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Transportation Interim Committee
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SJR 28: MONTANA'S COMPREHENSIVE HIGHWAY SAFETY PLAN/VISION ZERO

INTRODUCTION

Vision Zero is an initiative by the Montana Department of Transportation (MDT) aimed at eliminating deaths and injuries on Montana highways. MDT launched the program in 2014. The path toward Vision Zero is largely rooted in Montana's Comprehensive Highway Safety Plan, which includes strategies to coordinate statewide efforts and to reduce fatalities and serious injuries on Montana's roads. The plan is the result of a collaboration between local, state, federal, tribal, and other stakeholders. The comprehensive plan coordinates safety programs and stakeholders to tackle safety issues, align goals, and leverage resources to reduce fatal and serious injuries on Montana's roadways. These strategies focus on creating a "culture of safety" on Montana's roads. The plan:

- Is focused on data
- Establishes statewide goals and objectives; and
- Defines key emphasis areas to focus resources.

MDT developed the first plan in 2006, and in 2014 embarked on a significant update that coincided with Vision Zero and with efforts to comply with the new federal transportation reauthorization bill – the Moving Ahead for Progress in the 21st Century Act.

The plan pools experts in the areas of engineering, enforcement, education, and emergency medical services. These mirror the goals in Vision Zero and in the transportation world are typically referred to as the 4 Es.

A collection of additional planning documents, ranging from commercial vehicle safety plans to the statewide transportation improvement program, also are all part of Vision Zero. For the purposes of an introduction to the concept, this report focuses on the comprehensive highway safety plan.

DATA FOCUSED

Data is a cornerstone in the comprehensive highway safety plan, which identifies the top traffic safety problems on all of Montana's public roadways. Multidisciplinary teams and advisory committees meet regularly to review the multitude of information gathered about accidents that occur in Montana. An executive leadership team comprised of stakeholders, including legislators, also reviews the information and provides focused oversight on transportation safety. MDT and its stakeholders regularly analyze crash data and assess progress, and the state reviews data about fatalities and serious crashes to assess whether resources are being directed appropriately.

The comprehensive safety plan is data-driven, multidisciplinary, incorporates input from a range of partners, includes measurable objectives, addresses all roadways users, and identifies how progress will be evaluated. It identifies crash trends and focuses its emphasis on reducing crash frequency and severity.

Emphasis areas where the plan is now focused grew from data analysis. Every crash has unique characteristics and most involve several factors. Crash factors include those related to infrastructure, populations, behaviors, or modes and vehicles. The first step in developing the plan was data analysis to determine the extent to which specific emphasis areas were represented in crash data for the past decade. Stakeholders identified the critical crash factors or trends that may have the greatest influence on reducing crashes in Montana. The three emphasis areas are:

- Roadway departure and intersection crashes;
- Impaired driving crashes; and
- Occupant protection.

When a vehicle leaves the travel lane, a roadway departure takes place, and the outcome is generally severe. Departures can include crossing into another lane or leaving the road entirely. About 96 percent of roadway departure fatalities and serious injuries occur in rural areas, according to MDT, making departures the most common in Montana between 2004 to 2013. Departure-related crashes accounted for 67 percent of all fatalities and 55 percent of serious injuries. The highest potential for conflict also is in an intersection, where vehicles, bicycles, and pedestrians cross paths. Intersection crashes represent 13 percent of fatalities and 24 percent of serious injuries from 2004 to 2013.

Impaired driving is defined as operating a vehicle while under the influence of drugs or alcohol. These crashes account for eight percent of people involved in all crashes, but 47 percent of all fatalities and 29 percent of serious injuries.

Occupant protection is commonly known as the use of a safety belt or child protection seat by vehicle occupants. More than half, 54 percent of people who died in a Montana crash between 2004 and 2013 were not restrained, and 32 percent of those seriously injured were not restrained, according to MDT. MDT also reports that more than a quarter of people do not consistently use a seat belt in Montana.

The plan also includes strategies, discussed more later, to reduce crashes and their severity in those three areas.

Table 1: Strategies Identified to Reduce Crashes and Crash Severity		
Departures and Intersections	**Impaired Driving**	**Occupant Protection**
Reduce and mitigate departure crashes through data-driven problem identification and best practices.	Reduce impaired driving through improved processes and regulations.	Support policies, education, training, programs and activities that promote and increase seat belt and child safety seat use.
Reduce and mitigate speed-related departure and intersection crashes	Reduce impaired driving through enforcement.	Support enforcement of existing seat belt and child passenger safety laws.
Reduce departure and intersection crashes through education.	Reduce impaired road users through prevention education.	Continue to support and build collaborative partnerships to increase use.
Reduce and mitigate intersection crashes through data-driven problem identification and best practices.	Continue to support and build collaborative partnerships to reduce impaired driving.	Evaluate the effectiveness of ongoing messaging, campaigns, and programs in promoting and/or increasing occupant protection use.
Support and increase enforcement of proper road use behaviors by all users in high-crash corridors and high-crash locations.		
Explore and implement best practices for reducing road departure, such as those related to distracted driving and fatigued driving, in addition to other behavioral factors.		
Improve the prosecution and adjudication of all roadway user violations		

Source: MDT Comprehensive Highway Safety Plan 2015-2020

GOALS AND OBJECTIVES

Following with national trends over the last decade, Montana has seen a significant reduction in traffic-related fatalities and serious injuries. While Vision Zero demonstrates a commitment to zero fatalities and zero serious injuries on Montana's roads, the plan sets an interim goal to reduce fatalities and serious injuries by one-half in two decades, from 1,705 in 2007 to 852 by 2030.

The fatality target equates to an average reduction of around five fatalities per year. For serious injuries, the 2020 target was developed based on the continuation of a six-year trend line. The trend was carried forward from a baseline calculation of 990 serious injuries in 2014 to a target of no more than 796 serious injuries by 2020.

The strategies outlined in the plan set the path for reaching the goal. MDT also is working to promote the goals established in the plan by using messaging and branding, like Vision Zero, to build awareness. Montana to-date is moving toward and even surpassing some goals. There were 181 fatalities in 2018. There have been 61 fatalities on Montana highways in 2019 (May 2019) compared to 57 fatalities for this same time in 2018.

Table 2: Fatality and Serious Injury Targets

Performance Measure	2013*	2014 Baseline Based on Historic Trend	2020 Target (Annual)	Annual Reduction	Annual Reduction %
Fatalities	229	203	172	-5	-2.7%
Serious Injuries	1,102	990	796	-32	-3.6%
Fatality Rate	1.90	1.66	1.28	-0.06	-4.3%
Serious Injury Rate	9.2	8.1	5.9	-0.37	-5.1%

Source: MDT CHSP Advisory Committee
** 2013 was latest data at time plan was developed.*

IMPLEMENTATION

To implement the plan, there is an executive leadership team, advisory committees, and emphasis area teams. Those entities evaluate the effectiveness of strategies, ensure they are contributing to reduced fatalities and serious injuries, identify barriers to implementation, provide regular updates on safety-related campaigns, provide guidance on future programs and activities, and coordinate with those working on overarching areas. Implementation steps and priorities are in place for each of the strategies identified in **Table 1**. A few examples are provided below for the 15 strategies included in the plan. As the Transportation Interim Committee develops its work plan, members may wish to review the strategies, and MDT's success in implementing and advancing those efforts. Examples include:

REDUCE IMPAIRED DRIVING THROUGH IMPROVED PROCESSES AND REGULATION

Purpose:

Having the right regulations in place and ensuring they are effectively implemented has a large impact on whether impaired driving is prevented, impaired drivers are caught, and their cases are properly adjudicated so they do not repeat their offense. For example, a statewide social host law would help prevent private gatherings where alcohol is knowingly served to minors by an adult. Additionally, while there is a law requiring mandatory training of alcohol sellers and servers, compliance is not comprehensively enforced, and often servers at special events are not trained, so increased awareness of the training requirement is needed. To be able to conduct sobriety checkpoints, which are a proven effective deterrent to impaired driving, this technique needs to be codified in state statute.

Implementation Steps:

- Support stronger impaired driving laws that increase penalties and/or arrest rates, including those focusing on repeat offenders.
- Support efforts to reduce the over-service of alcohol by expanding the awareness and support of continued mandatory alcohol sales and service training, including special events training and state permitting of alcohol servers and sellers. Research and implement methods for tracking participation and compliance.
- Support efforts to develop local and a statewide social host law.
- Support efforts to allow sobriety checkpoints in statute.

Potential TIC Discussion Points:

- Success of alcohol service training programs, including participation and compliance.
- Social host laws in Montana.
- DUI penalties and related regulation.

REDUCE AND MITIGATE INTERSECTION CRASHES THROUGH DATA-DRIVEN PROBLEM ID AND USE OF BEST PRACTICES

Purpose:

MDT's intersection safety plan will use analytical techniques to identify intersection types where specific crash patterns exist or where severe crashes are more likely to occur based on infrastructure characteristics and define potential solutions – addressing intersection safety in a proactive manner. Additionally, on an ongoing basis, using input on safety issues, all roadway jurisdictions will identify specific locations where improvements may be needed, conduct analysis, and define and implement solutions.

Implementation Steps:

- Develop and implement an intersection safety plan.
- Construct infrastructure improvements to mitigate intersection-related crashes. Examples include: turn lanes; signal phasing/timing; flashing yellow arrows; retroreflective backplates on signals; sight distance improvements; roundabouts or other intersection control improvements; pedestrian improvements, including improvements at midblock crossings; bicycle improvements; signal coordination and timing improvements; enhanced/improved lighting; or enhanced/improved signing.

Potential TIC Discussion Points:

- Review of intersection safety plan.
- Analysis of infrastructure improvements to mitigate intersection-related crashes.