MONTANA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2024 ANNUAL REPORT

Photo source: Federal Highway Administration

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Protection of Data from Discovery Admission into Evidence

23 U.S.C. 148(h)(4) states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data."

23 U.S.C. 407 states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data."

Executive Summary

The Montana Department of Transportation (MDT) continues to successfully implement the Highway Safety Improvement Program (HSIP) Funds throughout the State. The program continues to identify safety improvements on all public roads including state, county, city, tribal, and local roads. This past year, several systemic projects were implemented across two of the five Districts. These projects included 6-inch striping and high-tension median cable rail on the interstate system. Spot safety improvements have ranged from intersection and roadway signing upgrades to roundabouts, shoulder widening, and curve reconstructions.

MDT recently updated its Safety Management System to an AASHTOWare product, AASHTOWare Safety by Numetric. Using this new system and Montana Specific Safety Performance Functions, the HSIP program is able to provide Montana with effective tools to identify, analyze, and implement HSIP projects.

With the recent changes in the IIJA Bill, Montana has utilized HSIP funding to address behavioral issues that are present in most crashes. This involved MDT dedicating HSIP funds to a large overarching media campaign. The intent is to enhance existing strategies and expand to other behavioral actions that impact traffic safety.

Project delivery will be a challenge over the next several years. Project costs are accelerating at unprecedented levels and will affect the ability to deliver current HSIP projects in design. In addition, the ability to nominate new HSIP projects will be hindered.

Montana did observe a small decrease in fatalities but a large increase in serious injuries in 2023 compared to 2022.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

The Safety Engineering Section, within the Traffic & Safety Bureau, administers MDT's HSIP Program.

Each year, the Safety Engineering Section uses a data-driven approach to identify locations for potential safety improvements. This includes spot locations and also longer highway segments or entire corridors for systemic safety improvements. Sites are then reviewed through an established process which includes reviewing Montana Highway Patrol crash records, completing an office review, and usually a field review. The last step is completing a benefit-cost for a potential safety countermeasure that addresses the identified crash trend. The sites that meet the minimum benefit-cost threshold established by FHWA and are within Montana's HSIP available funding, are nominated as HSIP Funded Safety Projects.

Where is HSIP staff located within the State DOT?

Engineering

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process

Describe how local and tribal roads are addressed as part of HSIP.

All crashes investigated by the Montana Highway Patrol (MHP), or submitted to MHP by a local law enforcement agency, are available to MDT. MDT's database and program allows MDT staff the ability to query local road crash data by route and reference post as well as spatially via GIS tools. Fatal crash data is available for the Tribal Reservations; however, other crashes investigated by the Tribal law enforcement agencies or Bureau of Indian Affairs are not consistently submitted. MDT solicits participation from local and Tribal agencies, who can submit documentation of sites to be evaluated and prioritized under the Highway Safety Improvement Program. These governments may also work through MDT's District Offices to request a location be reviewed by MDT's Safety Program.

A nomination/application for HSIP projects is included on the MDT internet page at https://mt.accessgov.com/mdt/Forms/Page/mdt-tp/a0f2b61b-96af-4527-9f99-0092c3c434dc/28f1e5ac-bbc9-4af9-9f21-24d2a1a133e9/0

Potential HSIP projects on local and Tribal roads are currently evaluated using the same methodologies as are applied to potential projects on the state-owned system. For future HSIP projects, other data-driven tools are being explored to assist with identifying potential projects on low volume local and Tribal roads.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

- Design
- Districts/Regions
- Governors Highway Safety Office
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety
- Other-Motor Carriers

Describe coordination with internal partners.

MDT's Planning Division administers the Comprehensive Highway Safety Plan (CHSP) and the Highway Safety Plan, while MDT's Engineering Division manages the HSIP Program. There is significant coordination between the two Divisions and their corresponding CHSP Emphasis Areas. In addition, both Divisions are represented on the Traffic Records Coordinating Committee (TRCC). MDT's CHSP was last updated in 2020, and the next update will occur in 2025.

The most current CHSP is available at:
https://www.mdt.mt.gov/visionzero/plans/chsp.aspx

The Highway Safety Improvement Program is administered centrally by the MDT Traffic and Safety Bureau. Crash clusters are identified by roadway system and by various criteria. Coordination with MDT's District Staff, Environmental Staff, Maintenance, and other engineering disciplines is on-going with the program. This takes place as sites are analyzed and as projects are identified, designed, and constructed.

Identify which external partners are involved with HSIP planning.

- Law Enforcement Agency
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency

Describe coordination with external partners.

MDT routinely receives requests for specific sites identified for review from law enforcement, local government entities, and Tribal governments. MDT coordinates with these governments to gather additional input for addressing the crash trends. MDT coordinates with the MPO's in the same manner; however, the coordination is done through MDT's District and Planning Division Offices rather than the Traffic & Safety Bureau.

Describe other aspects of HSIP Administration on which the State would like to elaborate.

Since 2006 Montana has had a Traffic Records Coordinating Committee (TRCC). The TRCC has representation from State agencies involved with safety records and Federal agencies for oversight and input.

They meet regularly and attempt to coordinate and share projected record upgrades, new projects, and pertinent records among participants. As the systems mature, the TRCC may include MPO and Tribal representation.

Starting September 2008, the Montana Highway Patrol (MHP) implemented the CTS America Public Safety System dispatch-crash-record systems, including a MMUCC based crash reporting form. MHP investigates approximately 50% of all statewide crashes. This CTS America System is presently only used by the MHP via a mobile client in each patrol unit; however, a web-based crash reporting system was developed and was being used by a few local agencies until the program became obsolete. MHP has developed a new system but very few agencies have utilized it.

Recently MDT hired additional data entry staff to supplement MHP's crash data staff. Their workload involves hand entering thousands of local law enforcement crash data into a database that communicates with MHP's database. Due to staffing limitations and competing law enforcement priorities, MHP has had challenges with keeping the crash database to the level needed by MDT's traffic-safety programs. In addition, MDT has spent the last year and half investigating the benefits, challenges, and impacts of transitioning the state-wide crash database to MDT. This has included a FHWA funded study to look at other states processes and an MDT business process review on how the current database is used to improve traffic safety across multiple agencies.

In 2022 MDT replaced its safety database and analysis tools. The new system, AASHTOWare Safety by Numetric, allows MDT to access crash data being collected by MHP. This crash data has been linked with many roadway data elements, including the Fundamental Data Elements identified by FHWA. Additionally, MDT is able to access MHP crash investigator's reports, if additional detail on the particular crash is required. Lastly, the upgraded system continues to allow access to MHP citation data for traffic and safety engineering purposes.

The Traffic & Safety Bureau is actively involved in the update and implementation of the CHSP. Traffic and Safety continues to take the lead in the areas of roadway departure crashes and intersection crashes.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?
No

MDT's Safety Program has a safety manual used by Safety Staff. This is an internal document.

Select the programs that are administered under the HSIP.

- Intersection
- Roadway Departure
- Other-Hot Spot

Program: Intersection

Date of Program Methodology:1/1/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes
- All crashes
- Fatal and serious injury crashes only

Exposure
- Traffic
- Volume

Roadway

What project identification methodology was used for this program?

- Level of service of safety (LOSS)

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

LOSS Intersection Models for local intersections have been developed. Phase II of the Intersection Safety Study has produced results from a statewide network screening list. It has identified both state and local intersections of interest for further review.

How are projects under this program advanced for implementation?

- Other-Benefit Cost

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring
Ranking based on B/C:100
Total Relative Weight:100

Program: Roadway Departure

Date of Program Methodology:1/1/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area

- FHWA focused approach to safety

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal and serious injury crashes only

Exposure

- Volume

Roadway

What project identification methodology was used for this program?

- Level of service of safety (LOSS)

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

LOSS models are not developed for local roads. Local road roadway departure crashes can be identified using other parameters and thresholds including collision type.

How are projects under this program advanced for implementation?

- Other-Benefit Cost

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Ranking based on B/C:100
Total Relative Weight:100

Program: Other-Hot Spot

Date of Program Methodology:10/1/1989

What is the justification for this program?

- Other-All public roads

What is the funding approach for this program?
Competes with all projects

What data types were used in the program methodology?

Crashes	**Exposure**	**Roadway**
• All crashes • Fatal and serious injury crashes only	• Volume	

What project identification methodology was used for this program?

- Level of service of safety (LOSS)
- Other-Areas to be investigated as requested by any agency or individual

Are local roads (non-state owned and operated) included or addressed in this program?
Yes

Are local road projects identified using the same methodology as state roads?
No

Describe the methodology used to identify local road projects as part of this program.
LOSS is not available for local roads. Other methods are utilized to identify crash trends on local roads.

How are projects under this program advanced for implementation?

- Other-Projects are evaluated and ranked on a benefit/cost system.

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring
Ranking based on B/C:100
Total Relative Weight:100

What percentage of HSIP funds address systemic improvements?
14

HSIP funds are used to address which of the following systemic improvements?

- Cable Median Barriers
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Rumble Strips
- Wrong way driving treatments

MDT identifies and funds systemic projects each year. The percentage of systemic projects varies by year.

What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan

Does the State HSIP consider connected vehicles and ITS technologies?

No

As these "vehicle to infrastructure" technologies continue to evolve, the HSIP program may consider appropriate applications to address safety on Montana's roadways. However, at this time, the HSIP Program doesn't consider these technologies.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

MDT developed both its Roadway Departure Study and Intersection Safety Study using Montana specific Safety Performance Functions (SPF) and Levels of Service of Safety (LOSS) models. These SPF and LOSS models were developed and are updated based on methodologies in the Highway Safety Manual.

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

Criteria for the HSIP Program's annual list is primarily focused on roadway departure and/or intersection related crashes which is in line with Montana's Comprehensive Highway Safety Plan.

Once the sites are identified, a preliminary office review identifies the sites where there are near-term reconstruction projects, currently programmed safety projects, or sites that were recently field reviewed. After the preliminary office review, further review establishes the sites that need on-site field reviews. The sites showing no crash trend are not field reviewed. The field review team establishes crash causations and contributing factors. The team members identify potential countermeasures. Conceptual designs are developed with cost estimates.

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The project prioritization process is based on a benefit-cost analysis. The costs are the annualized cost of construction over the service life of the proposed improvement plus the annual increase in operation and maintenance costs due to the improvement. The benefits are the anticipated annualized cost reductions due to a lower number of crashes and lower crash severity. The projects with the highest benefit-cost ratios are nominated for improvements.

MDT has had several state-wide systemic projects including horizontal curve signing, centerline rumble strips, interstate median barriers, and interstate wrong way signing. These projects were installed on a large district-wide scale.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$35,589,720	$35,589,720	100%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$1,544,178	$1,544,178	100%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$10,136,759	$10,136,759	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$30,855,098	$30,855,098	100%
State and Local Funds	$0	$0	0%
Totals	$78,125,755	$78,125,755	100%

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

$9,986,333

How much funding is obligated to local or tribal safety projects?

$9,986,333

How much funding is programmed to non-infrastructure safety projects?

$4,200,000

How much funding is obligated to non-infrastructure safety projects?

$4,200,000

The yearly project that funds MDT's HSIP Planning Process is HSIP STWD (023). The funds identified above are for State Fiscal Year (FY25) July 1, 2024 to June 30, 2025 (FY 2025 HSIP Program).

In addition, this year HSIP funds were contributed to a multi-year overarching media campaign (MDT SAFETY MEDIA CAMPAIGN). This campaign's intent is to address behavioral based issues that are over-represented in high severity crashes.

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

0%

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

0%

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

Retaining/recruiting experienced design staff and acquiring right of way are two significant challenges for constructing HSIP safety improvements. Both of these impede obligating HSIP funds.

For retaining and recruiting experienced design staff, the agency has pursued multiple avenues to improve this situation. Most recently Montana's Legislature implemented a significant 2-year pay raise which will assist in these efforts. In addition, efforts have included identifying alternative design and delivery methods. However, these delivery methods result in higher project costs and fewer HSIP projects being delivered.

On larger roadway departure and intersection safety improvements, the right of way acquisition has added significant delivery time and overall project cost. This has particularly been challenging with intersection projects in urban and urban-fringe areas. MDT is pursuing innovative intersection treatments to minimize impacts as well as alternative delivery methods.

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Historically, MDT has been very successful in utilizing HSIP Funds and has strong support for the program from MDT Management. MDT is utilizing recently completed studies to identify locations for safety improvements. These studies include the Median Cable Barrier Study (2019), the Intersection Safety Study (2019), and the Roadway Departure Study (2020 Update). These studies use data-driven tools, HSM methodologies, and Montana specific data to assist MDT in implementing HSIP projects across the state.

General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SAFETY MANAGEMENT PROGRAM (25)	Miscellaneous	Transportation safety planning			$1440000	$1600000	HSIP (23 U.S.C. 148)	N/A	N/A	0					
MDT SAFETY MEDIA CAMPAIGN	Miscellaneous	Transportation safety planning			$2340000	$2600000	HSIP (23 U.S.C. 148)	N/A	N/A	0					
BOZEMAN-EAST	Roadway delineation	Longitudinal pavement markings – new	1	Locations	$135000	$150000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	20,430	75	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
HSIP PROGRAM JOC-MISSOULA	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	District-wide	$39761	$44179	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	45-70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices
KALISPELL ADA UPGRADES	Pedestrians and bicyclists	Rapid Rectangular Flashing Beacons (RRFB)	1	Locations	$497440	$552711	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	17,512	25	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
LAME DEER-EAST	Roadway	Pavement surface – high friction surface	1	Locations	$130000	$130000	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	2,609	65	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices
LOLO-MISSOULA	Roadway	Pavement surface – high friction surface	1	Locations	$243000	$270000	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Other	26,958	35-65	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices
MALTA - SOUTH	Roadside	Barrier- metal	1	Locations	$79200	$88000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	529	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices
RESERVE - EAST	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	1	Locations	$1150000	$1150000	Penalty Funds (23 U.S.C. 164)	Rural	Major Collector	185	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices

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TURNBAY-N OF GALLATIN GATEWAY	Roadway	Roadway widening - add lane(s) along segment	1	Locations	$4811859	$5346510	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,297	55	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 119-SLOPE FLATTEN S-206	Roadside	Slope Flattening	10	Miles	$720608	$800675	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	6,939	60	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data driven problem identification and the use of best practices
SF 129-RNDABOUT KING 56TH	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$69841	$77601	HSIP (23 U.S.C. 148)	Rural	Major Collector	8,651	60	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 139-CENTRAL & 56TH RNDABOUT	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$77174	$85749	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,820	50	County Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices

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SF 139-DERN SPRING RECONSTRUCT	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$30121	$30121	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial-Other	11,445	60	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF149 S OF STEVENSVLL SFTY IMP	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	6	Miles	$24910	$24910	Penalty Funds (23 U.S.C. 164)	Rural	Major Collector	4,087	65	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 159 LOLA SHEPHARD INT IMPRV	Intersection traffic control	Modify control – other	6	Intersections	$157500	$175000	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	25-55	State and City	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 159 NE PARK CITY SHLDR WID	Roadway	Roadway widening - curve	1	Locations	$1782794	$1980882	HSIP (23 U.S.C. 148)	Rural	Major Collector	828	55	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 159 SE COLUMBUS SHLDR WID	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	2.1	Miles	$108000	$120000	HSIP (23 U.S.C. 148)	Rural	Major Collector	923	60	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 159 SO INGOMAR SLP FLTN	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	5	Miles	$301200	$334667	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	222	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 159 SO WIBAUX CRV IMPRV	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	3	Curves	$423422	$470469	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	719	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 169 BATAVIA INTX IMPRV	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$90000	$100000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	8,250	45	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 169 CONRAD & 2ND INTX-KAL	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$496574	$551749	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	5,753	25	City or Municipal Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 169 FAIRFIELD CURVE IMPRV	Roadway	Roadway widening - curve	3	Locations	$289	$321	HSIP (23 U.S.C. 148)	Rural	Major Collector	319	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 169 KOOTENAI CR RD SFTY	Pedestrians and bicyclists	Pedestrian bridge	1	Intersections	$96977	$107752	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	10,026	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 169 N57 SLDR WID & SLP FLAT	Roadway	Roadway widening - curve	2	Locations	$104269	$115854	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	1,155	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF169 RIMROCK & 62ND ST W-BLGS	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$6321281	$7023645	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	2,427	55	City or Municipal Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 169 S288 CURVES	Roadway	Roadway widening - curve	2	Locations	$543409	$603788	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,002	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 169 W OF WHITEFISH SFTY	Roadway	Roadway widening - curve	1	Locations	$86155	$95727	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	5,149	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 ASHLAND RABBITTOWN PATH	Pedestrians and bicyclists	Pedestrians and bicyclists – other	1.3	Miles	$5037768	$5037768	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	2,126	35-70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 179 CLEARWATER JCT INTX	Intersection traffic control	Modify control – Modern Roundabout	1	Intersections	$5504	$6116	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,946	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 179 CURVE S OF CHURCHILL	Roadway	Roadway widening - curve	1	Locations	$524117	$582352	HSIP (23 U.S.C. 148)	Rural	Major Collector	613	60.00	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 CURVE S OF DILLON	Roadway	Roadway widening - curve	1	Curves	$85559	$95066	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,104	60	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 CURVE WIDEN N-24	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	1	Miles	$266401	$296001	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	1,467	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 179 HELENA INTX SAFETY	Intersection traffic control	Intersection signing –other	3	Intersections	$61697	$68552	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	25-55	State, City, and County	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 179 INTX IMPROVEMENTS D4	Intersection traffic control	Intersection signing –other	2	Intersections	$14791	$16434	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	65-70	State and Tribal	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 179 MARION SFTY IMPRV	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	3	Locations	$319596	$355107	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,493	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 N-57 CURVE WIDENING	Roadway	Roadway widening - curve	1	Locations	$1468771	$1631968	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	1,067	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 179 S OF LIBBY CURVE SFTY	Roadway	Roadway widening - curve	1	Locations	$35502	$39447	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,453	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 S OF LIBBY CURVE SFTY	Roadway	Roadway widening - curve	1	Locations	$911253	$911253	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	2,453	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 179 SHLD WIDEN S OF CNTRVLE	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	1.3	Miles	$363686	$404096	HSIP (23 U.S.C. 148)	Rural	Major Collector	408	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF179 STEPHENS ORANGE SFTY IMP	Roadway	Pavement surface – high friction surface	1	Locations	$479424	$532693	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	17,614	30	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF 179 TARGHEE TURN LANES	Intersection geometry	Add/modify auxiliary lanes	2	Locations	$207348	$230387	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	4,666	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 179 TURN LANE W OF HUNTLEY	Intersection geometry	Add/modify auxiliary lanes	1	Locations	$323570	$359522	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	4,005	60	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF189 AIRPORT RD GLENDIVE SFTY	Roadway	Roadway - other	3	Miles	$647211	$647211	Penalty Funds (23 U.S.C. 164)	Multiple/Varies	Minor Collector	246	45	County Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF189 CURVE S OF RAVALLI	Roadway signs and traffic control	Curve-related warning signs and flashers	1	Locations	$356745	$356745	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Other	8,775	60-70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF189 CURVE SW OF CONRAD	Roadway	Roadway widening - curve	1	Curves	$253925	$282139	HSIP (23 U.S.C. 148)	Rural	Major Collector	483	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF189 D2 HT MEDIAN CABLE RAIL	Roadside	Barrier – cable	1	District-wide	$479191	$532435	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	0	80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF189 GLOVER RD SAFETY	Roadside	Barrier- metal	1	Locations	$34937	$34937	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	471	35	Indian Tribe Nation	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF189 HLNA HT MEDIAN CABLERAIL	Roadside	Barrier – cable	13	Miles	$173747	$193052	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Interstate	14,528	65-80	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF189 MINESINGER SAFETY	Intersection geometry	Add/modify auxiliary lanes	1	Intersections	$23216	$23216	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,861	70	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF189 NORTH D5 SAFETY IMPRV	Roadway	Rumble strips – other	2	Locations	$17242	$19158	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0	45-70	State Highway Agency	Spot	Roadway Departure and Intersections	Reduce and mitigate roadway departure and intersection crashes through data-driven problem identification and the use of best practices
SF189 PVMT MARKINGS D3	Roadway delineation	Longitudinal pavement markings – new	3.5	Miles	$1458480	$1620533	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	31,255	35-45	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF189 S OF MILES CITY SHLD WID	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	2.3	Miles	$36000	$40000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	660	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF189 SOUTH D5 SAFETY IMPRV	Roadway	Roadway - other	16	Locations	$1389760	$1544178	HRRR Special Rule (23 U.S.C. 148(g)(1))	Multiple/Varies	Multiple/Varies	0	45-70	State, City, and County	Spot	Roadway Departure and Intersections	Reduce and mitigate roadway departure and intersection crashes through data-driven problem identification and the use of best practices
SF189 SOUTH D5 SAFETY IMPRV	Roadway	Roadway - other	16	Locations	$144312	$160346	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	45-70	State, City, and County	Spot	Roadway Departure and Intersections	Reduce and mitigate roadway departure and intersection crashes through data-driven problem identification and the use of best practices
SF189 US93 ALT SAFETY IMPRV	Roadside	Barrier – concrete	1	Locations	$81463	$90514	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	22,752	55	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

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SF189 WOLF POINT RODEO RD SFTY	Intersection traffic control	Intersection signing –other	1	Intersections	$3051	$3051	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	54	35	Indian Tribe Nation	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF189 WOLF POINT RODEO RD SFTY	Intersection traffic control	Intersection signing –other	1	Intersections	$123951	$123951	Penalty Funds (23 U.S.C. 164)	Rural	Local Road or Street	54	35	Indian Tribe Nation	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF 199 64TH & AIRPORT RD CURVE	Roadway	Roadway widening - curve	1	Locations	$772989	$858877	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	881	60	County Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 199 BECKWITH ST MSLA CNTY	Lighting	Lighting - other	1	Locations	$70706	$78562	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	622	35	County Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

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SF 199 CURVE W OF FORT KIPP	Roadway	Roadway widening - curve	1	Curves	$562962	$562962	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	54	55-70	Indian Tribe Nation	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 199 EAST HELENA HFST	Roadway	Pavement surface – high friction surface	1	Locations	$90180	$100200	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,327	55	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF199 MARYJANE BROADWAY INTX	Intersection traffic control	Modify control – new traffic signal	2	Locations	$80494	$89438	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0	55	State Highway Agency	Spot	Intersections	Reduce and mitigate intersection crashes through data-driven problem identification and the use of best practices
SF199 MSLA HT MEDIAN CABLERAIL	Roadside	Barrier – cable	1	District-wide	$3206976	$3563307	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	0	80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF199 MSLA HT MEDIAN CABLERAIL	Roadside	Barrier – cable	1	District-wide	$566270	$566270	Penalty Funds (23 U.S.C. 164)	Rural	Principal Arterial-Interstate	0	80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 209 BILLINGS DIST SIGNS	Roadway signs and traffic control	Roadway signs and traffic control - other	10	Locations	$33164	$36849	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	45-70	State, City, and County	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF 209 ROCK CREEK ROAD SIGNS	Roadway signs and traffic control	Curve-related warning signs and flashers	2	Locations	$14074	$15638	HSIP (23 U.S.C. 148)	Rural	Major Collector	603	25-35	County Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF229 BILLINGS DIST GUARDRAIL	Roadside	Barrier- metal	1	Locations	$113679	$126310	HSIP (23 U.S.C. 148)	Rural	Major Collector	872	70	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF229 D1 I-90 STRIPING 6 IN	Roadway delineation	Longitudinal pavement markings – new	62	Miles	$76077	$84530	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	11,943	75-80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF229 D2 I-90 STRIPING 6 IN	Roadway delineation	Longitudinal pavement markings – new	38	Miles	$56774	$63082	HSIP (23 U.S.C. 148)	Multiple/Varies	Principal Arterial-Interstate	0	75-80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF229 D2 I-90 STRIPING 6 IN	Roadway delineation	Longitudinal pavement markings – new	38	Miles	$1921048	$1921048	Penalty Funds (23 U.S.C. 164)	Multiple/Varies	Principal Arterial-Interstate	0	75-80	State Highway Agency	Systemic	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices
SF229 GUARDRAIL DIST 2 & 3	Roadside	Barrier- metal	8	Locations	$170518	$189465	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	35-70	State, County, and US Forest Service	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

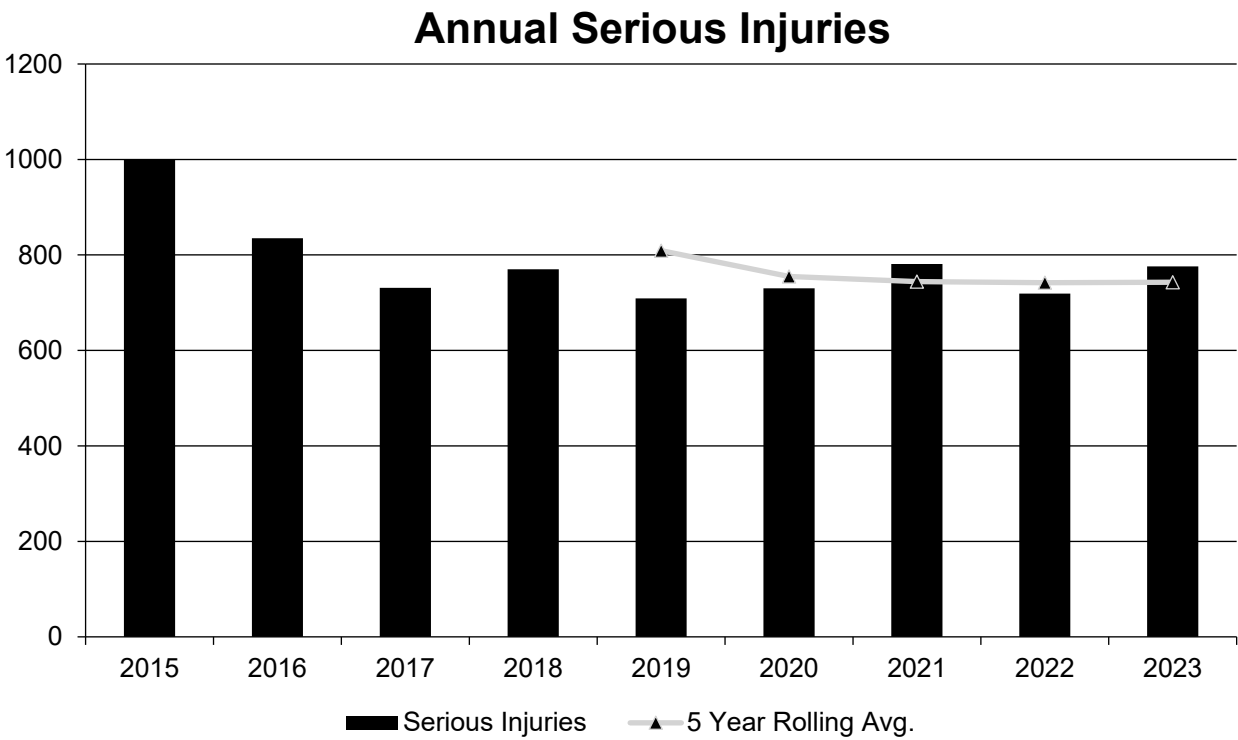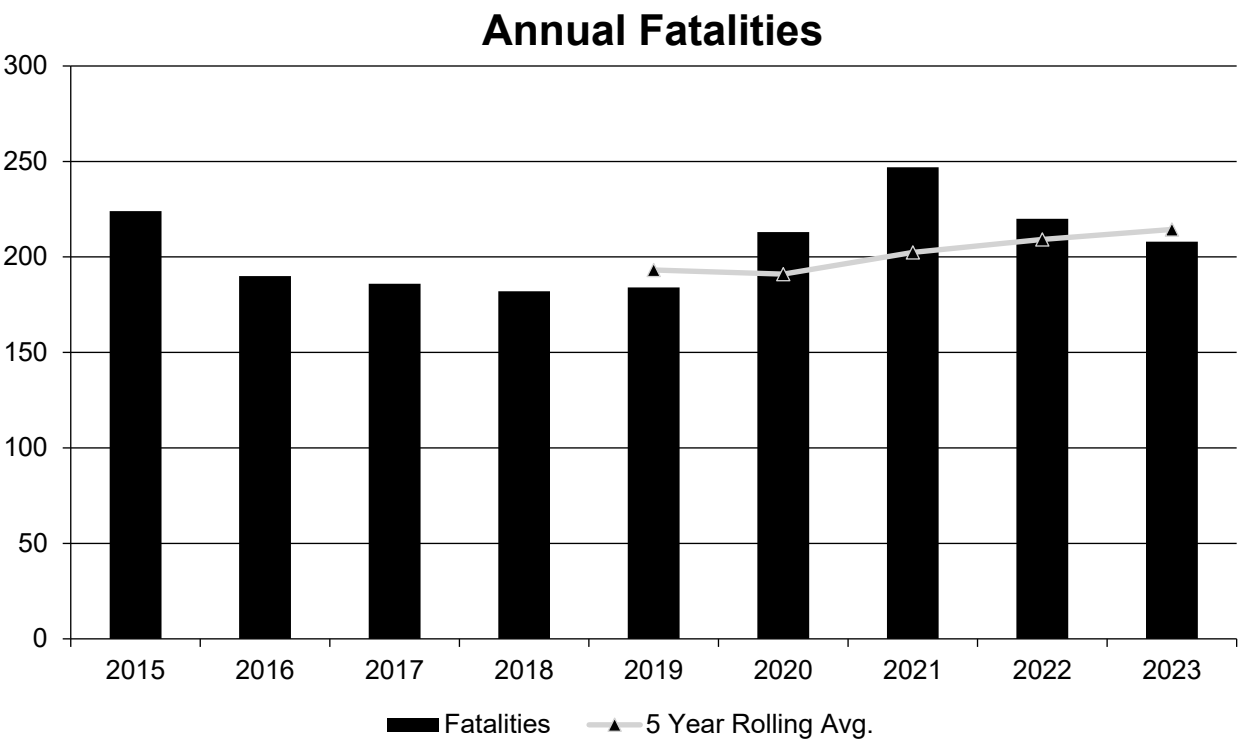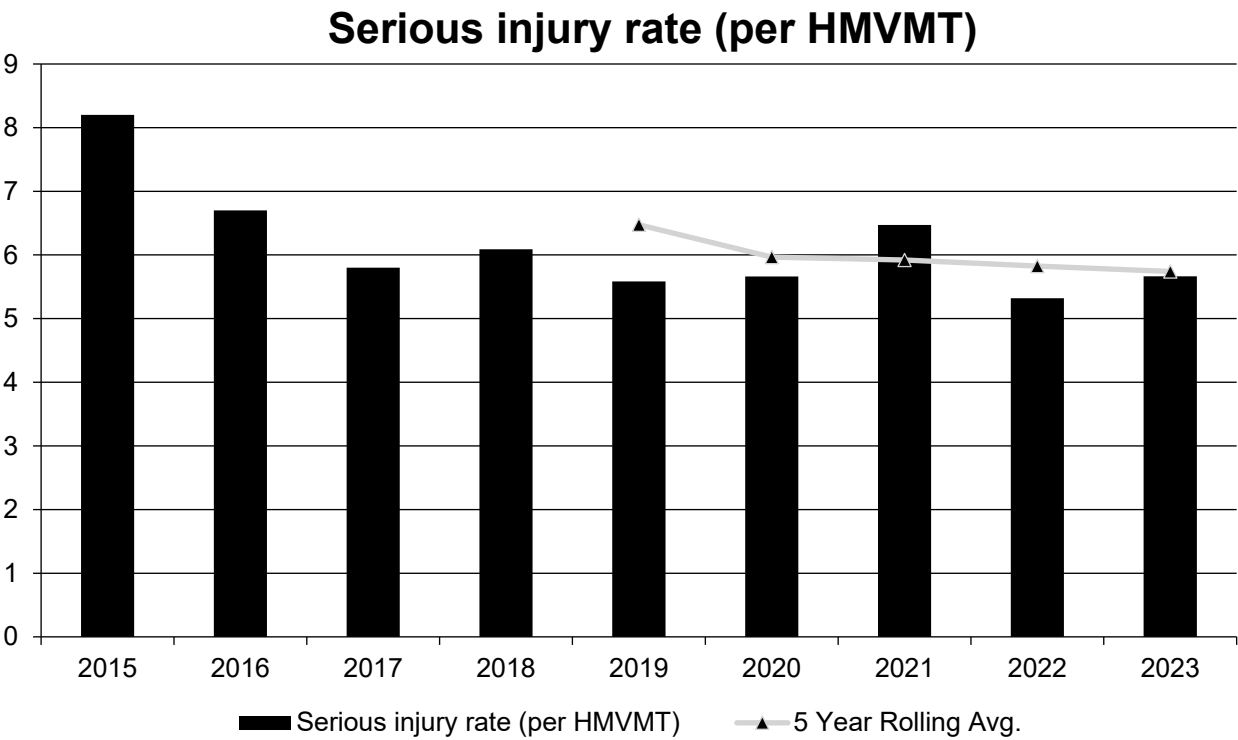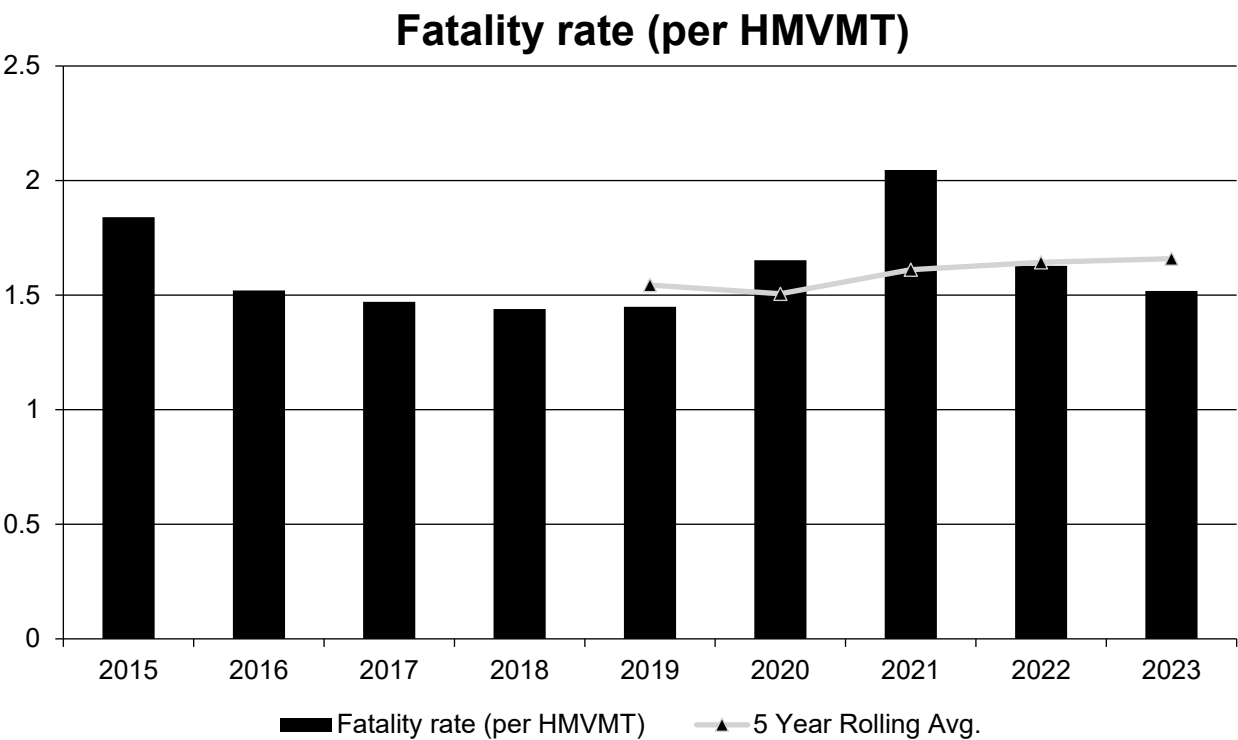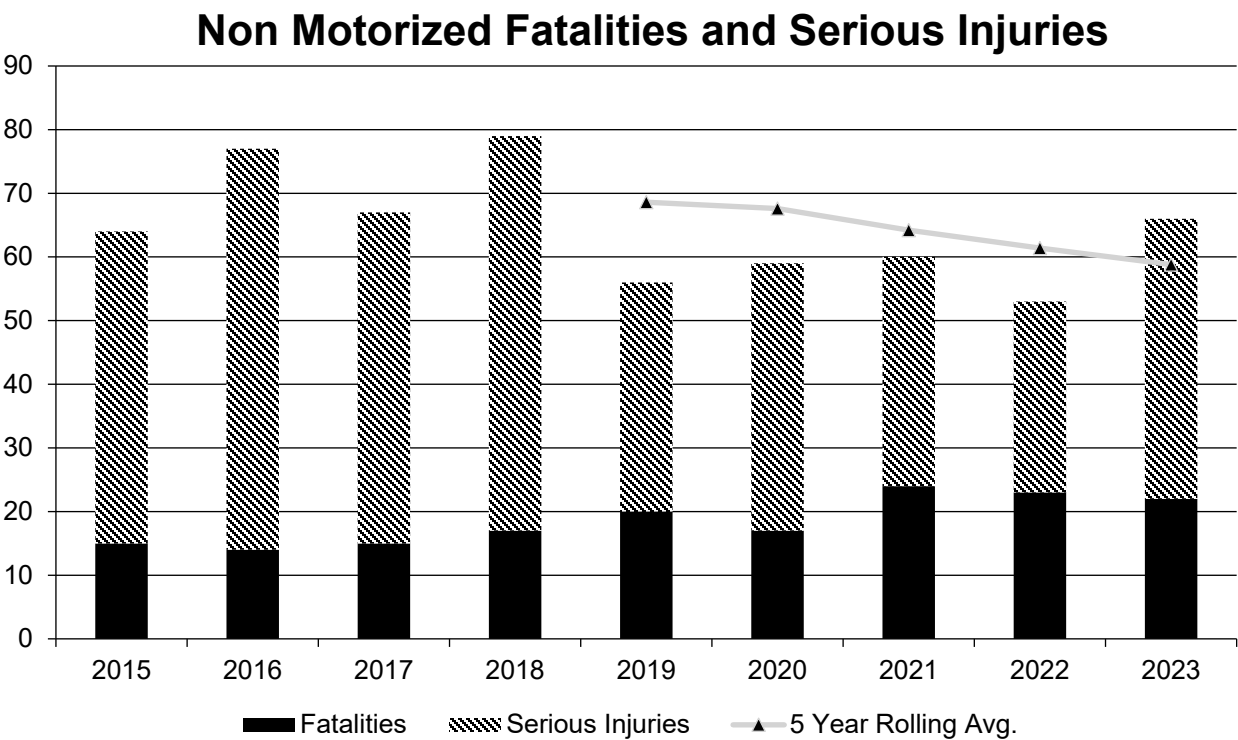| PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
SF229 MISSOULA DIST GUARDRAIL	Roadside	Barrier- metal	1	Locations	$284198	$315776	HSIP (23 U.S.C. 148)	Rural	Major Collector	293	25-60	State Highway Agency	Spot	Roadway Departure	Reduce and mitigate roadway departure crashes through data-driven problem identification and the use of best practices

Safety Performance

General Highway Safety Trends

Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fatalities	224	190	186	182	184	213	247	220	208
Serious Injuries	1,000	835	731	770	709	730	781	719	776
Fatality rate (per HMVMT)	1.840	1.520	1.471	1.439	1.449	1.652	2.046	1.628	1.518
Serious injury rate (per HMVMT)	8.200	6.700	5.800	6.089	5.583	5.662	6.470	5.320	5.664
Number non-motorized fatalities	15	14	15	17	20	17	24	23	22
Number of non-motorized serious injuries	49	63	52	62	36	42	36	30	44

Annual Fatalities

| Fatalities | ▲ 5 Year Rolling Avg. |

Annual Serious Injuries

| Serious Injuries | ▲ 5 Year Rolling Avg. |

Fatality rate (per HMVMT)

Fatality rate (per HMVMT) — 5 Year Rolling Avg.

Serious injury rate (per HMVMT)

Serious injury rate (per HMVMT) — 5 Year Rolling Avg.

Non Motorized Fatalities and Serious Injuries

Legend: Fatalities | Serious Injuries | 5 Year Rolling Avg.

Describe fatality data source.

FARS

To the maximum extent possible, present this data by functional classification and ownership.

Year 2023

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	28.4	91.4	1.05	3.35
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	51.2	137.4	1.92	5.15
Rural Minor Arterial	26.4	74.6	2.25	6.38
Rural Minor Collector	9.4	45.2	2.01	9.69
Rural Major Collector	26.4	83.6	2.98	9.42
Rural Local Road or Street	28.4	102.2	2.32	8.33
Urban Principal Arterial (UPA) - Interstate	8	18.2	1.26	2.87
Urban Principal Arterial (UPA) - Other Freeways and Expressways				
Urban Principal Arterial (UPA) - Other	15.4	71.6	1.22	5.71
Urban Minor Arterial	5.6	27.4	0.89	4.35
Urban Minor Collector	0.4	1.2	1.65	4.71
Urban Major Collector	5	26.2	1.21	6.32
Urban Local Road or Street	9.8	64	0.94	6.34

Year 2023

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	152.8	474	1.75	5.41
County Highway Agency	22	96.8	1.75	7.73
Town or Township Highway Agency				
City or Municipal Highway Agency	21	119	6.06	53.41
State Park, Forest, or Reservation Agency	1	4.5	9.09	40.91
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation	12	20.8	6.72	11.35
Bureau of Indian Affairs	0	2	0	5
US Forest Service	5.8	26.4	1.97	8.76
Other Federal Agency	0	4.25	0	4.6
National Park Service	0.33	0.25	0.61	0.58

Safety Performance Targets

Safety Performance Targets

Calendar Year 2025 Targets *

Number of Fatalities:213.4

Describe the basis for established target, including how it supports SHSP goals.

The 2020 CHSP update established the target setting methodology for the five federal performance measures for the five-year life of the plan. The methodology is based on historical trend data and considers potential impacts from COVID-19, other risk factors/analysis, and input from state safety stakeholders. The methodology will be used to calculate and set ambitious yet achievable annual targets for each of the performance areas.

Annual performance targets supports the state's SHSP (known as Montana's Comprehensive Highway Safety Plan (CHSP)) in working towards the achievement of the overall vision for safety - Vision Zero and the interim safety goal of halving fatalities and serious injuries from 952 in 2018 to 476 in 2030.

Performance Measures for fatalities is moderate. The target is for an annual reduction of 3 fatalities.

Number of Serious Injuries:737.4

Describe the basis for established target, including how it supports SHSP goals.

The 2020 CHSP update established the target setting methodology for the five federal performance measures for the five-year life of the plan. The methodology is based on historical trend data and considers potential impacts from COVID-19, other risk factors/analysis, and input from state safety stakeholders. The methodology will be used to calculate and set ambitious yet achievable annual targets for each of the performance areas.

Annual performance targets supports the state's SHSP (known as Montana's Comprehensive Highway Safety Plan (CHSP)) in working towards the achievement of the overall vision for safety - Vision Zero and the interim safety goal of halving fatalities and serious injuries from 952 in 2018 to 476 in 2030.

Performance Measures for serious injuries is moderate. The target is for an annual reduction of 41 serious injuries.

Fatality Rate:1.546

Describe the basis for established target, including how it supports SHSP goals.

The 2020 CHSP update established the target setting methodology for the five federal performance measures for the five-year life of the plan. The methodology is based on historical trend data and considers potential impacts from COVID-19, other risk factors/analysis, and input from state safety stakeholders. The methodology will be used to calculate and set ambitious yet achievable annual targets for each of the performance areas.

Annual performance targets supports the state's SHSP (known as Montana's Comprehensive Highway Safety Plan (CHSP)) in working towards the achievement of the overall vision for safety - Vision Zero and the interim safety goal of halving fatalities and serious injuries from 952 in 2018 to 476 in 2030.

Performance Measures for fatality rate is conservative. The target is for an annual reduction of 0.041 per 100 million annual vehicle miles traveled.

Serious Injury Rate:5.487

Describe the basis for established target, including how it supports SHSP goals.

The 2020 CHSP update established the target setting methodology for the five federal performance measures for the five-year life of the plan. The methodology is based on historical trend data and considers potential impacts from COVID-19, other risk factors/analysis, and input from state safety stakeholders. The methodology will be used to calculate and set ambitious yet achievable annual targets for each of the performance areas.

Annual performance targets supports the state's SHSP (known as Montana's Comprehensive Highway Safety Plan (CHSP)) in working towards the achievement of the overall vision for safety - Vision Zero and the interim safety goal of halving fatalities and serious injuries from 952 in 2018 to 476 in 2030.

Performance Measures for serious injury rate is conservative. The target is for an annual reduction of 0.114 per 100 million annual vehicle miles traveled.

Total Number of Non-Motorized Fatalities and Serious Injuries:55.2

Describe the basis for established target, including how it supports SHSP goals.

The 2020 CHSP update established the target setting methodology for the five federal performance measures for the five-year life of the plan. The methodology is based on historical trend data and considers potential impacts from COVID-19, other risk factors/analysis, and input from state safety stakeholders. The methodology will be used to calculate and set ambitious yet achievable annual targets for each of the performance areas.

Annual performance targets supports the state's SHSP (known as Montana's Comprehensive Highway Safety Plan (CHSP)) in working towards the achievement of the overall vision for safety - Vision Zero and the interim safety goal of halving fatalities and serious injuries from 952 in 2018 to 476 in 2030.

Performance Measures for non-motorized fatalities and serious injuries is low moderate. The target is for an annual reduction of 1 fatality or serious injury.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

A 2024 Advisory Committee meeting was not held. Instead, an email referencing the 2025 Safety Performance Measures Targets was sent to the CHSP Advisory Committee. The target methodology was adopted by consensus of the Advisory Committee with the development of the 2020 CHSP. The methodology will be consistent for the life of the 5-year plan.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2023 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	223.2	214.4
Number of Serious Injuries	715.6	743.0
Fatality Rate	1.693	1.659
Serious Injury Rate	5.593	5.740
Non-Motorized Fatalities and Serious Injuries	61.9	58.8

Montana followed the national trend in 2021 with increased fatal and serious injury crashes. This trend began in 2020 with the onset of the COVID pandemic and continued throughout 2021. Behavioral choices played a significant role in this high severity crash increase. The major contributing factors included increased highway speeds and high-risk behavior. In 2022 MDT observed a decrease in fatalities and serious injuries when compared to 2021 data. However, in 2023, although MDT observed a decrease in the number of fatalities there was an increase in the number of serious injuries from crashes.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?
Yes

For Federal Fiscal Year 2024, the High-Risk Rural Roads (HRRR) Special Rule applied. Projects were selected based on emphasis areas identified in Montana's 2020 Comprehensive Highway Safety Plan (CHSP) with a focus on fatal and serious injuries.

Does the VRU Safety Special Rule apply to the State for this reporting period?
No

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2017	2018	2019	2020	2021	2022	2023
Number of Older Driver and Pedestrian Fatalities	20	26	41	28	35	35	29
Number of Older Driver and Pedestrian Serious Injuries	86	66	77	57	85	84	85

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Other-Observational before/after studies

MDT utilizes observational before/after studies to evaluate the effectiveness of a particular safety improvement or groups of improvements. An observational before/after study requires crash data and volume data from both before and after the installation of a safety improvement.

MDT has elected to evaluate the HSIP based on groups of similar projects on an annual basis. At this time, the evaluation process focuses on nominated projects having a construction and construction engineering (CN+CE) cost exceeding $100,000. Additional evaluations or site specific evaluations are completed on a case-by-case basis. Typically, a minimum of 5-years of after data is used for the treatment sites.

The following steps highlight the process for MDT's annual evaluation of safety improvements. It is not meant to be all encompassing and is meant to be a living process. Modifications to the following process will be made as additional data sets and analysis tools are available.

1. Identify completed projects with a construction plus construction engineering (CN+CE) cost of greater than $100,000 and which have sufficient crash data following completion of the project.

2. Group the projects completed in the identified year by improvement type.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

MDT completes a program level evaluation using a naive before/after study.

There are 2 challenges with this type of evaluation:

1. This form of program level evaluation is difficult for low volume roads. On these types of roads, 10 years of data is needed to determine a crash trend and ultimately a project being constructed. In addition, MDT's evaluation is based on 5 years "before" and "after" data which may not correspond with the original trend identification due to the regression to the mean. Consequently, the naïve before/after study may not produce results that are consistent with the anticipated CMF that was used.

2. Due to the severity of one fatal crash, the overall countermeasure results of a naïve before/after study can show a negative benefit cost ratio. The benefit cost ratio heavily weighs the fatal crash in the calculation and negates any other crash reduction being attained. Thus, the negative benefit cost ratio does not always accurately represent a safety improvement as an overall positive benefit.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

- HSIP Obligations

- Increased awareness of safety and data-driven process
- Increased focus on local road safety

Another method MDT uses to indicate the HSIP Program's Success is the ability to identify and obligate HSIP Funds to address safety needs throughout the state on all public roads. MDT's HSIP Funding has grown over the last several years which has allowed MDT to identify and fund more significant sized safety projects. This has included large infrastructure type projects, including several roundabouts on non-MDT routes (local road safety) and shoulder widening/slope flattening on secondary roadways which have limited funding sources.

The HSIP Program's success has also increased the awareness of safety within the agency as a whole. This has translated into more collaboration between bureaus as other projects are designed and implemented benefiting both the safety program and ultimately the traveling public.
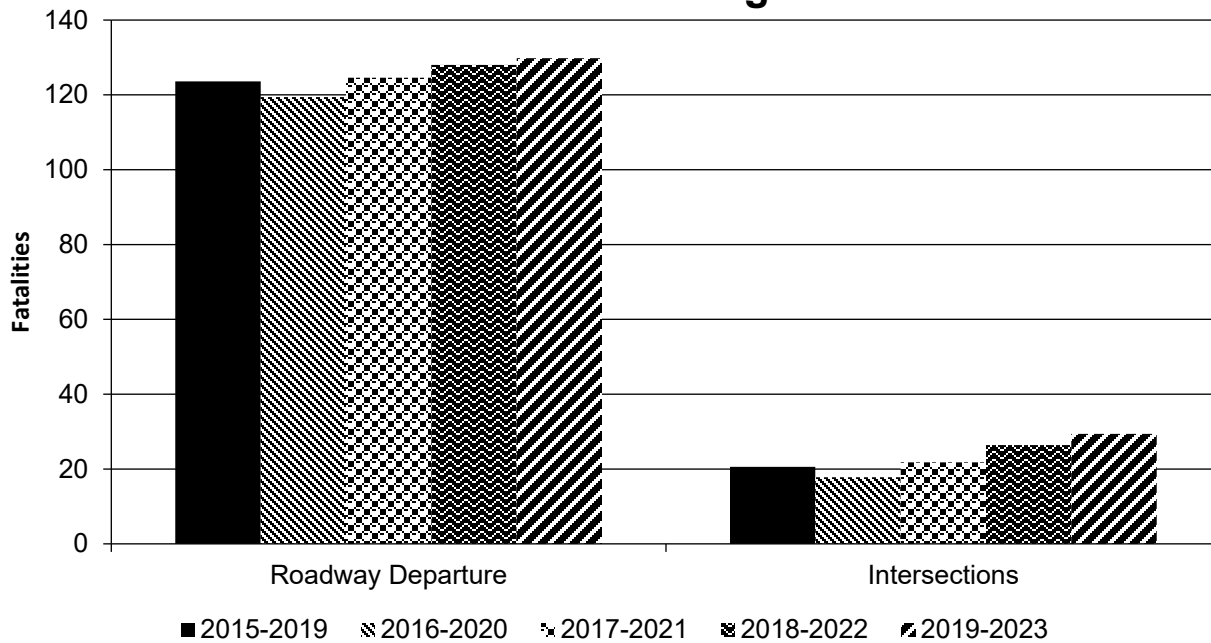
Effectiveness of Groupings or Similar Types of Improvements

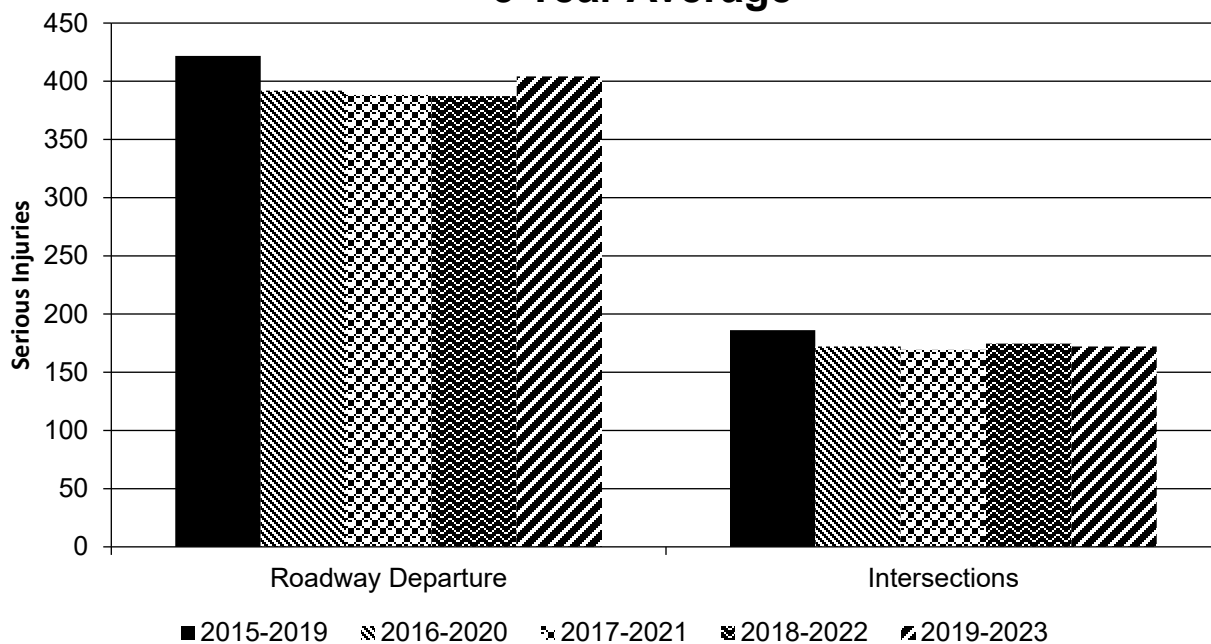### Present and describe trends in SHSP emphasis area performance measures.

Year 2023

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Roadway Departure		129.8	404.2	0.99	3.09
Intersections		29.4	172.2	0.22	1.31

Number of Fatalities
5 Year Average

Fatalities

- ■ 2015-2019
- ▨ 2016-2020
- ▧ 2017-2021
- ▩ 2018-2022
- ◿ 2019-2023

Roadway Departure   Intersections

Number of Serious Injuries
5 Year Average

Serious Injuries

- ■ 2015-2019
- ▨ 2016-2020
- ▧ 2017-2021
- ▩ 2018-2022
- ◿ 2019-2023

Roadway Departure   Intersections

Fatality Rate (per HMVMT)
5 Year Average

Serious Injury Rate (per HMVMT)
5 Year Average

Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

2024 Montana Highway Safety Improvement Program

In 2024 MDT is not submitting the annual before/after results for this reporting period. Due to staffing level challenges, there was not adequate time to complete the study before this report's deadline.

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

Describe any other aspects of HSIP effectiveness on which the State would like to elaborate.

MDT has an annual process in place to evaluate safety projects. As noted previously, due to staffing limitations, this annual process has not yet been completed.

To summarize, this evaluation process includes a simple before/after 5-year study. In addition, small projects with similar scope are grouped together for analysis. MDT is looking to improve upon the evaluation process in the next 2-4 years. The current process does not provide for regression to the mean for low volume roads. This process includes HRRR identified projects.

Compliance Assessment

What date was the State's current SHSP approved by the Governor or designated State representative?

12/21/2020

What are the years being covered by the current SHSP?

From: 2021 To: 2025

When does the State anticipate completing its next SHSP update?

2025

MDT is in the process of selecting a Consultant to develop Montana's 2025 Comprehensive Highway Safety Plan (CHSP), also known as the Strategic Highway Safety Plan (SHSP).

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100	100	100
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
	Functional Class (19) [19]	100	100					100	100	100	100

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	100		
	Average Annual Daily Traffic (79) [81]	100	100					100	100		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	100						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]					100	100				
	Ramp AADT (191) [181]					100	100				
	Year of Ramp AADT (192) [182]					100	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Totals (Average Percent Complete):		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

MDT has met this goal.

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

5 year rolling average: means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area: means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

Highway safety improvement project: means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT: means hundred million vehicle miles traveled.

Non-infrastructure projects: are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule: applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

Performance measure: means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Programmed funds: mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification: means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP): means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systematic: refers to an approach where an agency deploys countermeasures at all locations across a system.

Systemic safety improvement: means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

Transfer: means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.