57	
COLD MILLING	SQYD	29685.3	$ 2.86	$	85,000.98	
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	6746.7	$ 60.10	$	405,474.57	
CURB AND GUTTER-CONC	LNFT	10560.0	$ 96.29	$	1,016,872.03	
CONCRETE ROUNDABOUTS - ONE LANE	EACH	2.0	$ 640,000.00	$	1,280,000.00	
SHARED USE PATH	MILE	2.0	$ 963,000.00	$	1,926,000.00	
SIGNS - URBAN	MILE	2.0	$ 57,000.00	$	114,000.00	
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	2.0	$ 44,000.00	$	88,000.00	
STORM DRAIN - ROUNDABOUT - ONE LANE	LS	2.0	$ 137,000.00	$	274,000.00	
LIGHTING - ROUNDABOUT	LS	2.0	$ 44,000.00	$	88,000.00	
LIGHTING	MILE	2.0	$ 192,000.00	$	384,000.00	
STORM DRAIN - URBAN	MILE	2.0	$ 847,000.00	$	1,694,000.00	
MISCELLANEOUS ITEMS			25%	$	4,068,054	
Subtotal 1				$	20,340,270	
TRAFFIC CONTROL - URBAN			5%	$	1,017,014	
Subtotal 2				$	21,357,284	
MOBILIZATION			10%	$	2,135,728	
Subtotal 3				$	23,493,012	
CONTINGENCY (MEDIUM RISK)			30%	$	7,047,904	
Subtotal 4				$	30,540,916	
CONSTRUCTION ENGINEERING (CE)			10%	$	3,054,092	
PRELIMINARY ENGINEERING (PE)			10%	$	3,054,092	
TOTAL				**$**	**36,649,099**	

PROJ-6 Love Lane/E. Valley Center Road

a. Traffic Signal **$ 2,700,000 TOT**

***Reflects TSM-14 from GTATP, assumes capacity upgrades on Love Lane (double lane roundabout) and urban design standards**

LENGTH (FT)	750
NEW WIDTH (FT)	71
EXISTING WIDTH (FT)	22
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
EXCAVATION-UNCLASSIFIED	CUYD	4506.9	$ 24.45	$	110,204.71
SPECIAL BORROW	CUYD	2268.5	$ 23.30	$	52,853.31
CRUSHED AGGREGATE COURSE	CUYD	907.4	$ 67.20	$	60,975.24
COVER - TYPE 2	SQYD	4083.3	$ 1.15	$	4,710.53
COMMERCIAL MIX PG 70-28	TON	1583.9	$ 147.70	$	233,951.25
EMULSIFIED ASPHALT CHFRS-2P	TON	95.1	$ 925.83	$	88,000.90
COLD MILLING	SQYD	5916.7	$ 2.86	$	16,941.78
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	833.3	$ 60.10	$	50,083.32
CURB AND GUTTER-CONC	LNFT	2000.0	$ 96.29	$	192,589.40

TRAFFIC SIGNALS	LS	1.0	$ 301,000.00	$	301,000.00
SIGNS - URBAN	MILE	0.1	$ 57,000.00	$	8,096.59
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.1	$ 44,000.00	$	6,250.00
DRAINAGE PIPE - URBAN	MILE	0.1	$ 263,000.00	$	37,357.95
MISCELLANEOUS ITEMS			25%	$	290,754
Subtotal 1				$	1,453,769
TRAFFIC CONTROL - URBAN			5%	$	72,688
Subtotal 2				$	1,526,457
MOBILIZATION			10%	$	152,646
Subtotal 3				$	1,679,103
CONTINGENCY (MEDIUM RISK)			30%	$	503,731
Subtotal 4				$	2,182,834
CONSTRUCTION ENGINEERING (CE)			10%	$	218,283
PRELIMINARY ENGINEERING (PE)			10%	$	218,283
TOTAL				**$**	**2,619,400**

b. Double Lane Roundabout **$ 6,600,000 TOT**

Reflects TSM-14 from GTATP, assumes capacity upgrades on Love Lane (double lane roundabout) and urban design standards

LENGTH (FT)	1000
NEW WIDTH (FT)	71
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
EXCAVATION-UNCLASSIFIED	CUYD	5805.6	$ 24.45	$	141,958.61
SPECIAL BORROW	CUYD	2901.2	$ 23.30	$	67,594.70
CRUSHED AGGREGATE COURSE	CUYD	1160.5	$ 67.20	$	77,981.94
COVER - TYPE 2	SQYD	5222.2	$ 1.15	$	6,024.36
COMMERCIAL MIX PG 70-28	TON	2111.9	$ 147.70	$	311,935.00
EMULSIFIED ASPHALT CHFRS-2P	TON	126.7	$ 925.83	$	117,334.53
COLD MILLING	SQYD	7888.9	$ 2.86	$	22,589.04
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	1111.1	$ 60.10	$	66,777.76
CONCRETE ROUNDABOUTS - TWO LANES	EACH	1.0	$1,476,000.00	$	1,476,000.00
SIGNS - URBAN	MILE	0.2	$ 57,000.00	$	10,795.45
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.2	$ 44,000.00	$	8,333.33
STORM DRAIN - ROUNDABOUT - TWO LANE	LS	1.0	$ 203,000.00	$	203,000.00
LIGHTING - ROUNDABOUT	LS	0.2	$ 44,000.00	$	8,333.33
MISCELLANEOUS ITEMS			25%	$	629,665
Subtotal 1				$	3,148,323
TRAFFIC CONTROL - URBAN			5%	$	157,416
Subtotal 2				$	3,305,739
MOBILIZATION			10%	$	330,574
Subtotal 3				$	3,636,313
CONTINGENCY (HIGH RISK)			50%	$	1,818,156
Subtotal 4				$	5,454,469
CONSTRUCTION ENGINEERING (CE)			10%	$	545,447
PRELIMINARY ENGINEERING (PE)			10%	$	545,447
TOTAL				**$**	**6,545,363**

PROJ-7 Harper Puckett Road (E. Valley Center Road to Baxter Lane)

a. Curve Signing Enhancements				**$**	**40,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI	SQFT	55.5	$ 46.55	$	2,583
POSTS-STEEL U SIGN	LB	360.0	$ 61.75	$	22,229
12" LED FLASHING BEACON (AMBER) - SOLAR	EACH	2	$ 900.00	$	1,800
MISCELLANEOUS ITEMS			25%	$	6,653
Subtotal 1				$	33,266
CONTINGENCY (LOW RISK)			20%	$	6,653
TOTAL				**$**	**39,919**

b. Shoulder Widening				**$**	**1,500,000 TOT**

***Assumes 2' shoulder widening through curved section only**

LENGTH (MI)	1.0
WIDTH (FT)	4
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	18

TYPE	UNITS	QUANTITY	UNIT PRICE		COST / MI
EXCAVATION-UNCLASSIFIED	CUYD	2020.7	$ 24.45	$	49,411.56
SPECIAL BORROW	CUYD	1173.3	$ 23.30	$	27,337.02
CRUSHED AGGREGATE COURSE	CUYD	521.5	$ 67.20	$	35,042.10
COVER - TYPE 2	SQYD	2346.7	$ 1.15	$	2,707.11
COMMERCIAL MIX PG 70-28	TON	2198.8	$ 147.70	$	324,763.88
EMULSIFIED ASPHALT CHFRS-2P	TON	131.9	$ 925.83	$	122,160.12
COLD MILLING	SQYD	5866.7	$ 2.86	$	16,798.61
DRAINAGE PIPE - RURAL	MILE	1.0	$ 110,000.00	$	110,000.00
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	1.0	$ 18,000.00	$	18,000.00
MISCELLANEOUS ITEMS			25%	$	176,555
Subtotal 1				$	882,776
TRAFFIC CONTROL - RURAL			6%	$	52,967
Subtotal 2				$	935,742
MOBILIZATION			10%	$	93,574
Subtotal 3				$	1,029,316
CONTINGENCY (LOW RISK)			20%	$	205,863
Subtotal 4				$	1,235,179
CONSTRUCTION ENGINEERING (CE)			10%	$	123,518
PRELIMINARY ENGINEERING (PE)			10%	$	123,518
Subtotal 6				$	1,482,215
INDIRECT COSTS (IDC)			0%	$	-
TOTAL				**$**	**1,482,215**

PROJ-8 Baxter Lane (Harper Puckett Road to Jackrabbit Lane)

a. Enhanced Delineation				**$**	**130,000 TOT**

LENGTH (MI)	2

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	2.0	$ 44,000.00	$ 88,000.00
MISCELLANEOUS ITEMS			25%	$ 22,000
Subtotal 1				$ 110,000
TRAFFIC CONTROL - URBAN			5%	$ 5,500
Subtotal 2				$ 115,500
MOBILIZATION			10%	$ 11,550
TOTAL				**$ 127,050**

b. Reconstruction	**$ 27,600,000**	**TOT**

Reflects MSN-4 and SUP-5/SUP-6 from GTATP with urban design standards

LENGTH (MI)	2
NEW WIDTH (FT)	50
EXISTING WIDTH (FT)	22
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	40871.1	$ 24.45	$ 999,388.58
SPECIAL BORROW	CUYD	18251.9	$ 23.30	$ 425,242.60
CRUSHED AGGREGATE COURSE	CUYD	7300.7	$ 67.20	$ 490,589.34
COVER - TYPE 2	SQYD	32853.3	$ 1.15	$ 37,899.61
COMMERCIAL MIX PG 70-28	TON	15705.6	$ 147.70	$ 2,319,741.97
EMULSIFIED ASPHALT CHFRS-2P	TON	942.5	$ 925.83	$ 872,572.30
COLD MILLING	SQYD	25813.3	$ 2.86	$ 73,913.90
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	5866.7	$ 60.10	$ 352,586.58
CURB AND GUTTER-CONC	LNFT	21120.0	$ 96.29	$ 2,033,744.06
SHARED USE PATH	MILE	2.0	$ 963,000.00	$ 1,926,000.00
SIGNS - URBAN	MILE	2.0	$ 57,000.00	$ 114,000.00
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	2.0	$ 44,000.00	$ 88,000.00
LIGHTING	MILE	2.0	$ 192,000.00	$ 384,000.00
STORM DRAIN - URBAN	MILE	2.0	$ 847,000.00	$ 1,694,000.00
REMOVE SMALL SINGLE SPAN BRIDGE	LS	1.0	$ 22,000.00	$ 22,000.00
NEW BRIDGE 100 LINEAL FEET OR LESS	SQFT	2000.0	$ 196.00	$ 392,000.00
MISCELLANEOUS ITEMS			25%	$ 3,056,420
Subtotal 1				$ 15,282,099
TRAFFIC CONTROL - URBAN			5%	$ 764,105
Subtotal 2				$ 16,046,204
MOBILIZATION			10%	$ 1,604,620
Subtotal 3				$ 17,650,824
CONTINGENCY (MEDIUM RISK)			30%	$ 5,295,247
Subtotal 4				$ 22,946,071
CONSTRUCTION ENGINEERING (CE)			10%	$ 2,294,607
PRELIMINARY ENGINEERING (PE)			10%	$ 2,294,607
TOTAL				**$ 27,535,285**

PROJ-9	Love Lane/Durston Road	$	7,300,000	TOT

***Reflects TSM-15 from GTATP, assumes capacity upgrades on Love Lane (double lane roundabout) and urban design standards**

LENGTH (FT)	1600
NEW WIDTH (FT)	71
EXISTING WIDTH (FT)	22
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	17503.7	$ 24.45	$ 428,004.06
SPECIAL BORROW	CUYD	4839.5	$ 23.30	$ 112,753.72
CRUSHED AGGREGATE COURSE	CUYD	1935.8	$ 67.20	$ 130,080.51
COVER - TYPE 2	SQYD	8711.1	$ 1.15	$ 10,049.14
COMMERCIAL MIX PG 70-28	TON	3379.1	$ 147.70	$ 499,096.00
EMULSIFIED ASPHALT CHFRS-2P	TON	202.8	$ 925.83	$ 187,735.25
COLD MILLING	SQYD	12622.2	$ 2.86	$ 36,142.47
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	1777.8	$ 60.10	$ 106,844.42
CONCRETE ROUNDABOUTS - TWO LANES	EACH	1.0	$1,476,000.00	$ 1,476,000.00
SIGNS - URBAN	MILE	0.3	$ 57,000.00	$ 17,272.73
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.3	$ 44,000.00	$ 13,333.33
STORM DRAIN - ROUNDABOUT - TWO LANE	LS	1.0	$ 203,000.00	$ 203,000.00
LIGHTING - ROUNDABOUT	LS	0.3	$ 44,000.00	$ 13,333.33
MISCELLANEOUS ITEMS			25%	$ 808,411
Subtotal 1				$ 4,042,056
TRAFFIC CONTROL - URBAN			5%	$ 202,103
Subtotal 2				$ 4,244,159
MOBILIZATION			10%	$ 424,416
Subtotal 3				$ 4,668,575
CONTINGENCY (MEDIUM RISK)			30%	$ 1,400,572
Subtotal 4				$ 6,069,147
CONSTRUCTION ENGINEERING (CE)			10%	$ 606,915
PRELIMINARY ENGINEERING (PE)			10%	$ 606,915
TOTAL				**$ 7,282,977**

PROJ-10 Gooch Hill Road (Huffine Lane to Durston Road)

a. Intersection Signing Enhancements (Durston Road)	$	5,000	TOT

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
SIGNS-ALUM REFL SHEET XI	SQFT	4.0	$ 46.55	$ 186
POSTS-STEEL U SIGN	LB	30.0	$ 61.75	$ 1,852
12" LED FLASHING BEACON (AMBER) - SOLAR	EACH	1	$ 900.00	$ 900
RETROREFLECTIVE TAPE	LNFT	6	$ 1.29	$ 8
MISCELLANEOUS ITEMS			25%	$ 735
Subtotal 1				$ 3,681
CONTINGENCY (LOW RISK)			20%	$ 736
TOTAL				**$ 4,417**

b. Right-Turn Lane, Pedestrian Upgrades, Urban Design (Huffine Lane)	$	910,000	TOT

LENGTH (FT)	300
NEW WIDTH (FT)	21
EXISTING WIDTH (FT)	8
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	702.8	$ 24.45	$ 17,184.46
SPECIAL BORROW	CUYD	240.7	$ 23.30	$ 5,608.92
CRUSHED AGGREGATE COURSE	CUYD	96.3	$ 67.20	$ 6,470.84
COVER - TYPE 2	SQYD	433.3	$ 1.15	$ 499.89
COMMERCIAL MIX PG 70-28	TON	187.4	$ 147.70	$ 27,678.74
EMULSIFIED ASPHALT CHFRS-2P	TON	11.2	$ 925.83	$ 10,411.37
COLD MILLING	SQYD	700.0	$ 2.86	$ 2,004.38
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	502.8	$ 60.10	$ 30,216.94
CURB AND GUTTER-CONC	LNFT	905.0	$ 96.29	$ 87,146.70
SIG-PEDESTRIAN TYPE 2	EACH	8.0	$ 1,308.38	$ 10,467.01
TRAFFIC SIGNAL TIMING STUDY	LS	1.0	$ 50,000.00	$ 50,000.00
MDT SIGNAL ADJUSTMENTS	LS	1.0	$ 1,000.00	$ 1,000.00
SIGNS - URBAN	MILE	0.1	$ 57,000.00	$ 3,238.64
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.1	$ 44,000.00	$ 2,500.00
LIGHTING	MILE	0.2	$ 192,000.00	$ 43,636.36
DRAINAGE PIPE - URBAN	MILE	0.1	$ 263,000.00	$ 14,943.18
MISCELLANEOUS ITEMS			25%	$ 78,252
Subtotal 1				$ 391,259
TRAFFIC CONTROL - URBAN			5%	$ 19,563
Subtotal 2				$ 410,822
MOBILIZATION			10%	$ 41,082
Subtotal 3				$ 451,905
CONTINGENCY (HIGH RISK)			50%	$ 225,952
Subtotal 4				$ 677,857
CONSTRUCTION ENGINEERING (CE)			10%	$ 67,786
PRELIMINARY ENGINEERING (PE)			10%	$ 67,786
Subtotal 5				$ 813,428
INDIRECT COSTS (IDC)			10.91%	$ 88,745
TOTAL				**$ 902,173**

c. Corridor Reconstruction	**$ 13,800,000**	**TOT**

***Reflects MSN-12 from GTATP, assumes sidewalk on one side and SUP on the other with urban design standards**

LENGTH (MI)	1
NEW WIDTH (FT)	50
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	22293.3	$ 24.45	$ 545,121.05

SPECIAL BORROW	CUYD	8474.1	$ 23.30	$	197,434.06
CRUSHED AGGREGATE COURSE	CUYD	4856.3	$ 67.20	$	326,329.51
COVER - TYPE 2	SQYD	21120.0	$ 1.15	$	24,364.03
COMMERCIAL MIX PG 70-28	TON	8795.1	$ 147.70	$	1,299,055.50
EMULSIFIED ASPHALT CHFRS-2P	TON	565.5	$ 925.83	$	523,543.38
COLD MILLING	SQYD	14080.0	$ 2.86	$	40,316.67
CONCRETE SIDEWALK (6" THICK W/ 3" BASE)	SQYD	2933.3	$ 60.10	$	176,293.29
CURB AND GUTTER-CONC	LNFT	10560.0	$ 96.29	$	1,016,872.03
SIGNS - URBAN	MILE	1.0	$ 57,000.00	$	57,000.00
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	1.0	$ 44,000.00	$	44,000.00
LIGHTING	MILE	1.0	$ 192,000.00	$	192,000.00
STORM DRAIN - URBAN	MILE	1.0	$ 847,000.00	$	847,000.00
MISCELLANEOUS ITEMS			25%	$	1,322,332
Subtotal 1				$	6,611,662
TRAFFIC CONTROL - URBAN			5%	$	330,583
Subtotal 2				$	6,942,245
MOBILIZATION			10%	$	694,225
Subtotal 3				$	7,636,470
CONTINGENCY (HIGH RISK)			50%	$	3,818,235
Subtotal 4				$	11,454,704
CONSTRUCTION ENGINEERING (CE)			10%	$	1,145,470
PRELIMINARY ENGINEERING (PE)			10%	$	1,145,470
TOTAL				**$**	**13,745,645**

PROJ-11 Huffine Lane Shared Use Path **$ 3,500,000 TOT**

***Does not include the segment of path being constructed by Town Pump**

LENGTH (MI)	1.8
WIDTH (FT)	10.0
SURFACING (IN)	4
AGGREGATE (IN)	12
BASE (IN)	0

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
EXCAVATION-UNCLASSIFIED	CUYD	6868.6	$ 24.45	$	167,952.20
CRUSHED AGGREGATE COURSE	CUYD	3434.3	$ 67.20	$	230,775.10
COVER - TYPE 2	SQYD	10302.9	$ 1.15	$	11,885.41
COMMERCIAL MIX PG 70-28	TON	2206.5	$ 147.70	$	325,909.69
EMULSIFIED ASPHALT CHFRS-2P	TON	165.5	$ 925.83	$	153,238.90
SIG-PEDESTRIAN TYPE 2	EACH	4.0	$ 1,308.38	$	5,233.51
DRAINAGE PIPE - URBAN	MILE	1.8	$ 263,000.00	$	461,873.83
MISCELLANEOUS ITEMS			25%	$	297,229
Subtotal 1				$	1,486,146
TRAFFIC CONTROL - URBAN			5%	$	74,307
Subtotal 2				$	1,560,453
MOBILIZATION			10%	$	156,045
Subtotal 3				$	1,716,498
CONTINGENCY (HIGH RISK)			50%	$	858,249
Subtotal 4				$	2,574,747
CONSTRUCTION ENGINEERING (CE)			10%	$	257,475
PRELIMINARY ENGINEERING (PE)			10%	$	257,475
Subtotal 6				$	3,089,697

INDIRECT COSTS (IDC)			11%	$	337,086
TOTAL				**$**	**3,426,782**

PROJ-12 Stucky Road/Gooch Hill Road **$ 8,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI	SQFT	2.0	$ 46.55	$	93
12" LED FLASHING BEACON (RED) - SOLAR	EACH	1	$ 900.00	$	900
SOLAR POWERED LED STOP SIGN	EACH	1	$ 1,800.00	$	1,800
RETROREFLECTIVE TAPE	LNFT	10	$ 1.29	$	13
HIGH EFFICACY LUMINAIRE LED	EACH	3	$ 1,100.00	$	3,300
MISCELLANEOUS ITEMS			25%	$	248
Subtotal 1				$	6,354
CONTINGENCY (LOW RISK)			20%	$	1,271
TOTAL				**$**	**7,625**

PROJ-13 Gooch Hill Road/Chapman Road **$ 7,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI	SQFT	10.0	$ 46.55	$	465
RETROREFLECTIVE TAPE	LNFT	12	$ 1.29	$	15
12" LED FLASHING BEACON (AMBER) - SOLAR	EACH	2	$ 900.00	$	1,800
HIGH EFFICACY LUMINAIRE LED	EACH	2	$ 1,100.00	$	2,200
MISCELLANEOUS ITEMS			25%	$	570
Subtotal 1				$	5,051
CONTINGENCY (LOW RISK)			20%	$	1,010
TOTAL				**$**	**6,061**

PROJ-14 Axtell Anceny Road (River Road to River Camp Road)

a. Curve Signing Enhancements **$ 19,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI	SQFT	27.0	$ 46.55	$	1,257
POSTS-STEEL U SIGN	LB	180.0	$ 61.75	$	11,115
MISCELLANEOUS ITEMS			25%	$	3,093
Subtotal 1				$	15,464
CONTINGENCY (LOW RISK)			20%	$	3,093
TOTAL				**$**	**18,557**

b. Intersection Realignment **$ 50,000 TOT**

LENGTH (MI)	0.04
WIDTH (FT)	24.0
SURFACING (IN)	0
AGGREGATE (IN)	12
BASE (IN)	18

TYPE	UNITS	QUANTITY	UNIT PRICE		COST
EXCAVATION-UNCLASSIFIED	CUYD	537.0	$ 24.45	$	13,131.74
CRUSHED AGGREGATE COURSE	CUYD	177.8	$ 67.20	$	11,946.17

COVER - TYPE 2	SQYD	533.3	$	1.15	$	615.25
SIGNS-ALUM REFL SHEET XI	SQFT	4.0	$	46.55	$	186
POSTS-STEEL U SIGN	LB	30.0	$	61.75	$	1,852
REVEGETATION	SQYD	30.0	$	1.16	$	35
DRAINAGE PIPE - RURAL	MILE	0.04	$	110,000.00	$	4,166.67
MISCELLANEOUS ITEMS				25%	$	4,700
Subtotal 1					$	23,502
TRAFFIC CONTROL - RURAL				6%	$	1,410
Subtotal 2					$	24,912
MOBILIZATION				10%	$	2,491
Subtotal 3					$	27,403
CONTINGENCY (HIGH RISK)				50%	$	13,702
Subtotal 4					$	41,105
CONSTRUCTION ENGINEERING (CE)				10%	$	4,110
PRELIMINARY ENGINEERING (PE)				10%	$	4,110
TOTAL					**$**	**49,326**

PROJ-15 Gooch Hill Road/US 191

a. Intersection Visibility Enhancements **$ 15,000 TOT**

TYPE	UNITS	QUANTITY		UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI	SQFT	10.0	$	46.55	$	465
12" LED FLASHING BEACON (RED) - SOLAR	EACH	1	$	900.00	$	900
SOLAR POWERED LED STOP SIGN	EACH	1	$	1,800.00	$	1,800
RETROREFLECTIVE TAPE	LNFT	6	$	1.29	$	8
HIGH EFFICACY LUMINAIRE LED	EACH	3	$	1,100.00	$	3,300
MISCELLANEOUS ITEMS				25%	$	341
Subtotal 1					$	6,815
TRAFFIC CONTROL - RURAL				6%	$	409
Subtotal 2					$	7,223
MOBILIZATION				10%	$	722
Subtotal 3					$	7,946
CONTINGENCY (HIGH RISK)				50%	$	3,973
Subtotal 4					$	11,919
CONSTRUCTION ENGINEERING (CE)				10%	$	1,192
PRELIMINARY ENGINEERING (PE)				10%	$	1,192
TOTAL					**$**	**14,302**

b. Traffic Signal **$ 1,700,000 TOT**

LENGTH (FT)	750
NEW WIDTH (FT)	44
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY		UNIT PRICE		COST
EXCAVATION-UNCLASSIFIED	CUYD	2291.7	$	24.45	$	56,036.29
SPECIAL BORROW	CUYD	925.9	$	23.30	$	21,572.78

CRUSHED AGGREGATE COURSE	CUYD	370.4	$ 67.20	$ 24,887.85
COVER - TYPE 2	SQYD	1666.7	$ 1.15	$ 1,922.67
COMMERCIAL MIX PG 70-28	TON	981.6	$ 147.70	$ 144,983.87
EMULSIFIED ASPHALT CHFRS-2P	TON	58.9	$ 925.83	$ 54,535.77
COLD MILLING	SQYD	3666.7	$ 2.86	$ 10,499.13
TRAFFIC SIGNALS	LS	1.0	$ 301,000.00	$ 301,000.00
SIGNS - RURAL	MILE	0.1	$ 9,000.00	$ 1,278.41
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.1	$ 18,000.00	$ 2,556.82
DRAINAGE PIPE - RURAL	MILE	0.1	$ 110,000.00	$ 15,625.00
MISCELLANEOUS ITEMS			25%	$ 158,725
Subtotal 1				$ 716,014
TRAFFIC CONTROL - RURAL			6%	$ 42,961
Subtotal 2				$ 758,975
MOBILIZATION			10%	$ 75,898
Subtotal 3				$ 834,873
CONTINGENCY (HIGH RISK)			50%	$ 417,436
Subtotal 4				$ 1,252,309
CONSTRUCTION ENGINEERING (CE)			10%	$ 125,231
PRELIMINARY ENGINEERING (PE)			10%	$ 125,231
Subtotal 5				$ 1,502,771
INDIRECT COSTS (IDC)			10.91%	$ 163,952
TOTAL				**$ 1,666,723**

c. Single Lane Roundabout **$ 3,100,000 TOT**

LENGTH (FT)	1000
NEW WIDTH (FT)	30
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	1629.6	$ 24.45	$ 39,848.03
SPECIAL BORROW	CUYD	370.4	$ 23.30	$ 8,629.11
CRUSHED AGGREGATE COURSE	CUYD	148.1	$ 67.20	$ 9,955.14
COVER - TYPE 2	SQYD	666.7	$ 1.15	$ 769.07
COMMERCIAL MIX PG 70-28	TON	892.4	$ 147.70	$ 131,803.52
EMULSIFIED ASPHALT CHFRS-2P	TON	53.6	$ 925.83	$ 49,577.97
COLD MILLING	SQYD	3333.3	$ 2.86	$ 9,544.67
CONCRETE ROUNDABOUTS - ONE LANE	EACH	1.0	$ 640,000.00	$ 640,000.00
SIGNS - RURAL	MILE	0.2	$ 9,000.00	$ 1,704.55
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.2	$ 18,000.00	$ 3,409.09
STORM DRAIN - ROUNDABOUT - ONE LANE	LS	1.0	$ 137,000.00	$ 137,000.00
LIGHTING - ROUNDABOUT	LS	0.2	$ 44,000.00	$ 8,333.33
MISCELLANEOUS ITEMS			25%	$ 260,144
Subtotal 1				$ 1,300,718
TRAFFIC CONTROL - RURAL			6%	$ 78,043
Subtotal 2				$ 1,378,761
MOBILIZATION			10%	$ 137,876
Subtotal 3				$ 1,516,637

CONTINGENCY (HIGH RISK)		50%	$	758,319
	Subtotal 4		$	2,274,956
CONSTRUCTION ENGINEERING (CE)		10%	$	227,496
PRELIMINARY ENGINEERING (PE)		10%	$	227,496
	Subtotal 5		$	2,729,947
INDIRECT COSTS (IDC)		10.91%	$	297,837
	TOTAL		**$**	**3,027,784**

PROJ-16 US 191 Improvements

a. Four Corners Intersection (S1) **$ 3,900,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	1223.9	$ 24.45	$ 29,927.46
CRUSHED AGGREGATE COURSE	CUYD	6304.4	$ 67.20	$ 423,641.01
COVER - TYPE 2	SQYD	12105.0	$ 1.15	$ 13,964.33
COMMERCIAL MIX PG 70-28	TON	3240.5	$ 147.70	$ 478,622.52
EMULSIFIED ASPHALT CHFRS-2P	TON	21.7	$ 925.83	$ 20,090.42
SIDEWALK-CONCRETE 4"	SQYD	1008.9	$ 155.42	$ 156,798.18
SIDEWALK-CONCRETE 6"	SQYD	252.2	$ 204.30	$ 51,529.13
CURB AND GUTTER-CONC	LNFT	2270.0	$ 96.29	$ 218,588.97
SIG-PEDESTRIAN TYPE 2	EACH	8.0	$ 1,308.38	$ 10,467.01
PORT CEM CONC PAVE 10 IN	SQYD	610.9	$ 144.50	$ 88,272.16
SIGNS - URBAN	MILE	0.2	$ 57,000.00	$ 12,252.84
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.2	$ 44,000.00	$ 9,458.33
DRAINAGE PIPE - URBAN	MILE	0.2	$ 263,000.00	$ 56,535.04
MISCELLANEOUS ITEMS			25%	$ 392,537
Subtotal 1				$ 1,932,757
TRAFFIC CONTROL - URBAN			5%	$ 96,638
Subtotal 2				$ 2,029,395
MOBILIZATION			10%	$ 202,939
Subtotal 3				$ 2,232,334
CONTINGENCY (MEDIUM RISK)			30%	$ 669,700
Subtotal 4				$ 2,902,034
CONSTRUCTION ENGINEERING (CE)			10%	$ 290,203
PRELIMINARY ENGINEERING (PE)			10%	$ 290,203
Subtotal 5				$ 3,482,441
INDIRECT COSTS (IDC)			10.91%	$ 379,934
TOTAL				**$ 3,862,376**

b. 3rd Street to 2nd Street (S2) **$ 3,500,000 TOT**

LENGTH (FT)	430
WIDTH (FT)	78
SURFACING (IN)	5
BASE (IN)	18

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	3254.9	$ 24.45	$ 79,590.59
CRUSHED AGGREGATE COURSE	CUYD	2238.9	$ 67.20	$ 150,447.26
COVER - TYPE 2	SQYD	3717.0	$ 1.15	$ 4,287.93

COMMERCIAL MIX PG 70-28	TON	1031.3	$ 147.70	$ 152,322.11
EMULSIFIED ASPHALT CHFRS-2P	TON	6.7	$ 925.83	$ 6,203.03
GUARDRAIL-STEEL BOX BEAM	LNFT	21.4	$ 82.19	$ 1,762.24
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.1	$ 44,000.00	$ 3,573.33
DRAINAGE PIPE - URBAN	MILE	0.1	$ 263,000.00	$ 21,358.79
REMOVE SMALL SINGLE SPAN BRIDGE	LS	1.0	$ 22,000.00	$ 22,000.00
NEW BRIDGE 100 LINEAL FEET OR LESS	SQFT	3900.0	$ 196.00	$ 764,400.00
MISCELLANEOUS ITEMS			25%	$ 301,486
Subtotal 1				$ 1,507,432
TRAFFIC CONTROL - URBAN			5%	$ 75,372
Subtotal 2				$ 1,582,803
MOBILIZATION			10%	$ 158,280
Subtotal 3				$ 1,741,084
CONTINGENCY (HIGH RISK)			50%	$ 870,542
Subtotal 4				$ 2,611,625
CONSTRUCTION ENGINEERING (CE)			10%	$ 261,163
PRELIMINARY ENGINEERING (PE)			10%	$ 261,163
Subtotal 5				$ 3,133,950
INDIRECT COSTS (IDC)			10.91%	$ 341,914
TOTAL				**$ 3,475,864**

c. Bozeman Hot Springs/Cobb Hill/Lower Rainbow Road (S3) **$ 1,300,000 TOT**

LENGTH (FT)	1000
WIDTH (FT)	24
SURFACING (IN)	5
BASE (IN)	18

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	7135.4	$ 24.45	$ 174,477.26
CRUSHED AGGREGATE COURSE	CUYD	2221.3	$ 67.20	$ 149,264.89
COVER - TYPE 2	SQYD	2667.0	$ 1.15	$ 3,076.65
COMMERCIAL MIX PG 70-28	TON	798.8	$ 147.70	$ 117,982.46
EMULSIFIED ASPHALT CHFRS-2P	TON	4.8	$ 925.83	$ 4,443.96
DRAINAGE PIPE - RURAL	MILE	0.2	$ 110,000.00	$ 20,833.33
LIGHTING	MILE	0.2	$ 192,000.00	$ 32,640.00
MISCELLANEOUS ITEMS			25%	$ 125,684
Subtotal 1				$ 628,403
TRAFFIC CONTROL - RURAL			6%	$ 37,704
Subtotal 2				$ 666,107
MOBILIZATION			10%	$ 66,611
Subtotal 3				$ 732,718
CONTINGENCY (MEDIUM RISK)			30%	$ 219,815
Subtotal 4				$ 952,533
CONSTRUCTION ENGINEERING (CE)			10%	$ 95,253
PRELIMINARY ENGINEERING (PE)			10%	$ 95,253
Subtotal 5				$ 1,143,039
INDIRECT COSTS (IDC)			10.91%	$ 124,706
TOTAL				**$ 1,267,745**

d. Cottonwood Road (S7)

Traffic Signal				**$**	**1,500,000**	**TOT**

LENGTH (FT)	750
NEW WIDTH (FT)	44
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	**UNITS**	**QUANTITY**	**UNIT PRICE**	**COST**
EXCAVATION-UNCLASSIFIED	CUYD	2291.7	$ 24.45	$ 56,036.29
SPECIAL BORROW	CUYD	925.9	$ 23.30	$ 21,572.78
CRUSHED AGGREGATE COURSE	CUYD	370.4	$ 67.20	$ 24,887.85
COVER - TYPE 2	SQYD	1666.7	$ 1.15	$ 1,922.67
COMMERCIAL MIX PG 70-28	TON	981.6	$ 147.70	$ 144,983.87
EMULSIFIED ASPHALT CHFRS-2P	TON	58.9	$ 925.83	$ 54,535.77
COLD MILLING	SQYD	3666.7	$ 2.86	$ 10,499.13
TRAFFIC SIGNALS	LS	1.0	$ 301,000.00	$ 301,000.00
SIGNS - RURAL	MILE	0.1	$ 9,000.00	$ 1,278.41
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.1	$ 18,000.00	$ 2,556.82
DRAINAGE PIPE - RURAL	MILE	0.1	$ 110,000.00	$ 15,625.00
MISCELLANEOUS ITEMS			25%	$ 158,725
Subtotal 1				$ 716,014
TRAFFIC CONTROL - RURAL			6%	$ 42,961
Subtotal 2				$ 758,975
MOBILIZATION			10%	$ 75,898
Subtotal 3				$ 834,873
CONTINGENCY (MEDIUM RISK)			30%	$ 250,462
Subtotal 4				$ 1,085,334
CONSTRUCTION ENGINEERING (CE)			10%	$ 108,533
PRELIMINARY ENGINEERING (PE)			10%	$ 108,533
Subtotal 5				$ 1,302,401
INDIRECT COSTS (IDC)			10.91%	$ 142,092
TOTAL				**$ 1,444,493**

Single Lane Roundabout				**$**	**3,800,000**	**TOT**

LENGTH (FT)	2000
NEW WIDTH (FT)	30
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	**UNITS**	**QUANTITY**	**UNIT PRICE**	**COST**
EXCAVATION-UNCLASSIFIED	CUYD	3259.3	$ 24.45	$ 79,696.06
SPECIAL BORROW	CUYD	740.7	$ 23.30	$ 17,258.22
CRUSHED AGGREGATE COURSE	CUYD	296.3	$ 67.20	$ 19,910.28
COVER - TYPE 2	SQYD	1333.3	$ 1.15	$ 1,538.13
COMMERCIAL MIX PG 70-28	TON	1784.7	$ 147.70	$ 263,607.04

EMULSIFIED ASPHALT CHFRS-2P	TON	107.1	$ 925.83	$ 99,155.94
COLD MILLING	SQYD	6666.7	$ 2.86	$ 19,089.33
CONCRETE ROUNDABOUTS - ONE LANE	EACH	1.0	$ 640,000.00	$ 640,000.00
SIGNS - RURAL	MILE	0.4	$ 9,000.00	$ 3,409.09
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.4	$ 18,000.00	$ 6,818.18
STORM DRAIN - ROUNDABOUT - ONE LANE	LS	1.0	$ 137,000.00	$ 137,000.00
LIGHTING - ROUNDABOUT	LS	0.4	$ 44,000.00	$ 16,666.67
MISCELLANEOUS ITEMS			25%	$ 326,037
Subtotal 1				$ 1,630,186
TRAFFIC CONTROL - RURAL			6%	$ 97,811
Subtotal 2				$ 1,727,997
MOBILIZATION			10%	$ 172,800
Subtotal 3				$ 1,900,797
CONTINGENCY (HIGH RISK)			50%	$ 950,399
Subtotal 4				$ 2,851,196
CONSTRUCTION ENGINEERING (CE)			10%	$ 285,120
PRELIMINARY ENGINEERING (PE)			10%	$ 285,120
Subtotal 5				$ 3,421,435
INDIRECT COSTS (IDC)			10.91%	$ 373,279
TOTAL				**$ 3,794,713**

e. Advance Warning Signs (S-16) **$ 310,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
SEQUENTIAL DYNAMIC CURVE WARNING SIGN	EACH	14.0	$ 13,500.00	$ 189,000.00
MISCELLANEOUS ITEMS			25%	$ 47,250
Subtotal 1				$ 236,250
CONTINGENCY (MEDIUM RISK)			30%	$ 70,875
TOTAL				**$ 307,125**

f. Substandard Curve Modification (S17-a) **$ 4,900,000 TOT**

LENGTH (FT)	2500
WIDTH (FT)	32
SURFACING (IN)	5
BASE (IN)	18

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	31017.2	$ 24.45	$ 758,438.00
CRUSHED AGGREGATE COURSE	CUYD	6664.4	$ 67.20	$ 447,825.78
COVER - TYPE 2	SQYD	8889.0	$ 1.15	$ 10,254.35
COMMERCIAL MIX PG 70-28	TON	2591.9	$ 147.70	$ 382,825.16
EMULSIFIED ASPHALT CHFRS-2P	TON	15.9	$ 925.83	$ 14,720.63
STRIPING & PAVEMENT MARKINGS - RURAL	MILE	0.5	$ 18,000.00	$ 8,522.73
DRAINAGE PIPE - RURAL	MILE	0.5	$ 110,000.00	$ 52,083.33
MISCELLANEOUS ITEMS			25%	$ 418,667
Subtotal 1				$ 2,093,337
TRAFFIC CONTROL - RURAL			6%	$ 125,600
Subtotal 2				$ 2,218,938
MOBILIZATION			10%	$ 221,894
Subtotal 3				$ 2,440,832

CONTINGENCY (HIGH RISK)			50%	$	1,220,416
	Subtotal 4			$	3,661,247
CONSTRUCTION ENGINEERING (CE)			10%	$	366,125
PRELIMINARY ENGINEERING (PE)			10%	$	366,125
	Subtotal 5			$	4,393,497
INDIRECT COSTS (IDC)			10.91%	$	479,330
	TOTAL			**$**	**4,872,827**

PROJ-17 Bridger Canyon Improvements

a. Horizontal and Vertical Curve Improvements with Shoulder Widening (2.b) $ 770,000 TOT

Inflates cost estimates developed for the Bridger Canyon Corridor Study at a rate of 5% per year

TYPE		UNITS	QUANTITY	UNIT PRICE		COST
RECONSTRUCTION (2015 ESTIMATE)		MILE	1.2	$ 390,000.00	$	468,000
	Subtotal 1				$	468,000
INFLATION		% PER YEAR	10.0	5%	$	294,323
	TOTAL				**$**	**762,323**

b. Approach Sight Distance Mitigation/Intersection Realignment (4.a) $ 70,000 TOT

Inflates cost estimates developed for the Bridger Canyon Corridor Study at a rate of 5% per year

TYPE		UNITS	QUANTITY	UNIT PRICE		COST
RECONSTRUCTION (2015 ESTIMATE)		EACH	1.0	$ 42,000.00	$	42,000
	Subtotal 1				$	42,000
INFLATION		% PER YEAR	10.0	5%	$	26,414
	TOTAL				**$**	**68,414**

c. Intersection Realignment (4.b) $ 610,000 TOT

Inflates cost estimates developed for the Bridger Canyon Corridor Study at a rate of 5% per year

TYPE		UNITS	QUANTITY	UNIT PRICE		COST
RECONSTRUCTION (2015 ESTIMATE)		EACH	1.0	$ 370,000.00	$	370,000
	Subtotal 1				$	370,000
INFLATION		% PER YEAR	10.0	5%	$	232,691
	TOTAL				**$**	**602,691**

d. RP 13.5 – RP 14.2 $ 380,000 TOT

TYPE		UNITS	QUANTITY	UNIT PRICE		COST
SIGNS-ALUM REFL SHEET XI		SQFT	12.5	$ 46.55	$	582
POSTS-STEEL U SIGN		LB	60.0	$ 61.75	$	3,705
HIGH FRICTION SURFACE TREATMENT		SQYD	7040.0	$ 40.00	$	281,600
MISCELLANEOUS ITEMS				25%	$	1,072
	Subtotal 1				$	286,958
CONTINGENCY (MEDIUM RISK)				30%	$	86,088
	TOTAL				**$**	**373,046**

PROJ-18 Belgrade to Bozeman Frontage Road Improvements

a. Airport Road Intersection Improvements (3)

Eastbound Left-Turn Lane				**$ 1,700,000**	**TOT**

LENGTH (FT)	1500
NEW WIDTH (FT)	52
EXISTING WIDTH (FT)	40
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	**UNITS**	**QUANTITY**	**UNIT PRICE**	**COST**
EXCAVATION-UNCLASSIFIED	CUYD	3361.1	$ 24.45	$ 82,186.56
SPECIAL BORROW	CUYD	1111.1	$ 23.30	$ 25,887.33
CRUSHED AGGREGATE COURSE	CUYD	444.4	$ 67.20	$ 29,865.42
COVER - TYPE 2	SQYD	2000.0	$ 1.15	$ 2,307.20
COMMERCIAL MIX PG 70-28	TON	2320.1	$ 147.70	$ 342,689.15
EMULSIFIED ASPHALT CHFRS-2P	TON	139.2	$ 925.83	$ 128,902.73
COLD MILLING	SQYD	8666.7	$ 2.86	$ 24,816.13
SIGNS - URBAN	MILE	0.3	$ 57,000.00	$ 16,193.18
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.3	$ 44,000.00	$ 12,500.00
DRAINAGE PIPE - URBAN	MILE	0.3	$ 263,000.00	$ 74,715.91
MISCELLANEOUS ITEMS			25%	$ 185,016
Subtotal 1				$ 817,006
TRAFFIC CONTROL - URBAN			5%	$ 40,850
Subtotal 2				$ 857,856
MOBILIZATION			10%	$ 85,786
Subtotal 3				$ 943,642
CONTINGENCY (MEDIUM RISK)			30%	$ 283,092
Subtotal 4				$ 1,226,734
CONSTRUCTION ENGINEERING (CE)			10%	$ 122,673
PRELIMINARY ENGINEERING (PE)			10%	$ 122,673
Subtotal 5				$ 1,472,081
INDIRECT COSTS (IDC)			10.91%	$ 160,604
TOTAL				**$ 1,632,685**

Traffic Signal				**$ 2,400,000**	**TOT**

LENGTH (FT)	1500
NEW WIDTH (FT)	52
EXISTING WIDTH (FT)	40
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	**UNITS**	**QUANTITY**	**UNIT PRICE**	**COST**
EXCAVATION-UNCLASSIFIED	CUYD	3361.1	$ 24.45	$ 82,186.56
SPECIAL BORROW	CUYD	1111.1	$ 23.30	$ 25,887.33
CRUSHED AGGREGATE COURSE	CUYD	444.4	$ 67.20	$ 29,865.42
COVER - TYPE 2	SQYD	2000.0	$ 1.15	$ 2,307.20
COMMERCIAL MIX PG 70-28	TON	2320.1	$ 147.70	$ 342,689.15
EMULSIFIED ASPHALT CHFRS-2P	TON	139.2	$ 925.83	$ 128,902.73

COLD MILLING	SQYD	8666.7	$ 2.86	$ 24,816.13
TRAFFIC SIGNALS	LS	1.0	$ 301,000.00	$ 301,000.00
SIGNS - URBAN	MILE	0.3	$ 57,000.00	$ 16,193.18
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	0.3	$ 44,000.00	$ 12,500.00
DRAINAGE PIPE - URBAN	MILE	0.3	$ 263,000.00	$ 74,715.91
MISCELLANEOUS ITEMS			25%	$ 260,266
Subtotal 1				$ 1,193,256
TRAFFIC CONTROL - URBAN			5%	$ 59,663
Subtotal 2				$ 1,252,918
MOBILIZATION			10%	$ 125,292
Subtotal 3				$ 1,378,210
CONTINGENCY (MEDIUM RISK)			30%	$ 413,463
Subtotal 4				$ 1,791,673
CONSTRUCTION ENGINEERING (CE)			10%	$ 179,167
PRELIMINARY ENGINEERING (PE)			10%	$ 179,167
Subtotal 5				$ 2,150,008
INDIRECT COSTS (IDC)			10.91%	$ 234,566
TOTAL				**$ 2,384,574**

b. Passing Zone Modifications (8) **$ 40,000 TOT**

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
PASSING ZONE MODS (2016 ESTIMATE)	LS	1.0	$ 25,000.00	$ 25,000
Subtotal 1				$ 25,000
INFLATION	% PER YEAR	9.0	5%	$ 13,783
TOTAL				**$ 38,783**

c. Install Centerline Rumble Strips (9) **$ 50,000 TOT**

LENGTH (FT) 12672

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
CENTERLINE RUMBLE STRIPS-TYPE 1	MILE	2.40	$ 1,285.82	$ 3,086
STRIPING-YELLOW EPOXY	GAL	105.34	$ 130.33	$ 13,729
FINAL SWEEP AND BROOM	MILE	2.40	$ 781.13	$ 1,875
MISCELLANEOUS ITEMS			25%	$ 4,672
Subtotal 1				$ 23,362
TRAFFIC CONTROL - URBAN			5%	$ 1,168
Subtotal 2				$ 24,530
MOBILIZATION			10%	$ 2,453
Subtotal 3				$ 26,983
CONTINGENCY (MEDIUM RISK)			30%	$ 8,095
Subtotal 4				$ 35,077
CONSTRUCTION ENGINEERING (CE)			10%	$ 3,508
PRELIMINARY ENGINEERING (PE)			10%	$ 3,508
Subtotal 5				$ 42,093
INDIRECT COSTS (IDC)			10.91%	$ 4,592
TOTAL				**$ 46,685**

d. Develop Separated Shared Use Path (10) **$ 2,000,000 /MI**

LENGTH (MI)	1.0
WIDTH (FT)	10.0
SURFACING (IN)	4
AGGREGATE (IN)	12
BASE (IN)	0

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	3911.1	$ 24.45	$ 95,635.27
CRUSHED AGGREGATE COURSE	CUYD	1955.6	$ 67.20	$ 131,407.86
COVER - TYPE 2	SQYD	5866.7	$ 1.15	$ 6,767.79
COMMERCIAL MIX PG 70-28	TON	1256.4	$ 147.70	$ 185,579.36
EMULSIFIED ASPHALT CHFRS-2P	TON	94.2	$ 925.83	$ 87,257.23
DRAINAGE PIPE - URBAN	MILE	1.0	$ 263,000.00	$ 263,000.00
MISCELLANEOUS ITEMS			25%	$ 168,503
Subtotal 1				$ 842,515
TRAFFIC CONTROL - URBAN			5%	$ 42,126
Subtotal 2				$ 884,641
MOBILIZATION			10%	$ 88,464
Subtotal 3				$ 973,105
CONTINGENCY (HIGH RISK)			50%	$ 486,553
Subtotal 4				$ 1,459,658
CONSTRUCTION ENGINEERING (CE)			10%	$ 145,966
PRELIMINARY ENGINEERING (PE)			10%	$ 145,966
Subtotal 6				$ 1,751,589
INDIRECT COSTS (IDC)			10.91%	$ 191,098
TOTAL				**$ 1,942,688**

d. Roadway Reconstruction - Segments 2 & 3 (11) **$ 15,100,000 TOT**

LENGTH (FT)	16300
NEW WIDTH (FT)	40
EXISTING WIDTH (FT)	24
SURFACING (IN)	5
AGGREGATE (IN)	8
SUBBASE (IN)	20

TYPE	UNITS	QUANTITY	UNIT PRICE	COST
EXCAVATION-UNCLASSIFIED	CUYD	43164.8	$ 24.45	$ 1,055,474.68
SPECIAL BORROW	CUYD	16098.8	$ 23.30	$ 375,078.70
CRUSHED AGGREGATE COURSE	CUYD	6439.5	$ 67.20	$ 432,716.78
COVER - TYPE 2	SQYD	28977.8	$ 1.15	$ 33,428.76
COMMERCIAL MIX PG 70-28	TON	19394.0	$ 147.70	$ 2,864,529.85
EMULSIFIED ASPHALT CHFRS-2P	TON	1163.8	$ 925.83	$ 1,077,494.58
COLD MILLING	SQYD	72444.4	$ 2.86	$ 207,437.42
SIGNS - URBAN	MILE	3.1	$ 57,000.00	$ 175,965.91
STRIPING & PAVEMENT MARKINGS - URBAN	MILE	3.1	$ 44,000.00	$ 135,833.33
DRAINAGE PIPE - URBAN	MILE	3.1	$ 263,000.00	$ 811,912.88
MISCELLANEOUS ITEMS			25%	$ 1,792,468
Subtotal 1				$ 7,531,788
TRAFFIC CONTROL - URBAN			5%	$ 376,589
Subtotal 2				$ 7,908,377

MOBILIZATION	10%	$	790,838
Subtotal 3		$	8,699,215
CONTINGENCY (MEDIUM RISK)	30%	$	2,609,764
Subtotal 4		$	11,308,979
CONSTRUCTION ENGINEERING (CE)	10%	$	1,130,898
PRELIMINARY ENGINEERING (PE)	10%	$	1,130,898
Subtotal 5		$	13,570,775
INDIRECT COSTS (IDC)	10.91%	$	1,480,572
TOTAL		**$**	**15,051,347**

PROJ-19	**I-90 Corridor Study**	**$250k - $300k**

Appendix B:

Baseline Data Summary

Gallatin County

Safe Streets For All

Action Plan

BASELINE DATA SUMMARY

January 27, 2025

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Baseline Data Summary

1. Introduction

Gallatin County was awarded funds from the Safe Streets and Roads for All (SS4A) discretionary grant program to complete an Action Plan identifying the most significant safety concerns in the community with implementation steps for projects and strategies to address those issues and reduce fatalities and serious injuries within the county. Completion of the *Gallatin County SS4A Action Plan* will enable the county to apply for other grant funds under the SS4A program to complete supplemental planning, future demonstration activities, or project implementation as needed to fulfill the identified needs of the Action Plan.

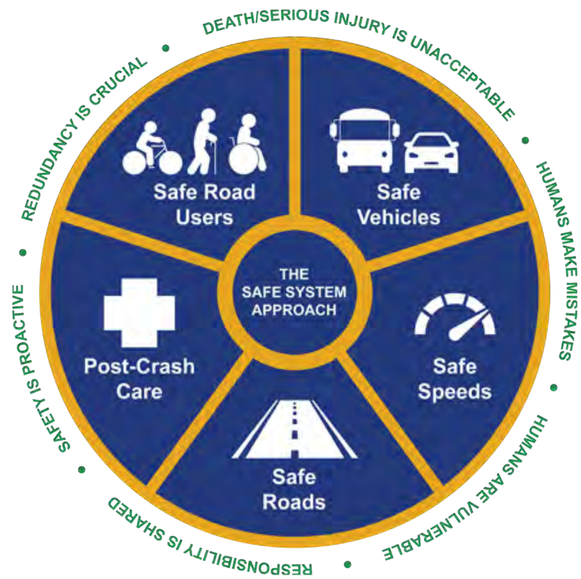


Figure 1.1: Safe Systems Approach

The purpose of this document is to identify safety problems within Gallatin County by summarizing a data-driven analysis conducted using historic crash data and other relevant information to help the county understand safety concerns, key trends, and contributing factors in crashes, with an added emphasis on fatalities and serious injuries. A combination of location-based and systemic safety analysis methods were used to help identify high-risk areas, analyze potential system-wide safety issues, and investigate behavioral trends. In addition to investigating past crashes, the planning team engaged the public and multiple stakeholders to understand perceived and experienced safety concerns within the community to proactively address priority locations and behaviors. Another important component of the analysis also included consideration of underserved and underrepresented segments of the community to ensure the needs of all community members and road users are identified and addressed.

1.1. National Guidance

The SS4A discretionary grant program was established by the Bipartisan Infrastructure Law (BIL) in 2021. The program was established to fund regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries through planning and implementation efforts. The SS4A program supports the US Department of Transportation's Vision Zero – a goal of zero roadway deaths – using the Safe System Approach (SSA) (illustrated in **Figure 1.1**) which aims to address the safety of all road users, with specific focus on improving safety culture, increasing stakeholder collaboration, and considering the human element in crash severity reduction[i].

In alignment with the Vision Zero and SSA initiatives, the SS4A program provides funding to localities to help develop tools to strengthen the community's approach to roadway safety for all roadway users including vulnerable road users (pedestrians, bicyclists, other cyclists, and personal conveyance and micromobility users), public transportation users, motorcyclists and motor vehicle users, and commercial vehicle operators. Top priorities for the SS4A program include the following:

- Safety promotion to reduce roadway fatalities and serious injuries
- Low-cost, high-impact strategies
- Equitable investment in underserved communities
- Evidence-based and innovative projects and strategies
- Public and stakeholder engagement
- Alignment with the US Department of Transportation (USDOT) mission and priorities (equity, climate and sustainability, quality job creation, economic strength and global competitiveness)

1.2. Planning Area

Bozeman and Belgrade are each conducting their own SS4A planning efforts, focusing on their respective city limits as the study areas. As a result, the broader Gallatin County SS4A plan excludes the city limits of Bozeman and Belgrade, as these areas are being addressed separately through the cities' individual planning processes. The planning area for this effort coincides with the Gallatin County boundaries, excluding the areas within Bozeman and Belgrade city limits. Since city boundaries are subject to change, this plan will use the boundaries of Bozeman as of August 27, 2024, and Belgrade as of April 3, 2024. This approach avoids overlap and allows for a more focused effort on rural areas of the county. Ongoing coordination will occur between Gallatin County and the cities of Bozeman and Belgrade to ensure consistency and alignment across all SS4A planning efforts.

A geospatial exercise was conducted to select all crashes occurring within the planning area. The crash locations are based on the reports filed by the responding officer and crash reports were not reviewed to verify crash location. **Figure 1.2** provides a map of the planning area. Note that the land annexed into the cities of Bozeman and Belgrade are excluded from the planning area.

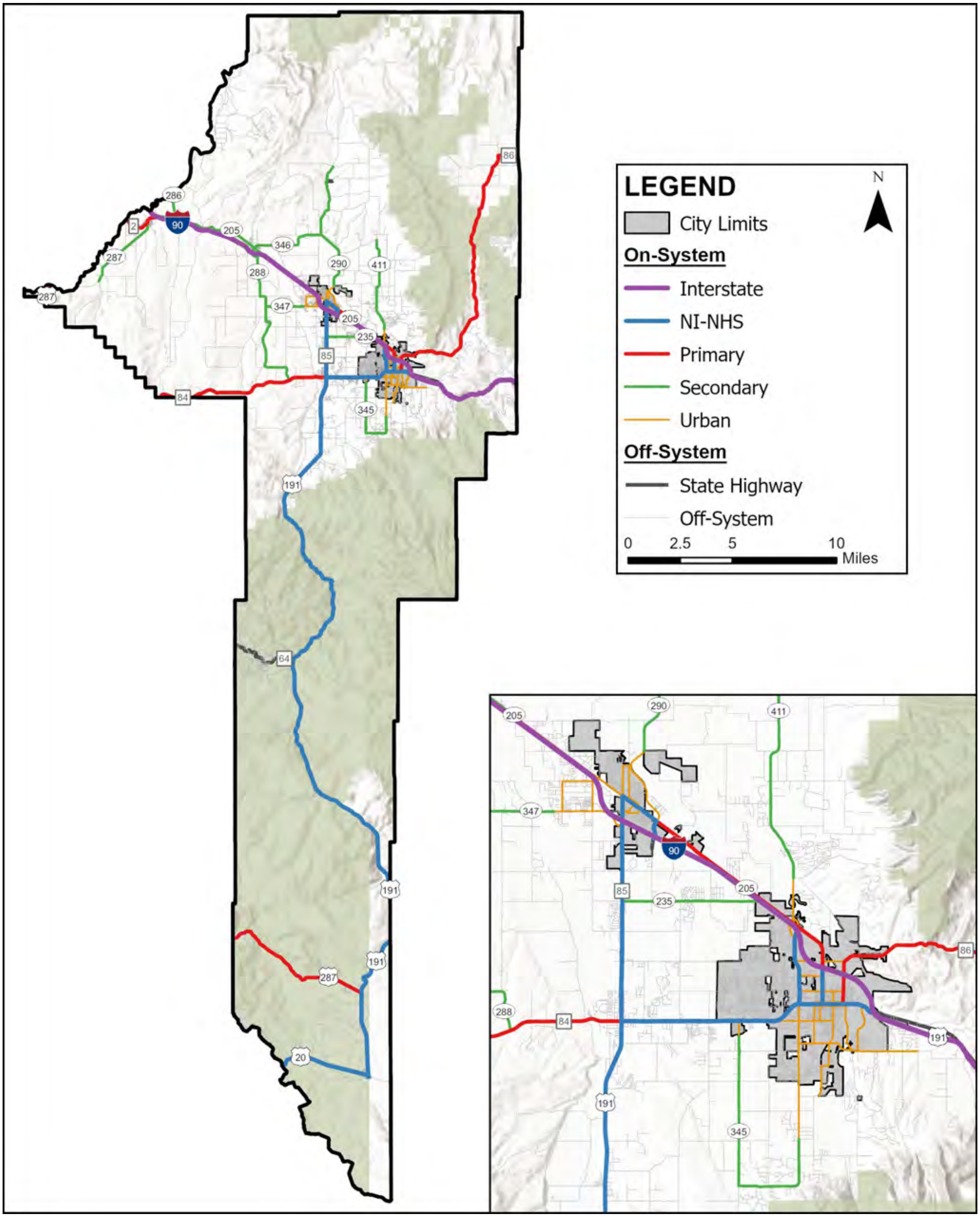


Figure 1.2: SS4A Planning Area

1.3. Relevant Supporting Documents

As an initial step in the process, a review of the county's past planning efforts was conducted to ensure the Action Plan aligns with the community's overall safety goals and priorities and addresses any previously identified safety concerns. A detailed review of each document is provided in the following sections.

Greater Triangle Area Transportation Plan (2022)

In 2022, Gallatin County updated its 2007 *Greater Bozeman Transportation Plan* with the adoption of the *Greater Triangle Area Transportation Plan*[ii]. Building on transportation recommendations from the 2017 *Bozeman Transportation Master Plan* and the 2018 *Belgrade Long Range Transportation Plan*, the updated plan evaluates growing areas that are expected to see continued population increases.

The area included in the plan encompasses the region between Four Corners, Belgrade, and Bozeman, and extends south to Gallatin Gateway. The focus is on lands where suburban development has occurred or is anticipated to occur in the future, while excluding the urban boundaries of Bozeman and Belgrade.

As part of the planning effort, a comprehensive safety analysis was conducted using crash records from the years 2017 through 2019. Over this 3-year period, 1,042 total crashes were reported with 3 crashes resulting in fatalities and 25 crashes resulting in serious injuries. Of the reported crashes, 3 involved pedestrians and 2 involved bicyclists. The plan identified 10 high-risk areas warranting further consideration.

The planning team also conducted a robust public engagement effort to understand the community's perspective on transportation issues and opportunities within Gallatin County. Based on the feedback received, the top concerns included safety for all roadway users, increased traffic control to accommodate increasing traffic volumes, and expanded multimodal transportation options.

The plan identifies several Transportation System Management (TSM) projects which include several lower-cost improvements that can be quickly implemented to address targeted safety or operational concerns. The safety-related TSM projects recommend adding additional signage, widened shoulders, flattening sharp curves, and evaluating speed limits in crash hot spots. The plan also highlights Major Street Network (MSN) projects that focus on more extensive, long-term infrastructure improvements, many of which are specifically aimed at enhancing safety for all road users, including pedestrians and bicyclists. Additional considerations include strategies for managing speeds and improving safety by installing signage on horizontal curves, especially those with crash histories or substandard designs.

Triangle Area Trails Plan (2021)

The *Triangle Area Trails Plan*[iii] focuses on the triangle area of Gallatin County, which is generally the area between Bozeman, Four Corners, and Belgrade. In 2016, Gallatin County, the City of Belgrade, and the City of Bozeman created the Planning Coordination Committee (PCC) to focus on issues and opportunities within the triangle area, understanding that each jurisdiction's transportation decisions affect the others. This plan was created as an extension to the *Belgrade Parks and Trails Master Plan* and the soon-to-be-created *City of Bozeman Parks, Recreation, and Active Transportation Plan*. The plan aims to create a vision for guiding future trail development and connectivity by identifying key corridor connections within the area and propose implementation strategies to guide in the completion and maintenance of the proposed trail network.

There are four aspects of the trail system that are emphasized: connectivity between places, consistency in and between jurisdictions, safety, and inclusivity. Research of trail typology, current conditions, and standards and guidelines combined with community engagement produced the following recommendations:

- Adopt trail design standards and specifications to ensure uniformity across the system.
- Develop a comprehensive wayfinding plan.
- Establish a template for maintenance of trails and establish minimum standards.
- Coordinate policies between all jurisdictions to review proposed trail locations.

Safety was a main topic during community engagement with discussion about trails separated from traffic, standards for road crossings (adequate sight distance and lighting), maintenance including regular sweeping and snow removal, and safe trails for all demographics.

Gallatin County Growth Policy (2021)

The 2021 Gallatin County Growth Policy Update, *Envision Gallatin*[iv], serves as the county's overarching land use policy document, replacing the previous Growth Policy completed in 2003. The growth policy is intended to guide other plans and regulations such as neighborhood plans, zoning districts, and subdivision regulations. The policy also provides a vision, goals, and policy statements to guide identification, evaluation, and mitigation of impacts resulting from new development as the county grows. Goals, policies and values relevant to the Gallatin County SS4A initiative include the following:

- Transportation Goal 1: Plan for a safe and efficient transportation system.
- Value land use and development patterns that ensure and prioritize public safety.
- Multi-modal transportation facilities, including pedestrian and bicycle safety measures.
- Encourage developers to document general safety measures.
- Explore the use of roundabouts to improve safety and efficiency at appropriate intersections.

Triangle Community Plan (2020)

The *Triangle Community Plan*[v] was developed by the PCC to coordinate land use development patterns, deliver community services and infrastructure, and protect important environmental resources in the triangle area in a manner that supports community values and vision while responding to rapid growth pressures.

The goals and policies in the community plan encourage future transportation planning and infrastructure that will support the existing transportation plans of Belgrade, Bozeman and Gallatin County. The plan envisions well-planned transportation systems, consistent with the overall growth management vision, which supports the development of multimodal and public transportation networks. The plan recognizes that maintaining a connected grid system of roadways is an important goal for delivering essential services, expanding infrastructure, and managing increasing traffic volumes. The plan also prioritizes the development of a non-motorized transportation system with three levels: neighborhood trails, connector trails, and commuter pathways. The following goals related to transportation in the triangle area have been identified:

- Provide an efficient transportation system for all users and modes.
- Promote and develop design standards that ensure the safety of all road users.
- Provide for improved connectivity.

- Support and improve opportunities for trail development and active transportation infrastructure for a variety of uses and users, from avid cyclists to pedestrians, and from children to the elderly.
- Support public transportation systems in the triangle to reduce traffic congestion, contribute to community sustainability goals, and support affordability.

City Planning Efforts

The 2017 *Belgrade Long Range Transportation Plan*[vi] covers the entire Belgrade urban boundary limits as well as a small portion of the Bozeman urban boundary. The 2017 *Bozeman Transportation Master Plan*[vii] includes the entire Bozeman urban boundary as well as areas that may be annexed by the city in the next 20 years. Both plans address existing and future traffic and safety conditions in the cities. These plans will be referenced for any relevant projects occurring within the Gallatin County SS4A analysis boundary but are generally considered to be outside the scope of this effort.

2. Crash Record Overview

For this effort, the MDT Traffic and Safety Engineering Bureau provided crash data for the 5-year period from January 1, 2019, to December 31, 2023. The data included all crashes that occurred within Gallatin County but outside the city limits of Bozeman and Belgrade. This information includes data from crash reports submitted by Montana Highway Patrol (MHP) officers and local city, county, and federal law enforcement officials. The crash reports are a summation of information from the scene of the crash provided by the responding officer. Some of the information contained in the crash reports may be subjective.

Crash records were analyzed to determine contributing factors, high-risk areas, and behavioral characteristics. User behavior, such as the use of proper safety equipment (i.e., seatbelts or helmets), impairment, and adherence to traffic laws, is analyzed only when a crash is reported. There are likely many other instances in which these and other improper behaviors occur without resulting in a reported crash. The purpose of this analysis is only to analyze the circumstances of reported crashes to identify trends and contributing factors so that the county, in coordination with local stakeholders, can address these issues and improve safety on the community's roadways.

2.1. Data Challenges and Limitations

Although historic crash data can help identify trends in behavioral and circumstantial contributors to crashes within Gallatin County, there are several challenges and limitations that should be acknowledged and considered when drawing conclusions from the data.

- **Underreported Data:** Many crashes, especially those where individuals and vehicles are unharmed, do not get reported to the police. Underreporting can limit the ability to properly and effectively manage road safety, since crash analyses can only be based on reported crash data. Similarly, near-miss occurrences often are not reported due to lack of property damage or injury. Although near-misses do not result in a reportable crash, these experiences can indicate significant safety issues that should be proactively addressed so a crash does not occur in the future.
- **Unknown Data:** For many crash records, various fields are left blank by the reporting officer. Occasionally, a report will have "unknown" listed rather than a blank field. Without this information, it may be difficult to capture a complete understanding of what happened before, during, and after a crash.
- **Inconsistent Data:** Inconsistencies in reporting, either by the reporting officer or by the individual entering data into the MHP or state database, can also lead to misrepresentation of crash details. Although protocols have been established and training for completing crash reports is provided to law enforcement, there may still be inconsistencies or errors in the reporting.
- **Abbreviated Data:** Often times the abbreviated crash data provided by MDT does not provide a full account of the crash circumstances. Without reading the detailed crash reports by the investigating officer which contain narratives of the crash occurrence, statements from the individuals involved and witnesses, crash diagrams, citations, and officer opinions as to cause of the collision, a clear picture of the crash may be unattainable.

In addition to the standard challenges and limitations associated with crash data analysis, this report also acknowledges potential discrepancies and inconsistencies arising from the simplified crash records provided by MDT. Slight differences in reported crash volumes may be due to crashes that occur on public versus private property (since crashes on private property are not reported by MDT). Additionally, MDT shared that substantial staffing turnover occurred during the 5-year analysis period, which resulted in a significant loss of knowledge among data entry staff. Furthermore, all crash records received from local jurisdictions around the state are entered manually into MDT's crash record database. With a volume of over 10,000 crashes per year paired with staffing turnover, the risk of data loss or inconsistencies is high.

3. Crash Characteristics

MDT's crash records included a total of 6,739 crashes reported within Gallatin County but outside the city limits of Bozeman and Belgrade over the 5-year analysis period. The following sections summarize crash details and other characteristics associated with these crashes that occurred over the analysis period. The characteristics summarized in this section were evaluated as reported by the responding officer, and no efforts have been made to correct inconsistencies or fill in missing fields.

3.1. Severity

Crash severity is categorized based on the most severe injury resulting from the crash. For example, if a crash results in a possible injury and a suspected serious injury, the crash is reported as a suspected serious injury crash. A suspected serious injury is defined as an observed injury, other than a fatality, which would prevent the injured individual from walking, driving, or normally continuing the activities they were capable of performing before the injury. The term "suspected" references an officer's observation at the time of the crash without follow-up confirmation of the nature of the person's injury. The term "severe injuries" is used to refer to the combined total of fatal and suspected serious injuries.

During the 5-year analysis period, a total of 6,739 crashes occurred involving 13,116 individuals. As shown in **Figure 3.1**, about 20 percent of those crashes resulted in some level of injury, and less than 3 percent were severe. There were 33 fatal crashes, resulting in 38 total fatalities, and 168 suspected serious injury crashes, with 192 total suspected serious injuries. A total of 1,806 of the 13,116 individuals involved in crashes, about 14 percent, were injured to some degree (suspected minor or possible injury) as a result of a crash. Approximately 80 percent of crashes were reported as causing property damage only (PDO) or as unknown severity.

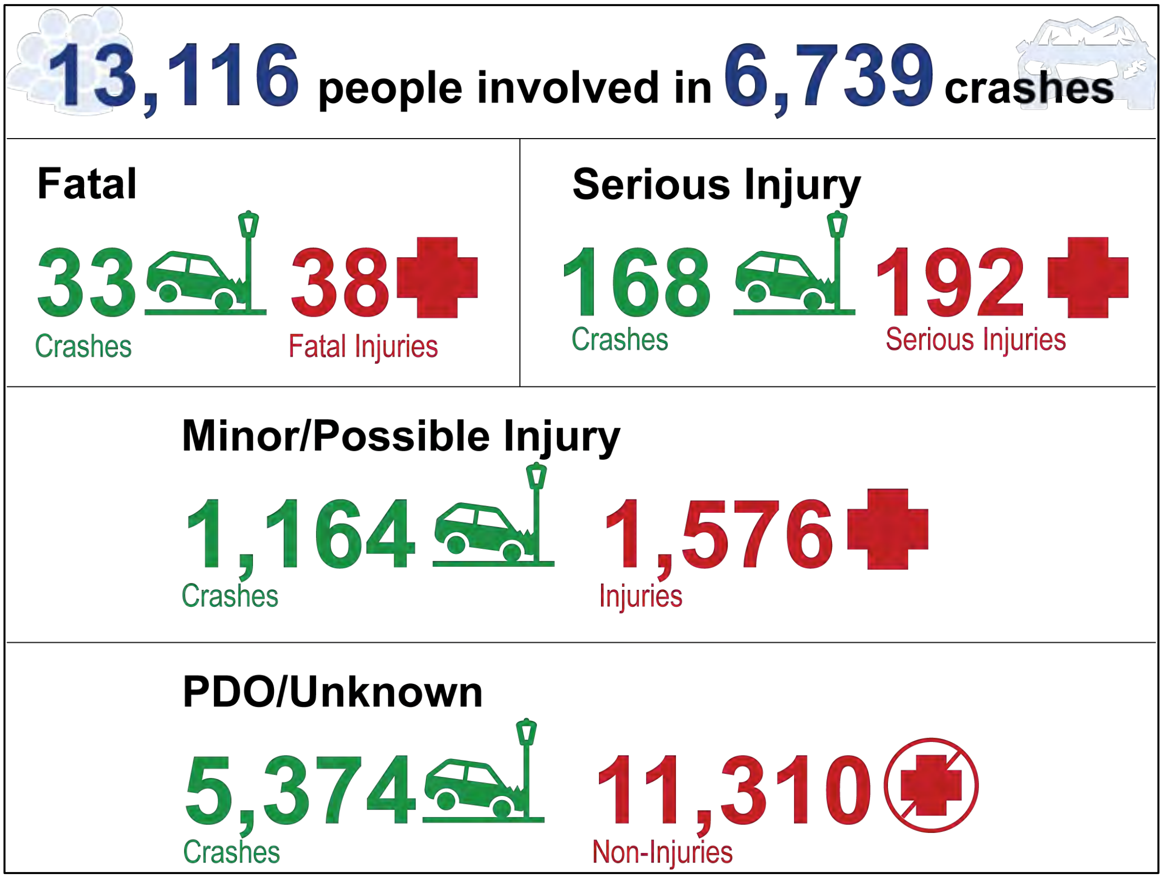


Figure 3.1: Crash Severity

3.2. Crash Period

Crash data were evaluated based on the period of time when the crash occurred, as summarized in the following sections. This analysis helps identify temporal trends such as day of the week, month, or hour of the day as well as providing a comparison year over year.

Crash Year

The number of total and severe injury crashes reported per year by MDT is presented in **Figure 3.2**. The crash records indicate a dip in total crashes between 2019 and 2020, with an increase back to 2019 levels over 2021 and 2022. The drastic decrease in crashes in 2020 is likely attributed to decreased driving activity during the COVID-19 pandemic. The number of reported crashes returned to 2020 levels in 2023. The number of fatal crashes steadily increased over the 5-year period, with a small decrease in 2022. Meanwhile, serious injury crashes rose from 2019 to 2021, then decreased from 2021 to 2023.

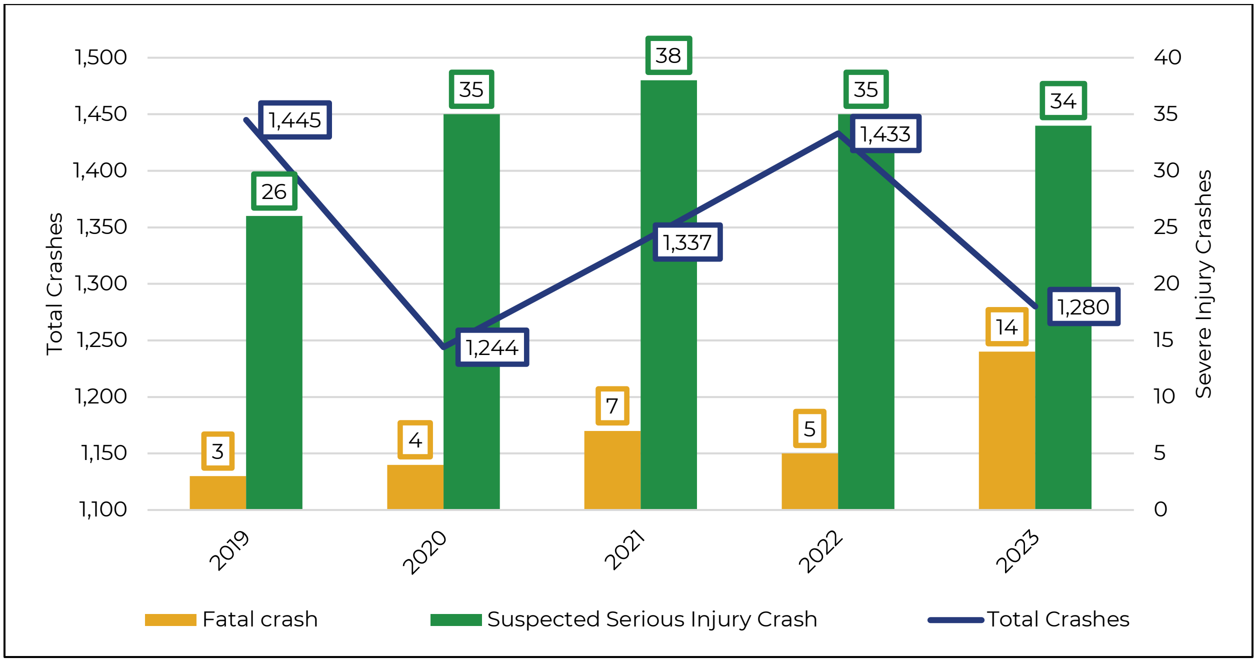


Figure 3.2: Crashes by Year

Day of the Week

The distribution of crashes based on the day of the week on which the crash occurred is presented in **Figure 3.3**. When evaluating all crashes, a higher number of crashes occurred on weekdays (75 percent) compared to weekends with the most crashes occurring on Friday. This suggests a possible trend with regular commuting patterns and generally higher traffic exposure on weekdays. However, severe crashes occurred more often on weekends.

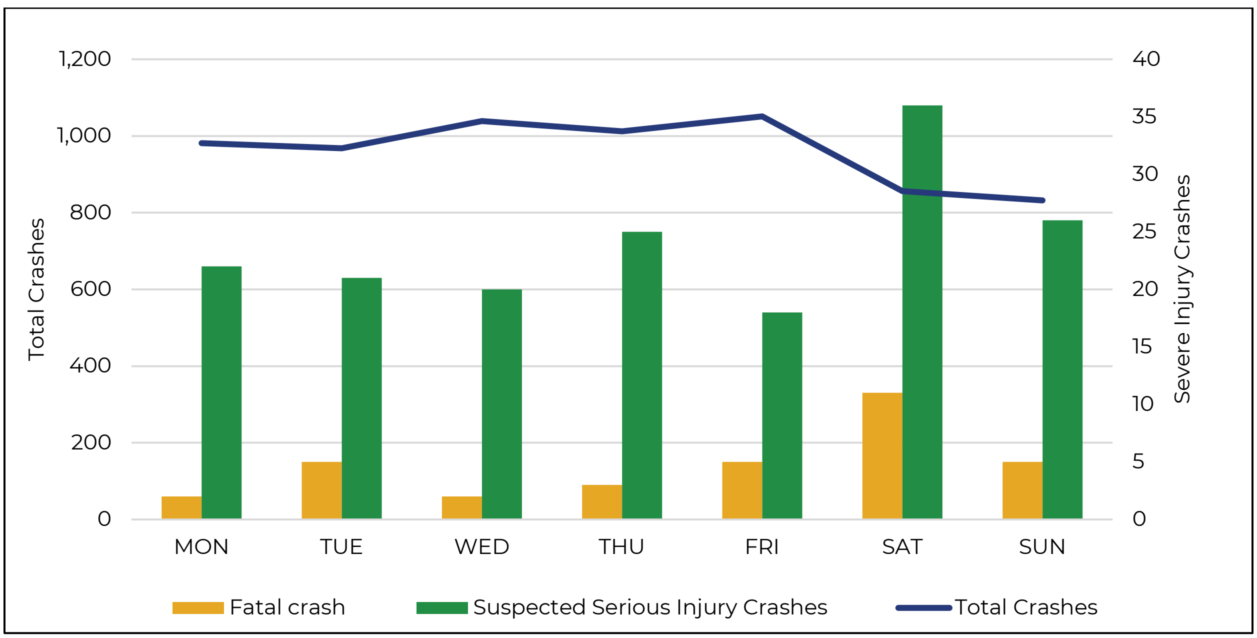


Figure 3.3: Crashes by Day of the Week

Crash Month

Figure 3.4 shows the distribution of reported crashes based on the month of the year in which the crash occurred. Approximately 27 percent of crashes occurred in the fall months (September through November), while 31 percent occurred in the winter months (December through February). Although crashes were lowest in the spring and summer, more severe crashes occurred in fall (30 percent) and summer (30 percent) over the 5 years. The highest number of total crashes was recorded in December, possibly due to winter weather conditions, while the highest number of severe crashes was recorded in September.

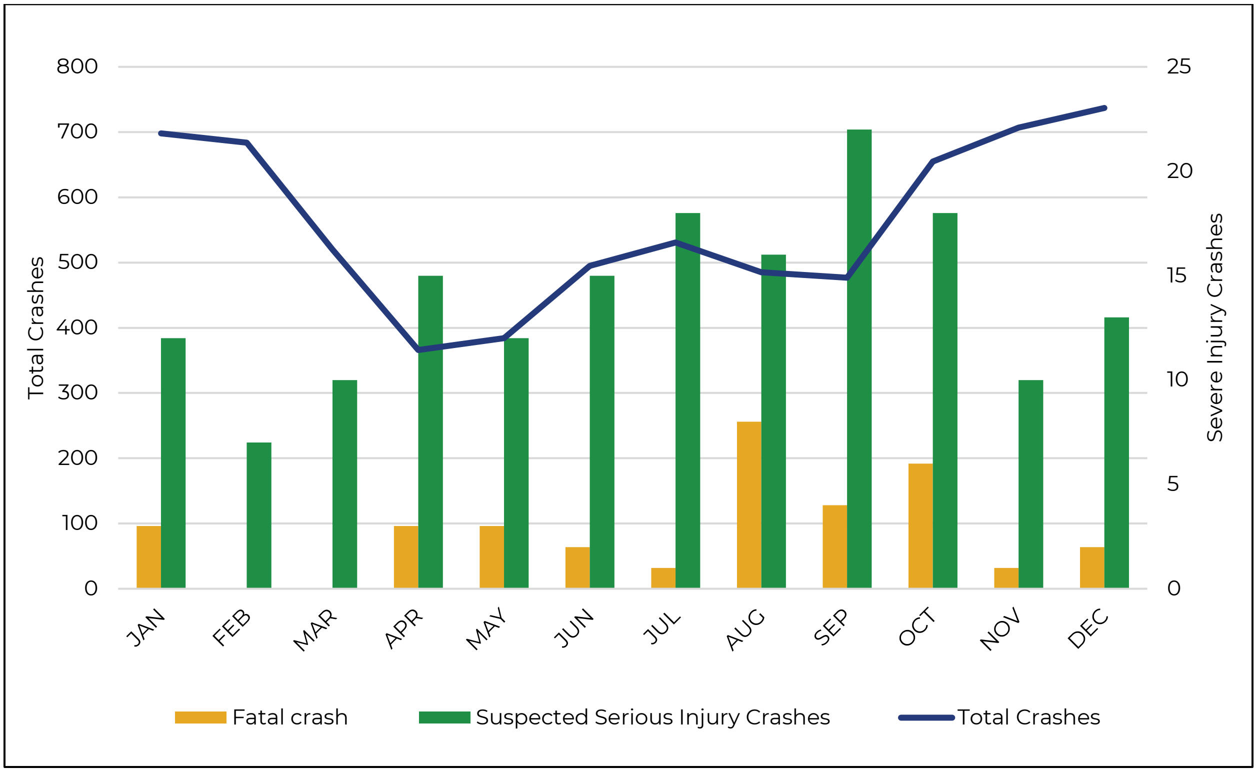


Figure 3.4: Crashes by Month

Time of Day

The time-of-day distribution for crashes is presented in **Figure 3.5**. Prominent peaks can be seen at two points throughout the day, with one around 8:00 AM, and the other at 5:00 PM, with the second peak being higher than the first. Severe crashes generally follow the same pattern with a more distinct peak occurring between 3:00 PM and 6:00 PM. These timeframes likely correspond to morning and evening commutes, and school start and release times when traffic volumes are typically higher, and roadways are generally more congested. Crashes that occur during the evening, late night, and early morning hours (between 7:00 pm and 7:00 am) make up about 25 percent of all reported crashes. However, these time periods are disproportionately represented in severe crashes, accounting for 34 percent of all severe incidents.

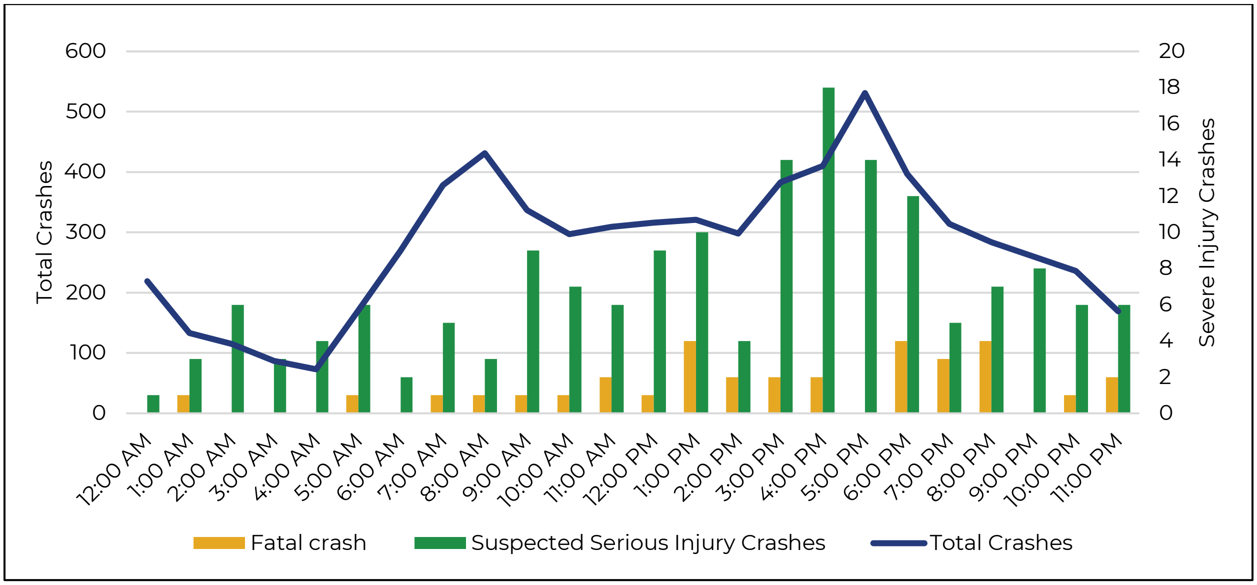


Figure 3.5: Crashes by Hour

3.3. Location

Evaluating crash location can help identify concentrations or area characteristics corresponding to a higher risk of occurrence. **Figure 3.7** on the following page shows the density of crashes across Gallatin County as well as the location of severe crashes within the study area. This map shows higher concentrations of crashes in the area just west of Bozeman city limits, in Four Corners where US 191 intersects with MT 84 and MT 85, as well as on I-90 just south of Belgrade city limits. These areas have higher traffic volumes and are typically more congested than other areas of the county, leading to greater traffic exposure and a higher risk of conflicts. Similarly, 42 percent of severe crashes occurred on I-90 or US 191, which carry the highest traffic volumes and have the highest speed limits contributing to both a higher risk of conflicts as well as a higher risk of injury when a crash occurs.

Intersection Relation

As shown in **Figure 3.6**, approximately 13 percent of all crashes occurred at an intersection and an additional 9 percent of crashes were related to an intersection (i.e., rear-end crashes related to congestion at an intersection). About 4 percent of crashes occurred at a driveway or other access type, while 73 percent occurred at a non-junction location.

In terms of severity, 76 percent of severe crashes occurred at non-junction locations. The distribution of total versus severe crashes occurring at non-junctions is very similar. This indicates that intersections do not appear to significantly influence the occurrence of crashes within the study area.

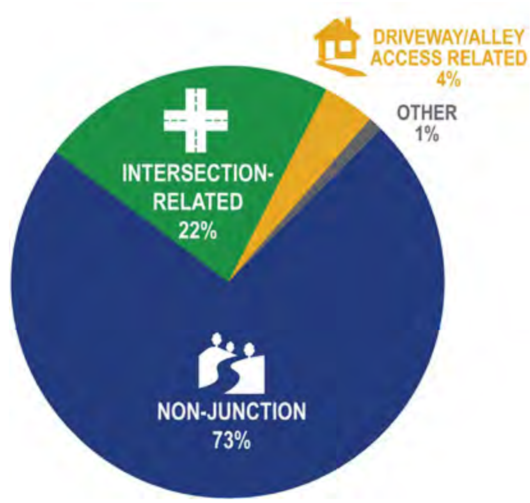


Figure 3.6: Intersection Relation

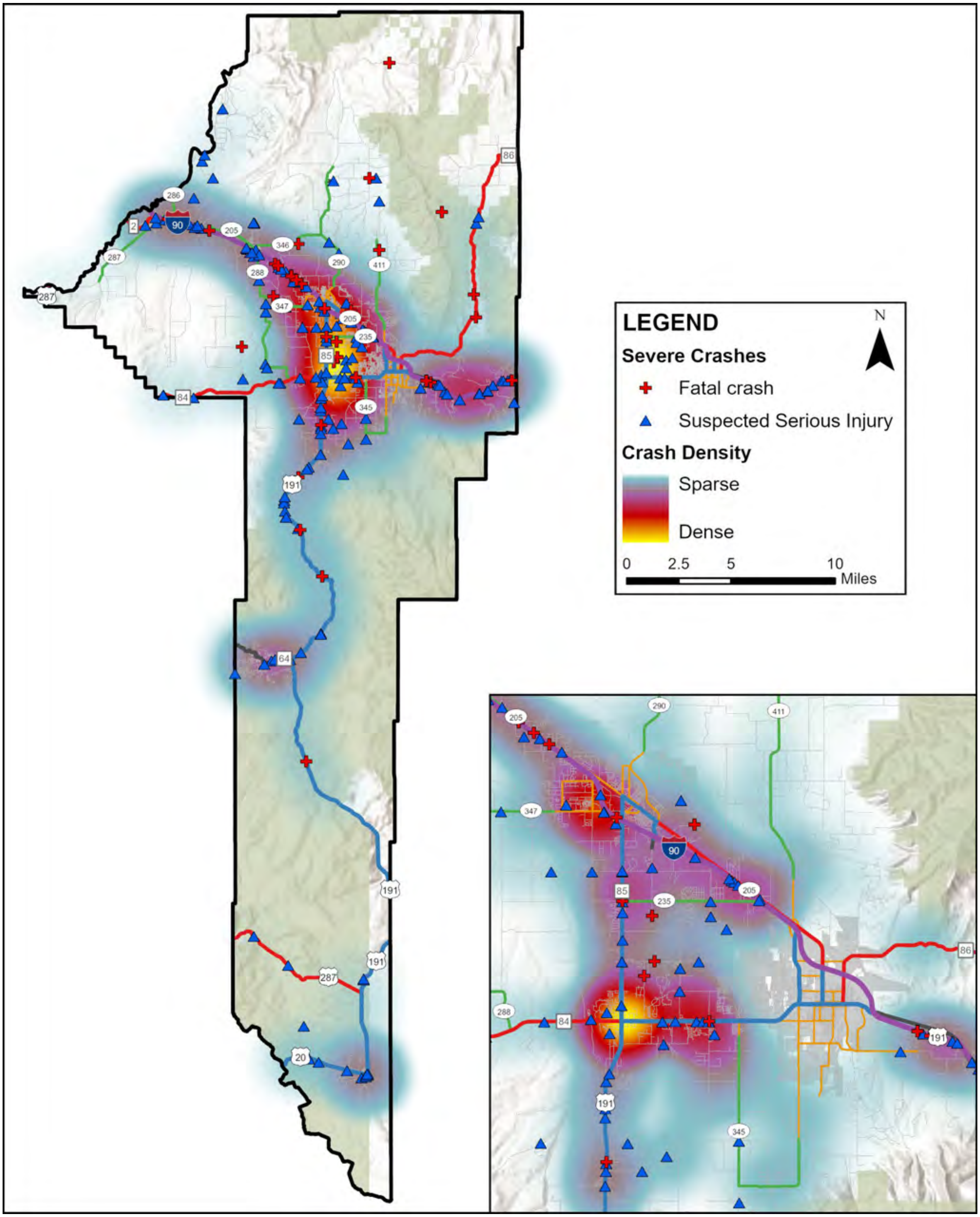


Figure 3.7: Crash Density and Severity

3.4. Crash Type

Crashes can be categorized as either single-vehicle or multi-vehicle crashes. Multi-vehicle crashes accounted for 41 percent of all reported crashes with a total of 2,749 crashes. The most common multi-vehicle crashes were rear-end (14 percent), right-angle (9 percent), and sideswipe crashes (7 percent). Single-vehicle crashes represented 59 percent of crashes with 3,990 total crashes. Fixed-object crashes were the most common single-vehicle crash type, accounting for 47 percent of those crashes, and 28 percent of crashes overall. Fixed objects involved in crashes included utility poles/sign supports, guardrails and bridge rails, curbs, ditches, trees, and fences. Rollover crashes were the next most frequent, comprising 24 percent of single-vehicle incidents, while collisions with wild animals accounted for 21 percent. **Figure 3.8** presents the distribution of both multiple-vehicle and single-vehicle crashes within the study area.

Rollovers accounted for the most severe crashes, making up 35 percent of all severe crashes. Although fixed-object crashes made up the highest percentage of all crashes (28 percent), they were responsible for only 15 percent of severe crashes. Rear-end collisions contributed to 12 percent of severe crashes while right-angle collisions made up 9 percent. It is also notable that 27 percent of pedestrian and bicycle crashes were severe.

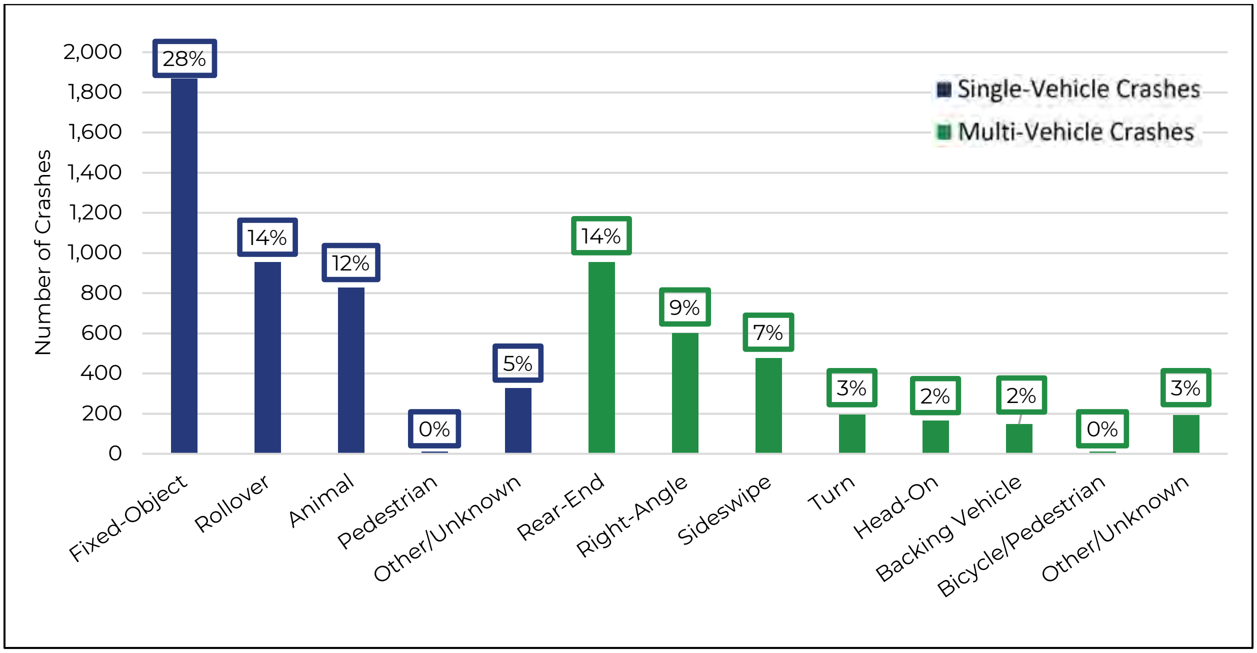


Figure 3.8: Crash Type

Vulnerable Road User Crashes

Of the 6,739 crashes that occurred during the 5-year analysis period, just under 0.5 percent involved vulnerable road users. A total of 11 bicycle and 13 pedestrian related crashes occurred within the analysis period. Nine of the crashes involved severe injuries. Of all the people involved in crashes, 36 or about 0.25 percent were categorized as non-motorists. Interestingly, many of the non-motorists were reportedly involved in other crash types (besides pedestrian or bicycle involved crashes) such as railway vehicle, rear-end, and fixed-object crashes. This indicates that a non-motorist may have been the cause of a crash but not directly involved in the collision. For example, a rear-end crash may occur when a vehicle stops for a pedestrian in a crosswalk, but the following vehicle does not see the pedestrian and does not expect the vehicle in front to stop. Similarly, a fixed-object collision could occur if a vehicle swerves around a non-motorist into a fixed object such as a ditch or parked car.

3.5. Road Characteristics

At the location of a crash, the data point is matched spatially to the roadway on which the crash occurred and select characteristics of the route are drawn from various MDT databases and tied to each crash record. A summary of the route characteristics for each crash is provided in the following sections.

Route Ownership

Figure 3.9 summarizes the owner of the roadway on which the crashes occurred. Understanding route ownership can help identify jurisdictions that are responsible for the maintenance and improvement of the route. Approximately 59 percent of crashes occurred on routes owned and maintained by MDT, with Gallatin County as the next most common owner at 23 percent. City-owned routes accounted for 11 percent of crashes, while federally-owned routes (i.e., Forest Service or National Park Service) contributed 3 percent, making up the remaining incidents. Where a crash occurs at the intersection of state and local routes, such as Jackrabbit Lane/Cameron Bridge Road, the crash location could be coded as a crash on either a locally owned street or an MDT route depending on the officer's report. Of the severe crashes, 66 percent occurred on MDT routes, while 31 percent occurred on locally owned routes. These findings point out the importance of interagency coordination since it is not just a single agency that is responsible for the roadways where crashes occur.

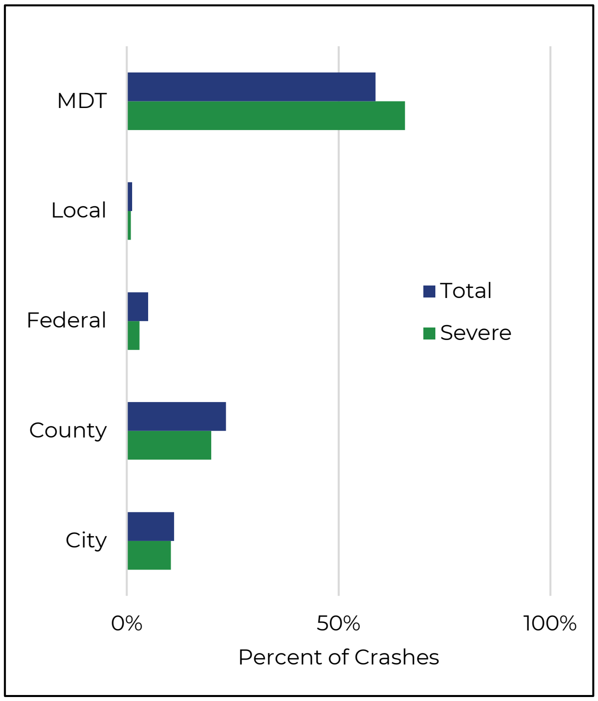


Figure 3.9: Route Owner

Functional Classification

The transportation system is made up of a hierarchy of roadways classified by parameters such as traffic volumes, speed, geometric configuration, spacing in the community's transportation grid, and adjacent land uses. The method by which these roles are defined is widely known as functional classification, which designates roadways as interstates, principal arterials, minor arterials, collector streets, and local streets.

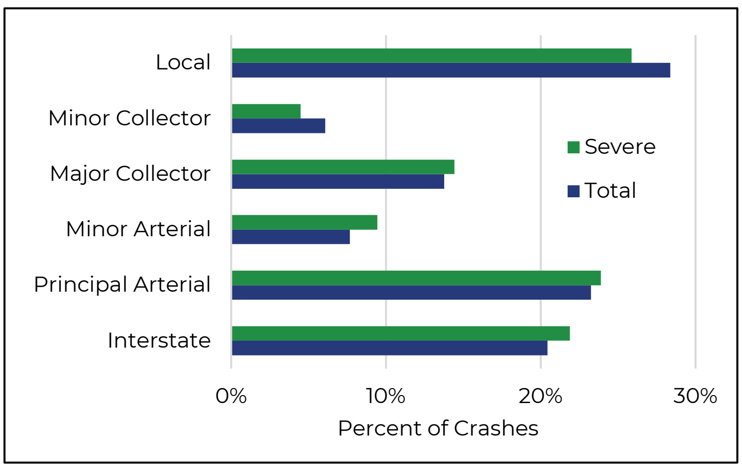


Figure 3.10: Roadway Functional Classification

The total and severe crashes for each classification are shown in **Figure 3.10**. The majority of crashes occurred on local streets (28 percent), principal arterials (23 percent), and interstate highways (20 percent). Local roads, including Madison Avenue and Thorpe Road, had the highest proportion of severe crashes at 26 percent. Principal arterials (Huffine Lane, Jackrabbit Lane, and US 191) accounted for 24 percent of severe crashes, while interstates (I-90) contributed 22 percent. Although local roads make up a higher percentage of severe crashes, crashes on routes with higher functional classifications are more likely to be severe, likely due to higher speeds and the presence of more traffic.

Traffic Volumes

Traffic volumes for the roadway on which a crash occurred can point to the level of exposure to vehicle traffic. Higher traffic volumes typically indicate a heightened risk of conflict and therefore a higher frequency of crashes. **Figure 3.11** shows a heat map of crashes overlaid with Annual Average Daily Traffic (AADT) counts for 2023. These counts are collected by MDT for primary routes across the state and represent the average number of vehicles traveling a certain route on an average day. As shown in the figure, the highest crash densities occur on higher volume roadways, such as I-90, US 191, and Jackrabbit Lane. Notably, despite higher traffic volumes, US 191 through the Gallatin Canyon has a lower crash density. In contrast, the intersection of US 191 and Jackrabbit Lane stands out with a higher concentration of crashes, suggesting that this specific intersection may have high-risk characteristics contributing to a disproportionate number of incidents compared to other sections of US 191.

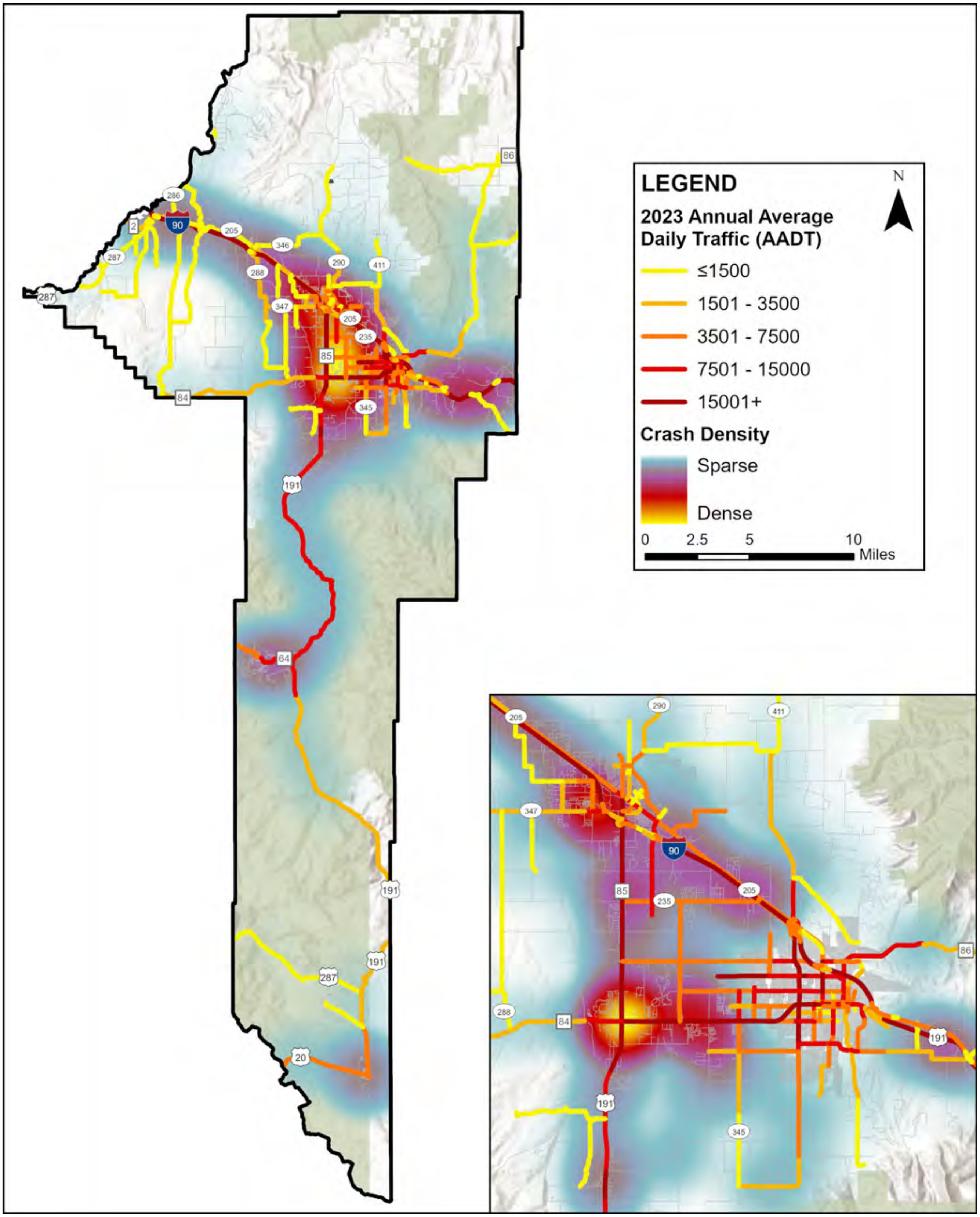


Figure 3.11: Crash Density vs. Roadway Volume

Speed Limit

The speed limit of the roadway on which crashes occurred is provided in the MDT crash data. While the posted speed limit doesn't necessarily indicate the speed at which a vehicle was traveling at the time of the crash, it is generally a good indication. **Figure 3.12** shows the total and severe crashes for various speed limits. Approximately 15 percent of crashes occurred on roadways with a posted speed limit of 25 miles per hour (mph) or less, which is typical for local, neighborhood streets. Around 27 percent of crashes took place on roads with speed limits between 30 and 45 mph, common for collector roads, while about 28 percent occurred on principal arterials or highways with speed limits ranging from 50 to 65 mph. The highest percentage, 29 percent, involved crashes on highways or interstates with speed limits of 70 mph or above.

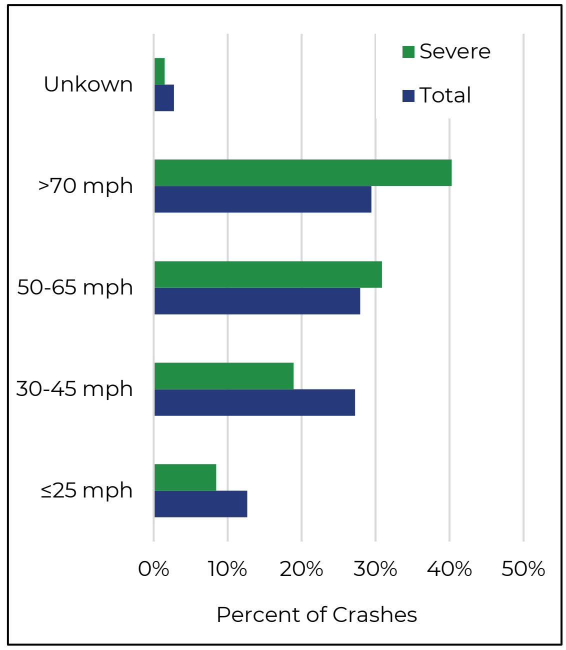


Figure 3.12: Speed Limit

As shown in the figure, crashes occurring at 70 mph or more were much more likely to be severe than crashes occurring at any other speed. Crashes on roads with a speed limit of 70 mph or above were found to be more than twice as likely to result in a serious injury compared to crashes on roads with a speed limit of 25 mph or below. This draws attention to the dangers of high-speed crashes.

3.6. Other Factors

In addition to characteristics described in previous sections, other factors contribute to the occurrence and severity of a crash. These factors may include weather conditions, road surface conditions, lighting conditions, or the type of vehicle involved in the crash. The following sections summarize these circumstances for crashes over the 5-year analysis period.

Environmental Conditions

Figure 3.13 illustrates the percentages of crashes that occurred under various weather, road surface, and lighting conditions over the 5-year crash period. The majority of crashes occurred when the weather was clear (46 percent) or cloudy (33 percent). Approximately 16 percent of crashes occurred when it was snowing, and 3 percent occurred when it was raining. Severe crashes were most likely to occur on clear roads, with 54 percent happening under clear conditions. In contrast, they were less likely to happen in adverse weather, with only 8 percent occurring in snow and 3 percent in rain.

Although the majority of crashes occurred when the road surface was dry (56 percent), about 41 percent occurred under adverse road conditions. About 13 percent of crashes occurred on snow-covered roads, 22 percent on ice, or frost-covered roads, and 6 percent on wet roads. Of the severe crashes, 73 percent occurred on clear roads, while only 24 percent took place on wet, snowy, or ice- and frost-covered roads. Crashes occurring under adverse road or weather conditions could indicate a lack of maintenance of roadway facilities or a lack of skill, experience, or care driving in adverse conditions, however, this finding is inconclusive.

Overall, 62 percent of crashes in Gallatin County occurred during daylight conditions. About 34 percent of crashes occurred when it was dark outside, with about 85 percent of those crashes occurring in locations where street lighting was not present. The remaining 5 percent of crashes occurred at dusk or dawn. Of the severe crashes, 64 percent occurred under daylight conditions. Dark lighting conditions accounted for 28 percent of severe crashes, with 24 percent occurring on unlit roads and 4 percent on lighted roads.

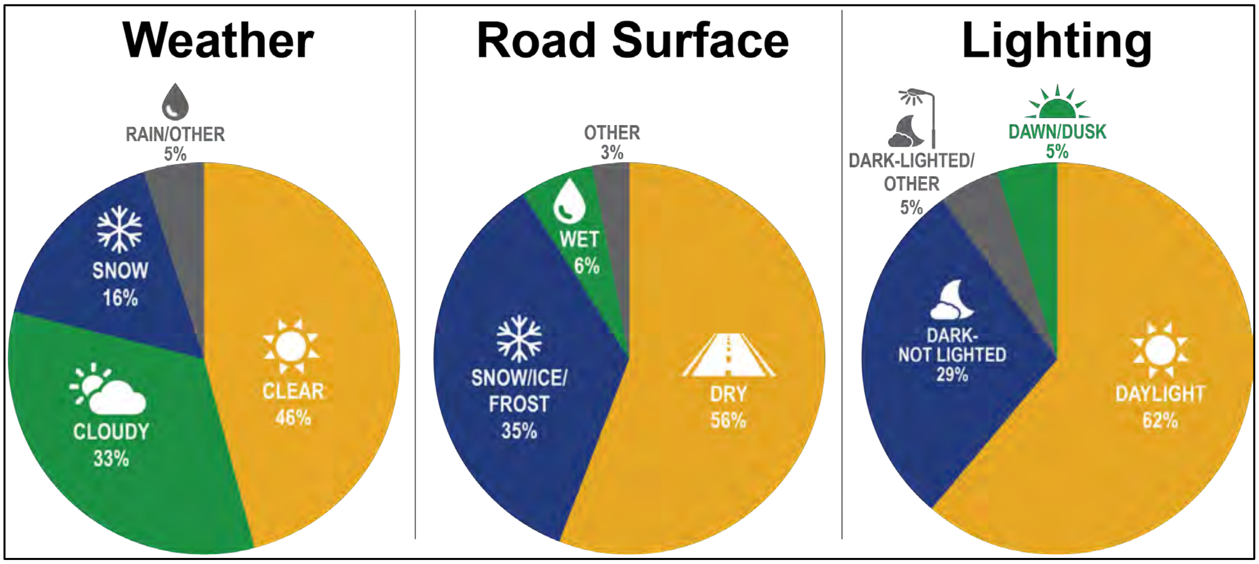


Figure 3.13: Weather, Road, and Lighting Conditions

Vehicle Type

When a crash is reported, the responding officer typically documents details about the types of vehicles involved in each crash. In total, 9,726 vehicles were involved in the 6,739 crashes within the study area over the 5-year analysis period, accounting for multiple vehicles involved in a single crash. **Figure 3.14** shows the total and severe crashes for different vehicle types. The majority of reported vehicles involved in crashes (89 percent) were passenger vehicles, including cars, vans, pickups, and SUVs. Medium and heavy trucks made up 6 percent of vehicles involved in crashes, and motorcycles/mopeds accounted for 1 percent over the 5-year period. Additionally, buses, motor homes, ATVs, snowmobiles, snowplows, cargo vans, and low speed vehicles (bikes) each made up less than 1 percent of vehicles involved in crashes. Approximately 1 percent of vehicles were classified as unknown and 0.25 percent were classified as “other” which may include farm equipment or heavy machinery.

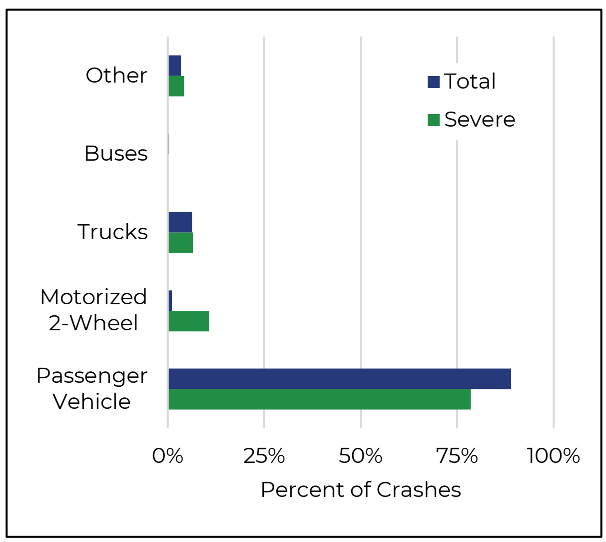


Figure 3.14: Vehicle Type

Of the 307 vehicles involved in severe crashes in the study area, the majority were passenger vehicles, comprising 79 percent. Although motorized two-wheeled vehicles represented only 1 percent of vehicles involved, they accounted for 11 percent of severe crashes. Crashes in the study area involving motorcycles or mopeds were found to be more than 8 times more likely to result in serious injuries or fatalities than any other vehicle type. Trucks accounted for 7 percent of vehicles involved in severe crashes, while the final 4 percent included ATVs, snowmobiles, motorhomes, and cargo vans. Notably, no buses were involved in severe crashes.

Driver Condition

Driver conditions at the time of the crash can point to driver behavior issues that may need to be addressed. The crash records indicate whether each crash involved fatigued, distracted, and/or impaired drivers. These behaviors are determined and reported based upon the reporting officer's assessment or driver admission. The crash records indicate that 0.8 percent of drivers were fatigued at the time of the crash and approximately 4.4 percent of drivers were distracted at the time of the crash. Distractions can include cell phones, passengers, GPS units, stereos or radios, eating and drinking, distractions outside the vehicle, and anything else that takes the driver's attention away from the task of safe driving. Distractions are typically only recorded when officers can conclusively determine that the driver was distracted, including by driver admission.

Impaired driving is defined as operating a vehicle while under the influence of drugs or alcohol. In Montana, driving under the influence is when the driver's blood alcohol concentration (BAC) is 0.08 percent or higher, as indicated by grams (g) of alcohol per 100 milliliters (ml) of blood or grams of alcohol per 210 liters of breath. Impairment of marijuana in Montana is defined as exceeding a 5 nanogram (ng)/ml threshold for tetrahydrocannabinol (THC) in blood for anyone operating a motor vehicle. In the study area, approximately 12 percent of all crashes involved an impaired driver, compared to 42 percent of severe crashes. Within the study area, crashes with impaired drivers were over five times more likely to be severe.

Contributing Circumstances

Responding officers can indicate whether there was a road or environmental circumstance that contributed to the crash occurring. Up to 3 contributing environmental and 3 contributing road condition factors can be listed for each crash. In the majority of cases, contributing circumstances are not reported by local enforcement officers, however, when reported can indicate whether the crash was due to driver error or a circumstance outside the driver's control. Over the 5-year analysis period, contributing environmental circumstances were only included in about 22 percent of crash reports, while contributing road condition circumstances were noted 36 percent of the time; in all other crashes, these fields were left blank or recorded as "none". Blank fields may or may not indicate that weather or road conditions were a contributing factor to crashes.

In terms of environmental circumstances, weather conditions were a contributing factor in 7 percent of crashes while animals in the roadway or physical obstructions were noted as factors in 14 percent of crashes. Glare was noted as a factor in less than 1 percent of crashes. In terms of roadway circumstances, road surface conditions, such as wet, icy, or snow-covered surfaces, were a factor in 34 percent of crashes. Debris and obstructions in the roadway were listed as a contributing circumstance in 1 percent of crashes. Uneven road surfaces, poor shoulders, work zones, and missing or inoperative traffic control devices were each recorded as contributing circumstances in less than 1 percent of crashes.

Contributing Actions

Up to 4 driver contributing actions can be reported for each driver involved in a crash. These are actions that occurred which led to the occurrence of a crash. When the driver had no contributing action, or the drivers actions were unknown, all fields are left blank or "no contributing action" is listed in 1 or more fields. When calculating the top contributing actions by drivers, the sum of the occurrences of each contributing action in all 4 fields was divided by the total number of reported records in the first field. When reporting the number of unreported contributing actions, the number of blank records in the first field was divided by the total number of driver records. Since a driver can have up to 4 contributing actions, the percentages do not add up to 100 percent. **Figure 3.15** shows the top contributing factors in crashes within the 5-year analysis period.

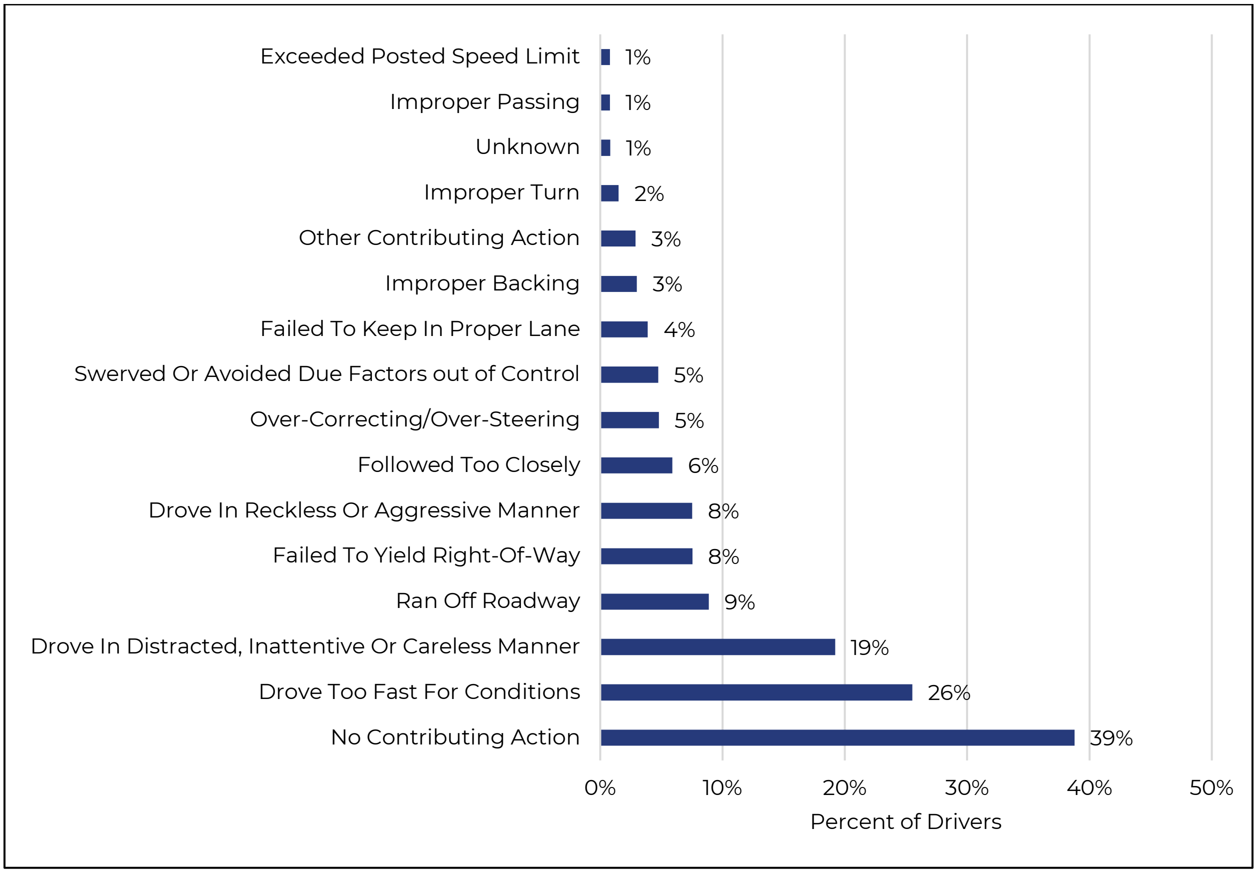


Figure 3.15: Driver Contributing Actions

The most common contributing action was driving too fast for conditions, accounting for 26 percent of drivers. This does not necessarily indicate the driver was speeding, rather it could mean the driver was driving too fast for the road conditions, such as snow-covered roads, work zones, or congestion. Driving in a distracted, inattentive or careless manner was the second most common contributing factor at about 19 percent. Running off the roadway, failing to yield, and driving in a reckless or aggressive manner each accounted for 8 to 9 percent of crashes. About 39 percent of drivers were found to have no contributing action in the crash. Running a stop sign or red light, disregarding other road markings, improper parking, disregarding other traffic signals, driving the wrong way, failing to use proper signals, and driver license restrictions each accounted for less than half a percent of crashes.

4. Demographics

An important component of the crash data analysis includes consideration of demographics in terms of both the demographics of the individuals involved in crashes as well as the demographic characteristics of Gallatin County as a whole. This analysis helps identify disparities of people involved in crashes as well as potential disadvantaged populations that may be disproportionately affected by crashes or at a higher risk of involvement in crashes due to economic or social circumstances. The following sections include an analysis of demographic details provided in crash data as well as an analysis of demographics data sourced through the US Census Bureau.

4.1. Demographics of Individuals Involved in Crashes

Understanding the characteristics of individuals involved in crashes may help identify populations for educational campaign focus or identify groups chronically involved in crashes that may need special consideration during project design. The following sections discuss the available person demographics reported in the crash data. Race and ethnicity information is not provided in the crash data.

Gender

Overall, about 37 percent of individuals involved in crashes were female including 33 percent of drivers. Males accounted for 62 percent of all individuals involved in crashes, including 67 percent of drivers. For approximately 1 percent of people involved in crashes, the gender type was listed as unknown. Male drivers accounted for 69 percent of severe crashes while female drivers made up the remaining 33 percent.

Age

The age distribution for drivers involved in crashes generally follows a typical bell curve, but skews slightly older, as shown in **Figure 4.1.** The highest proportion of drivers involved in crashes were in the 22- to 35-year age range. In general, all the age groups had about two times more males than females. About 1 percent of drivers were aged 16 years and younger. The legal driving age in Montana is 14.5, and 10 drivers involved in crashes were under that age. Approximately 8 percent of drivers involved in crashes were over the age of 65, and less than 1 percent of drivers were over the age of 80.

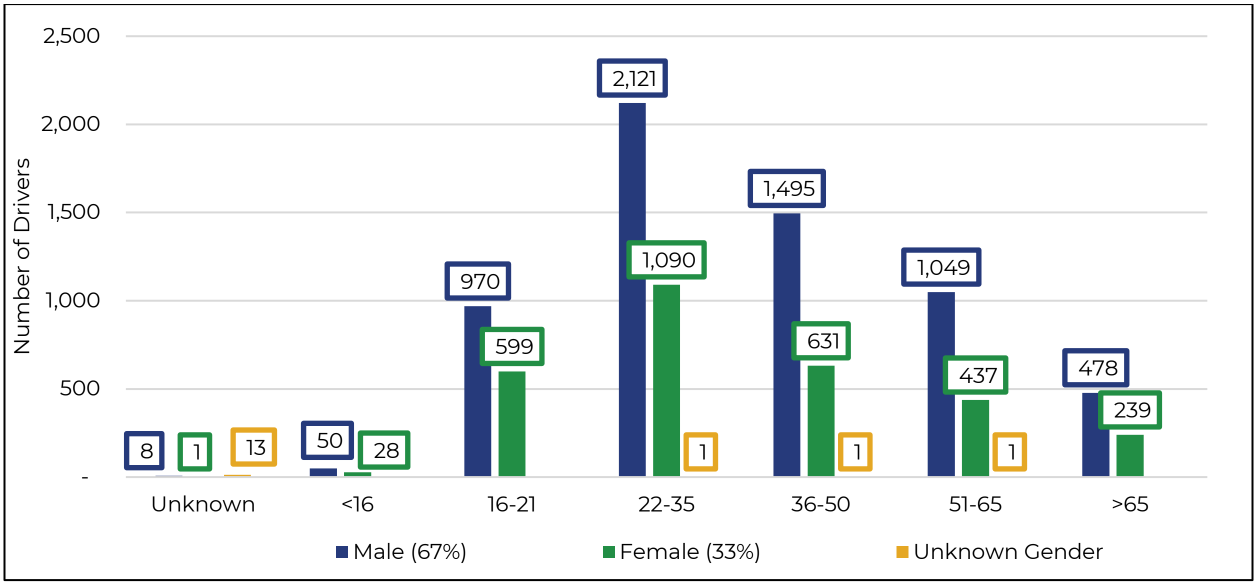


Figure 4.1: Driver Demographics

Driver's License State

Although not specifically a demographic characteristic, the state in which a driver's license is registered can generally indicate whether a driver is a visitor or resident. The driver's license state was listed for about 98 percent of drivers involved in crashes. Of those reported, 72 percent of driver's licenses, or 6,551, were from the State of Montana. Drivers with licenses from California (262), Washington (217), Idaho (205), and Colorado (142) made up the next highest shares of drivers involved in crashes within Gallatin County over the 5-year period. Of the out-of-state drivers, 73 percent were between the ages of 18 and 27, likely representing college students in the area. Non-residents may struggle with driving in winter weather conditions due to unfamiliarity with icy roads, changing weather patterns, and local driving practices. About 42 percent of drivers without a Montana license were involved in crashes when roads were icy, snowy, or slushy, in contrast to 33 percent of drivers with Montana licenses. In general, the majority of drivers involved in crashes were from Montana, though that number likely includes non-residents who live outside of Gallatin County.

4.2. Demographics of Gallatin County

Table 4.1 presents various demographic and economic characteristics as reported by the 2020 Decennial Census or 2018-2022 American Community Survey (ACS). The data are estimates based on annual samples of the population and are based on self-reported demographic and economic characteristics. The table includes data for all of Gallatin County as well as for Gallatin County excluding the cities of Bozeman and Belgrade, aligning with the study area boundary. To identify demographics in the study area, data from Gallatin County outside of the cities will be used primarily, except when comparing it to countywide data to gain a better understanding of the demographics of the entire population in the area. The table indicates that the population in Gallatin County identifies as primarily white, while about 10 percent of the population is of a minority race, with Asian and American Indian being the most prevalent. The table also shows that 4 percent of the population identifies as Hispanic or Latino.

The overall population of Gallatin County is primarily younger, with the largest age group being 21 to 34 years old. However, the population outside the cities has the highest representation in the under 21 age group and the second highest in the 35-49 age group. This suggests that there may be more families with young children in the areas outside the cities, while the cities themselves likely have a higher concentration of college students and young adults. Outside of the cities, residents under the age of 21 make up 26 percent of the population and account for 15 percent of drivers involved in crashes. People aged 65 and over make up 17 percent of the population but only 9 percent of drivers involved in crashes. These statistics indicate that older and younger drivers are not disproportionately involved in crashes in Gallatin County. Drivers aged 21 through 34 make up 36 percent of drivers involved in crashes in the study area, despite composing only 16 percent of the population. In terms of gender, females comprise 48 percent of the population while males make up 52 percent. However, 67 percent of drivers involved in crashes were male, indicating a large disparity.

In Gallatin County, about 8 percent of the population outside of the cities is reported as living with a disability. About 4 percent report an auditory/hearing difficulty, 1 percent report a vision difficulty, and 3 percent report an ambulatory/mobility difficulty. To ensure equal participation in transportation for these residents, specific accessibility measures may be needed such as accessible pedestrian signals, curb ramps, and sidewalks. Overall, about 3.4 percent of the population reportedly walks to work on a daily basis. Although less than 0.5 percent of all crashes specifically involved pedestrians or bicyclists, safe accommodations for these users is important to help promote increased use of these modes. The use of active transportation modes may be a lifestyle choice or may be a necessity due to lack of access to a vehicle, since about 1.3 percent of workers in the county outside the cities do not have a vehicle.

The majority of the Gallatin County population is employed, with about 1 percent of residents being reported as unemployed. Reported income levels in the county are generally higher than other parts of the state, however, nearly 6 percent of the population is reported as living below the poverty line. These lower-income residents may also rely on the use of active transportation modes, such as walking, biking, or public transit, which could have implications for transportation planning and safety in the area.

Table 4.1: Select Demographic Characteristics

Demographics	Gallatin County Total		Excluding Bozeman & Belgrade	
	Population	Percent	Population	Percent
Race (2020 Census)				
White Alone	105,886	89.0%	49,779	90.2%
Black or African American Alone	526	0.4%	146	0.3%
American Indian and Alaska Native Alone	1043	0.9%	305	0.6%
Asian Alone	1413	1.2%	389	0.7%
Native Hawaiian and Other Pacific Islander Alone	99	0.1%	37	0.1%
Some Other Race Alone	2184	1.8%	1,009	1.8%
Two or More Races	7809	6.6%	3,542	6.4%
Total Population (2020)	**118,960**	**100%**	**55,207**	**100%**
Ethnicity (2020 Census)				
Hispanic or Latino	5,895	5%	2,476	4%
Not Hispanic or Latino	113065	95%	52,731	96%
Total Population (2020)	**118,960**	**100%**	**55,207**	**100%**
Age (2018 – 2022 ACS)				
<21	31,137	26%	14,302	26%
21-34	31,166	26%	8,592	16%
35-49	23,363	20%	11,960	22%

Demographics	Gallatin County Total		Excluding Bozeman & Belgrade	
	Population	Percent	Population	Percent
50-64	18,437	15%	11,205	20%
65+	15,582	13%	9,185	17%
Total Population (2022)	**119,685**	**100%**	**55,244**	**100%**
Gender (2018 – 2022 ACS)				
Male	62,534	52%	28,808	52%
Female	57,151	48%	26,436	48%
Total Population (2022)	**119,685**	**100%**	**55,244**	**100%**
Disability Status (2018 – 2022 ACS)				
Hearing Difficulty	4110	3.4%	2,216	4.0%
Vision Difficulty	1635	1.4%	593	1.1%
Cognitive Difficulty	4580	3.8%	1,728	3.1%
Ambulatory Difficulty	4158	3.5%	1,899	3.4%
Self-Care Difficulty	1744	1.5%	721	1.3%
Independent Living Difficulty	3265	2.7%	1,147	2.1%
Total Civilian Non-Institutionalized Population (2022)	**119,216**	**100%**	**55,125**	**100%**
Total Population with a Reported Disability (2022)	**10,311**	**9%**	**4,268**	**8%**
Means of Transportation to Work (2018 – 2022 ACS)				
Drove Alone	46,980	69.1%	17,095	64.6%
Carpooled	5,968	8.8%	3,131	11.8%
Public Transportation	335	0.5%	229	0.9%
Walked	3,012	4.4%	907	3.4%
Taxicab, Motorcycle, Bicycle, or Other Means	2,096	3.1%	606	2.3%
Worked from Home	9,597	14.1%	4,494	17.0%
Total Workers 16 Years and Over (2022)	**67,988**	**100%**	**26,462**	**100%**
Workers in Households with No Vehicle (2022)	**1,182**	**1.74%**	**347**	**1.31%**
Employment Status (2018 – 2022 ACS)				
Employed	69,104	98%	29,883	99%
Unemployed	1,457	2%	423	1%
Population in Labor Force (2022)	**70,516**	**100%**	**30,261**	**100%**
Economic Characteristics (2018 – 2022 ACS)				
Median Household Income	$83,434	--	$93,157	--
Population Below Poverty Level	--	10.60%	--	5.79%

Source: 2020 Decennial US Census, and 5-year American Community Survey estimates (2018 – 2022)

4.3. Transportation Equity

To address underinvestment in disadvantaged communities, the USDOT developed the Justice40 Initiative (J40). The initiative helps transportation agencies identify and prioritize projects that benefit communities facing barriers to affordable, equitable, reliable, and safe transportation. In accordance with J40, the USDOT developed the Equitable Transportation Community (ETC) Explorer which provides data that allows agencies to understand how a community is experiencing transportation disadvantage based on five components of disadvantage including the following.

- **Transportation Insecurity** occurs when people are unable to get to where they need to go to meet the needs of daily life regularly, reliably, and safely. Research indicates that transportation insecurity is a significant factor in persistent poverty.
- **Environmental Burden** measures factors such as pollution, hazardous facility exposure, and water pollution. These environmental burdens can have far-reaching consequences such as health disparities, negative educational outcomes, and economic hardship.
- **Social Vulnerability** is a measure of socioeconomic conditions that have a direct impact on quality of life including lack of employment, educational attainment, poverty, housing tenure, access to broadband, and housing cost burden as well as identifying household characteristics such as age, disability status, and English proficiency.
- **Health Vulnerability** assesses the increased frequency of health conditions that may result from exposure to air, noise, and water pollution, as well as lifestyle factors such as poor walkability, car dependency, and long commute times.
- **Climate and Disaster Risk Burden** reflects sea level rise, changes in precipitation, extreme weather, and heat which pose risks to the transportation system. These hazards may affect system performance, safety, and reliability. As a result, people may have trouble getting to their homes, schools, stores, and medical appointments.

The ETC Explorer calculates the cumulative impacts of each disadvantage component across each census tract and uses percentile rankings to determine each census tracts' component score against all other census tracts both nationally and on a statewide basis. USDOT considers a census tract to be experiencing transportation disadvantage if the overall index score places it in the top 65 percent of all census tracts, nationally or at the statewide level.

Figure 4.2 illustrates the ETC Explorer results for Gallatin County identifying disadvantaged census tracts, based on both national and statewide comparisons. The county is classified as transportation disadvantaged on a national level. However, while Bozeman and Belgrade are included in this area, they are not a part of the study area. To understand the characteristics of the county's population outside the cities, tracts identified as disadvantaged at the state or national level are listed individually in **Table 4.2** to determine their location relative to the cities. Values highlighted in red surpass the 65th percentile, indicating potentially disadvantaged populations within the census tract. All of, or the large majority of, tracts 0704, 0600, 0900, and 1101 are located within Bozeman city limits. Tracts 0104 and 0105 are located in Belgrade while tract 0101 is partially located within Belgrade city limits. Only 2 of the 9 tracts identified as disadvantaged, tracts 0201 and 1200, are located in the county entirely outside city limits. Tract 1200 is south of the cities along US 191 encompassing the Gallatin Gateway area and is considered transportation disadvantaged on the national level. Tract 0201, situated south of I-90 and west of Belgrade, is identified as transportation disadvantaged on both the state and national levels as well as environmentally disadvantaged on the state level. On a national scale, both of these tracts are identified as transportation disadvantaged due to factors such as auto-dependency, lack of access to public transportation, or long walking distances between key destinations such as medical services, grocery stores, parks, schools, and higher education.

Table 4.2: USDOT ETC Explorer - Transportation Disadvantages

Census Tract	Transportation Insecurity (%)		Environmental Burden (%)		Social Vulnerability (%)		Health Vulnerability (%)		Climate and Disaster Risk (%)		Overall Disadvantage (%)	
	State	Nation	State	Nation	State	Nation	State	Nation	State	Nation	State	Nation
Entire County												
TOT	36.4	75.9	61.9	32.6	26.0	39.0	42.1	22.1	58.7	26.6	23	12
Census Tracts Identified as Disadvantaged												
0101	57.5	96.7	59.1	24.7	7.2	20.8	56.9	26.4	54.7	10.3	100	0
0104	40.6	93.4	80.2	45.8	52.8	61.9	15.7	7.0	57.5	26.1	0	100
0105	43.1	93.8	97.8	82.5	25.5	35.7	18.6	7.7	75.2	49.1	0	100
0201	65.4	98.9	69.5	30.0	4.1	14.2	5.7	3.0	20.1	6.9	100	0
0600	11.3	52.5	92.5	75.0	86.8	77.5	61.3	30.1	78.3	45.6	0	100
0704	15.4	44.3	70.4	35.9	41.5	49.9	56.6	27.9	81.8	52.9	100	0
0900	3.1	20.0	82.4	54.2	59.4	73.8	80.8	52.1	97.2	77.9	100	0
1101	5.7	24.3	69.8	35.8	67.6	72.3	79.2	51.6	98.7	74.2	100	0
1200	62.6	98.0	31.8	3.4	19.8	32.9	53.5	24.8	50.6	6.1	100	0

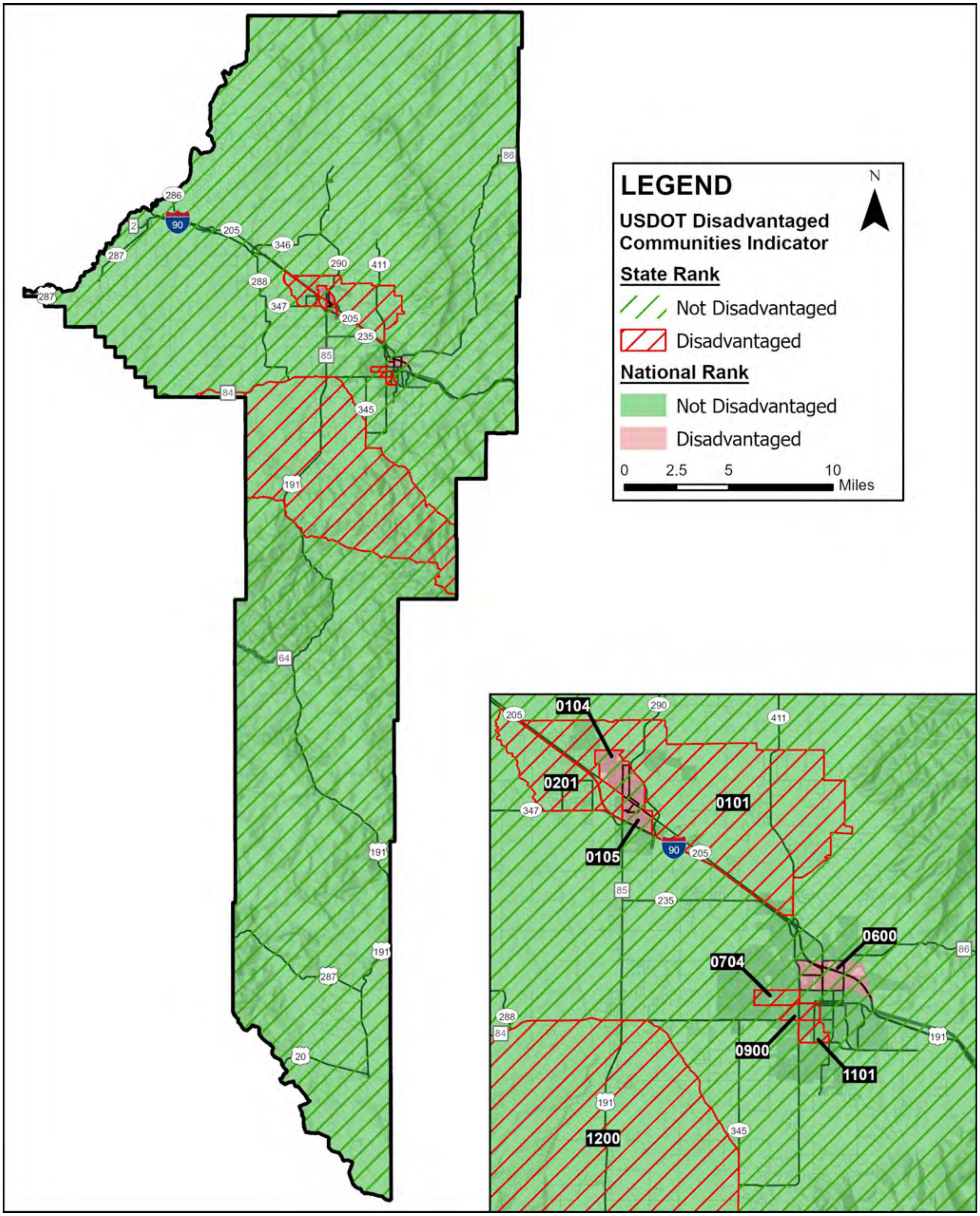


Figure 4.2: USDOT Transportation Disadvantages

5. High-Injury Network

A high injury network (HIN) is a screening methodology that identifies areas within the transportation system with the greatest safety concerns. Jurisdictions across the country use various methodologies to develop local HINs depending on the availability of data in their jurisdiction. A HIN was created for the Gallatin area by weighing the frequency of crashes and severity of injuries resulting from crashes. This method helps identify and prioritize locations with high crash occurrences or especially severe crashes for further investigation. An understanding of circumstances surrounding crashes is also important to determine whether crashes occurred due to problematic infrastructure conditions, repeated improper driver behaviors, or chance circumstances that could not have otherwise been prevented.

5.1. Intersections

The intersection HIN analysis calculated a safety score for each intersection in the county by selecting crashes occurring within 250 feet of an individual intersection as shown in **Figure 5.1**. In general, a higher frequency of crashes is expected at intersections with higher volumes due to increased exposure; an intersection with a high crash frequency with comparatively low traffic volumes could be cause for concern.

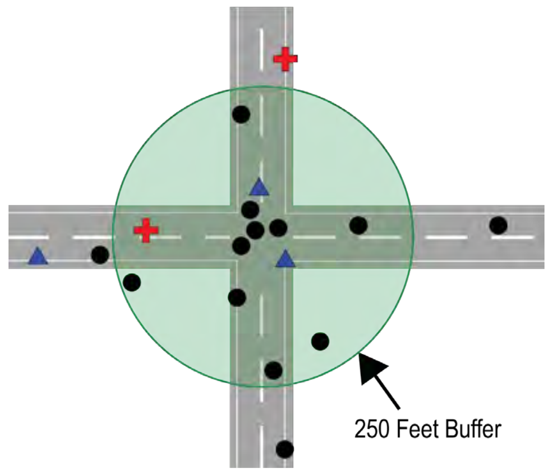


Figure 5.1: Intersection HIN Analysis

Table 5.1 presents characteristics of the intersections with the highest intersection safety scores. The intersection HIN was calculated in four different ways to analyze a combination of all roads compared to off-system roads both with and without crash rates. The off-system network analysis was conducted to place added emphasis on roads within the county's primary jurisdiction. The analyses that included a crash rate calculation were conducted only for parts of the network where traffic data, characterized by AADT, was available. By using four different methods to visualize the HIN, intersections that show up multiple times (highlighted in red in **Table 5.1**) can be identified as possible problems. **Figures 5.2, 5.3, 5.4,** and **5.5** highlight intersections with the highest safety scores for each set of parameters and the circled intersections correspond with **Table 5.1**.

The highest scoring and most frequently occurring intersection in the HIN analyses was Stucky Road and Gooch Hill Road which is configured as a 3-leg intersection with stop control on Stucky Road. This intersection was the location of 27 crashes over the 5-year period but resulted in no severe injuries. The intersection of Love Lane and Durston Road also appeared three times scoring slightly lower than the previous intersection. This 4-leg intersection is all way stop controlled and was the site of 26 crashes over the 5 years resulting in 1 severe injury. The other three intersections that presented more than once in the HIN scenarios were Durston Road and Gooch Hill Road, Gibbon Ave and Dunraven Street in West Yellowstone, and the Frontage Road and Heeb Road, all of which are all two-way stop controlled.

Table 5.1: Top Intersection Safety Scores

Rank	Intersection	Control Type	# of Crashes	# of Severe Injuries	AADT
Off System Only with Crash Rate					
1	Stucky Rd / Gooch Hill Rd	TWSC	27	0	2,669
2	Love Ln / Durston Rd	AWSC	26	1	3,560
3	Axtell Anceny Rd / Axtell Gateway Rd	Uncontrolled	4	0	140
4	Durston Rd / Gooch Hill Rd	TWSC	19	0	3,560
5	Spooner Rd / Jackpot Ln	None	1	0	79
Off System only without Crash Rate					
1	Gibbon Ave / Dunraven St	TWSC	2	2	N/A
2	Love Ln / Durston Rd	AWSC	26	1	N/A
3	Stucky Rd / Gooch Hill Rd	TWSC	27	0	N/A
4	Durston Rd / Gooch Hill Rd	TWSC	19	0	N/A
5	Gooch Hill Rd / Chapman Rd	TWSC	16	0	N/A
All Roads with Crash Rate					
1	Frontage Rd / Heeb Rd	TWSC	3	1	2,274
2	Valley Center Rd / Jackrabbit Rd	Signal	46	4	6,192
3	Stucky Rd / Gooch Hill Rd	TWSC	27	0	2,669
4	Bridger Canyon Rd / Brackett Creek Rd	TWSC	7	0	354
5	Love Ln / Durston Rd	AWST	26	1	3,560
All Roads without Crash Rate					
1	Gibbon Ave / Dunraven St	TWSC	2	2	N/A
2	Jackrabbit Ln / Huffine Ln	Signal	74	0	N/A
3	Gooch Hill Rd / Huffine Ln	Signal	59	4	N/A
4	Valley Center Rd / Jackrabbit Rd	Signal	46	4	N/A
5	Frontage Rd / Heeb Rd	TWSC	3	1	N/A

**TWSC = Two Way Stop Controlled, AWSC = All Way Stop Controlled*

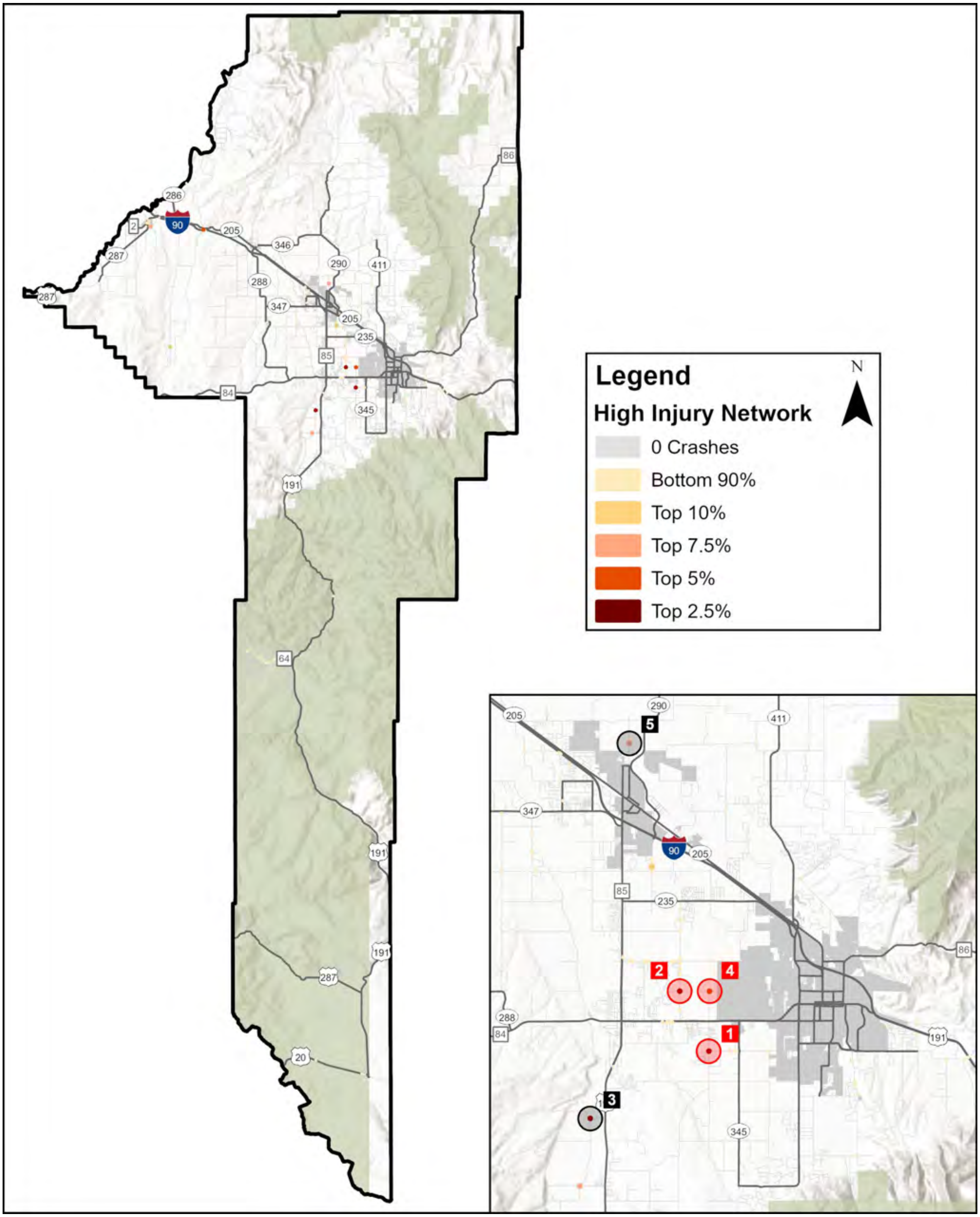


Figure 5.2: Off System Intersection Safety Scores with Crash Rates

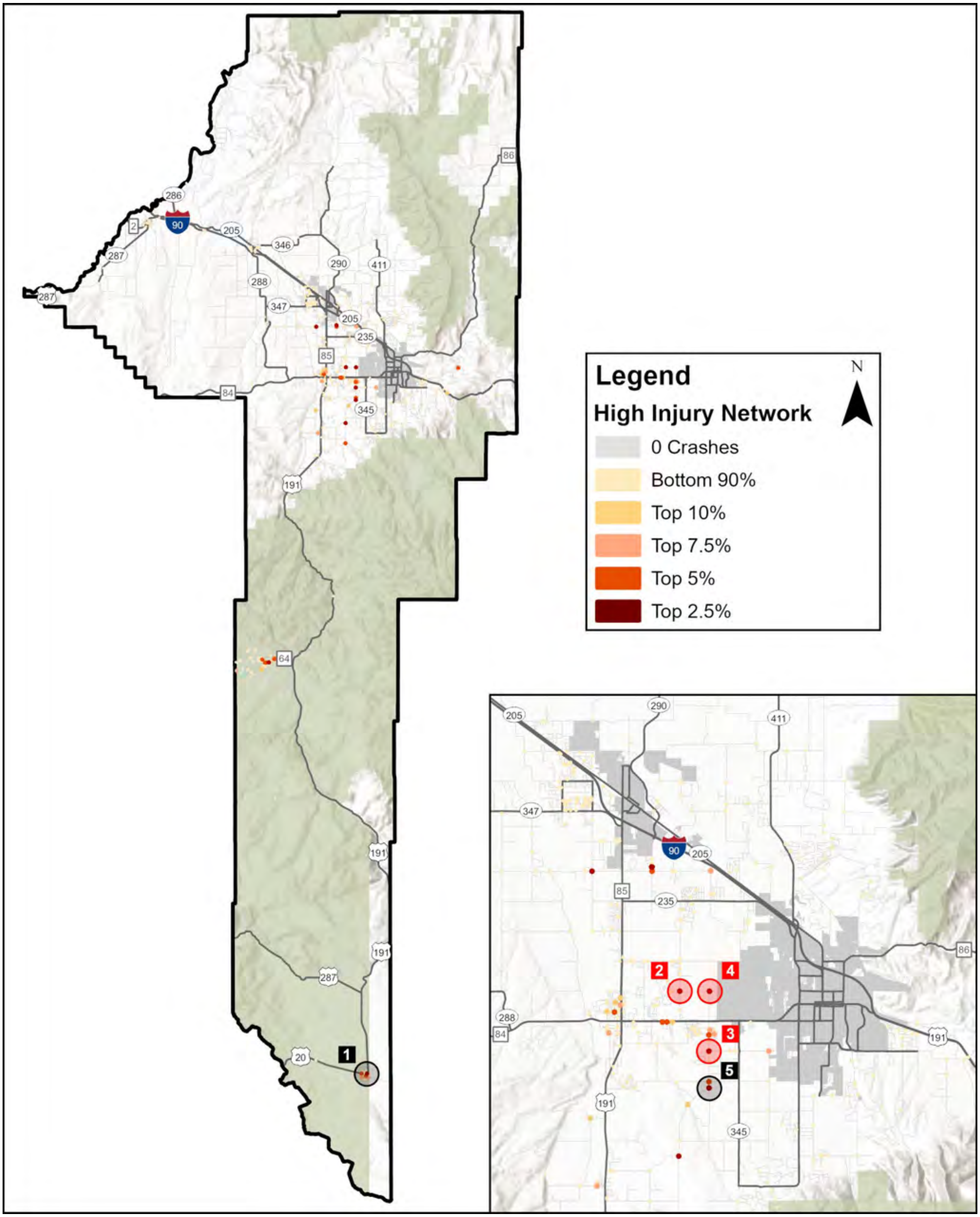


Figure 5.3: Off System Intersection Safety Scores without Crash Rates

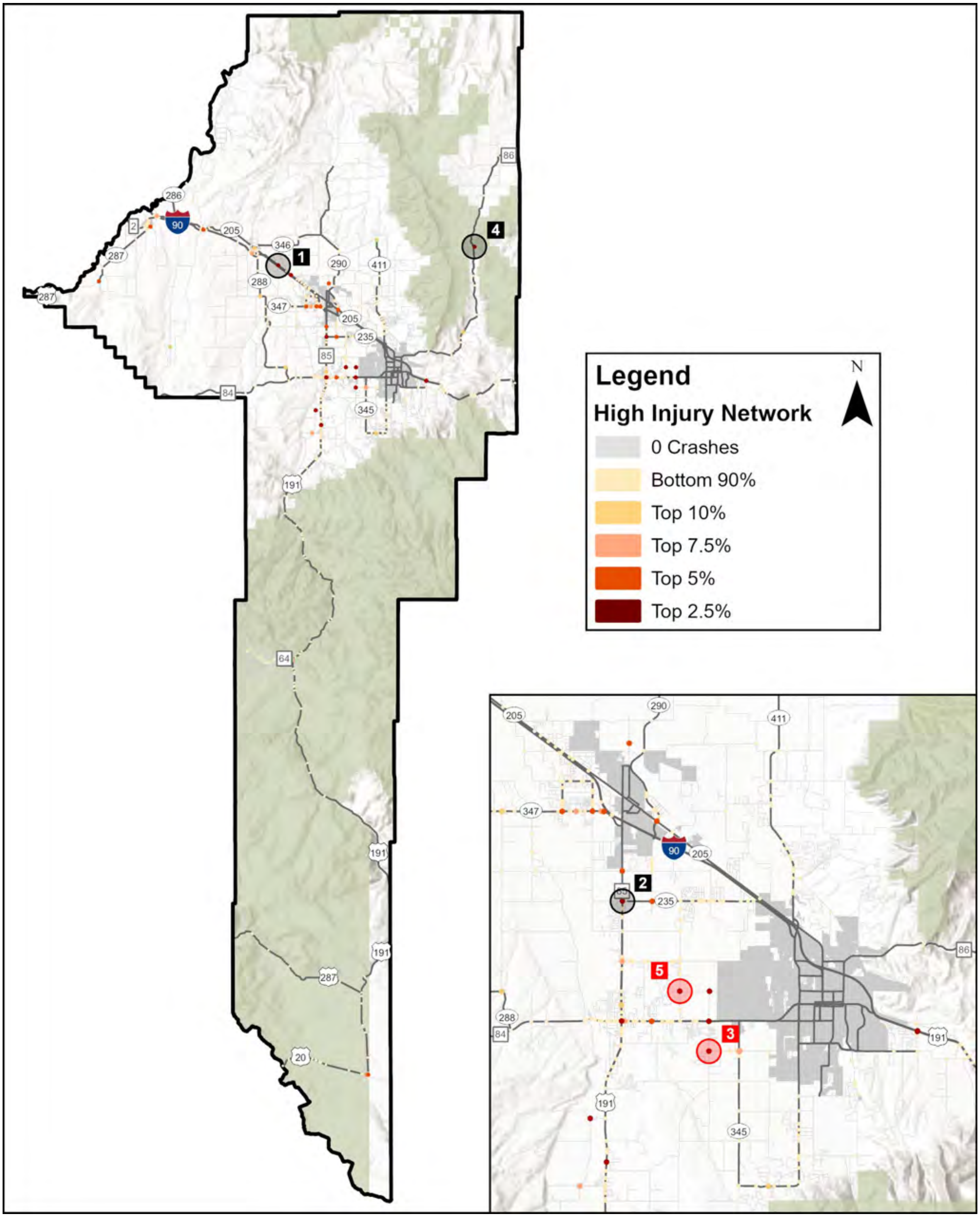


Figure 5.4: All Intersection Safety Scores with Crash Rates

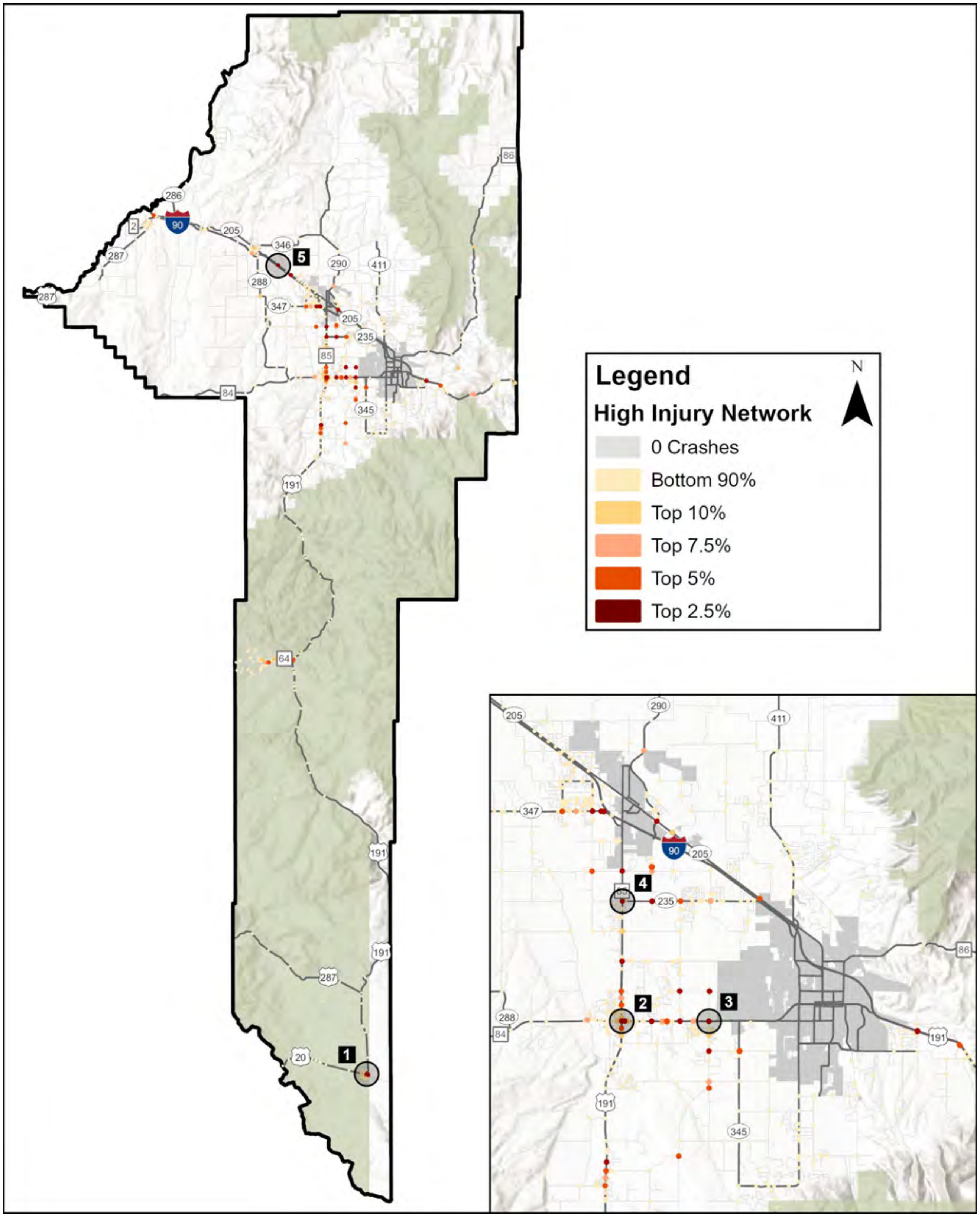


Figure 5.5: All Intersection Safety Scores without Crash Rates

5.2. Roadway Segments

The roadway segment HIN analysis evaluated the roadway network using a sliding window method, as recommended by the *Highway Safety Manual*, to effectively compare roadway segments of equal length. The sliding window method calculates crash scores by evaluating crashes and injuries occurring in 0.5-mile segments (i.e., "windows"), and then sliding the window along the roadway 0.1-mile at a time, as demonstrated in **Figure 5.6**. The crashes evaluated in the intersection HIN were not included in the roadway segment HIN analysis. This method helps identify locations with the highest concentrations of crashes and/or severe injuries and reduces the possibility of splitting locations with high concentrations of crashes into separate segments, which would reduce the safety score for segments that start and end in high-crash spots.

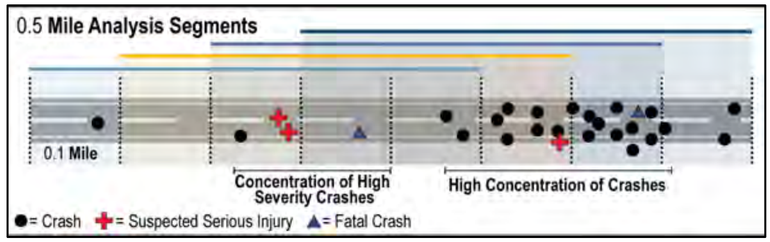


Figure 5.6: Sliding Window Method

Similar to the intersection HIN analysis, the segments were scored based on four different scenarios, using a combination of all roads compared to off-system roads, both with and without crash rates. **Table 5.2** tabulates the characteristics of the segments with the highest scores. Segments that showed up in multiple scenarios were identified as possible problem areas and are recorded in red in the table. **Figures 5.7, 5.8, 5.9,** and **5.10** depict roadway segments with the highest safety scores, and the circled segments correspond to **Table 5.2** for each scenario. Where several consecutive segments were identified with high scores, a sum of the total crashes and severe injuries as well as an average of the corresponding frequency, severity, and combined safety scores was considered. When applicable, the eastbound and westbound segments of I-90 were combined.

As shown in the figures and table, segments that consistently ranked the highest in crash frequency typically feature sharp turns, with those appearing most frequently having 90-degree turns. The segment of Thorpe Road between Richman Road and the I-90 underpass appears in all four scenarios, experiencing 24 crashes, resulting in 2 severe injuries over the analysis period. Bozeman Trail Road experienced 36 crashes, but no severe injuries, and features a similar 90-degree turn. Axtell Anceney Road appears in two scenarios, with a sharp turn and uncommon intersection configuration occurring along the segment, resulting in 11 crashes with no severe injuries. One segment of I-90 within the Bozeman Pass appears in multiple scenarios and accounts for 100 crashes, one of which resulted in a severe injury. A few other segments were observed in multiple scenarios due to factors such as low AADT or a higher ratio of severe injuries to total crashes, but these do not necessarily align with a noticeable crash trend or safety concern. In general, the highest-scoring segments tend to be rural, off-system routes featuring sharp 90-degree turns.

Table 5.2: Top Segment Safety Scores

Rank	Roadway	Extent	# of Crashes	# of Severe Injuries	AADT
Off System Only with Crash Rate					
1	Baxter Ln	Monforton School Rd - Black Bull Trail	5	1	3,839
2	Thorpe Rd	Richman Rd - I-90 Underpass	24	2	941
3	Axtell Anceney Rd	River Rd – Axtell Gateway Rd	11	0	227
4	Bozeman Trail Rd	Fort Ellis Rd – Mount Ellis Rd	36	0	2,211
5	Madison Rd	North of Norris Rd	3	0	126
Off System Only without Crash Rate					
1	Stagecoach Trail Rd	Springhill Rd – Heeb Rd	1	1	N/A
2	Baxter Ln	Monforton School Rd – Black Bull Trail	5	1	N/A
3	Thorpe Rd	Richman Rd – I-90 Underpass	24	2	N/A
4	Fairy Lake Rd	FS 6983 – Top of Road	5	1	N/A
5	Bozeman Trail Rd	Fort Ellis Rd – Mount Ellis Rd	31	0	N/A
All Roads with Crash Rate					
1	Thorpe Rd	Richman Rd - I-90 Underpass	24	2	941
2	Axtell Anceney Rd	River Rd – Axtell Gateway Rd	11	0	227
3	Madison Rd	North of Norris Rd	3	0	126
4	Bozeman Trail Rd	Fort Ellis Rd – Mount Ellis Rd	36	0	2,211
5	I-90	RP 315 – RP 316	84	1	19,638
All Roads without Crash Rate					
1	Huffine Ln	Jackrabbit Ln – Caramel Ct	31	0	N/A
2	Thorpe Rd	Richman Rd – I-90 Underpass	24	2	N/A
3	I-90	RP 315 – RP 316	100	1	N/A
4	I-90	RP 293 – RP 294	18	2	N/A
5	US 191	North of Spanish Creek Rd	26	0	N/A

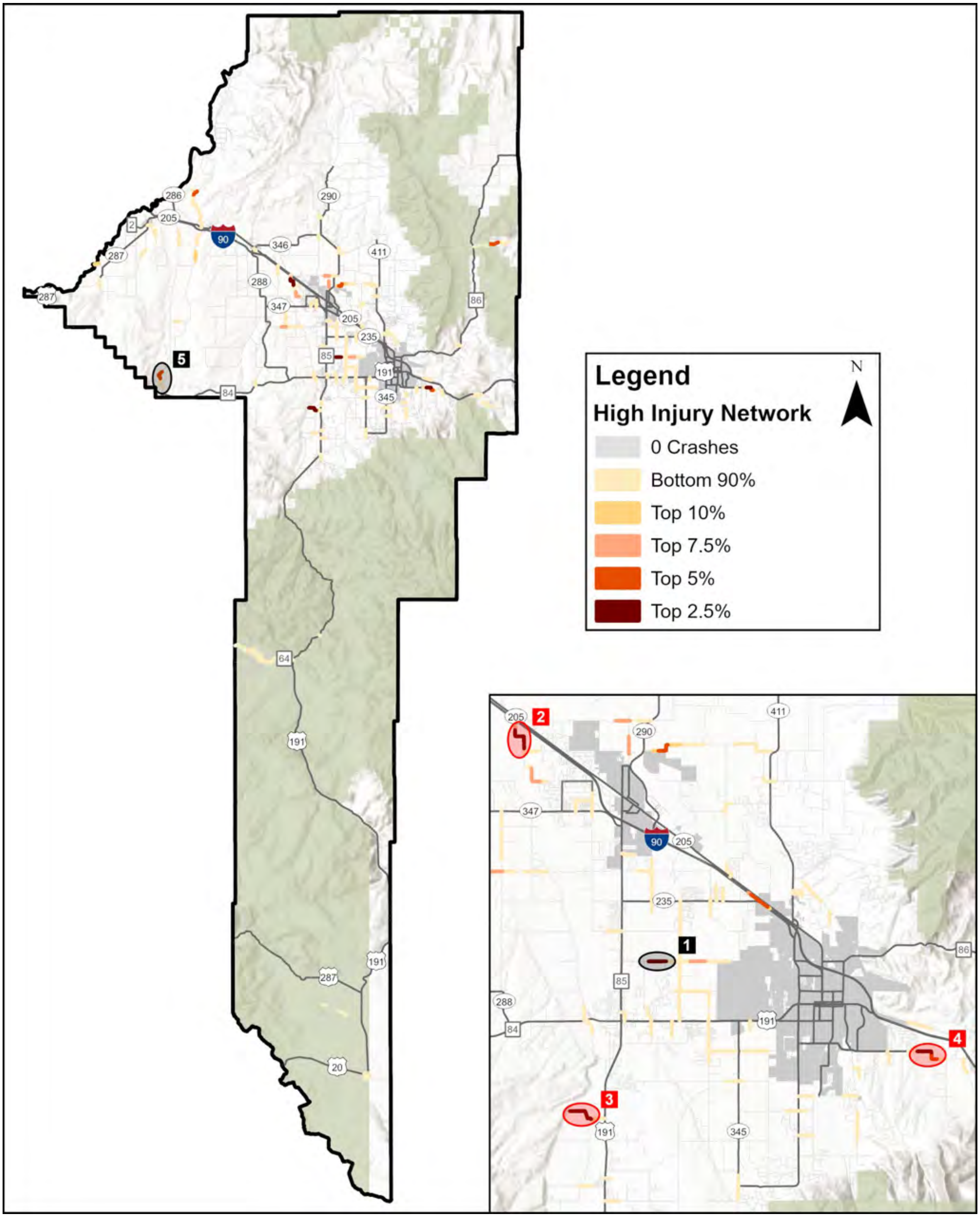


Figure 5.7: Off System Segment Safety Scores with Crash Rates

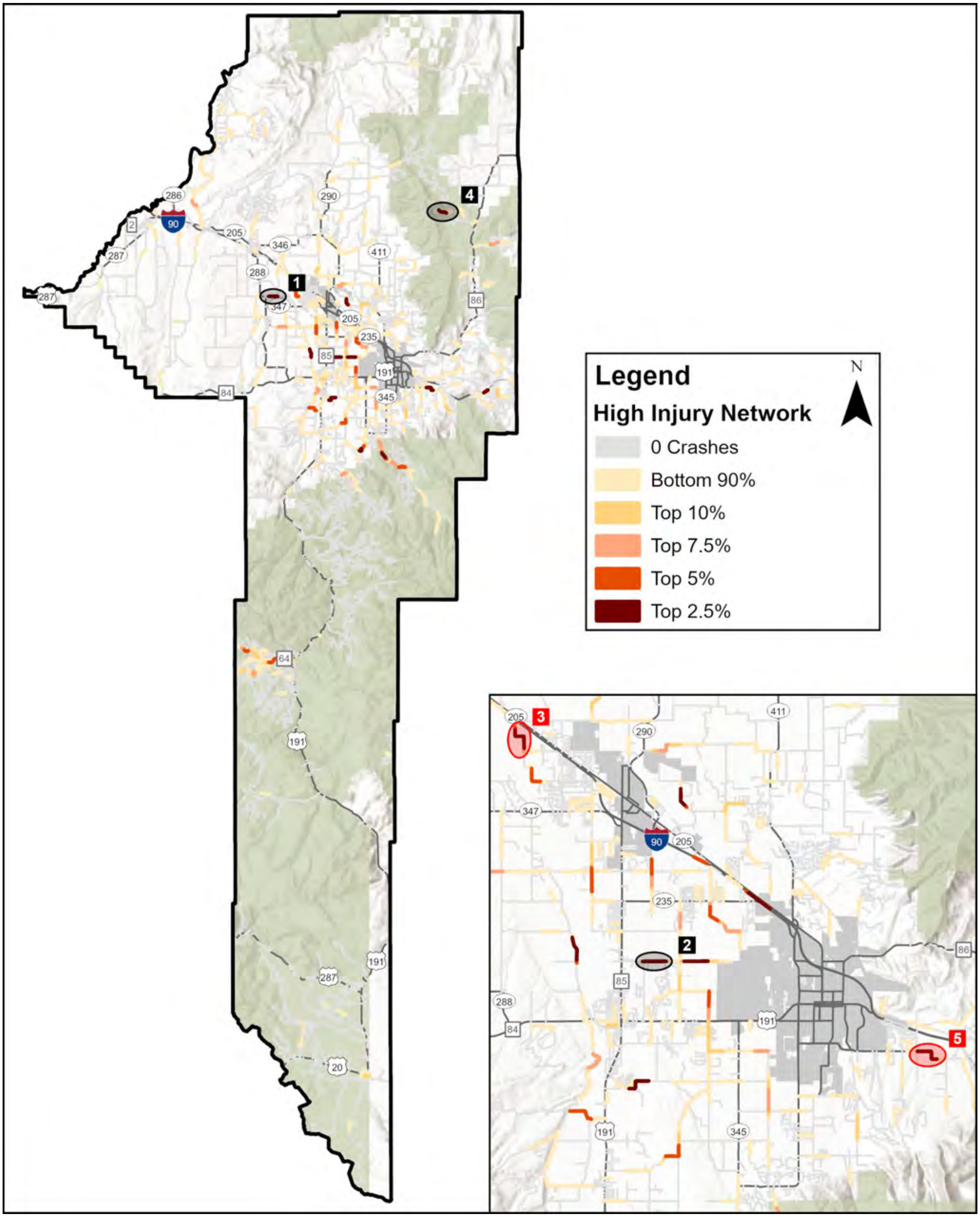


Figure 5.8: Off System Segment Safety Scores without Crash Rates

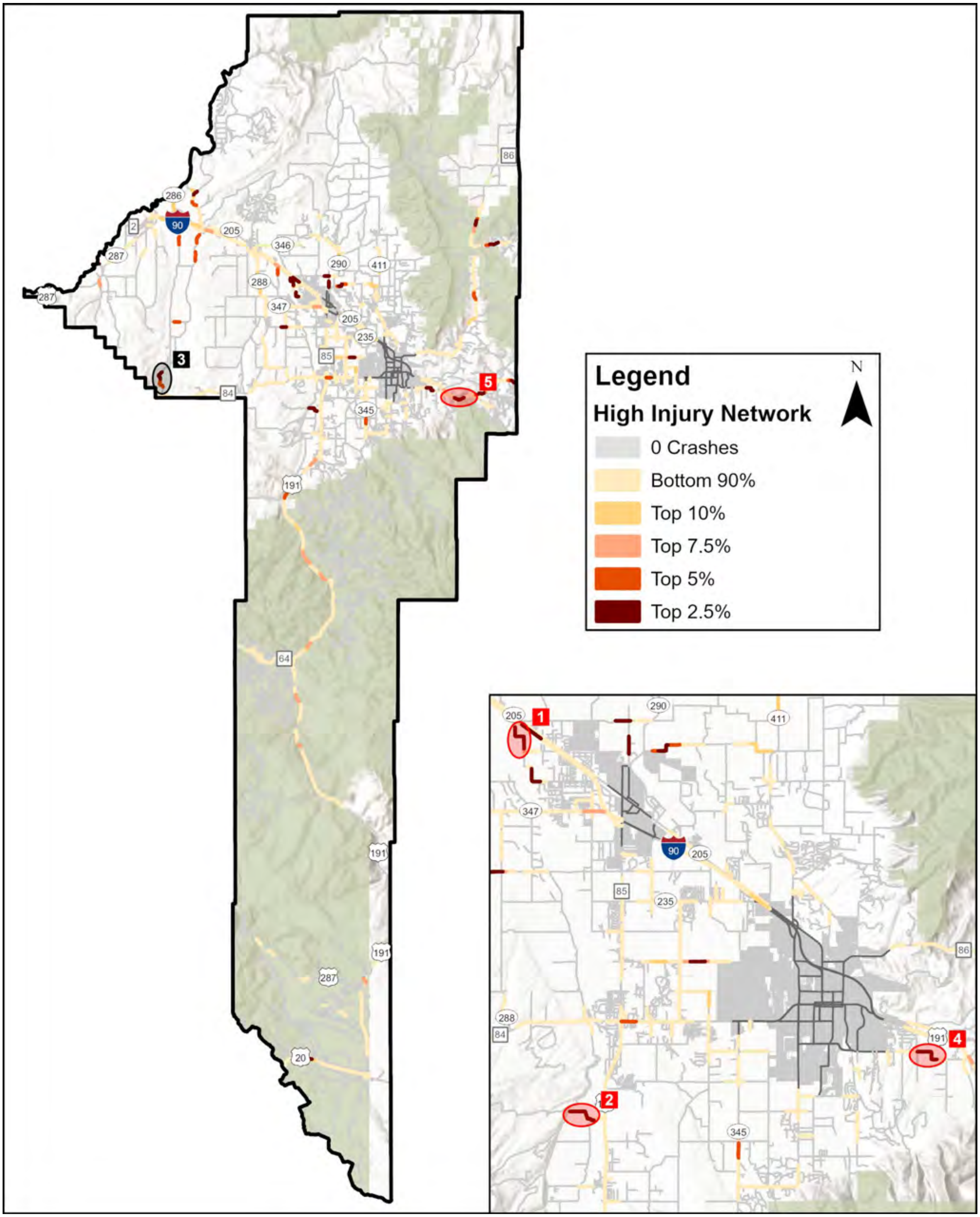


Figure 5.9: All Segment Safety Scores with Crash Rates

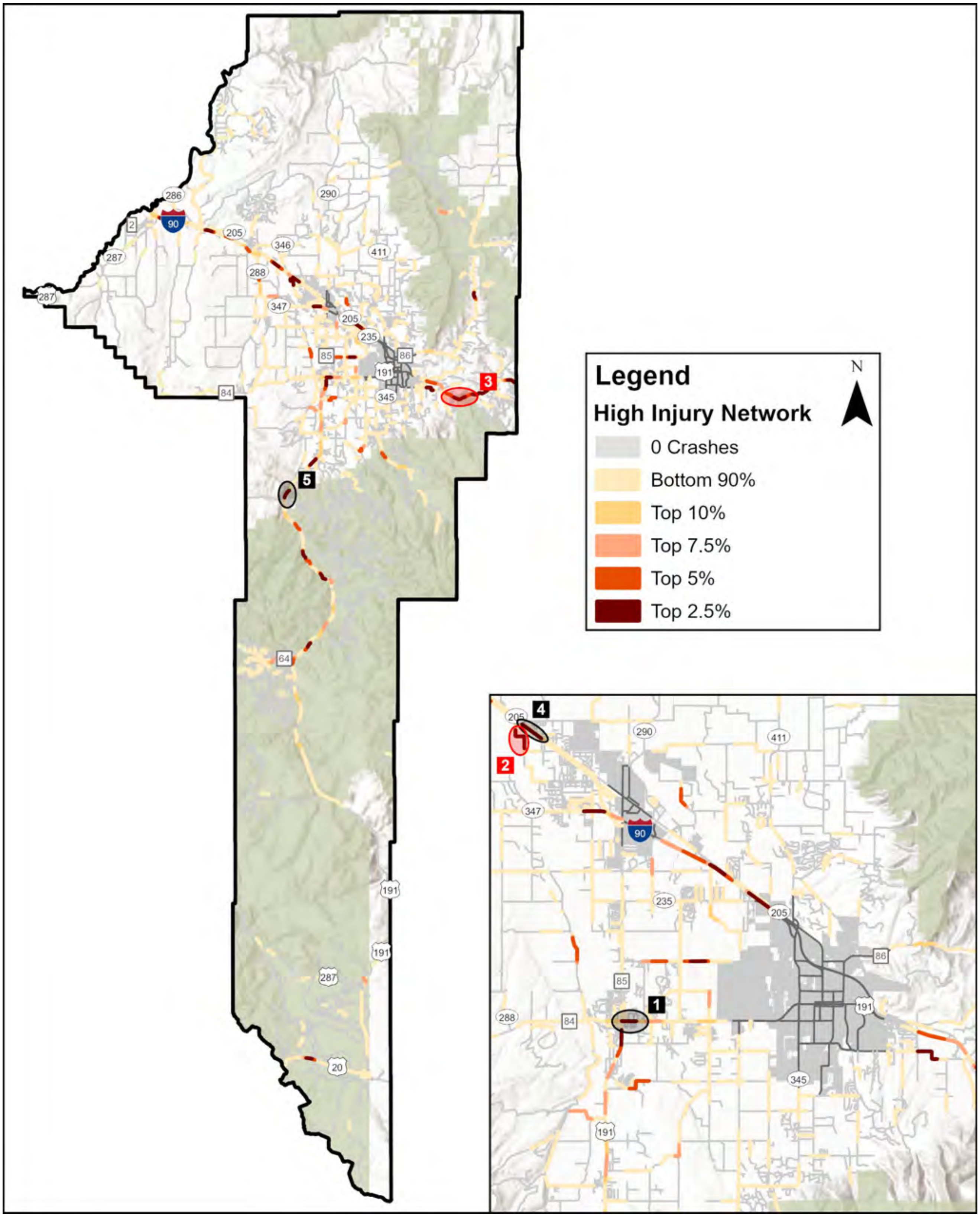


Figure 5.10: All Segment Safety Scores without Crash Rates

6. Additional Safety Data Review

In addition to investigating the crash data provided by MDT, several other data sources were reviewed to understand other factors in crashes and general safety concerns. The data sources described in this section include MHP issued citations, MDT collected animal carcasses, and comparative data from other jurisdictions.

6.1. Citation Data Review

Citation data was obtained from the MDT Traffic and Safety Bureau for the same 5-year analysis period (2019-2023). This data includes citations issued primarily by MHP for violations reflecting state and federal traffic codes. Citations for city code violations, such as the unlawful use of cell phones while driving, are generally not reflected in this dataset. **Figure 6.1** shows the locations of citations issued within the study area. As shown, the citations were primarily issued on highways, though some citations on local streets are also observed. The Four Corners intersection (US 191/MT 84/85) and the Jackrabbit Lane / Valley Center Road intersection exhibit the highest concentration of citations issued. I-90 between Belgrade and Bozeman also has a high concentration of citations.

Table 6.1 summarizes the types of violations issued over the 5-year period. The table also denotes unlawful behaviors that could directly contribute to a crash or have the potential to result in severe injuries if a crash were to occur. A total of 18,677 citations were issued with the greatest number being speed related violations. The next most common violation types included registration or insurance violations and failure to use a seatbelt, accounting for 15 and 13 percent of citations, respectively. Of the 18,677 citations, 4,353 were reportedly issued as the result of a crash.

Table 6.1: Types of Violations Issued (2019-2023)

Violation Type	Potential to Contribute to Crash/Severe Injury	Number of Citations	Percent of Citations
Speed Related Violation	X	6,560	35%
Registration/Insurance Violation		2,850	15%
Seatbelt Violation	X	2,359	13%
License Related Infraction		1,567	8%
Careless/Reckless Driving	X	1,539	8%
Other Violation		1,297	7%
Driving Under the Influence	X	933	5%
Failure to Obey Signs/Signals	X	566	3%
Other Drug/Alcohol Related	X	431	2%
Improper Following/Passing	X	403	1%
Commercial Vehicle Violation		172	1%
TOTAL	--	**18,677**	**100%**

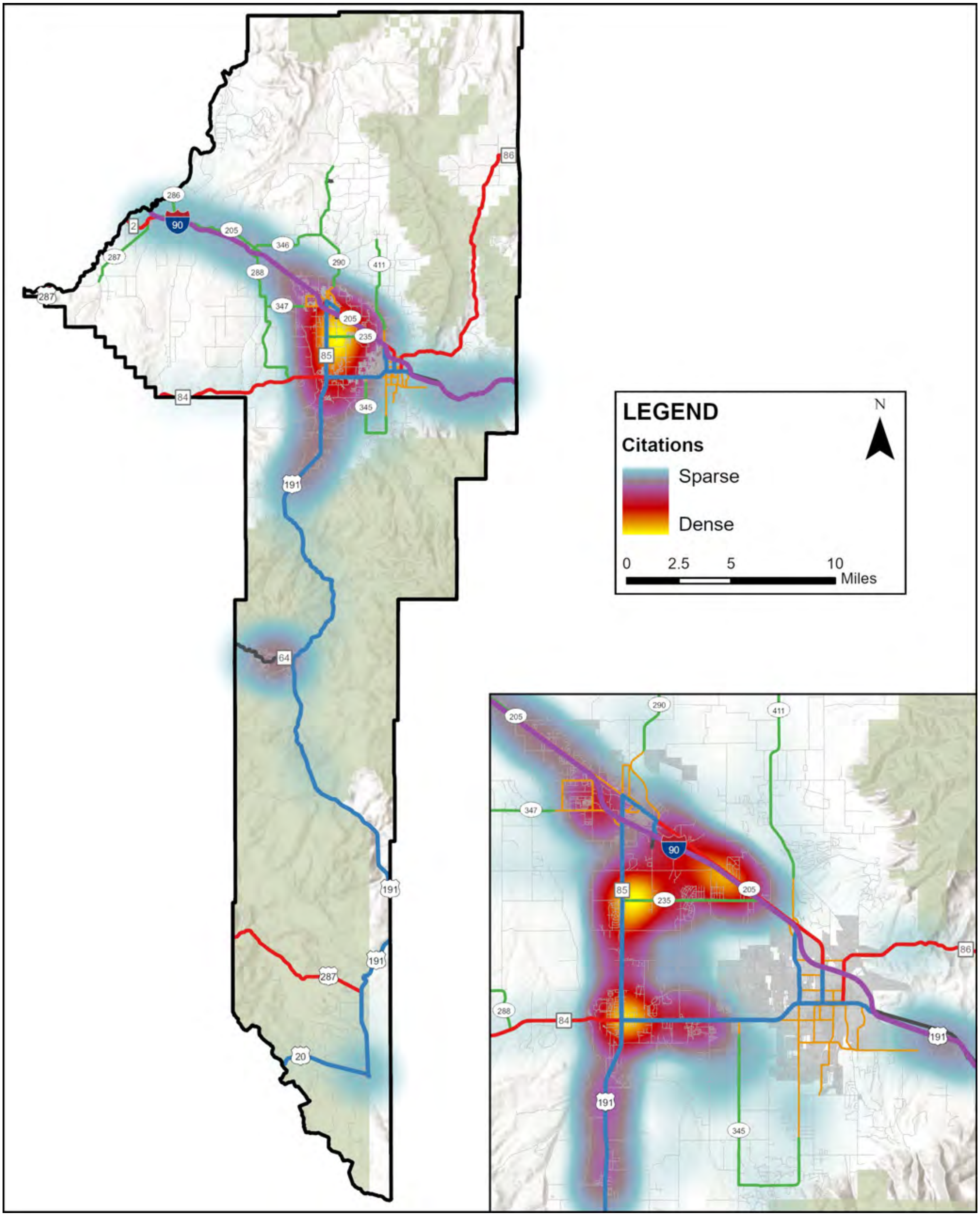


Figure 6.1: Density of Citations Issued

Figure 6.2 summarizes when the citations were issued, including the year, month, day of the week, and time of day. As shown, there was a significant decrease in the number of citations issued in 2020, but the number of citations issued per year has steadily increased in years since. This could indicate a higher emphasis on enforcement, an increase in unlawful driving behaviors, or both. The most citations were issued in July followed closely by September. Saturdays and Sundays were the most common days for citations, with Mondays composing the highest number of weekday citations. The greatest number of citations were issued during the 10:00 PM hour. Other common times included the early afternoon hours (2:00 PM – 4:00 PM) and late night hours (8:00 PM – 12:00 AM). The number of citations issued is generally lower during typical commuting and working hours.

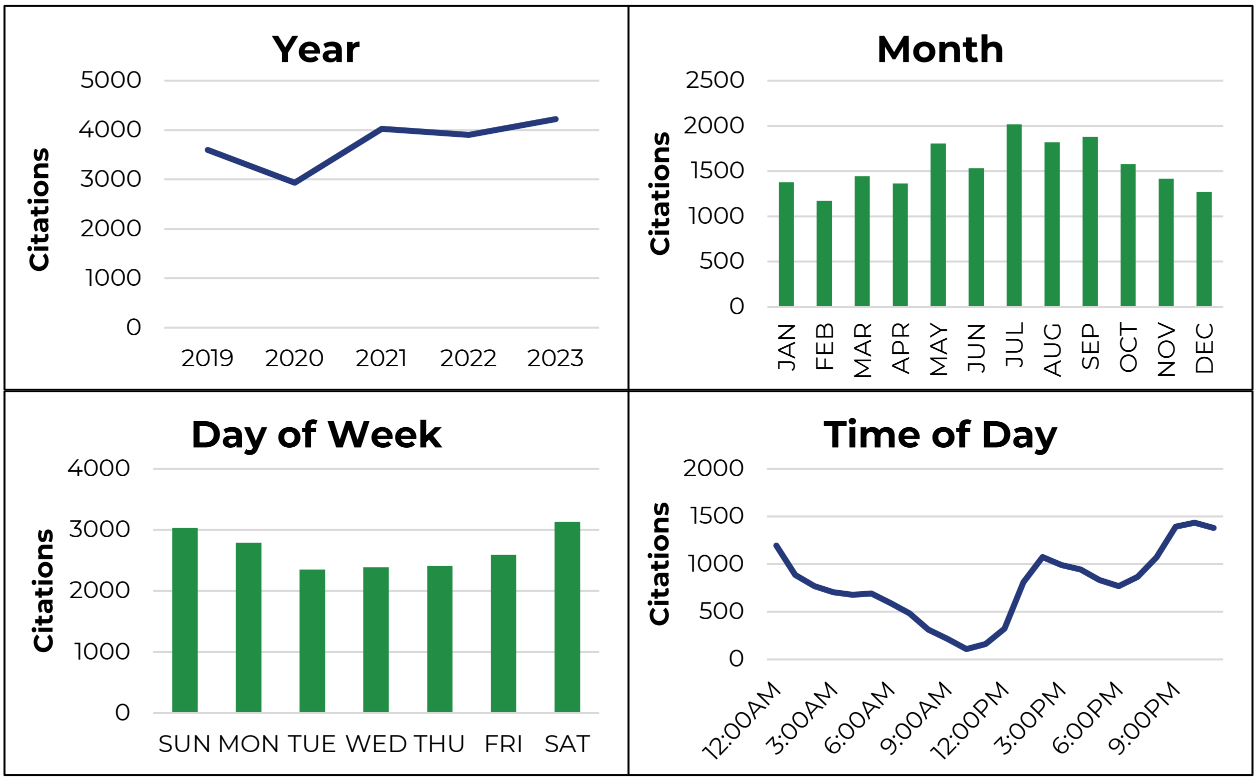


Figure 6.2: Citation Temporal Trends

6.2. Carcass Data Review

Carcass data from the MDT Maintenance Animal Incident Database was provided from January 1, 2008 to June 31, 2024, which offers valuable insights into trends over time in the area. The database contains information on carcasses collected by MDT maintenance personnel on MDT-maintained routes only. However, not all carcass collection is reported consistently or on a regular schedule. This makes the information useful for pattern identification, but it is not statistically valid. **Figure 6.3** shows a general decline in the number of carcasses collected since 2008. This could be due to increased development in the area, which may alter the wildlife habitat. Additionally, stakeholders have noted an increase in chronic wasting disease among wildlife in the area, potentially contributing to a reduction in the wildlife population.

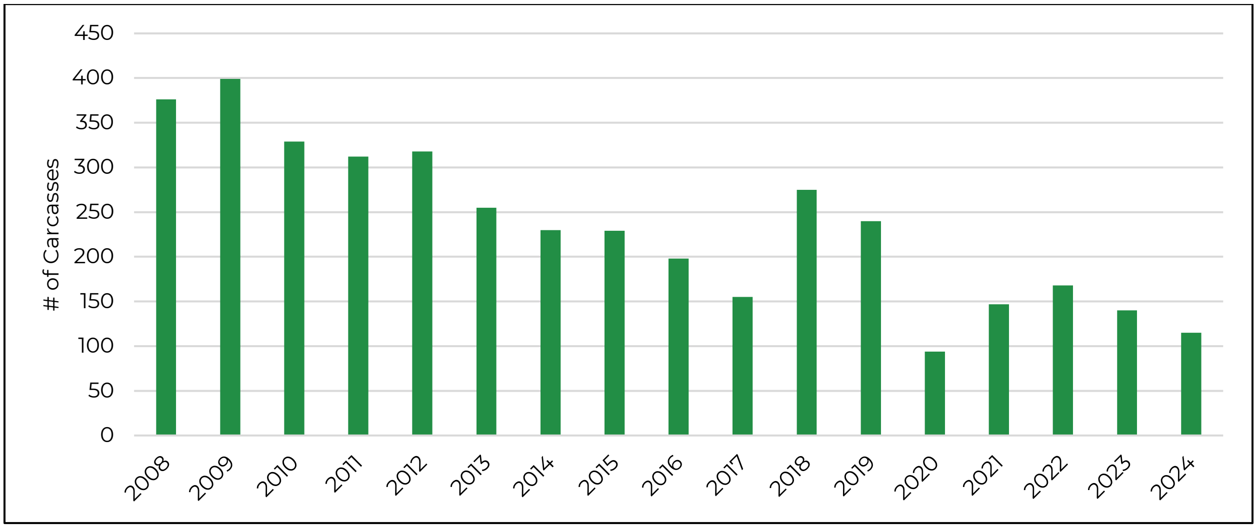


Figure 6.3: Carcass Collection Over Time

For consistency, carcass data covering the 5-year analysis period used for the other parts of this report (January 1, 2019 to December 31, 2023) was reviewed in more detail. During this time period, a minimum of 789 animal carcasses were collected and documented along MDT routes within the study area.

Figure 6.4 shows the proportion of collected carcasses for each type of animal. Of the reported carcasses, the majority were deer accounting for 74 percent. The second most reported were elk at 14 percent and the rest was made up of bison, moose, and bears.

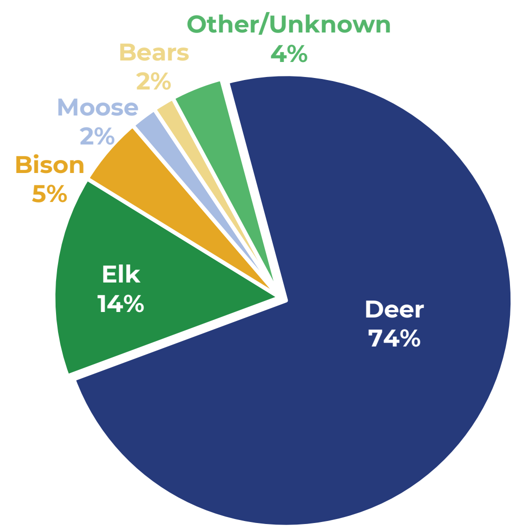


Figure 6.4: Animal Type

Figure 6.5 shows that the number of collected carcasses by year and by month. The figure shows that there was a significant drop in carcasses collected in 2020 followed by an increase in 2021 and 2022 with a small drop again in 2023. The carcasses were most commonly collected in the late fall and early winter months (October through January) and least commonly collected in the late spring and early summer months (April through July).

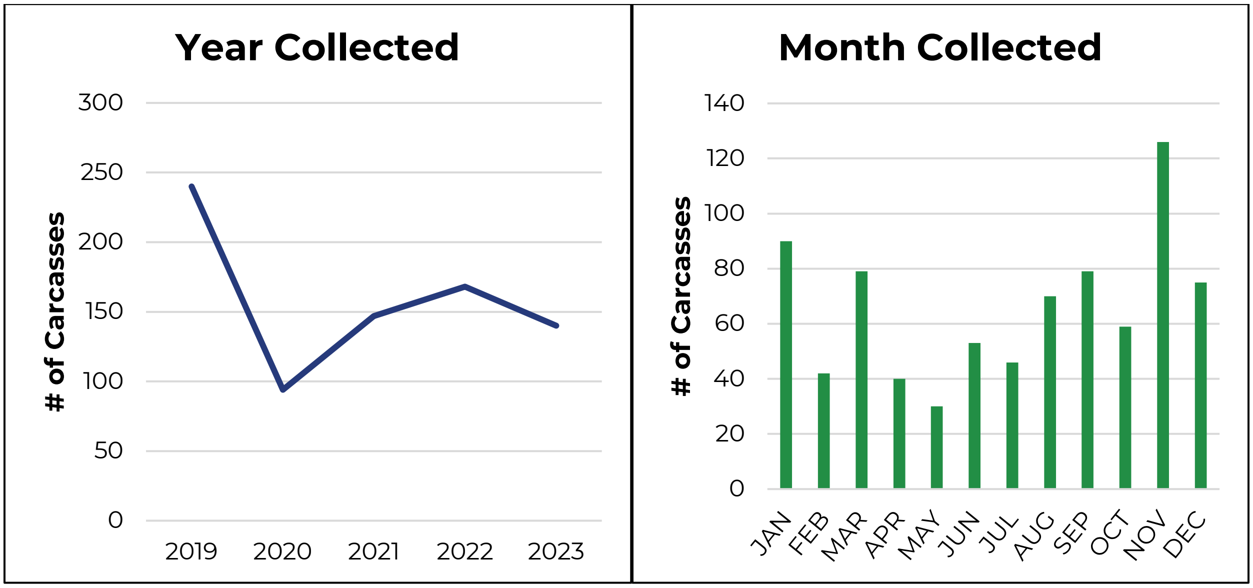


Figure 6.5: Carcass Collection Time Periods (2019-2023)

Overall, there were 807 wild animal crashes reported within the study area, while at least 789 carcasses were collected over the same time period. **Figure 6.6** shows the animal carcass collection density from 2019 to 2023. Concentrations of carcasses were collected on US 191 between Four Corners and the mouth of Gallatin Canyon. However, the available carcass and wild animal crash data is likely an underrepresentation of actual conflicts. Reports of carcasses being found outside the roadway or scavenged by community members or other animals indicate that vehicle-wildlife collisions may have occurred but were not reported. In these cases, carcasses would not be included in the MDT database.

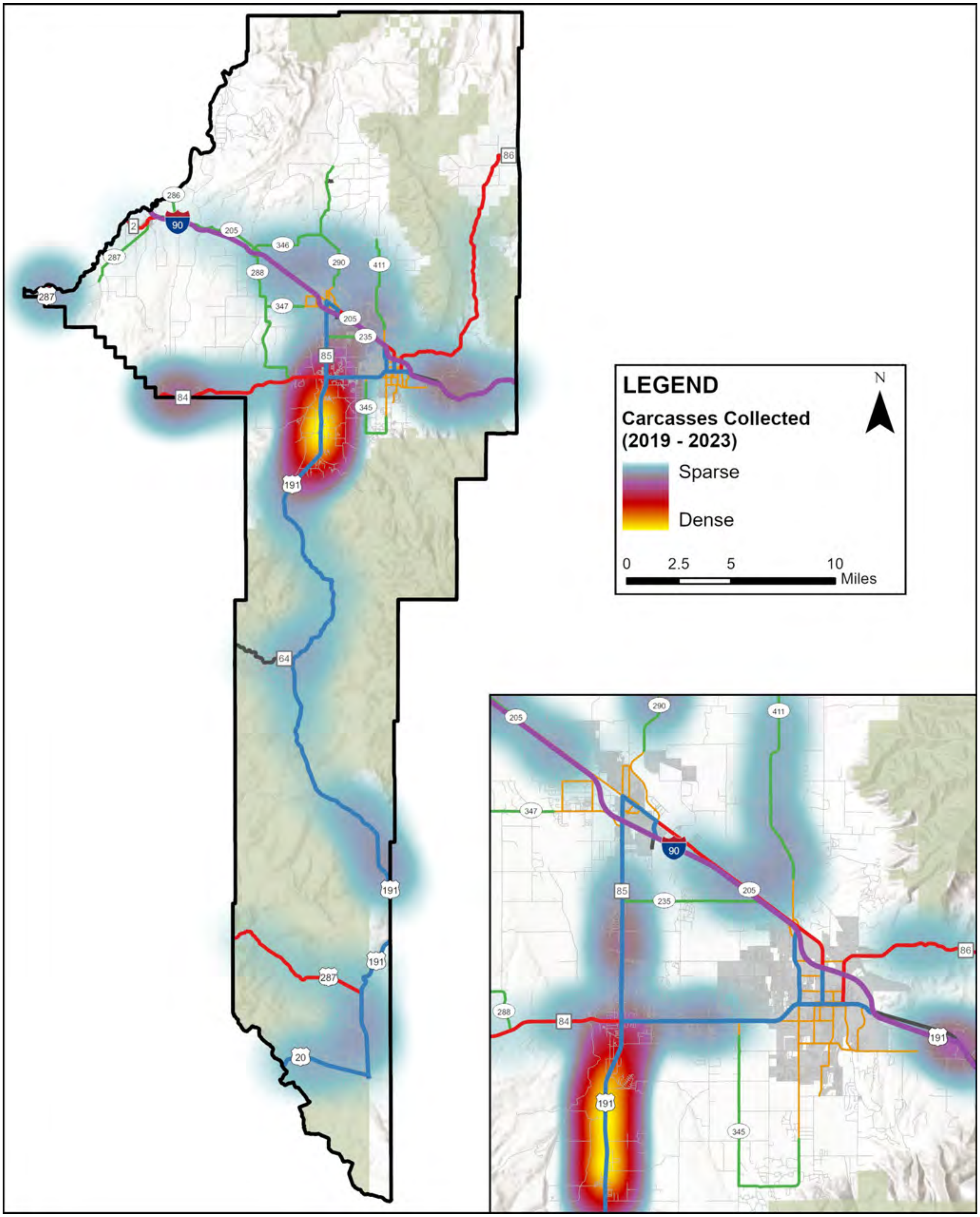


Figure 6.6: Animal Carcass Collection Density

7. Focus Areas

Identifying the types of crashes predominantly contributing to community safety problems can help in effectively expending resources. The American Association of State Highway Transportation Officials (AASHTO) *Strategic Highway Safety Plan: A Comprehensive Plan to Substantially Reduce Vehicle-Related Fatalities and Injuries on the Nation's Highways*[viii] identified 22 safety focus areas on a national level. The development of focus areas represents a standard approach to roadway safety by evaluating high-risk populations, crash types, infrastructure/hazards, behavior, and transportation modes. MDT has further refined the list of 22 focus areas to include 16 focus areas that are relevant to Montana. Those focus areas are listed below.

- Animal Crashes
- Bicycle Involved
- Drowsy Drivers
- Impaired Drivers
- Inattentive Drivers
- Intersection Crashes
- Large Truck Involved
- Motorcycle Involved
- Native Americans
- Older Driver Involved
- Pedestrian Involved
- Run-off-the-Road
- Speed Related
- Train Involved
- Unrestrained Occupants
- Young Driver Involved

7.1. Comparison of All Focus Areas

In order to determine which of the focus areas are the most prevalent in Gallatin County, the number of total and severe injury crashes occurring within each focus area over the 5-year analysis period from 2019 to 2023 were totaled. **Figure 7.1** compares the total number of crashes as well as the number of severe crashes in each focus area over the past 5 years (2019 – 2023). For ease of analysis and comparison purposes, the "Pedestrian Involved" and "Bicycle Involved" focus areas were combined to be the "Non-Motorist Involved" focus area, and the "Native Americans" focus area was excluded from the analysis due to lack of complete and reliable ethnicity data. The sum of all focus areas is greater than the total number of crashes because a single crash may fall within multiple focus areas. For example, a crash involving a young, inattentive driver at an intersection would be counted in 3 focus areas.

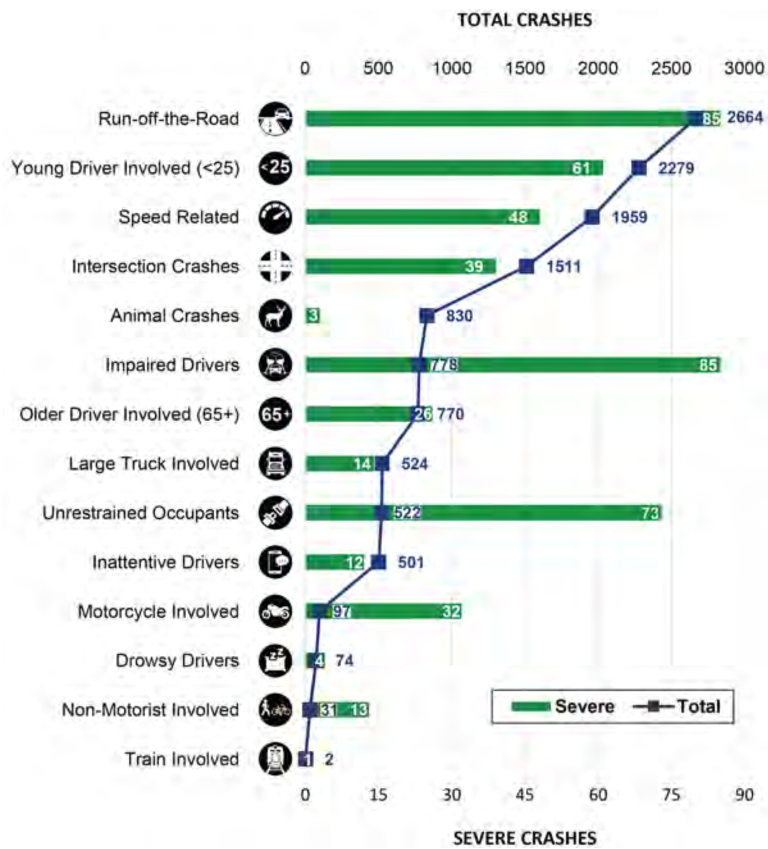


Figure 7.1: Crash Totals by Focus Area

In addition to total occurrences, it is also important to consider the number of severe crashes within each focus area. For example, although fewer crashes involved impaired drivers, a high number of severe injuries resulted from crashes involving impaired drivers. Although it is desirable to reduce the total number of crashes, the SS4A program highlights the importance of decreasing the number of severe injuries resulting from crashes.

Table 7.1 tabulates the total crashes, percent of all crashes, fatalities, serious and other injuries, and total people involved for each focus area. A single crash may have multiple contributing factors, and thus a single crash or injury could appear within multiple focus areas.

Table 7.1: Crash and Injury Totals by Focus Area

Focus Area	Total Crashes	% of All Crashes	Fatality	Suspected Serious Injury	Minor Injury	Possible Injury	PDO/ Unknown	Total People Involved
Run-off-the-Road	2,664	40%	27	108	574	170	3,686	4,565
Young Driver Involved (<25)	2,279	34%	7	65	445	162	4,118	4,797
Speed Related	1,959	29%	13	40	354	133	3,294	3,834
Intersection Crashes	1,511	22%	5	39	325	124	3,237	3,730
Animal Crashes	830	12%	0	3	35	10	1,188	1,236
Impaired Drivers	778	12%	22	77	237	61	853	1,250
Older Driver Involved (65+)	770	11%	3	26	154	41	1,579	1,803
Large Truck Involved	524	8%	5	12	97	30	953	1,097
Unrestrained Occupants	522	8%	23	65	266	56	839	1,249
Inattentive Drivers	501	7%	2	13	123	44	900	1,082
Motorcycle Involved	97	1%	4	28	51	11	59	153
Drowsy Drivers	74	1%	4	4	24	10	96	138
Non-Motorist Involved	31	0%	5	8	13	2	45	73
Train Involved	2	0%	1	0	1	0	2	4
TOTAL	**12,542**	**100%**	**38**	**192**	**1,165**	**411**	**11,310**	**13,116**

As shown in **Table 7.1**, the top 5 focus areas by total crashes include run-off-the-road crashes, young driver involved, intersection crashes, animal crashes, and impaired drivers. By severity, the unrestrained occupants, impaired drivers, non-motorist involved, and motorcycle involved focus areas had the highest ratio of severe injuries to total crashes.

7.2. Analysis of Key Focus Areas

Based on the baseline data analysis, it was determined that 4 focus areas would be selected to investigate in further detail. Due to similarities in the strategies to address certain focus areas, some of the focus areas were combined into broader categories. The focus areas aligning with the total number of crashes and the highest severities were selected as the focus areas that could have the greatest impact on safety within the community. The selected focus areas include the following:

- **Run-off-the-Road Crashes**
- **Intersection Crashes**
- **Driver Age** *(Younger and Older Driver Involved)*
- **High Risk Behaviors** *(Speed Related, Unrestrained Occupants, Impaired Drivers, Inattentive Drivers)*

Note that there may be overlap between the focus areas. For example, a young, impaired driver crashing at an intersection would fall into at least three focus areas. Strategies addressing the selected focus areas will likely help address crash trends identified in other focus areas. The following sections contain a more detailed analysis of the key focus areas to assist with the identification of strategies and projects to address concerns.

7.2.1. Run-off-the-Road Crashes

There are multiple ways to sort and define run-off-the-road crashes in the MDT crash database. The first is to sort the crash records by the relation to the roadway. Selecting crashes that occurred on roadside right or left yields a total of 2,664 crashes as shown in **Table 7.1.** However, it is likely that several of these crashes resulted in a car landing off the roadway, but wasn't a true run-off-the-road crash. For example, a vehicle being rear-ended and consequently pushed off the road. Likewise, the filter precludes crashes where a vehicle ran off the roadway into a center median, for example.

FHWA defines a run-off-the-road crash as a crash which occurs after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way. Other terms used to describe these crashes include roadway departure or lane departure. To capture this broader definition, the crash data can be filtered by driver action to include circumstances where the driver "ran off the roadway," "failed to keep in proper lane," or "wrong side or wrong way." This analysis yields a total of 2,745 crashes and is more representative of roadway departure crashes. For this reason, the following analysis is based on this definition and selection methodology.

Figure 7.2 shows these run-off-the-road crashes within the study area. Key takeaways regarding the 2,745 crashes are summarized below.

- The top crash types were fixed-object (49 percent), rollover (26 percent), sideswipe (8 percent), head-on (4 percent), and right-angle (3 percent).
- The majority of crashes caused property damage only (75 percent), 5 percent resulted in possible injuries, 16 percent led to minor injuries, and 4 percent of crashes were severe.
- Environmental factors, specifically road and lighting conditions, appeared to play a role in run-of-the-road crashes. About 23 percent of crashes occurred when it was raining or snowing with the remaining 77 percent occurring on clear or cloudy days. Nearly 55 percent of crashes occurred on wet, icy, snowy, or frost-covered roads, while the remaining 45 percent took place on dry roads. Additionally, 38 percent of the crashes occurred when it was dark outside, and street lighting was present in only 7.5 percent of those crashes.
- The most crashes occurred during the winter (December – February [36 percent]) when the road conditions are often snow or ice-covered. However, a fair amount occurred during the fall (September – November [26 percent]) as well.
- Crashes were reported at all hours of the day, with the crashes occurring most frequently in the morning (8 AM – 10 AM, [12 percent]) and evening commutes (5 PM – 7PM, [12 percent]).
- Driving too fast for conditions was reported as a contributing action for 34 percent of people involved in run-off-the-road crashes. Additionally, 22 percent of the drivers involved in the crashes were reported to have been driving in a distracted, inattentive, or careless manner at the time of the crash.
- Driver demographics closely aligned with those observed for all crashes in the study area, with male drivers responsible for 68 percent of the crashes and drivers aged 22 to 35 accounting for 38 percent of the crashes.

- Impaired drivers were overrepresented making up 21 percent of run-off-the-road crashes compared to just 12 percent of all crashes.
- About 46 percent of drivers were moving straight ahead when the crash occurred, while 35 percent were negotiating a curve. The remaining 19 percent were turning, slowing, stopped, or changing lanes.

Run-off-the-road crashes in the study area are largely driven by weather conditions and driver behavior. Winter weather, including icy, snowy, and wet roads, significantly increases crash risk, particularly when drivers fail to adjust their speed to conditions. Distractions can further exacerbate the issue, as drivers often neglect to react to hazards or changing road conditions. Crashes are also more frequent during commuting hours when drivers may speed or rush, and nighttime driving poses additional risks due to reduced visibility, especially in areas with insufficient lighting. Alcohol impairment is also a significant factor, highlighting the ongoing issue of impaired driving. While weather and road conditions play a major role, addressing driver behaviors like speeding, distraction, and impairment is essential to reducing run-off-the-road crashes in Gallatin County.

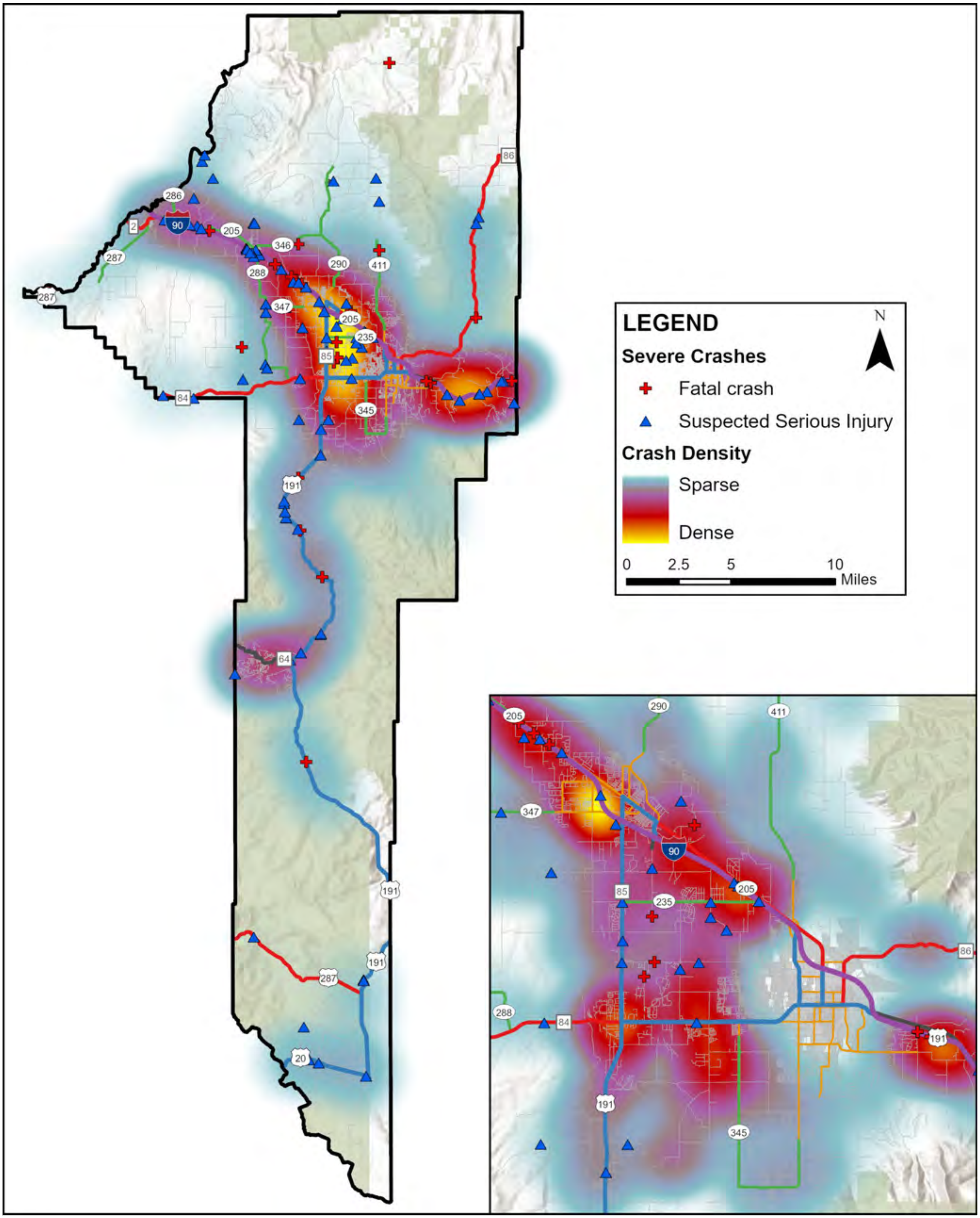


Figure 7.2: Run-off-the-Road Crashes

7.2.2. Intersection Crashes

About a quarter of all crashes that occurred within the study area over the 5-year analysis period occurred at an intersection (876) or were related to an intersection (635). **Figure 7.3** shows the locations of intersection crashes. The following summarizes some key takeaways regarding the 1,511 reported intersection crashes.

- The most common crash types included rear-end (30 percent), right-angle (29 percent), and fixed-object (16 percent) crashes.
- Of the intersection crashes, 4 resulted in fatalities and 35 resulted in suspected serious injuries, accounting for 3 percent of all crashes. Overall, 75 percent resulted in property damage only.
- Adverse weather conditions played a minor role in intersection crashes, with 12 percent occurring while it was snowing or blowing snow and 3 percent occurring in the rain. Similarly, 30 percent of crashes occurred on snowy, icy, or frost-covered roads while 8 percent occurred on wet roads.
- Overall, 77 percent of intersection crashes occurred during daylight hours while 20 percent occurred at night. Of the crashes occurring at night, more than two thirds were on roads without street lighting.
- Intersection crashes occurred most commonly during the winter months (December to February [32 percent]). Crashes were most common during the afternoon and evening (1:00 PM to 7:00 PM [45 percent]).
- The demographics of drivers involved in intersection crashes is very similar to the demographics of all drivers involved in crashes in the study area. Male drivers accounted for 65 percent of those involved in crashes, with drivers in the working-age group (22-50) making up 56 percent.
- About 10 percent of intersection crashes involved an impaired driver.
- Top contributing actions included distracted/inattentive driving (23 percent), failure to yield right-of-way (16 percent), and driving too fast for conditions (12 percent).
- About 41 percent of vehicles involved in intersection crashes were moving straight ahead while 16 percent were making left turns, and 9 percent were making right turns. About 25 percent were slowing or already stopped in traffic.
- About 37 percent of intersection crashes occurred on local roads while 28 percent occurred at intersections on principal arterials.

An analysis of intersection versus intersection-related crashes was also conducted, and no pertinent differences were discovered. However, distinctions were noted, including more rear-end collisions associated with intersection related crashes while intersection crashes resulted in more right-angle crashes with higher severities. Only 15 percent of intersection crashes involved vehicles that were slowing or stopped, compared to 39 percent of intersection-related crashes. Also, a higher proportion of intersection related crashes involved distracted driving and impaired drivers. In terms of location, there were no obvious distinctions between intersection and intersection related crashes. Four Corners, the Belgrade accesses to I-90, Gooch Hill/Stuck Road, and Love Lane/Durston Road intersections were all hot spots for intersection and intersection related crashes. These are all high-volume intersections with significant traffic volumes and turning movements.

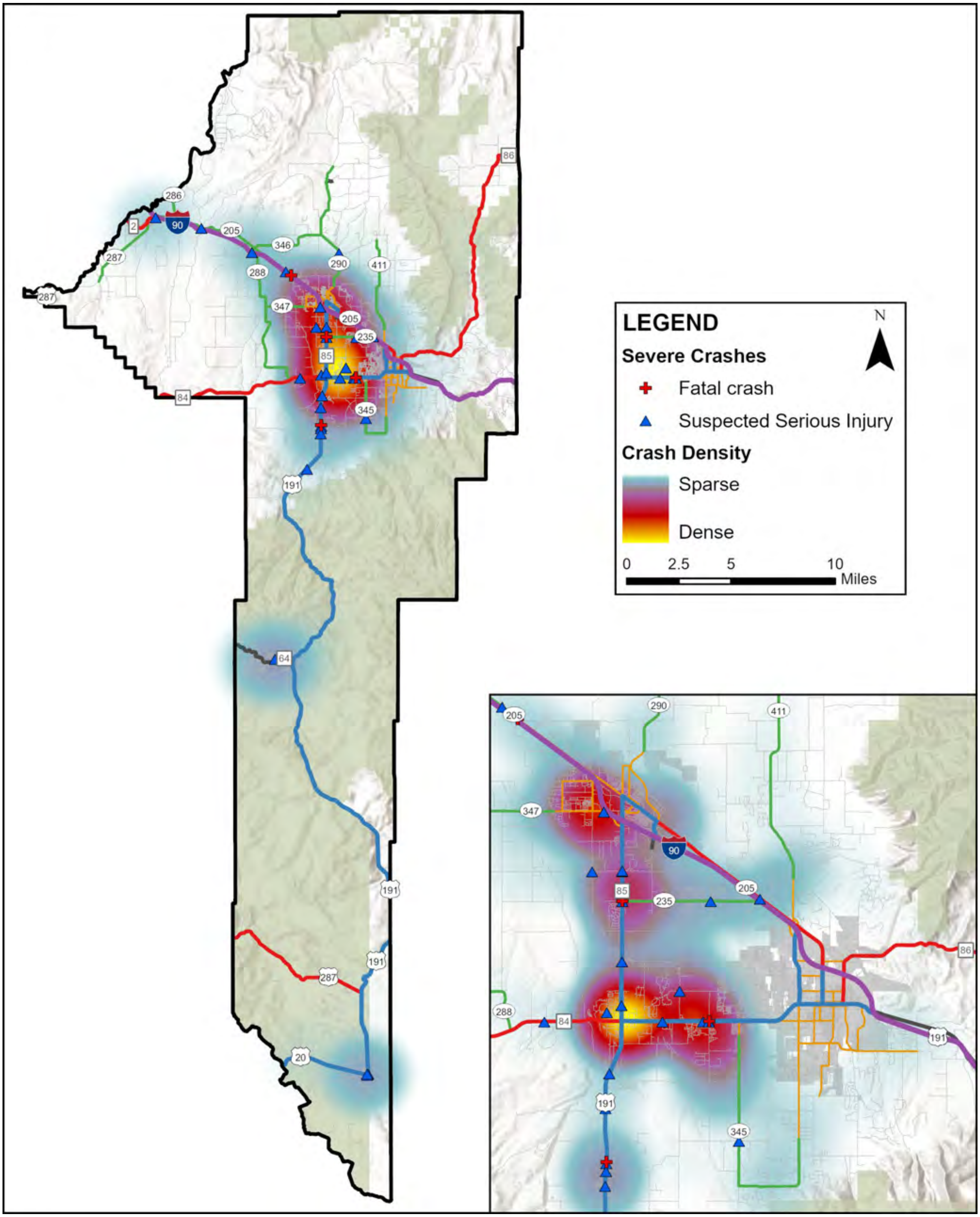


Figure 7.3: Intersection and Intersection Related Crashes

7.2.3. Driver Age

Crashes involving younger drivers, or those under the age of 25, accounted for about a third of all crashes within the study area (2,279) while crashes involving older drivers, or those over the age of 65, accounted for about a tenth of the crashes (770). Younger drivers are often involved in crashes due to inexperience or risky driving behaviors, while older drivers are often involved in crashes as a result of age-related loss in driving capabilities and reaction times.

Younger Drivers (<25)

Over the 5-year analysis period, 2,438 drivers under the age of 25 were involved in crashes within the study area. An additional 22 drivers were reported as age "0", however, it is assumed that zero, in this case, represents an unknown age and these crashes were therefore excluded. Likewise, a driver listed as age 1 was involved in a crash with the contributing factors of following too closely and exceeding the posted speed limit. This was assumed to be another case of unknown age and was excluded. Of the younger drivers, 62 percent were male and 38 percent were female. The youngest male driver was age 11, and the youngest female driver was age 8. **Figure 7.4** shows a heat map of crash locations with drivers under the age of 25. Given available crash data, the following trends were observed regarding the 2,279 crashes involving younger drivers.

- Of the younger driver involved crashes, 6 resulted in fatalities, and 55 (2 percent) resulted in suspected serious injuries. The majority, 77 percent, of these crashes resulted in property damage only.
- Most crashes (68 percent) occurred at non-junctions, while 27 percent took place at intersections or were intersection related.
- The most common types of crashes included fixed-object (26 percent), rear-end (18 percent), rollover (16 percent), and right-angle (12 percent).
- Environmental factors in crashes involving younger drivers closely mirror the trends seen in the overall dataset, suggesting that weather conditions may contribute to these incidents. Approximately 18 percent of crashes occurred in rain or snow, while 82 percent happened on clear or cloudy days. Nearly 45 percent of crashes took place on wet, icy, snowy, or frost-covered roads, with the remaining 55 percent occurring on dry roads. Furthermore, 32 percent of crashes occurred at night, and in 88 percent of those cases, there was no street lighting present.
- Crashes involving younger drivers were most frequent during the winter months (December to February [31 percent]), with a notable increase in the fall months (September to November [27 percent]). Most of these crashes occurred during school release and evening commuting hours, from 3:00 PM to 7:00 PM (28 percent).
- Approximately 10 percent of younger driver crashes involved impaired drivers. The main contributing factors were running off the roadway (31 percent), distracted or inattentive driving (27 percent), and driving too fast for conditions (27 percent).
- The most common speed limits on roadways where young driver crashes occurred were 45 mph (21 percent) and 55 mph (12 percent). About 32 percent of crashes took place on local roads, while 21 percent occurred on principal arterials.

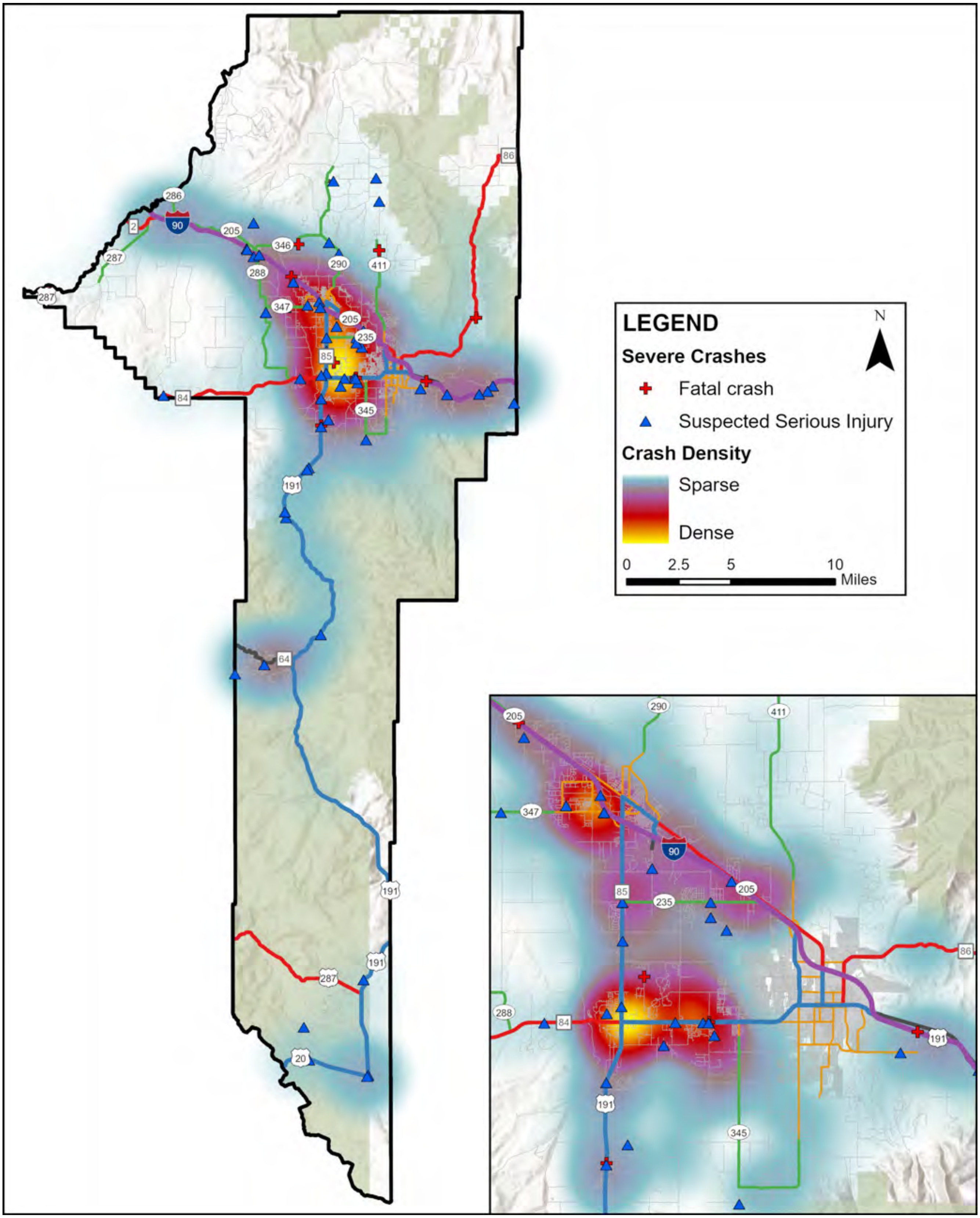


Figure 7.4: Younger Driver Involved Crashes

Older Drivers (65+)

Over the 5-year analysis period, 801 drivers aged 65 and older were involved in crashes within the study area. Of the older drivers, 67 percent were male and 33 percent were female. The oldest male driver was age 95, and the oldest female driver was age 92. **Figure 7.5** shows a heat map of crash locations with drivers aged 65 and older. Given available crash data, the following trends were observed regarding the 770 crashes involving older drivers.

- Of the older driver involved crashes, 2 resulted in fatalities, and 24 (3 percent) resulted in suspected serious injuries. The majority, 78 percent, of these crashes resulted in property damage only.
- Most crashes (56 percent) occurred at non-junctions, while 36 percent took place at intersections or were intersection-related.
- The most common types of crashes included rear-end (22 percent), right-angle (18 percent), fixed-object (14 percent), and sideswipe (13 percent).
- Environmental factors in crashes involving older drivers, compared to overall trends, suggest that weather conditions play a smaller role in these incidents. Approximately 11 percent of crashes occurred while it was snowing or blowing snow and 4 percent occurred in the rain/freezing rain. Similarly, 28 percent of crashes occurred on snowy, icy, or frost-covered roads while 8 percent occurred on wet roads.
- Overall, 84 percent of older driver crashes occurred during daylight hours while 13 percent occurred at night. Street lighting was present at the crash site in about 11 percent of the nighttime crashes.
- Crashes involving older drivers were most frequent during the winter months (December to February [29 percent]), with a notable increase in the summer months as well (June to August [27 percent]). The majority of these crashes occurred in the middle of the day, from 10:00 AM to 4:00 PM (50 percent).
- Approximately 5 percent of older driver crashes involved impaired drivers.
- The main contributing factors were distracted or inattentive driving (21 percent), failing to yield right-of-way (13 percent), driving too fast for conditions (13 percent), and running off the road (12 percent).
- The most common speed limits on roadways where older driver crashes occurred were 45 mph (21 percent) and 55 mph (12 percent). About 28 percent of crashes took place on local roads, while 27 percent occurred on principal arterials.

While there are similarities, notable differences are observed for crashes involving younger and older drivers. Younger drivers are more prone to crashes involving fixed objects, while older drivers are more likely to experience rear-end and right-angle collisions. Younger drivers also face more weather-related challenges, with a higher proportion of crashes occurring in rain, snow, or ice-covered roads, whereas older drivers tend to have fewer weather-dependent incidents. Additionally, older drivers are more likely to be involved in daytime crashes, especially during the middle of the day, while younger drivers have a higher occurrence of crashes during commuting hours. Distracted driving is a common cause for both groups, though it is more prevalent among younger drivers, who also show a higher rate of impaired driving.

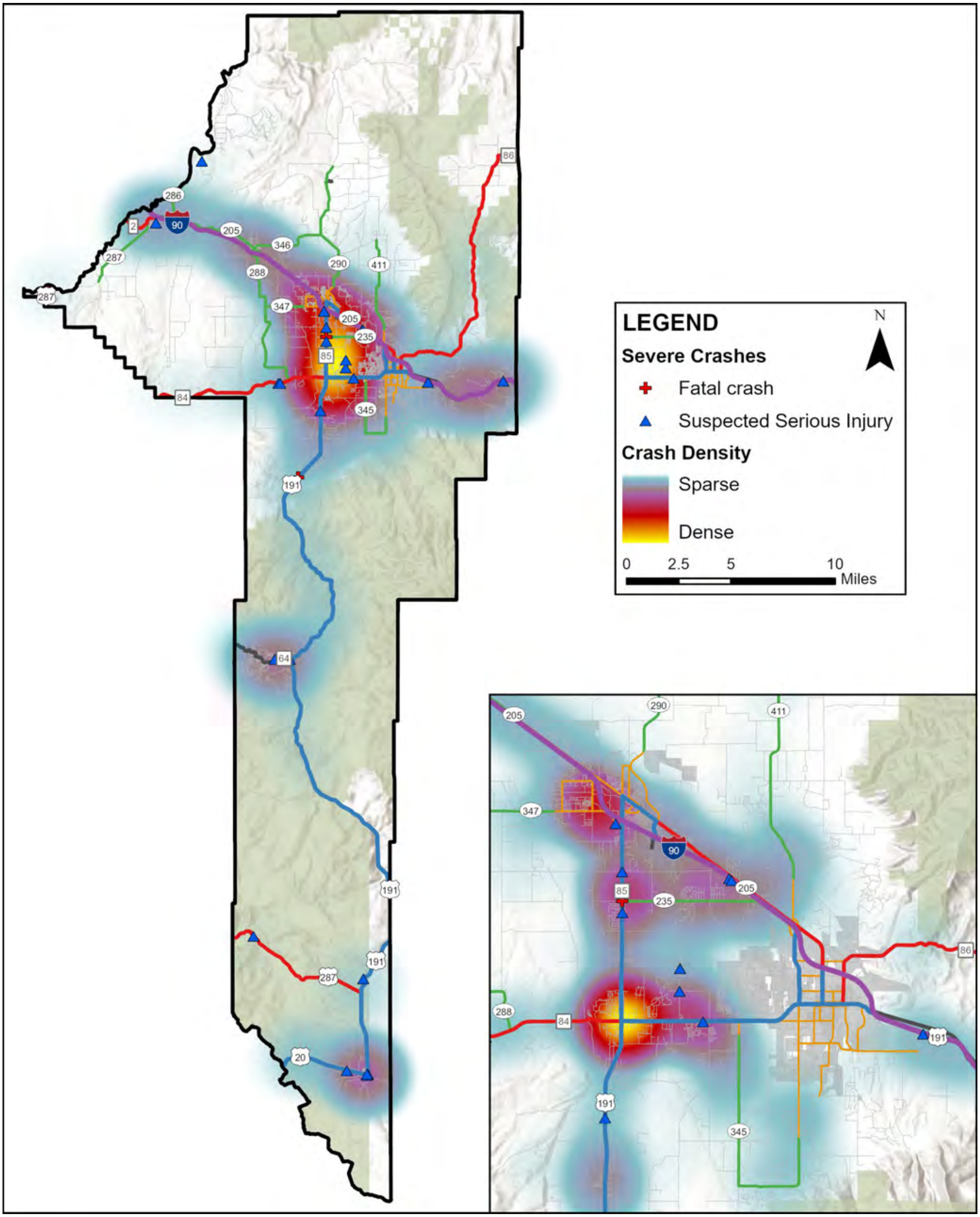


Figure 7.5: Older Driver Involved Crashes

7.2.4. High Risk Behaviors

High-risk driving behaviors are a major contributor to crashes and severe injuries within the county. Speeding, failure to wear a seatbelt, driving under the influence of alcohol or drugs, and distracted or inattentive driving all increase the likelihood of a severe injury occurring as the result of a crash. Speeding reduces driver reaction time and makes it harder to control the vehicle, while impairment affects driver judgment and coordination. Distracted driving, such using a phone or eating, diverts driver attention away from the road, and not wearing a seatbelt compromises the safety of occupants in the event of a crash. Research indicates that drivers who engage in one risky driving behavior are significantly more likely to engage in other poor driving behaviors, which is often referred to as "clustering" of risky behaviors where multiple unsafe driving habits occur together in the same individual. Together, or separately, these high-risk behaviors create dangerous driving conditions that can lead to severe consequences.

Speed Related

Crashes considered to be speed related were based on the reported driver actions at the time of the crash. Drivers with contributing actions listed as “Drove Too Fast For Conditions” or “Exceeded Posted Speed Limit” were considered to be involved in speed related crashes. In this case, 1,981 individuals, including 1,966 drivers and 15 unknown person types, were reported as driving in this manner. On a crash basis, these individuals were involved in 1,959 total crashes.

Speed was considered a contributing action in about one third of all crashes in the study area over the 5-year analysis period. Over the same period, 6,560 speed related violations were also recorded, accounting for 35 percent of all citations, as discussed in **Section 6.1**. **Figure 7.6** shows a heat map of crash locations with an individual who “Drove Too Fast For Conditions” or “Exceeded Posted Speed Limit” was listed as contributing action(s). The speed related citations are shown as yellow dots. Given available crash data, the following trends were observed regarding the 1,959 crashes involving drivers reported as driving too fast for conditions (96 percent) or exceeding the posted speed limit (4 percent).

- About 79 percent of the speed related crashes occurred at non-junction locations while the remaining crashes occurred at an intersection (13 percent) or were related to an intersection (8 percent).
- The most common crash types involving speeding drivers were fixed-object (41 percent), rollover (22 percent), rear-end (11 percent), and right-angle (7 percent).
- Speed related crashes resulted in 12 fatalities (1 percent), 36 suspected serious injuries (2 percent), and 79 percent overall resulted in property damage only.
- Poor weather and road conditions appeared to be a factor in speed related crashes with 34 percent occurring when it was snowing or blowing snow, 28 percent occurring on snow-covered roads, and 54 percent occurring on icy or frost-covered roads. Accordingly, 50 percent of the speed related crashes occurred in winter months (December through February) while only 7 percent occurred during summer months (June through August) suggesting that driving too fast for road conditions is more prevalent than speeding on dry roads.
- About 64 percent of the speed related crashes occurred during daylight hours, while 31 percent occurred while it was dark outside (street lighting was present for 12 percent of the crashes that occurred at dark). Accordingly, about 52 percent of the crashes occurred during the hours of 8:00 AM and 5:00 PM, which generally corresponds with winter daylight hours.

- Drivers aged 16 to 35 were over-represented in speed related crashes, accounting for 62 percent of offending drivers. Gender, however, was similar to that observed for all crashes in the study area.
- Of the speed related crashes, 7 percent also involved an impaired driver. Contributing actions in crashes (besides speeding) included running off the road (43 percent), over-correcting (25 percent), failure to stay in proper lane (23 percent), and distracted/inattentive driving (19 percent).
- Half of the speed related crashes occurred on roadways with speed limits of 60 mph or more.
- Citations were primarily issued on I-90, Frontage Road, E Valley Center Road, and MT 85 between Bozeman and Belgrade. Speed-related crashes followed a similar pattern, primarily occurring on I-90 through the Bozeman Pass and along I-90 between Bozeman and Belgrade. In addition, there were several speed-related crashes at the intersection of US 191, MT 85, and MT 84. The similarity in citation and crash locations may indicate consistent speed enforcement or suggest that citations are helping prevent speed-related crashes.
- Of the speeding drivers involved in crashes, 62 percent had Montana driver's licenses. Similarly, 65 percent of drivers cited for speeding had Montana driver's licenses.

Speed-related crashes in Gallatin County are primarily non-junction incidents, with many occurring on high-speed roads like I-90. These crashes often involve fixed-object collisions and rollovers, with adverse weather conditions, particularly snow, ice, and frost, playing a significant role. Winter months see a higher frequency of these crashes, while crashes during daylight hours are more common than those at night. Younger drivers, particularly those aged 16 to 35, are frequently involved, with common contributing factors including running off the road, over-correcting, and distraction. The data suggests that consistent speed enforcement may be occurring, as citation and crash locations align, particularly on I-90 and state highways.

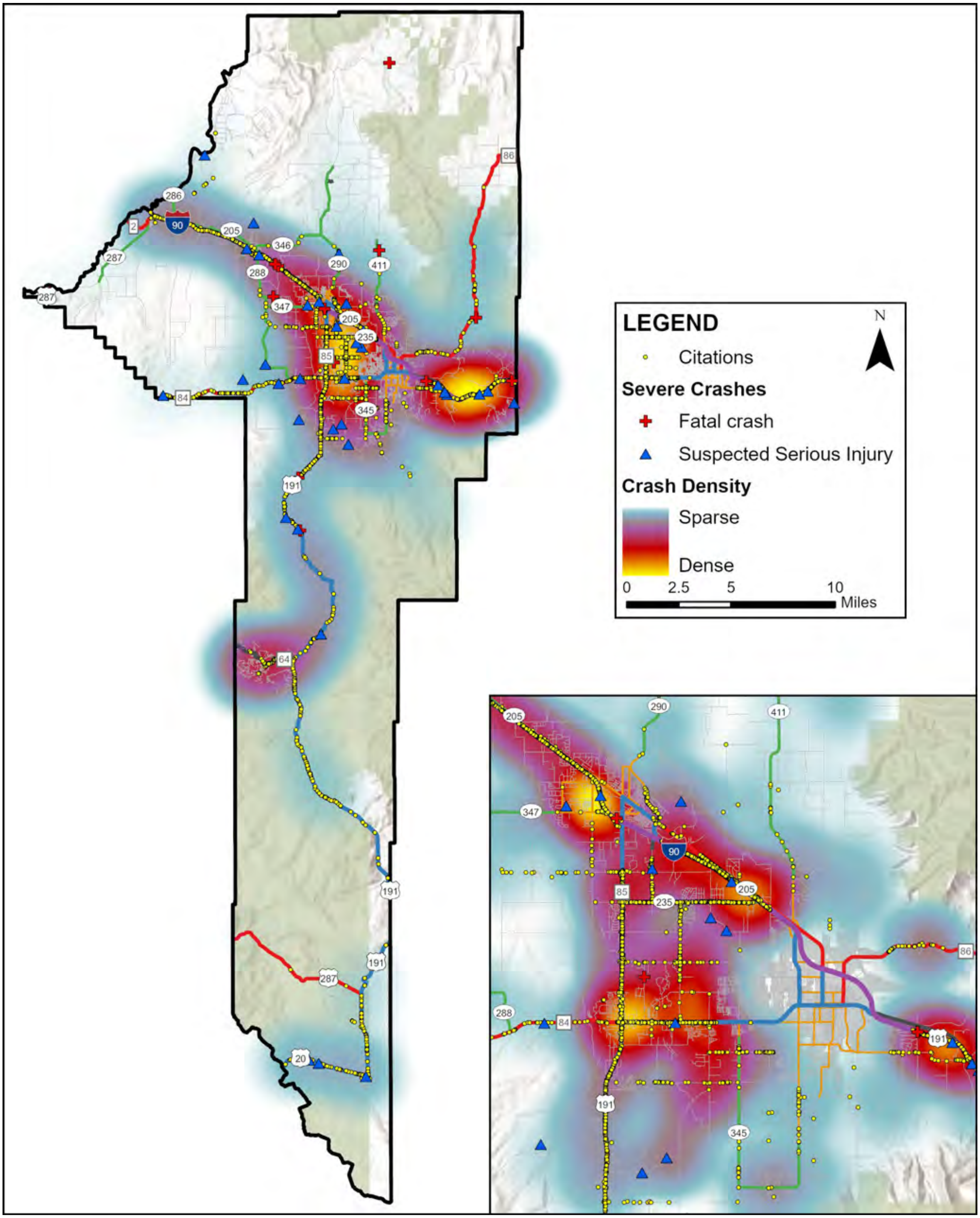


Figure 7.6: Speed Related Crashes

Unrestrained Occupants

The restraint type was listed for about 96 percent of individuals involved in crashes within the county. Drivers and passengers who were not using a restraint, or were using a restraint improperly were considered to be unrestrained. A total of 537 occupants were not using a restraint while 103 occupants were using only a lap or shoulder belt, or were otherwise improperly using a restraint. About 69 percent of unrestrained occupants were drivers while the other 31 percent were passengers. On a crash basis, these individuals were involved in 522 total crashes.

Unrestrained occupants were involved in about 8 percent of all crashes in the study area over the 5-year analysis period. Over the same period, 2,359 restraint related violations were also recorded, accounting for 13 percent of all citations, as discussed in **Section 6.1**. **Figure 7.7** shows a heat map of crash locations with an individual who did not use a restraint, or improperly used a restraint. The restraint related citations are shown as yellow dots. Given available crash data, the following trends were observed regarding the 522 crashes involving unrestrained occupants.

- The most common crash types involving unrestrained occupants included fixed-object (26 percent), rollover (26 percent), rear-end (13 percent), and right-angle (10 percent).
- Of the crashes involving unrestrained occupants, 4 percent were fatal and 10 percent resulted in suspected serious injuries. Overall, 47 percent resulted in property damage only.
- Crashes involving unrestrained occupants were less likely to occur in adverse weather conditions compared to the overall data set. About 11 percent of these crashes occurred during snowfall or blowing snow, and 4 percent occurred in the rain. Similarly, 26 percent of the crashes took place on snowy, icy, or frost-covered roads, while 8 percent occurred on wet roads.
- Overall, 61 percent of crashes with an unrestrained occupant occurred during daylight hours while 26 percent occurred at night. Street lighting was not present at the crash site in about 91 percent of the nighttime crashes.
- These crashes occurred most commonly during the fall months (September to November [29 percent]) but also experienced a spike in the summer months (June to August [25 percent]). There was no clear pattern in the time of day for crashes involving unrestrained occupants.
- Impaired drivers were over-represented in unrestrained occupant crashes, accounting for 31 percent of drivers.
- Of the unrestrained or not properly restrained occupants, 69 percent were male and 31 percent were female. Occupants ages 22 to 35 were the most likely to be unrestrained or improperly restrained.
- Other common contributing factors included running off the road (43 percent), distracted or inattentive driving (28 percent), and reckless driving (24 percent).
- Pickup trucks were involved in a higher percentage of unrestrained occupant crashes compared to the overall data, accounting for 39 percent. It is important to note that this does not necessarily mean the pickup trucks themselves had an unrestrained occupant, but rather that they were involved in crashes where at least one vehicle had an unrestrained occupant.
- About half of the crashes occurred on roadways with a speed limit of 55 mph or more (51 percent). About 33 percent occurred on local roads while 21 percent occurred on principal arterials.

- Citations were primarily issued along MT 85 at the intersections with US 191 and E Valley Center Road. There was also a small concentration of citations along I-90 and the frontage road between Bozeman and Belgrade, as well as in Big Sky and West Yellowstone. Crashes involving unrestrained occupants followed a similar pattern, primarily occurring at the intersection of US 191, MT 85, and MT 84, in Big Sky, and in West Yellowstone. There were also a few crashes on I-90 through the Bozeman Pass. The overlap in citation and crash locations may indicate that targeted enforcement is effectively addressing unrestrained occupant-related crashes or that the issuance of citations is helping to reduce their frequency.

Unrestrained occupants are notably more likely to be involved in crashes with impaired drivers, reflecting an increased risk and apparent behavior clustering. Risky behaviors, such as distraction and reckless driving, were also observed in crashes involving unrestrained occupants. Males and younger adults were the most common groups of unrestrained occupants. The injury severity of unrestrained occupants is significantly higher compared to other focus areas, with a greater likelihood of fatal or serious injuries. Additionally, about half of these crashes occurred on roadways with a speed limit of 55 mph or higher, suggesting that higher-speed environments may contribute to the severity of these crashes. Citations and crashes involving unrestrained occupants were concentrated in similar locations, primarily along MT 85, and in Big Sky and West Yellowstone, suggesting that targeted enforcement may be reducing such crashes.

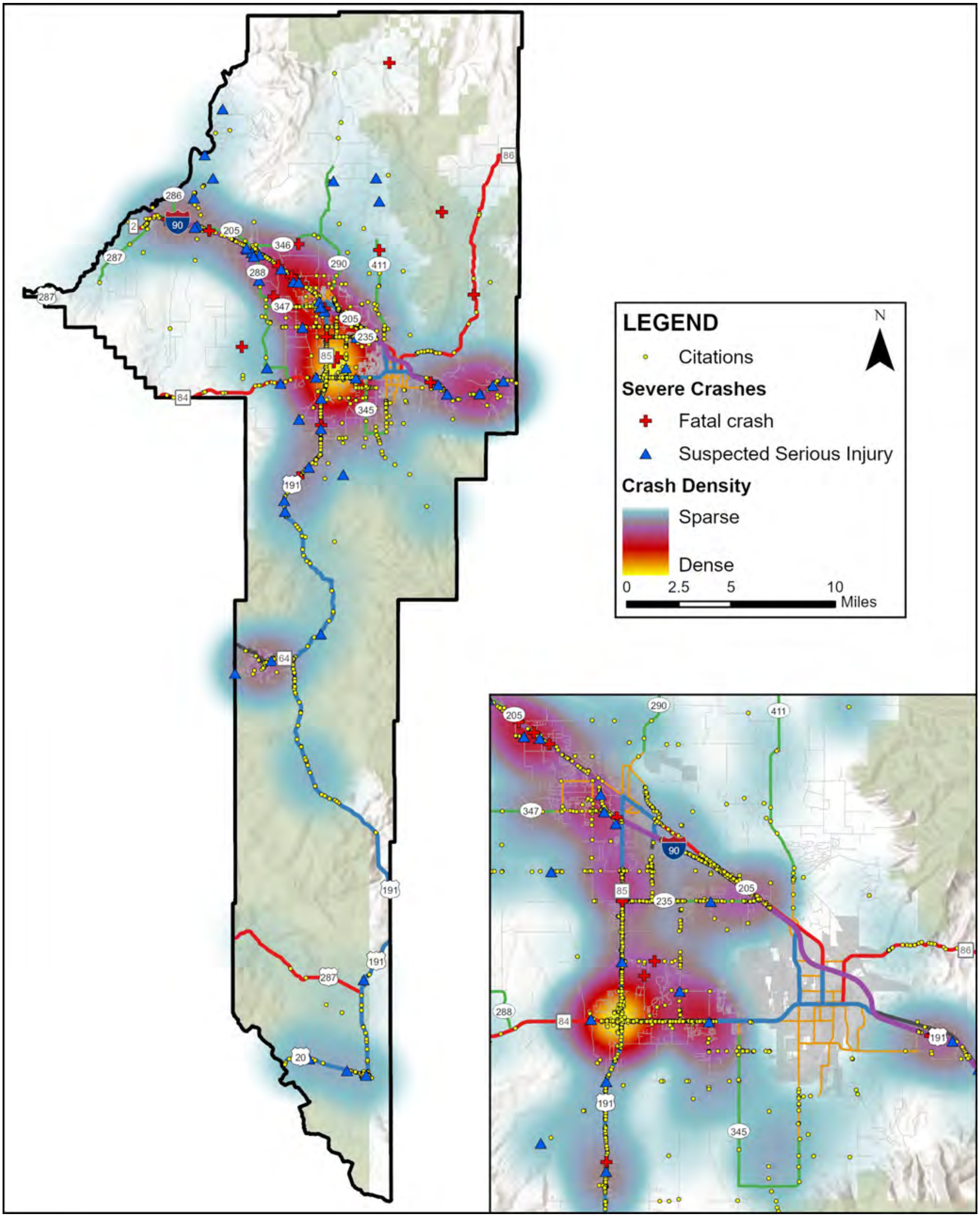


Figure 7.7: Unrestrained Occupant Crashes

Impaired Drivers

There are multiple ways to sort and define impaired driver crashes in the MDT crash database. The first is to sort the crash records by driver condition at the time of the crash. Selecting drivers that were "Under the Influence Of Medications/Drugs/Alcohol" yields a total of 625 drivers and 3 non-motorists.

Another filter can be applied to the impairment description attribute in the person details. A total of 782 drivers and 3 non-motorists were reported as being impaired. Of those 785 individuals, 67 percent were impaired by alcohol, 12 percent were impaired by drugs, 18 percent were impaired by drugs and alcohol, and the remaining 2 percent did not list the source of impairment.

A final filter can be applied to the crash details. When an impaired driver is involved in a crash, MDT fills a field indicating an impaired driver crash. This filter yields a total of 778 crashes and is assumed to be most representative of impaired driver crashes. For this reason, the following analysis is based on this definition and selection methodology.

Overall, impaired drivers were involved in about 12 percent of all crashes in the study area over the 5-year analysis period. Over the same period, 933 citations were issued for driving under the influence (DUI) and 431 citations were issued for other drug or alcohol possession violations, accounting for about 7 percent of citations overall, as discussed in **Section 6.1**. **Figure 7.8** shows a heat map of crash locations with an individual who was impaired by drugs or alcohol at the time of the crash. The DUI related citations are shown as yellow dots. Given available crash data, the following trends were observed regarding the 778 crashes involving impaired drivers.

- Approximately 76 percent of impaired driver crashes occurred at non-junction locations, while 15 percent took place at intersections and 9 percent were related to intersections.
- The most common crash types involving impaired drivers were fixed-object (46 percent), rollover (25 percent), and rear-end (8 percent). Additionally, 76 percent of these crashes only involved one vehicle.
- Impaired driver related crashes resulted in 19 fatalities (2 percent), 66 suspected serious injuries (8 percent), while 59 percent resulted in property damage only.
- Poor weather and road conditions appeared to have no significant impact on impaired driver crashes, which were observed to occur more often under ideal weather and road conditions compared to the overall crash dataset. Only 6 percent occurred when it was snowing or blowing snow, 8 percent occurred on snow covered roads, and 9 percent occurred on icy or frost-covered roads.
- The majority of crashes occurred during the fall (September – November [27 percent]) and summer (June – August [26 percent]).
- About 59 percent of the impaired driver crashes occurred while it was dark outside, while 36 percent occurred during the daytime (street lighting was present for 14 percent of the crashes that occurred at dark). Accordingly, half of the crashes occurred between the hours of 8:00 PM and 3:00 AM.
- Drivers aged 22 to 35 were over-represented among impaired drivers, accounting for 46 percent of offenders. Male drivers were also over-represented, making up 75 percent of all impaired drivers.

- Contributing actions in crashes included driving in a reckless or aggressive manner (53 percent), running off the road (47 percent), and failure to stay in proper lane (29 percent).
- Half of vehicles involved in impaired driver crashes were moving straight ahead, while 27 percent were negotiating a curve.
- Citations for impaired driving and impaired driver crashes largely occurred in the same areas, with the most common location being the intersection of MT 84, MT 85, and US 191 in Four Corners. A few crashes and citations also took place on US 191 west of Bozeman and near the I-90 highway ramps in Belgrade. One notable difference was a concentration of citations in Big Sky, though there were fewer crashes in this area compared to others.

Impaired drivers, particularly young males aged 22 to 35, are over-represented in crashes, which tend to be more severe compared to other incidents, often resulting in fatal or serious injuries. These crashes occurred more frequently under ideal weather and road conditions, indicating, perhaps, that the decision to drive impaired may be deterred by adverse environmental conditions. While certain locations, like the intersection of MT 84, MT 85, and US 191, see higher rates of both impaired driving citations and crashes, areas like Big Sky show more citations than crashes. This difference may indicate a variation in the level of impaired driving enforcement or suggest that the issuance of citations is having a preventative effect on impaired driving-related crashes.

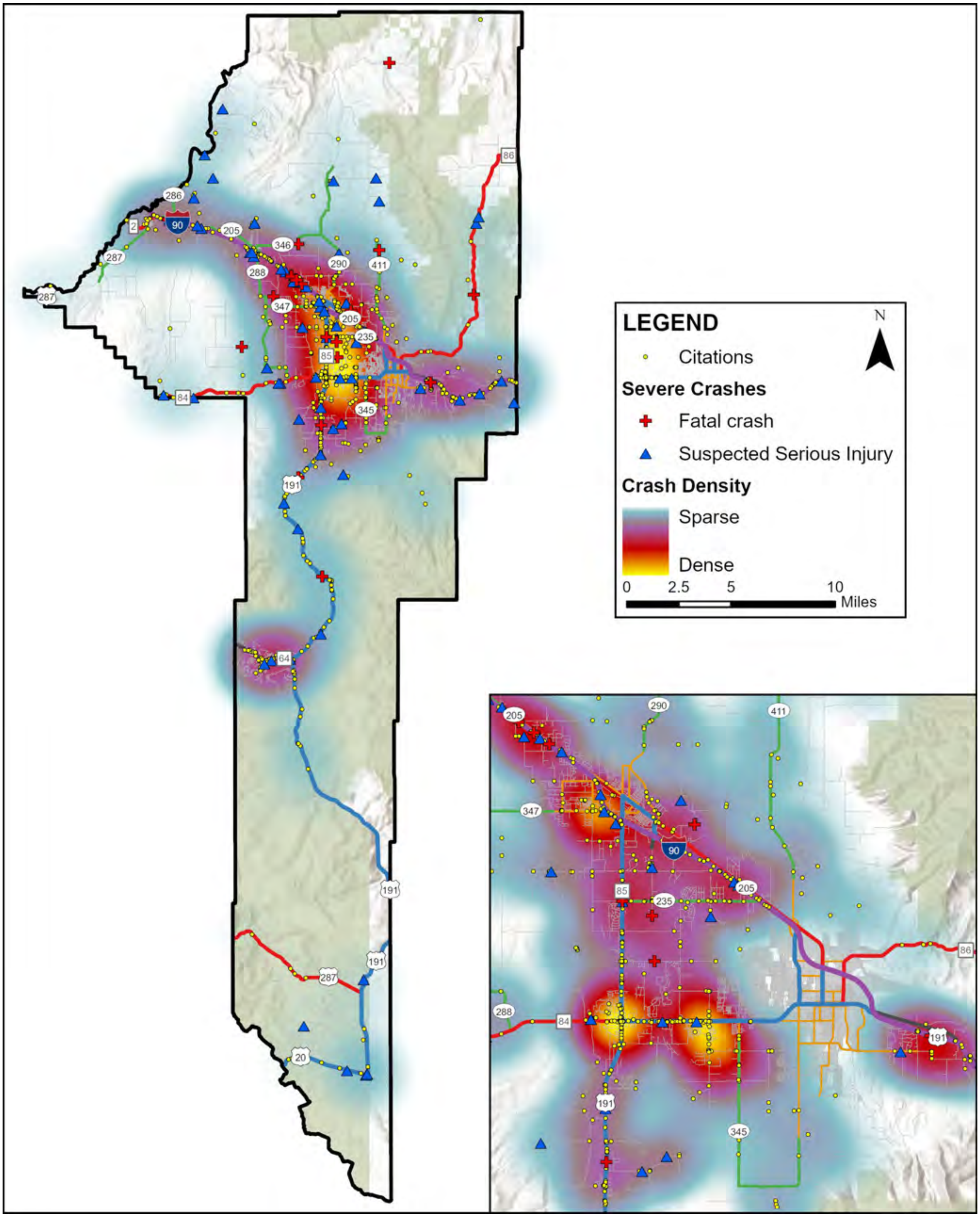


Figure 7.8: Impaired Driver Crashes

Inattentive Drivers

The involvement of a distracted or inattentive driver can be coded in crash records in many ways. First, under the individual person records, the individual's actions at the time of the crash could be listed as "Drove in Distracted, Inattentive Or Careless Manner". A total of 1,834 individuals, including 1,814 drivers and 20 unknown person types, were reported as driving in this manner. On a crash basis, these distracted individuals were involved in 1,817 total crashes, indicating more than 1 distracted individual was involved in some crashes.

Another attribute field in the crash records indicates whether the driver was specifically noted as a distracted driver. In this case, 506 individuals in 501 crashes were coded in this manner. Interestingly, 161 of these individuals (32 percent) did not have "Drove in Distracted, Inattentive Or Careless Manner" listed as a contributing action at the time of the crash. It is hypothesized that distracted drivers is much less than the total number of individuals who were reportedly driving in a distracted, inattentive, or careless manner because the latter is inclusive of many other behaviors besides distractions. Additionally, it can be difficult to prove distractions, unless phone records are obtained via warrant, or the driver self-reports distractions.

Based on the large differences between these totals, it is difficult to determine exactly how many of the crashes within the county involved distracted or inattentive drivers. However, it is reasonable to conclude that distracted driving is prevalent in the county and is a contributing factor in many of the area's crashes. **Figure 7.9** shows a heat map of crash locations reported to have involved an individual who had "Drove in Distracted, Inattentive Or Careless Manner" listed as a contributing action. The 501 crashes specifically denoting a distracted driver are shown as green dots. Key takeaways regarding the 1,817 crashes involving drivers reported as driving in a distracted, inattentive, or careless manner are summarized below. The filter used for this analysis includes careless drivers, which may not necessarily mean the driver was distracted.

- About 60 percent of the distracted driver crashes occurred at non-junction locations while 23 percent occurred at intersections and 17 percent were related to intersections.
- The most common crash types resulting from distracted drivers included rear-end (29 percent), fixed-object (28 percent), rollover (12 percent), and right-angle (10 percent).
- Of the crashes involving distracted drivers, 6 were fatal, and 52 (3 percent) resulted in serious injuries. Overall, 72 percent resulted in property damage only.
- The majority of crashes occurred during the summer (June – August [28 percent]) and winter (December – February [27 percent]) months. The time of day trends for distracted driver crashes were very similar to those of all crashes within the study area, with increases during commuting hours.
- About one-third of the distracted driver crashes occurred on roads that were wet (7 percent), snowy (12 percent), or icy/frost-covered (15 percent). The weather was clear (49 percent) or cloudy (37 percent) for most crashes.
- About 7 percent of the distracted driver crashes also involved an impaired driver. Of all impaired drivers, 13 were reported as driving in a distracted, inattentive, or careless manner.
- There were no obvious trends regarding age of the distracted drivers, though it did skew slightly younger compared to overall crashes. About 39 percent of distracted drivers were over the age of 35, which is slightly lower than the 47 percent of all drivers involved in crashes who were also in this age group.

- Other common contributing factors (besides distracted/inattentive driving) included running off the road (29 percent of drivers), driving too fast for conditions (18 percent), and failure to stay in proper lane (17 percent).
- About 10 percent of vehicles involved in distracted driver crashes were turning right or left while 8 percent were slowing, and 12 percent were stopped in traffic. About half of the vehicles were moving straight ahead (46 percent). The data does not relate individual vehicle records to individual drivers, therefore it is impossible to indicate which movement was made by the distracted driver versus the impacted driver. It is also impossible to indicate which driver was deemed at fault in the collision.

Distracted driver crashes primarily involve rear-end and fixed-object collisions, with some also resulting in rollovers and right-angle crashes. Distracted drivers are typically younger than those in the general crash population, with many being under the age of 35. While most crashes resulted in property damage, a small percentage led to serious or fatal injuries. Impaired driving is a contributing factor in some distracted driving crashes. Regarding vehicle movements, many crashes involve vehicles moving straight ahead, while others occur when vehicles are slowing or stopped in traffic, suggesting possible increased distractions during congested traffic conditions.

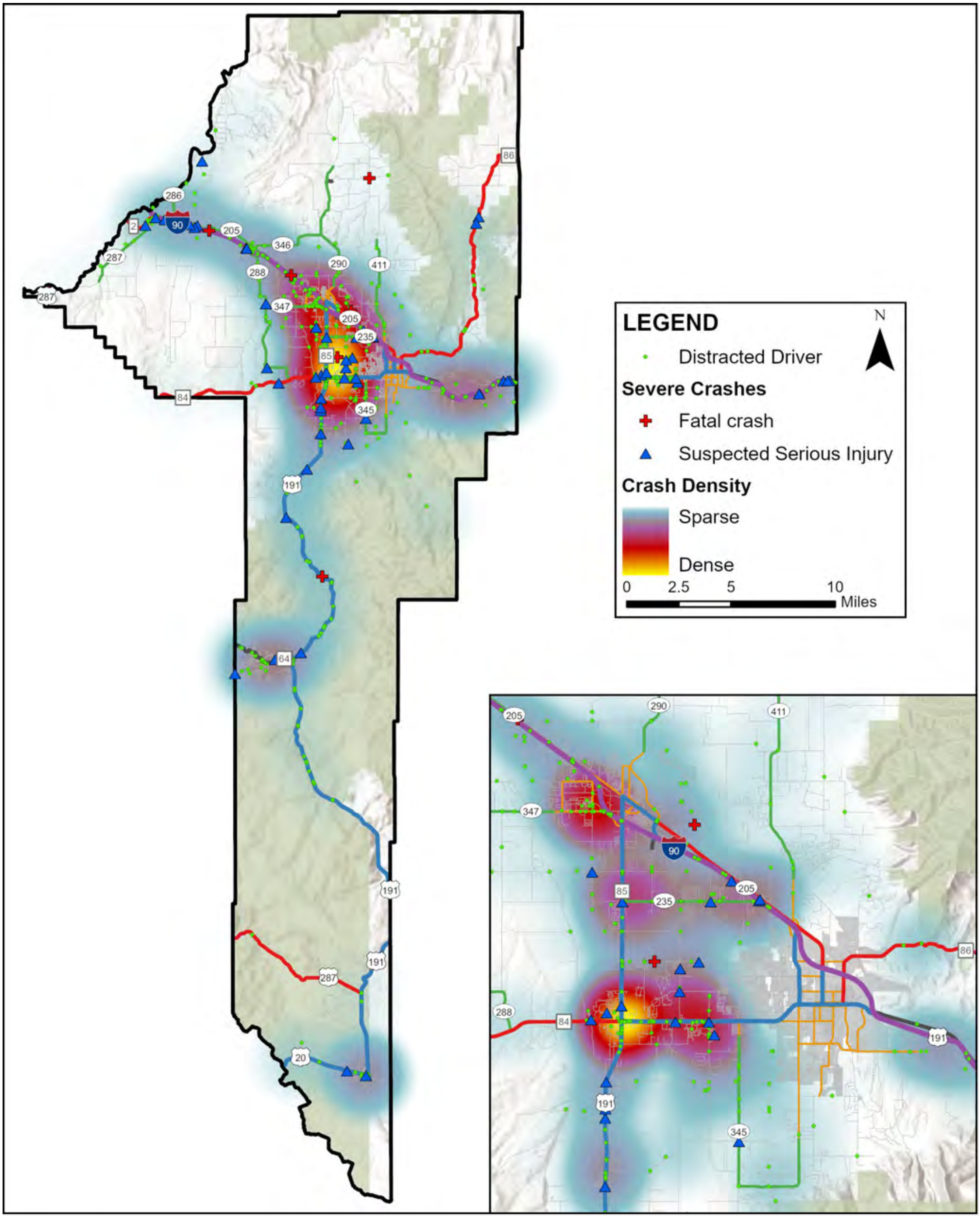


Figure 7.9: Inattentive Driver Crashes

7.3. Relationship Between Focus Areas

Table 7.2 summarizes the relationships between each of the focus areas. For additional detail, the intersection crashes, driver age, and high risk behaviors focus area categories were separated into individual focus areas. The N/A column represents the number of crashes within a given focus area that did not have any overlap with the other focus areas.

Table 7.2: Relationship Between Focus Areas

Focus Area	Run-off-the-Road	Intersection	Intersection Related	Younger Driver	Older Driver	Speed Related	Unrestrained Occupants	Impaired Drivers	Inattentive Drivers	N/A	TOTAL
Run-off-the-Road	--	155	191	989	189	1,152	283	566	713	312	**2,745**
Intersection	155	--	-	357	167	196	79	81	305	124	**876**
Intersection Related	191	-	--	258	114	163	46	70	300	50	**635**
Younger Driver	989	357	258	--	135	752	191	232	749	364	**2,279**
Older Driver	189	167	114	135	--	167	42	38	263	163	**770**
Speed Related	1,522	196	163	752	167	--	147	144	371	236	**1,959**
Unrestrained Occupants	283	79	46	191	42	147	--	162	169	31	**522**
Impaired Drivers	566	81	70	232	38	144	162	--	124	40	**778**
Inattentive Drivers	713	305	300	749	263	371	169	124	--	166	**1,817**
N/A	312	124	50	364	163	236	31	40	166	--	**--**
TOTAL	**2,745**	**876**	**635**	**2,279**	**770**	**1,959**	**522**	**778**	**1,817**	**--**	**6,739**

Based on this analysis, 54 percent of crashes with unrestrained occupants were run-off-the-road crashes, while only 10 percent of run-off the-road crashes involved unrestrained occupants. Likewise, only 21 percent of run-off-the-road crashes involved impaired drivers, while 73 percent of impaired drivers were involved in run-off-the-road crashes. Impaired driving did not appear to have a correlation with older drivers or intersection crashes. Of crashes involving younger drivers, 16 percent were intersection crashes and 11 percent were intersection related crashes, while 41 percent of both intersection and intersection related crashes involved younger drivers. Younger drivers involved in crashes were unrestrained 8 percent of the time, while 37 percent of crashes with unrestrained occupants involved younger drivers. Intersection related crashes involved inattentive drivers 47 percent of the time and intersection crashes involved inattentive drivers 35 percent of the time, while of the crashes involving inattentive drivers, 17 percent were intersection related and 17 percent were at an intersection. There did not appear to be correlation between inattentive drivers and speed related crashes. However, 59 percent of speed related crashes were run-off-the-road crashes and of the run-off-the-road crashes, 42 percent were speed related.

8. Goal Setting

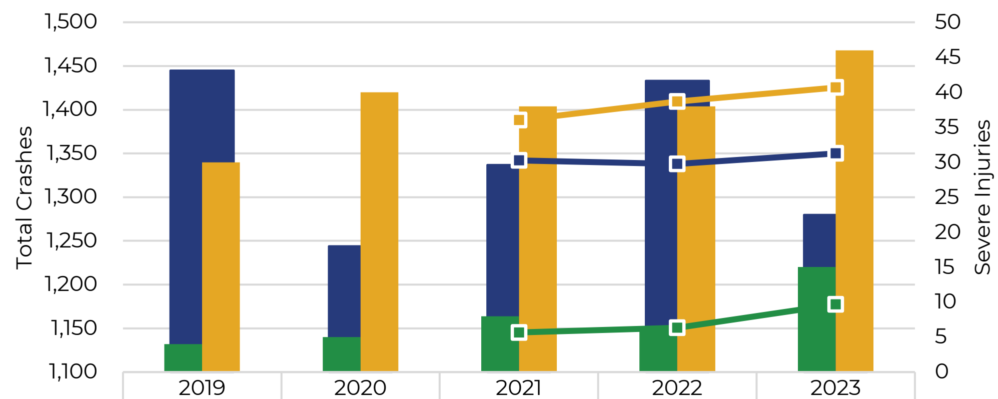
The overarching goal of the SS4A program is to zero out roadway fatalities and serious injuries. Accordingly, a requirement of the grant program is for the entity receiving funding to make an official public commitment to an eventual goal of zero roadway fatalities and serious injuries.

The commitment must include a goal and timeline for eliminating roadway fatalities and serious injuries achieved through one, or both, of the following:

(1) the target date for achieving zero roadway fatalities and serious injuries, OR
(2) an ambitious percentage reduction of roadway fatalities and serious injuries by a specific date with an eventual goal of eliminating roadway fatalities and serious injuries.

It is common practice in safety performance tracking to set goals, or targets, based on multi-year rolling averages of fatalities and serious injuries. The rolling average provides a better understanding of the overall data over time without eliminating outlier years with significant increases or decreases and provides a mechanism for accounting for regression to the mean or moving closer to an average value. If a particularly high or low number of fatalities and/or serious injuries occur in 1 year, a return to a level consistent with the average in the previous year may occur.

This analysis only includes 5 years of data, so it is difficult to discern trends based on a 5-year rolling average. Accordingly, **Figure 8.1** shows the 3-year rolling averages for the total number of crashes and total severe injuries. For comparison purposes, over the 5-year analysis period, there were an average of 7.6 fatalities, 38.4 suspected serious injuries, and 1,348 crashes. Given the data presented in **Figure 8.1**, the average number of fatalities, suspected serious injuries, and crashes are increasing year over year in Gallatin County.



	2019	2020	2021	2022	2023
Total Crashes	1,445	1,244	1,337	1,433	1,280
Fatal Injury	4	5	8	6	15
Suspected Serious Injury	30	40	38	38	46
Total Crashes (3 Yr Avg)			1,342	1,338	1,350
Fatal Injuries (3 Yr Avg)			5.7	6.3	9.7
Serious Injuries (3 Yr Ag)			36.0	38.7	40.7

Figure 8.1: Crash and Severe Injury Trends

The SS4A program requires a commitment to the eventual goal of zero roadway fatalities and serious injuries. Given this initiative, it is appropriate to set a goal for the reduction of the combined number of fatalities and suspected serious injuries. When setting annual targets, FHWA recommends using the average of the most recent 5 years of data. The analysis period for the plan spans the 2019 to 2023 time period and, at the time of writing, 2024 data is not available. Accordingly, the 5-year average number of combined fatalities and serious injuries from the 2019 to 2023 period was used as a starting point for goal setting. A target of 46 combined fatalities and suspected serious injuries will be set for 2025.

Given the starting point of 46 fatalities and suspected serious injuries, combined with an overall increasing trend in total crashes and severe injuries, it may be unrealistic to set a specific target date for the specific goal of zero fatalities and suspected serious injuries. Instead, it is considered more appropriate to set an ambitious percentage reduction in severe injuries by a specific target date. The county can choose to either set an annual percentage reduction (i.e., 5 percent annual reduction), or a percentage reduction over a specific period (i.e., the state's interim safety goal is to half the number of fatalities/serious injuries from 952 in 2018 to 476 in 2030). The goal should be ambitious, but still realistic considering resource limitations.

To put these potential goals into perspective, **Figure 8.2** presents scenarios for 5, 10, 15, and 20 percent reduction goals. As shown in the figure, with a continual 20 percent annual reduction, the county could theoretically reach "0" by 2050. To set a similar goal to the State of Montana, it would take an approximate 7.5 percent annual reduction to half the number of fatalities and suspected serious injuries over the next 10 years, from 46 in 2025 to 23 in 2034.

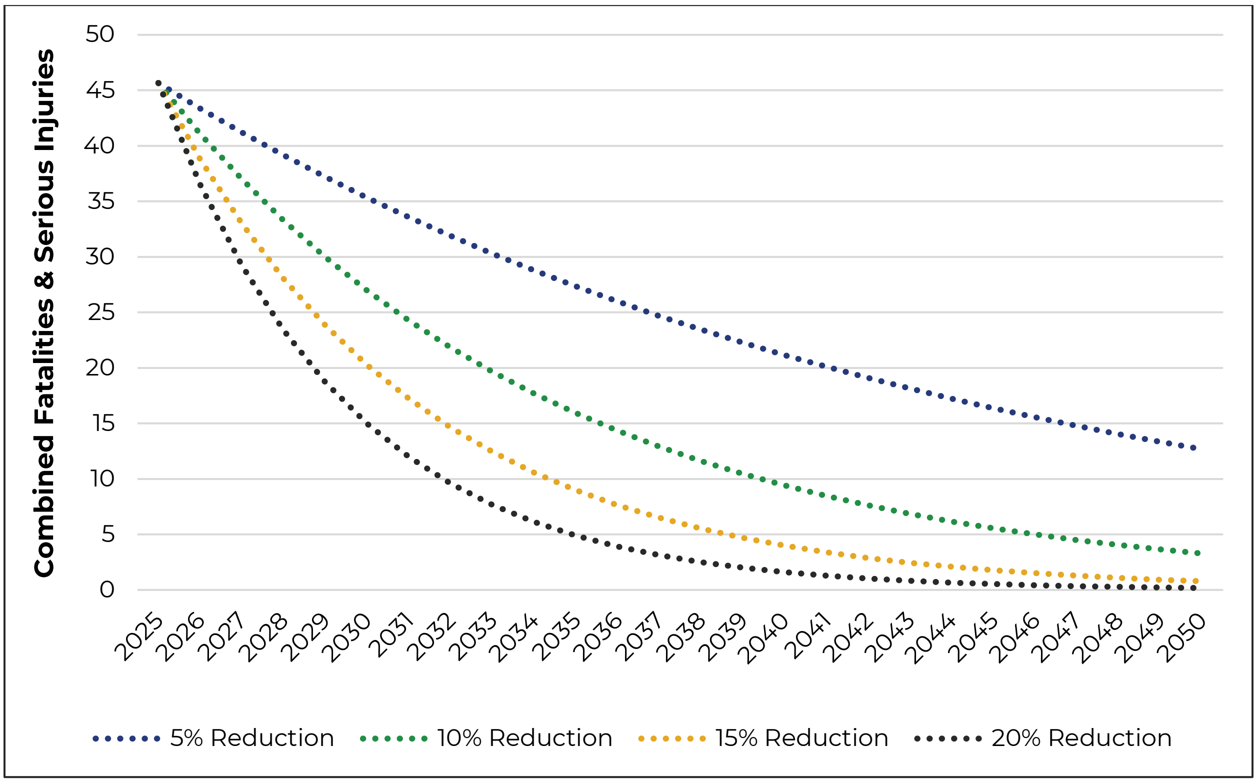


Figure 8.2: Conceptual Annual Percentage Reduction Goals

Goals setting, and the commitment to an eventual goal of "0," is a requirement of the SS4A program. The county will be required to report on its progress annually and can re-evaluate its goal(s) on a periodic basis if appropriate. While there are no programmatic or funding consequences for not achieving these goals, the consequences of fatalities and suspected serious injuries for the individuals impacted are insurmountable.

The next step in the planning process will involve the identification of potential strategies, projects, programs, and policies to make progress towards the goal of zero. These recommendations should focus on the crash circumstances that have contributed to the highest severity crashes in the county. If desired, the county could also adopt a set of goals which can help track progress towards addressing individual areas of focus, such as a goal to reduce the number of impaired driver crashes. These types of goals will be considered and discussed by the county and task force members as the plan progresses.

8.1. Preliminary Goal

Given the information presented in the previous sections, the planning team recommends the following goal:

> ***Reduce the number of combined fatalities and suspected serious injuries on Gallatin County's roadways by half, from 46 in 2025 to 23 in 2034, by implementing the SS4A Action Plan.***

This goal will be discussed and considered by the Task Force and the public with a final commitment from the Gallatin County Commission.

9. Summary

This *Baseline Data Summary* for the Gallatin County *SS4A Action Plan* identifies multimodal transportation safety problems within Gallatin County through a data-driven analysis of available crash, citation, carcass, and demographic data covering the 5-year period from January 1, 2019, to December 31, 2023. The data presented in this report is a summary of details ascertained from crash reports submitted to the MHP from patrol officers and local law enforcement officials. The information from the crash reports is conveyed as recorded in the report, with no attempts to correct or modify the data.

The purpose of this analysis was to identify contributing factors in traffic fatalities and serious injuries as well as other circumstances that impact roadway safety across the county. Additionally, comprehensive analyses were performed for 4 key focus areas including run-off-the-road crashes, intersection crashes, driver age (younger and older drivers), and high risk behaviors (speed related, unrestrained occupants, impaired drivers, and inattentive drivers). This effort included a review of the spatial relationship between crashes and their locations, as well as a detailed analysis of contributing factors and crash trends specific to each focus area, insights that may not be apparent from a high-level review of all crash records.

Analyses summarized in this report will assist Gallatin County and its partners in identifying and implementing projects or strategies to focus on the county's most high-risk and prevalent transportation safety issues. Findings will also help the county tailor any potential strategies to specific areas and contextual situations. A summary of generalized takeaways from the baseline safety analysis is provided below.

- Data indicated that 6,739 crashes involving 13,116 individuals occurred within Gallatin County but outside of the Bozeman and Belgrade city limits during the 5-year analysis period spanning 2019 to 2023. The area experienced a decline in the total number of crashes between 2019 and 2020, with a large spike in crashes in 2022. About 20 percent of crashes resulted in some level of injury and about 3 percent were severe (38 total fatalities and 192 total serious injuries).
- Temporal trends indicated a possible trend with regular commuting patterns and generally higher traffic exposure on weekdays. However, more severe crashes occurred

on weekend days. Approximately 27 percent of crashes occurred in the fall months (September through November) while 31 percent occurred in the winter months (December through February), potentially due to winter weather and road conditions or fewer daylight hours.

- About 41 percent of crashes occurred under adverse road conditions (snowy, icy, frost-covered, or wet roads) and 17 under adverse weather conditions (snow or rain). Crashes that occurred under adverse road or weather conditions could potentially indicate a lack of maintenance of roadway facilities or a lack of skill, experience, or care driving in adverse conditions. About 34 percent of crashes occurred when it was dark outside, with only 14 percent of those crashes occurring in locations where street lighting was present.
- Geospatial mapping showed higher concentrations of crashes in the triangle area between Bozeman, Belgrade, and Four Corners. This area had greater traffic volumes and was typically more congested than other areas of the county, leading to greater traffic exposure and a higher risk of conflicts. Similarly, about a quarter of severe crashes occurred on I-90 which carried the highest traffic volumes and had the highest speed limits, contributing to both higher risks of conflicts as well as higher risks of injury when a crash occurred.
- Single-vehicle crashes accounted for 59 percent of all reported crashes, while multi-vehicle crashes made up the remaining 41 percent. The most common types of crashes were fixed-object collisions, rollovers, and rear-end collisions.
- Approximately 59 percent of crashes occurred on routes owned and maintained by MDT, while 23 percent occurred on routes owned by Gallatin County. Of the severe crashes, 66 percent occurred on MDT routes while 20 percent occurred on locally owned routes. These findings point out the importance of interagency coordination.
- Four key focus areas (run-off-the-road, intersection crashes, driver age [younger and older], and high risk behaviors [speed related, unrestrained occupants, impaired drivers, and inattentive drivers])) were selected to investigate in greater detail to understand potential crash trends.
    - **Run-off-the-Road Crashes:** Run-off-the-road crashes in the study area were mainly driven by weather conditions and driver behavior. Winter weather, including icy and wet roads, increased crash risk, especially when drivers didn't adjust their speed. Distractions and inattentiveness worsened the problem, as did speeding and rushing during commuting hours. Nighttime crashes were more common due to reduced visibility, particularly in poorly lit areas. Alcohol impairment also contributed significantly. Reducing run-off-the-road crashes in Gallatin County requires addressing driver behaviors like speeding, distraction, and impairment, alongside managing weather-related risks.
    - **Intersection Crashes:** Crashes at intersections present a significant concern, particularly at high-traffic locations with heavy turning movements. These crashes often involved a higher proportion of right-angle collisions, which tended to be more severe. Distracted and impaired driving were also prevalent in intersection crashes. High-volume areas such as Four Corners and the Belgrade I-90 accesses were identified as key hotspots for these types of crashes, underscoring the need for targeted safety measures at busy intersections with complex traffic patterns.
    - **Driver Age**

- Ħ ï ź ė ŬŸ" G Ÿķ̈ ŬŸɳ Crashes involving younger drivers often involved risky driving behaviors and environmental factors. Most resulted in property damage, with fewer leading to serious injuries or fatalities compared to other focus areas. These crashes were more common at non-junction locations, in poor weather conditions, and at night. Spikes in crashes occurred during winter months and commuting hours. Male drivers were more frequently involved, and key contributing factors included impairment, distraction, and speeding. These crashes typically occurred on roads with moderate speed limits, particularly on local roads and principal arterials.
- ¸ ųŖŬŸ"G Ÿķ̈ ŬŸɳ Crashes involving older drivers were mostly rear-end, right-angle, or fixed-object collisions, with most resulting in property damage only. These incidents often occurred at non-junction locations, during daylight hours, and between 10 AM and 4 PM. Weather played a smaller role in these crashes compared to other focus areas, with fewer occurring in snow or rain. Impairment was a minor factor, and crashes typically happened on local roads or principal arterials with moderate speed limits.

o **High Risk Behaviors**

- ÊÏ ŬŬŖ"ÁŬűĈχŬŖ Speed related crashes in Gallatin County were mostly non-junction incidents, often occurring on high-speed roads like I-90. These crashes frequently resulted in fixed-object collisions and rollovers, with winter weather, especially snow, ice, and frost, often playing a key role. Speed related crashes were more common in winter and during daylight hours. Younger drivers, particularly those aged 16 to 35, were most often involved, with contributing factors like running off the road, over-correcting, and distraction being common.
- á ź ŸŬɳχŸĈķź ŬŖ"¸ ŅŅï Ï Ĉź χɳ Unrestrained occupants were more likely to be involved in crashes with impaired drivers, a trend linked to clustered high risk behaviors. These crashes often involved male and younger adult occupants, with distraction and reckless driving as common contributing factors. The severity of injuries to unrestrained occupants was notably higher than those to restrained occupants.
- ẁ Ï ĈķŸŬŖ"G Ÿķ̈ ŬŸɳ Impaired drivers, especially young males aged 22 to 35, were over-represented in severe crashes, often resulting in fatal or serious injuries. These crashes were more common under ideal weather and road conditions, suggesting, perhaps, that the decision to drive impaired may have been deterred by adverse environmental conditions. Certain areas, like the Four Corners intersection, had higher rates of both impaired driving crashes and citations, while places like Big Sky saw more citations than crashes, potentially indicating more effective enforcement or a preventative impact.
- ẃ ĈχχŬź χķ̈ Ŭ"G Ÿķ̈ ŬŸɳ Distracted driving crashes often resulted in rear-end and fixed-object collisions, with some resulting in rollovers or right-angle crashes. Drivers in these crashes were typically younger, with many under 35. Most crashes resulted in property damage only, though a few led to serious or fatal injuries. Impaired driving was also a factor in some inattentive driver crashes. The majority of crashes occurred when vehicles were moving straight, slowing, or stopped in traffic.

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Appendix D:

SS4A Annual Report Template

Gallatin County

Safe Streets For All

Action Plan

20XX Annual Safety Report

REPORT DATE

20XX Annual Safety Report

1.0. OVERVIEW AND PURPOSE

In 2024, Gallatin County was awarded funds from the Safe Streets and Roads for All (SS4A) discretionary grant program to complete an Action Plan identifying the most significant safety concerns in the community. The Action Plan was completed in 2025 and contains a comprehensive set of strategies, projects, programs, and policies and to address identified safety issues within the county.

The overarching goal of the SS4A program is to eliminate roadway fatalities and serious injuries. Accordingly, a requirement of the grant program is for the entity receiving funding to make an official public commitment to an eventual goal of zero roadway fatalities and serious injuries. In alignment with this requirement, and the community's commitment to improving roadway safety, Gallatin County has adopted the ultimate goal of zero fatalities and suspected serious injuries. As a reflection of this commitment, Gallatin County has adopted the following interim goal (**Figure 1**):

In support of the Safe Streets for All program and Vision Zero, Gallatin County is committed to the utlimate goal of ***zero fatalities and suspected serious injuries.***

Reduce the number of combined fatalities and suspected serious injuries on roadways in the Gallatin County SS4A planning area by half, from 46 in 2025 to 23 in 2034, through implementation of the SS4A Action Plan.

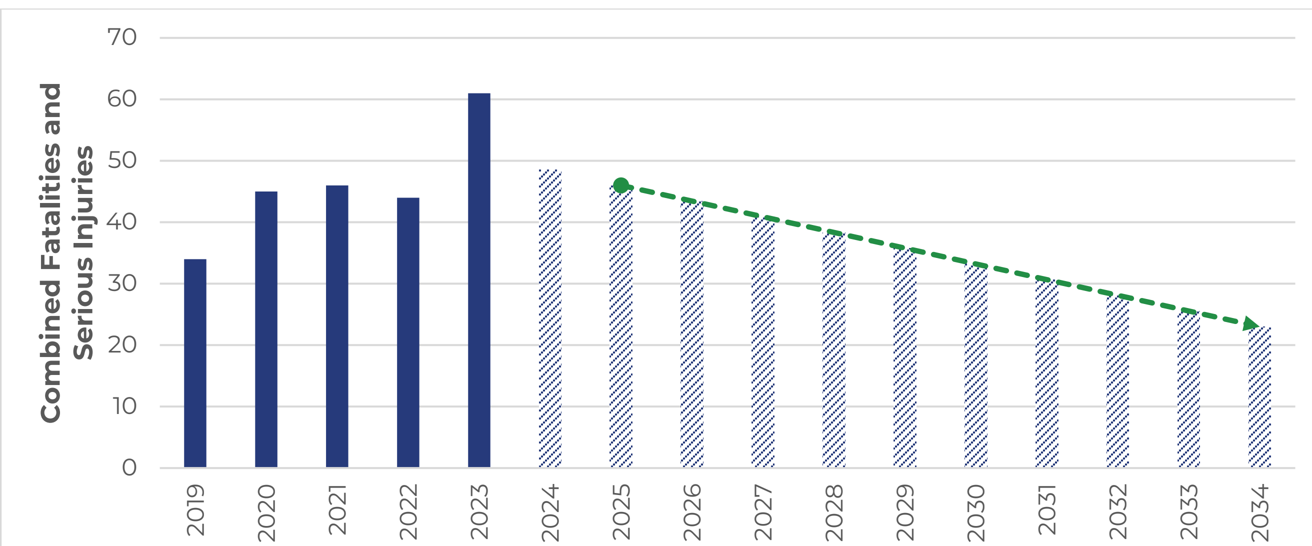

Figure 1: Interim Safety Goal

As part of the county's commitment to improving safety in the community, this Annual Safety Report was created to provide additional transparency for tracking and addressing safety issues in Gallatin County.

1.1. Planning Area

The planning area for this effort is coincident with the Gallatin County Limits excluding the areas within the 2024 city limits of Bozeman and Belgrade. Each of these municipalities are conducting their own city-specific SS4A efforts, so they were excluded from the County's SS4A planning area. However, ongoing coordination will occur with Bozeman and Belgrade's SS4A planning teams to ensure consistency across the broader regional goals. **Figure 1** provides a map of the planning area. It is expected that the planning area could change, concurrently with future city annexations, so the safety comparison year-to-year may not use the exact same analysis boundary.

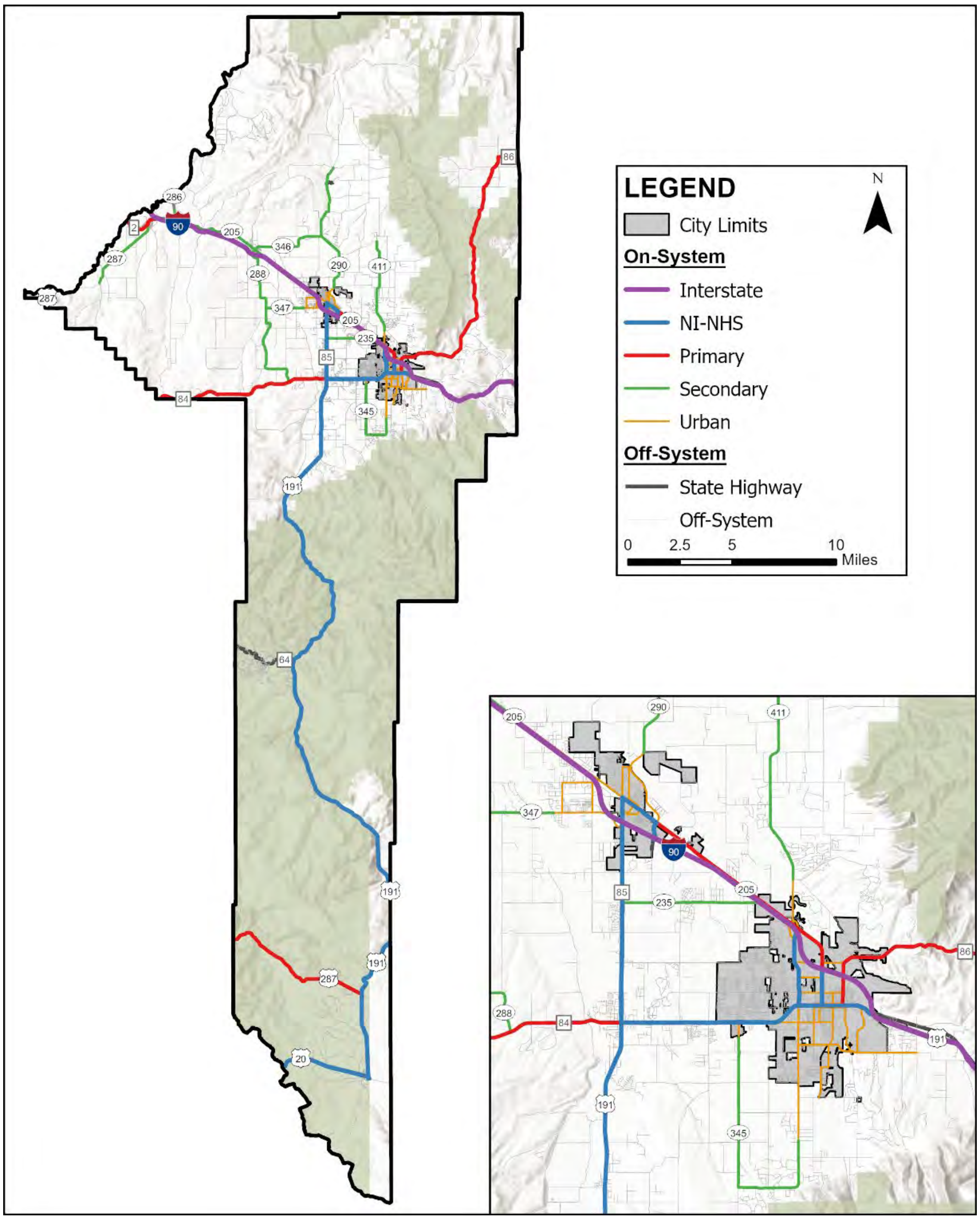

Figure 2: 2024 SS4A Planning Area

2.0. TRACKING PROGRESS

The SS4A Action Plan involved an analysis of five years of crash data spanning January 1, 2019 to December 31, 2023. Based on the analysis in the Action Plan, the number of fatal crashes steadily increased over the 5-year period, with a small decrease in 2022. Meanwhile, serious injury crashes rose from 2019 to 2021, then decreased from 2021 to 2023. The number of fatalities and suspected serious injuries per year is shown in **Table 1**. In the most recent analysis year, 20XX, there were X crashes, X fatal crashes resulting in X fatalities and X suspected serious injury crashes resulting in X suspected serious injuries within the planning area.

In 20XX, there were X fatalities and X suspected serious injuries within the planning area.

It is common practice in safety performance tracking to set goals, or targets, based on multi-year rolling averages. The rolling average provides a better understanding of the overall data over time without eliminating outlier years with significant increases or decreases and provides a mechanism for accounting for regression to the mean or moving closer to an average value. The Federal Highway Administration (FHWA) recommends using the average of the most recent 5 years of data. The analysis period for the Action Plan spanned the 2019 to 2023 time period and, at the time of writing, 2024 data was not available. Accordingly, the 5-year average number of combined fatalities and serious injuries from the 2019 to 2023 period, 46, was used as the starting target for 2025.

Table 1 presents the 5-year rolling averages for the total number fatalities and serious injuries in the planning area. Over the five-year crash analysis period evaluated in the Action Plan, the number of combined fatalities and serious injuries hovered around 45, with fewer (34) in 2019 and significantly more (61) in 2023. Add additional commentary about trends for other reporting years. **Figure 3** presents the data visually.

Table 1: Fatalities and Serious Injuries in Gallatin County Planning Area

Person Injury Severity	2019	2020	2021	2022	2023	2024	2025	20XX	2034 Goal
Fatal Injuries	4	5	8	6	15	X	X	X	?
Suspected Serious Injuries	30	40	38	38	46	X	X	X	?
Combined Fatalities & Serious Injuries	**34**	**45**	**46**	**44**	**61**	**X**	**X**	**X**	**23**
5-Year Rolling Average	*--*	*--*	*--*	*--*	*46.0*	*X*	*X*	*X*	*23.0*

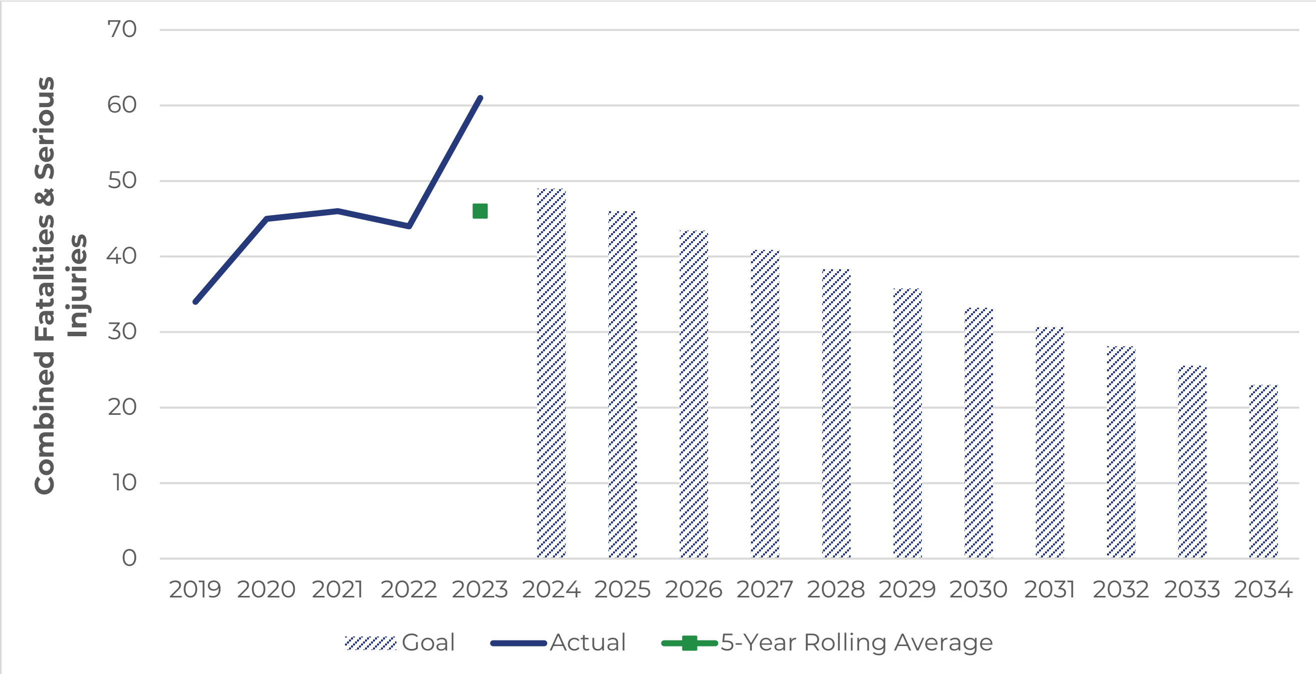

Figure 3: Fatalities and Serious Injuries in Planning Area

3.0. SAFETY PROJECTS

The SS4A Action Plan lists several projects, programs, and policies intended to proactively address identified safety concerns from all angles, including infrastructure improvements, programs targeted at safe behaviors, and operational improvements. The recommendations may be developed as stand-alone efforts, or, in some cases, combined with other efforts as appropriate. The following accomplishments were made during the current performance period. **Table 2** summarizes the projects listed in the SS4A Action Plan and their current implementation status.

- EXAMPLES:
  - Tier 2 signage installed on Cottonwood Road (PROJ-1).
  - Transportation Alternatives grant application prepared for Huffine Lane Shared Use Path (PROJ-11).

Table 2: SS4A Project Recommendations and Status

ID	Project Name	Estimated Cost	Timeframe	Priority	Status
PROJ-1	**Curve Signing Enhancements**	$1,500 - $3,000 per curve	Short-Term	HIGH	*In Progress*
PROJ-2	**Amsterdam Rd/Royal Rd**	$1.1M (signal) $2.2M (roundabout)	Mid-Term	LOW	*Not Started*
PROJ-3	**Cameron Bridge Rd (Highline Rd to Kimm Rd)**				
Low Cost Improvements		$46,000	Short-Term	HIGH	*Not Started*
Reconstruction		$2.2M	Long-Term	MEDIUM	*Not Started*
PROJ-4	**Jackrabbit Ln/E. Valley Center Rd**	$77,000	Short-Term	HIGH	*Complete*
PROJ-5	**S. Alaska Rd (Frank Rd to E. Valley Center Rd)**	$36.7M	Long-Term	HIGH	*Not Started*
PROJ-6	**Love Ln/E. Valley Center Rd**	$2.7M (signal) $6.6M (roundabout)	Mid-Term	MEDIUM	*Not Started*
PROJ-7	**Harper Puckett Rd (E. Valley Center Rd to Baxter Ln)**				
Curve Signing Enhancements		$40,000	Short-Term	HIGH	
Shoulder Widening		$2.1M	Long-Term	MEDIUM	
PROJ-8	**Baxter Ln (Harper Puckett Rd to Jackrabbit Ln)**	$27.6M	Long-Term	HIGH	
PROJ-9	**Love Ln/Durston Rd**	$7.3M	Mid-Term	HIGH	
PROJ-10	**Gooch Hill Rd (Huffine Ln to Durston Rd)**				
Intersection Signing Enhancements (Durston Rd)		$5,000	Short-Term	MEDIUM	
Right-Turn Lane (Huffine Ln)		$410,000	Mid-Term	MEDIUM	
Corridor Reconstruction		$13.8M	Long-Term	LOW	
PROJ-11	**Huffine Ln Shared Use Path**	$3.5M	Mid-Term	HIGH	
PROJ-12	**Stucky Rd/Gooch Hill Rd**	$8,000	Short-Term	MEDIUM	
PROJ-13	**Gooch Hill Rd/Chapman Rd**	$7,000	Short-Term	MEDIUM	
PROJ-14	**Axtell Anceny Rd (River Rd to River Camp Rd)**				
Curve Signing Enhancements		$19,000	Short-Term	MEDIUM	
Intersection Realignment		$50,000	Mid-Term	MEDIUM	
PROJ-15	**Gooch Hill Rd/US 191**				
Intersection Visibility Enhancements		$15,000	Short-Term	HIGH	
Traffic Control Improvements		$1.7M (signal) $3.1M (roundabout)	Long-Term	MEDIUM	

ID	Project Name	Estimated Cost	Timeframe	Priority	Status
PROJ-16	**US 191 Improvements**				
Four Corners Intersection (S1)		$3.9M	Mid-Term	MEDIUM	
3rd St to 2nd St (S2)		$3.5M	Mid-Term	LOW	
Bozeman Hot Springs/Cobb Hill/Lower Rainbow Rd (S3)		$1.3M	Mid-Term	LOW	
Cottonwood Rd (S7)		$1.5M - $3.8M	Mid-Term	LOW	
Advance Warning Signs (S-16)		$310,000	Short-Term	HIGH	
Substandard Curve Modification (S17-a)		$4.9M	Long-Term	LOW	
PROJ-17	**Bridger Canyon Improvements**				
Curve Improvements with Shoulder Widening (2.b)		$770,000	Mid-Term	LOW	
Sight Distance Mitigation/Intersection Realignment (4.a)		$70,000	Short-Term	MEDIUM	
Intersection Realignment (4.b)		$610,000	Mid-Term	LOW	
RP 13.5 – RP 14.2		$380,000	Short-Term	MEDIUM	
PROJ-18	**Belgrade to Bozeman Frontage Rd Improvements**				
Airport Rd Intersection Improvements (3)		$1.7M - $2.4M	Mid-Term	LOW	
Passing Zone Modifications (8)		$40,000	Short-Term	MEDIUM	
Install Centerline Rumble Strips (9)		$50,000	Short-Term	MEDIUM	
Develop Separated Shared Use Path (10)		$2.0M per mile	Mid-Term	MEDIUM	
Roadway Reconstruction (11)		$15.1M	Long-Term	LOW	
PROJ-19	**I-90 Corridor Study**	$250,000 - $300,000	Short-Term	HIGH	

Several programs and policy changes were also identified to help support project recommendations and generally make progress towards improving safety within the identified focus areas. The programs broadly address transportation safety across the county through both engineering-focused solutions and behavioral-focused initiatives while the recommended policies help formalize and enhance Gallatin County's transportation safety efforts through regulations. **Table 3** outlines the programs and policies recommended in the Action Plan and current, on-going, or completed activities related to each recommendation.

Table 3: SS4A Program / Policy Recommendations and Status

Program / Policy		Completed / In Progress Activities
PROGRAMS		
PROG-1	*Curve Signing Program*	• *Not Started*
PROG-2	*Shoulder Widening Program*	• *Not Started*
PROG-3	*Passing Zone Review Program*	•
PROG-4	*Roadside Management and Vegetation Control Program*	•
PROG-5	*Systemic Safety Program*	•
PROG-6	*Annual Crash Data Review Program*	•
PROG-7	*Driver Age Programs*	•
PROG-8	*High Risk Behavior Programs*	•
POLICIES		

Program / Policy		Completed / In Progress Activities
POL-1	*Snow Removal Priority Routes*	• *Priority routes identified, working on publishing for the public*
POL-2	*Street Lighting Standards*	•
POL-3	*Cell Phone Policy*	• *State Legislature is considering a statewide cell phone policy*

4.0. GOALS AND PLANS FOR NEXT PERFORMANCE PERIOD

The *Gallatin County SS4A Action Plan* aims to enhance transportation safety in Gallatin County, with a goal to significantly reduce deaths and serious injuries on county roadways. While specific funding for the proposed improvements has not yet been secured, the county is committed to implementing safety projects in support of the identified safety goals, as described in previous sections.

As projects are implemented, the county will continue to report on its progress annually and reassess its approach as safety concerns arise. This includes, but is not limited to, shifting the timeframes for project implementation, reassessing project priorities, or identifying new projects. This flexible approach allows for continual reassessment and adjustment to ensure the most pressing safety concerns are addressed in a timely and effective manner. As a result of this 20XX review of safety concerns and implementation statuses, Gallatin County has identified the following goals and plans for the 20XX performance period.

- EXAMPLES:
  - The county plans to apply for a FY2025 SS4A Implementation Grant for the S. Alaska Road project.
  - MDT is planning to install solar LED chevrons on the Bozeman Trail Road curves. The results of this installation may inform future use of this technology in the county.