



MINNESOTA

# 2020-2024 STRATEGIC HIGHWAY SAFETY PLAN

JULY 2020





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# INTRODUCTION

Minnesota is committed to Toward Zero Deaths, the cornerstone program aimed to reduce traffic related crashes in the state of Minnesota. Minnesota TZD has been working for over 15 years with the mission to create a culture where traffic related deaths and injuries are no longer acceptable. The program has been effective in pushing for continuous improvement, creating long lasting partnerships involving the “Four Es” of traffic safety—Education, Enforcement, Engineering, and Emergency Medical Services—and implementing data driven solutions to traffic safety issues. A variety of stakeholders at the federal, state, county, and local levels are involved with Minnesota TZD and include members from public agencies, private organizations, community groups, advocates and academia. Minnesota TZD is an integral part of developing an effective Strategic Highway Safety Plan (SHSP) and implementing the strategies as laid out in the plan. The Minnesota TZD Leadership Team—co-chaired by the Minnesota Department of Transportation, Department of Public Safety, and Department of Health—acted as the SHSP steering committee.

## 4ES OF TRAFFIC SAFETY

Minnesota is committed to a comprehensive approach to traffic safety, including:



**EDUCATION**



**ENFORCEMENT**



**ENGINEERING**



**EMERGENCY MEDICAL & TRAUMA SERVICES**

**This is a plan for all of Minnesota. The Minnesota Strategic Highway Safety Plan is designed for all traffic safety partners at the state, county, and local government level as well as users of the roadway system.**

Reaching ZERO traffic deaths and serious injuries requires traffic safety partners across all levels of government, communities and disciplines working in a coordinated effort. The Minnesota SHSP's priorities, strategies and tactics are intended to foster this coordination. The direction in this plan directly reflects input from thousands of Minnesotans. Their input helped generate many ideas (i.e. strategies and tactics) that can be implemented by all traffic safety partners, not just state agency led efforts.

You do not have to wait for a statewide agency effort to decide how you will implement the SHSP. Your decision to implement the SHSP and lead change in your community, city or county is a vital part to reducing fatal and serious injury crashes in Minnesota.

# INTRODUCTION

The SHSP is a tool for transportation and traffic safety professionals to use to address safety issues on public roads. It is federally required and supports Minnesota's Highway Safety Improvement Program (HSIP) and its Highway Safety Plan (HSP). Every five years, Minnesota has the opportunity to update the SHSP to reflect current and emerging crash trends and incorporate emerging safety strategies (Figure 1). Headed by the SHSP steering committee and informed by input from stakeholders, the plan identifies key areas to focus traffic safety resources and lists data driven, actionable strategies to reduce deaths and serious injuries on Minnesota roadways. The strategies align with the "Four Es" of traffic safety, and many address multiple "Es" through multidisciplinary approaches. The SHSP prioritizes the top strategies and gives traffic safety partners guidance on how to move forward with them.

Figure 1 SHSP Update Process



**The Highway Safety Plan and Highway Safety Improvement Program are integral parts to Minnesota's efforts to reduce deaths and serious injuries.**

## HSP

DPS prepares an annual plan that identifies traffic safety behavior issues based on crash data and uses that to determine which projects will be funded in the coming year. The plan focuses on the delivery of National Highway Traffic Safety Administration safety funding to change driver behavior through enforcement, education, and public outreach.

## HSIP

The object of HSIP is to "identify, implement and evaluate cost effective construction safety projects." Administered by MnDOT, the program focuses on infrastructure improvements funded with Federal Highway Administration safety funding.

## DEATH

Injury from a motor vehicle crash that results in an unintentional death within 30 days of the crash.

## SERIOUS INJURY

Any injury from a motor vehicle crash, other than a fatal injury, preventing the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred. This is determined by the law enforcement officer at the crash.



# INTRODUCTION

The need to prevent deaths and serious injuries is a common goal that all Minnesotans share. Every crash involves real lives, and the impacts can be life-changing. A death or serious injury affects the lives of those involved in the crash and the lives of family, friends and community members. Despite the concerted efforts of Minnesota TZD, traffic crashes in Minnesota resulted in 1,902 deaths and 7,713 serious injuries in the five year period from 2014 to 2018. In addition to the emotional impacts, these deaths and injuries cost Minnesotans over \$3.6 billion<sup>1</sup> across five years. Using and implementing the SHSP will reduce traffic related deaths and serious injuries towards a shared goal. With input from stakeholders at the 2019 annual TZD Conference, **Minnesota set a five year goal to reduce traffic deaths to 225 or fewer and serious injuries to 980 or fewer by 2025.**



## MINNESOTA TRAFFIC SAFETY GOAL

**0** DEATHS & SERIOUS INJURIES

Long-term goal is to eliminate deaths and serious injuries on MN roadways

BY 2025

NO MORE THAN  
**225**  
TRAFFIC DEATHS

NO MORE THAN  
**980**  
SERIOUS INJURIES

Reducing traffic related deaths and serious injuries requires implementation to drive change. The SHSP Implementation and Evaluation section contains more information about how every individual and agency can implement the Minnesota SHSP as part of their policies, programs, and projects.

1. Based on average values reported in the annual Minnesota Crash Facts. These costs account for economic loss, including wage and productivity losses, medical expenses, administrative expenses, motor-vehicle damage, and employers' uninsured costs.

# OUTREACH & ENGAGEMENT PROCESS

The SHSP update began in early 2019 under the direction of the Minnesota TZD Leadership Team. The development process started with outreach and engagement, which included:

## PUBLIC INPUT

An online survey was distributed to Minnesotans via existing public and stakeholder email lists and more widely via social media. The survey had participants rank which traffic safety focus areas they felt are most important for reducing deaths and serious injuries on Minnesota roadways. Later, survey results were shared with stakeholders at regional TZD workshops and at the 2019 TZD Conference and informed how focus areas were prioritized.

## STAKEHOLDER INPUT

The regional TZD workshops gathered targeted input from a diverse collection of stakeholders. Attendees were asked to rank a list of traffic safety focus areas in terms of priority. Participants also contributed to developing a comprehensive list of action oriented strategies for each focus area via small group discussions. In addition to the workshops, smaller meetings were conducted to gather department specific input from leadership agencies including the Minnesota Department of Public Safety (DPS), the Minnesota Department of Transportation (MnDOT), and the Minnesota Department of Health (MDH).

Several other stakeholder groups were engaged during plan development to gather feedback. Additionally, 2019 TZD Conference attendees voted on 2025 goals for deaths and serious injuries through a live polling activity.

Figure 2 and Figure 3 summarize the outreach and engagement audiences and SHSP input opportunities.



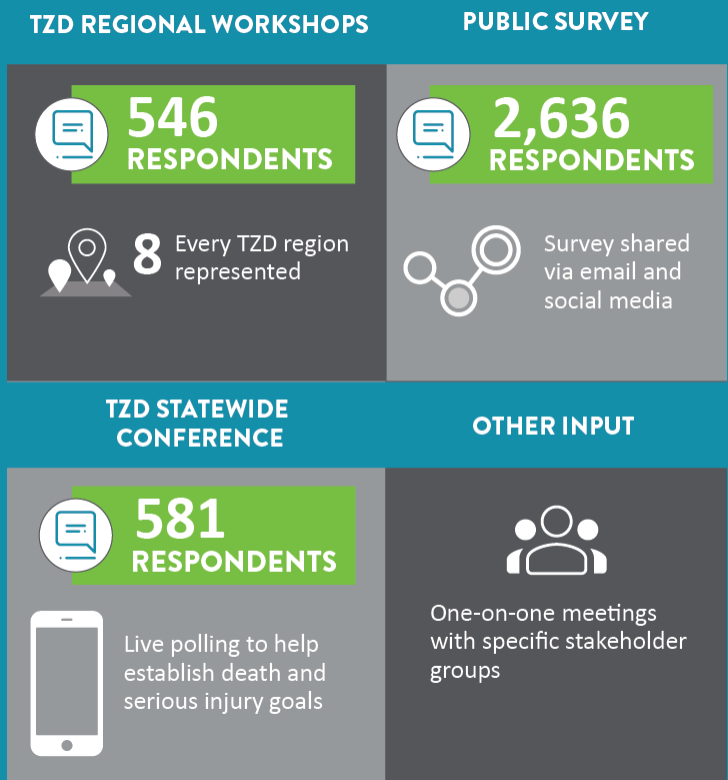
Figure 2 Outreach and Engagement Audiences





# OUTREACH & ENGAGEMENT PROCESS

Figure 3 Summary of SHSP Input Opportunities



# PLAN DEVELOPMENT PROCESS

The SHSP is based on the input from the outreach and engagement process, with direction from the SHSP steering committee. The key components of the plan include:

## CRASH DATA

Recent crash trends are used to inform the public and stakeholders of current safety needs in order to prioritize focus areas and develop strategies.

## FOCUS AREAS

Using stakeholder and steering committee input, focus areas are prioritized into four groups:

- CORE
- STRATEGIC
- SUPPORT SOLUTIONS
- CONNECTED

The Core and Strategic focus areas have strategies detailed in this SHSP.

## STRATEGIES

The strategies are organized according to each focus area. A single strategy includes multiple tactics, which are specific actions tied to that strategy. Each set of tactics and strategies are assigned priorities from the SHSP steering committee. A list of year one priority tactics emphasizes planned efforts in the first year of implementation. A list of five year priority strategies is also identified to emphasize which strategies will receive extra attention over the life of the SHSP.

## IMPLEMENTATION

An implementation plan will be developed to give guidance for traffic safety partners on how to effectively use the SHSP. The list of year one priority tactics will emphasize planned efforts in the first year of implementation; each tactic will have an action plan to set a framework for priorities. Additional process guidance, included in the Minnesota SHSP Technical Report, will be written to guide future annual updates to the action plans. Members from the Minnesota SHSP steering committee will act as part of the action teams to support the implementation of prioritized strategies.

## What is a Focus Area?

Focus areas represent crash types or factors that contribute to crashes and are often connected to one another. Many states start their SHSP update with a similar list of focus areas. Nationally, there are 20 commonly used focus areas, including:

- Inattentive Drivers
- Impaired Roadway Users
- Intersections
- Speed
- Lane Departure
- Unbelted Vehicle Occupants
- Older Drivers
- Pedestrians
- Younger Drivers
- Work Zones
- Commercial Vehicles
- Motorcyclists
- Unlicensed Drivers
- Bicyclists
- Trains
- Traffic Safety Education & Awareness
- EMS & Trauma Systems
- Vehicle Safety Enhancements
- Data Management
- Management Systems

Using similar lists of focus areas across states helps coordinate strategies and programs statewide and nationally. Of these 20 focus areas, only the first 15 can be quantified using Minnesota's crash database.



# CRASH DATA

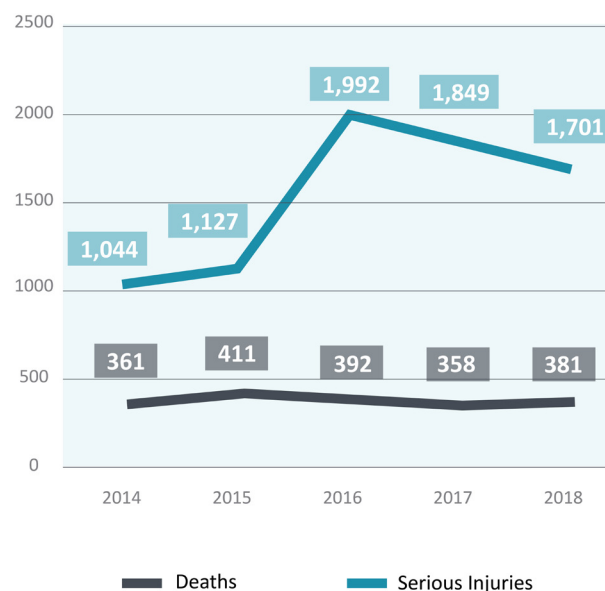
Crash data analysis was an important step to understand Minnesota's crash profile. The crash trends shown in this section were the basis for the data driven plan and influenced the focus area prioritization.

Crash data from 2014 to 2018 was reviewed to understand Minnesota crash trends. As shown in Figure 4, an increase in reported serious injuries after 2015 aligns with the deployment of MnCRASH (new crash reporting program) including changes to injury classification. During the five year study window, there were 8,188 fatal and serious injury crashes that resulted in 1,902 deaths and 7,713 serious injuries. This averages to 1 death every day and 1 serious injury every 6 hours.

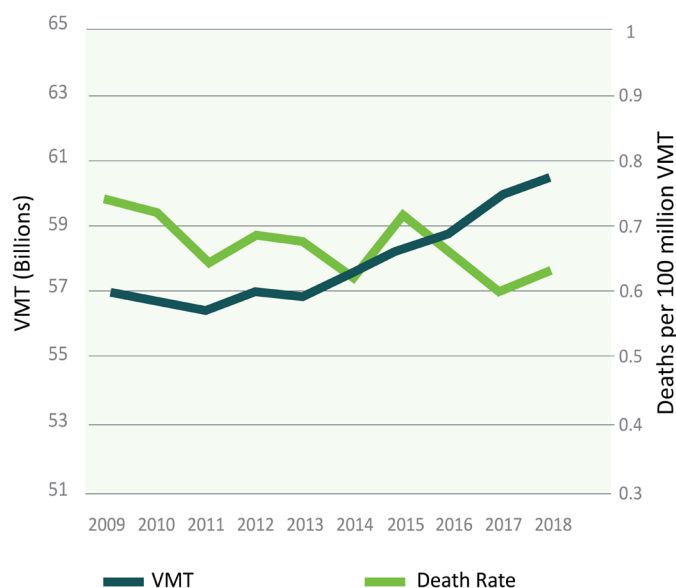
Vehicle Miles Traveled (VMT) is an aggregate measure of vehicle traffic. Annual VMT has been trending upward in Minnesota since 2013. During the same period, the death rate per 100 million VMT has declined slightly. Figure 5 shows annual VMT and death rate from 2009 to 2018.

Figure 6 shows the percentage of deaths and serious injuries that occurred by roadway ownership from 2014 to 2018. Deaths and serious injuries are split evenly between state, county, and other local roadway agency jurisdictions, which shows the importance of implementing the SHSP strategies on the local system in addition to the state highway system.

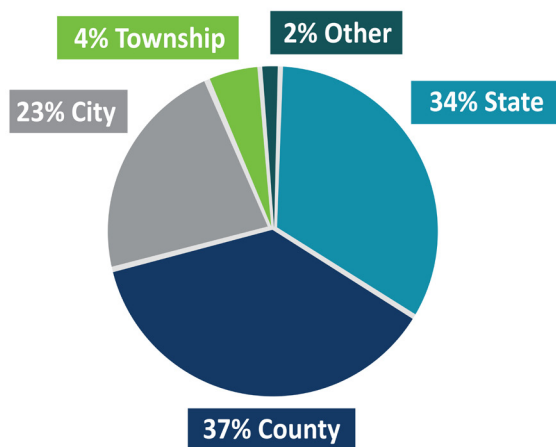
**Figure 4 Minnesota Traffic Deaths and Serious Injuries (2014 to 2018)**



**Figure 5 Minnesota Vehicle Miles Traveled and Traffic Death Rate (2009 to 2018)**



**Figure 6 Minnesota Traffic Deaths and Serious Injuries by Roadway Ownership (2014 to 2018)**



# CRASH DATA

Crash data trends were analyzed to help determine which focus areas should be prioritized during the life of the SHSP. Figure 7 shows the number of fatal and serious injury crashes by focus area. The top three focus areas that factored into crashes over the previous five year period include intersections, lane departure (run off the road) and impairment.

As shown in Figure 8, several focus areas are becoming more prevalent factors in crashes, including intersections, older drivers, pedestrians, speed, unlicensed drivers and work zones. Areas that have become less common factors in crashes include inattentive drivers,<sup>2</sup> lane departure (run off the road), unbelted occupants and younger drivers. Focus areas that have remained relatively steady factors in crashes include bicyclists, commercial vehicles, impaired roadway users, lane departure (head on), motorcyclists and trains.

**Figure 7 Minnesota Death and Serious Injury Crashes by Focus Area (2014-2018)**

1	Intersections	47%
2	Lane Departure: Single Vehicle Run off the Road	31%
3	Impairment	25%
4	Speed	20%
5	Older Drivers	18%
6	Motorcyclists	17%
7	Unbelted Occupants	16%
	Younger Drivers	16%
9	Unlicensed Drivers	14%
10	Inattention	13%
11	Pedestrians	12%
12	Lane Departure: Head-On	11%
13	Commercial Vehicles	9%
14	Bicyclists	4%
15	Work Zones	2%
16	Trains	0.4%

**Figure 8 Crash Data Trends by Focus Area (2014-2018)**



2. Inattentive driving is difficult to accurately identify as a crash factor and cite on the crash report. It is under-reported in crash reports and therefore not included in Figure 8.



# FOCUS AREA PRIORITIZATION

Focus areas represent factors that contribute to crashes and are often connected to one another. A single crash may include more than one focus area. For example, a distracted driver who runs off the road would be counted in the inattentive driving and lane departure focus areas. There are 20 focus areas already recognized in the traffic safety community which were used for the SHSP.

It was necessary to prioritize the focus areas to determine which strategies would be most impactful and where Minnesota traffic safety partners should direct their resources. Feedback from stakeholders and the general public was combined with the crash data trends to categorize and prioritize strategies for the focus areas. Building on the priority system identified in the 2014 Minnesota SHSP, the updated groupings reflect a categorization system which suits current needs. The SHSP Steering Committee settled on five groupings of focus areas which are described at right:



## TRAFFIC SAFETY CULTURE

As an overarching focus area, fostering a culture of traffic safety in Minnesota supports all focus areas. A strong traffic safety culture includes reaching out to all groups, including Minnesota's diverse and underserved communities.

### CORE

The Core focus areas have been given a high degree of emphasis in the traffic safety community and will continue to be strong areas of focus. These areas factor into a large portion of fatal and serious injury crashes and require continued attention. Actionable strategies have been identified to address fatal and serious injury crashes in and across these areas. Core focus areas include:

- Inattentive Drivers
- Impaired Roadway Users
- Intersections
- Speed
- Lane Departure
- Unbelted Vehicle Occupants

### STRATEGIC

The Strategic focus areas are emerging priorities. They are rising in importance due to factors such as changes in prevalence, public/stakeholder perception, and demographics. Some of these focus areas may require additional new and effective initiatives to address these changing demands. Actionable strategies have been created to address fatal and serious injury crashes in these areas. Strategic focus areas include:

- Older Drivers
- Pedestrians
- Younger Drivers
- Work Zones
- Commercial Vehicles
- Motorcyclists

### CONNECTED

The Connected focus areas represent a smaller portion of crashes compared to other focus areas, but most crashes are correlated with other focus areas. Crashes in these focus areas are addressed through strategies and tactics in the Core and Strategic focus areas. Connected focus areas include:

- Unlicensed Drivers
- Bicyclists
- Trains

### SUPPORT SOLUTIONS

The Support Solutions focus areas are safety techniques and systems that enhance multiple strategies. Support Solutions are wide ranging and an integral part of other focus areas. Therefore, actionable strategies have not been created specifically for these items. Support Solutions focus areas include:

- Traffic Safety Education and Awareness
- EMS and Trauma Systems
- Vehicle Safety Enhancements
- Data Management Systems

# FOCUS AREA PRIORITIZATION

A visual summary of the focus areas groupings and relationships is shown at right.





# ACTION ORIENTED STRATEGIES

Development of the action-oriented strategies involved numerous stakeholders from across Minnesota. Participants at each regional TZD workshop provided ideas for strategies, which were further refined based on input from 2018 TZD Conference participants, meetings with regional representatives (e.g. law enforcement liaisons and TZD coordinators), the Minnesota Safety Council, and experts from the MDH, DPS, and MnDOT. As strategies and tactics were developed and organized, the TZD Leadership Team provided oversight and review.

The TZD Leadership Team also identified implementation priorities for the strategies and tactics in the following tables. Two types of priorities are highlighted:

## FIVE YEAR PRIORITY STRATEGIES

These strategies, and the supporting tactics, represent key opportunities to reduce the number of deaths and serious injuries on Minnesota roadways. Over the next five years, the responsible state agencies and the TZD Leadership Team will place extra emphasis on implementing these strategies.

## YEAR ONE PRIORITY TACTICS

The responsible state agencies and TZD Leadership Team have made a commitment to begin efforts on 31 specific tactics in 2020. To support initial efforts to implement these tactics, action plans will be provided in the supporting Minnesota SHSP Action Plan Report.

Specific strategies were identified for the Core and Strategic focus areas. Though strategies are not provided for the Connected focus areas, crashes involving the Connected focus areas are highly linked to crashes in other focus areas. Reducing crashes in the Core and Strategic focus areas will help reduce crashes in the Connected focus areas.

## Action-Oriented Strategy Format

The action oriented strategies start with a high level strategy describing an objective related to reducing crashes within a specific focus area. Each strategy is supported by a set of tactics, which are specific actions to achieve the strategy's objective.



# ACTION ORIENTED STRATEGIES

## HOW TO READ THE STRATEGY TABLES

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan

GRAY = ACTIONS CURRENTLY ONGOING

BLUE = ACTIONS THAT CAN BE ACCOMPLISHED IN ONE TO TWO YEARS

TEAL = ACTIONS THAT CAN BE ACCOMPLISHED IN THREE TO FIVE YEARS

## TRAFFIC SAFETY CULTURE

TIMEFRAME	TACTIC
ON-GOING	TSC 1 Share fatal and serious injury crash report details with multi-disciplinary review committees. Encourage localities without a review committee to form a multi-disciplinary group.
ON-GOING	TSC 2 Increase coordination and collaboration efforts between zero-fatality programs in the state.
YEARS 1-2	TSC 3 Restart the Traffic Safety Culture committee. Initial projects may include participation in the traffic safety culture pooled fund study and expanding the Park Rapids pilot project to other regions. ✓
YEARS 1-2	TSC 4 For school-based health educators and school resource officers, develop and distribute updated age-appropriate informational resources on safe behaviors while walking/bicycling in or near roadways and while riding in passenger vehicles.
YEARS 1-2	TSC 5 Initiate data collection and analysis to identify high priority traffic safety risks facing Minnesota's diverse and underserved populations. Use data to support directed outreach to these communities.
YEARS 1-2	TSC 6 Increase use of communications campaigns to make communities aware of agencies' day-to-day activities that improve traffic safety.



# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## INATTENTIVE DRIVERS

TIMEFRAME	TACTIC
STRATEGY 1	IMPROVE EDUCATION AND AWARENESS ABOUT INATTENTIVE DRIVING
ON-GOING	T1.1 Increase education about inattentive driving and provide background data and statistics that highlight the dangers of inattentive driving. Educate on other distractions in addition to cell-phone use related to inattentive driving. Provide education to people of all ages (not just teen drivers). ✓
ON-GOING	T1.2 Increase education on drowsy driving and provide background data and statistics on the dangers of drowsy driving. Describe in education materials the warning signs of drowsy driving and offer prevention tactics to avoid drowsy driving.
YEARS 1-2	T1.3 Increase funding to create and distribute messaging and resources for education on inattentive driving.
STRATEGY 2	PROVIDE MORE ENFORCEMENT AND LEGISLATIVE ACTIONS TO LOWER INATTENTIVE DRIVING RATES ✓
YEARS 1-2	T2.1 Increase the use of enhanced high-visibility law enforcement presence to target distracted drivers. Evaluate funding levels and provide more funding for enforcement efforts if appropriate. ✓
YEARS 1-2	T2.2 Encourage judges to reduce leniency in sentencing distracted driving offenders. ✓
YEARS 1-2	T2.3 Support legislation that would update distracted driving penalties for crashes involving serious injury or death.
STRATEGY 3	SUPPORT THE ADVANCEMENT OF TECHNOLOGY IMPROVEMENTS AND ROAD DESIGN TO REDUCE THE IMPACT OF INATTENTIVE DRIVING
ON-GOING	T3.1 Encourage use of cell phone settings and apps that limit incoming distractions while driving. Encourage insurance companies to offer incentives for drivers to use these settings or apps.
ON-GOING	T3.2 Encourage the use of existing motor vehicle technology designed to reduce distracted driving crashes, such as lane departure warning alerts, forward collision warning alerts, and automatic braking.
YEARS 1-2	T3.3 Incorporate shoulder, edge line, and centerline rumble strips in road designs to alert drivers of lane-departing vehicles. Incorporate physical barriers into road designs to prevent collisions.
YEARS 3-5	T3.4 Support the transition to autonomous vehicles and other emerging motor vehicle technology to reduce human error, including in interactions with people walking, rolling, and bicycling.

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan

# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## IMPAIRED ROADWAY USERS

TIMEFRAME	TACTIC
STRATEGY 1	INCREASE PUBLIC AWARENESS TO REDUCE IMPAIRED DRIVING
ON-GOING	T1.1 Increase public awareness of the dangers of impaired driving through media campaigns targeting issues and high-risk driver groups. Use crash data analysis and market research to identify high-risk driver groups. Use full range of print, digital, broadcast and electronic material distribution methods for public awareness purposes.
ON-GOING	T1.2 Tailor messaging to emphasize personal responsibility so all drivers know that even a little impairment can be dangerous.
ON-GOING	T1.3 Include evidence-based information about the effects of drugs other than alcohol on driver impairment. Improve data collection and analysis for impaired driving offenses related to drugs other than alcohol.
YEARS 1-2	T1.4 Develop a uniform public complaint reporting form for use in a “See Something, Say Something” initiative to identify suspected habitually impaired drivers and to identify alcohol retailers that serve underage persons.
STRATEGY 2	SUPPORT COMMUNITY-BASED INITIATIVES TO KEEP IMPAIRED DRIVERS OFF THE ROAD
ON-GOING	T2.1 Promote expansion and use of safe ride home options.
YEARS 1-2	T2.2 Implement best practice models of privately-sponsored public transit safe ride programs.
YEARS 1-2	T2.3 Develop a template for community-based Place of Last Drink data collection and analysis. ✓
YEARS 1-2	T2.4 Identify and implement successful approaches to partnering with alcohol retailers and servers to prevent over-serving and to reduce alcohol sales to underage persons. Increase community-based efforts to prevent alcohol consumption by underage persons.
YEARS 1-2	T2.5 Expand availability of Responsible Beverage Server Training to all counties. ✓
YEARS 3-5	T2.6 Identify and pilot test best practice models of effective, cost efficient alcohol retailer-based safe ride home programs.

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan



# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## IMPAIRED ROADWAY USERS CONTINUED

TIMEFRAME	TACTIC	
<b>STRATEGY 3</b>	<b>PROVIDE FUNDING, TRAINING AND TECHNOLOGY FOR IMPAIRED DRIVING LAW ENFORCEMENT</b>	✓
ON-GOING	T3.1 Conduct enhanced high-visibility, coordinated statewide impaired driving enforcement events linked with paid and earned media. Identify areas with high rates of impaired driving to prioritize enforcement efforts.	
ON-GOING	T3.2 Conduct locally coordinated Driving While Impaired (DWI) saturation patrols. Use the Office of Traffic Safety (OTS) DWI Dashboard to identify high risk locations and time periods for impaired driving crashes.	
ON-GOING	T3.3 Identify and pilot test promising technology for roadside detection of suspected use of drugs other than alcohol.	
ON-GOING	T3.4 Increase Advanced Roadside Impaired Driving Enforcement and Drug Recognition Expert training opportunities for law enforcement personnel.	
YEARS 1-2	T3.5 Encourage more law enforcement agencies to establish zero tolerance guidance for officers when encountering suspected impaired drivers.	
YEARS 1-2	T3.6 Compile baseline county-specific data on drug-related crashes, DWI-Drug citations, and chemical test results for tetrahydrocannabinol and other drugs.	✓
<b>STRATEGY 4</b>	<b>IMPROVE DWI LAW, ADJUDICATION PROCESS, AND POST-CONVICTION SANCTIONS TO DETER IMPAIRED DRIVING</b>	
ON-GOING	T4.1 Identify and support legislative solutions that strengthen the DWI law and make it more effective at deterring impaired driving and reducing repeat offenses.	
YEARS 1-2	T4.2 Convene a NHTSA Safety Program Assessment of the OTS Impaired Driving Program to identify strengths, weaknesses and opportunities for improvement.	✓
YEARS 1-2	T4.3 Study the effectiveness of screening and brief intervention techniques for DWI offenders.	
YEARS 3-5	T4.4 Identify alternative sources of funding for counties interested in establishing DWI post-conviction Victim Impact Panels.	
YEARS 3-5	T4.5 Identify alternative sources of funding to establish more DWI Courts.	

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✓ = Strategies that are a priority to work on over the five years of this plan

# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## INTERSECTIONS

TIMEFRAME	TACTIC	
<b>STRATEGY 1</b>	<b>IMPROVE SAFETY THROUGH INTERSECTION ROADWAY DESIGN CHANGES AND ALTERNATIVE INTERSECTIONS</b>	✓
ON-GOING	T1.1 Increase education and public outreach about alternative intersection designs and how to use them. Support data-driven solutions, and explore ways to communicate the safety benefits of alternative intersections.	
ON-GOING	T1.2 Incorporate transit, bicyclists, and pedestrians in intersection design. Provide facilities to accommodate people walking, rolling, and bicycling to limit conflicts with vehicles.	
YEARS 1-2	T1.3 Design intersections to lower crossing conflict points, manage access points, and reduce the number of severe crashes at intersections. Apply alternative design to intersections with a high frequency of severe crashes or systemic risk factors.	✓
YEARS 1-2	T1.4 Apply alternative intersection designs on a corridor level approach	
<b>STRATEGY 2</b>	<b>IMPROVE CORRIDOR AND SIGNALIZED INTERSECTION SAFETY THROUGH INTERSECTION TRAFFIC DESIGN AND SIGNAL TIMING</b>	
YEARS 1-2	T2.1 Prioritize transit, bicyclists, and pedestrians in intersection design. Provide facilities to accommodate people walking, rolling, and bicycling to limit conflicts with vehicles.	
YEARS 1-2	T2.2 Improve the visibility of vehicles and pedestrians at intersections with lighting and unobstructed sightlines.	
YEARS 1-2	T2.3 Improve signing and pavement markings. Incorporate technologies and proven countermeasures as appropriate.	
YEARS 1-2	T2.4 Provide leading pedestrian intervals to improve pedestrian safety where appropriate. Consider installing blank out signs to restrict turns where appropriate during pedestrian intervals.	
<b>STRATEGY 3</b>	<b>UPDATE PLANNING POLICY</b>	✓
ON-GOING	T3.1 Reduce over-building the roadway and apply performance-based practical design based on existing demand and safety risks.	
ON-GOING	T3.2 Facilitate coordination between state, regional, and local agencies for intersection projects. Participate with all user groups so the project fits the community.	
ON-GOING	T3.3 Support improvements with a data-driven approach by linking high-crash intersections and corridors with design-related issues.	✓
YEARS 3-5	T3.4 Research enhanced analytics and data collection for intersection-based crashes to be used for future safety decisions.	
<b>STRATEGY 4</b>	<b>INCREASE EDUCATION AND ENFORCEMENT OF RED LIGHT RUNNING</b>	
ON-GOING	T4.1 Increase red-light running enforcement. Use technology to assist with enforcement such as blue light alert systems and enhanced red-light cameras (i.e., camera-assisted enforcement).	
ON-GOING	T4.2 Increase public awareness of risks associated with red light running. Crashes caused by red light running at signalized intersections can involve pedestrians and bicyclists, in addition to other vehicles.	
YEARS 1-2	T4.3 Identify locations with high rates of red light running to target enforcement.	
YEARS 1-2	T4.4 Explore the potential for automated red-light enforcement in Minnesota by researching its effectiveness in states that have implemented it and any technical, legal, privacy, and equity barriers.	

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan



# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## SPEEDING

TIMEFRAME	TACTIC
STRATEGY 1	INCREASE EDUCATION AND AWARENESS ABOUT SAFE SPEEDS AND AGGRESSIVE DRIVING
ON-GOING	T1.1 Expand education efforts about the dangers of speeding and aggressive driving, especially among younger drivers. Utilize data and statistics along with a story narrative to deliver the point effectively.
ON-GOING	T1.2 Use innovative media messaging to spread awareness that unsafe speed kills.
ON-GOING	T1.3 Use education and messaging to change culture of normalized speeding.
STRATEGY 2	UTILIZE ENFORCEMENT TO REDUCE SPEEDING ✓
ON-GOING	T2.1 Encourage enhanced high-visibility enforcement to reduce speeding. Where possible, provide more funding to law enforcement to support additional speed reduction efforts.
YEARS 1-2	T2.2 Explore the potential for automated speed enforcement cameras in Minnesota by researching its effectiveness in states that have implemented it and any technical, legal, privacy, and equity barriers.
YEARS 1-2	T2.3 Encourage legislative changes to allow for a pilot project to test automated speed enforcement in school speed zones.
YEARS 3-5	T2.4 Improve the data management of speed-related crashes. Educate law enforcement to update MnCrash once crash reconstruction is complete.
STRATEGY 3	IMPROVE ROAD DESIGN AND SPEED LIMIT SIGNING
YEARS 1-2	T3.1 Use Performance Based Practical Design geometric elements and traffic calming techniques to design roads for appropriate speeds based on land use. Utilize road diets where appropriate. ✓
YEARS 1-2	T3.2 Use appropriate speed limits that account for roadway design, traffic, land use, and context.
YEARS 1-2	T3.3 Install dynamic speed feedback signs within transition zones, preferably with geometric improvements, to reduce speeds where speeds/crashes are an issue.
YEARS 3-5	T3.4 Implement variable speed limits to account for changing driving conditions. Encourage legislative changes to allow for regulatory variable speed limits.

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan

# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## LANE DEPARTURE

TIMEFRAME	TACTIC
<b>STRATEGY 1</b>	<b>DESIGN ROADWAYS TO REDUCE THE FREQUENCY AND SEVERITY OF LANE DEPARTURE CRASHES</b> ✓
ON-GOING	T1.1 Install rumble strips and mumble strips on centerlines and edges of roads, especially along two-lane roadways, to tactically warn drivers if their vehicles leave the desired travel area.
ON-GOING	T1.2 Install improved pavement markings, such as wet reflective edge stripes and wider (i.e. 6" instead of 4") markings.
ON-GOING	T1.3 Maintain clear zones to reduce obstructions and fill in drop-offs on high speed corridors. Maintain a clear down-slope if within a clear zone. Maintain traversable driveways and embankments to reduce stopping or rolling hazards.
ON-GOING	T1.4 Design improved geometry for highway curves to reduce the chance of vehicles exiting the roadway (where low-cost treatments are ineffective).
ON-GOING	T1.5 Install median cable barrier along divided highways with narrow medians or center buffers with tubular delineators along two-lane highways.
YEARS 3-5	T1.6 Install delineators along high volume, high risk corridors to assist drivers, especially in inclement weather or nighttime conditions.
<b>STRATEGY 2</b>	<b>EVALUATE NEW SAFETY FEATURES</b>
YEARS 1-2	T2.1 Support the use of existing automated driving assist systems that help drivers maintain their lane.
YEARS 3-5	T2.2 Support long-range planning efforts to prepare for the emergence of highly automated vehicles to leverage the safety benefits to reduce human error.
YEARS 3-5	T2.3 Implement ITS dynamic warning signs and other ITS technologies to reduce lane departure at locations with a sustained crash pattern.

✓ = Tactics that are a priority to work on in the first year of this plan

✓ = Strategies that are a priority to work on over the five years of this plan



# ACTION ORIENTED STRATEGIES: CORE FOCUS AREAS

## UNBELTED OCCUPANTS

TIMEFRAME	TACTIC
STRATEGY 1	INCREASE PUBLIC AWARENESS TO IMPROVE THE USE OF SEAT BELTS AND CHILD RESTRAINTS
ON-GOING	T1.1 Use paid and earned media campaigns explaining the high risk associated with failure to wear seat belts and transporting children without proper restraints. Focus campaigns on high-risk driver groups as well as underserved communities.
ON-GOING	T1.2 Tailor messaging so all drivers understand their liability for ensuring all passengers are properly restrained.
ON-GOING	T1.3 Build strong partnerships with the medical community and insurance providers to increase public understanding of the risk of increased injury severity for failure to wear seat belts or to properly restrain children.
YEARS 1-2	T1.4 Conduct data-driven analysis of the increased injury severity rate of unbelted occupants in a traffic crash. ✓
YEARS 1-2	T1.5 Identify best practice models of employer-based workplace policies on seat belt use.
YEARS 1-2	T1.6 Identify best practice models of effective school and community-based outreach methods that target teen drivers. Incorporate results in teen-focused TZD events and materials.
STRATEGY 2	PROVIDE FUNDING AND TRAINING FOR SEAT BELT LAW ENFORCEMENT ✓
ON-GOING	T2.1 Conduct enhanced high-visibility statewide seat belt enforcement events linked with paid and earned media.
YEARS 1-2	T2.2 Evaluate crash data to identify locations and time periods at greatest risk of unrestrained vehicle occupants. ✓
YEARS 1-2	T2.3 Encourage use of discretionary OTS provided traffic safety enforcement funding for localized seat belt saturation enforcement that targets known high risk locations and time periods.
YEARS 1-2	T2.4 Encourage law enforcement agencies to establish zero tolerance guidance for officers when encountering suspected unbelted drivers. Conduct outreach to courts to encourage consistent adjudication of seat belt and child passenger seat citations.
YEARS 1-2	T2.5 Implement updated Occupant Protection Usage and Enforcement curriculum for law enforcement officers.
STRATEGY 3	IMPROVE SEAT BELT AND CHILD PASSENGER SAFETY LAW AND TRAINING PROGRAMS
ON-GOING	T3.1 Convene a NHTSA Safety Program Assessment of the OTS Occupant Protection Program to identify strengths, weaknesses and opportunities for improvement.
YEARS 3-5	T3.2 Add training on the importance of proper use of child passenger safety seats to driver education curriculum standards.
YEARS 3-5	T3.3 Increase funding support for outreach training to families, caregivers and child care professionals on the proper use of child safety restraints.

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# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

## OLDER DRIVERS

TIMEFRAME	TACTIC	
STRATEGY 1	INCREASE PUBLIC AWARENESS OF THE SAFETY RISKS FACED BY OLDER DRIVERS	✓
YEARS 1-2	T1.1 Identify best practice examples that promote self-regulation of driving behavior and self-awareness of declining physical and cognitive abilities.	
YEARS 1-2	T1.2 Develop and distribute updated informational resources on safe driving behaviors and modes of travel like transit, bicycling, and walking for social service organizations, medical professionals, and families of at-risk drivers.	
YEARS 1-2	T1.3 Develop educational resources focused on alternative intersection and roadway design concepts and practices.	
YEARS 1-2	T1.4 Update informational resources for law enforcement, medical professionals and families of at-risk drivers on assessing a person's fitness to drive.	✓
YEARS 1-2	T1.5 Increase the promotion of DVS-approved crash prevention/defensive driving courses for drivers age 55 or older. Promote the use of CarFit programs to promote self-awareness of safety, comfort and mobility needs.	✓
YEARS 1-2	T1.6 Work with medical professionals to educate patients on base-line cognitive abilities required for driving.	
STRATEGY 2	EVALUATE FITNESS TO DRIVE	
YEARS 1-2	T2.1 Design and implement a roadside evaluation protocol for law enforcement to determine fitness to drive for drivers of all ages.	✓
YEARS 1-2	T2.2 Identify best practices in age-appropriate vision screening.	
YEARS 1-2	T2.3 Evaluate patterns and trends of crashes involving potential deficiencies in driver fitness.	
YEARS 3-5	T2.4 Explore the potential for legislative changes that would establish tests for base-line cognitive and physical abilities required for driving.	
STRATEGY 3	IMPROVE TRAFFIC DESIGN TO BENEFIT OLDER DRIVERS	
ON-GOING	T3.1 Continue to research and implement best practices for traffic signage and pavement markings to improve legibility and visibility.	
STRATEGY 3	IMPROVE TRANSPORTATION OPTIONS	
YEARS 1-2	T4.1 Increase funding to make community-based mobility options more accessible, especially in rural areas.	

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# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

## PEDESTRIANS

TIMEFRAME	TACTIC	
STRATEGY 1	INCREASE EDUCATION AND AWARENESS FOR DRIVERS AND PEDESTRIANS	✓
ON-GOING	T1.1 Conduct a high profile pedestrian education campaign with increased media coverage targeted at drivers and pedestrians. Include curriculum on Walk! Bike! Fun! and Vision Zero programs in addition to current laws.	
ON-GOING	T1.2 Promote pedestrian-related laws in an easy-to-understand manner for public outreach.	
YEARS 1-2	T1.3 Develop local/community partnerships like advocacy groups and parent-teacher organizations. Create local strategies in partnership with underserved communities and communities with high pedestrian demand.	
YEARS 1-2	T1.4 Promote Safe Routes to School guidelines about education, encouragement, engineering, enforcement, evaluation, and equity.	
STRATEGY 2	IMPROVE DESIGN AND MAINTENANCE FOR PEDESTRIAN SAFETY	
ON-GOING	T2.1 Establish policies with all agencies to maintain pedestrian facilities for all four seasons, including proper snow and ice removal. Expedite maintenance of sidewalks and curb ramps to deter people from walking or rolling in the road.	
ON-GOING	T2.2 Provide appropriate crossing time at signalized/active crossings. Consider timing strategies to better accommodate pedestrian needs.	
YEARS 1-2	T2.3 Based on land use, design roads and facilities for pedestrians, such as sidewalks, mid-block breaks, and bump outs. Identify areas with inadequate pedestrian facilities that could be improved, including in rural areas or on tribal lands. Provide the appropriate number of safe pedestrian crossings to accommodate pedestrian needs.	✓
YEARS 1-2	T2.4 Design for appropriate road capacity to reduce crosswalk length and crosswalk conflicts. Utilize road diets (4-lane to 3-lane conversions) where appropriate.	✓
YEARS 1-2	T2.5 Install proper signing at crosswalks and evaluate current signing standards. Increase the use of dynamic signing options at mid-block crossings where there are high volumes of pedestrian traffic. Promote the use of advance stop bars and/or yield lines at all crosswalks.	
YEARS 1-2	T2.6 Improve lighting around pedestrian facilities to increase pedestrian visibility, including near transit stops and in rural areas.	✓
YEARS 3-5	T2.7 Evaluate passive pedestrian detection technology.	
STRATEGY 2	PROMOTE POLICY CHANGES THAT IMPACT PEDESTRIAN SAFETY	
ON-GOING	T3.1 Increase funding for pedestrian safety campaigns and pedestrian facilities.	
YEARS 1-2	T3.2 Improve pedestrian volume data collection to identify trends and numbers for health, law, plans, and policies.	
YEARS 1-2	T3.3 Explore school bus stop arm violation camera enforcement.	
YEARS 3-5	T3.4 Develop pedestrian plans and Complete Streets plans at regional and local levels.	

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# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

## YOUNGER DRIVERS

TIMEFRAME	TACTIC	
STRATEGY 1	INCREASE PUBLIC AWARENESS TO IMPROVE THE SAFETY OF YOUNGER DRIVERS	
YEARS 1-2	T1.1 Develop age-appropriate teen and young adult-focused content for the annual Toward Zero Deaths conference. Provide funding to supplement the cost of a cohort of teens and young adults to attend the conference.	✓
YEARS 1-2	T1.2 Evaluate teen driver-involved crash reports to determine if seat belt use varies under different circumstances. Incorporate findings into driver education curriculum and public information initiatives focused on younger drivers.	
YEARS 1-2	T1.3 Increase public awareness of provisions in the Graduated Driver Licensing law for younger drivers.	
YEARS 1-2	T1.4 Increase outreach programs to teenagers to educate on teen-driver safety. Conduct and heavily promote a teen-focused Toward Zero Deaths summit. Leverage the DPS Teen Driver Safety Task force and the DVS Driver's Education Work Group in developing outreach programs.	✓
YEARS 3-5	T1.5 Translate the Minnesota Driver's Manual into Hmong, Russian, Somali and Vietnamese for use by teens and adults with limited English proficiency to reinforce safe driving habits after earning a driver license. <sup>3</sup>	
STRATEGY 2	IMPROVE DRIVER EDUCATION AND THE GRADUATED DRIVER LICENSE LAW	
ON-GOING	T2.1 Review the current driver education program and identify ways to strengthen and improve it.	✓
ON-GOING	T2.2 Evaluate the suitability of driver education simulations currently in use.	
ON-GOING	T2.3 Evaluate the long term driving performance of drivers who complete local option driver improvement (traffic school) classes in lieu of paying fines related to traffic offenses.	
ON-GOING	T2.4 Evaluate the first 3-year driving performance of young drivers who were subject to updated Graduated Driver License (GDL) requirements that began in 2015.	
ON-GOING	T2.5 Review current GDL law to identify ways to strengthen and improve it. Encourage legislative changes that reduce the risk of harm to younger drivers, including driver education requirements and parental supervision elements of the GDL law.	✓

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3. The Minnesota Driver's Manual is currently translated into Spanish in addition to English.

# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

WORK ZONES		
TIMEFRAME	TACTIC	
STRATEGY 1	REDUCE SPEEDING WITHIN WORK ZONES	✓
ON-GOING	T1.1 Use appropriate enforcement to reduce speeding and distracted driving in work zones, especially during peak travel periods. Develop and deploy strategies to best enforce speed limits in work zones.	
ON-GOING	T1.2 Increase visible enforcement presence using innovative techniques. Increase funding for additional law enforcement resources.	
YEARS 1-2	T1.3 Encourage legislative changes to allow for a pilot project to test automated camera enforcement in work zones.	✓
YEARS 1-2	T1.4 Install automated/enhanced speed enforcement or camera-assisted enforcement in work zones.	✓
YEARS 1-2	T1.5 Install dynamic speed feedback signs to alert drivers if they are speeding.	
YEARS 1-2	T1.6 Evaluate travel speeds within work zones to apply appropriate speed limits. Incorporate “Workers Present” speed limits in work zones during times when workers are present.	
YEARS 3-5	T1.7 Apply physical or geometric features to calm traffic in work zones.	
STRATEGY 2	IMPROVE WORK ZONE NOTIFICATIONS AND EDUCATION	
ON-GOING	T2.1 Increase public education and training for driving in work zones. Create greater public awareness about moving over for disabled vehicles, law enforcement, construction, etc. (Ted Foss Law).	
ON-GOING	T2.2 Apply consistent and appropriate warning signs in advance of work zones, especially when workers are present.	
YEARS 1-2	T2.3 Use advance warning signs and dynamic message signs for changing work zone conditions, travel times, and incidents within work zone.	
YEARS 3-5	T2.4 Establish best practices of radar-based audible and visible warning systems to warn workers of speeding vehicles. Consider installing warning systems within work zones.	
STRATEGY 3	USE INNOVATIVE WORK ZONE PLANNING TECHNIQUES	
YEARS 1-2	T3.1 Change traditional work schedules based on traffic trends. Avoid closing lanes when excessive queuing could occur.	
YEARS 1-2	T3.2 Use full road closures to avoid traffic conflicts and to accelerate work where appropriate.	
YEARS 1-2	T3.3 Maintain accessible pedestrian routes with Alternative Pedestrian Routes and Temporary Pedestrian Access Routes and provide clear bicycle detour routes. Protect pedestrian routes if they are detoured into the roadway.	
YEARS 3-5	T3.4 Work with phone applications or develop an application to distribute work zone alerts when vehicles approach work zones.	
STRATEGY 4	DESIGN SAFER WORK ZONES	
YEARS 1-2	T4.1 Increase separation between workers and vehicles with lane shifts, crossovers, barriers, or other techniques.	✓
YEARS 1-2	T4.2 Install vision screens to limit gawker effect.	
YEARS 1-2	T4.3 Use automated flagger devices or temporary signals to limit exposure between vehicles and workers.	
YEARS 1-2	T4.4 Consider work zone intrusion notification systems, such as (portable) rumble strips.	

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# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

## COMMERCIAL VEHICLES

TIMEFRAME	TACTIC
STRATEGY 1	IMPROVE ENFORCEMENT FOR COMMERCIAL VEHICLES
ON-GOING	T1.1 Improve enforcement of unsafe commercial vehicles and their operators, and provide training for local law enforcement focused on commercial vehicles.
YEARS 1-2	T1.2 Encourage more effective communication about motor vehicle enforcement between law enforcement agencies and commercial vehicle enforcement personnel. ✓
YEARS 1-2	T1.3 Provide additional law enforcement at commercial vehicle inspection sites to assist with driver impairment checks. ✓
STRATEGY 2	IMPROVE THE NETWORK OF COMMERCIAL VEHICLE REST AREAS
YEARS 3-5	T2.1 Provide additional truck parking facilities along highways. Provide additional information systems to inform truck drivers of available spaces.
YEARS 3-5	T2.2 Coordinate with commercial properties along highways to support auxiliary truck parking. Evaluate using an insurance pool to mitigate liability concerns with property owners.
STRATEGY 3	INCREASE EDUCATION ON COMMERCIAL VEHICLE SAFETY
YEARS 1-2	T3.1 Provide more public awareness for blind spot dangers for trucks, such as the No Zone campaign.
YEARS 1-2	T3.2 Support education for truck drivers and mechanics about the federal Whistleblower Protection Act. Encourage reporting of companies that pressure employees to break federal commercial vehicle laws, including hours of service limits.
YEARS 1-2	T3.3 Educate trucking association members on work zone safety.
STRATEGY 4	SUPPORT NEW VEHICLE TECHNOLOGY
YEARS 3-5	T4.1 Study the potential safety implications of truck platooning technology, wherein multiple commercial vehicles travel in close proximity to each other.

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# ACTION ORIENTED STRATEGIES: STRATEGIC FOCUS AREAS

## MOTORCYCLISTS

TIMEFRAME	TACTIC
STRATEGY 1	INCREASE PUBLIC AWARENESS AND EDUCATION TO IMPROVE MOTORCYCLE SAFETY
ON-GOING	T1.1 Develop and distribute updated informational resources on safe driving behaviors by motorcycle drivers and passengers, emphasizing both legal requirements and best practices. Coordinate with motorcycle community groups to educate riders on safe riding techniques and self-protection.
YEARS 1-2	T1.2 Develop and distribute updated informational resources on sharing the road with motorcycles, emphasizing the need for vigilance at intersections. ✓
YEARS 1-2	T1.3 Encourage experienced motorcycle riders to take the OTS Intermediate Rider Course as refresher training.
YEARS 1-2	T1.4 Evaluate motorcycle crash patterns and trends. Incorporate the findings into driver education curriculum and public information initiatives.
YEARS 1-2	T1.5 Include injury outcome data analysis and other evidence-based information about the risk of increased injury severity for motorcycle riders not wearing head protection when involved in a traffic crash.
YEARS 1-2	T1.6 Work with motorcycle dealerships to sell right-sized bikes and to encourage rider training to buyers.
YEARS 1-2	T1.7 Identify best practices in rider education content and delivery mechanisms for incorporation into Minnesota rider education programming.
STRATEGY 2	IMPROVE MOTORCYCLE SAFETY-RELATED POLICIES ✓
YEARS 1-2	T2.1 Convene a NHTSA Safety Program Assessment of the OTS Motorcycle Safety Program to identify strengths, weaknesses and opportunities for improvement.
YEARS 1-2	T2.2 Evaluate the first 3-year driving performance of motorcycle drivers who complete the Basic Rider Course to identify Minnesota-specific topics that need greater emphasis in the Motorcycle Safety Foundation curriculum.
YEARS 1-2	T2.3 Review current legislation to identify opportunities to encourage legislative changes that reduce the risk of harm to motorcycle riders. ✓
YEARS 3-5	T2.4 Initiate a public awareness campaign about the safety benefits of wearing helmets.
YEARS 3-5	T2.5 Identify and remove barriers to obtaining a motorcycle endorsement.
STRATEGY 3	IMPROVE HIGHWAY DESIGN AND MAINTENANCE POLICIES
YEARS 1-2	T3.1 Improve highway work zone signage policy and practice to increase motorcyclists' awareness of temporary road conditions.
YEARS 1-2	T3.2 Update roadway pavement maintenance priorities to emphasize remedying conditions particularly difficult for motorcyclists.
YEARS 3-5	T4.1 Design motorcycle forgiving infrastructure along routes with high motorcycle traffic.

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# SHSP IMPLEMENTATION & EVALUATION

On the path to ZERO traffic deaths and serious injuries, the SHSP sets goals for Minnesota to reduce traffic deaths to 225 or fewer and serious injuries to 980 or fewer by 2025. These goals can be achieved through a collected, concerted and organized effort to implement the SHSP, which strives to prevent crashes from ever happening through improved driver behaviors or more safely designed roads. Crashes cannot be eliminated immediately; however, implementation of the SHSP can lead to safer behavior and more forgiving road design to mitigate the severity of the resulting injuries.

Using the FHWA's The Essential Eight- Fundamental Elements and Effective Steps for SHSP Implementation, the SHSP includes a framework for implementation in Minnesota. State agencies are not the only groups responsible for implementing the SHSP. Full and effective SHSP implementation relies on counties, cities and other governmental agencies working alongside private organizations, communities and advocacy groups. It is important for all traffic safety partners to work together and utilize available resources. It is even more valuable when local champions develop and lead a regional program that addresses a specific community need.

The FHWA identified fundamental elements and four steps essential to effective SHSP implementation.

## FUNDAMENTAL ELEMENTS

- Leadership
- Collaboration
- Communication
- Data Collection and Analysis

## STEPS FOR IMPLEMENTATION

- Focus Area Action Plans
- Linkage to Other Plans
- Engagement
- Monitoring, Evaluation, and Feedback

## How You Can Implement the Minnesota SHSP

Strategies and tactics to reduce fatal and serious injury crashes are the backbone to implementing the SHSP. There is no one way to implement the SHSP, but some guidance on how you can become involved include:

- The SHSP strategies and tactics were informed by several plans and in turn are intended to inform state, regional, local, organization and coalition plans at their next update. As seen in Figure 9 on page 30, the potential reach of the SHSP is extensive. If your agency or organization maintains a planning document, regardless of whether it is included in the flowchart, review the SHSP strategies and tactics as part of your next update. Incorporating relevant strategies and tactics into your plan is a commitment to implement the SHSP in your area.
- In addition to formal plans, agencies often have policies or guidelines regarding programs and projects. Review your processes to find ways to integrate the relevant strategies and tactics into your day to day activities and decision making.
- Get involved in the Minnesota TZD program to make a difference. Contact your TZD Regional Coordinator to learn how you and your agency or group can become involved. If you have an idea on how to address a need or fill a gap, your Regional Coordinator can help.

# SHSP IMPLEMENTATION & EVALUATION

Minnesota Towards Zero Deaths (TZD) is the state's cornerstone traffic safety program. The approach is based on the belief that even one traffic related death is unacceptable. TZD uses a data driven and interdisciplinary approach to reducing traffic crashes, injuries, and deaths on Minnesota roads.



To learn more and get involved, visit [www.minnesotatzd.com](http://www.minnesotatzd.com) or contact your TZD regional coordinator.







# SHSP IMPLEMENTATION & EVALUATION

## LEADERSHIP, COLLABORATION, AND COMMUNICATION

Members of the TZD Leadership Team represent all “Es” of traffic safety with members from local, state and federal agencies and private safety advocates. As a member of the Leadership Team, they not only speak for their peers, but also have the responsibility to communicate key messages back to their peers. In addition, the Leadership Team engages a wide network of partner organizations through outreach activities as part of the comprehensive Minnesota TZD program. The Leadership Team is a core group who establishes strategic direction each year for the TZD program. While MnDOT is responsible for developing the SHSP, the Leadership Team will continue as a steering committee throughout the plan’s implementation.

Given its multiagency and multidisciplinary membership, the Leadership Team is also responsible for collaboration across the “Four Es.” When the Leadership Team acts as a single body, Minnesota’s efforts to eliminate traffic deaths and serious injuries are coordinated across all disciplines. Similarly, the Leadership Team is responsible for communication across agencies, organizations and groups. They determine the key messages that become part of the TZD program.

Within Minnesota’s TZD structure, the Leadership Team has support from the Regional Coordinators and the Center for Transportation Studies (CTS) at the University of Minnesota. Minnesota has eight TZD regions, each with a Regional Coordinator who is vital to building and supporting grassroots collaboration. The Regional Coordinators also share communications from the Leadership Team to their regions and keep the Leadership Team informed on what is happening locally, including local successes and new programs.

CTS serves an important role in Minnesota’s TZD program communication. In addition to providing technical support at monthly Leadership Team meetings, CTS aids communication with stakeholders through the Minnesota TZD website and supports the TZD program by organizing the TZD Annual Conference, which brings together nearly 1,000 participants each year.

Collaboration will maximize the investment of resources, the effectiveness of safety strategies and the progress toward zero deaths.

## DATA COLLECTION AND ANALYSIS

The Minnesota Department of Public Safety continually collects and evaluates crash records. This information is shared directly with Department of Transportation. Similarly, the Department of Health tracks information available through emergency responder, hospital and death records. These agencies will continue to collect and evaluate crashes and their outcomes. Information will be shared with the TZD Leadership Team and Regional Coordinators.

## FOCUS AREA ACTION PLANS

Tactics identified as year one priorities have action plans included in the Minnesota SHSP Action Plan Report. For the remaining years within the five year SHSP time horizon, the TZD Leadership Team will lead the process to identify future year priorities and develop action plans or form action teams. The action plans for the year one priority tactics include these components:

- Lead Agency
- Primary Partners
- The Primary E
- Funding Source
- Outcome Performance Measures
- Deployment Goal
- Key Steps or Action Items
- Secondary Focus Areas

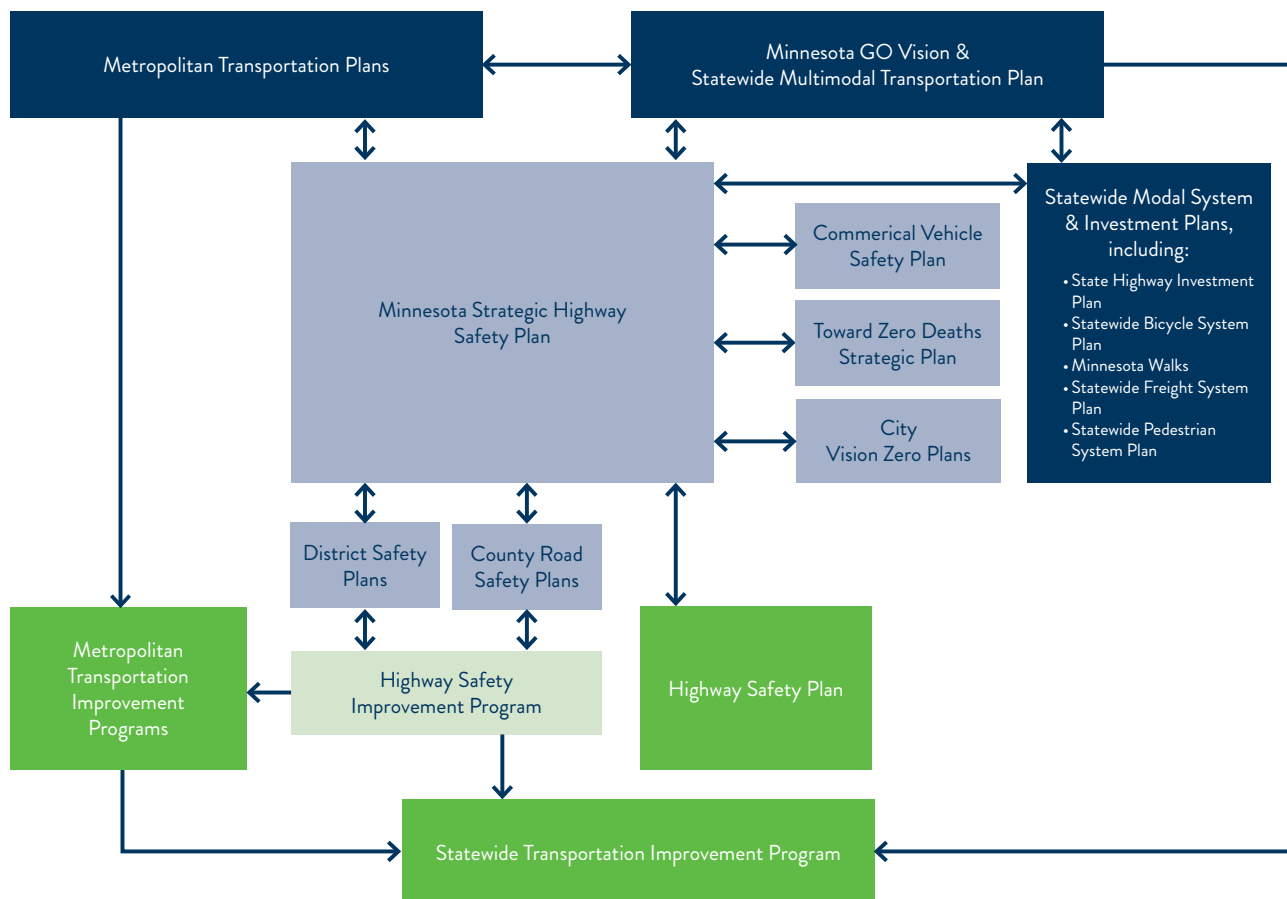
# SHSP IMPLEMENTATION & EVALUATION

## LINKAGE TO OTHER PLANS

A key aspect of implementing the SHSP is for traffic safety partners to integrate relevant strategies and tactics into their own organization's plans (Figure 9), such as DPS's Highway Safety Plan or the MnDOT's modal plans, district safety plans and county road safety plans. MDH, DPS, and MnDOT will assist their state, regional and local partners to integrate the SHSP into their plans as appropriate. Through this process, partners will also provide input and feedback that can be used to improve future editions of the SHSP.



Figure 9 Summary of SHSP Linkage to Other Plan



# SHSP IMPLEMENTATION & EVALUATION

## ENGAGEMENT

Communicating the SHSP contents and message is important to keep stakeholders engaged in carrying out the plan that they helped to develop. MnDOT will work with the TZD Leadership Team to widely promote the 2020 Minnesota SHSP. Examples of recent and future engagement opportunities include:

- Breakout sessions were held at 2018 and 2019 TZD Annual Conferences during the development of this SHSP. Future Annual Conferences or regional TZD workshops will provide opportunities to share updates and highlight agencies, organizations or groups that are excelling at implementing the SHSP.
- MDH, DPS, and MnDOT will increase awareness of the SHSP and share implementation success stories at key conferences, such as the annual Minnesota Transportation Conference. All members of the Leadership Team will strive to promote the SHSP to peers in their “E” of traffic safety.
- Regional Coordinators will inform their partners and stakeholders about the SHSP.
- MDH, DPS, and MnDOT will review planning tools, such as project planning checklists, to consider how the SHSP can be incorporated as a reference to identify safety strategies in statewide activities.
- MnDOT will incorporate the SHSP into the Statewide Multimodal Transportation Plan and its modal and system investment plan to promote integration of strategies and tactics into key transportation planning documents.
- Linking the SHSP from the OTS website. Other OTS commitments include:
  - OTS Director will use the SHSP document to update DPS Commissioner’s Office Leadership.
  - Use the document as part of communications with grantees and safe roads coalitions.

- Highlight the SHSP at regional and statewide TZD workshops conferences. Reinforce the goals that were used during the update process to keep this as a living document.
- Use and reference the SHSP in the planning process for each annual HSP.
- Make the SHSP available to the Governor’s Highway Safety Association partners as a reference document.

## MONITORING, EVALUATION, AND FEEDBACK

The action plans in the Minnesota SHSP Action Plan Report outline deployment goals as well as outcome performance measures for each year one priority tactic. The responsible lead agency will monitor progress and outcomes of each tactic. This information will be shared with the TZD Leadership Team as priorities for each following year are set.





# SPECIAL RULES

Current federal requirements include checking two areas of potential concern – Older Drivers and Older Pedestrians and High Risk Rural Roads. The purpose of these special rules is to identify if vulnerable parts of the roadway network or populations have increasing crash trends. If any increasing trends are identified, then the state has additional responsibilities in the SHSP development and implementation to address these areas.

## OLDER DRIVERS AND OLDER PEDESTRIANS

The federal Fixing America's Surface Transportation Act (FAST Act) requires specific analysis of crash data to determine if traffic deaths and serious injuries per capita for drivers and pedestrians age of 65 and older have increased during the most recent two year period for which data are available. If per capita rates increase, then states must include strategies for older drivers and pedestrians in their SHSP.

At the publication of this plan, the fatal and serious injury per capita rate increased among drivers and pedestrians age 65 and older. This means, the special rule does apply to Minnesota. In fulfillment of the special rule requirements, this plan includes a set of strategies and tactics to reduce crashes involving pedestrians and older drivers. Three tactics for the older drivers focus area are selected as year one priorities. In addition, three pedestrian tactics are selected as year one priorities that will directly benefit older pedestrians.

## HIGH RISK RURAL ROADS

Under the FAST Act, if death rates on roads functionally classified as rural major or minor collectors or as rural local roads with significant safety risks increase over a two year period, then the State must direct more funding to address safety on High-Risk Rural Roads. Specifically, the State is required to obligate at least 200 percent of its federal fiscal year 2009 High-Risk Rural Road (HRRR) set aside funding for projects on HRRR.

At the publication of this plan, Minnesota does not meet the HRRR special rule and the funding obligations do not apply to Minnesota.

## High Risk Rural Roads Definition

The Federal Highway Administration requires states to establish parameters for determining if the rural roads where crashes occur qualify as HRRR. In Minnesota, a HRRR is functionally classified as a rural major collector, rural minor collector, or a rural local road. Furthermore, the road should have a fatal and serious injury crash rate above the statewide average for similarly classified roadways or a significant increase in expected traffic volumes such that the roadway could develop a fatal and serious injury crash rate above the threshold.

